



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 $O_A - 1$ 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	25				
Max. discharge current (8/20)	I_{max}	kA	100				
Impulse current (10/350)	I_{imp}	kA	50				
Specific energy		kJ/Ω	625				
Charge		As	25				
Protection level	U_p	kV	< 0,6	< 1,2	< 1,2	< 1,6	< 1,9
Residual Voltage at I_{imp}	U_{res}		< 0,7	< 1,2	< 1,2	< 1,5	< 1,8
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		°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			4TE	
Weight per unit		kg	0,266	0,374	0,374	0,438	0,458



ISPRO BS(R) 50

ISPRO BSR 50 (with remote contacts)

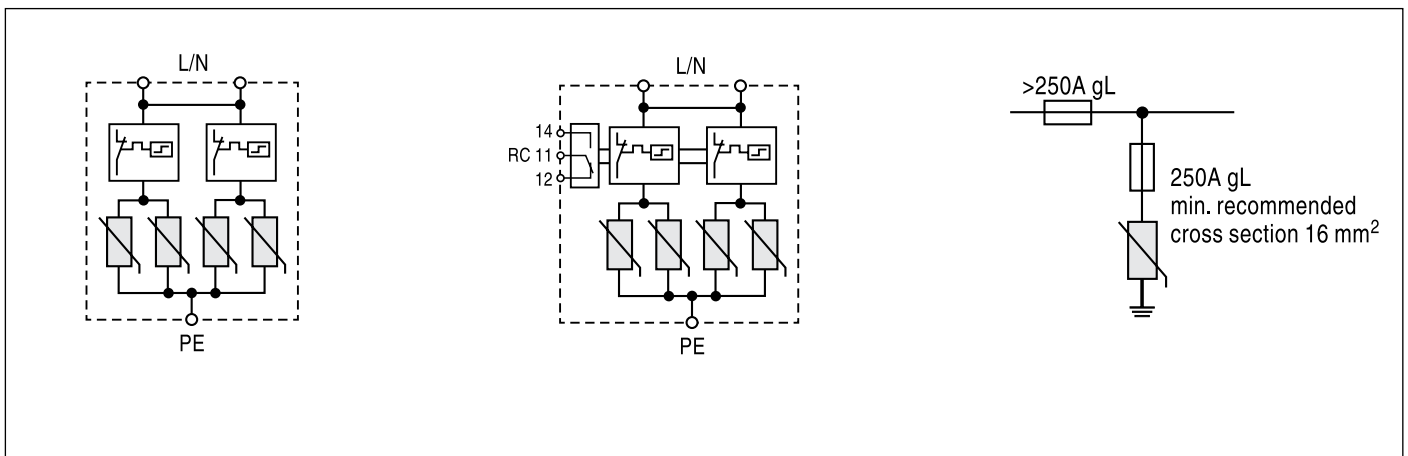
Remote contacts			YES				
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,271	0,379	0,379	0,443	0,463

Connection diagram

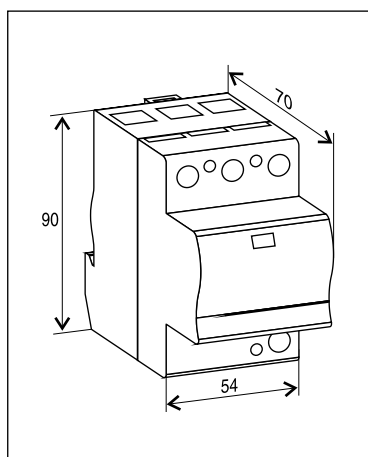
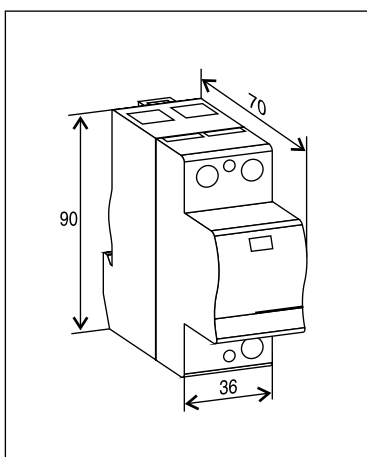
ISPRO BS 50/xxx

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	25				
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	U_p	kV	< 0,7	< 1,3	< 1,3	< 1,7	< 2,0
Residual Voltage at I_{imp}	U_{res}		< 0,7	< 1,2	< 1,2	< 1,5	< 1,8
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		°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	0,200	0,252	0,252	0,268	0,284



