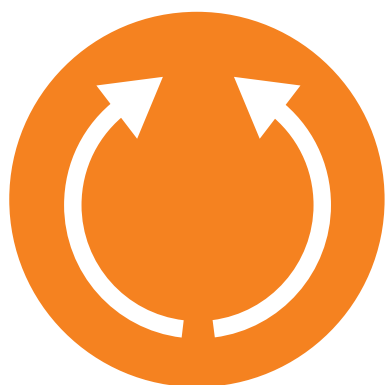
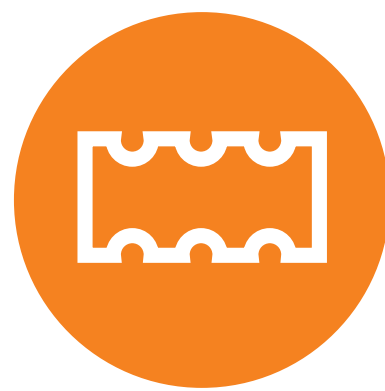


OVERVOLTAGE PROTECTION





Quick Product Selection	4
SINGLE-POLE Lightning Current and Surge Arresters Class I / (B+C) I_{imp} : up to 100 kA (10/350)	6
MULTI-POLE Lightning Current and Surge Arresters Class I / (B+C) $I_{imp} = 25$ kA (10/350)/pole	14
MULTI-POLE Lightning Current and Surge Arresters Class I / (B+C) $I_{imp} = 12,5$ kA (10/350)/pole	22
SINGLE-POLE Lightning Current and Surge Arresters Class I / (B+C) $I_{imp} = 12,5$ kA (10/350)/pole	30
SINGLE-POLE and MULTI-POLE Surge Arresters Class II / (C) $I_{max} = 20$ kA (8/20)	33
MULTI-POLE Lightning Current and Surge Arresters Class I / (B+C) and Class II / (C) PHOTOVOLTAIC SYSTEMS	38
Surge Arresters for Overhead Power Lines Class II / (A) $I_{max} = 40$ kA (8/20)	44



QUICK PRODUCT SELECTION

Category IEC VDE	Description	Product Name	Pages	Product Photos
Class I B + C	SINGLE-POLE Lightning Current and Surge Arresters I_{imp} : up to 100 kA (10/350)	ISPRO BS(R) 50 ISPRO BS(R) 25 ISPRO-TUBE BS		
	MULTI-POLE Lightning Current and Surge Arresters I_{imp} : 25 kA (10/350) / pole	ISPRO-KOMP BS(R) 75 (3+0) ISPRO-KOMP BS(R) 100 (4+0) ISPRO-KOMP BS(R) 100 (3+1)		
	MULTI-POLE Lightning Current and Surge Arresters I_{imp} : 12,5 kA (10/350) / pole	ISPRO-KOMP BS(R) 37,5 (3+0) ISPRO-KOMP BS(R) 50 (4+0) ISPRO-KOMP BS(R) 50 (3+1)		
	SINGLE-POLE Lightning Current and Surge Arresters I_{imp} : 12,5 kA, 8 kA (10/350)	ISPRO B2N(R) 12,5		
Class II C	SINGLE-POLE and MULTI-POLE Surge Arresters I_{max} : 40 kA (8/20) / pole	ISPRO C(R) 40 ISPRO C(R) 80 (2+0; 1+1) ISPRO C(R) 120 (3+0) ISPRO C(R) 160 (4+0) ISPRO C(R) 160 (3+1)		
Class I; II B + C, C	MULTI-POLE Lightning Current and Surge Arresters PHOTOVOLTAIC SYSTEMS	PV ISPRO BS(R) 12,5 PV ISPRO C(R) 40		
Class III D	SINGLE-POLE and MULTI-POLE Surge Arresters UOC / ISC = 10 kV / 5 kA / pole	ISPRO DM(R) 10		
Class II A	Surge Arresters for Overhead Power Lines I_{max} = up to 40 kA (8/20)	ISPRO AQ 40		

QUICK PRODUCT SELECTION



U _c (V _{AC})	I _{imp} (kA)/pole (10/350)	I _{make} (kA)/pole (8/20)	U _{oc} / I _{sc} (kV/kA) (1.2/50 - 8/20)	Network Type				Remote Signalization Of Failure	Housing
				TNC	TNS	TT	IT		
150, 275, 320, 385, 440	50	100		✓	✓	✓	✓	✓	Compact
	25	100		✓	✓	✓	✓	✓	
255	100	160							
150, 275, 320, 385, 440	25	100		✓			✓	✓	Compact
	25	100			✓		✓	✓	
	25/50 (MOV/GDT)	100/160 (MOV/GDT)					✓	✓	
150, 275, 320, 385, 440	12,5	50		✓			✓	✓	
	12,5	50			✓		✓	✓	
	12,5/50 (MOV/ GDT)	50/100 (MOV/GDT)					✓	✓	
150, 275, 320, 385, 440	12,5	50		✓	✓	✓	✓	✓	Compact
75, 150, 275, 320, 385, 440		40		✓	✓	✓	✓	✓	Modular
150, 275, 320, 385, 440		80		✓	✓	✓	✓	✓	
		120		✓	✓	✓	✓	✓	
		160		✓	✓	✓	✓	✓	
		160		✓	✓	✓	✓	✓	
100, 500, 1000 V _{DC}	12,5 X	80 40					✓ ✓	Compact Modular	
150, 275, 320, 385, 400		10	10/5	✓	✓	✓	✓	✓	Modular
150, 275, 320, 385, 400		40							Compact



SINGLE-POLE LIGHTNING CURRENT AND SURGE ARRESTERS

CLASS I / (B+C)

I_{imp} : up to 100 kA (10/350)

COMPACT HOUSING



ISPRO BS(R) 50



The ISPRO BS(R) 50 series of low cost, over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

It consists of two separate, high performance dual MOV blocks, each with a separate disconnection device.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L/N-PE, L-PEN
Protection element	High Energy MOV
High surge discharge ratings	$I_{imp} = 50 \text{ kA}$, $I_{max} = 100 \text{ kA}$
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type	ISPRO BS(R) 50/xxx						
	150	275	320	385	440		
Standards	IEC-61643-1						
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580
Nominal discharge current (8/20)	I_n	kA	80				
Max. discharge current (8/20)	I_{max}	kA	100				
Impulse current (10/350)	I_{imp}	kA	50				
Specific energy		kJ/Ω	625				400
Charge		As	25				20
Protection level	U_p	kV	< 0,8	< 1,3	< 1,5	< 1,6	< 1,9
			< 0,7	< 1,1	< 1,2	< 1,3	< 1,7
Follow current	I_f		NO				
Response time	t_A	ns	25				
Residual current at U_c	I_{PE}	mA	2,5				
Thermal protection			YES				
Terminal screw torque		Nm	max. 4,5				
Back-up fuse gL (if mains > 250 A)		A	250				
Short-circuit withstand current (50 Hz)		kA	25				
Temperature range		$^{\circ}\text{C}$	-40 ... +80				
Terminal cross section		mm^2	35				
			25				
Mounting			35 mm wide mounting rail in accordance with EN 60715				
Degree of protection			IP 20				
Housing material			thermoplastic; extinguishing degree UL 94 V-0				
Dimensions DIN 43880			2TE				
Weight per unit		kg	0,315	0,405	0,425	0,370	0,380



ISPRO BS(R) 50

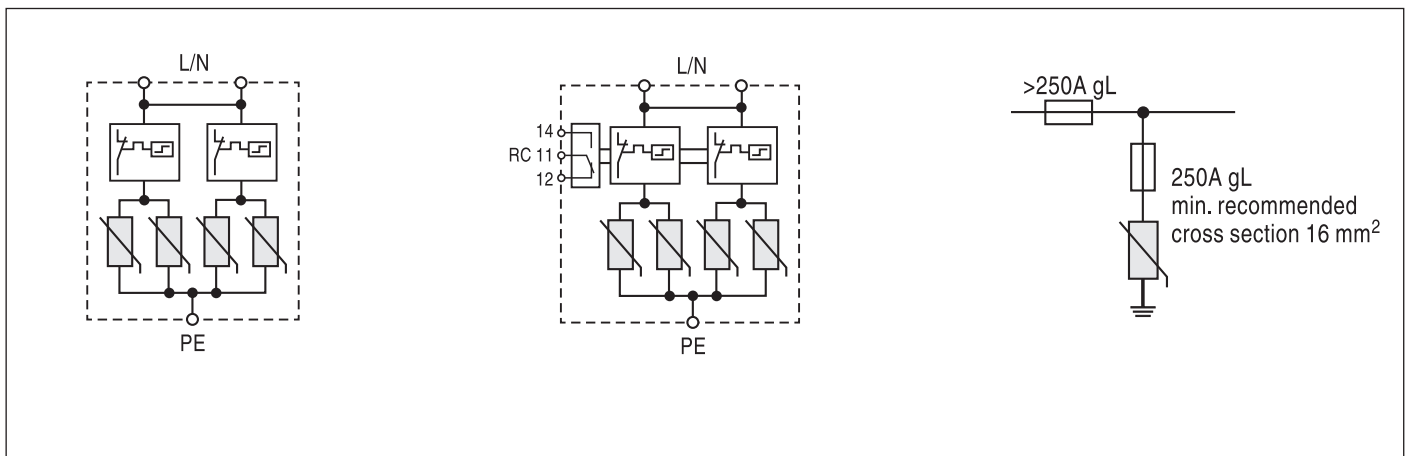
ISPRO BSR 50 (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,325	0,415	0,435	0,380	0,390

Connection diagram

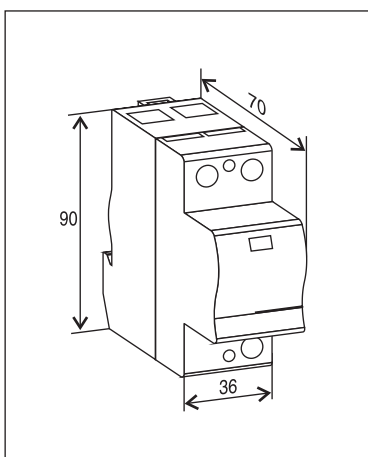
ISPRO BS 50/xxx

ISPRO BSR 50/xxx

Selection of back-up fuse



Dimensions



ISPRO BS(R) 25



The ISPRO BS(R) 25 series of low cost, over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

It consists of two separate, high performance dual MOV blocks, each with a separate disconnection device.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L/N-PE, L-PEN
Protection element	High Energy MOV
High surge discharge ratings	$I_{imp} = 25 \text{ kA}$, $I_{max} = 100 \text{ kA}$
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO BS(R) 25/xxx					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	40					
Max. discharge current (8/20)	I_{max}	kA	100					
Impulse current (10/350)	I_{imp}	kA	25					
Specific energy		kJ/Ω	156					
Charge		As	12,5					
Protection level	at I_n (8/20)	U_p	kV	< 0,9	< 1,4	< 1,6	< 1,8	< 2,0
	at I_{imp} (10/350)			< 0,7	< 1,1	< 1,2	< 1,3	< 1,7
Follow current	I_f		NO					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	2,5					
Thermal protection			YES					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse gL (if mains > 250 A)		A	250					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		$^{\circ}\text{C}$	-40 ... +80					
Terminal cross section	solid	mm^2	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			2TE					
Weight per unit		kg	0,225	0,270	0,280	0,255	0,260	



ISPRO BS(R) 25

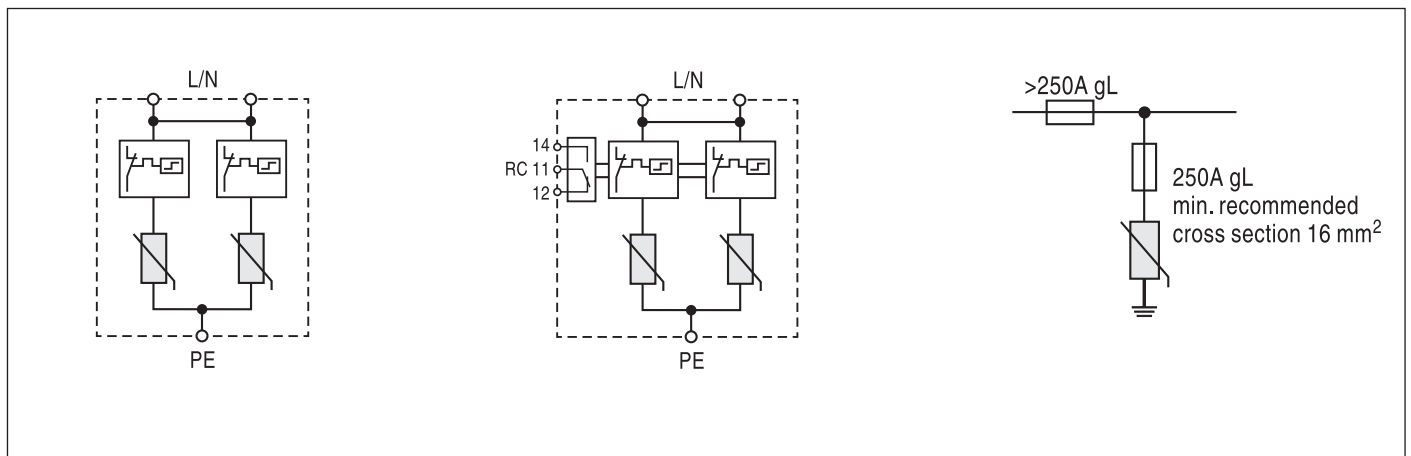
ISPRO BSR 25 (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,235	0,280	0,290	0,265	0,270

Connection diagram

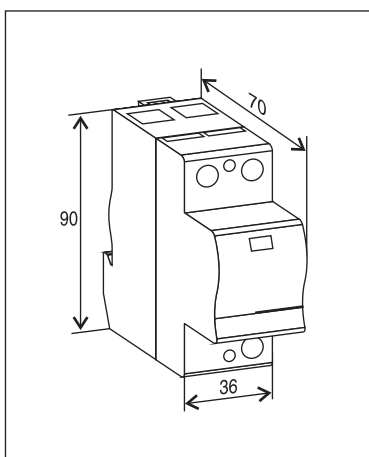
ISPRO BS 25/xxx

ISPRO BSR 25/xxx

Selection of back-up fuse



Dimensions



ISPRO-TUBE BS



The ISPRO-TUBE is an over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

It consists of an encapsulated air gap device (GDT), and is used as a galvanic separation between the N-PE conductors in a 1 + 1 or 3 + 1 power distribution system (TT networks).

