

Class III with varistors

Low-voltage consumer installations, small distribution units and electronics

Surge protection module of class III (D-arresters)

Our surge protection modules PU III and PU D protect low-voltage consumer installations and electronic devices from voltage surges that occur through atmospheric discharge (lightning) or switching activities (transients).

Both PU III and PU D can be installed in small or storey distribution boards.

The PU III satisfies the requirements of IEC 61643-1.

The PU D satisfies the requirements of DIN VDE 0675, part 6, class C, Nov 1989, part 6, A2 (Oct 1996) and IEC 61643-1 (Feb 1998).



Electrical connection

The PU III or PU D surge protection device is installed after the PU II arrester and before the device / consumer to be protected. It can protect electrical circuits of up to 16 A.

An installation can be done in a consumer unit for an electrical circuit that protects monitors, for example.

Functional check and maintenance

Varistors can exhibit high temperatures as a result of ageing. In low-voltage systems, this can result in fire.

The integrated temperature monitoring device automatically disconnects the varistor from the power supply. This disconnection is indicated by the warning lamp being extinguished. Types PU III and PU DS also have a built-in switching contact for signalling.

The back-up fuse you install depends on the conductor cross-section and type of routing. For PU III or PU D arresters, the maximum power rating is 16 A.

The connection is rated to IEC 947-7-1 for the following cross-sections:

solid conductor: 0.5...2.5 mm²

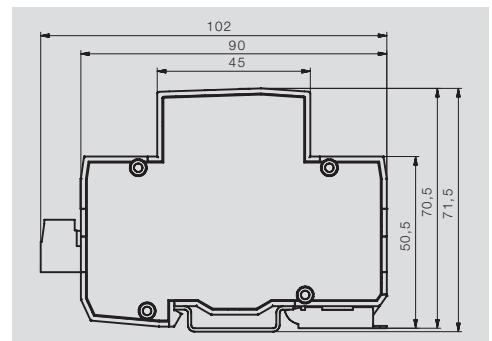
flexible conductor: 0.5...2.5 mm²

The operating temperature range for the PU D is -25 °C ... +55 °C, the storage temperature can be -40 °C ... +60 °C. The operating and storage temperature range of the PU III series is -5 °C ... +40 °C.

Dimensioned drawing PU III

Overall width

18 mm



Class III with varistors

Surge protection of class III

- Suitable for protection of terminal equipment
- Installation location in vicinity of device to be protected
- With telecommunication contact

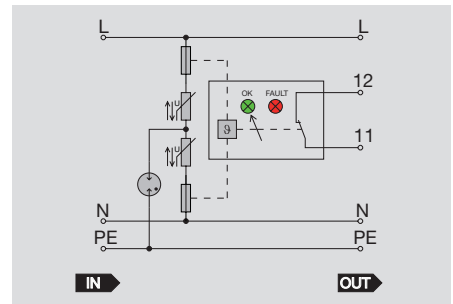
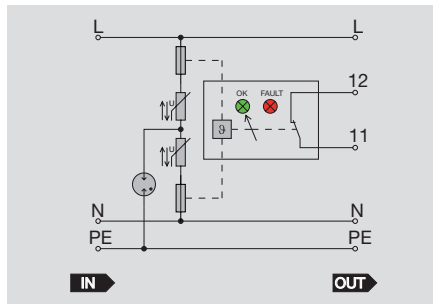
PU III R 230 V/6 kV

Use as device protection



PU III R 120 V/6 kV

Use as device protection



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous current, I_c (AC)
 max. continuous current, I_c (DC)
 Requirements class to IEC 61643-1
 Combined pulse U_{oc}
 Rated discharge current per path (8/20 μ s)
 Response time
 Fuse, max.
 Protection level Up L - N
 Protection level Up L (PE) - N
 Protection level Up at nominal discharge current (8/20 μ s) per path
 Optical function indicator
 Signalling contact
 Design
 Colour
 Operating temperature, min./max.
 Storage temperature, min./max.
 Approvals

230 V
 260 V
 Class III
 6 kV
 3 kA
 ≤ 150 ns
 16 A
 ≤ 1200 V
 ≤ 1800 V
 < 1300 V
 green LED = OK
 250 V 1A 1CO
 1 E ;Installation housing
 bright orange
 -5 °C/40 °C
 -5 °C/40 °C
 CE;cULus in preparation