ISPRO BS(R) 25

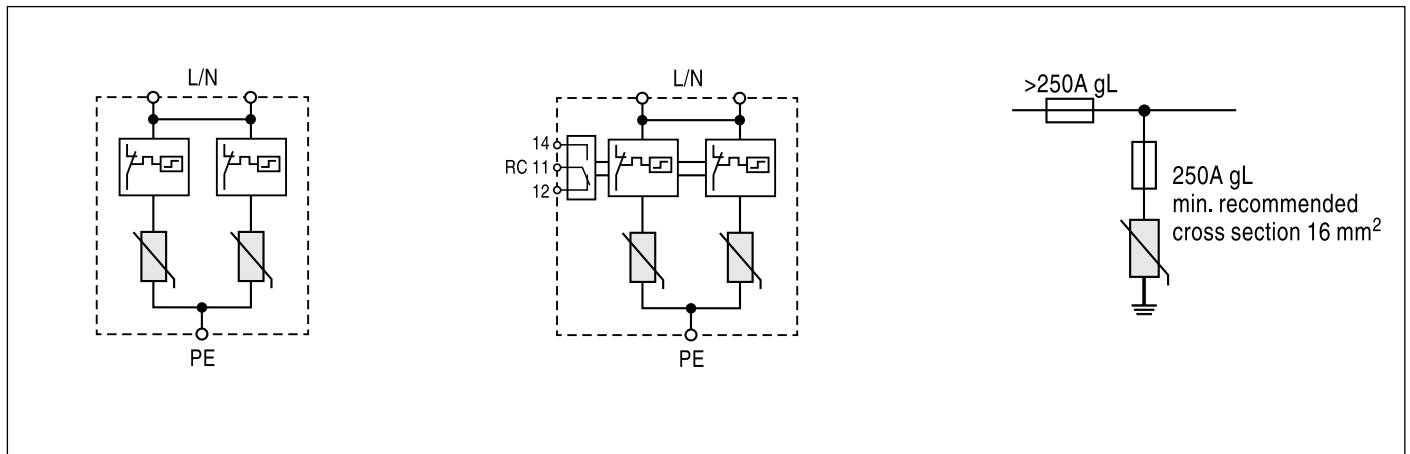
ISPRO BSR 25 (with remote contacts)							
Remote contacts						YES	
Contact ratings AC	250 V	A	0,5				
	125 V		3				
Terminal cross section		mm ²	max. 1,5				
Remote terminal torque		Nm	0,25				
Weight per unit		kg	0,205	0,257	0,257	0,273	0,289

Connection diagram

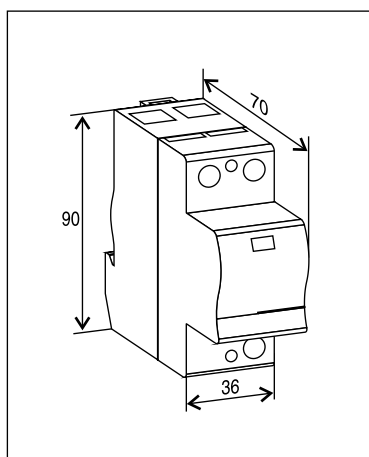
ISPRO BS 25/xxx

ISPRO BSR 25/xxx

Selection of back-up fuse



Dimensions



ISPRO-G BS



The ISPRO-G 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	$I_{imp} = 100 \text{ kA}$, $I_{max} = 100 \text{ kA}$
Housing	Compact design



Technical data

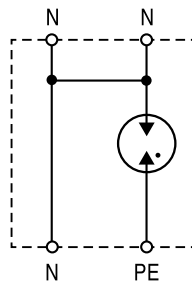
Type	ISPRO-G BS		
Standards			IEC-61643-1
Max. continuous operating voltage (AC/DC)	U_c	V	255
Nominal discharge current (8/20)	I_n	kA	100
Max. discharge current (8/20)	I_{max}	kA	100
Impulse current (10/350)	I_{imp}	kA	100
Specific energy		MJ/Ω	2,5
Charge		As	50
Protection level	U_p	kV	< 1,5
Residual Voltage at I_{imp}	U_{res}		< 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 gL		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	0,238