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	N-PE
Protection element	High Energy GDT
High surge discharge ratings	$I_{imp} = 100 \text{ kA}$, $I_{max} = 160 \text{ kA}$
Housing	Compact design



Technical data

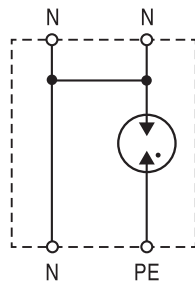
Type		ISPRO-TUBE BS		
Standards			IEC-61643-1	
Max. continuous operating voltage (AC/DC)	U_c	V	255	
Nominal discharge current (8/20)	I_n	kA	100	
Max. discharge current (8/20)	I_{max}	kA	160	
Impulse current (10/350)	I_{imp}	kA	100	
Specific energy		MJ/Ω	2,5	
Charge		As	50	
Protection level	at I_n (8/20)	U_p	kV	/
	at (1,2/50)			< 1,2
Follow current	I_f	A_{RMS}	100	
Response time	t_A	ns	100	
Residual current at U_c	I_{PE}	mA	/	
Thermal protection			/	
Terminal screw torque		Nm	max. 4,5	
Back-up fuse g_L		A	/	
Short-circuit withstand current (50 Hz)		kA	/	
Temperature range		°C	-40 ... +80	
Terminal cross section	solid	mm ²	35	
	stranded		25	
Mounting			35 mm wide mounting rail in accordance with EN 60715	
Degree of protection			IP 20	
Housing material			thermoplastic; extinguishing degree UL 94 V-0	
Dimensions DIN 43880			2TE	
Weight per unit		kg	0,260	



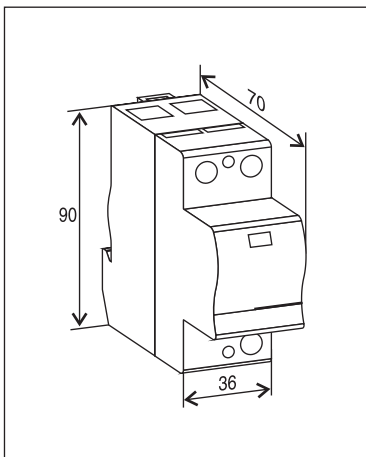
ISPRO-TUBE BS

Connection diagram

ISPRO BS 25/xxx



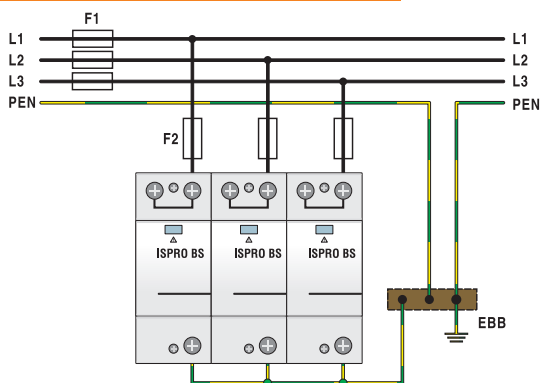
Dimensions



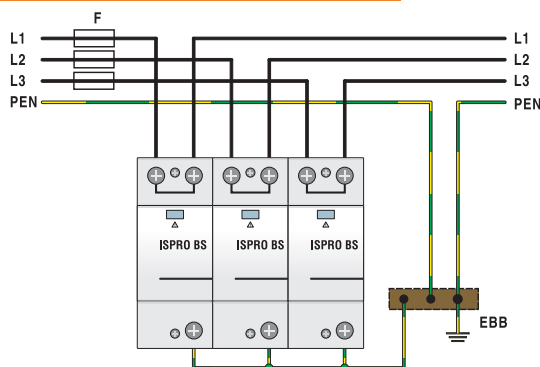


ISPRO BS(R), ISPRO-TUBE BS CONNECTIONS

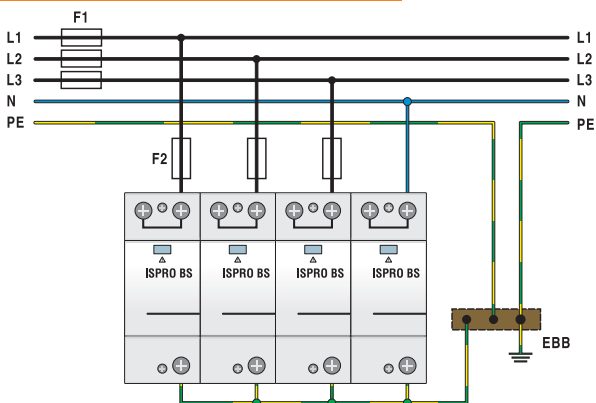
TNC Network - Parallel wiring



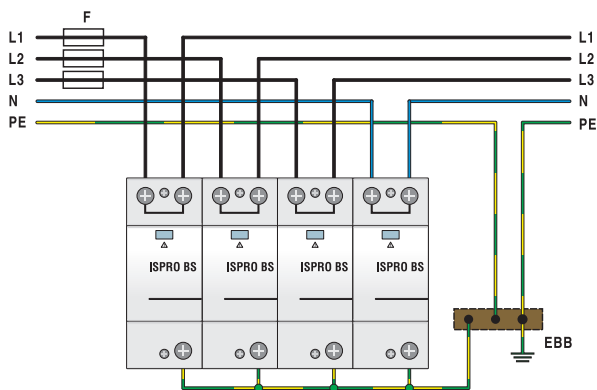
TNC Network - Serial (V-type) wiring



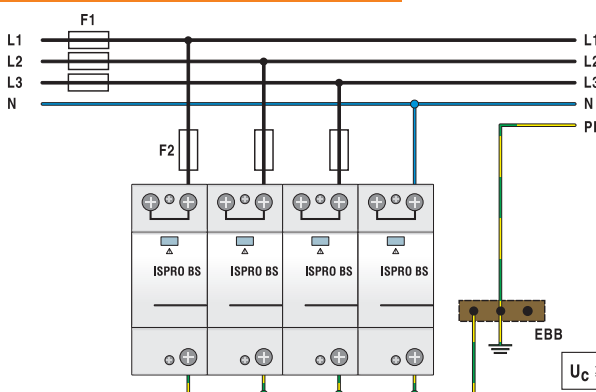
TNS Network - Parallel wiring



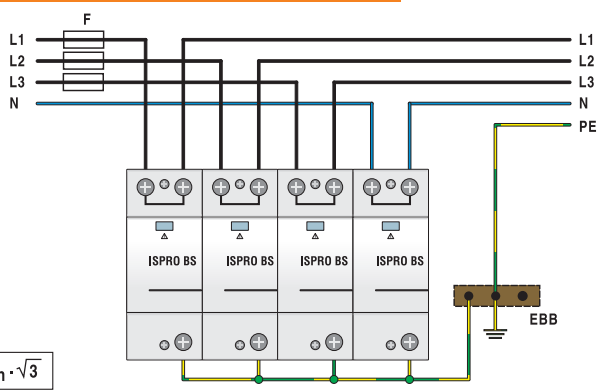
TNS Network - Serial (V-type) wiring



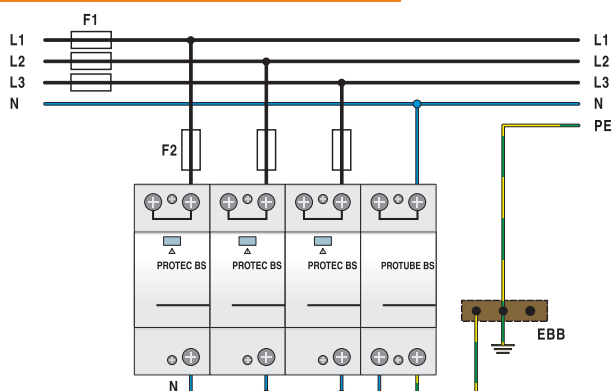
IT Network - Parallel wiring



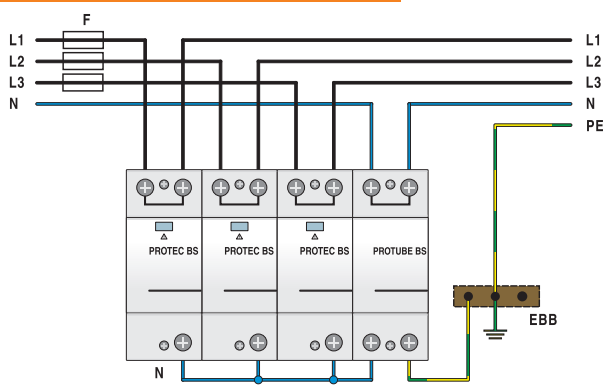
IT Network - Serial (V-type) wiring



TT Network - Parallel wiring



TT Network - Serial (V-type) wiring





MULTI-POLE LIGHTNING CURRENT AND SURGE ARRESTERS

CLASS I / (B+C)

CONNECTIONS: 3+0, 4+0, 3+1

$I_{imp} = 25 \text{ kA (10/350)}/\text{pole}$

COMPACT HOUSING



ISPRO-KOMP BS(R) 75 (3 + 0)



The ISPRO-KOMP BS(R) 75 (3 + 0) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (3 + 0) range is intended to be used on TNC three phase networks with PEN conductor.

The circuit topology consists of three varistor stages each protected by a thermal disconnection device. Each three phase unit comprises a total of three high performance dual MOV blocks, providing a high surge rating suitable for primary service entrance applications.