120 V
 180 V
 150 V
 200 V
 Class III
 6 kV
 3 kA
 ≤ 150 ns
 16 A
 ≤ 650 V
 ≤ 1500 V
 < 700 V
 green LED = OK
 250 V 1A 1CO
 1 E ;Installation housing
 bright orange
 -5 °C/40 °C
 -5 °C/40 °C
 CE;cULus in preparation

Dimensions

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

Screw connection

2.5 / 0.5 / 2.5
 102 x 18 x 71.5

Screw connection

2.5 / 0.5 / 2.5
 102 x 18 x 71.5

Note

Ordering data

Type	Qty.	Order No.
PU III R 230V/6kV	1	8860330000

Type	Qty.	Order No.
PU III R 120V/6kV	1	8860340000

Note

Accessories

Note

Surge protection for low-voltage supplies

Class III with varistors

Surge protection of class III

- Suitable for protection of terminal equipment
- Installation location in vicinity of device to be protected
- With telecommunication contact

PU III R 48 V/4 kV

Use as device protection



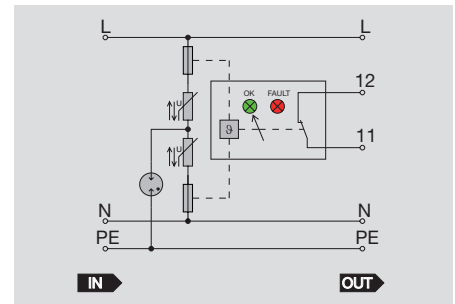
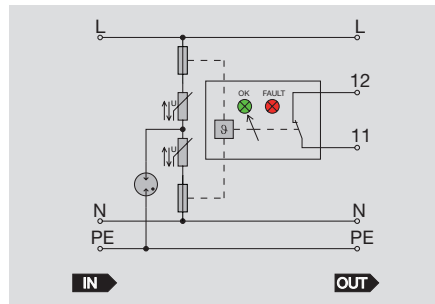
n

PU III R 24 V/4 kV

Use as device protection



n



Technical data

Technical data

Rated voltage (AC)	48 V
Rated voltage (DC)	80 V
max. continuous current, I_c (AC)	60 V
max. continuous current, I_c (DC)	85 V
Requirements class to IEC 61643-1	Class III
Combined pulse U_{oc}	4 kV
Rated discharge current per path (8/20 μ s)	2 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level Up L - N	≤ 550 V
Protection level Up L (PE) - N	≤ 850 V
Protection level Up at nominal discharge current (8/20 μ s) per path	< 300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 E ;Installation housing
Colour	bright orange
Operating temperature, min./max.	-5 °C/40 °C
Storage temperature, min./max.	-5 °C/40 °C
Approvals	CE;cULus in preparation

Rated voltage (AC)	24 V
Rated voltage (DC)	38 V
max. continuous current, I_c (AC)	32 V
max. continuous current, I_c (DC)	38 V
Requirements class to IEC 61643-1	Class III
Combined pulse U_{oc}	4 kV
Rated discharge current per path (8/20 μ s)	2 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level Up L - N	≤ 550 V
Protection level Up L (PE) - N	≤ 850 V
Protection level Up at nominal discharge current (8/20 μ s) per path	< 300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 E ;Installation housing
Colour	bright orange
Operating temperature, min./max.	-5 °C/40 °C
Storage temperature, min./max.	-5 °C/40 °C
Approvals	CE;cULus in preparation

Dimensions

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

Note

Screw connection

2,5 / 0,5 / 2,5
102 x 18 x 71,5

Screw connection

2,5 / 0,5 / 2,5
102 x 18 x 71,5

Ordering data

Type	Qty.	Order No.
PU III R 48V/4kV	1	8860350000

Type	Qty.	Order No.
PU III R 24V/4kV	1	8860360000

Note

Accessories

Note

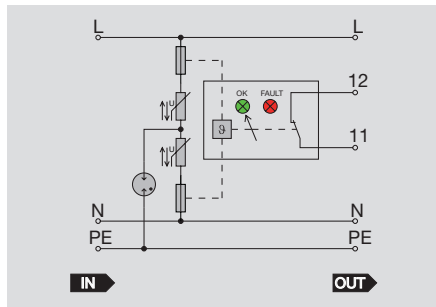
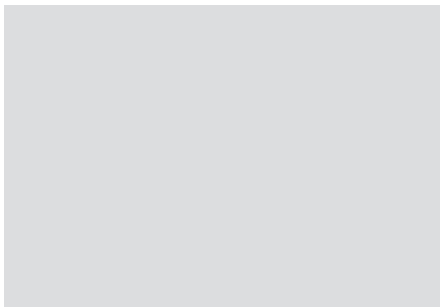
Class III with varistors