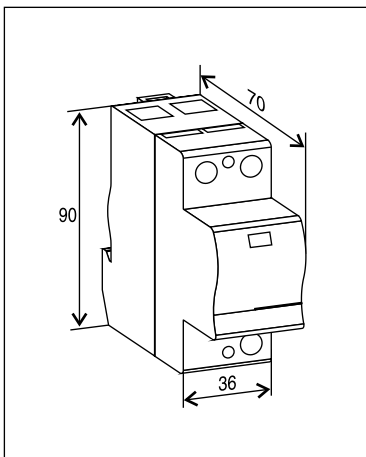
ISPRO-G BS

Connection diagram

ISPRO-G BS



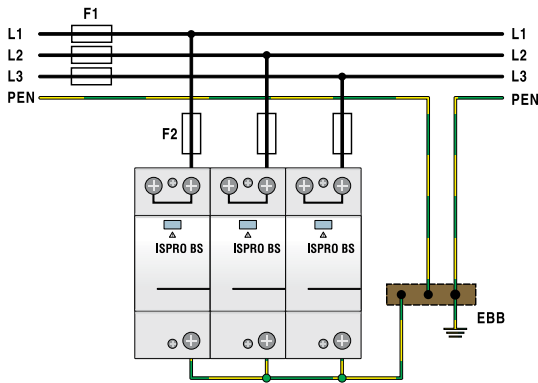
Dimensions



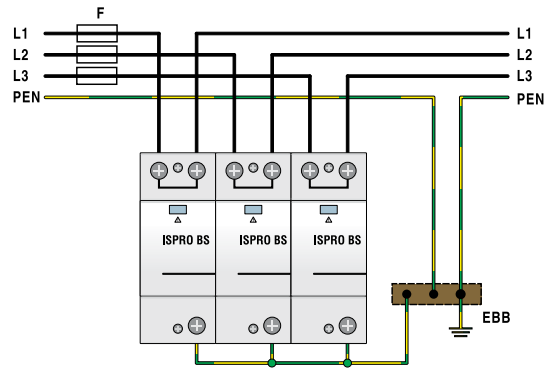


ISPRO BS(R), ISPRO-G BS CONNECTIONS

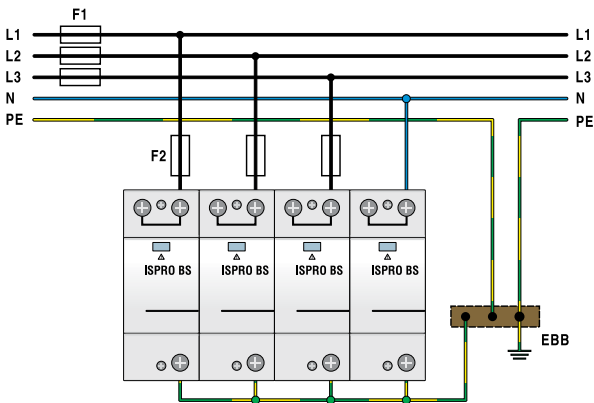
TNC Network - Parallel wiring



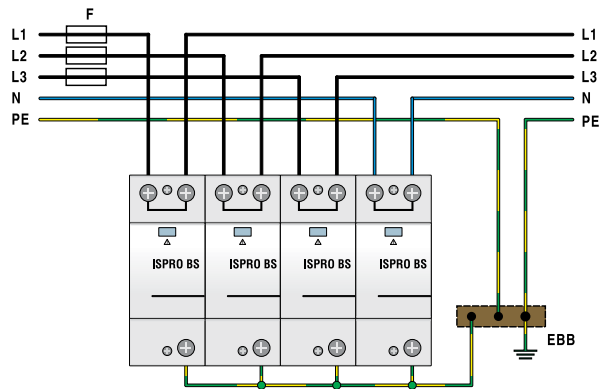
TNC Network - Serial (V-type) wiring



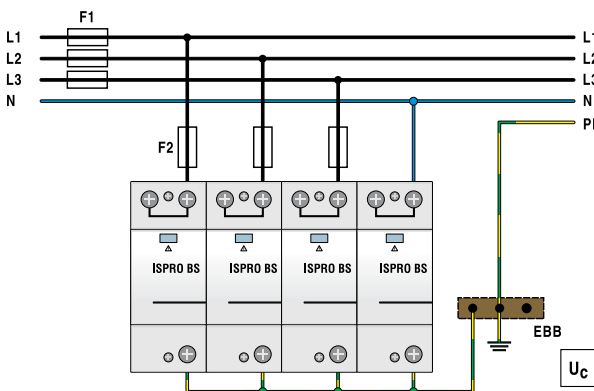
TNS Network - Parallel wiring



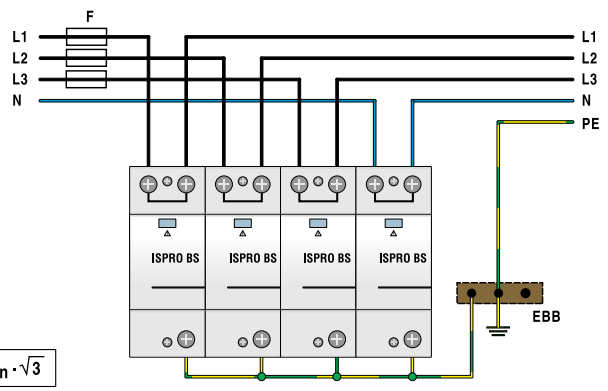
TNS Network - Serial (V-type) wiring



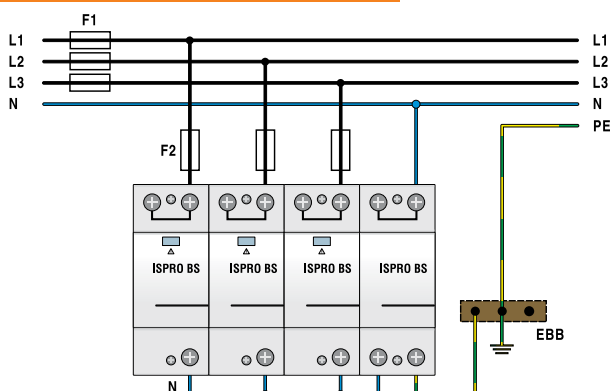
IT Network - Parallel wiring



IT Network - Serial (V-type) wiring



TT Network - Parallel wiring



TT Network - Serial (V-type) wiring