A unique indicator monitors all disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L-PEN
Protection element	High Energy MOVs
High surge discharge ratings	$I_{imp} = 25$ kA/pole, $I_{max} = 100$ kA/pole
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type	ISPRO-KOMP BS(R) 75/xxx (3 + 0)							
	150	275	320	385	440			
Standards	IEC-61643-1							
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	40 per pole					
Max. discharge current (8/20)	I_{max}	kA	100 per pole				80 per pole	
Impulse current (10/350)	I_{imp}	kA	25 per pole				20 per pole	
Impulse current (L1+L2+L3-PEN)	I_{imp}	kA	75				60	
Specific energy		kJ/Ω	156 per pole				100 per pole	
Charge		As	12,5				10	
Protection level	at I_n (8/20)	U_p	kV	< 0,9	< 1,4	< 1,6	< 1,8	< 2,0
	at I_{imp} (10/350)			< 0,7	< 1,1	< 1,2	< 1,3	< 1,7
Follow current	I_f		NO					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	2,5					
Thermal protection			YES					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse g_L (if mains > 250 A)		A	250					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		°C	-40 ... +80					
Terminal cross section	solid	mm ²	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			3TE					
Weight per unit		kg	0,475	0,610	0,630	0,570	0,580	



ISPRO-KOMP BS(R) 75 (3 + 0)

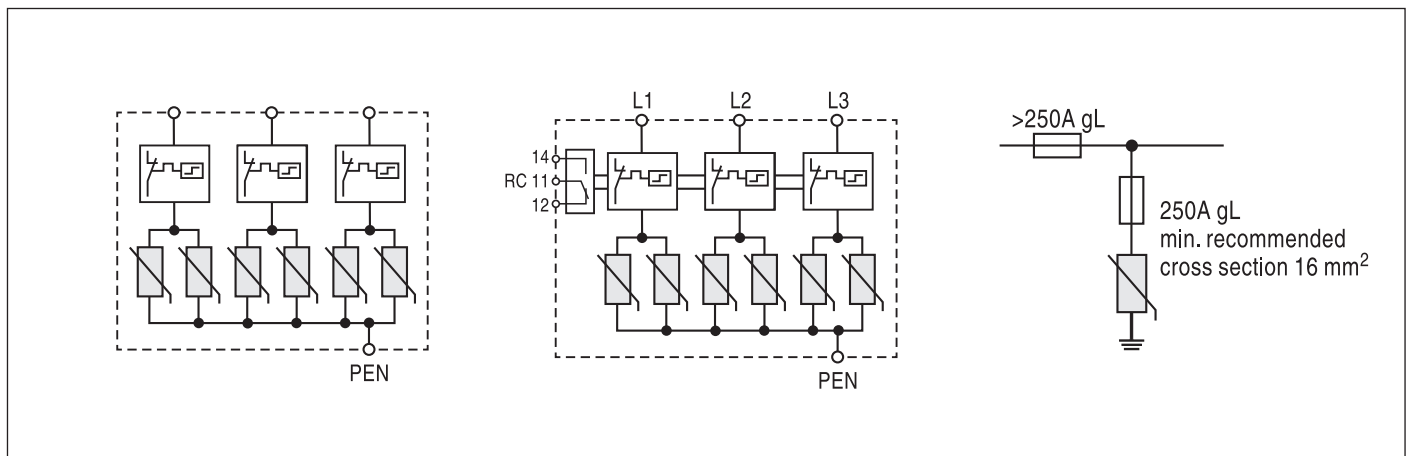
ISPRO-KOMP BSR 75 (3 + 0) (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,485	0,620	0,640	0,580	0,590

Connection diagram

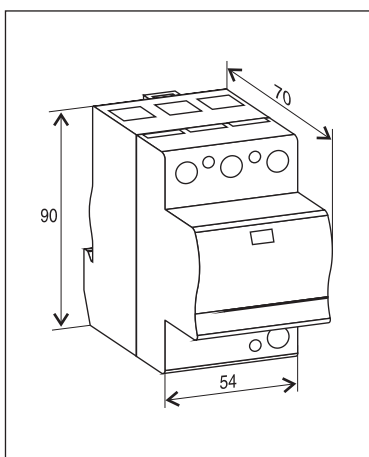
ISPRO-KOMP BS 75/xxx (3 + 0)

ISPRO BSR 75/xxx (3 + 0)

Selection of back-up fuse



Dimensions



ISPRO-KOMP BS(R) 100 (4 + 0)



The ISPRO-KOMP BS(R) 100 (4 + 0) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (4 + 0) range is intended to be used on TNS three phase networks with separate N and PE conductors.

The circuit topology consists of four varistor stages each protected by a thermal disconnection device. Each three phase unit comprises a total of four high performance dual MOV blocks, providing a high surge rating suitable for primary service entrance applications.

A unique indicator monitors all thermal disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L/N-PE
Protection element	High Energy MOVs
High surge discharge ratings	$I_{imp} = 25$ kA/pole, $I_{max} = 100$ kA/pole
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO-KOMP BS(R) 100/xxx (4 + 0)					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	40 per pole					
Max. discharge current (8/20)	I_{max}	kA	100 per pole					
Impulse current (10/350)	I_{imp}	kA	25 per pole					
Impulse current (L1+L2+L3-PEN)	I_{imp}	kA	100					
Specific energy		kJ/Ω	156 per pole					
Charge		As	12,5					
Protection level	at I_n (8/20)	U_p	kV	< 0,9	< 1,4	< 1,6	< 1,8	< 2,0
	at I_{imp} (10/350)			< 0,7	< 1,1	< 1,2	< 1,3	< 1,7
Follow current	I_f		YES					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	2,5					
Thermal protection			NO					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse gL (if mains > 250 A)		A	250					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		°C	-40 ... +80					
Terminal cross section	solid	mm ²	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			4TE					
Weight per unit		kg	0,620	0,790	0,830	0,725	0,740	



ISPRO-KOMP BS(R) 100 (4 + 0)

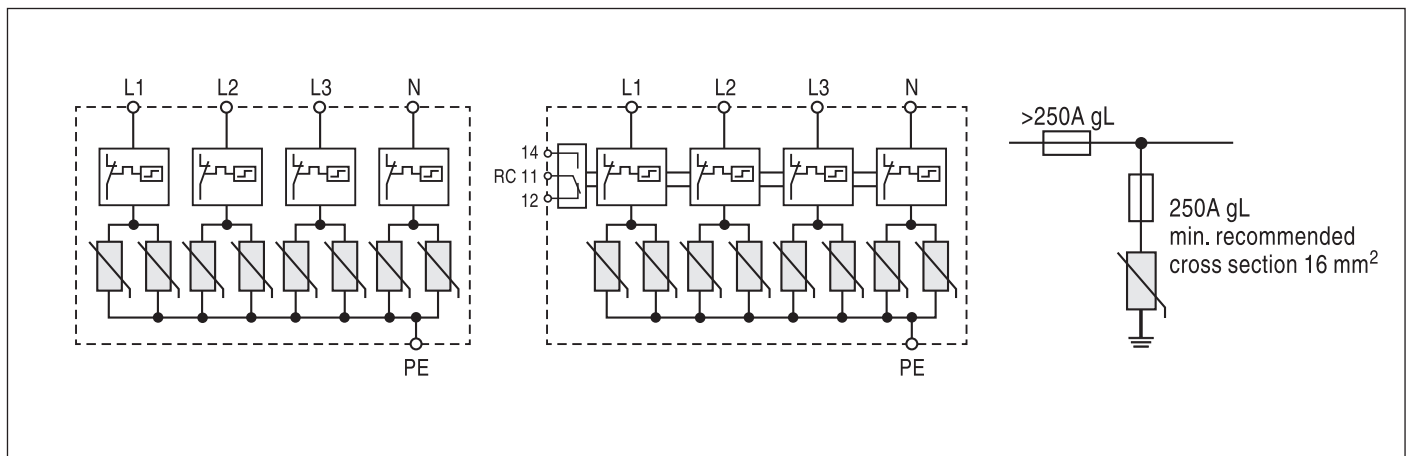
ISPRO-KOMP BSR 100 (4 + 0) (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,630	0,800	0,840	0,735	0,750

Connection diagram

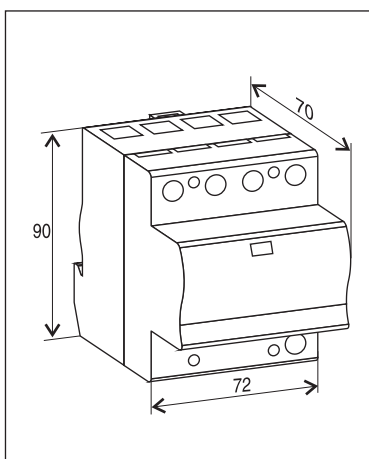
ISPRO-KOMP BS 100/xxx (4 + 0)

ISPRO BSR 100/xxx (4 + 0)

Selection of back-up fuse



Dimensions



ISPRO-KOMP BS(R) 100 (3 + 1)



The ISPRO-KOMP BS(R) 100 (3 + 1) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (3 + 1) range is intended to be used on TT three phase networks where N and PE galvanic isolation is required.

The circuit topology consists of three varistor stages each protected by a thermal disconnection device. Each unit comprises a total of three high performance dual MOV blocks, providing a surge rating suitable for branch service entrance applications. An encapsulated air gap (GDT) provides galvanic separation between the N and PE conductors.

A unique indicator monitors all disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L-N, N-PE
Protection element	High Energy MOVs, high energy GDT
High surge discharge ratings	$I_{imp} = 25$ kA/pole, $I_{max} = 100$ kA/pole
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type	ISPRO-KOMP BS(R) 100/xxx (3 + 1)							
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20) (MOV/GDT)	I_n	kA	40/100					
Max. discharge current (8/20) (MOV/GDT)	I_{max}	kA	100/160					
Impulse current (10/350) (MOV/GDT)	I_{imp}	kA	25/100					
Impulse current (L1+L2+L3+N+PE)	I_{imp}	kA	100					
Specific energy	(MOV)	kJ/Ω	156					
	(GDT)	MJ/Ω	2,5					
Charge (MOV/GDT)		As	12,5/50					
Protection level	at I_n (8/20) (MOV)	U_p	kV	< 0,9	< 1,4	< 1,6	< 1,8	< 2,0
	at I_{imp} (10/350) (MOV)			< 0,7	< 1,1	< 1,2	< 1,3	< 1,7
	at (1,2/50) (GDT)			< 1,2				
Follow current (GDT)	I_f	A_{RMS}	> 100					
Response time (MOV/GDT)	t_A	ns	25/100					
Residual current at U_c (MOV/GDT)	I_{PE}	mA	< 2,5/-					
Thermal protection (MOV/GDT)			/-					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse g_L (if mains > 250 A) (MOV/GDT)		A	250 / -					
Short-circuit withstand current (50 Hz) (MOV/GDT)		kA	25 / -					
Temperature range		°C	-40 ... +80					
Terminal cross section	solid	mm ²	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			5TE					
Weight per unit		kg	0,735	0,870	0,890	0,825	0,840	



ISPRO-KOMP BS(R) 100 (3 + 1)

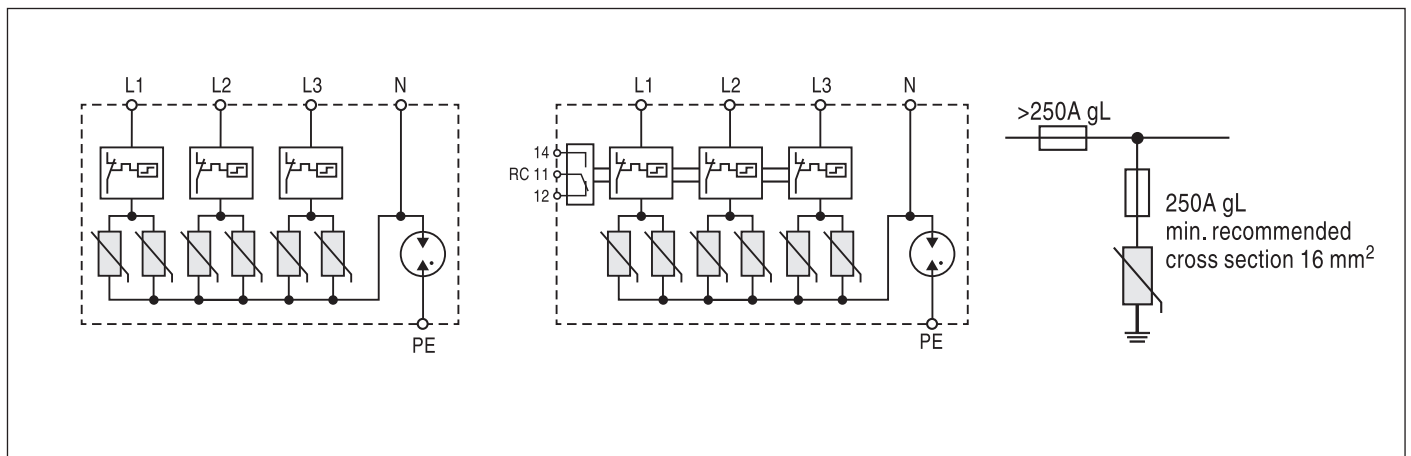
ISPRO-KOMP BSR 100 (3 + 1) (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,745	0,880	0,900	0,835	0,850

Connection diagram

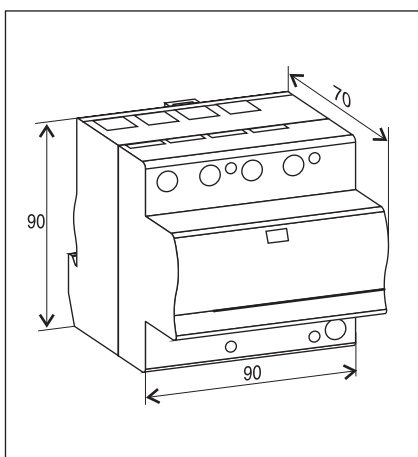
ISPRO-KOMP BS 100/xxx (3 + 1)

ISPRO BSR 100/xxx (3 + 1)

