

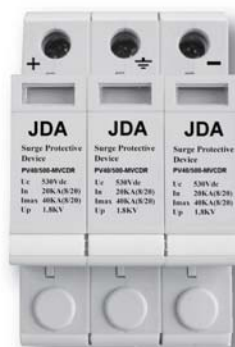
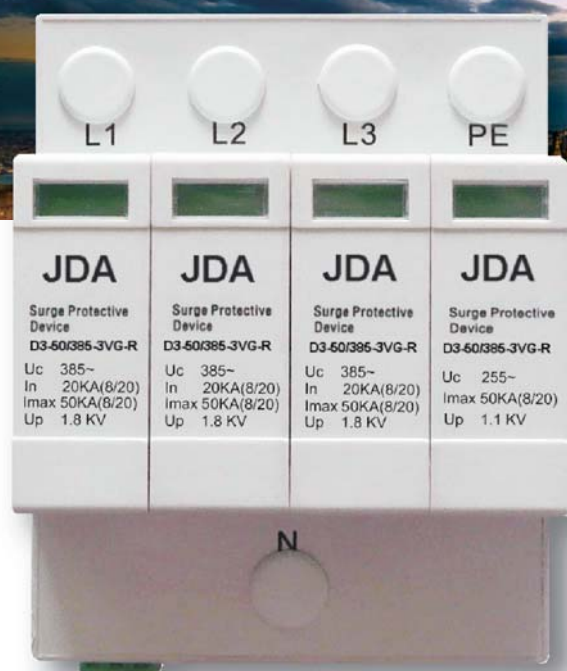


日燭科技有限公司  
JD Auspice Co., Ltd

# Surge Protection

## 太陽能 電力 通訊 突波保護

- DC SPD for PV System
- SPD for Power Supply
- Data Network Protector
- Modular Thermally Protected MOV



# Contents

頁次Page

## Type designation

型號名稱

03

## Surge protection for PV Industry

太陽能專用突波保護器

04 - 09

## Surge protection for Low-Voltage Power Supply Systems

低壓系統突波保護器

### MOV&GDT in series

|              |                 |         |
|--------------|-----------------|---------|
| Single Phase | D1-&&/***-VG-R  | 10 - 17 |
| Three Phase  | D3-&&/***-3VG-R | 18 - 25 |
| Single Pole  | MVGT&&/***-R    | 26 - 31 |

### MOV mouldle

|              |                 |         |
|--------------|-----------------|---------|
| Single Phase | D1-&&/***-2MV-R | 32 - 39 |
| Three Phase  | D3-&&/***-4MV-R | 40 - 47 |
| Single Pole  | MV&&/***-R      | 48 - 56 |

### Multi-Air-Gap series

|          |         |
|----------|---------|
| SG&&/*** | 57 - 58 |
|----------|---------|

### Spark gap series

|                      |    |
|----------------------|----|
| SG50/*** , SG100/*** | 59 |
|----------------------|----|

### GDT mouldle

|          |         |
|----------|---------|
| GT&&/*** | 60 - 68 |
|----------|---------|

## Surge protection for Network Signaling and Data Line

網路及訊號用突波保護器

### Data Network protector

|         |    |
|---------|----|
| DN-*/B0 | 69 |
|---------|----|

## Passive Lightning Event CountType surgeCon SEC

雷擊計數器

70

## Surge protective device wiring

突波保護接線示意圖

71 - 74





# Type Designation on SPD/TVSS for Low Voltage Power Supply Din Rail SPD

## Single Pole

### Spark Gap Type

**SG&& / xxx**

SG — Spark Gap Type

&& — Imp value (10/350)

xxx — Max. continuous operating voltage  $U_c$

### GDT Type

**GT&& / xxx-R**

GT — Gas Discharge Tube (GDT) Type

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Max. continuous operating voltage  $U_c$

R — With remote Signala

### MOV Type

**MV&& / xxx-R**

MV — Metal Oxide Varistor Module

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Max. continuous operating voltage  $U_c$

R — With remote Signal

### MOV&GDT in series Type

**MVGT&& / xxx-R**

MVGT — Metal Oxide Varistor & Gas Discharge Tube in series

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Max. continuous operating voltage  $U_c$

R — With remote Signal

## PV SPD

**PV&&/ xxx -MVCDR**

PV — Photo Voltaic

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Nominal voltage (V)  $U_N$

MV — Metal Oxide Varistor Module

C — Common mode

D — Differential mode

R — With remote Signal

**PV&&/ xxx -MVGT-CD-R**

PV — Photo Voltaic

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Nominal voltage (V)  $U_N$

MVGT — Metal Oxide Varistor & Gas Discharge Tube in series

C — Common mode

D — Differential mode

R — With remote Signal

## Single Phase

**D1&& / xxx-\*\*\*-R**

D1 — Din Rail SPD Single phase

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Max. continuous operating voltage  $U_c$

\*\*\* — Modules combination

R — With remote Signal

## Three Phase

**D3&& / xxx-\*\*\*-R**

D3 — Din Rail SPD Three phase

&& — Max. discharge current  $I_{max}$  (8/20)

xxx — Max. continuous operating voltage  $U_c$

\*\*\* — Modules combination

R — With remote Signal

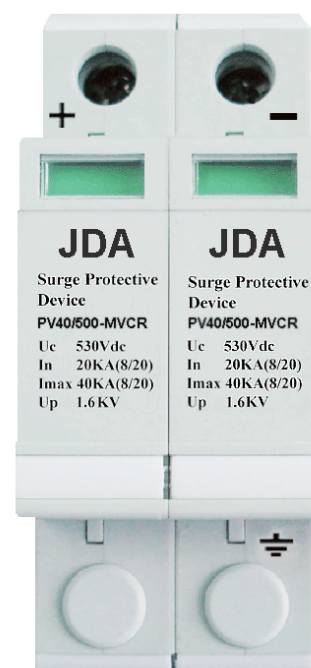
## DC Surge Protective Devices for Photo-Voltaic protection(PV Industry) Type PV 40/500-MVCR

Common mode DC Surge arrester for Photovoltaic protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

### DC Surge Protective Device for PV

- Class II (C) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- Common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal.

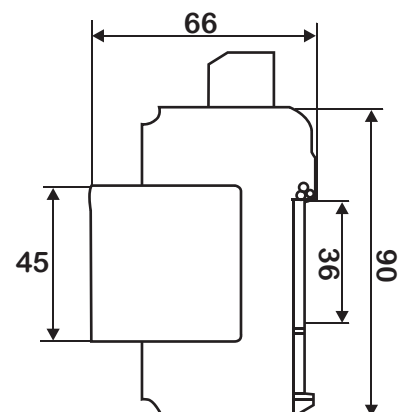
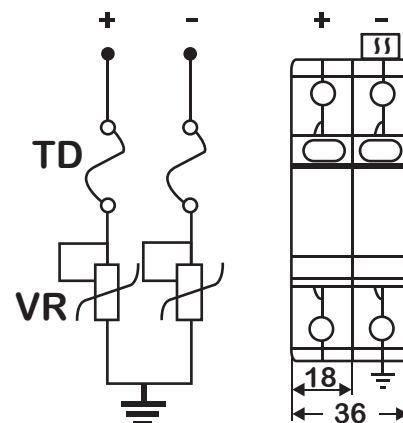
Rapid thermal disconnection under TOV ; Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                        | PV 40 / 500 - MVCR                                               |
|-------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                          | IEC61643-1:2005; UL1449 ed.3                                     |
| Category IEC/VDE                                            | II/C                                                             |
| Protection Mode                                             | Common mode                                                      |
| Nominal Voltage (DC)                                        | 500VDC                                                           |
| Max. continuous operating voltage (DC)                      | 530VDC                                                           |
| Nominal discharge current (8/20) In                         | 20KA                                                             |
| Max. discharge current(8/20) Imax                           | 40KA                                                             |
| Voltage protection level @ In                               | 1.6KV                                                            |
| VPR at 6KV/3KA                                              | <2KV                                                             |
| Response time                                               | ≤25 ns                                                           |
| Backup fuse(only required if not already provided in mains) | 125A gL/gG                                                       |
| Operating temperature range                                 | - 40°C + 80°C                                                    |
| Cross-section of connection wire                            | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                    | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                          | thermoplastic; extinguishing degree UL94 V-0                     |
| Degree of protection                                        | IP20                                                             |
| Installation width                                          | 2 module, DIN 43880                                              |
| Thermal disconnecter                                        | Internal green – normal red - failure                            |
| Remote alarm contact                                        | Yes                                                              |
| Additional data for Remote Alarm Contacts                   |                                                                  |
| Remote alarm contact type                                   | floating changeover contact                                      |
| Switching capability UN/IN                                  | AC: 250V/0.5A<br>DC: 250V/0.1A; 125V/0.2A; 75V/0.5A              |
| Cross-section of connection wire                            | Max. 1.5mm <sup>2</sup>                                          |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

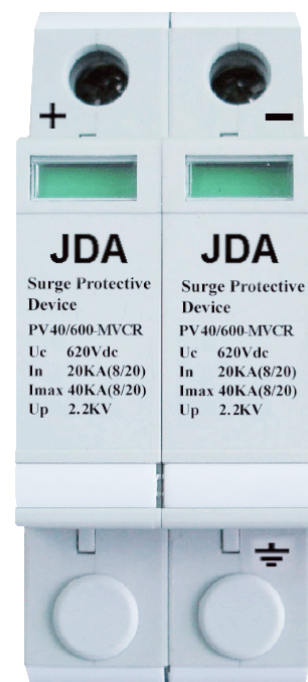
## DC Surge Protective Device for PV Type PV 40/600-MVCR

Common mode DC Surge arrester for Photovoltaic protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

### DC Surge Protective Device for PV

- Class II (C) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- Common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

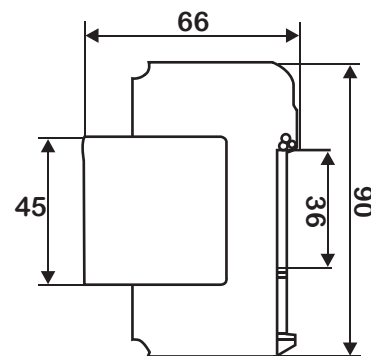
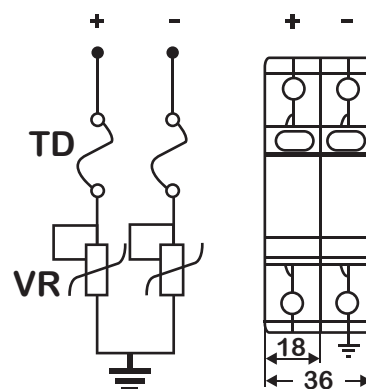
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            | PV 40 / 600 - MVCR                                               |
|-----------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                              | IEC61643-1:2005 ; UL1449 ed.3                                    |
| Category IEC/VDE                                                | II / C                                                           |
| Protection Mode                                                 | Common mode                                                      |
| Nominal voltage                                                 | 600VDC                                                           |
| Max. continuous operating voltage (DC)                          | 670VDC                                                           |
| Nominal discharge current (8/20) In                             | 20KA                                                             |
| Max. discharge current(8/20) Imax                               | 40KA                                                             |
| Voltage protection level                                        | 2.2KV                                                            |
| Response time                                                   | ≤25 ns                                                           |
| Backup fuse<br>(only required if not already provided in mains) | 125A gL/gG                                                       |
| Operating temperature range                                     | - 40°C + 80°C                                                    |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |
| Degree of protection                                            | IP20                                                             |
| Installation width                                              | 2 module , DIN 43880                                             |
| Thermal disconnecter                                            | Internal green – normal red - failure                            |
| Remote alarm contact                                            | Optional                                                         |
| Additional data for Remote Alarm Contacts                       |                                                                  |
| Remote alarm contact type                                       | floating changeover contact                                      |
| Switching capability UN/IN                                      | AC: 250V/0.5A DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A               |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                          |

### Dimensions and Diagram



All dimension in mm

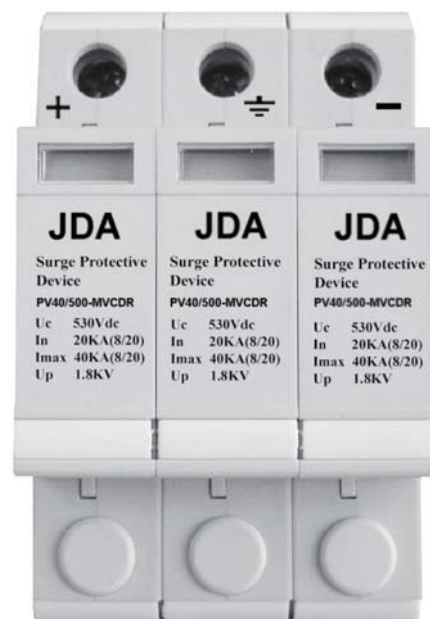
Note: Subject to change without any notice.

## DC Surge Protective Devices for Photo-Voltaic protection(PV Industry) Type PV 40/500-MVCDR

Differential and common mode DC Surge arrester for Photovoltaic protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- Differential and common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

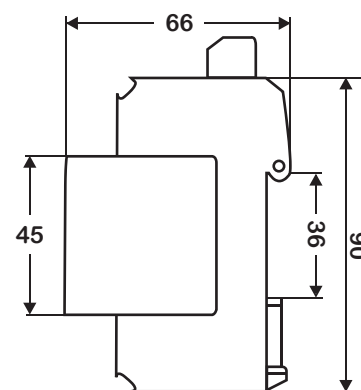
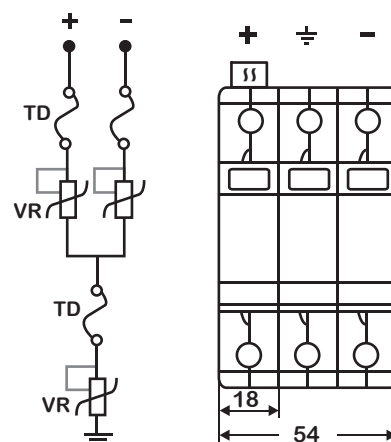
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



### Characteristics

| Type                                                        | PV 40 / 500 - MVCDR                                              |
|-------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                          | IEC61643-1:2005; UL1449 ed.3                                     |
| Category IEC/VDE                                            | II/ C                                                            |
| Protection Mode                                             | Differential mode & Common mode                                  |
| Nominal Voltage (DC)                                        | 500VDC                                                           |
| Max. continuous operating voltage (DC)                      | 530VDC                                                           |
| Nominal discharge current (8/20) In                         | 20KA                                                             |
| Max. discharge current(8/20) Imax                           | 40KA                                                             |
| Voltage protection level @ In                               | 1.8KV                                                            |
| Response time                                               | ≤25 ns                                                           |
| Backup fuse(only required if not already provided in mains) | 125A gL/gG                                                       |
| Operating temperature range                                 | - 40°C + 80°C                                                    |
| Cross-section of connection wire                            | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                    | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                          | thermoplastic; extinguishing degree UL94 V-0                     |
| Degree of protection                                        | IP20                                                             |
| Installation width                                          | 3 module, DIN 43880                                              |
| Thermal disconnecter                                        | Internal green – normal red - failure                            |
| Remote alarm contact                                        | Optional                                                         |
| <b>Additional data for Remote Alarm Contacts</b>            |                                                                  |
| Remote alarm contact type                                   | floating changeover contact                                      |
| Switching capability UN/IN                                  | AC: 250V/0.5A<br>DC: 250V/0.1A; 125V/0.2A; 75V/0.5A              |
| Cross-section of connection wire                            | Max. 1.5mm <sup>2</sup>                                          |

### Dimensions and Diagram



All Dimensions in mm

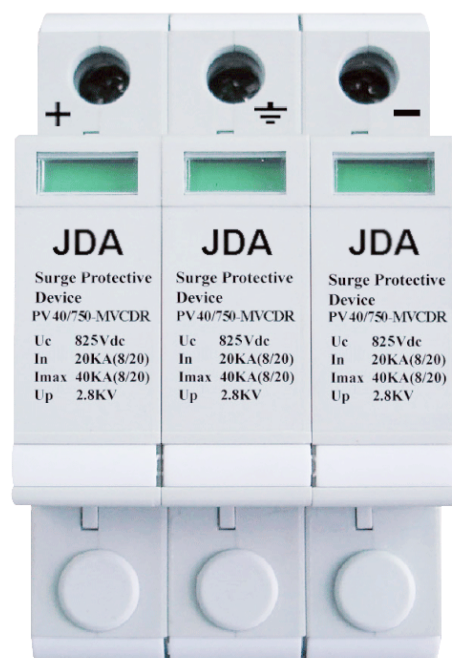
Note: Subject to change without any notice.

## DC Surge Protective Device for PV Type PV 40/750-MVCDR

Differential and common mode DC Surge arrester for Photovoltaic protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- Differential and common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

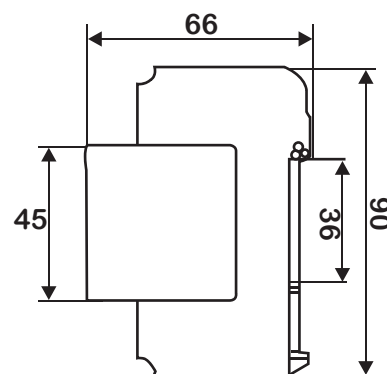
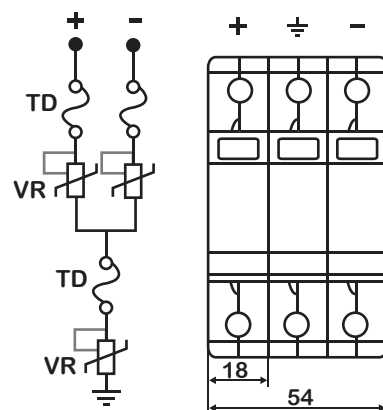
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                        | PV 40 / 750 - MVCDR                                              |
|-------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                          | IEC61643-1:2005 ; UL1449 ed.3                                    |
| Category IEC/VDE                                            | II/ C                                                            |
| Protection Mode                                             | Differential mode & Common mode                                  |
| Nominal voltage                                             | 750VDC                                                           |
| Max. continuous operating voltage (DC)                      | 825VDC                                                           |
| Nominal discharge current (8/20) In                         | 20KA                                                             |
| Max. discharge current(8/20) I <sub>max</sub>               | 40KA                                                             |
| Voltage protection level                                    | 2.8KV                                                            |
| Response time                                               | ≤25 ns                                                           |
| Backup fuse(only required if not already provided in mains) | 125A gL/gG                                                       |
| Operating temperature range                                 | - 40°C + 80°C                                                    |
| Cross-section of connection wire                            | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                    | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                          | Thermoplastic ; extinguishing degree UL94 V-0                    |
| Degree of protection                                        | IP20                                                             |
| Installation width                                          | 3 modules , DIN 43880                                            |
| Thermal disconnecter                                        | Internal green – normal red - failure                            |
| Remote alarm contact                                        | Optional                                                         |
| <b>Additional data for Remote Alarm Contacts</b>            |                                                                  |
| Remote alarm contact type                                   | floating changeover contact                                      |
| Switching capability UN/IN                                  | AC: 250V/0.5A DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A               |
| Cross-section of connection wire                            | Max. 1.5mm <sup>2</sup>                                          |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

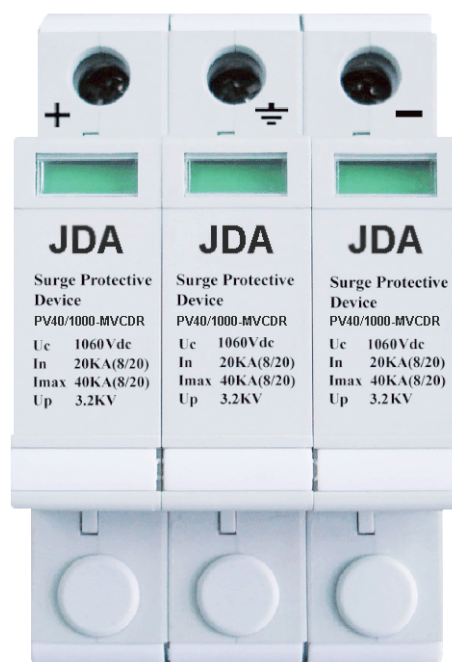
## DC Surge Protective Devices for Photo-Voltaic protection(PV Industry) Type PV 40/1000-MVCDR

Common mode DC Surge arrester for  
Photovoltaic protection against surges at the boundaries  
from lightning protection zone 0B-1 and higher.

### DC Surge Protective Device for PV

- Class II (C) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- Differential and common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal.

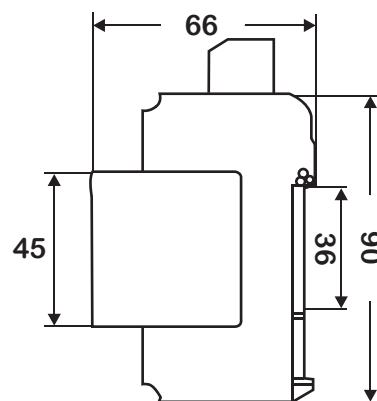
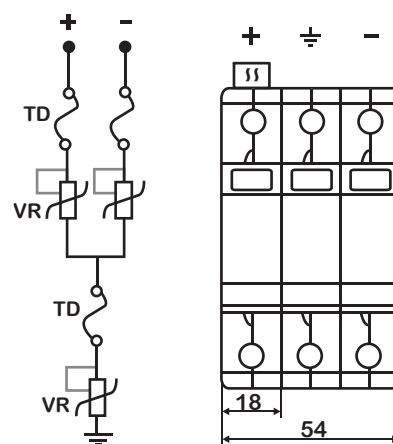
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                        | PV 40 / 1000 - MVCDR                                             |
|-------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                          | IEC61643-1:2005; UL1449 ed.3                                     |
| Category IEC/VDE                                            | II/ C                                                            |
| Protection Mode                                             | Differential mode & Common mode                                  |
| Nominal Voltage (DC)                                        | 1000VDC                                                          |
| Max. continuous operating voltage (DC)                      | 1060V                                                            |
| Nominal discharge current (8/20) In                         | 20KA                                                             |
| Max. discharge current(8/20) Imax                           | 40KA                                                             |
| Voltage protection level @ In                               | 3.2KV                                                            |
| VPR at 6KV/3KA                                              | <2KV                                                             |
| Response time                                               | ≤25 ns                                                           |
| Backup fuse(only required if not already provided in mains) | 125A gL/gG                                                       |
| Operating temperature range                                 | - 40°C + 80°C                                                    |
| Cross-section of connection wire                            | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                    | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                          | thermoplastic; extinguishing degree UL94 V-0                     |
| Degree of protection                                        | IP20                                                             |
| Installation width                                          | 3 module, DIN 43880                                              |
| Thermal disconnecter                                        | Internal green – normal red - failure                            |
| Remote alarm contact                                        | yes                                                              |
| <b>Additional data for Remote Alarm Contacts</b>            |                                                                  |
| Remote alarm contact type                                   | floating changeover contact                                      |
| Switching capability UN/IN                                  | AC: 250V/0.5A<br>DC: 250V/0.1A; 125V/0.2A; 75V/0.5A              |
| Cross-section of connection wire                            | Max. 1.5mm <sup>2</sup>                                          |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## DC Surge Protective Devices for Photo-Voltaic protection(PV Industry) Type PV 80/1000-MVCDR

Differential and common mode DC Surge arrester for Photovoltaic protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

### DC Surge Protective Device for PV

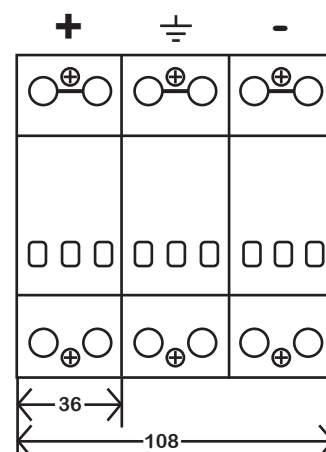
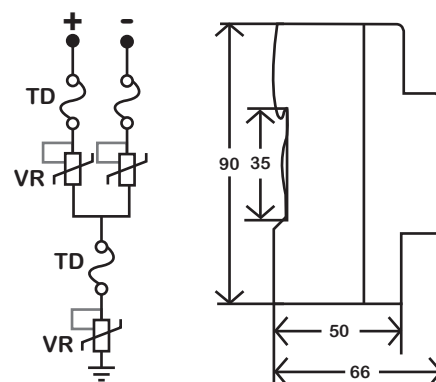
- Class I (B) DC arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- Differential and common protection mode.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal.



