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).

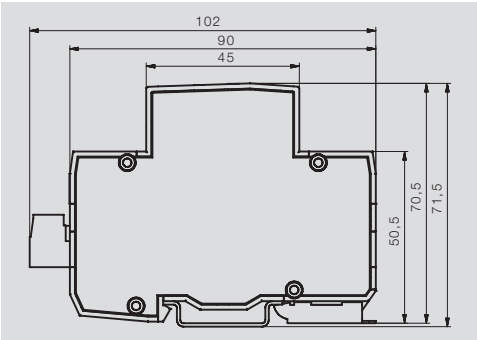
Electrical connection

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



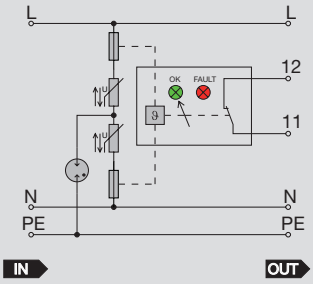
Class III with varistors

Surge protection of class III

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

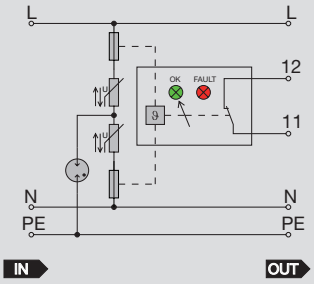
PU III R 230 V/6 kV

Use as device protection



PU III R 120 V/6 kV

Use as device protection



Technical data

Technical data		
Rated voltage (AC)	230 V	120 V
Rated voltage (DC)		180 V
max. continuous current, Uc (AC)	260 V	150 V
max. continuous current, Uc (DC)		200 V
Requirements class to IEC 61643-1	Class III	Class III
Combined pulse Uoc	6 kV	6 kV
Rated discharge current per path (8/20 µs)	3 kA	3 kA
Response time	≤ 150 ns	≤ 150 ns
Fuse, max.	16 A	16 A
Protection level Up L - N	≤ 1200 V	≤ 650 V
Protection level Up L (PE) - N	≤ 1800 V	≤ 1500 V
Protection level Up at nominal discharge current (8/20 µs) per path	< 1300 V	< 700 V
Optical function indicator	green LED = OK	green LED = OK
Signalling contact	250 V 1A 1CO	250 V 1A 1CO
Design	1 E ;Installation housing	1 E ;Installation housing
Colour	bright orange	bright orange
Operating temperature, min./max.	-5 °C/40 °C	-5 °C/40 °C
Storage temperature, min./max.	-5 °C/40 °C	-5 °C/40 °C
Approvals	CE;cULus in preparation	CE;cULus in preparation

Dimensions		Screw connection	Screw connection
Clamping range (rating- / min. / max.)	mm²	2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
Length x width x height	mm	102 x 18 x 71.5	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

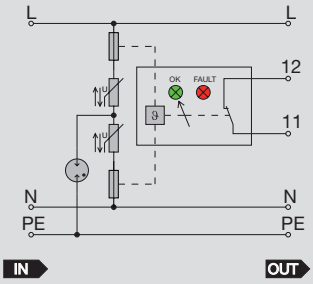
Class III with varistors

Surge protection of class III

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

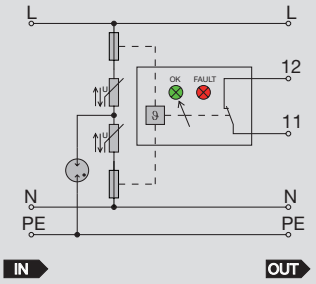
PU III R 48 V/4 kV

Use as device protection



PU III R 24 V/4 kV

Use as device protection



Technical data

Technical data			
Rated voltage (AC)		48 V	24 V
Rated voltage (DC)		80 V	38 V
max. continuous current, Uc (AC)		60 V	32 V
max. continuous current, Uc (DC)		85 V	38 V
Requirements class to IEC 61643-1		Class III	Class III
Combined pulse Uoc		4 kV	4 kV
Rated discharge current per path (8/20 µs)		2 kA	2 kA
Response time		≤ 150 ns	≤ 150 ns
Fuse, max.		16 A	16 A
Protection level Up L - N		≤ 550 V	≤ 550 V
Protection level Up L (PE) - N		≤ 850 V	≤ 850 V
Protection level Up at nominal discharge current (8/20 µs) per path		< 300 V	< 300 V
Optical function indicator		green LED = OK	green LED = OK
Signalling contact		250 V 1A 1CO	250 V 1A 1CO
Design		1 E ;Installation housing	1 E ;Installation housing
Colour		bright orange	bright orange
Operating temperature, min./max.		-5 °C/40 °C	-5 °C/40 °C
Storage temperature, min./max.		-5 °C/40 °C	-5 °C/40 °C
Approvals		CE;cULus in preparation	CE;cULus in preparation
Dimensions		**Screw connection**	**Screw connection**
Clamping range (rating- / min. / max.)	mm²	2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
Length x width x height	mm	102 x 18 x 71.5	102 x 18 x 71.5
Note			