Selection of back-up fuse



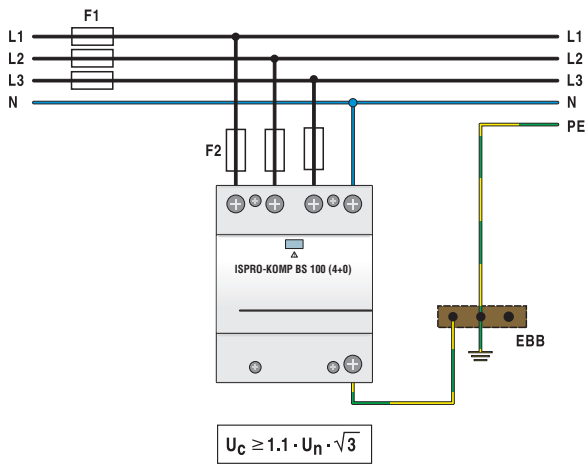
Dimensions



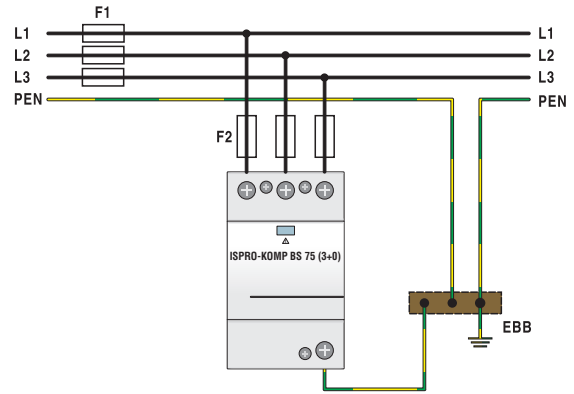
ISPRO-KOMP BS CONNECTIONS



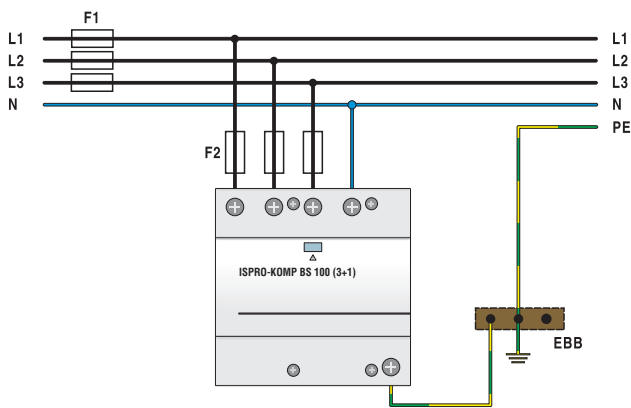
IT Network



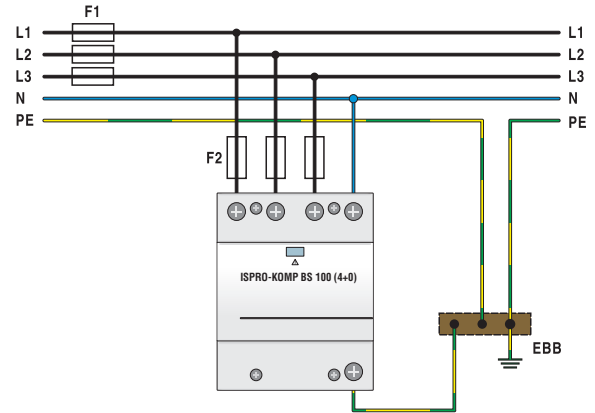
TNC Network



TT Network



TNS Network





MULTI-POLE LIGHTNING CURRENT AND SURGE ARRESTERS

CLASS I / (B+C)

CONNECTIONS: 3+0, 4+0, 3+1

$I_{imp} = 12,5 \text{ kA (10/350)}/\text{pole}$

COMPACT HOUSING



ISPRO-KOMP BS(R) 37,5 (3 + 0)



The ISPRO-KOMP BS(R) 37,5 (3 + 0) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (3 + 0) range is intended to be used on TNC three phase networks whit PEN conductor.

The circuit topology consists of three varistor stages each protected by a thermal disconnection device. Each three phase unit comprises a total of three high performance MOV blocks, providing a high surge rating suitable for primary service entrance applications.

A unique indicator monitors all disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L-PEN
Protection element	High Energy MOVs
High surge discharge ratings	$I_{imp} = 12,5 \text{ kA/pole}$, $I_{max} = 50 \text{ kA/pole}$
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO-KOMP BS(R) 37,5/xxx (3 + 0)					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	20 per pole				15 per pole	
Max. discharge current (8/20)	I_{max}	kA	50 per pole				40 per pole	
Impulse current (10/350)	I_{imp}	kA	12,5 per pole				10 per pole	
Impulse current (L1+L2+L3-PEN)	I_{imp}	kA	37,5				30	
Specific energy		kJ/Ω	39 per pole				25 per pole	
Charge		As	6,25 per pole				5 per pole	
Protection level	at I_n (8/20)	U_p	kV	< 0,8	< 1,4	< 1,6	< 1,7	< 2,2
	at I_{imp} (10/350)			< 0,6	< 1,0	< 1,1	< 1,2	< 1,6
Follow current	I_f	A_{RMS}	NO					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	< 2,5					
Thermal protection			YES					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse g_L (if mains > 250 A)		A	250					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		$^{\circ}\text{C}$	-40 ... +80					
Terminal cross section	solid	mm^2	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			3TE					
Weight per unit		kg	0,340	0,415	0,430	0,380	0,385	



ISPRO-KOMP BS(R) 37,5 (3 + 0)

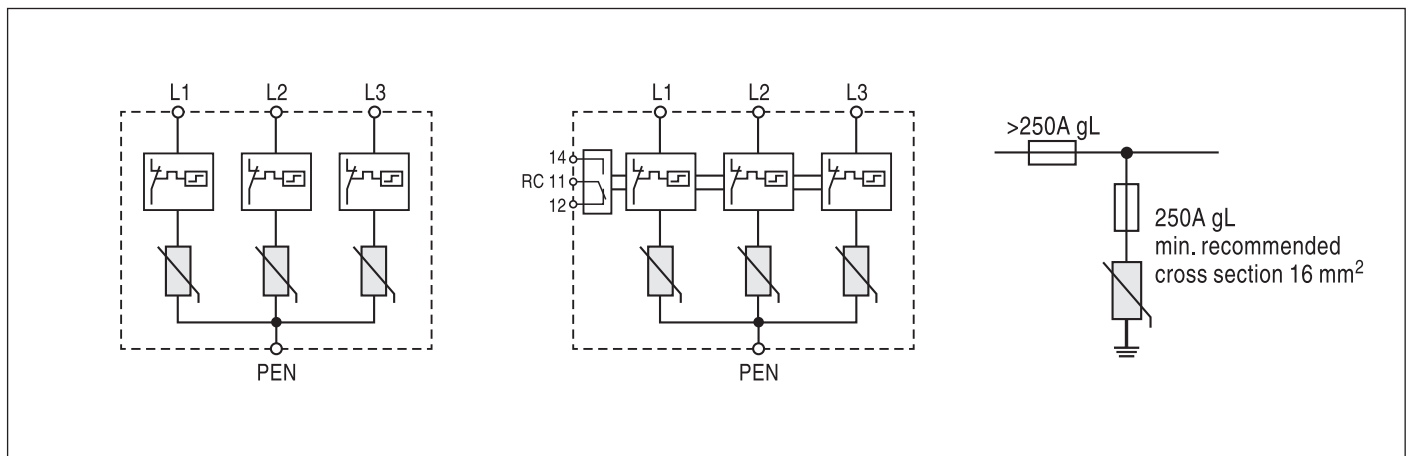
ISPRO-KOMP BSR 37,5 (3 + 0) (with remote contacts)							
Remote contacts					YES		
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,350	0,425	0,440	0,390	0,395

Connection diagram

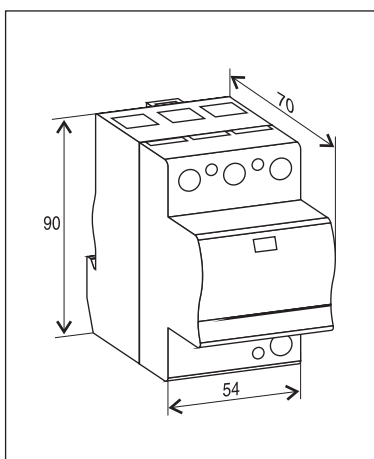
ISPRO-KOMP BS 37,5/xxx (3 + 0)

ISPRO BSR 37,5/xxx (3 + 0)

Selection of back-up fuse



Dimensions



ISPRO-KOMP BS(R) 50 (4 + 0)



The ISPRO-KOMP BS(R) 50 (4 + 0) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (4 + 0) range is intended to be used on TNS three phase networks with separate N and PE conductors.

The circuit topology consists of four varistor stages each protected by a thermal disconnection device. Each three phase unit comprises a total of four high performance MOV blocks, providing a high surge rating suitable for primary service entrance applications.

A unique indicator monitors all disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L/N-PE
Protection element	High Energy MOVs
High surge discharge ratings	$I_{imp} = 12,5 \text{ kA/pole}$, $I_{max} = 50 \text{ kA/pole}$
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO-KOMP BS(R) 50/xxx (4 + 0)					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	20 per pole				15 per pole	
Max. discharge current (8/20)	I_{max}	kA	50 per pole				40 per pole	
Impulse current (10/350)	I_{imp}	kA	12,5 per pole				10 per pole	
Impulse current (L1+L2+L3+N-PE)	I_{imp}	kA	50				40	
Specific energy		kJ/Ω	39 per pole				25 per pole	
Charge		As	6,25 per pole				5 per pole	
Protection level	at I_n (8/20)	U_p	kV	< 0,8	< 1,4	< 1,6	< 1,7	< 2,2
	at I_{imp} (10/350)			< 0,6	< 1,0	< 1,1	< 1,2	< 1,6
Follow current	I_f	A_{RMS}	NO					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	< 2,5					
Thermal protection			YES					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse gL (if mains > 250 A)		A	250					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		°C	-40 ... +80					
Terminal cross section	solid	mm ²	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			4TE					
Weight per unit		kg	0,450	0,550	0,590	0,500	0,510	



ISPRO-KOMP BS(R) 50 (4 + 0)

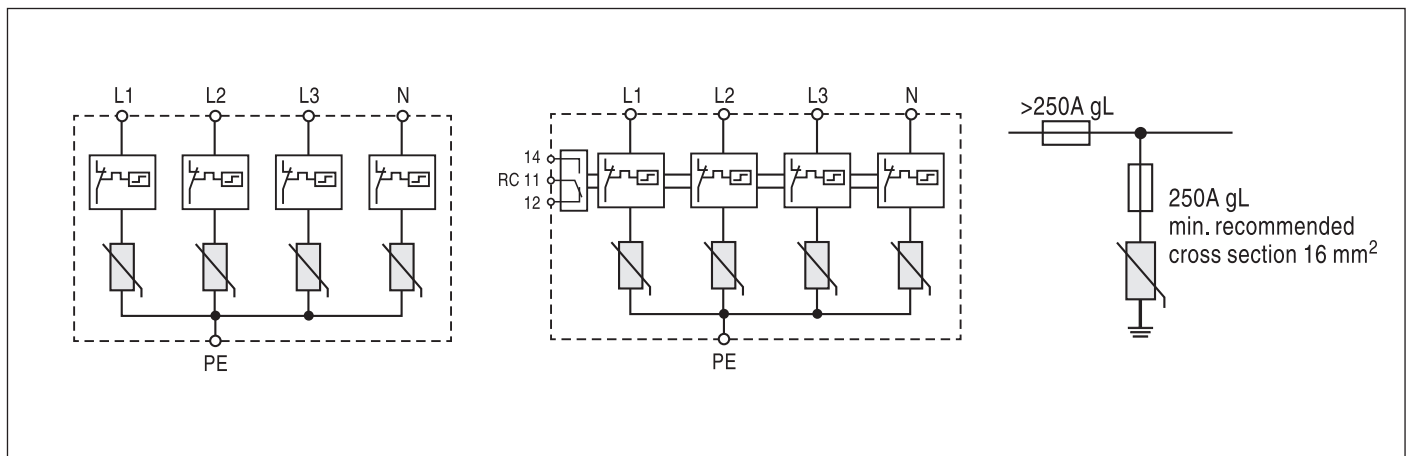
ISPRO-KOMP BSR 50 (4 + 0) (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,460	0,560	0,580	0,510	0,520

Connection diagram

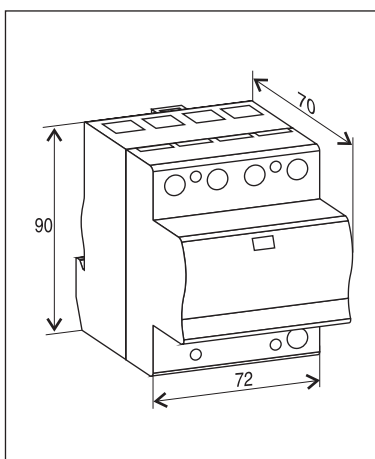
ISPRO-KOMP BS 50/xxx (4 + 0)

ISPRO BSR 50/xxx (4 + 0)

Selection of back-up fuse



Dimensions



ISPRO-KOMP BS(R) 50 (3 + 1)



The ISPRO-KOMP BS(R) 50 (3 + 1) series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

The (3 + 1) range is intended to be used on TT three phase networks where N to PE galvanic isolation is required.