## Characteristics

| Type                                                        | PV 80 / 1000 - MVCDR                                             |
|-------------------------------------------------------------|------------------------------------------------------------------|
| In accordance with                                          | IEC61643-1:2005; UL1449 ed.3                                     |
| Category IEC/VDE                                            | I+II/ B+C                                                        |
| Protection Mode                                             | Differential mode & Common mode                                  |
| Nominal Voltage (DC)                                        | 1000VDC                                                          |
| Max. continuous operating voltage (DC)                      | 1060V                                                            |
| Nominal discharge current (8/20) In                         | 40KA                                                             |
| Max. discharge current(8/20) Imax                           | 80KA                                                             |
| Voltage protection level @ In                               | 3.2 KV                                                           |
| VPR at 6KV/3KA                                              | <2KV                                                             |
| Response time                                               | ≤25 ns                                                           |
| Backup fuse(only required if not already provided in mains) | 250A gL/gG                                                       |
| Operating temperature range                                 | - 40°C + 80°C                                                    |
| Cross-section of connection wire                            | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |
| Mounting                                                    | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |
| Enclosure material                                          | thermoplastic; extinguishing degree UL94 V-0                     |
| Degree of protection                                        | IP20                                                             |
| Installation width                                          | 6 module, DIN 43880                                              |
| Thermal disconnecter                                        | Internal green – normal red - failure                            |
| Remote alarm contact                                        | Yes                                                              |
| <b>Additional data for Remote Alarm Contacts</b>            |                                                                  |
| Remote alarm contact type                                   | floating changeover contact                                      |
| Switching capability UN/IN                                  | AC: 250V/0.5A<br>DC: 250V/0.1A; 125V/0.2A; 75V/0.5A              |
| Cross-section of connection wire                            | Max. 1.5mm <sup>2</sup>                                          |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-25/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

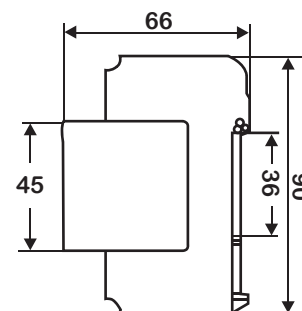
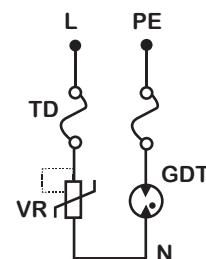
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |               | D1-25/***-VG-R                                                   |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |               | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC / VDE                                              |               | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L – N (AC/DC) | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                                 | N – PE Uc     | 65                                                               | 150     | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current(8/20) In                              | L–N           | 10KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L–N           | 25KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE        | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@In        | 0.4KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.8KV   | 2.0KV   | 2.5KV   | 2.6KV   |
|                                                                 | L-N@3KA       | 0.25KV                                                           | 0.5KV   | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
|                                                                 | N–PE(1.2/50)  | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.3KV   | 1.3KV   |
| Response time                                                   | L–N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L–N           | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 100Arms @ Uc                                                     |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |               | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |               | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |               | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |               | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |               | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |               | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-40/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

### Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

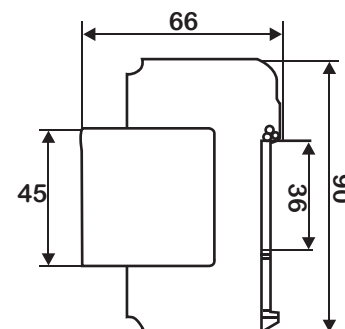
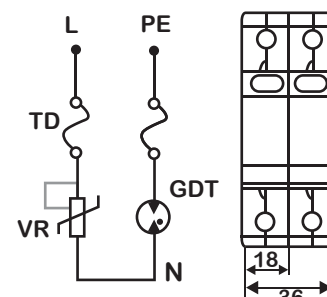
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                         |               | D1-40/***-VG-R               |         |         |         |         |         |         |         |         |         |
|--------------------------------------------------------------|---------------|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                              |               | 75                           | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                           |               | IEC61643-1:2005 ; UL1449 3rd |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                             |               | II / C                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                    | L - N (AC/DC) | 75/100                       | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                          | N - PE Uc     | 65                           | 150     | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
|                                                              | L-N           |                              |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                           | N-PE          |                              |         |         |         |         |         |         |         |         |         |
|                                                              | L-N           |                              |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                     | L-N@In        | 0.5KV                        | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                              | L-N@3KA       | 0.3KV                        | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
|                                                              | N-PE (1.250)  | 0.5KV                        | 0.8KV   | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.6KV   | 1.6KV   |
| Response time                                                | L-N           |                              |         |         |         |         |         |         |         |         |         |
|                                                              | N-PE          |                              |         |         |         |         |         |         |         |         |         |
| Follow current                                               | L-N           |                              |         |         |         |         |         |         |         |         |         |
|                                                              | N-PE          |                              |         |         |         |         |         |         |         |         |         |
| Backup fuse (only required if not already provided in mains) |               |                              |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                  |               |                              |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                             |               |                              |         |         |         |         |         |         |         |         |         |
| Mounting                                                     |               |                              |         |         |         |         |         |         |         |         |         |
| Enclosure material                                           |               |                              |         |         |         |         |         |         |         |         |         |
| Degree of protection                                         |               |                              |         |         |         |         |         |         |         |         |         |
| Installation width                                           |               |                              |         |         |         |         |         |         |         |         |         |
| Thermal disconnector                                         |               |                              |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                         |               |                              |         |         |         |         |         |         |         |         |         |

### Dimensions and Diagram



All dimension in mm

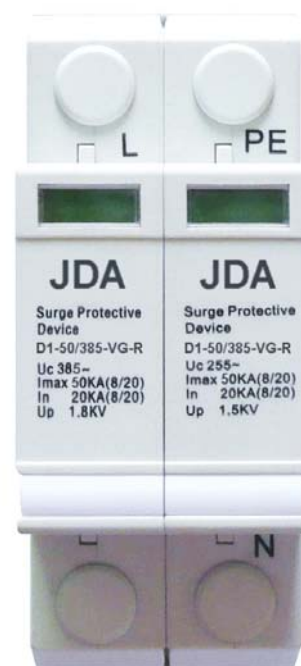
Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-50/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

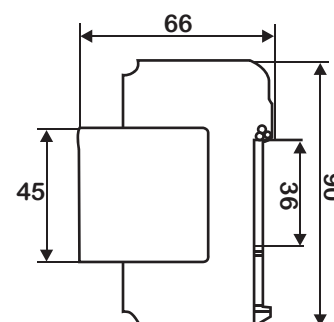
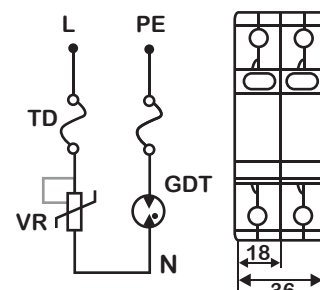
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |              | D1-50/***-VG-R                                                   |       |       |       |       |       |       |       |       |       |
|-----------------------------------------------------------------|--------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                                 |              | 75                                                               | 150   | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
| In accordance with                                              |              | IEC61643-1:2005 ; UL1449 3rd                                     |       |       |       |       |       |       |       |       |       |
| Category IEC/VDE                                                |              | II / C                                                           |       |       |       |       |       |       |       |       |       |
| Max. continuous operating voltage (AC/DC)                       | L - N        | 75/                                                              | 150/  | 175/  | 275/  | 300/  | 320/  | 385/  | 440/  | 550/  | 600/  |
|                                                                 | (AC/DC)      | 100                                                              | 200   | 225   | 300   | 385   | 420   | 505   | 585   | 745   | 800   |
| Nominal discharge current(8/20) In                              |              | N - PE Uc                                                        | 65    | 150   | 150   | 255   | 255   | 255   | 255   | 350   | 440   |
| Max. discharge current(8/20) Imax                               | L-N          | 20KA                                                             | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  |
|                                                                 | N-PE         | 20KA                                                             | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  | 20KA  |
| Voltage protection level                                        | L-N@In       | 50KA                                                             |       |       |       |       |       |       |       |       |       |
|                                                                 | L-N@3KA      | 50KA                                                             |       |       |       |       |       |       |       |       |       |
|                                                                 | N-PE(1.2/50) | 0.5KV                                                            | 0.8KV | 0.8KV | 1.4KV | 1.5KV | 1.6KV | 1.8KV | 2.2KV | 2.8KV | 3.0KV |
|                                                                 | N-PE(1.2/50) | 0.3KV                                                            | 0.5KV | 0.6KV | 1.0KV | 1.0KV | 1.1KV | 1.3KV | 1.5KV | 2.0KV | 2.0KV |
| Response time                                                   | L-N          | ≤25 ns                                                           |       |       |       |       |       |       |       |       |       |
|                                                                 | L-PE         | ≤100 ns                                                          |       |       |       |       |       |       |       |       |       |
| Follow current                                                  | L-N          | No                                                               |       |       |       |       |       |       |       |       |       |
|                                                                 | L-PE         | 100Arms @ Uc                                                     |       |       |       |       |       |       |       |       |       |
| Backup fuse<br>(only required if not already provided in mains) |              | 125A gL/gG                                                       |       |       |       |       |       |       |       |       |       |
| Operating temperature range                                     |              | - 40°C~+ 80°C                                                    |       |       |       |       |       |       |       |       |       |
| Cross-section of connection wire                                |              | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |       |       |       |       |       |       |       |       |
| Mounting                                                        |              | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |       |       |       |       |       |       |       |       |
| Enclosure material                                              |              | Thermoplastic ; extinguishing degree UL94 V-0                    |       |       |       |       |       |       |       |       |       |
| Degree of protection                                            |              | IP20                                                             |       |       |       |       |       |       |       |       |       |
| Installation width                                              |              | 2 modules , DIN 43880                                            |       |       |       |       |       |       |       |       |       |
| Thermal disconnecter                                            |              | Internal green – normal red - failure                            |       |       |       |       |       |       |       |       |       |
| Remote alarm contact                                            |              | Optional                                                         |       |       |       |       |       |       |       |       |       |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-60/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal.

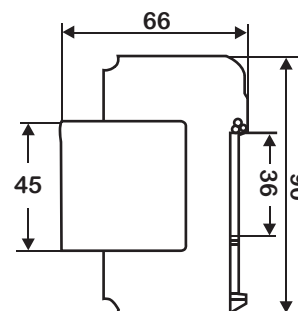
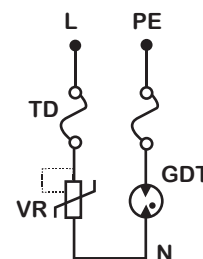
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |              | D1-60/***-VG-R                                                   |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |              | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |              | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC / VDE                                              |              | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L-N(AC/DC)   | 75 / 100                                                         | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                                 | N-PE Uc      | 65                                                               | 150     | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current (8/20) In                             | L-N          | 30KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE         | 30KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | L-N          | 60KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE         | 60KA                                                             |         |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N          | 7KA                                                              |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE         | 15KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage                                                         | L-N@In       | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | L-N@3KA      | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Protection level                                                | N-PE(1.2/50) | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.6KV   | 1.6KV   |
| Response time                                                   | L-N          | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE         | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N          | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE         | If ≥ 100Arms @ Uc                                                |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |              | 160A gL / gG                                                     |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |              | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |              | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |              | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |              | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |              | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |              | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |              | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |              | Yes                                                              |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-80/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

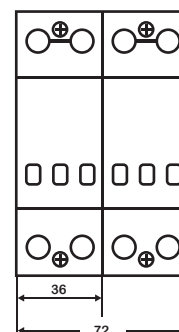
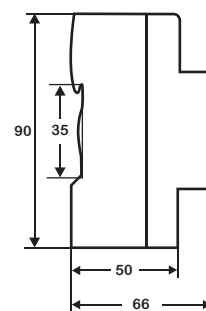
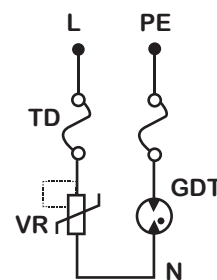


## Characteristics

| Type                                                            |               | D1-80/***-VG-R                                                   |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| In accordance with                                              |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC / VDE                                              |               | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L-N           | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
|                                                                 | N-PE Uc       | 150                                                              | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     | 150     |
| Nominal discharge current(8/20) In                              | L-N           | 40KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N           | 80KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 80KA                                                             |         |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N           | 10KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   | 0.8KV   |
|                                                                 | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   | 0.5KV   |
|                                                                 | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.6KV   | 1.6KV   | 0.8KV   |
| Response time                                                   | L-N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N           | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | If ≥ 100Arms @ Uc                                                |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |               | 200A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |               | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |               | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |               | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |               | Optional                                                         |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## Dimensions and Diagram



## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-100/\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

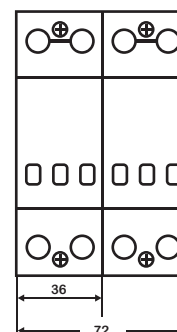
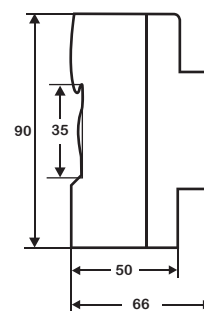
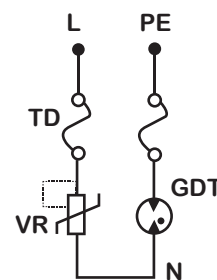


## Characteristics

| Type                                                            |               | D1-100/**-VG-R                                                   |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |               | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                              |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC / VDE                                              |               | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L-N (AC/DC)   | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
|                                                                 | N-PE Uc       | 150                                                              | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     | 150     |
| Nominal discharge current(8/20) In                              | L-N           | 50KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 50KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | L-N           | 100KA                                                            |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 100KA                                                            |         |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp                         | L-N           | 12.5KA                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   | 0.8KV   |
|                                                                 | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   | 0.5KV   |
|                                                                 | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.4KV   | 1.6KV   | 1.6KV   | 0.8KV   |
| Response time                                                   | L-N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N           | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | If ≥ 100Arms @ Uc                                                |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |               | 250A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |               | thermoplastic; extinguishing degree UL94 V-0                     |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |               | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |               | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |               | Internal green - normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |               | Optional                                                         |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## Dimensions and Diagram



# Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-120/385-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

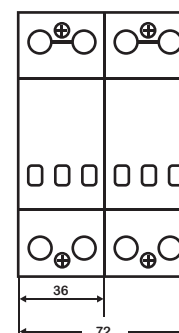
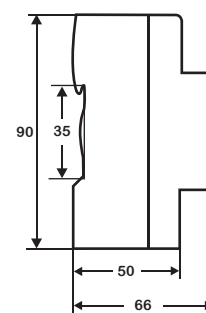
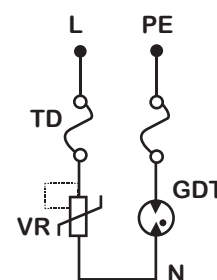
- Class I+ II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                        |               | D1-120 / 385-VG-R                                                |       |       |       |       |       |       |       |       |
|-------------------------------------------------------------|---------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                             |               | 150                                                              | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
| In accordance with                                          |               | IEC61643-1:2005 ; UL1449 3rd                                     |       |       |       |       |       |       |       |       |
| Category IEC / VDE                                          |               | I+II / B+C                                                       |       |       |       |       |       |       |       |       |
| Max. continuous operating voltage (AC/DC)                   | L – N         | 150                                                              | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
|                                                             | (AC/DC)       | /200                                                             | /225  | /300  | /385  | /420  | /505  | /585  | /745  | /800  |
|                                                             | N – PE Uc     | 150                                                              | 150   | 255   | 255   | 255   | 255   | 350   | 440   | 440   |
|                                                             |               |                                                                  |       |       |       |       |       |       |       |       |
| Nominal discharge current (8/20) In                         | L-N           | 60KA                                                             |       |       |       |       |       |       |       |       |
|                                                             | N-PE          | 60KA                                                             |       |       |       |       |       |       |       |       |
| Max. discharge current (8/20) Imax                          | L-N           | 120KA                                                            |       |       |       |       |       |       |       |       |
|                                                             | N-PE          | 120KA                                                            |       |       |       |       |       |       |       |       |
| Lightning impulse current (10/350) Iimp                     | L-N           | 12.5KA                                                           |       |       |       |       |       |       |       |       |
|                                                             | N-PE          | 25KA                                                             |       |       |       |       |       |       |       |       |
| Voltage protection level                                    | L-N@In        | 0.8KV                                                            | 0.8KV | 1.3KV | 1.4KV | 1.5KV | 1.8KV | 2.1KV | 2.8KV | 3.0KV |
|                                                             | L-N@3KA       | 0.5KV                                                            | 0.6KV | 0.9KV | 1.0KV | 1.1KV | 1.3KV | 1.5KV | 2.0KV | 2.0KV |
|                                                             | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV | 1.2KV | 1.2KV | 1.2KV | 1.2KV | 1.4KV | 1.6KV | 1.6KV |
| Response time                                               | L-N           | ≤25 ns                                                           |       |       |       |       |       |       |       |       |
|                                                             | N-PE          | ≤100 ns                                                          |       |       |       |       |       |       |       |       |
| Follow current                                              | L-N           | No                                                               |       |       |       |       |       |       |       |       |
|                                                             | N-PE          | If ≥ 100Arms @ Uc                                                |       |       |       |       |       |       |       |       |
| Backup fuse(only required if not already provided in mains) |               | 315A gL/gG                                                       |       |       |       |       |       |       |       |       |
| Operating temperature range                                 |               | - 40°C ~ + 80°C                                                  |       |       |       |       |       |       |       |       |
| Cross-section of connection wire                            |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |       |       |       |       |       |       |       |
| Mounting                                                    |               | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |       |       |       |       |       |       |       |
| Enclosure material                                          |               | Thermoplastic ; extinguishing degree UL94 V-0                    |       |       |       |       |       |       |       |       |
| Degree of protection                                        |               | IP20                                                             |       |       |       |       |       |       |       |       |
| Installation width                                          |               | 4 modules , DIN 43880                                            |       |       |       |       |       |       |       |       |
| Thermal disconnecter                                        |               | Internal green – normal red - failure                            |       |       |       |       |       |       |       |       |
| Remote alarm contact                                        |               | Optional                                                         |       |       |       |       |       |       |       |       |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Single Phase (1 MOV& 1GDT Modules) Surge Protection Devices Type D1-150/\*\*\*-VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

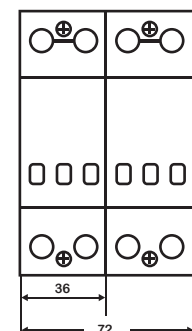
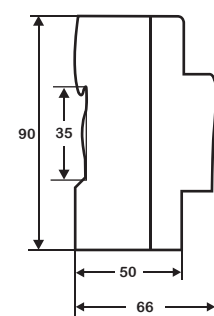
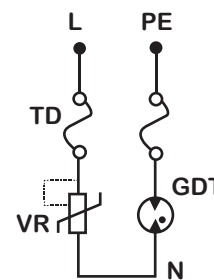
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |               | D1-150/***-VG-R                                                  |         |         |         |         |         |
|-----------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                                 |               | 150                                                              | 175     | 275     | 300     | 320     | 385     |
| In accordance with                                              |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |
| Category IEC/VDE                                                |               | I+II / B+C                                                       |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L – N (AC/DC) | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 |
|                                                                 | N-PE Uc       | 150                                                              | 150     | 255     | 255     | 255     | 255     |
| Nominal discharge current(8/20) In                              | L-N           | 70KA                                                             |         |         |         |         |         |
|                                                                 | N-PE          | 70KA                                                             |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N           | 150KA                                                            |         |         |         |         |         |
|                                                                 | N - PE        | 150KA                                                            |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N           | 25KA                                                             |         |         |         |         |         |
|                                                                 | N - PE        | 50KA                                                             |         |         |         |         |         |
| Voltage protection level                                        | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   |
|                                                                 | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0 KV  | 1.1KV   | 1.3KV   |
|                                                                 | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.2KV   |
| Response time                                                   | L-N           | ≤25 ns                                                           |         |         |         |         |         |
|                                                                 | N-PE          | ≤100 ns                                                          |         |         |         |         |         |
| Follow current                                                  | L-N           | No                                                               |         |         |         |         |         |
|                                                                 | N-PE          | If ≥ 100Arms @ Uc                                                |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |               | 315A gL/gG                                                       |         |         |         |         |         |
| Operating temperature range                                     |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |
| Cross-section of connection wire                                |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |
| Mounting                                                        |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |
| Enclosure material                                              |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |
| Degree of protection                                            |               | IP20                                                             |         |         |         |         |         |
| Installation width                                              |               | 4 modules , DIN 43880                                            |         |         |         |         |         |
| Remote alarm contact                                            |               | Optional                                                         |         |         |         |         |         |

## Dimensions and Diagram



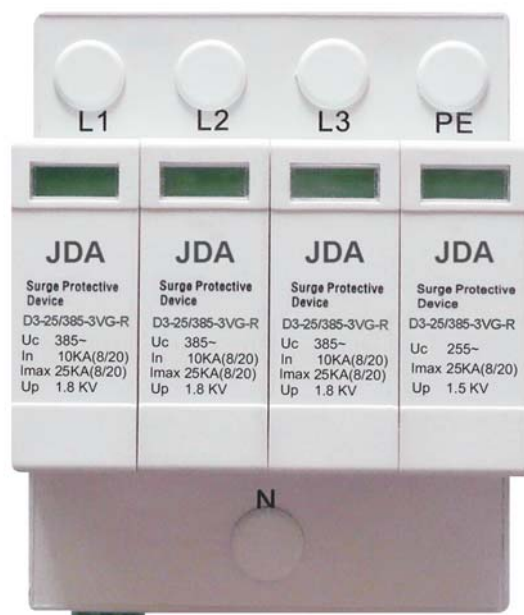
Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-25/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and protection module including plug-in module and non-pluggable module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