Surge protection of class III

- Suitable for protection of terminal equipment
- Installation location in vicinity of device to be protected
- With telecommunication contact

PU III R 12 V/4 kV

Use as device protection



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous current, I_c (AC)
 max. continuous current, I_c (DC)
 Requirements class to IEC 61643-1
 Combined pulse U_{oc}
 Rated discharge current per path (8/20 μ s)
 Response time
 Fuse, max.
 Protection level Up L - N
 Protection level Up L (PE) - N
 Protection level Up at nominal discharge current (8/20 μ s) per path
 Optical function indicator
 Signalling contact
 Design
 Colour
 Operating temperature, min./max.
 Storage temperature, min./max.
 Approvals

12 V
 14 V
 20 V
 18 V
 Class III
 3 kV
 2 kA
 ≤ 150 ns
 16 A
 ≤ 550 V
 ≤ 850 V
 < 200 V
 green LED = OK
 250 V 1A 1CO
 1 E ;Installation housing
 bright orange
 -5 °C/40 °C
 -5 °C/40 °C
 CE;ULus in preparation

Dimensions

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

Screw connection

2,5 / 0,5 / 2,5
 102 x 18 x 71,5

Note

Ordering data

Type	Qty.	Order No.
PU III R 12V/4kV	1	8883740000

Note

Accessories

Note

Surge protection for low-voltage supplies

Class III with varistors

Class III surge protection

- suitable for protecting terminals
- installed in the vicinity of the equipment to be protected
- with remote signalling contact

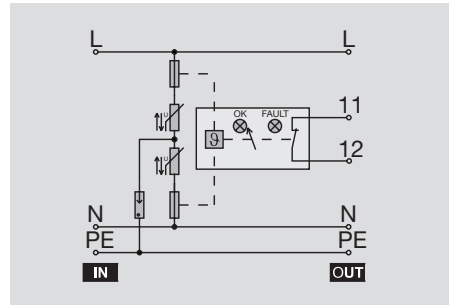
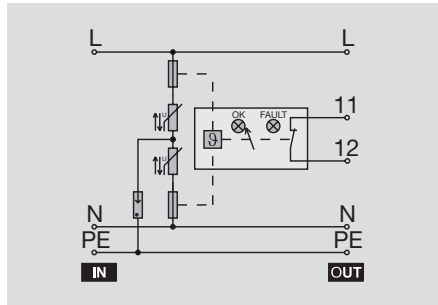
PU D 230 V AC 16 A

Use as device protector



PU D 115 V AC 16 A

Use as device protector



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous current, I_c (AC)
 max. continuous current, I_c (DC)
 Requirements class to IEC 61643-1
 Combined pulse U_{oc}
 Rated discharge current per path (8/20 μ s)
 Discharge current, max. (8/20 μ s)
 Response time
 Fuse, max.
 Protection level U_p (typical)
 Optical function indicator
 Signalling contact
 Design
 Colour
 Operating temperature, min./max.
 Storage temperature, min./max.
 Approvals

230 V
 275 V
 Class III
 4 kV
 2.5 kA
 7 kA
 ≤ 150 ns
 16 A
 850 V
 green LED = OK; red LED = fault
 250 V 1 A 1 NC
 Installation housing
 grey
 -25 °C/55 °C
 -40 °C/55 °C
 CE

115 V
 130 V
 Class III
 4 kV
 2.5 kA
 7 kA
 ≤ 150 ns
 16 A
 480 V
 green LED = OK; red LED = fault
 250 V 1 A 1 NC
 Installation housing
 grey
 -25 °C/55 °C
 -40 °C/55 °C
 CE

