

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.

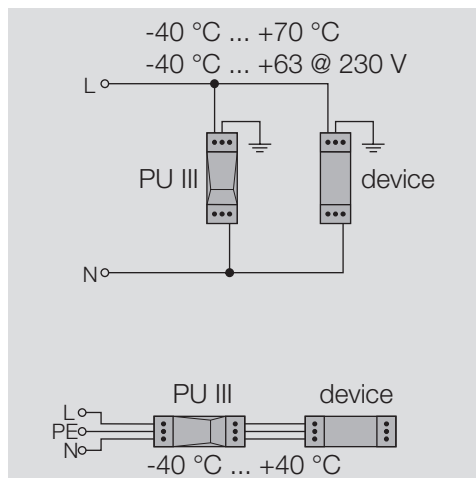
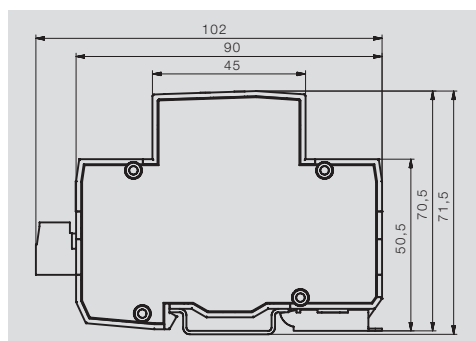
The connection is rated to IEC 947-7-1 for the following cross-sections:

solid conductor: 0.5...2.5 mm²

flexible conductor: 0.5...2.5 mm²

Dimensioned drawing PU III

Overall width
18 mm



The standard implementation for operating the PU III products is a series connection to the end device. Under this operational mode, the protective device can carry a continuous load of 16 A. For higher demands, the parallel circuitry is used.

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

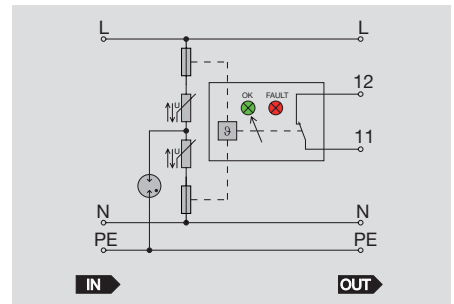
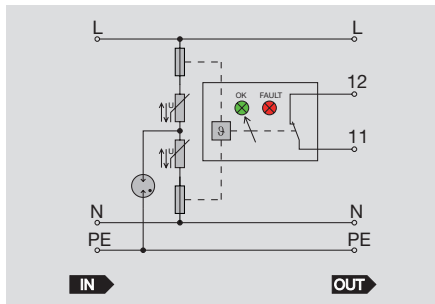
PU III R 230 V/6 kV

Use as device protection



PU III R 120 V/6 kV

Use as device protection



Technical data

Technical data	
Rated voltage (AC)	230 V
Rated voltage (DC)	260 V
max. continuous voltage, U _c (AC)	260 V
max. continuous voltage, U _c (DC)	260 V
Requirements class to IEC 61643-1	Class III
Combined pulse U _{oc}	6 kV
Rated discharge current per path (8/20 μs)	3 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level Up L - N	≤ 1200 V
Protection level Up L (PE) - N	≤ 1800 V
Protection level Up at nominal discharge current (8/20 μs) per path	< 1300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 unit width; Installation housing
Ambient temperature (operational)	-40 ... 40°C (Dependent on application)
Storage temperature	-40 ... 40°C
Approvals	CE;cULus in preparation

Rated voltage (AC)	120 V
Rated voltage (DC)	180 V
max. continuous voltage, U _c (AC)	150 V
max. continuous voltage, U _c (DC)	200 V
Requirements class to IEC 61643-1	Class III
Combined pulse U _{oc}	6 kV
Rated discharge current per path (8/20 μs)	3 kA
Response time	≤ 150 ns
Fuse, max.	16 A
Protection level Up L - N	≤ 650 V
Protection level Up L (PE) - N	≤ 1500 V
Protection level Up at nominal discharge current (8/20 μs) per path	< 700 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 unit width; Installation housing
Ambient temperature (operational)	-40 ... 40°C (Dependent on application)
Storage temperature	-40 ... 40°C
Approvals	CE;cULus in preparation

Dimensions	
Clamping range (rating- / min. / max.)	mm ²
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

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Ordering data

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

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

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

Note

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Accessories

Note

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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

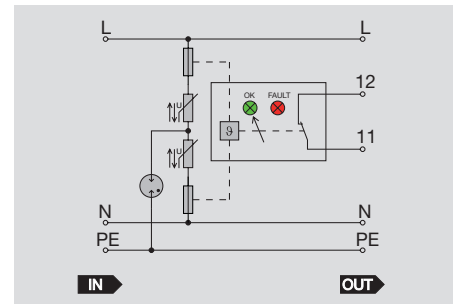
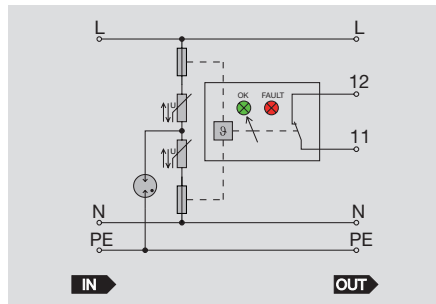
PU III R 48 V/4 kV