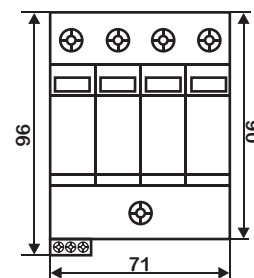
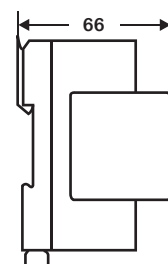
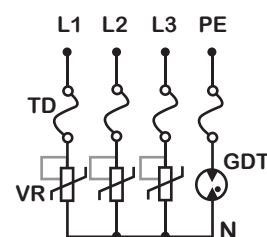
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



### Characteristics

| Type                                                            |                       | D3-25/***-3VG-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|-----------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |                       | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |                       | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |                       | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L – N (AC/DC)         | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                                 | N – PE U <sub>c</sub> | 65                                                               | 150     | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current(8/20) I <sub>n</sub>                  | L-N                   | 10KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) I <sub>max</sub>                   | L-N                   | 25KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE                | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@I <sub>n</sub>    | 0.4KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.3KV   | 1.5KV   | 1.8KV   | 2.0KV   | 2.5KV   | 2.6KV   |
|                                                                 | L-N@3KA               | 0.25KV                                                           | 0.5KV   | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
|                                                                 | N-PE (1.2/50)         | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.3KV   | 1.3KV   |
| Response time                                                   | L-N                   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N                   | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | 100Arms @U <sub>c</sub>                                          |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |                       | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |                       | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |                       | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |                       | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |                       | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |                       | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |                       | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |                       | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |                       | Optional                                                         |         |         |         |         |         |         |         |         |         |

### Dimensions and Diagram



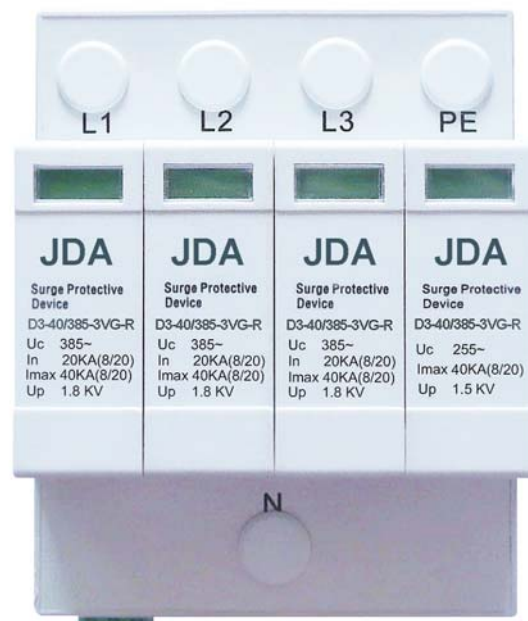
Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-40/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

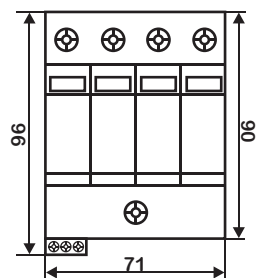
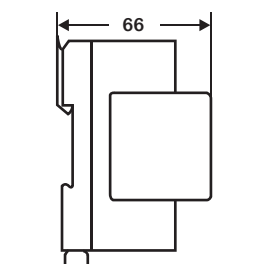
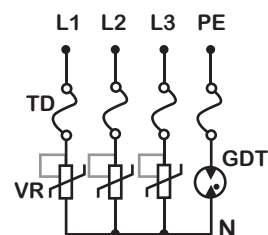
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                             |               | D3-40/***-3VG-R                                                  |         |         |         |         |         |         |         |         |         |
|--------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                  |               | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                               |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                 |               | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous                                  | L-N (AC/DC)   | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| operating voltage (AC/DC)                        | N - PE Uc     | 65                                                               | 150     | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge                                | L-N           | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| current (8/20) In                                | N-PE          | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge                                   | L-N           | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| current (8/20) Imax                              | N - PE        | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage                                          | L-N@In        | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                  | L-N@3KA       | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| protection level                                 | N-PE (1.2/50) | ≤1.5KV                                                           |         |         |         |         |         |         |         |         |         |
| Response time                                    | L-N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                  | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                   | L-N           | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                  | N-PE          | 100Arms@Uc                                                       |         |         |         |         |         |         |         |         |         |
| Backup fuse                                      |               | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| (only required if not already provided in mains) |               |                                                                  |         |         |         |         |         |         |         |         |         |
| Operating temperature range                      |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                 |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                         |               | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                               |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                             |               | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                               |               | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                             |               | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                             |               | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



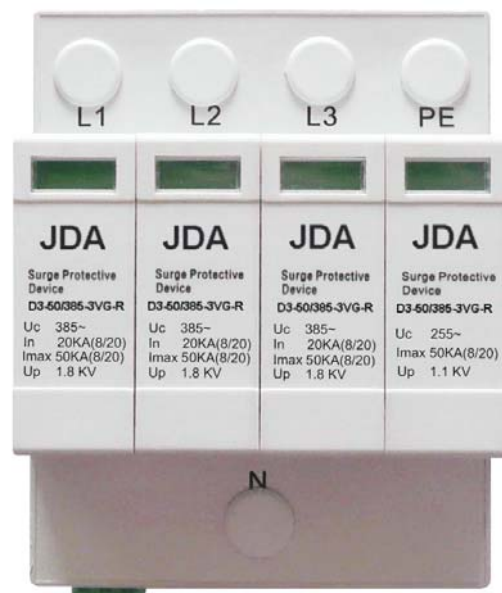
Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protection Devices Type D3-50/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

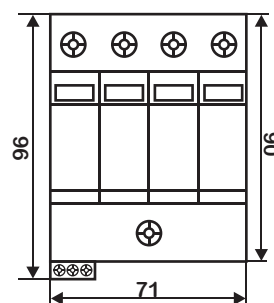
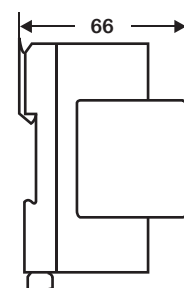
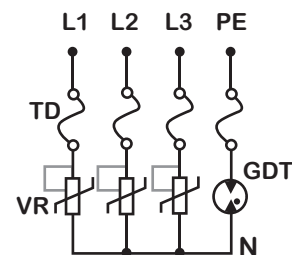
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                         |              | D3-50/***-3VG-R                                                  |       |       |       |       |       |       |       |       |       |
|--------------------------------------------------------------|--------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                              |              | 75                                                               | 150   | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
| In accordance with                                           |              | IEC61643-1:2005 ; UL1449 3rd                                     |       |       |       |       |       |       |       |       |       |
| Category IEC/VDE                                             |              | II / C                                                           |       |       |       |       |       |       |       |       |       |
| Max. continuous operating voltage (AC/DC)                    | L - N        | 75/                                                              | 150/  | 175/  | 275/  | 300/  | 320/  | 385/  | 440/  | 550/  | 600/  |
|                                                              | (AC/DC)      | 100                                                              | 200   | 225   | 300   | 385   | 420   | 505   | 585   | 745   | 800   |
| N - PE Uc                                                    |              | 65                                                               | 150   | 150   | 255   | 255   | 255   | 255   | 350   | 440   | 440   |
| Nominal discharge current(8/20) In                           | L-N          | 20KA                                                             |       |       |       |       |       |       |       |       |       |
|                                                              | N-PE         | 20KA                                                             |       |       |       |       |       |       |       |       |       |
| Max. discharge current(8/20) Imax                            | L-N          | 50KA                                                             |       |       |       |       |       |       |       |       |       |
|                                                              | N - PE       | 50KA                                                             |       |       |       |       |       |       |       |       |       |
| Voltage protection level                                     | L-N@In       | 0.5KV                                                            | 0.8KV | 0.8KV | 1.4KV | 1.5KV | 1.6KV | 1.8KV | 2.2KV | 2.8KV | 3.0KV |
|                                                              | L-N@3KA      | 0.3KV                                                            | 0.5KV | 0.6KV | 1.0KV | 1.0KV | 1.1KV | 1.3KV | 1.5KV | 2.0KV | 2.0KV |
|                                                              | N-PE(1.2/50) | ≤1.5KV                                                           |       |       |       |       |       |       |       |       |       |
| Response time                                                | L-N          | ≤25 ns                                                           |       |       |       |       |       |       |       |       |       |
|                                                              | L-PE         | ≤100 ns                                                          |       |       |       |       |       |       |       |       |       |
| Follow current                                               | L-N          | No                                                               |       |       |       |       |       |       |       |       |       |
|                                                              | L-PE         | 100Arms@Uc                                                       |       |       |       |       |       |       |       |       |       |
| Backup fuse (only required if not already provided in mains) |              | 125A gL/gG                                                       |       |       |       |       |       |       |       |       |       |
| Operating temperature range                                  |              | - 40°C ~ + 80°C                                                  |       |       |       |       |       |       |       |       |       |
| Cross-section of connection wire                             |              | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |       |       |       |       |       |       |       |       |
| Mounting                                                     |              | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |       |       |       |       |       |       |       |       |
| Enclosure material                                           |              | Thermoplastic ; extinguishing degree UL94 V-0                    |       |       |       |       |       |       |       |       |       |
| Degree of protection                                         |              | IP20                                                             |       |       |       |       |       |       |       |       |       |
| Installation width                                           |              | 4 modules , DIN 43880                                            |       |       |       |       |       |       |       |       |       |
| Thermal disconnecter                                         |              | Internal green – normal red - failure                            |       |       |       |       |       |       |       |       |       |
| Remote alarm contact                                         |              | Optional                                                         |       |       |       |       |       |       |       |       |       |

## Dimensions and Diagram



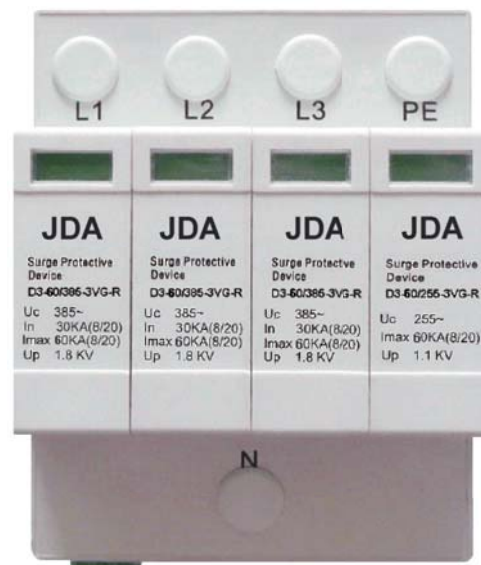
Note: Subject to change without any notice.

## Three Phase (3MOV & 1GDT Module) Surge Protection Devices Type D3-60/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

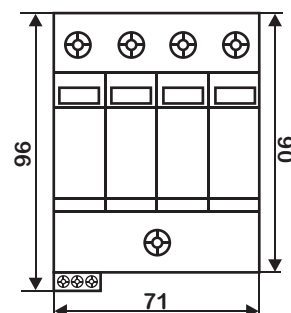
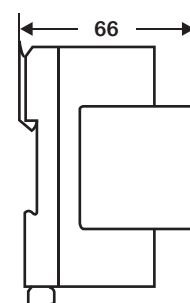
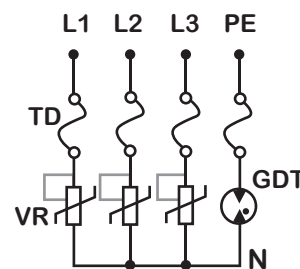
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                         |               | D3-60/***-3VG-R                                                  |       |       |       |       |       |       |       |       |       |
|--------------------------------------------------------------|---------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                              |               | 75                                                               | 150   | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
| In accordance with                                           |               | IEC61643-1:2005 ; UL1449 3rd                                     |       |       |       |       |       |       |       |       |       |
| Category IEC/VDE                                             |               | I+II / B+C                                                       |       |       |       |       |       |       |       |       |       |
| Max. continuous operating voltage (AC/DC)                    | L-N           | 75                                                               | 150   | 175   | 275   | 300   | 320   | 385   | 440   | 550   | 600   |
|                                                              | (AC/DC)       | /100                                                             | /200  | /225  | /300  | /385  | /420  | /505  | /585  | /745  | /800  |
| Nominal discharge current (8/20) In                          | N-PE          | 65                                                               | 150   | 150   | 255   | 255   | 255   | 255   | 350   | 440   | 440   |
|                                                              | Uc            |                                                                  |       |       |       |       |       |       |       |       |       |
| Max. discharge current (8/20) I <sub>max</sub>               | L-N           |                                                                  |       |       |       |       |       |       |       |       |       |
|                                                              | N-PE          |                                                                  |       |       |       |       |       |       |       |       |       |
| Lightning impulse current (10/350) I <sub>imp</sub>          | L-N           |                                                                  |       |       |       |       |       |       |       |       |       |
|                                                              | N-PE          |                                                                  |       |       |       |       |       |       |       |       |       |
| Voltage protection level                                     | L-N@In        | 0.5KV                                                            | 0.8KV | 0.8KV | 1.3KV | 1.4KV | 1.5KV | 1.8KV | 2.2KV | 2.8KV | 3.0KV |
|                                                              | L-N@3KA       | 0.3KV                                                            | 0.5KV | 0.6KV | 1.0KV | 1.0KV | 1.1KV | 1.3KV | 1.5KV | 2.0KV | 2.1KV |
|                                                              | N-PE (1.2/50) | 0.5KV                                                            | 0.8KV | 0.8KV | 1.0KV | 1.0KV | 1.0KV | 1.0KV | 1.2KV | 1.6KV | 1.6KV |
| Response time                                                | L-N           |                                                                  |       |       |       |       |       |       |       |       |       |
|                                                              | N-PE          |                                                                  |       |       |       |       |       |       |       |       |       |
| Follow current                                               | L-N           |                                                                  |       |       |       |       |       |       |       |       |       |
|                                                              | N-PE          |                                                                  |       |       |       |       |       |       |       |       |       |
| Backup fuse (only required if not already provided in mains) |               | 160A gL/gG                                                       |       |       |       |       |       |       |       |       |       |
| Operating temperature range                                  |               | - 40°C ~ + 80°C                                                  |       |       |       |       |       |       |       |       |       |
| Cross-section of connection wire                             |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |       |       |       |       |       |       |       |       |
| Mounting                                                     |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |       |       |       |       |       |       |       |       |
| Enclosure material                                           |               | Thermoplastic ; extinguishing degree UL94 V-0                    |       |       |       |       |       |       |       |       |       |
| Degree of protection                                         |               | IP20                                                             |       |       |       |       |       |       |       |       |       |
| Installation width                                           |               | 4 modules , DIN 43880                                            |       |       |       |       |       |       |       |       |       |
| Thermal disconnect                                           |               | Internal green – normal red - failure                            |       |       |       |       |       |       |       |       |       |
| Remote alarm contact                                         |               | Optional                                                         |       |       |       |       |       |       |       |       |       |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-80/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

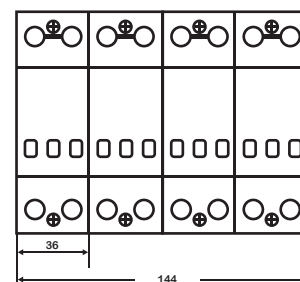
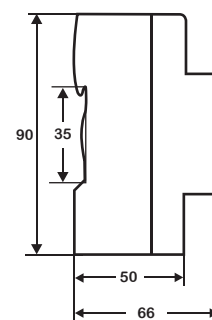
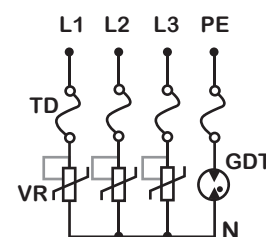
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |               | D3-80/***-3VG-R                                                  |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |               | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |               | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L – N (AC/DC) | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                                 | N – PE Uc     | 150                                                              | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current (8/20) In                             | L-N           | 40KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 40KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | L-N           | 80KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE        | 80KA                                                             |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp                         | L-N           | 10KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE        | 25KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.6KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
|                                                                 | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.6KV   | 1.6KV   |
| Response time                                                   | L-N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N           | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE          | 100Arms @ Uc                                                     |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |               | 200A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |               | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |               | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |               | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |               | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram

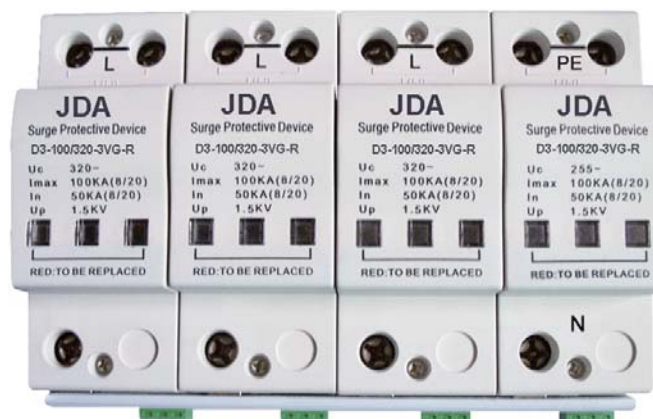


Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-100/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

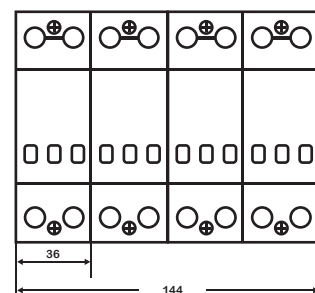
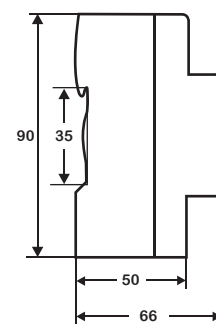
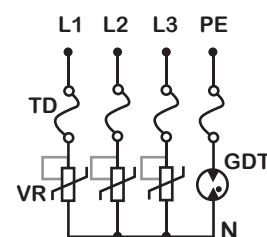
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |                       | D3-100/***-3VG-R                                                 |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|-----------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |                       | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |                       | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |                       | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | L – N (AC/DC)         | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                                 | N – PE U <sub>c</sub> | 150                                                              | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current (8/20) I <sub>n</sub>                 | L-N                   | 50KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | 50KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | L-N                   | 100KA                                                            |         |         |         |         |         |         |         |         |
|                                                                 | N - PE                | 100KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | L-N                   | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N - PE                | 25KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | L-N@I <sub>n</sub>    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.8KV   | 2.2KV   | 2.8KV   |
|                                                                 | L-N@3KA               | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   |
|                                                                 | N-PE (1.2/50)         | 0.8KV                                                            | 0.8KV   | 1.2KV   | 1.2KV   | 1.5KV   | 1.5KV   | 1.4KV   | 1.6KV   | 1.6KV   |
| Response time                                                   | L-N                   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | ≤100 ns                                                          |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N                   | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE                  | 100Arms @ U <sub>c</sub>                                         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |                       | 250A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |                       | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |                       | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |                       | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |                       | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |                       | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |                       | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |                       | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |                       | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-120/\*\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

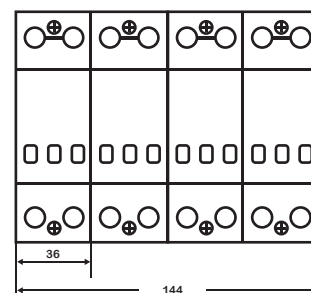
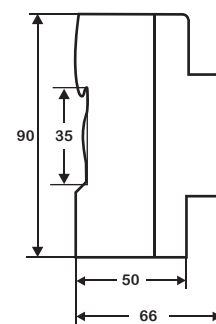
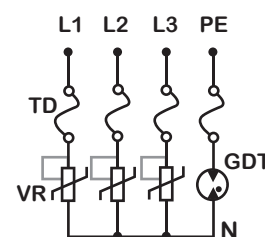


## Characteristics

| Type                                             |               | D3-120/***-3VG-R                                                 |         |         |         |         |         |         |         |         |
|--------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                  |               | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                               |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                 |               | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)        | L – N(AC/DC)  | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
|                                                  | N – PE Uc     | 150                                                              | 150     | 255     | 255     | 255     | 255     | 350     | 440     | 440     |
| Nominal discharge current(8/20) In               | L-N           | 60KA                                                             |         |         |         |         |         |         |         |         |
|                                                  | N-PE          | 60KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                | L-N           | 120KA                                                            |         |         |         |         |         |         |         |         |
|                                                  | N - PE        | 120KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp           | L-N           | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                  | N - PE        | 25KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level                         | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                  | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
|                                                  | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.4KV   | 1.6KV   | 1.6KV   |
| Response time                                    | L-N           | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                  | N-PE          | ≤100 ns                                                          |         |         |         |         |         |         |         |         |
| Follow current                                   | L-N           | No                                                               |         |         |         |         |         |         |         |         |
|                                                  | N-PE          | 100Arms @ Uc                                                     |         |         |         |         |         |         |         |         |
| Backup fuse                                      |               | 315A gL/gG                                                       |         |         |         |         |         |         |         |         |
| (only required if not already provided in mains) |               |                                                                  |         |         |         |         |         |         |         |         |
| Operating temperature range                      |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                 |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                         |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                               |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                             |               | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                               |               | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                             |               | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                             |               | Optional                                                         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## Dimensions and Diagram



## Three Phase (3 MOV& 1GDT Modules) Surge Protective Devices Type D3-150/\*\*-3VG-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

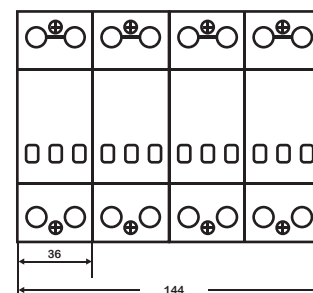
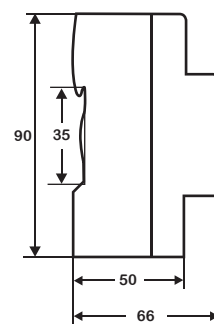
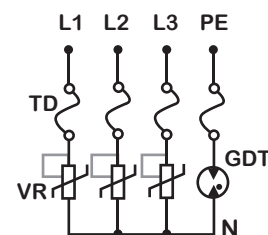
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) and GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                         |               | D3-150/**-3VG-R                                                  |         |         |         |         |         |
|--------------------------------------------------------------|---------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                              |               | 150                                                              | 175     | 275     | 300     | 320     | 385     |
| In accordance with                                           |               | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |
| Category IEC/VDE                                             |               | I+II / B+C                                                       |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                    | L – N (AC/DC) | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 |
|                                                              | N – PE Uc     | 150                                                              | 150     | 255     | 255     | 255     | 255     |
| Nominal discharge current (8/20) In                          | L-N           | 70KA                                                             |         |         |         |         |         |
|                                                              | N-PE          | 70KA                                                             |         |         |         |         |         |
| Max. discharge current (8/20) Imax                           | L-N           | 150KA                                                            |         |         |         |         |         |
|                                                              | N - PE        | 150KA                                                            |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp                      | L-N           | 25KA                                                             |         |         |         |         |         |
|                                                              | N - PE        | 35KA                                                             |         |         |         |         |         |
| Voltage protection level                                     | L-N@In        | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   |
|                                                              | L-N@3KA       | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   |
|                                                              | N-PE (1.2/50) | 0.8KV                                                            | 0.8KV   | 1.2KV   | 1.2KV   | 1.2KV   | 1.2KV   |
| Response time                                                | L-N           | ≤25 ns                                                           |         |         |         |         |         |
|                                                              | N-PE          | ≤100 ns                                                          |         |         |         |         |         |
| Follow current                                               | L-N           | No                                                               |         |         |         |         |         |
|                                                              | N-PE          | 100Arms @ Uc                                                     |         |         |         |         |         |
| Backup fuse (only required if not already provided in mains) |               | 315A gL/gG                                                       |         |         |         |         |         |
| Operating temperature range                                  |               | - 40°C ~ + 80°C                                                  |         |         |         |         |         |
| Cross-section of connection wire                             |               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |
| Mounting                                                     |               | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |
| Enclosure material                                           |               | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |
| Degree of protection                                         |               | IP20                                                             |         |         |         |         |         |
| Installation width                                           |               | 8 modules , DIN 43880                                            |         |         |         |         |         |
| Remote alarm contact                                         |               | Optional                                                         |         |         |         |         |         |

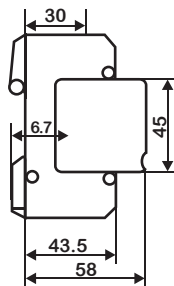
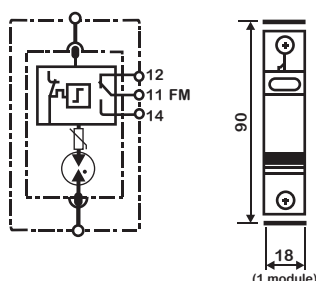
## Dimensions and Diagram



Note: Subject to change without any notice.