The circuit topology consists of three varistor stages each protected by a thermal disconnection device. Each unit comprises a total of three high performance MOV blocks, providing a high surge rating suitable for branch service applications. An encapsulated air gap (GDT) provides galvanic separation between the N and PE conductors.

A unique indicator monitors all disconnectors and brings up a common status flag if any one stage should fail.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L-N, N-PE
Protection element	High Energy MOVs, high energy GDT
High surge discharge ratings	$I_{imp} = 12,5 \text{ kA/pole}$, $I_{max} = 50 \text{ kA/pole}$
Internal protection and safety	Separate thermal disconnector for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO-KOMP BS(R) 50/xxx (3 + 1)					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20) (MOV/GDT)	I_n	kA	20/50				15/50	
Max. discharge current (8/20) (MOV/GDT)	I_{max}	kA	50/100				40/100	
Impulse current (10/350) (MOV/GDT)	I_{imp}	kA	12,5/50				10/50	
Impulse current (L1+L2+L3+N+PE)	I_{imp}	kA	50				40	
Specific energy	(MOV)	kJ/ Ω	39				25	
	(GDT)		625					
Charge (MOV/GDT)		As	6,25/25				5/25	
Protection level	at I_n (8/20) (MOV)	U_p	kV	< 0,8	< 1,4	< 1,6	< 1,7	< 2,2
	at I_{imp} (10/350) (MOV)			< 0,6	< 1,0	< 1,1	< 1,2	< 1,6
	at (1,2/50) (GDT)			< 1,2				
Follow current (GDT)	I_f	A_{RMS}	> 100					
Response time (MOV/GDT)	t_A	ns	25/100					
Residual current at U_c (MOV/GDT)	I_{PE}	mA	< 25/-					
Thermal protection (MOV/GDT)			YES / -					
Terminal screw torque		Nm	max. 4,5					
Back-up fuse g_L (if mains > 250 A) (MOV/GDT)		A	250 / -					
Short-circuit withstand current (50 Hz) (MOV/GDT)		kA	25 / -					
Temperature range		$^{\circ}C$	-40 ... +80					
Terminal cross section	solid	mm ²	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			5TE					
Weight per unit		kg	0,565	0,640	0,655	0,610	0,620	



ISPRO-KOMP BS(R) 50 (3 + 1)

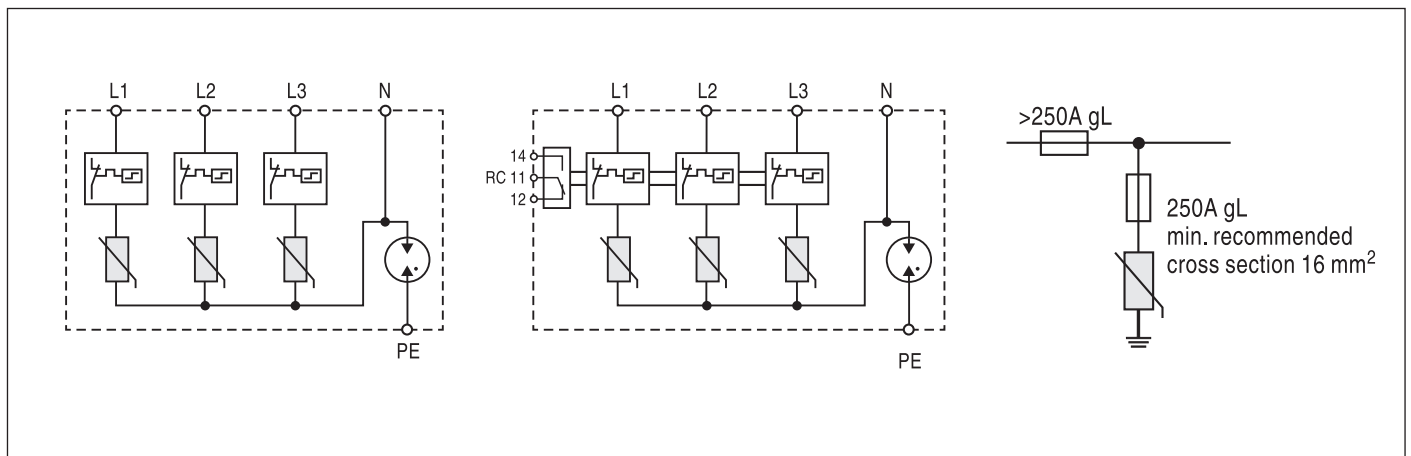
ISPRO-KOMP BS(R) 50 (3 + 1) (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,575	0,650	0,665	0,620	0,615

Connection diagram

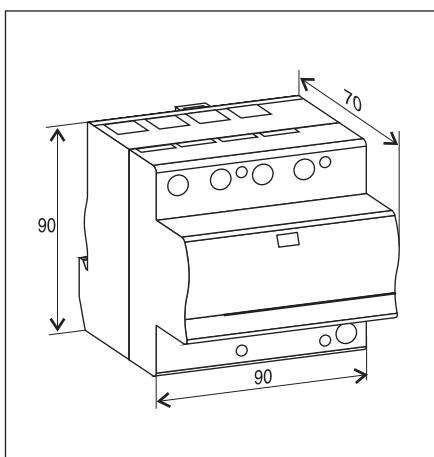
ISPRO-KOMP BS 50/xxx (3 + 1)

ISPRO BSR 50/xxx (3 + 1)

Selection of back-up fuse



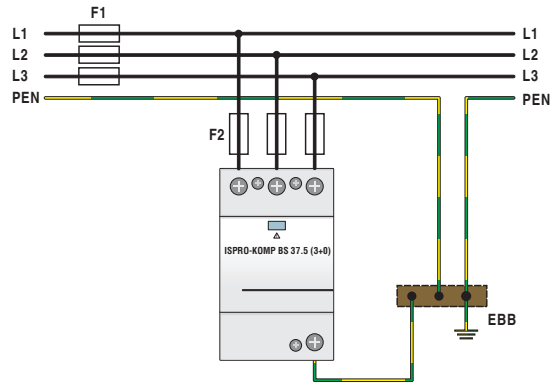
Dimensions



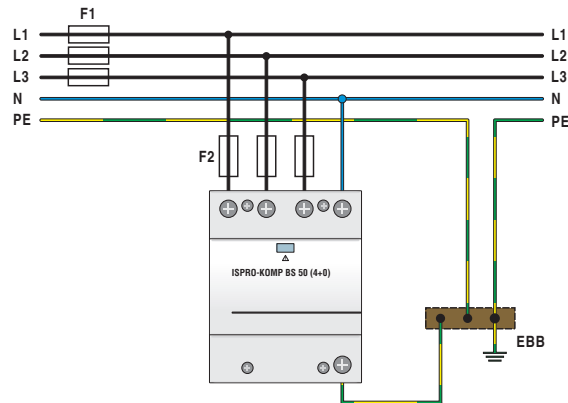
ISPRO-KOMP BS CONNECTIONS



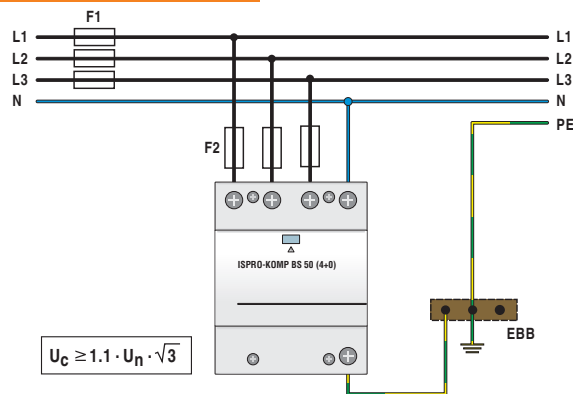
TNC Network



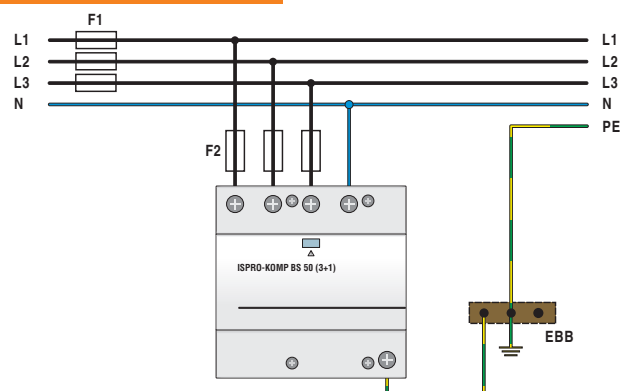
TNS Network



IT Network



TT Network





SINGLE-POLE LIGHTNING CURRENT AND SURGE ARRESTERS

CLASS I / (B+C)

$I_{imp} = 12,5 \text{ kA (10/350)}/\text{pole}$

COMPACT HOUSING



ISPRO B2N(R) 12,5



The ISPRO B2N(R) 12,5 series of low cost, over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones $0_A - 1$ as per IEC 62305.

It consists of a high performance varistor block with thermal disconnection device.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Main distribution boards
Protection modes	L/N-PE, L-PEN
Protection element	High Energy MOV
High surge discharge ratings	$I_{imp} = 12,5 \text{ kA}$, $I_{max} = 50 \text{ kA}$
Internal protection and safety	Separate thermal disconnecter for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			ISPRO B2N(R) 12,5/xxx					
			150	275	320	385	440	
Standards			IEC-61643-1					
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	20					
Max. discharge current (8/20)	I_{max}	kA	50					
Impulse current (10/350)	I_{imp}	kA	12,5					
Specific energy		kJ/Ω	39					
Charge		As	6,25					
Protection level	at I_n (8/20)	U_p	kV	< 0,8	< 1,5	< 1,6	< 1,7	< 2,0
	at I_{imp} (10/350)			< 0,7	< 1,2	< 1,3	< 1,4	< 1,9
Follow current	I_f	A_{RMS}	NO					
Response time	t_A	ns	25					
Residual current at U_c	I_{PE}	mA	< 2,5					
Thermal protection			YES					
Terminal screw torque		Nm	max. 3,5					
Back-up fuse gL (if mains > 160 A)		A	160					
Short-circuit withstand current (50 Hz)		kA	25					
Temperature range		$^{\circ}\text{C}$	-40 ... +80					
Terminal cross section	solid	mm^2	35					
	stranded		25					
Mounting			35 mm wide mounting rail in accordance with EN 60715					
Degree of protection			IP 20					
Housing material			thermoplastic; extinguishing degree UL 94 V-0					
Dimensions DIN 43880			1TE					
Weight per unit		kg	0,135	0,150	0,155	0,140	0,145	



ISPRO B2N(R) 12,5

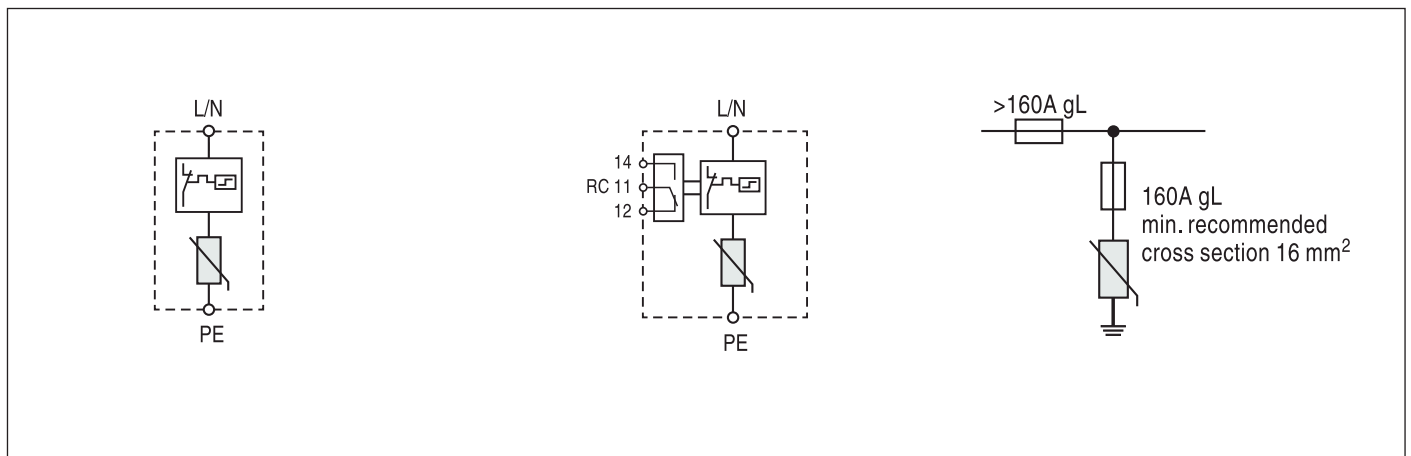
ISPRO B2N(R) 12,5 (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,145	0,160	0,165	0,150	0,155

Connection diagram

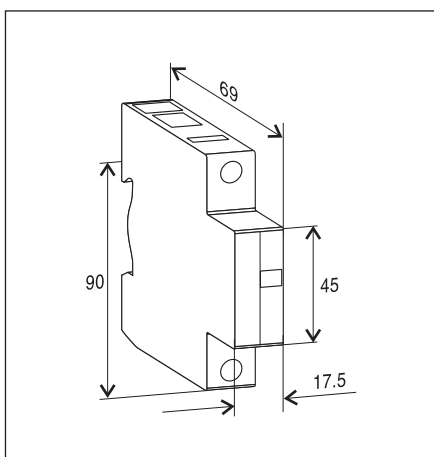
ISPRO B2N 12,5/xxx

ISPRO B2NR 12,5/xxx

Selection of back-up fuse



Dimensions





SINGLE-POLE AND MULTI-POLE SURGE ARRESTERS

CLASS II / (C)

CONNECTIONS: 1+1, 3+0, 4+0, 3+1

$I_{\max} = 20 \text{ kA (8/20)}$

MODULAR HOUSING





ISPRO C(R) 40

The ISPRO C(R) 40 series of low cost, over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protection in zones 1 – 2 as per IEC 62305.