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

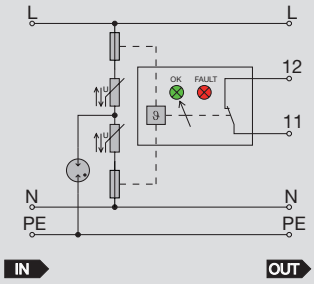
Class III with varistors

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)	12 V
Rated voltage (DC)	14 V
max. continuous current, Uc (AC)	20 V
max. continuous current, Uc (DC)	18 V
Requirements class to IEC 61643-1	Class III
Combined pulse Uoc	3 kV
Rated discharge current per path (8/20 µs)	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 µs) per path	< 200 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		Screw connection
Clamping range (rating- / min. / max.)	mm²	2.5 / 0.5 / 2.5
Length x width x height	mm	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

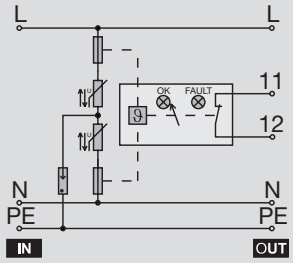
Class III with varistors

Class III surge protection

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

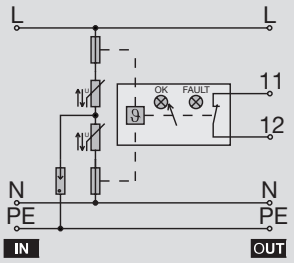
PU D 230 V AC 16 A

Use as device protector



PU D 115 V AC 16 A

Use as device protector



Technical data

Technical data			
Rated voltage (AC)		230 V	115 V
Rated voltage (DC)			
max. continuous current, Uc (AC)		275 V	130 V
max. continuous current, Uc (DC)			
Requirements class to IEC 61643-1		Class III	Class III
Combined pulse Uoc		4 kV	4 kV
Rated discharge current per path (8/20 µs)		2.5 kA	2.5 kA
Discharge current, max. (8/20 µs)		7 kA	7 kA
Response time		≤ 150 ns	≤ 150 ns
Fuse, max.		16 A	16 A
Protection level Up (typical)		850 V	480 V
Optical function indicator		green LED = OK; red LED = fault	green LED = OK; red LED = fault
Signalling contact		250 V 1 A 1 NC	250 V 1 A 1 NC
Design		Installation housing	Installation housing
Colour		grey	grey
Operating temperature, min./max.		-25 °C/55 °C	-25 °C/55 °C
Storage temperature, min./max.		-40 °C/55 °C	-40 °C/55 °C
Approvals		CE	CE
Dimensions		**Screw connection**	**Screw connection**
Clamping range (rating- / min. / max.)	mm^2	2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
Length x width x height	mm	91 x 54 x 61	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

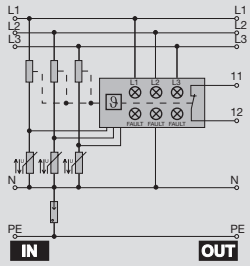
Class III with varistors

Class III surge protection

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

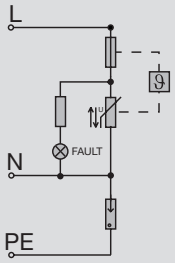
PU 3 D 230 V / 400 V AC 16 A

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	230 V
Rated voltage (DC)			
max. continuous current, Uc (AC)		275 V	275 V
max. continuous current, Uc (DC)			
Requirements class to IEC 61643-1		Class III	Class III
Combined pulse Uoc		4 kV	4 kV
Rated discharge current per path (8/20 µs)		6.5 kA	2.5 kA
Discharge current, max. (8/20 µs)		18 kA	5 kA
Response time		≤ 150 ns	sym/ asym: ≤ 100 ns
Fuse, max.		16 A	16 A
Protection level Up (typical)		850 V	1500 V
Optical function indicator		green LED = OK; red LED = fault	green LED
Signalling contact		250 V 1 A 1 NC	
Design		Installation housing	Miscellaneous
Colour		grey	black
Operating temperature, min./max.		-25 °C/55 °C	-25 °C/55 °C
Storage temperature, min./max.		-40 °C/55 °C	-40 °C/60 °C
Approvals		CE	CE
Dimensions		**Screw connection**	**with audible signal** / **without audible signal**
Clamping range (rating- / min. / max.)	mm²	2.5 / 0.5 / 2.5	
Length x width x height	mm	91 x 54 x 61	20 x 34 x 41 / 12 x 34 x 41
Note			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