## MOV&GDT in Series Module Surge Protection Devices Type MVGT25/\*\*\*-R

Dimensions and Diagram



- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module
- High energy MOV (Metal Oxide Varistor) & GDT (Gas Discharge Tube) in series inside.
- Reliable supervision due to disconnection device
- Fault indication by red indication flag in window
- No leakage current and No follow current
- With remote alarm terminal optional

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

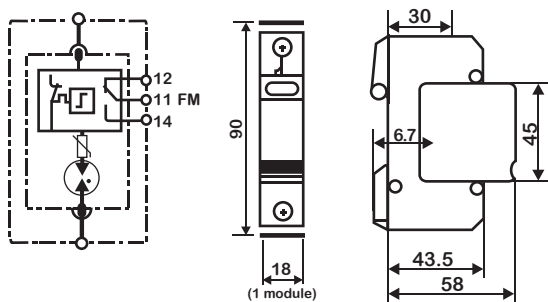
## Characteristics

| Type                                                            | MVGT 25/***                                                      |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC / VDE                                              | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                                  | 0.3KV                                                            | 0.6KV   | 0.6KV   | 1.3KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.8KV   | 2.0KV   | 2.0KV   |
| Let through voltage @3KA (8/20)                                 | 0.2KV                                                            | 0.5KV   | 0.5KV   | 0.8KV   | 0.8KV   | 0.8KV   | 0.8KV   | 1.2KV   | 1.6KV   | 1.6KV   |
| Response time                                                   | ≤100 ns                                                          |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              | 1 module , DIN 43880                                             |         |         |         |         |         |         |         |         |         |
| Thermal disconnector                                            | Internal    green – normal    red - failure                      |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>             | AC: 250V/0.5A      DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A          |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV&GDT in Series Module Surge Protective Devices Type MVGT40/\*\*\*-R

### Dimensions and Diagram



- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) & GDT (Gas Discharge Tube) in series inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

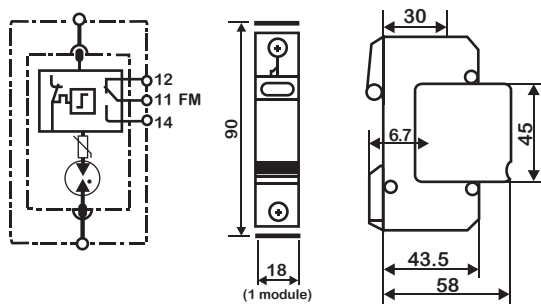
## Characteristics

| Type                                                            | MVGT 40/***                                                         |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 | 75                                                                  | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                        |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                | II / C                                                              |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 75/100                                                              | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | 20KA                                                                |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | 40KA                                                                |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                                  | 0.5KV                                                               | 0.8KV   | 0.8KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.6KV   | 2.2KV   | 2.8KV   | 3.0KV   |
| Let through voltage @3KA (8/20)                                 | 0.3KV                                                               | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.0KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | ≤100ns                                                              |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | No                                                                  |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 125A gL/gG                                                          |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     | - 40°C ~ + 80°C                                                     |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup>    |         |         |         |         |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3              |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                       |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            | IP20                                                                |         |         |         |         |         |         |         |         |         |
| Installation width                                              | 1 module , DIN 43880                                                |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            | Internal    green – normal    red - failure                         |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                            |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                     |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                         |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>             | AC: 250V/0.5A                  DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                             |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV&GDT in Series Module Surge Protective Devices Type MVGT60/\*\*\*-R

Dimensions and Diagram



- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module
- High energy MOV (Metal Oxide Varistor) & GDT (Gas Discharge Tube) in series inside.
- Reliable supervision due to disconnection device
- Fault indication by red indication flag in window
- No leakage current and No follow current
- With remote alarm terminal optional

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

## Characteristics

| Type                                                            | MVGT 60/***                                                      |         |         |         |                                      |         |         |         |         |         |
|-----------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|---------|---------|---------|
|                                                                 | 75                                                               | 150     | 175     | 275     | 300                                  | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |                                      |         |         |         |         |         |
| Category IEC/VDE                                                | I+II / B+C                                                       |         |         |         |                                      |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385                              | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | 30KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | 60KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | 7KA                                                              |         |         |         |                                      |         |         |         |         |         |
| Voltage protection level at In                                  | 0.3KV                                                            | 0.6KV   | 0.6KV   | 1.2KV   | 1.2KV                                | 1.2KV   | 1.2KV   | 1.8KV   | 2.4KV   | 2.4KV   |
| Let through voltage @3KA 8/20                                   | 0.2KV                                                            | 0.5KV   | 0.5KV   | 0.8KV   | 0.8KV                                | 0.8KV   | 0.8KV   | 1.2KV   | 1.6KV   | 1.6KV   |
| Response time                                                   | ≤100 ns                                                          |         |         |         |                                      |         |         |         |         |         |
| Follow current                                                  | No                                                               |         |         |         |                                      |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 160A gL/gG                                                       |         |         |         |                                      |         |         |         |         |         |
| Operating temperature range                                     | - 40°C ~ + 80°C                                                  |         |         |         |                                      |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |                                      |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |                                      |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |                                      |         |         |         |         |         |
| Degree of protection                                            | IP20                                                             |         |         |         |                                      |         |         |         |         |         |
| Installation width                                              | 1 module , DIN 43880                                             |         |         |         |                                      |         |         |         |         |         |
| Thermal disconnecter                                            | Internal    green – normal    red - failure                      |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                         |         |         |         |                                      |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                      |         |         |         |                                      |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>             | AC: 250V/0.5A                                                    |         |         |         | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                          |         |         |         |                                      |         |         |         |         |         |

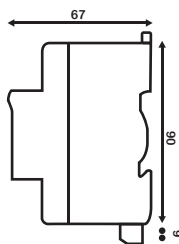
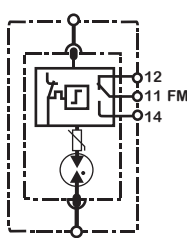
Note: Subject to change without any notice.

## MOV&GDT in Series Module Surge Protection Devices

### Type MVGT80/\*\*\*-R

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) & GDT (Gas Discharge Tube) in series inside.
- Reliable supervision due to disconnection device
- Fault indication by red indication flag in window
- No leakage current and No follow current
- With remote alarm terminal optional

Dimensions and Diagram



## Characteristics

| Type                                                | MVGT 80/***                                                      |         |         |         |                                      |         |         |         |         |         |
|-----------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|---------|---------|---------|
|                                                     | 150                                                              | 175     | 275     | 300     | 320                                  | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |                                      |         |         |         |         |         |
| Category IEC/VDE                                    | I+II / B+C                                                       |         |         |         |                                      |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)           | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420                              | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
| Nominal discharge current (8/20) In                 | 40KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>      | 80KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub> | 10KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Voltage protection level at In                      | 0.6KV                                                            | 0.6KV   | 1.2KV   | 1.2KV   | 1.2KV                                | 1.2KV   | 1.8KV   | 2.4KV   | 2.4KV   | 0.6KV   |
| Let through voltage @3KA 8/20                       | 0.5KV                                                            | 0.5KV   | 0.8KV   | 0.8KV   | 0.8KV                                | 0.8KV   | 1.2KV   | 1.6KV   | 1.6KV   | 0.5KV   |
| Response time                                       | ≤100 ns                                                          |         |         |         |                                      |         |         |         |         |         |
| Follow current                                      | No                                                               |         |         |         |                                      |         |         |         |         |         |
| Backup fuse                                         | 200A gL/gG                                                       |         |         |         |                                      |         |         |         |         |         |
| (only required if not already provided in mains)    |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |         |         |         |                                      |         |         |         |         |         |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |                                      |         |         |         |         |         |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |                                      |         |         |         |         |         |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |                                      |         |         |         |         |         |
| Degree of protection                                | IP20                                                             |         |         |         |                                      |         |         |         |         |         |
| Installation width                                  | 2 modules , DIN 43880                                            |         |         |         |                                      |         |         |         |         |         |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact                                | Optional                                                         |         |         |         |                                      |         |         |         |         |         |
| Additional data for Remote Alarm Contacts           |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact type                           | floating changeover contact                                      |         |         |         |                                      |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |         |         |         | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |         |         |         |                                      |         |         |         |         |         |

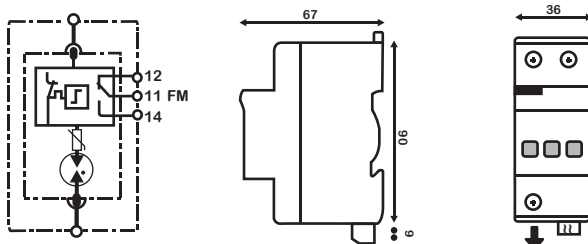
Note: Subject to change without any notice.

## MOV&GDT in Series Module Surge Protection Devices

### Type MVGT100/\*\*\*-R

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) & GDT (Gas Discharge Tube) in series inside.
- Reliable supervision due to disconnection device
- Fault indication by red indication flag in window
- No leakage current and No follow current
- With remote alarm terminal optional.

Dimensions and Diagram



## Characteristics

| Type                                                | MVGT 100/***                                                     |         |         |         |                                      |         |         |         |         |         |
|-----------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|---------|---------|---------|
|                                                     | 150                                                              | 175     | 275     | 300     | 320                                  | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |                                      |         |         |         |         |         |
| Category IEC/VDE                                    | I+II / B+C                                                       |         |         |         |                                      |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)           | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420                              | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
| Nominal discharge current (8/20) In                 | 50KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Max. discharge current (8/20) Imax                  | 100KA                                                            |         |         |         |                                      |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp             | 12.5KA                                                           |         |         |         |                                      |         |         |         |         |         |
| Voltage protection level at In                      | 0.6KV                                                            | 0.6KV   | 1.2KV   | 1.2KV   | 1.2KV                                | 1.2KV   | 1.8KV   | 2.4KV   | 2.4KV   | 0.6KV   |
| Let through voltage @3KA 8/20                       | 0.5KV                                                            | 0.5KV   | 0.8KV   | 0.8KV   | 0.8KV                                | 0.8KV   | 1.2KV   | 1.6KV   | 1.6KV   | 0.5KV   |
| Response time                                       | ≤100 ns                                                          |         |         |         |                                      |         |         |         |         |         |
| Follow current                                      | No                                                               |         |         |         |                                      |         |         |         |         |         |
| Backup fuse                                         | 250A gL/gG                                                       |         |         |         |                                      |         |         |         |         |         |
| (only required if not already provided in mains)    |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |         |         |         |                                      |         |         |         |         |         |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |                                      |         |         |         |         |         |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |                                      |         |         |         |         |         |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |                                      |         |         |         |         |         |
| Degree of protection                                | IP20                                                             |         |         |         |                                      |         |         |         |         |         |
| Installation width                                  | 2 modules , DIN 43880                                            |         |         |         |                                      |         |         |         |         |         |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact                                | Optional                                                         |         |         |         |                                      |         |         |         |         |         |
| Additional data for Remote Alarm Contacts           |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact type                           | floating changeover contact                                      |         |         |         |                                      |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |         |         |         | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |         |         |         |                                      |         |         |         |         |         |

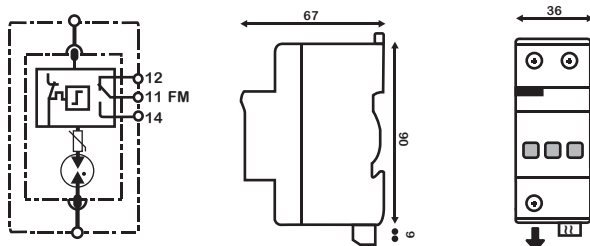
Note: Subject to change without any notice.

## Class I+II Surge Protective Device for LV Power System Type MVGT150/\*\*\*-R

### IEC61643-1; UL1449 3rd

- Uc 75~690Vac
- High TOV capacity
- Iimp 25KA (10/350)
- MOV and GDT hybrid type, No leakage current and no follow current
- Low voltage protection level (Up)
- Fault indication
- With remote signaling contact optional

### Dimensions and Diagram



## Characteristics

### MVGT150/\*\*\*

|                                                                 |                                                                  |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| In accordance with                                              | IEC61643-1:2005; UL1449 3rd                                      |         |         |         |         |         |         |         |         |
| Category IEC                                                    | I+II                                                             |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 150/200                                                          | 175/225 | 275/350 | 320/420 | 385/505 | 420/560 | 510/570 | 550/745 | 690/910 |
| Nominal discharge current (8/20) In                             | 25KA                                                             |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | 25KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level at In                                  | 0.6KV                                                            | 0.8KV   | 1.2KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.0KV   | 2.5KV   | 3.0KV   |
| Response time                                                   | ≤100 ns                                                          |         |         |         |         |         |         |         |         |
| Follow current                                                  | No                                                               |         |         |         |         |         |         |         |         |
| Leakage current                                                 | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 315A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |
| Enclosure material                                              | thermoplastic; extinguishing degree UL94 V-0                     |         |         |         |         |         |         |         |         |
| Degree of protection                                            | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              | 2 module, DIN 43880                                              |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protection Devices Type D1-25/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

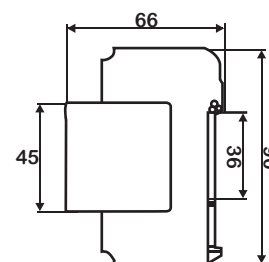
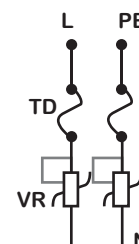
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |        | D1-25/***-2MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 10KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) I <sub>max</sub>                   | L-N    | 25KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.4KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.3KV   | 1.5KV   | 1.8KV   | 2.0KV   | 2.5KV   | 2.6KV   |
|                                                                 | @3KA   | 0.25KV                                                           | 0.5KV   | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protective Devices Type D1-40/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

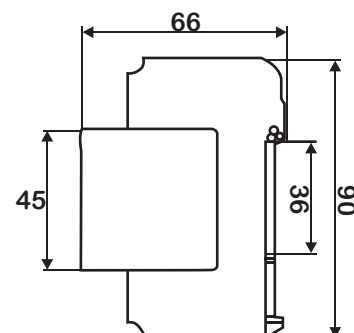
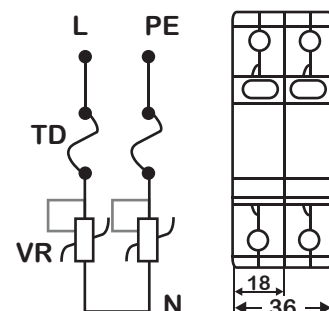
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                                           |        | D1-40/***-2MV-R                                                  |         |         |         |         |         |         |         |         |         |
|--------------------------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                                |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                                             |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                               |        | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage                                              |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                                            | L-N    | 20KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                                | N-PE   | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                                 | L-N    | 40KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                                | N - PE | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                                       | @In    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                                | @3KA   | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                                  | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                                | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                                 | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                                | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br><small>(only required if not already provided in mains)</small> |        | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                                    |        | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                               |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                                       |        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                                             |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                                           |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                                             |        | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnector                                                           |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                                           |        | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                                      |        |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                                      |        | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability UN/IN                                                     |        | AC: 250V/0.5A DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A               |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                               |        | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protection Devices Type D1-50/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

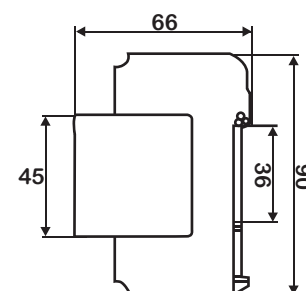
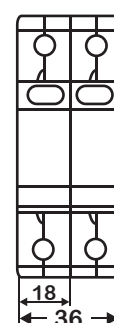
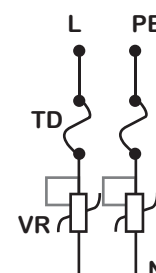
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



### Characteristics

| Type                                                            |        | D1-50/***-2MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 20KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 50KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 50KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | thermoplastic; extinguishing degree UL94 V-0                     |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |        |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                       |        | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability UN/IN                                      |        | AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A                 |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

### Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protective Devices Type D1-60/\*\*-2MV-R

Surge arrester for low-voltage power supply system  
protection against surges at the boundaries from  
lightning protection zone 0B-1 and higher

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal.

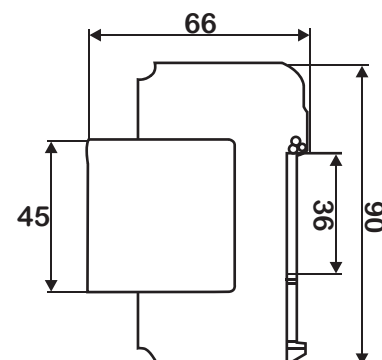
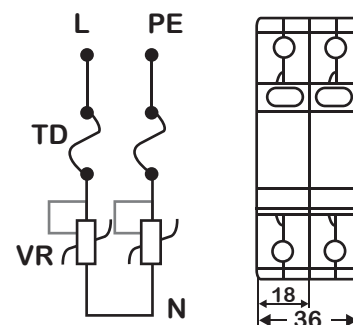
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |        | D1-60/**-2MV-R                                                   |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 30KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 30KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 60KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 60KA                                                             |         |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N    | 7KA                                                              |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 7KA                                                              |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 160A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnector                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



All dimension in mm

Note: Subject to change without any notice.

# Single Phase (2 MOV Modules) Surge Protection Devices Type D1-80/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

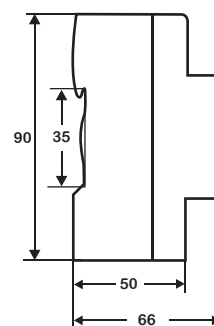
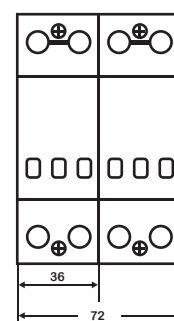
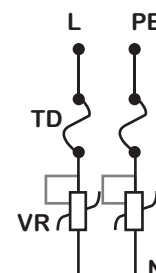
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |        | D1-80/***-2MV-R                                                  |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 40KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 40KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 80KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 80KA                                                             |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N    | 10KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 10KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 200A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | thermoplastic; extinguishing degree UL94 V-0                     |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protection Devices Type D1-100/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

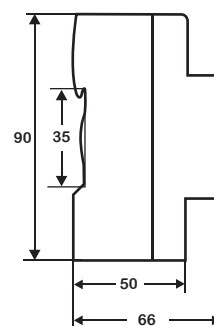
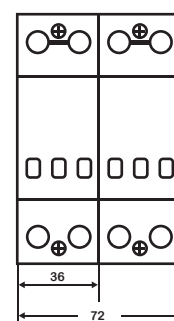
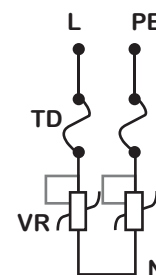
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |        | D1-100/***-2MV-R                                                 |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating Voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | L-N    | 50KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 50KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | L-N    | 100KA                                                            |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 100KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp                         | L-N    | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 12.5KA                                                           |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 250A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |

Dimensions and Diagram



Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protection Devices Type D1-120/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

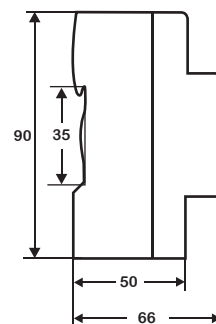
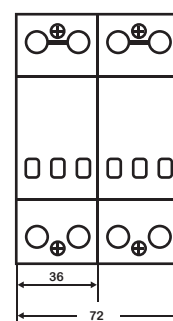
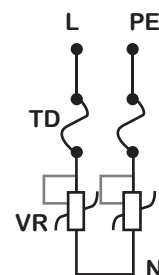
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |      | D1-120/***-2MV-R                                                 |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |      | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |      | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |      | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |      | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N  | 60KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | 60KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N  | 120KA                                                            |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | 120KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N  | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | 12.5KA                                                           |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In  | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N  | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N  | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |      | 315A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |      | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |      | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |      | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |      | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |      | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |      | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |      | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |      | Optional                                                         |         |         |         |         |         |         |         |         |

Dimensions and Diagram



Note: Subject to change without any notice.