It consists of a high performance varistor block with thermal disconnection device. The plug-in module/base design facilitates replacement of a failed module without the need to remove system wiring etc.

Category IEC/EN/VDE	Class II/Type 2/C
Location of use	Branch sub-distribution boards
Protection modes	L/N-PE, L-PEN
Protection element	MOV
High surge discharge ratings	$I_n = 20 \text{ kA}$, $I_{max} = 40 \text{ kA}$
Internal protection and safety	Thermal disconnecter
Status indication	Mechanical flag + remote contacts (R)
Housing	Modular design



Technical data

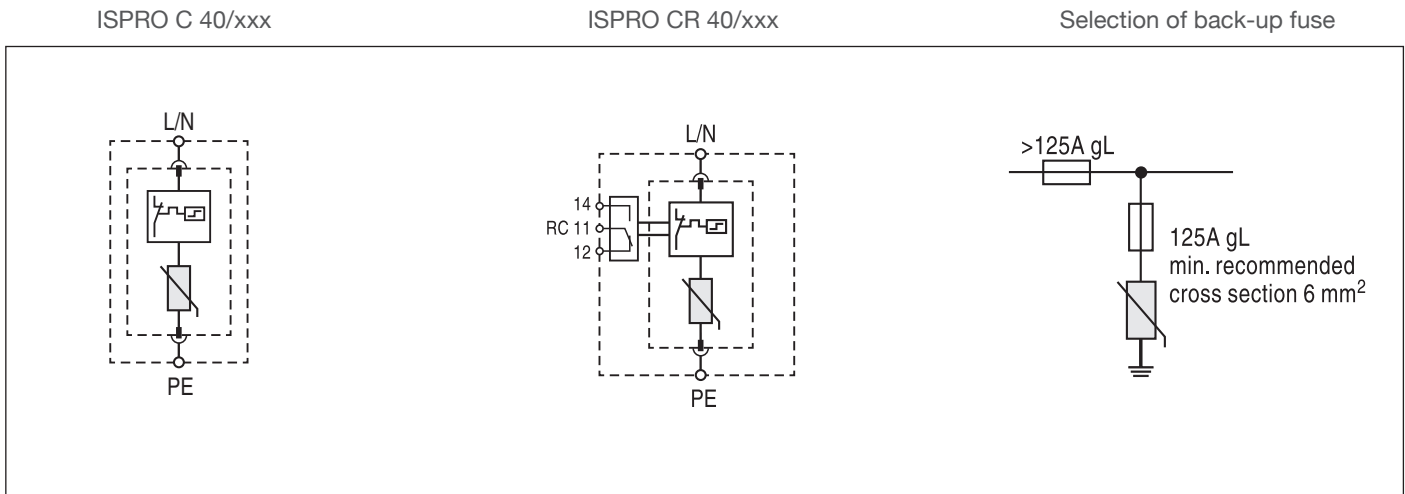
Type			ISPRO C(R) 40/xxx						
			75	150	275	320	385	440	
Standards			IEC-61643-1						
Max. continuous operating voltage (AC/DC)	U_c	V	75/100	150/200	275/350	320/420	385/500	440/580	
Nominal discharge current (8/20)	I_n	kA	20						
Max. discharge current (8/20)	I_{max}	kA	40						
Impulse current (10/350)	I_{imp}	kA	/						
Specific energy		kJ/Ω	/						
Charge		As	/						
Protection level	at I_n (8/20)	U_p	kV	< 0,6	< 0,85	< 1,25	< 1,45	< 1,65	< 2,1
	at I_{imp} (10/350)			/					
Follow current	I_f	A_{RMS}	NO						
Response time	t_A	ns	25						
Residual current at U_c	I_{PE}	mA	< 1,5						
Thermal protection			YES						
Terminal screw torque		Nm	max. 4,5						
Back-up fuse gL (if mains > 125 A)		A	125						
Short-circuit withstand current (50 Hz)		kA	25						
Temperature range		$^{\circ}\text{C}$	-40 ... +80						
Terminal cross section	solid	mm^2	35						
	stranded		25						
Mounting			35 mm wide mounting rail in accordance with EN 60715						
Degree of protection			IP 20						
Housing material			thermoplastic; extinguishing degree UL 94 V-0						
Dimensions DIN 43880			1TE						
Weight per unit		kg	0,110	0,120	0,125	0,125	0,125	0,135	

ISPRO C(R) 40

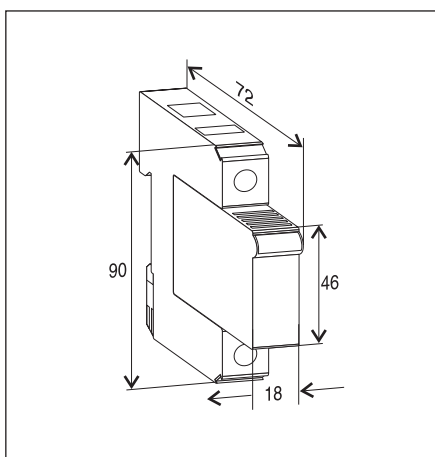


ISPRO C(R) 40 (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,120	0,130	0,135	0,135	0,145

Connection diagram



Dimensions

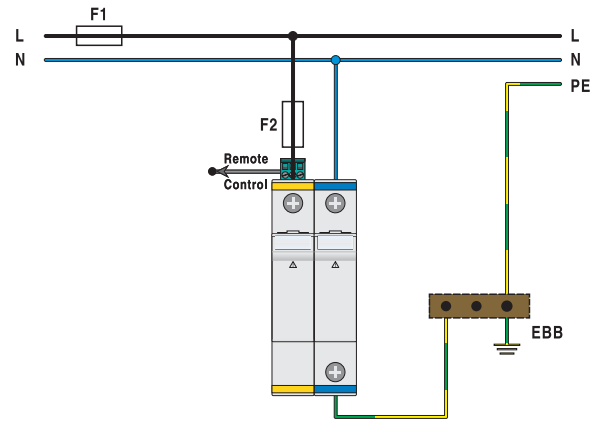




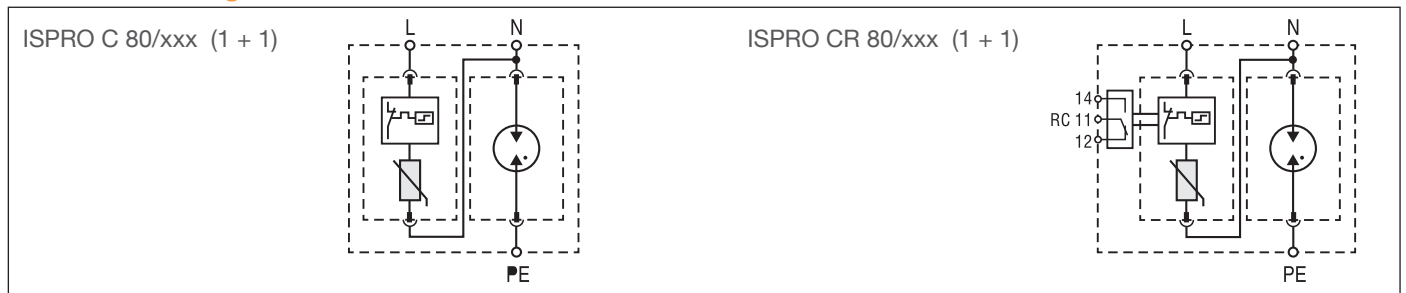
ISPRO C(R) 80 (1 + 1)

Connections

TT Network (Single-phase)	Dimensions	Weight per unit (kg)
ISPRO C 80/150 (1 + 1)	2TE	0,220
ISPRO C 80/275 (1 + 1)	2TE	0,230
ISPRO C 80/320 (1 + 1)	2TE	0,230
ISPRO C 80/385 (1 + 1)	2TE	0,230
ISPRO C 80/440 (1 + 1)	2TE	0,250
ISPRO CR 80/150 (1 + 1)	2TE	0,230
ISPRO CR 80/275 (1 + 1)	2TE	0,240
ISPRO CR 80/320 (1 + 1)	2TE	0,240
ISPRO CR 80/385 (1 + 1)	2TE	0,240
ISPRO CR 80/440 (1 + 1)	2TE	0,260



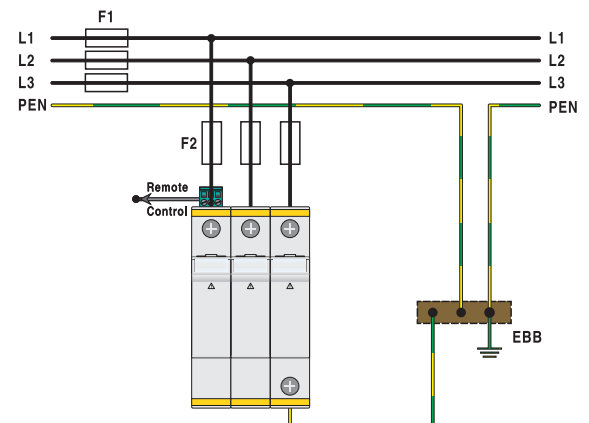
Connection diagram



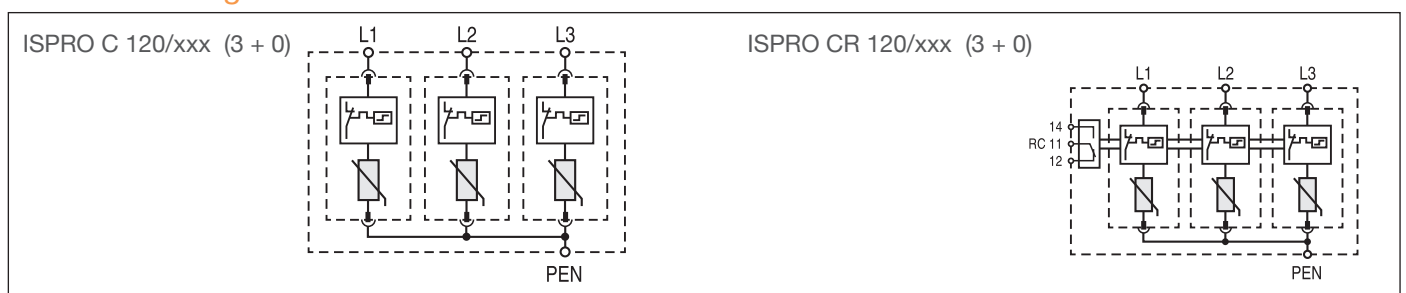
ISPRO C(R) 120 (3 + 0)

Connections

TT Network (Single-phase)	Dimensions	Weight per unit (kg)
ISPRO C 120/150 (3 + 0)	3TE	0,335
ISPRO C 120/275 (3 + 0)	3TE	0,345
ISPRO C 120/320 (3 + 0)	3TE	0,350
ISPRO C 120/385 (3 + 0)	3TE	0,355
ISPRO C 120/440 (3 + 0)	3TE	0,365
ISPRO CR 120/150 (3 + 0)	3TE	0,345
ISPRO CR 120/275 (3 + 0)	3TE	0,355
ISPRO CR 120/320 (3 + 0)	3TE	0,360
ISPRO CR 120/385 (3 + 0)	3TE	0,365
ISPRO CR 120/440 (3 + 0)	3TE	0,375