Use as device protection



PU III R 24 V/4 kV

Use as device protection



Technical data

Technical data

Rated voltage (AC)	48 V
Rated voltage (DC)	80 V
max. continuous voltage, U _c (AC)	60 V
max. continuous voltage, U _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 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	< 300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 unit width; Installation housing
Ambient temperature (operational)	-40 ... 40°C (Dependent on application)
Storage temperature	-40 ... 40°C
Approvals	CE;cULus in preparation

Rated voltage (AC)	24 V
Rated voltage (DC)	38 V
max. continuous voltage, U _c (AC)	32 V
max. continuous voltage, U _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 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	< 300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 unit width; Installation housing
Ambient temperature (operational)	-40 ... 40°C (Dependent on application)
Storage temperature	-40 ... 40°C
Approvals	CE;cULus in preparation

Rated voltage (AC)	24 V
Rated voltage (DC)	38 V
max. continuous voltage, U _c (AC)	32 V
max. continuous voltage, U _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 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	< 300 V
Optical function indicator	green LED = OK
Signalling contact	250 V 1A 1CO
Design	1 unit width; Installation housing
Ambient temperature (operational)	-40 ... 40°C (Dependent on application)
Storage temperature	-40 ... 40°C
Approvals	CE;cULus in preparation

Dimensions

Clamping range (rating- / min. / max.)	mm ²
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 48V/4kV	1	8860350000

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

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

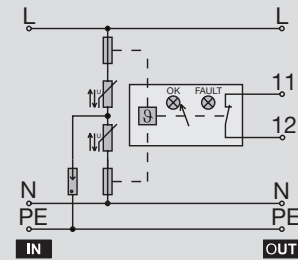
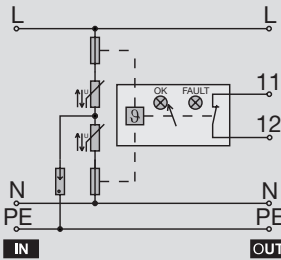
PU D 230 V AC 16 A

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 voltage, U_c (AC)
 max. continuous voltage, U_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
 Ambient temperature (operational)
 Storage temperature
 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
 -25 ... 55°C
 -40 ... 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
 -25 ... 55°C
 -40 ... 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

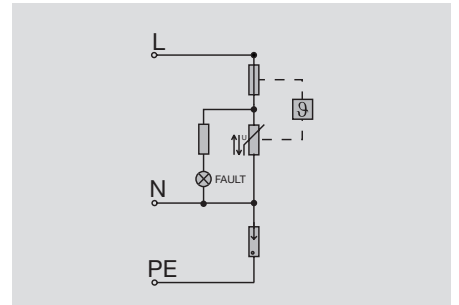
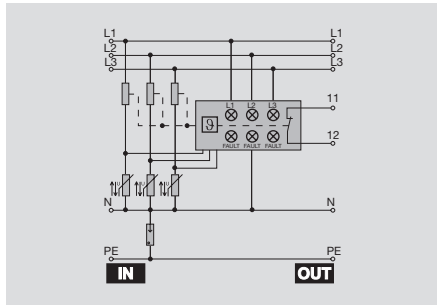
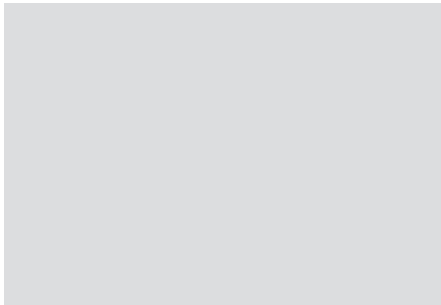
PU 3 D 230 V / 400 V AC 16 A

Use as device protector



PO D S / AS 230 V 16 A

Use as device protector



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Technical data

Technical data	
Rated voltage (AC)	230 V
Rated voltage (DC)	275 V
max. continuous voltage, U _c (AC)	
max. continuous voltage, 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
Ambient temperature (operational)	-25 ... 55°C
Storage temperature	-40 ... 55°C
Approvals	CE

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

Screw connection	
	2.5 / 0.5 / 2.5
	91 x 54 x 61

Note	

Ordering data

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

Note	

Accessories

Note

Screw connection	
	2.5 / 0.5 / 2.5
	91 x 54 x 61

with audible signal		Without audible signal	
20 x 34 x 41		12 x 34 x 41	

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

Note	

Technical data	
Rated voltage (AC)	230 V
Rated voltage (DC)	275 V
max. continuous voltage, U _c (AC)	
max. continuous voltage, 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
Ambient temperature (operational)	-25 ... 55°C
Storage temperature	-40 ... 60°C
Approvals	CE

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

Screw connection	
	2.5 / 0.5 / 2.5
	91 x 54 x 61

Note	

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

Note	

Note