## Single Phase (2 MOV Modules) Surge Protection Devices Type D1-150/\*\*\*-2MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

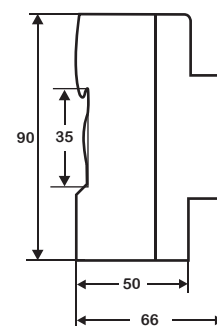
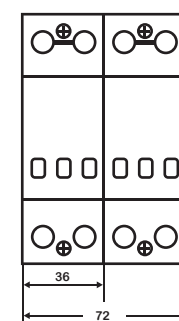
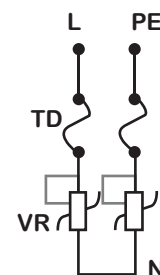
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |         | D1-150/***-2MV-R                                                 |         |         |         |         |         |
|-----------------------------------------------------------------|---------|------------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                                 |         | 150                                                              | 175     | 275     | 300     | 320     | 385     |
| In accordance with                                              |         | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |
| Category IEC/VDE                                                |         | I+II / B+C                                                       |         |         |         |         |         |
| Max. continuous operating voltage                               | (AC/DC) | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 |
| Nominal discharge current(8/20) In                              | L-N     | 70KA                                                             |         |         |         |         |         |
|                                                                 | N-PE    | 70KA                                                             |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N     | 150KA                                                            |         |         |         |         |         |
|                                                                 | N-PE    | 150KA                                                            |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N     | 25KA                                                             |         |         |         |         |         |
|                                                                 | N-PE    | 25KA                                                             |         |         |         |         |         |
| Voltage protection level                                        | @In     | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   |
|                                                                 | @3KA    | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   |
| Response time                                                   | L-N     | ≤25 ns                                                           |         |         |         |         |         |
|                                                                 | N-PE    | ≤25 ns                                                           |         |         |         |         |         |
| Follow current                                                  | L-N     | No                                                               |         |         |         |         |         |
|                                                                 | N-PE    | No                                                               |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |         | 315A gL/gG                                                       |         |         |         |         |         |
| Operating temperature range                                     |         | - 40°C ~ + 80°C                                                  |         |         |         |         |         |
| Cross-section of connection wire                                |         | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |
| Mounting                                                        |         | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |
| Enclosure material                                              |         | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |
| Degree of protection                                            |         | IP20                                                             |         |         |         |         |         |
| Installation width                                              |         | 4 modules , DIN 43880                                            |         |         |         |         |         |
| Thermal disconnecter                                            |         | Internal green – normal red - failure                            |         |         |         |         |         |
| Remote alarm contact                                            |         | Optional                                                         |         |         |         |         |         |

Dimensions and Diagram



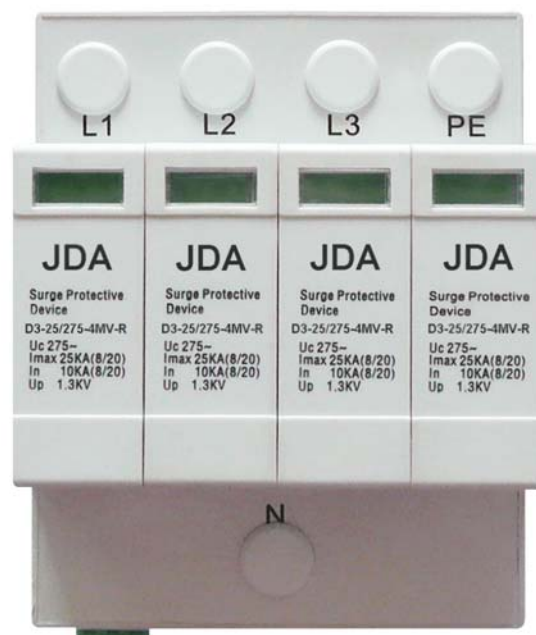
Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-25/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

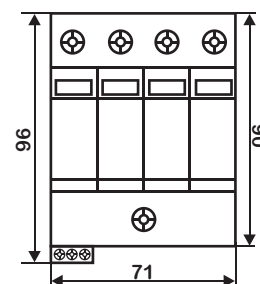
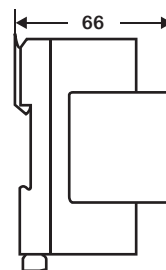
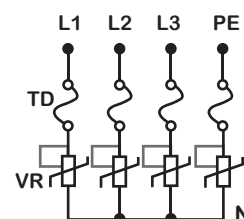
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |        | D3-25/***-4MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 10KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) I <sub>max</sub>                   | L-N    | 25KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.4KV                                                            | 0.8KV   | 0.8KV   | 1.2KV   | 1.3KV   | 1.4KV   | 1.8KV   | 2.0KV   | 2.5KV   | 2.6KV   |
|                                                                 | @3KA   | 0.25KV                                                           | 0.5KV   | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



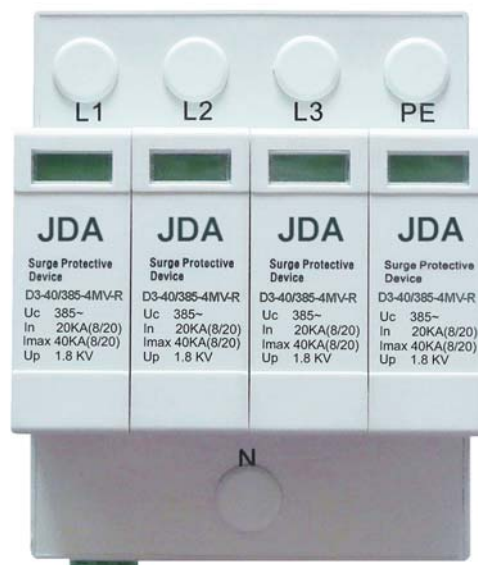
Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-40/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

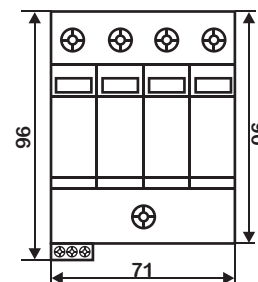
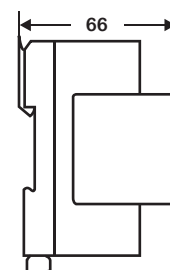
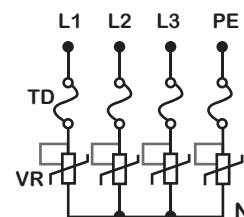
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |      | D3-40/***-4MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| In accordance with                                              |      | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |      | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |      | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | L-N  | 20KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | L-N  | 40KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In  | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N  | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N  | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |      | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |      | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |      | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |      | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |      | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |      | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |      | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |      | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |      | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



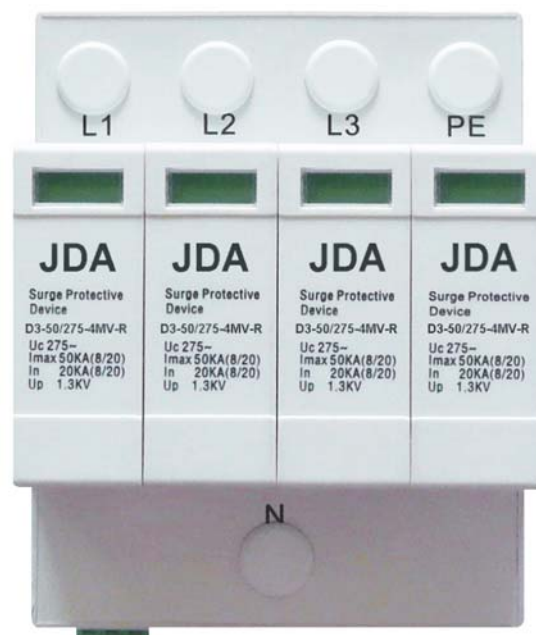
Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-50/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

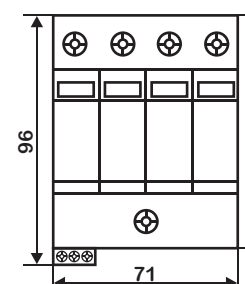
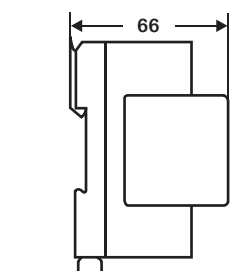
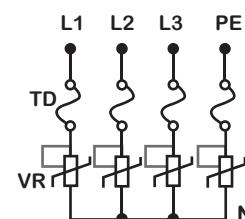
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |        | D3-50/***-4MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | II / C                                                           |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 20KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) I <sub>max</sub>                   | L-N    | 50KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 50KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



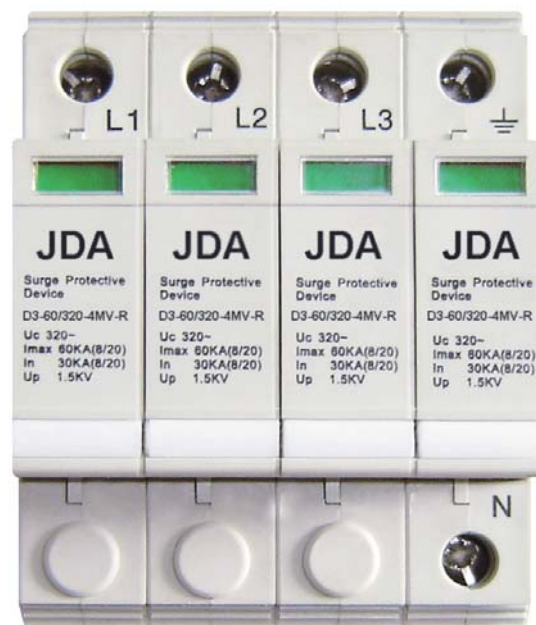
Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-60/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

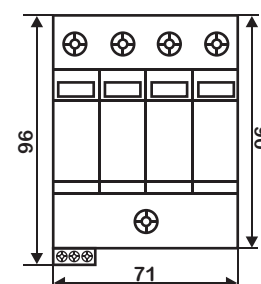
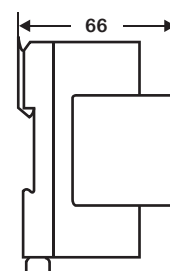
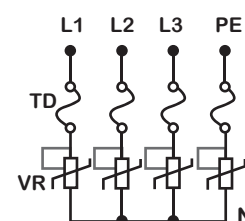
Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



## Characteristics

| Type                                                            |        | D3-60/***-4MV-R                                                  |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 30KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 30KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 60KA                                                             |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 60KA                                                             |         |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N    | 7KA                                                              |         |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 7KA                                                              |         |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.2KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 160A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 4 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram

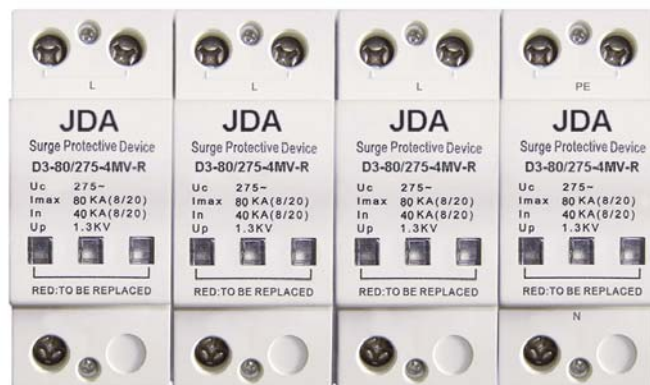


Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-80/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

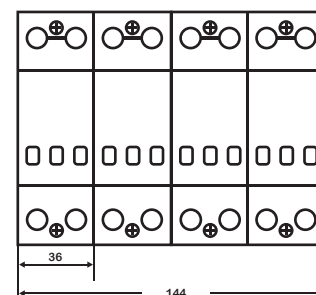
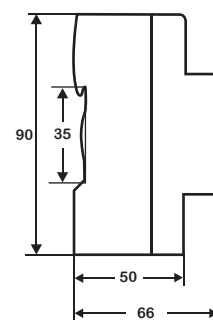
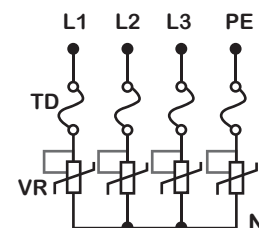
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional..



## Characteristics

| Type                                                            |        | D3-80/***-4MV-R                                                  |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 40KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 40KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 80KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 80KA                                                             |         |         |         |         |         |         |         |         |
| Lightning impulse current(10/350) Iimp                          | L-N    | 10KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 10KA                                                             |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 1.0KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 200A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-100/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

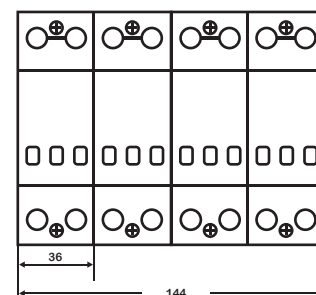
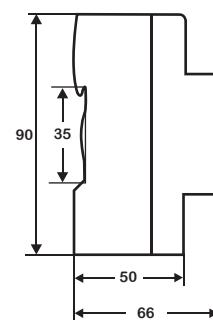
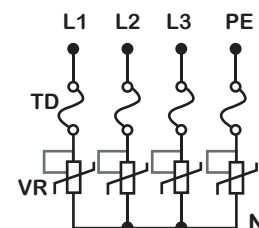
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |        | D3-100/***-4MV-R                                                 |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current(8/20) In                              | L-N    | 50KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 50KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                               | L-N    | 100KA                                                            |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 100KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) Iimp                         | L-N    | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 12.5KA                                                           |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 250A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-120/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

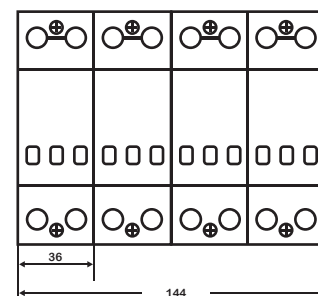
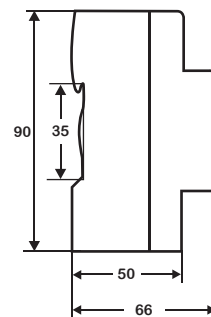
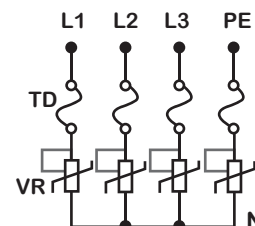
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |        | D3-120/***-4MV-R                                                 |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |         |         |         |
| Max. continuous operating Voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | L-N    | 60KA                                                             |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | 60KA                                                             |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | L-N    | 120KA                                                            |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 120KA                                                            |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | L-N    | 12.5KA                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N - PE | 12.5KA                                                           |         |         |         |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 315A gL/gG                                                       |         |         |         |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |         |         |         |
| Installation width                                              |        | 8 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |         |         |         |

## Dimensions and Diagram



Note: Subject to change without any notice.

## Three Phase (4 MOV Modules) Surge Protection Devices Type D3-150/\*\*\*-4MV-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

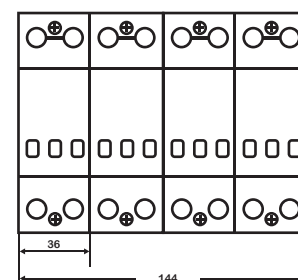
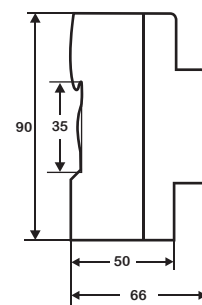
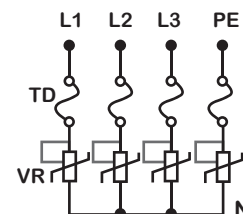
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                            |        | D3-150/***-4MV-R                                                 |         |         |         |         |         |
|-----------------------------------------------------------------|--------|------------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                                 |        | 150                                                              | 175     | 275     | 300     | 320     | 385     |
| In accordance with                                              |        | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |
| Category IEC/VDE                                                |        | I+II / B+C                                                       |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       |        | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 |
| Nominal discharge current (8/20) In                             | L-N    | 70KA                                                             |         |         |         |         |         |
|                                                                 | N-PE   | 70KA                                                             |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | L-N    | 150KA                                                            |         |         |         |         |         |
|                                                                 | N - PE | 150KA                                                            |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | L-N    | 25KA                                                             |         |         |         |         |         |
|                                                                 | N - PE | 25KA                                                             |         |         |         |         |         |
| Voltage protection level                                        | @In    | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   |
|                                                                 | @3KA   | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   |
| Response time                                                   | L-N    | ≤25 ns                                                           |         |         |         |         |         |
|                                                                 | N-PE   | ≤25 ns                                                           |         |         |         |         |         |
| Follow current                                                  | L-N    | No                                                               |         |         |         |         |         |
|                                                                 | N-PE   | No                                                               |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) |        | 315A gL/gG                                                       |         |         |         |         |         |
| Operating temperature range                                     |        | - 40°C ~ + 80°C                                                  |         |         |         |         |         |
| Cross-section of connection wire                                |        | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |
| Mounting                                                        |        | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |         |         |         |         |         |
| Enclosure material                                              |        | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |
| Degree of protection                                            |        | IP20                                                             |         |         |         |         |         |
| Installation width                                              |        | 8 modules , DIN 43880                                            |         |         |         |         |         |
| Thermal disconnecter                                            |        | Internal green – normal red - failure                            |         |         |         |         |         |
| Remote alarm contact                                            |        | Optional                                                         |         |         |         |         |         |

### Dimensions and Diagram



Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV25/\*\*\*-R

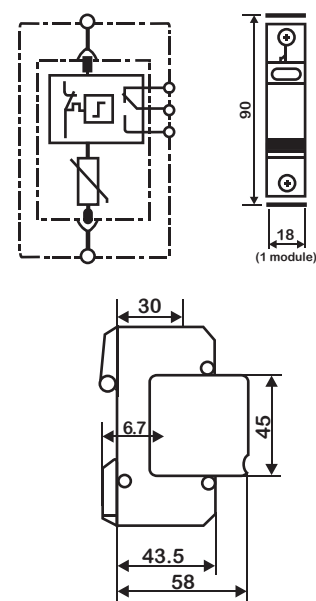
### MOV Module Surge Protection Devices

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.



Dimensions and Diagram



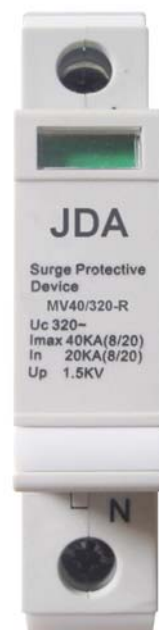
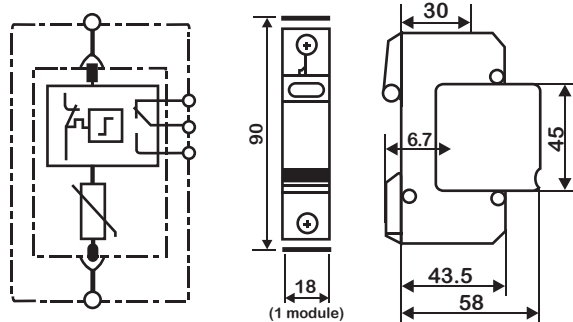
## Characteristics

| Type                                                                           | MV 25/***-R                                                      |         |         |         |         |         |         |         |         |         |
|--------------------------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                                | 75                                                               | 150     | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                                             | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                               | II/ C                                                            |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                                      | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                                            | 10KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) Imax                                             | 25KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                                                 | 0.4KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.3KV   | 1.5KV   | 1.8KV   | 2.0KV   | 2.5KV   | 2.6KV   |
| Let through voltage @3KA (8/20)                                                | 0.25KV                                                           | 0.5KV   | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.1KV   |
| Response time                                                                  | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                                                 | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse<br><small>(only required if not already provided in mains)</small> | 100A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                                    | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                               | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                                                       | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                                             | thermoplastic; extinguishing degree UL94 V-0                     |         |         |         |         |         |         |         |         |         |
| Degree of protection                                                           | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                                             | 1 module , DIN 43880                                             |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                                           | Internal green – normal red - failure                            |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                                           | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                                      |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                                      | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>                            | AC: 250V/0.5A DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A               |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                               | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## Class II Surge Protective Device Type MV40/\*\*\*-R

Dimensions and Diagram



### IEC61643-1; UL1449 3rd

- Fail Safe System (Patent)
- Uc: ac: 75~690V
- Imax 5KA~60KA (8/20 $\mu$ S)
- pluggable type, replaceable
- Fault indication window
- With remote signaling contact optional.

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

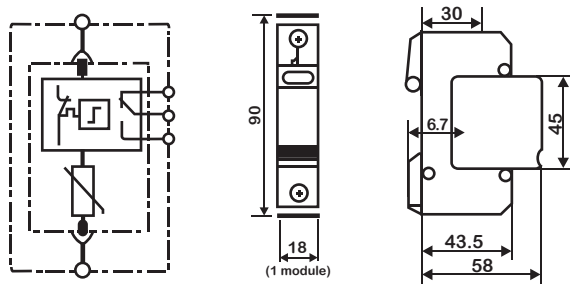
## Characteristics

| Type                                                | MV 40/***-R                                                      |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                     | 150                                                              | 175     | 275     | 300     | 320     | 385     | 420     | 510     | 550     | 690     |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC                                        | II                                                               |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)           | 150/200                                                          | 175/225 | 275/350 | 300/385 | 320/420 | 385/505 | 420/560 | 510/670 | 550/745 | 690/910 |
| Nominal discharge current (8/20) In                 | 20KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current(8/20) Imax                   | 40KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                      | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.5KV   | 1.5KV   | 1.6KV   | 2.2KV   | 2.4KV   | 2.8KV   | 3.0KV   |
| VPR @6KV/3KA                                        | 0.6KV                                                            | 0.6KV   | 1.0KV   | 1.0KV   | 1.2KV   | 1.4KV   | 1.5KV   | 1.6KV   | 1.8KV   | 2.0KV   |
| Response time                                       | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Backup fuse                                         | 125A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| (only required if not already provided in mains)    |                                                                  |         |         |         |         |         |         |         |         |         |
| Operating temperature range                         | - 40°C ~ + 80°C                                                  |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                  | 1 module , DIN 43880                                             |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts           |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                           | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A      DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A          |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV50/\*\*\*-R

Dimensions and Diagram



- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

## Characteristics

| Type                                                            | MV 50/***-R                                                      |         |         |         |                                      |         |         |         |         |         |
|-----------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|---------|---------|---------|
|                                                                 | 75                                                               | 150     | 175     | 275     | 300                                  | 320     | 385     | 440     | 550     | 600     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |                                      |         |         |         |         |         |
| Category IEC/VDE                                                | II / C                                                           |         |         |         |                                      |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 75/100                                                           | 150/200 | 175/225 | 275/300 | 300/385                              | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 |
| Nominal discharge current (8/20) In                             | 20KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Max. discharge current (8/20) Imax                              | 50KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Voltage protection level at In                                  | 0.5KV                                                            | 0.8KV   | 0.8KV   | 1.3KV   | 1.3KV                                | 1.5KV   | 1.6KV   | 2.2KV   | 2.8KV   | 3.0KV   |
| Let through voltage @3KA (8/20)                                 | 0.3KV                                                            | 0.5KV   | 0.6KV   | 1.0KV   | 1.0KV                                | 1.0KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   |
| Response time                                                   | ≤25 ns                                                           |         |         |         |                                      |         |         |         |         |         |
| Follow current                                                  | No                                                               |         |         |         |                                      |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 125A gL/gG                                                       |         |         |         |                                      |         |         |         |         |         |
| Operating temperature range                                     | - 40°C ~ + 80°C                                                  |         |         |         |                                      |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |                                      |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022 /DIN46277-3            |         |         |         |                                      |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |                                      |         |         |         |         |         |
| Degree of protection                                            | IP20                                                             |         |         |         |                                      |         |         |         |         |         |
| Installation width                                              | 1 module , DIN 43880                                             |         |         |         |                                      |         |         |         |         |         |
| Thermal disconnect                                              | Internal    green – normal    red - failure                      |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                         |         |         |         |                                      |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                      |         |         |         |                                      |         |         |         |         |         |
| Switching capability    U <sub>N</sub> /I <sub>N</sub>          | AC: 250V/0.5A                                                    |         |         |         | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                          |         |         |         |                                      |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV80/\*\*\*-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

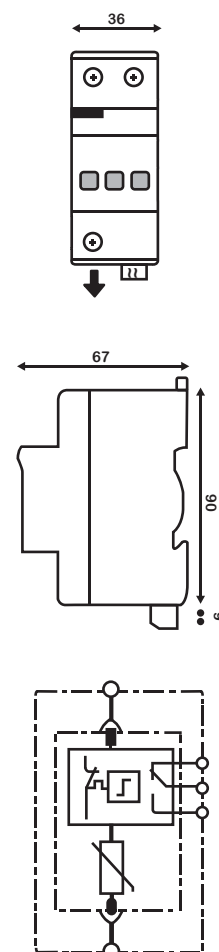
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.