Connection diagram

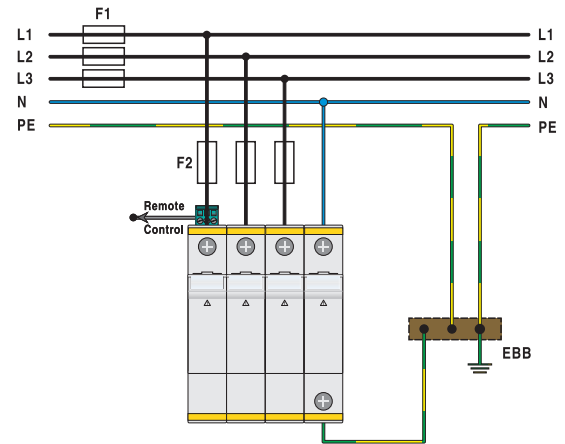


ISPRO C(R) 160 (4 + 0)

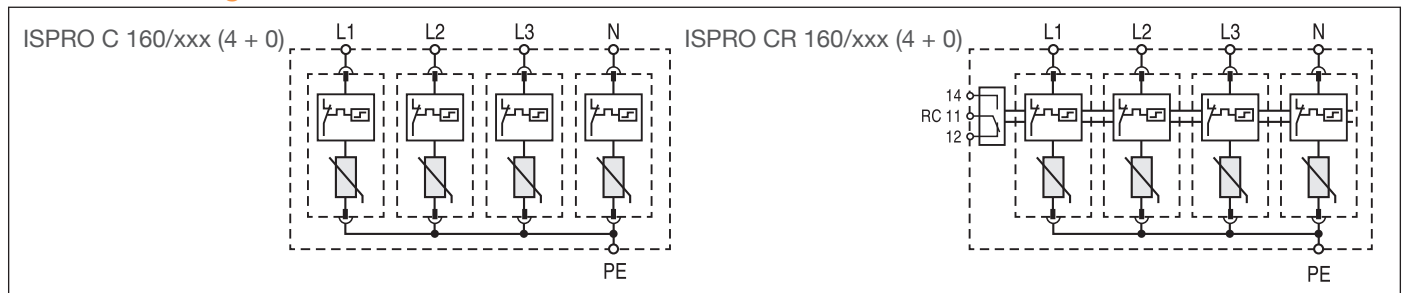


Connections

TT Network (Single-phase)	Dimensions	Weight per unit (kg)
ISPRO C 160/150 (4 + 0)	4TE	0,450
ISPRO C 160/275 (4 + 0)	4TE	0,460
ISPRO C 160/320 (4 + 0)	4TE	0,465
ISPRO C 160/385 (4 + 0)	4TE	0,475
ISPRO C 160/440 (4 + 0)	4TE	0,480
ISPRO CR 160/150 (4 + 0)	4TE	0,460
ISPRO CR 160/275 (4 + 0)	4TE	0,470
ISPRO CR 160/320 (4 + 0)	4TE	0,475
ISPRO CR 160/385 (4 + 0)	4TE	0,485
ISPRO CR 160/440 (4 + 0)	4TE	0,490



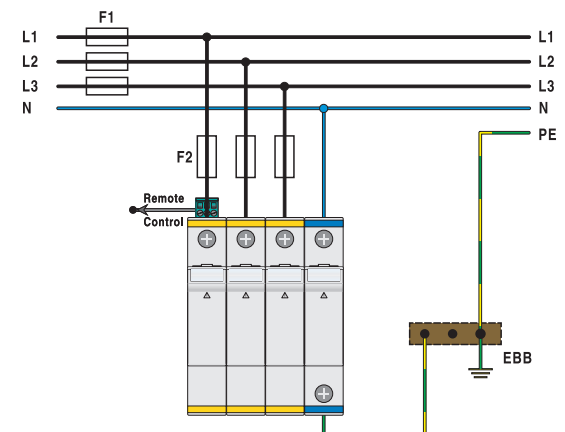
Connection diagram



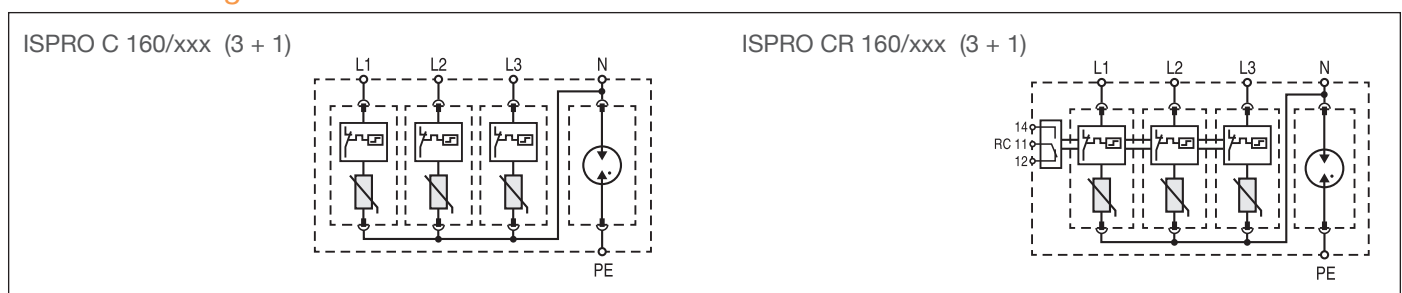
ISPRO C(R) 160 (3 + 1)

Connections

TT Network (Single-phase)	Dimensions	Weight per unit (kg)
ISPRO C 160/150 (3 + 1)	4TE	0,425
ISPRO C 160/275 (3 + 1)	4TE	0,435
ISPRO C 160/320 (3 + 1)	4TE	0,440
ISPRO C 160/385 (3 + 1)	4TE	0,445
ISPRO C 160/440 (3 + 1)	4TE	0,455
ISPRO CR 160/150 (3 + 1)	4TE	0,435
ISPRO CR 160/275 (3 + 1)	4TE	0,445
ISPRO CR 160/320 (3 + 1)	4TE	0,450
ISPRO CR 160/385 (3 + 1)	4TE	0,455
ISPRO CR 160/440 (3 + 1)	4TE	0,465



Connection diagram





MULTI-POLE LIGHTNING CURRENT AND SURGE ARRESTERS FOR PHOTOVOLTAIC SYSTEMS CLASS I / (B+C) AND CLASS II / (C) COMPACT AND MODULAR HOUSING



PV ISPRO BS(R) 12,5



The PV ISPRO BS(R) 12,5 series of over voltage surge protective devices has been developed to protect against partial direct and indirect lightning discharges and is intended to provide protect photovoltaic system.

The circuit topology consists of two varistor stages each protected by a thermal disconnection device.

Category IEC/EN/VDE	Class I/Type 1/B+C
Location of use	Photovoltaic systems – PV module side
Protection modes	(+)-PE, (-)-PE
Protection element	High Energy MOVs
High surge discharge ratings	$I_{imp} = 12,5 \text{ kA}$, $I_{max} = 80 \text{ kA}$
Internal protection and safety	Separate thermal disconnecter for each MOV block
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type	PV ISPRO BS(R) 12,5/xxx				
			500	1000	
Standards			IEC-61643-1		
Max. continuous operating voltage (DC)	U_c	V	550	1000	
Nominal discharge current (8/20)	I_n	kA	40		
Max. discharge current (8/20)	I_{max}	kA	80		
Impulse current (10/350)	I_{imp}	kA	12,5		
Specific energy		kJ/Ω	39		
Charge		As	6,25		
Protection level	at I_n (8/20)	U_p	kV	< 1,8	< 2,2
	at I_{imp} (10/350)			< 1,6	< 1,9
Follow current	I_f	A_{RMS}	NO		
Response time	t_A	ns	< 25		
Residual current at U_c		I_{PE}	mA < 2,5		
Thermal protection			YES		
Terminal screw torque		Nm	max. 4,5		
Back-up fuse gL (if mains > 250 A)		A	250		
Short-circuit withstand current (50 Hz)		kA	25		
Temperature range		$^{\circ}\text{C}$	-40 ... +80		
Terminal cross section	solid	mm^2	35		
	stranded		25		
Mounting			35 mm wide mounting rail in accordance with EN 60715		
Degree of protection			IP 20		
Housing material			thermoplastic; extinguishing degree UL 94 V-0		
Dimensions DIN 43880			4TE		
Weight per unit		kg	0,300	0,350	



PV ISPRO BS(R) 12,5

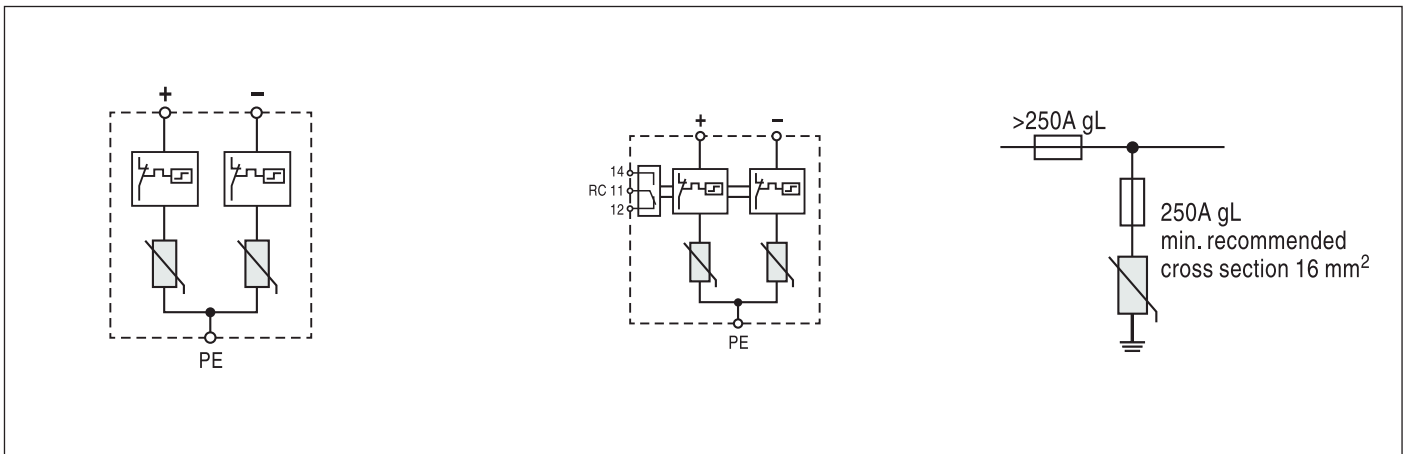
PV ISPRO BSR 12,5 (with remote contacts)			
Remote contacts			YES
Contact ratings AC	250 V	A	0,5
	125 V		3
Terminal cross section		mm ²	max. 1,5
Remote terminal torque		Nm	0,25
Weight per unit		kg	0,310 0,360

Connection diagram

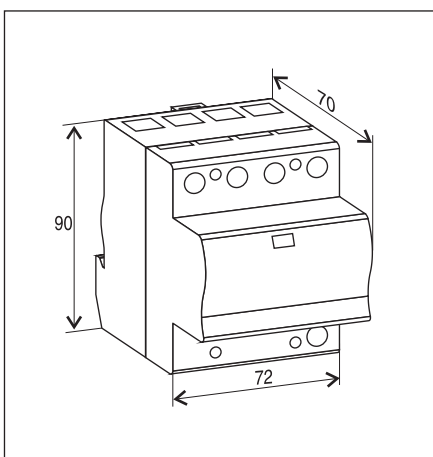
PV ISPRO BS 12,5/xxx

PV ISPRO BSR 12,5/xxx

Selection of back-up fuse



Dimensions



PV ISPRO C(R) 40



The PV ISPRO C(R) 40 series of over voltage surge protective devices has been developed to protect against indirect lightning discharges and is intended to protect photovoltaic system.

The circuit topology consists of two(three) varistor stages each protected by a thermal disconnection device.