Dimensions

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

Screw connection

2.5 / 0.5 / 2.5
 91 x 54 x 61

Screw connection

2.5 / 0.5 / 2.5
 91 x 54 x 61

Note

Ordering data

Type	Qty.	Order No.
PU D 230V 16A	1	8411930000

Type	Qty.	Order No.
PU D 115Vac 16A	1	8472100000

Note

Accessories

Note

Class III with varistors

Class III surge protection

- suitable for protecting terminals
- installed in the vicinity of the equipment to be protected
- with remote signalling contact

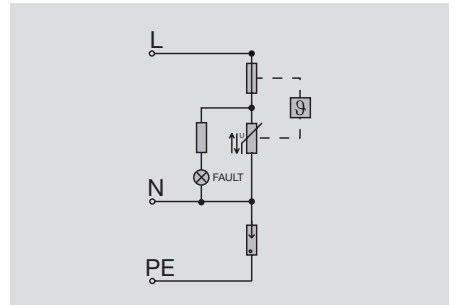
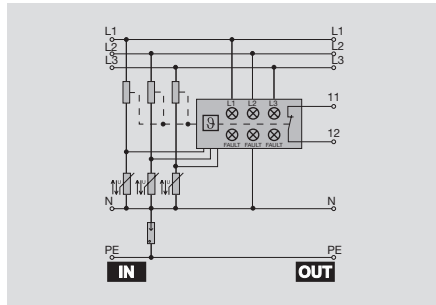
PU 3 D 230 V / 400 V AC 16 A

Use as device protector



PO D S / AS 230 V 16 A

Use as device protector



Technical data

Technical data	
Rated voltage (AC)	230 V
Rated voltage (DC)	275 V
max. continuous current, U _c (AC)	
max. continuous current, U _c (DC)	
Requirements class to IEC 61643-1	Class III
Combined pulse U _{oc}	4 kV
Rated discharge current per path (8/20 μs)	6.5 kA
Discharge current, max. (8/20 μs)	18 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level U _p (typical)	850 V
Optical function indicator	green LED = OK; red LED = fault
Signalling contact	250 V 1 A 1 NC
Design	Installation housing
Colour	grey
Operating temperature, min./max.	-25 °C/55 °C
Storage temperature, min./max.	-40 °C/55 °C
Approvals	CE

Rated voltage (AC)	230 V
Rated voltage (DC)	275 V
max. continuous current, U _c (AC)	
max. continuous current, U _c (DC)	
Requirements class to IEC 61643-1	Class III
Combined pulse U _{oc}	4 kV
Rated discharge current per path (8/20 μs)	6.5 kA
Discharge current, max. (8/20 μs)	18 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level U _p (typical)	850 V
Optical function indicator	green LED = OK; red LED = fault
Signalling contact	250 V 1 A 1 NC
Design	Installation housing
Colour	grey
Operating temperature, min./max.	-25 °C/55 °C
Storage temperature, min./max.	-40 °C/55 °C
Approvals	CE

Rated voltage (AC)	230 V
Rated voltage (DC)	275 V
max. continuous current, U _c (AC)	
max. continuous current, U _c (DC)	
Requirements class to IEC 61643-1	Class III
Combined pulse U _{oc}	4 kV
Rated discharge current per path (8/20 μs)	2.5 kA
Discharge current, max. (8/20 μs)	5 kA
Response time	sym/ asym: ≤ 100 ns
Fuse, max.	16 A
Protection level U _p (typical)	1500 V
Optical function indicator	green LED
Signalling contact	
Design	Miscellaneous
Colour	black
Operating temperature, min./max.	-25 °C/55 °C
Storage temperature, min./max.	-40 °C/60 °C
Approvals	CE

Dimensions

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

Note

Screw connection

Clamping range (rating- / min. / max.)	2.5 / 0.5 / 2.5
Length x width x height	91 x 54 x 61

with audible signal

without audible signal

Clamping range (rating- / min. / max.)	20 x 34 x 41
Length x width x height	12 x 34 x 41

with audible signal

Ordering data

Type	Qty.	Order No.
PU 3D 230V/400Vac 16A	1	8509130000

Type	Qty.	Order No.
PO D AS	1	8581830000
PO D S	1	8581840000

Note

PO D AS with audible signal

Accessories

Note