## Characteristics

| Type                                                         | MV 80/***-R                                                      |          |          |          |          |          |          |          |          |  |
|--------------------------------------------------------------|------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--|
|                                                              | 150                                                              | 175      | 275      | 300      | 320      | 385      | 440      | 550      | 600      |  |
| In accordance with                                           | IEC61643-1:2005 ; UL1449 3rd                                     |          |          |          |          |          |          |          |          |  |
| Category IEC/VDE                                             | I+II / B+C                                                       |          |          |          |          |          |          |          |          |  |
| Max. continuous operating voltage (AC/DC)                    | 150 /200                                                         | 175 /225 | 275 /300 | 300 /385 | 320 /420 | 385 /505 | 440 /585 | 550 /745 | 600 /800 |  |
| Nominal discharge current (8/20) In                          | 40KA                                                             |          |          |          |          |          |          |          |          |  |
| Max. discharge current (8/20) Imax                           | 80KA                                                             |          |          |          |          |          |          |          |          |  |
| Lightning impulse current(10/350) Iimp                       | 10KA                                                             |          |          |          |          |          |          |          |          |  |
| Voltage protection level at In                               | 0.8KV                                                            | 0.8KV    | 1.3KV    | 1.4KV    | 1.5KV    | 1.8KV    | 2.1KV    | 2.8KV    | 3.0KV    |  |
| Let through voltage @3KA 8/20                                | 0.5KV                                                            | 0.6KV    | 1.0KV    | 1.0KV    | 1.1KV    | 1.3KV    | 1.5KV    | 2.0KV    | 2.1KV    |  |
| Response time                                                | ≤25 ns                                                           |          |          |          |          |          |          |          |          |  |
| Follow current                                               | No                                                               |          |          |          |          |          |          |          |          |  |
| Backup fuse (only required if not already provided in mains) | 200A gL/gG                                                       |          |          |          |          |          |          |          |          |  |
| Operating temperature range                                  | - 40°C ~ + 80°C                                                  |          |          |          |          |          |          |          |          |  |
| Cross-section of connection wire                             | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |          |          |          |          |          |          |          |          |  |
| Mounting                                                     | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |          |          |          |          |          |          |          |          |  |
| Enclosure material                                           | thermoplastic; extinguishing degree UL94 V-0                     |          |          |          |          |          |          |          |          |  |
| Degree of protection                                         | IP20                                                             |          |          |          |          |          |          |          |          |  |
| Installation width                                           | 2 modules , DIN 43880                                            |          |          |          |          |          |          |          |          |  |
| Thermal disconnecter                                         | Internal green – normal red - failure                            |          |          |          |          |          |          |          |          |  |
| Remote alarm contact                                         | Optional                                                         |          |          |          |          |          |          |          |          |  |
| Additional data for Remote Alarm Contacts                    |                                                                  |          |          |          |          |          |          |          |          |  |
| Remote alarm contact type                                    | floating changeover contact                                      |          |          |          |          |          |          |          |          |  |
| Switching capability UN/IN                                   | AC: 250V/0.5A<br>DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A            |          |          |          |          |          |          |          |          |  |
| Cross-section of connection wire                             | Max. 1.5mm <sup>2</sup>                                          |          |          |          |          |          |          |          |          |  |

## Dimensions and Diagram



Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV80/\*\*\*-R

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

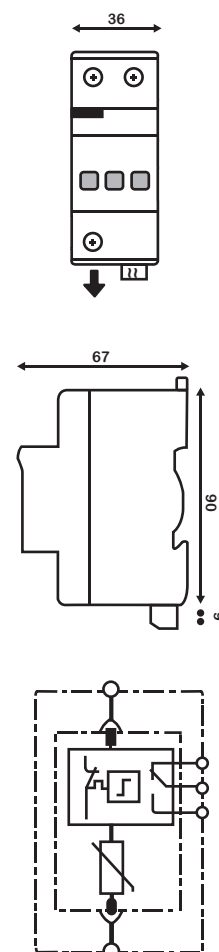


## Characteristics

| Type                                                         | MV 80/***-R                                                      |          |          |          |          |          |          |          |          |  |
|--------------------------------------------------------------|------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--|
|                                                              | 150                                                              | 175      | 275      | 300      | 320      | 385      | 440      | 550      | 600      |  |
| In accordance with                                           | IEC61643-1:2005 ; UL1449 3rd                                     |          |          |          |          |          |          |          |          |  |
| Category IEC/VDE                                             | I+II / B+C                                                       |          |          |          |          |          |          |          |          |  |
| Max. continuous operating voltage (AC/DC)                    | 150 /200                                                         | 175 /225 | 275 /300 | 300 /385 | 320 /420 | 385 /505 | 440 /585 | 550 /745 | 600 /800 |  |
| Nominal discharge current (8/20) In                          | 40KA                                                             |          |          |          |          |          |          |          |          |  |
| Max. discharge current (8/20) I <sub>max</sub>               | 80KA                                                             |          |          |          |          |          |          |          |          |  |
| Lightning impulse current(10/350) I <sub>imp</sub>           | 10KA                                                             |          |          |          |          |          |          |          |          |  |
| Voltage protection level at In                               | 0.8KV                                                            | 0.8KV    | 1.3KV    | 1.4KV    | 1.5KV    | 1.8KV    | 2.1KV    | 2.8KV    | 3.0KV    |  |
| Let through voltage @3KA 8/20                                | 0.5KV                                                            | 0.6KV    | 1.0KV    | 1.0KV    | 1.1KV    | 1.3KV    | 1.5KV    | 2.0KV    | 2.1KV    |  |
| Response time                                                | ≤25 ns                                                           |          |          |          |          |          |          |          |          |  |
| Follow current                                               | No                                                               |          |          |          |          |          |          |          |          |  |
| Backup fuse (only required if not already provided in mains) | 200A gL/gG                                                       |          |          |          |          |          |          |          |          |  |
| Operating temperature range                                  | - 40°C ~ + 80°C                                                  |          |          |          |          |          |          |          |          |  |
| Cross-section of connection wire                             | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |          |          |          |          |          |          |          |          |  |
| Mounting                                                     | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |          |          |          |          |          |          |          |          |  |
| Enclosure material                                           | thermoplastic; extinguishing degree UL94 V-0                     |          |          |          |          |          |          |          |          |  |
| Degree of protection                                         | IP20                                                             |          |          |          |          |          |          |          |          |  |
| Installation width                                           | 2 modules , DIN 43880                                            |          |          |          |          |          |          |          |          |  |
| Thermal disconnecter                                         | Internal green – normal red - failure                            |          |          |          |          |          |          |          |          |  |
| Remote alarm contact                                         | Optional                                                         |          |          |          |          |          |          |          |          |  |
| Additional data for Remote Alarm Contacts                    |                                                                  |          |          |          |          |          |          |          |          |  |
| Remote alarm contact type                                    | floating changeover contact                                      |          |          |          |          |          |          |          |          |  |
| Switching capability UN/IN                                   | AC: 250V/0.5A<br>DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A            |          |          |          |          |          |          |          |          |  |
| Cross-section of connection wire                             | Max. 1.5mm <sup>2</sup>                                          |          |          |          |          |          |          |          |          |  |

Note: Subject to change without any notice.

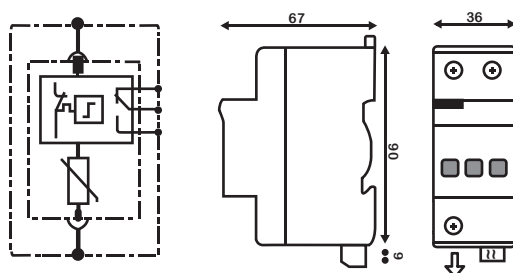
## Dimensions and Diagram



## MOV Module Surge Protection Devices Type MV100/\*\*\*-R

- Class I+ II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

### Dimensions and Diagram



Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

## Characteristics

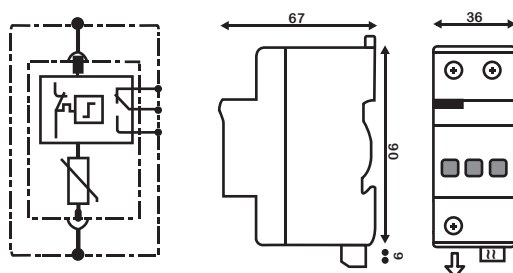
| Type                                                            | MV 100/***-R                                                        |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------------------|---------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                                 | 150                                                                 | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                        |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                                | I+II / B+C                                                          |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 150/200                                                             | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
| Nominal discharge current (8/20) In                             | 50KA                                                                |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>                  | 100KA                                                               |         |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | 12.5KA                                                              |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                                  | 0.8KV                                                               | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   | 0.8KV   |
| Let through voltage @3KA 8/20                                   | 0.5KV                                                               | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   | 0.5KV   |
| Response time                                                   | ≤25 ns                                                              |         |         |         |         |         |         |         |         |         |
| Follow current                                                  | No                                                                  |         |         |         |         |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 250A gL/gG                                                          |         |         |         |         |         |         |         |         |         |
| Operating temperature range                                     | - 40°C~ + 80°C                                                      |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup>    |         |         |         |         |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022 /DIN46277-3               |         |         |         |         |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                       |         |         |         |         |         |         |         |         |         |
| Degree of protection                                            | IP20                                                                |         |         |         |         |         |         |         |         |         |
| Installation width                                              | 2 modules , DIN 43880                                               |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                            | Internal    green – normal    red - failure                         |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                            |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                     |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                         |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>             | AC: 250V/0.5A                  DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                             |         |         |         |         |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV120/\*\*\*-R

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

### Dimensions and Diagram



Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

## Characteristics

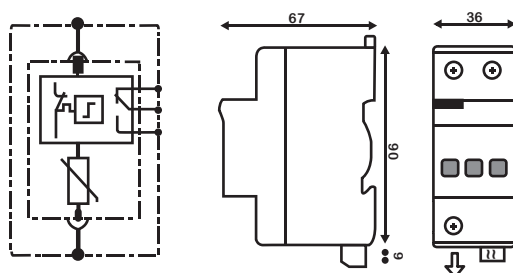
| Type                                                            | MV 120/***-R                                                     |         |         |         |                                      |         |         |         |         |         |
|-----------------------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|---------|---------|---------|
|                                                                 | 150                                                              | 175     | 275     | 300     | 320                                  | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |                                      |         |         |         |         |         |
| Category IEC/VDE                                                | I+II / B+C                                                       |         |         |         |                                      |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)                       | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420                              | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
| Nominal discharge current (8/20) In                             | 60KA                                                             |         |         |         |                                      |         |         |         |         |         |
| Max. discharge current(8/20) I <sub>max</sub>                   | 120KA                                                            |         |         |         |                                      |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub>             | 12.5KA                                                           |         |         |         |                                      |         |         |         |         |         |
| Voltage protection level at In                                  | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV                                | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   | 0.8KV   |
| Let through voltage @3KA 8/20                                   | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV                                | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   | 0.5KV   |
| Response time                                                   | ≤25 ns                                                           |         |         |         |                                      |         |         |         |         |         |
| Follow current                                                  | No                                                               |         |         |         |                                      |         |         |         |         |         |
| Backup fuse<br>(only required if not already provided in mains) | 315A gL/gG                                                       |         |         |         |                                      |         |         |         |         |         |
| Operating temperature range                                     | - 40°C~ + 80°C                                                   |         |         |         |                                      |         |         |         |         |         |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |                                      |         |         |         |         |         |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |                                      |         |         |         |         |         |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |                                      |         |         |         |         |         |
| Degree of protection                                            | IP20                                                             |         |         |         |                                      |         |         |         |         |         |
| Installation width                                              | 2 modules , DIN 43880                                            |         |         |         |                                      |         |         |         |         |         |
| Thermal disconnecter                                            | Internal    green – normal    red - failure                      |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact                                            | Optional                                                         |         |         |         |                                      |         |         |         |         |         |
| Additional data for Remote Alarm Contacts                       |                                                                  |         |         |         |                                      |         |         |         |         |         |
| Remote alarm contact type                                       | floating changeover contact                                      |         |         |         |                                      |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub>             | AC: 250V/0.5A                                                    |         |         |         | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |         |         |         |         |         |
| ross-section of connection wire                                 | Max. 1.5mm <sup>2</sup>                                          |         |         |         |                                      |         |         |         |         |         |

Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV150/\*\*\*-R

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

### Dimensions and Diagram



Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

## Characteristics

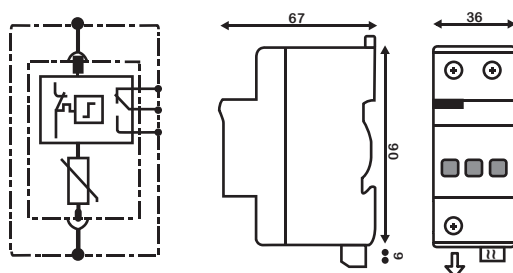
| Type                                                            | MV 150/***-R                                                     |             |             |             |             |             |             |             |             |
|-----------------------------------------------------------------|------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                                                 | 150                                                              | 175         | 275         | 300         | 320         | 385         | 440         | 550         | 600         |
| In accordance with                                              | IEC61643-1:2005 ; UL1449 3rd                                     |             |             |             |             |             |             |             |             |
| Category IEC/VDE                                                | I+II / B+C                                                       |             |             |             |             |             |             |             |             |
| Max. continuous operating voltage (AC/DC)                       | 150/<br>200                                                      | 175/<br>225 | 275/<br>300 | 300/<br>385 | 320/<br>420 | 385/<br>505 | 440/<br>585 | 550/<br>745 | 600/<br>800 |
| Nominal discharge current (8/20) In                             | 70KA                                                             | 70KA        | 70KA        | 70KA        | 70KA        | 70KA        | 70KA        | 70KA        | 70KA        |
| Max. discharge current(8/20) Imax                               | 150KA                                                            |             |             |             |             |             |             |             |             |
| Lightning impulse current (10/350) Iimp                         | 25KA                                                             |             |             |             |             |             |             |             |             |
| Voltage protection level at In                                  | 0.8KV                                                            | 0.8KV       | 1.3KV       | 1.4KV       | 1.5KV       | 1.8KV       | 2.1KV       | 2.8KV       | 3.0KV       |
| Let through voltage @3KA 8/20                                   | 0.5KV                                                            | 0.6KV       | 0.9KV       | 1.0KV       | 1.1KV       | 1.3KV       | 1.5KV       | 2.0KV       | 2.0KV       |
| Response time                                                   | ≤25 ns                                                           |             |             |             |             |             |             |             |             |
| Follow current                                                  | No                                                               |             |             |             |             |             |             |             |             |
| Backup fuse<br>(only required if not already provided in mains) | 315A gL/gG                                                       |             |             |             |             |             |             |             |             |
| Operating temperature range                                     | - 40°C~ + 80°C                                                   |             |             |             |             |             |             |             |             |
| Cross-section of connection wire                                | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |             |             |             |             |             |             |             |             |
| Mounting                                                        | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |             |             |             |             |             |             |             |             |
| Enclosure material                                              | Thermoplastic ; extinguishing degree UL94 V-0                    |             |             |             |             |             |             |             |             |
| Degree of protection                                            | IP20                                                             |             |             |             |             |             |             |             |             |
| Installation width                                              | 2 modules , DIN 43880                                            |             |             |             |             |             |             |             |             |
| Thermal disconnecter                                            | Internal    green – normal    red - failure                      |             |             |             |             |             |             |             |             |
| Remote alarm contact                                            | Optional                                                         |             |             |             |             |             |             |             |             |
| Additional data for Remote Alarm Contacts                       |                                                                  |             |             |             |             |             |             |             |             |
| Remote alarm contact type                                       | floating changeover contact                                      |             |             |             |             |             |             |             |             |
| Switching capability UN/IN                                      | AC: 250V/0.5A    DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A            |             |             |             |             |             |             |             |             |
| Cross-section of connection wire                                | Max. 1.5mm <sup>2</sup>                                          |             |             |             |             |             |             |             |             |

Note: Subject to change without any notice.

## MOV Module Surge Protection Devices Type MV200/\*\*\*-R

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy MOV (Metal Oxide Varistor) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- Fast response.
- With remote alarm terminal optional.

### Dimensions and Diagram



Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

## Characteristics

| Type                                                | MV 200/***-R                                                     |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                     | 150                                                              | 175     | 275     | 300     | 320     | 385     | 440     | 550     | 600     | 150     |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |         |         |         |         |         |         |         |         |         |
| Category IEC/VDE                                    | I+II / B+C                                                       |         |         |         |         |         |         |         |         |         |
| Max. continuous operating voltage (AC/DC)           | 150/200                                                          | 175/225 | 275/300 | 300/385 | 320/420 | 385/505 | 440/585 | 550/745 | 600/800 | 150/200 |
| Nominal discharge current (8/20) In                 | 70KA                                                             |         |         |         |         |         |         |         |         |         |
| Max. discharge current (8/20) I <sub>max</sub>      | 200KA                                                            |         |         |         |         |         |         |         |         |         |
| Lightning impulse current (10/350) I <sub>imp</sub> | 35KA                                                             |         |         |         |         |         |         |         |         |         |
| Voltage protection level at In                      | 0.8KV                                                            | 0.8KV   | 1.3KV   | 1.4KV   | 1.5KV   | 1.8KV   | 2.1KV   | 2.8KV   | 3.0KV   | 0.8KV   |
| Let through voltage @3KA 8/20                       | 0.5KV                                                            | 0.6KV   | 0.9KV   | 1.0KV   | 1.1KV   | 1.3KV   | 1.5KV   | 2.0KV   | 2.0KV   | 0.5KV   |
| Response time                                       | ≤25 ns                                                           |         |         |         |         |         |         |         |         |         |
| Follow current                                      | No                                                               |         |         |         |         |         |         |         |         |         |
| Backup fuse                                         | 315A gL/gG                                                       |         |         |         |         |         |         |         |         |         |
| (only required if not already provided in mains)    |                                                                  |         |         |         |         |         |         |         |         |         |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |         |         |         |         |         |         |         |         |         |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |         |         |         |         |         |         |         |         |         |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |         |         |         |         |         |         |         |         |         |
| Degree of protection                                | IP20                                                             |         |         |         |         |         |         |         |         |         |
| Installation width                                  | 2 modules , DIN 43880                                            |         |         |         |         |         |         |         |         |         |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |         |         |         |         |         |         |         |         |         |
| Remote alarm contact                                | Optional                                                         |         |         |         |         |         |         |         |         |         |
| Additional data for Remote Alarm Contacts           |                                                                  |         |         |         |         |         |         |         |         |         |
| Remote alarm contact type                           | floating changeover contact                                      |         |         |         |         |         |         |         |         |         |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A            DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A    |         |         |         |         |         |         |         |         |         |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |         |         |         |         |         |         |         |         |         |

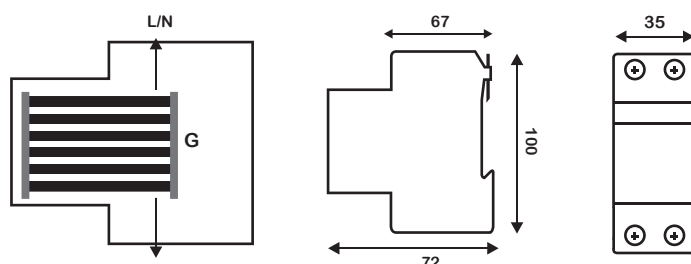
Note: Subject to change without any notice.

## Multi-Air-Gap Module Lightning current arrester

### Type SG15/\*\*\*

- Class I (B) arrester in according with IEC61643-1:2001.
- Tested with lightning impulse current (10/350) in according with IEC61643-1:2001.
- Multi-Air-Gap technology, no leakage current and follow current.
- Maximum energy capability.
- Low voltage protection level.
- Fast response.
- Single pole version permits the installation in up to four poles depending on the type of power system.

Dimensions and Diagram



## Characteristics

| Type                                                | SG 15/***                                                        |     |     |     |
|-----------------------------------------------------|------------------------------------------------------------------|-----|-----|-----|
|                                                     | 150                                                              | 255 | 350 | 440 |
| In accordance with                                  | IEC61643-1:2001                                                  |     |     |     |
| Category IEC / VDE                                  | I / B                                                            |     |     |     |
| Max. continuous operating voltage Uc                | 150                                                              | 255 | 350 | 440 |
| Max. discharge current(8/20) I <sub>max</sub>       | 100KA                                                            |     |     |     |
| Lightning impulse current (10/350) I <sub>imp</sub> | 15KA                                                             |     |     |     |
| Voltage protection level at 1kV/μS                  | 2.5KV                                                            |     |     |     |
| Response time                                       | ≤100 ns                                                          |     |     |     |
| Leakage current                                     | No                                                               |     |     |     |
| Follow current                                      | No                                                               |     |     |     |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |     |     |     |
| Operating temperature range                         | - 40°C ... + 80°C                                                |     |     |     |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |     |     |     |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |     |     |     |
| Installation width                                  | 2 modules , DIN 43880                                            |     |     |     |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |     |     |     |
| Degree of protection                                | IP20                                                             |     |     |     |

Note: Subject to change without any notice.

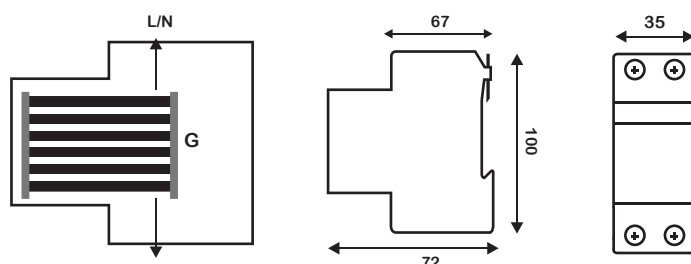
Surge arrester for low-voltage power supply system protection against direct lightning strikes and surges at the boundaries from lightning protection zone 0A-1.

## Multi-Air-Gap Module Lightning current arrester

### Type SG25/\*\*\*

- Class I (B) arrester in according with IEC61643-1:2001.
- Tested with lightning impulse current (10/350) in according with IEC61643- 1:2001.
- Multi-Air-Gap technology, no leakage current and follow current.
- Maximum energy capability.
- Low voltage protection level.
- Fast response.
- Single pole version permits the installation in up to four poles depending on the type of power system.