Category IEC/EN/VDE	Class II/Type 2/C
Location of use	Branch sub-distribution boards
Protection modes	(+)-PE, (-)-PE
Protection element	High Energy MOVs
High surge discharge ratings	$I_n = 20 \text{ kA}$, $I_{max} = 40 \text{ kA}$
Internal protection and safety	Thermal disconnecter
Status indication	Mechanical flag + remote contacts (R)
Housing	Compact design



Technical data

Type			PV ISPRO C(R) 40/xxx		
			500	1000	
Standards			IEC-61643-1		
Max. continuous operating voltage (DC)	U_c	V	550	1000	
Nominal discharge current (8/20)	I_n	kA	20		
Max. discharge current (8/20)	I_{max}	kA	40		
Impulse current (10/350)	I_{imp}	kA	/		
Specific energy		kJ/Ω	/		
Charge		As	/		
Protection level	at I_n (8/20)	U_p	kV	< 2,1	< 3,0
	at I_{imp} (10/350)			/	
Follow current	I_f	A_{RMS}	NO		
Response time	t_A	ns	< 25		
Residual current at U_c		I_{PE}	mA < 1,5		
Thermal protection			YES		
Terminal screw torque		Nm	max. 4,5		
Back-up fuse gL (if mains > 125 A)		A	125		
Short-circuit withstand current (50 Hz)		kA	25		
Temperature range		°C	-40 ... +80		
Terminal cross section	solid	mm ²	35		
	stranded		25		
Mounting			35 mm wide mounting rail in accordance with EN 60715		
Degree of protection			IP 20		
Housing material			thermoplastic; extinguishing degree UL 94 V-0		
Dimensions DIN 43880			2TE	3TE	
Weight per unit		kg	0,255	0,365	



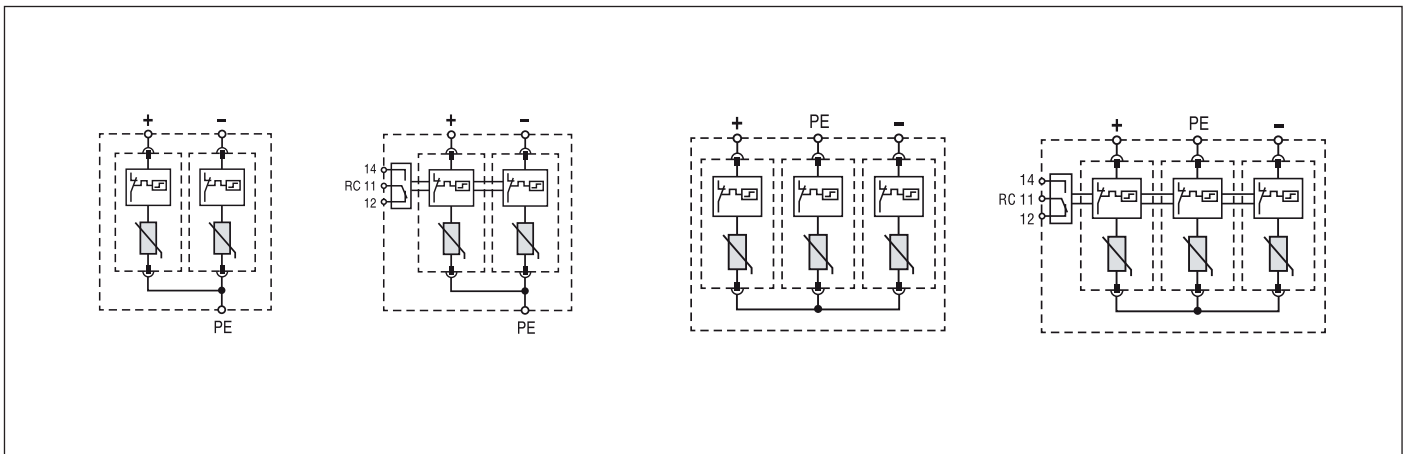
PV ISPRO C(R) 40

PV ISPRO CR 40 (with remote contacts)				
Remote contacts			YES	
Contact ratings AC	250 V	A	0,5	
	125 V		3	
Terminal cross section		mm ²	max. 1,5	
Remote terminal torque		Nm	0,25	
Weight per unit		kg	0,265	0,375

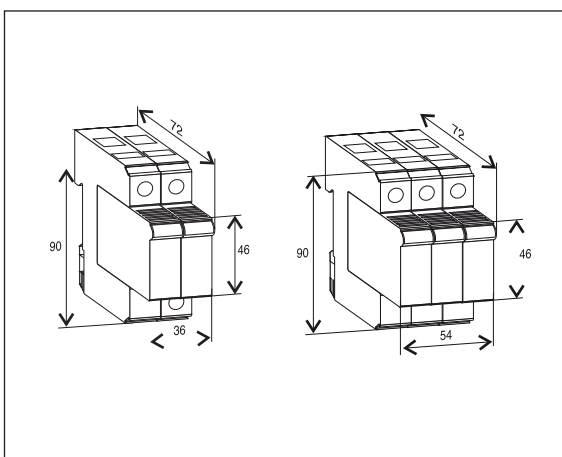
Connection diagram

PV ISPRO C 40/500

PV ISPRO CR 40/100



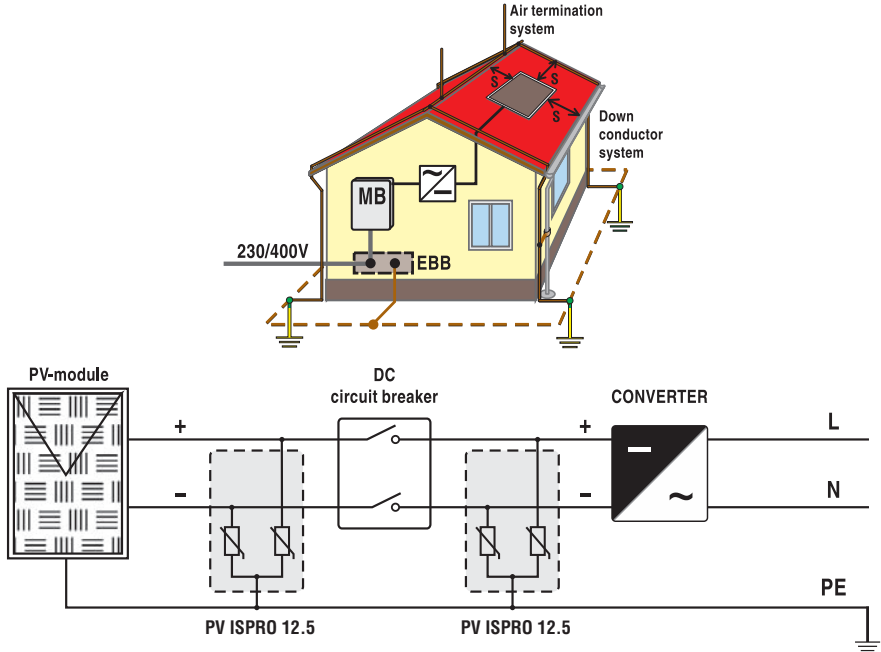
Dimensions



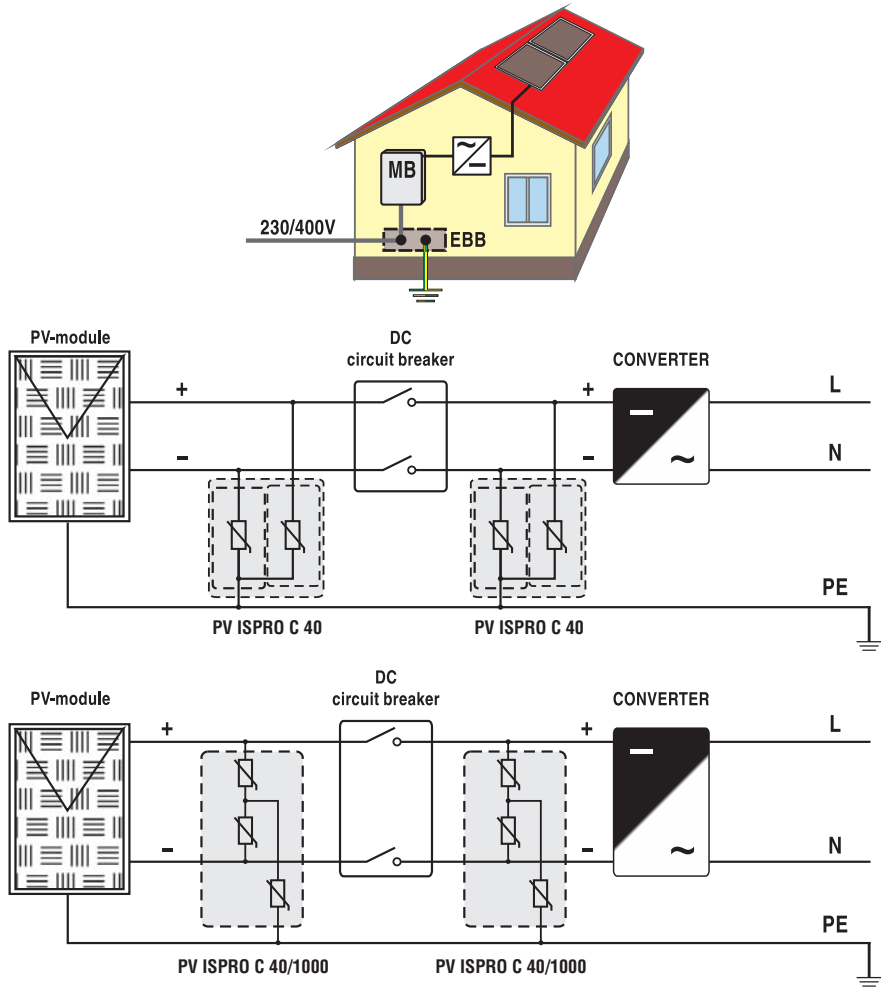
PHOTOVOLTAIC SYSTEMS CONNECTIONS



Photovoltaic system on a building with External Lightning Protection



Photovoltaic system on a building without External Lightning Protection





SURGE ARRESTERS FOR OVERHEAD POWER LINES

CLASS II / (A)

I_{MAX} : up to 40kA (8/20)

COMPACT HOUSING



ISPRO AQ 40



The ISPRO AQ 40 series of over voltage surge protective devices has been developed to protect against indirect lightning discharges on overhead power lines.

It consists of a high performance varistor block protected by a thermal disconnection device.

Category IEC/EN/VDE	Class II/Type 2/A
Location of use	Overhead power lines
Protection modes	L/N-PE
Protection element	High energy MOV
High surge discharge ratings	$I_n = 15 \text{ kA}$, $I_{\text{max}} = 40 \text{ kA}$
Internal protection and safety	Thermal disconnecter
Status indication	Compact design
Housing	Compact design



Technical data

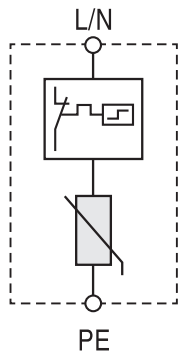
Type	ISPRO AQ 40/xxx						
			150	275	320	385	440
Standards			IEC-61643-11				
Max. continuous operating voltage (AC/DC)	U_c	V	150/200	275/350	320/420	385/500	440/580
Combination wave (1,2/50-8/20)	I_n	kA	15				
Max. discharge current (8/20)	I_{max}	kA	40				
Impulse current (10/350)	I_{imp}	kA	/				
Specific energy		kJ/Ω	/				
Charge		As	/				
Protection level at U_{oc} / I_{sc}	U_p	kV	< 0,9	< 1,2	< 1,3	< 1,4	< 1,6
Follow current	I_f	A_{RMS}	NO				
Response time	t_A	ns	< 25				
Residual current at U_c	I_{PE}	mA	< 2				
Thermal protection			NO				
Terminal screw torque		Nm	max. 3,5				
Back-up fuse gL		A	NO				
Short-circuit withstand current (50 Hz)		kA	/				
Temperature range		°C	-40 ... +80				
Terminal cross section	L/N		M8				
	PE	mm ²	6 (stranded)				
Mounting			outdoors				
Degree of protection			/				
Housing material			thermoplastic; extinguishing degree UL 94 V-0				
Dimensions DIN 43880			/				
Weight per unit		kg	0,105				



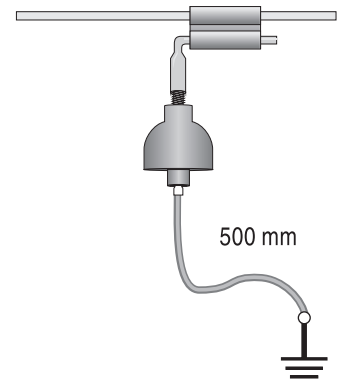
ISPRO AQ 40

Connection diagram

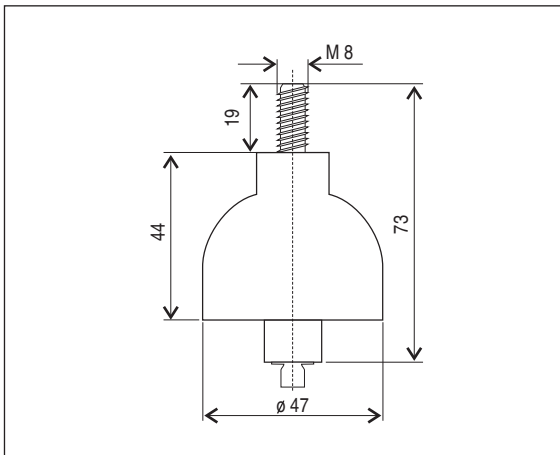
ISPRO AQ 40/xxx



Mounting



Dimensions





Iskra MIS, d. d.
Ljubljanska c. 24a
SI-4000 Kranj, Slovenia

Tel.: +386 4 237 21 12
Fax: +386 4 237 21 29

E-mail: info@iskra-mis.si
www.iskra-mis.si