Dimensions and Diagram



## Characteristics

| Type                                                | SG 25/***                                                        |     |     |     |
|-----------------------------------------------------|------------------------------------------------------------------|-----|-----|-----|
|                                                     | 150                                                              | 255 | 350 | 440 |
| In accordance with                                  | IEC61643 - 1:2001                                                |     |     |     |
| Category IEC / VDE                                  | I / B                                                            |     |     |     |
| Max. continuous operating voltage Uc                | 150                                                              | 255 | 350 | 440 |
| Max. discharge current(8/20) I <sub>max</sub>       | 120KA                                                            |     |     |     |
| Lightning impulse current (10/350) I <sub>imp</sub> | 25KA                                                             |     |     |     |
| Voltage protection level at 1kV/ $\mu$ S            | 2.5KV                                                            |     |     |     |
| Response time                                       | $\leq 100$ ns                                                    |     |     |     |
| Leakage current                                     | No                                                               |     |     |     |
| Follow current                                      | No                                                               |     |     |     |
| Insulation resistance                               | $\geq 10^3$ M $\Omega$                                           |     |     |     |
| Operating temperature range                         | - 40°C ... + 80°C                                                |     |     |     |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |     |     |     |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |     |     |     |
| Installation width                                  | 2 modules , DIN 43880                                            |     |     |     |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |     |     |     |
| Degree of protection                                | IP20                                                             |     |     |     |

Note: Subject to change without any notice.

Surge arrester for low-voltage power supply system protection against direct lightning strikes and surges at the boundaries from lightning protection zone 0A-1.

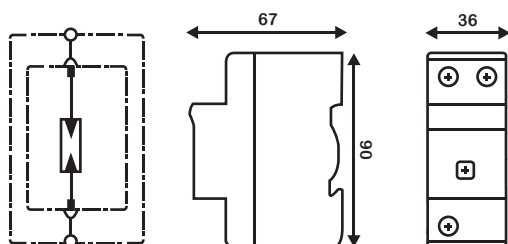
## AC Surge Protective Devices

### Type 1/Class I Surge Protective Devices for LV Power System

#### IEC61643 - 1:2005

- Spark gap technology
- Iimp 25~100KA (10/350μs)
- I<sub>max</sub> up to 200KA(8/20μs)
- Low voltage protection level (Up)
- Fault indication optional
- With remote signaling contact optional
- Non-pluggable type design to avoid flashover happen at the contacts between pluggable module and base under high surge current.

#### Dimensions and Diagram



## Characteristics

#### SG50/\*\*

| Category IEC                                                                              | I                                                                   |       |       |       |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------|-------|-------|
| Max. continuous operating voltage Uc                                                      | 150                                                                 | 275   | 320   | 440   |
| Nominal discharge current(8/20) In                                                        | 50KA                                                                |       |       |       |
| Lightning impulse current (10/350) Iimp                                                   | 50KA                                                                |       |       |       |
| Voltage protection level (Up)                                                             | 1.0KV                                                               | 1.5KV | 1.5KV | 2.0KV |
| Response time                                                                             | ≤100 ns                                                             |       |       |       |
| Short circuit withstand and follow up current extinguishing capacity without back up fuse | I <sub>sc</sub> ≥25KA                                               |       |       |       |
| Operating temperature range/RH                                                            | - 40°C ~ + 80°C / 95% humidity                                      |       |       |       |
| Cross-section of connection wire                                                          | Single-strand 35mm <sup>2</sup> ;<br>multi-strand 25mm <sup>2</sup> |       |       |       |
| Mounting                                                                                  | 35mm DIN-rail in accordance with<br>EN 50022/DIN46277-3             |       |       |       |
| Backup Fuse<br>(only required if not already provided in mains)                           | 63 Amp                                                              |       |       |       |
| Installation width                                                                        | 2 modules, DIN 43880                                                |       |       |       |
| Enclosure material                                                                        | thermoplastic; extinguishing degree<br>UL94 V-0                     |       |       |       |
| Indication function                                                                       | Optional                                                            |       |       |       |
| Degree of protection                                                                      | IP20                                                                |       |       |       |
| Technology                                                                                | Spark Gap                                                           |       |       |       |

#### SG100/\*\*

| Category IEC                                                                              | I                                                                   |       |       |       |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------|-------|-------|
| Max. continuous operating voltage Uc                                                      | 150                                                                 | 255   | 350   | 440   |
| Nominal discharge current(8/20) In                                                        | 100KA                                                               |       |       |       |
| Lightning impulse current (10/350) Iimp                                                   | 100KA                                                               |       |       |       |
| Voltage protection level (Up)                                                             | 1.0KV                                                               | 1.5KV | 1.8KV | 2.0KV |
| Response time                                                                             | ≤100 ns                                                             |       |       |       |
| Short circuit withstand and follow up current extinguishing capacity without back up fuse | I <sub>f</sub> ≥100Arms @ Uc                                        |       |       |       |
| Operating temperature range/RH                                                            | - 40°C ~ + 80°C / 95% humidity                                      |       |       |       |
| Cross-section of connection wire                                                          | Single-strand 35mm <sup>2</sup> ;<br>multi-strand 25mm <sup>2</sup> |       |       |       |
| Mounting                                                                                  | 35mm DIN-rail in accordance with<br>EN 50022/DIN46277-3             |       |       |       |
| Backup Fuse<br>(only required if not already provided in mains)                           | /                                                                   |       |       |       |
| Installation width                                                                        | 2 modules, DIN 43880                                                |       |       |       |
| Enclosure material                                                                        | thermoplastic; extinguishing degree<br>UL94 V-0                     |       |       |       |
| Indication function                                                                       | Optional                                                            |       |       |       |
| Degree of protection                                                                      | IP20                                                                |       |       |       |
| Technology                                                                                | Spark Gap                                                           |       |       |       |

Note: Subject to change without any notice.

## GDT Module Surge Protective Devices

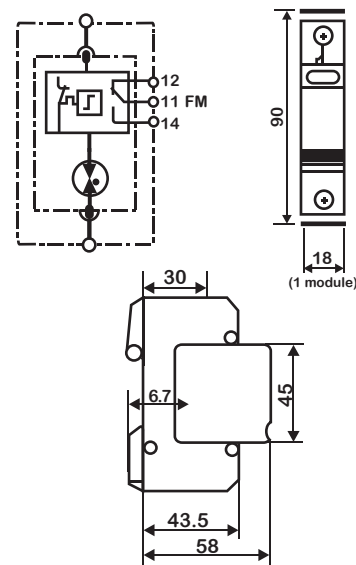
### Type GT25/\*\*\*

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

- Class II (C) arrester in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



Dimensions and Diagram



## Characteristics

| Type                                                | GT 25 / ***                                                      |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | II / C                                                           |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 15KA                                                             |       |                                      |       |
| Max. discharge current(8/20) Imax                   | 25KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350                                                              | 600   | 800                                  | 1000  |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If                                   | 100Arms @ Uc                                                     |       |                                      |       |
| Insulation resistance                               | ≥103 MΩ                                                          |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 1 module , DIN 43880                                             |       |                                      |       |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

Note: Subject to change without any notice.

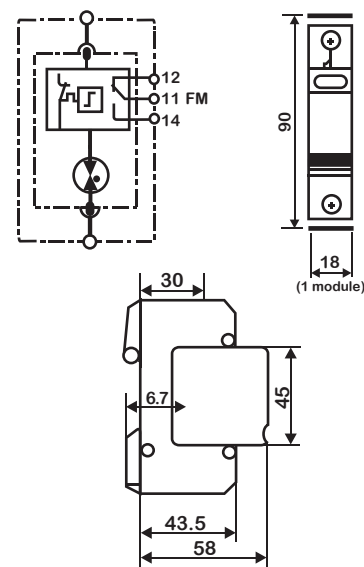
## Class II GDT Module Surge Protective Devices Type GT40/\*\*\*

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

- Class II arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.



Dimensions and Diagram



## Characteristics

| Type                                                | GT40/***                                                         |       |       |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|-------|-------|
|                                                     | 150                                                              | 255   | 350   | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |       |       |
| Category IEC                                        | I+II                                                             |       |       |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350   | 440   |
| Nominal discharge current(8/20) In                  | 20KA                                                             |       |       |       |
| Max. discharge current(8/20) Imax                   | 40KA                                                             |       |       |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V  | 1000V |
| Voltage protection level at 1.2/50                  | 0.6KV                                                            | 1.2KV | 1.5KV | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |       |       |
| Follow current If                                   | ≥100Arms @ Uc                                                    |       |       |       |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |       |       |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |       |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |       |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |       |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |       |       |
| Degree of protection                                | IP20                                                             |       |       |       |
| Installation width                                  | 1 module , DIN 43880                                             |       |       |       |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |       |       |       |
| Remote alarm contact                                | Optional                                                         |       |       |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |       |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |       |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A    DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A            |       |       |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |       |       |

Note: Subject to change without any notice.

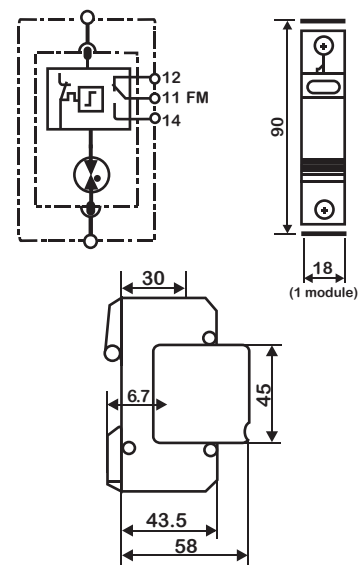
## GDT Module Surge Protective Devices Type GT50/\*\*\*

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

- Class II (C) arrester in according with IEC61643-1:2005.
- Fail Safe System (Patent)
- Two part design consisting of base and plug-in protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



Dimensions and Diagram



## Characteristics

| Type                                                | GT 50/***                                                        |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | II / C                                                           |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current (8/20) In                 | 20KA                                                             |       |                                      |       |
| Max. discharge current (8/20) Imax                  | 50KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350                                                              | 600   | 800                                  | 1000  |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If                                   | 100Arms @Uc                                                      |       |                                      |       |
| Residual current at Uc                              | No                                                               |       |                                      |       |
| Insulation resistance                               | ≥103 MΩ                                                          |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 1 module , DIN 43880                                             |       |                                      |       |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

Note: Subject to change without any notice.

## GDT Module Surge Protective Devices

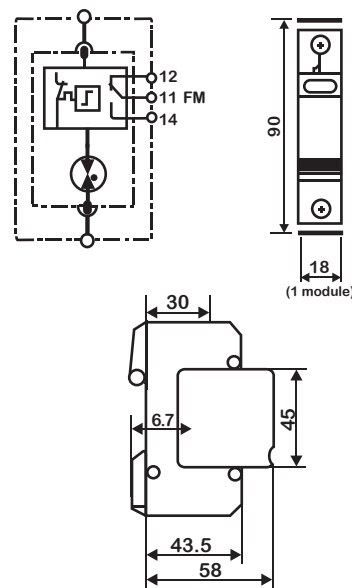
### Type GT60/\*\*\*

Rapid thermal disconnection under TOV ;  
Inbuilt Arc - extinguishing device.

- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643-1:2005.
- Two part design consisting of base and plug-in protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



Dimensions and Diagram



## Characteristics

| Type                                                | GT 60/***                                                        |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC/VDE                                    | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 30KA                                                             |       |                                      |       |
| Max. discharge current(8/20) I <sub>max</sub>       | 60KA                                                             |       |                                      |       |
| Lightning impulse current (10/350) I <sub>imp</sub> | 15KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V                                 | 1000V |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current I <sub>f</sub>                       | ≥100Arms @ Uc                                                    |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 1 module , DIN 43880                                             |       |                                      |       |
| Thermal disconnecter                                | Internal green – normal red - failure                            |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

Note: Subject to change without any notice.

## GDT Module Surge Protection Devices

### Type GT80/\*\*\*

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

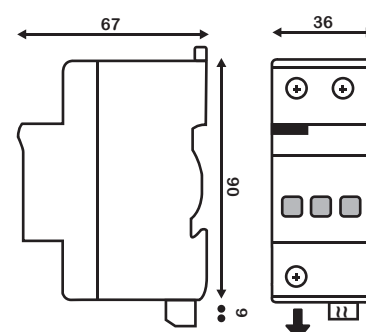
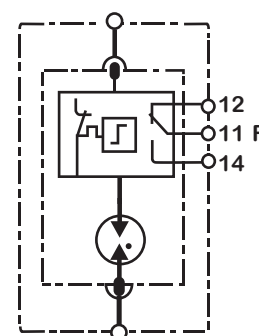
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643- 1:2005.
- Two part design consisting of base and plug-in module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



## Characteristics

| Type                                                | GT 80/***                                                        |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 40KA                                                             |       |                                      |       |
| Max. discharge current(8/20) Imax                   | 80KA                                                             |       |                                      |       |
| Lightning impulse current (10/350) Iimp             | 25KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V                                 | 1000V |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If @ Uc                              | 100Arms                                                          |       |                                      |       |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 2 modules , DIN 43880                                            |       |                                      |       |
| Thermal disconnector                                | Internal    green – normal    red - failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

## GDT Module Surge Protection Devices Type GT100/\*\*\*

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

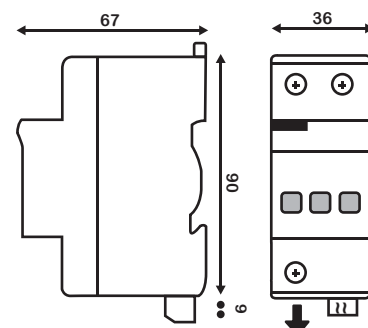
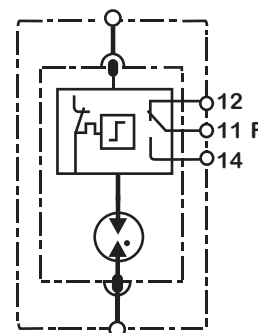
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643-1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



## Characteristics

| Type                                                | GT 100/***                                                       |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 50KA                                                             |       |                                      |       |
| Max. discharge current(8/20) Imax                   | 100KA                                                            |       |                                      |       |
| Lightning impulse current (10/350) Iimp             | 25KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V                                 | 1000V |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If at Uc                             | 100Arms                                                          |       |                                      |       |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 2 modules , DIN 43880                                            |       |                                      |       |
| Thermal disconnecter                                | Internal    green – normal    red - failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

## GDT Module Surge Protection Devices Type GT120/\*\*\*

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

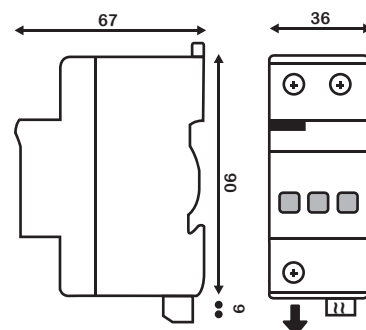
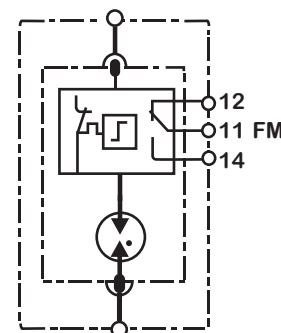
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643- 1:2005.
- Two part design consisting of base and non-pluggable protection module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



## Characteristics

| Type                                                | GT 120/***                                                       |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current (8/20) In                 | 60KA                                                             |       |                                      |       |
| Max. discharge current (8/20) Imax                  | 120KA                                                            |       |                                      |       |
| Lightning impulse current (10/350) Iimp             | 30KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350                                                              | 600   | 800                                  | 1000  |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If at Uc                             | 100Arms                                                          |       |                                      |       |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 /DIN46277-3            |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 2 modules , DIN 43880                                            |       |                                      |       |
| Thermal disconnecter                                | Internal green – normal red - failure                            |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

## GDT Module Surge Protection Devices Type GT150/\*\*\*

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

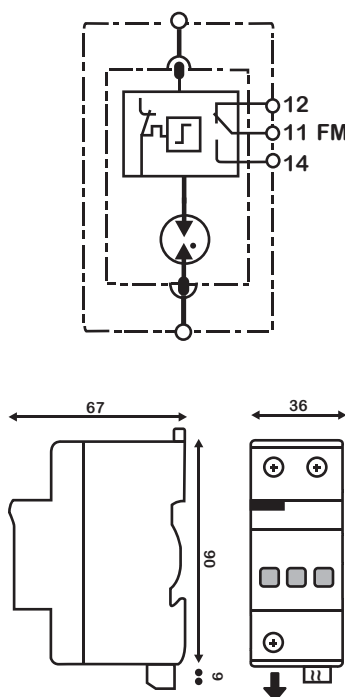
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643-1:2005.
- Two part design consisting of base and protection module including plug-in module and non-pluggable module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



## Characteristics

| Type                                                | GT 150/***                                                       |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC/VDE                                    | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 70KA                                                             | 70KA  | 70KA                                 | 70KA  |
| Max. discharge current(8/20) Imax                   | 150KA                                                            |       |                                      |       |
| Lightning impulse current (10/350) Iimp             | 35KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V                                 | 1000V |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.2KV | 1.4KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If at Uc                             | 100Arms                                                          |       |                                      |       |
| Insulation resistance                               | ≥10 <sup>3</sup> M <sup>Ω</sup>                                  |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022/DIN46277-3             |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 2 modules , DIN 43880                                            |       |                                      |       |
| Thermal disconnector                                | Internal    green – normal    red - failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

## GDT Module Surge Protection Devices

### Type GT200/\*\*\*

Surge arrester for low-voltage power supply system protection against surges at the boundaries from lightning protection zone 0B-1 and higher.

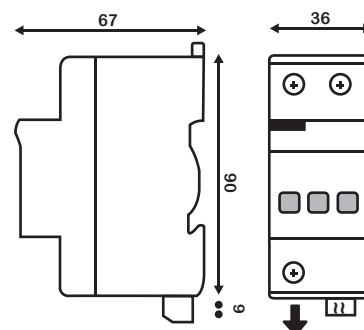
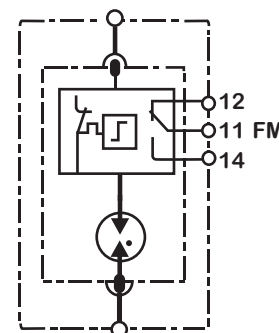
- Class I+II (B+C) arrester in according with IEC61643-1:2005.
- Tested with lightning impulse current (10/350) and surge current (8/20) in according with IEC61643-1:2005.
- Two part design consisting of base and protection module including plug-in module and non-pluggable module.
- High energy GDT (Gas Discharge Tube) inside.
- Reliable supervision due to disconnection device.
- Fault indication by red indication flag in window.
- No leakage current.
- With remote alarm terminal optional.



## Characteristics

| Type                                                | GT 200/***                                                       |       |                                      |       |
|-----------------------------------------------------|------------------------------------------------------------------|-------|--------------------------------------|-------|
|                                                     | 150                                                              | 255   | 350                                  | 440   |
| In accordance with                                  | IEC61643-1:2005 ; UL1449 3rd                                     |       |                                      |       |
| Category IEC / VDE                                  | I+II / B+C                                                       |       |                                      |       |
| Max. continuous operating voltage Uc                | 150                                                              | 255   | 350                                  | 440   |
| Nominal discharge current(8/20) In                  | 100KA                                                            |       |                                      |       |
| Max. discharge current(8/20) Imax                   | 200KA                                                            |       |                                      |       |
| Lightning impulse current (10/350) Iimp             | 50KA                                                             |       |                                      |       |
| DC Sparkover voltage                                | 350V                                                             | 600V  | 800V                                 | 1000V |
| Voltage protection level at 1.2/50                  | 0.8KV                                                            | 1.5KV | 1.5KV                                | 1.6KV |
| Response time                                       | ≤100 ns                                                          |       |                                      |       |
| Follow current If at Uc                             | 100Arms                                                          |       |                                      |       |
| Insulation resistance                               | ≥10 <sup>3</sup> MΩ                                              |       |                                      |       |
| Operating temperature range                         | - 40°C~ + 80°C                                                   |       |                                      |       |
| Cross-section of connection wire                    | Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup> |       |                                      |       |
| Mounting                                            | 35mm DIN-rail in accordance with EN 50022 / DIN46277-3           |       |                                      |       |
| Enclosure material                                  | Thermoplastic ; extinguishing degree UL94 V-0                    |       |                                      |       |
| Degree of protection                                | IP20                                                             |       |                                      |       |
| Installation width                                  | 2 modules , DIN 43880                                            |       |                                      |       |
| Thermal disconnecter                                | Internal    green – normal    red – failure                      |       |                                      |       |
| Remote alarm contact                                | Optional                                                         |       |                                      |       |
| Additional data for Remote Alarm Contacts           |                                                                  |       |                                      |       |
| Remote alarm contact type                           | floating changeover contact                                      |       |                                      |       |
| Switching capability U <sub>N</sub> /I <sub>N</sub> | AC: 250V/0.5A                                                    |       | DC: 250V/0.1A ; 125V/0.2A ; 75V/0.5A |       |
| Cross-section of connection wire                    | Max. 1.5mm <sup>2</sup>                                          |       |                                      |       |

## Dimensions and Diagram



All Dimensions in mm

Note: Subject to change without any notice.

# Data Network Protector

## Type DN-\*/B0

Signaling and Data Line Protector

Type:

DN-05/B0  
DN-12/B0  
DN-24/B0  
DN-48/B0

### IEC61643:21

- Signal transmission is not interrupted when exchanging module
- Two-stage protection circuit.
- 35 mm DIN-rail mounting design



## Characteristics

| Model No.                                   | DN-05/B0                                                                               | DN-12/B0 | DN-24/B0 | DN-48/B0 |
|---------------------------------------------|----------------------------------------------------------------------------------------|----------|----------|----------|
| Nominal Voltage (V)                         | 5                                                                                      | 12       | 24       | 48       |
| Max. Continuous AC Voltage (V) Uc AC/DC     | 5/6                                                                                    | 12/15    | 24/28    | 48/60    |
| Total nominal Discharge Current (8/20μs) In | 5KA per line                                                                           |          |          |          |
| Lightning Imp. Current (10/350μs) Iimp      | 2.5KA                                                                                  |          |          |          |
| Rated load current (A) IL                   | ≥250mA                                                                                 |          |          |          |
| Voltage protection level (1kV/μs,V) Up      | ≤10V                                                                                   | ≤18V     | ≤30V     | ≤70V     |
| Series impedance per line (Ohm)             | 4 Ohm                                                                                  |          |          |          |
| Insertion loss at 100MHz (dB)               | ≤3.0                                                                                   |          |          |          |
| Degree of protection                        | IP20                                                                                   |          |          |          |
| Mounting on                                 | 35 mm DIN-rail                                                                         |          |          |          |
| Enclosure Material                          | UL94 V0                                                                                |          |          |          |
| Environment Temperature (°C)                | - 40~+80                                                                               |          |          |          |
| Indication function                         | Optional                                                                               |          |          |          |
| Pluggable/Non-pluggable                     | Pluggable                                                                              |          |          |          |
| Technology                                  | Combination of gas discharge tube & diodes with voltage & current limiting facilities. |          |          |          |

Note: Subject to change without any notice.

## Passive Lightning Event Count Type surgeCon SEC

### Passive Lightning Event Count

- Long service life due to No battery need.
- Maintenance free.
- Counting accurately
- Sensitive response and wide lightning current measuring range
- Easy to install and use, a simple insertion of the down conductor through the device.
- Can be used together with all kinds of lightning protectors and equipment.

Passive Lightning event counter is used for testing the lightning event in a certain area.

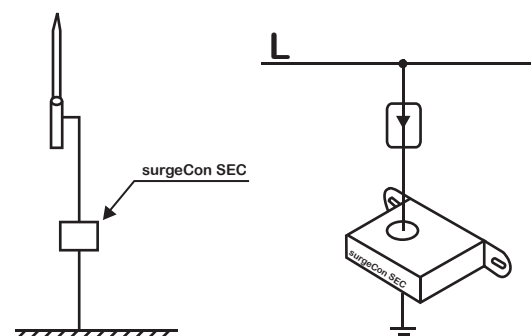
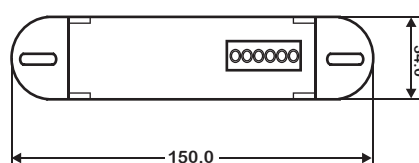
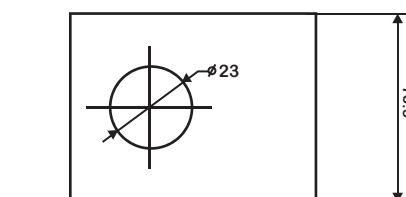


## Characteristics

| Type                                        | surgeCon SEC                      |
|---------------------------------------------|-----------------------------------|
| Counting Current (rise time $\geq 8\mu s$ ) | > 0.5 KA                          |
| Sequence of impulse                         | > 1s                              |
| Display Model                               | Electromechanical digital display |
| Indicator                                   | Lightning Event 0~999999          |
| Current Sample Mode                         | Inductive Probe (Built-in)        |
| Working mode                                | No battery need                   |
| Operation temperature (°C)                  | -20~ + 60                         |
| Dimension of through hole (mm)              | 32                                |
| Dimension of counter (mm)                   | 150 x 78.5 x 34                   |
| Enclosure material                          | Steel                             |
| Degree of protection                        | IP67                              |

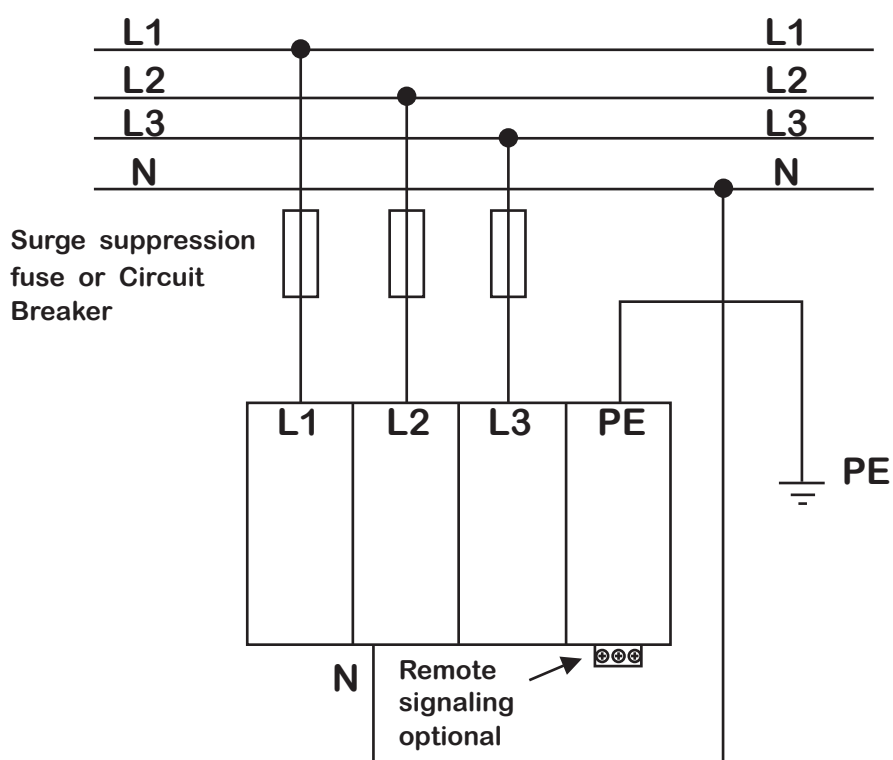
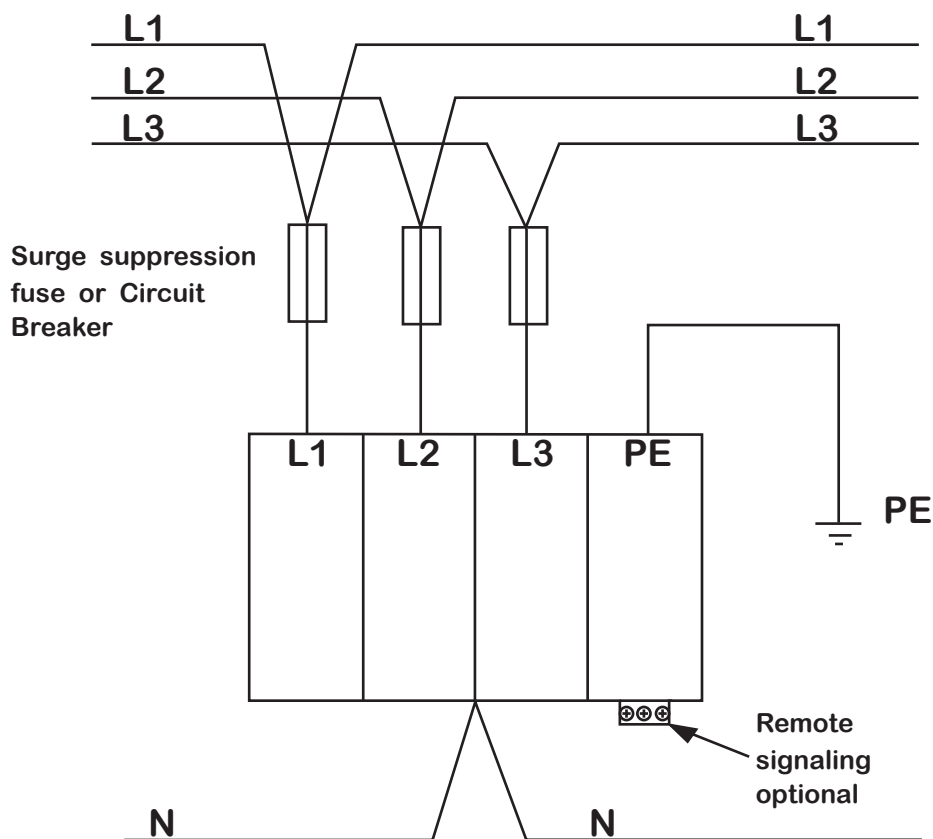
Note: Subject to change without any notice.

## Connection



# Surge Protective Device Wiring

## 3 - Phase network

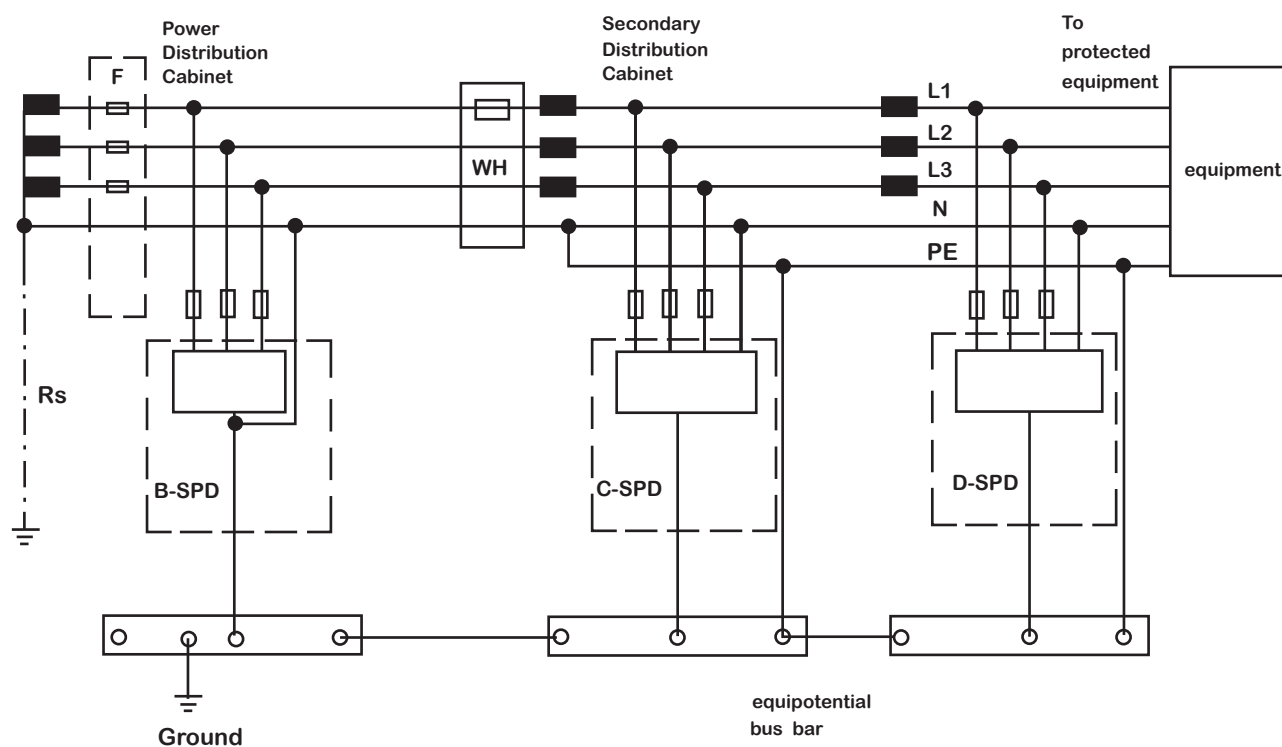


Note: Subject to change without any notice.

# SPD wiring for different power systems

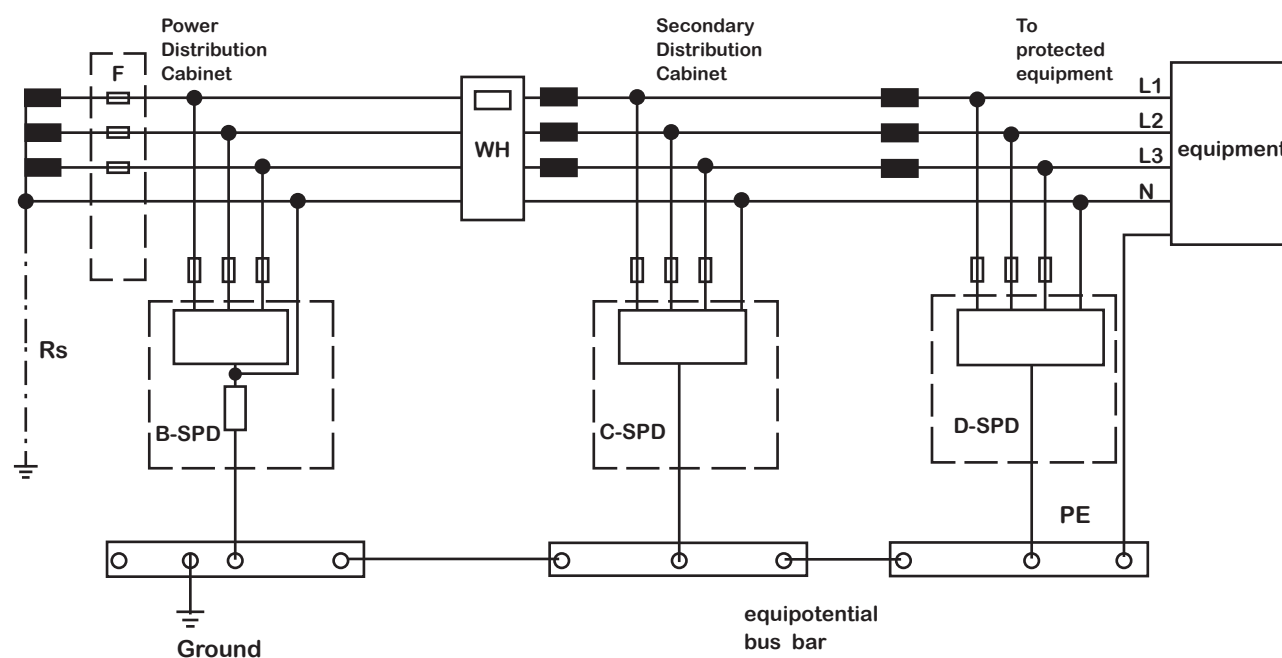
## Type TN-C-S system / TT system

### TN-C-S system:



TN-C-S system

### TT system:



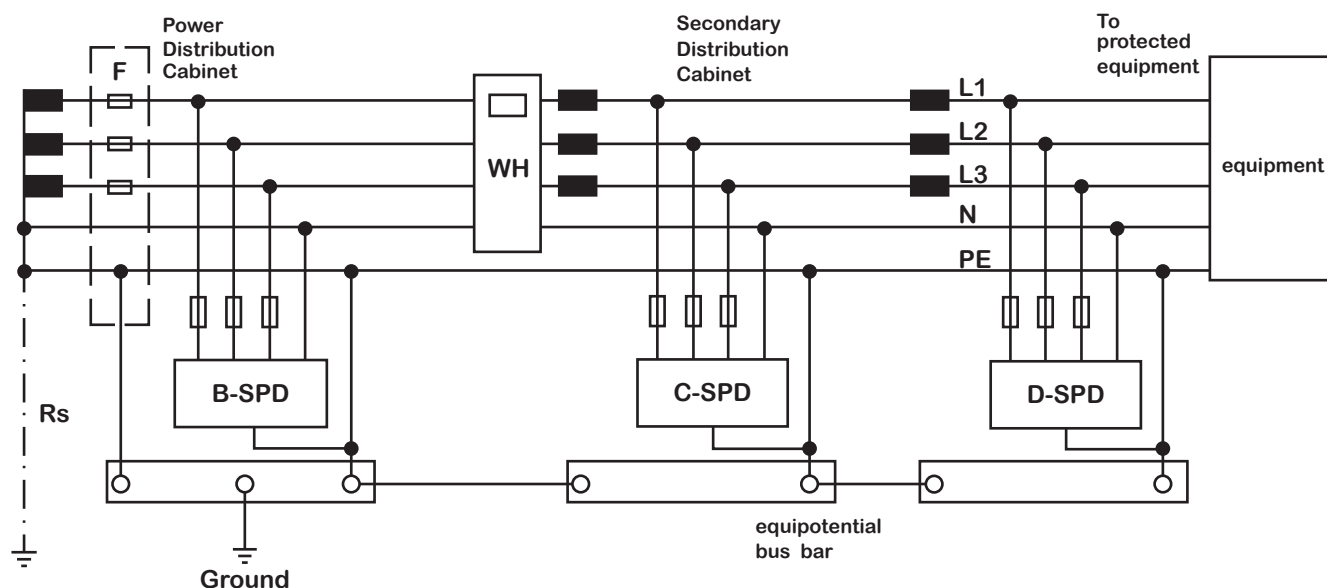
TT system

Note: Subject to change without any notice.

# SPD wiring for different power systems

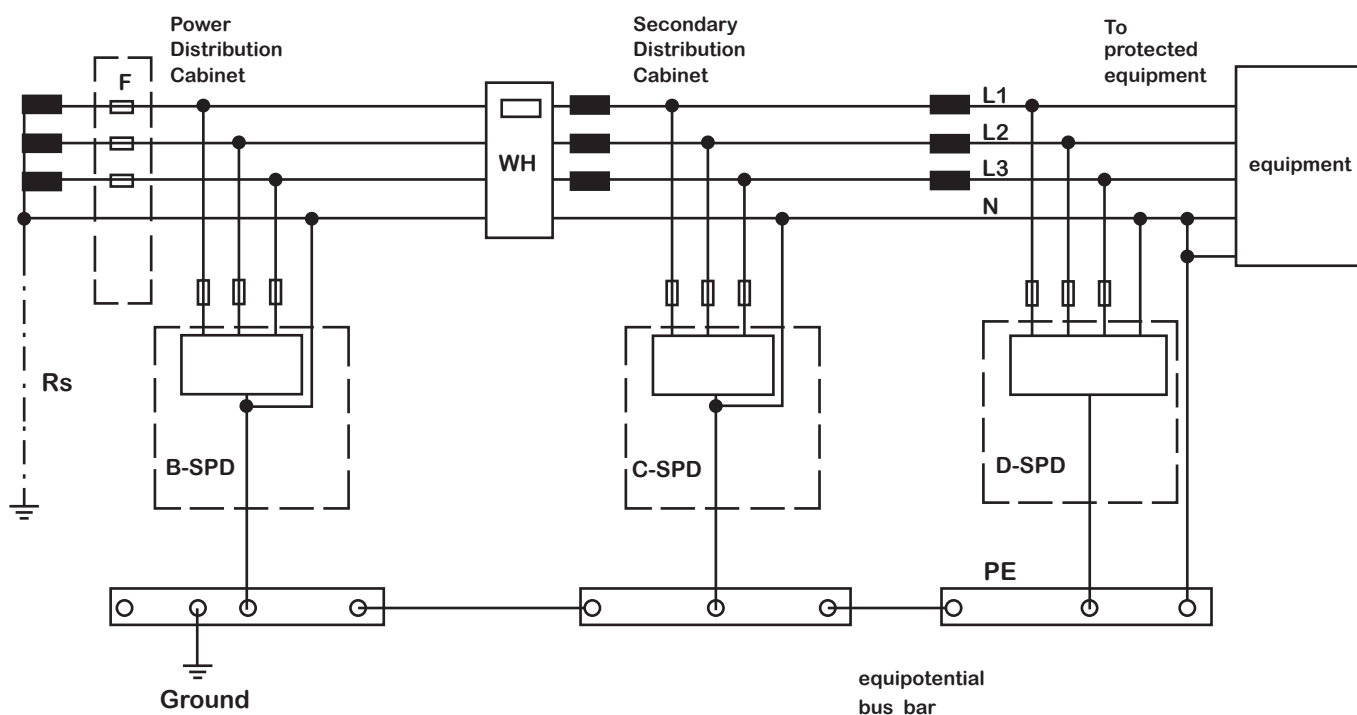
## Type TN-S system / TN-C system

### TN-S system:



TN-S system

### TN-C system:



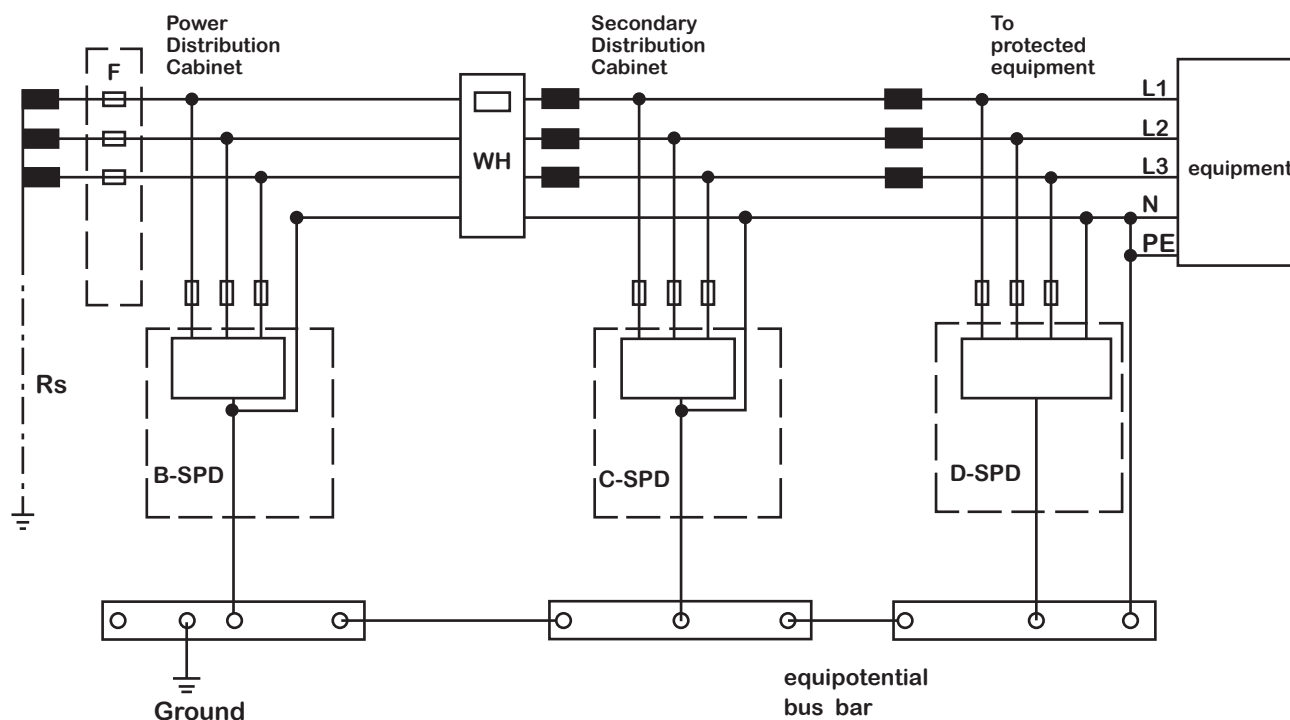
TN-C system

Note: Subject to change without any notice.

# SPD wiring for different power systems

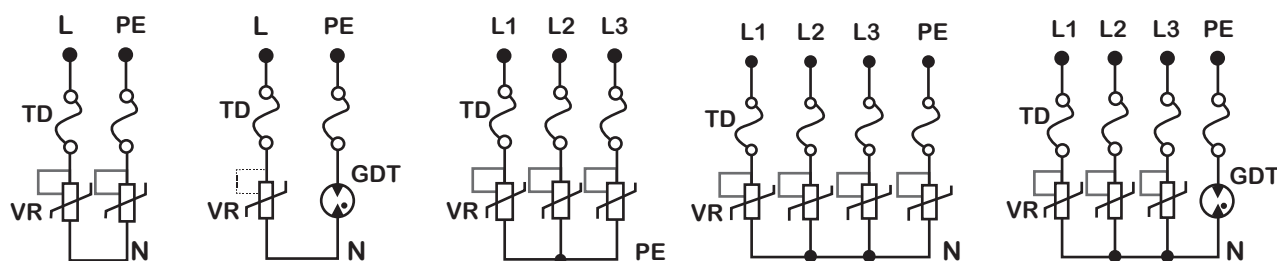
## Type IT system / Choose SPD configuration

IT system:



IT system

Choose SPD configuration



Note: Subject to change without any notice.

