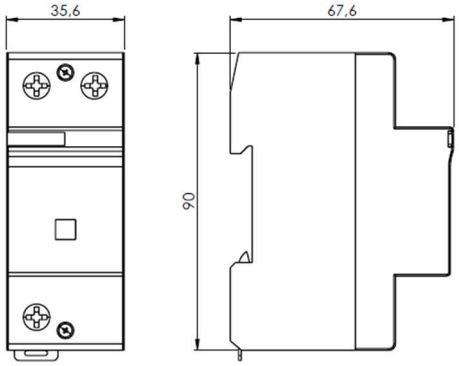
Indelec

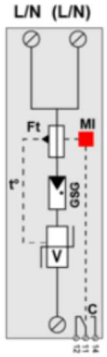
Surge Protection

Made In Safety

Type 1 + 2 + 3 SPD
DGV 440

Designation		DGV 440
Part Number		P8312J
Electrical Characteristics		
SPD type		1+2+3
Technology		MOV + GSG
SPD configuration		1 pole
Network nominal voltage		230/400V
Neutral configuration		IT - TNS - TNC (C1 mode) TT – TNS (C2 mode with DI SPD for N/PE)
Max. AC operating system	U_C	440 Vac
Temporary Over Voltage (TOV) 5sec.	U_T	580 Vac withstand
Temporary Over Voltage (TOV) 120 mn	U_T	770 Vac withstand
Leakage current	I_{pe}	none
Follow current	I_f	none
Max. impulse current by pole Max. withstand 10/350µs	I_{imp}	25 kA (with fuse SFD1-25 or 315A gG) 12,5 kA (with fuse SFD1-13 or 125A gG)
Nominal discharge current 15 x 8/20µs impulses	I_n	30 kA
Max. discharge current Max. withstand @ 8/20µs	I_{max}	70 kA
Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50µs - 8/20µs	U_{oc}	20 kV
Specific energy by pole	W/R	156 kJ/ohm
Protection level@ In (8/20µs) and @ 6 kV (1,2/50 µs)	U_p	1,5 kV
Residual voltage @ In (8/20 µs)	U_p In	1,1 kV
Residual voltage at 5 kA @ 5 kA (8/20µs)	U_p 5kA	1 kV
Admissible short-circuit current	I_{sccr}	50 000 A (with fuse SFD1-25 or 315A gG) 100 000 A (with fuse SFD1-13 or 125A gG)
Associated disconnectors		
Thermal disconnector		Internal
Fuses		125 A min. – 315 A max. or SFD1-13 – SFD1-25
Installation ground fault breaker		Type 'S' or delayed
Mechanical Characteristics		
Connection to Network		By screw terminals: 6-35mm²
Format		1-pole modular box
Mounting		Symmetrical rail 35 mm (EN 60715)
Housing material		Thermoplastic UL94 V-0
Operating temperature	Tu	-40°C /+85°C
Protection rating		IP20
Failsafe mode		Disconnection from AC network
Disconnection indicator		Mechanical indicator
Remote signaling of disconnection		Output on changeover contact
Dimensions EN43880 (see diagram in mm)		2TE
Standards compliance		IEC 61643-11 / NF EN 61643-11





V : High-energy varistor
GSG : Specific gas tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator

DOC240a.VEN-Rev3

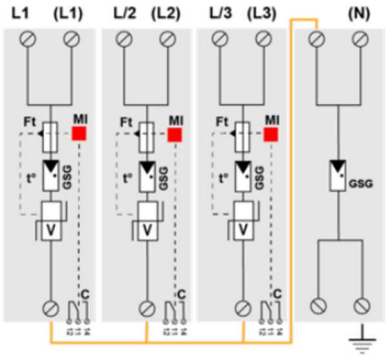
Made In Safety

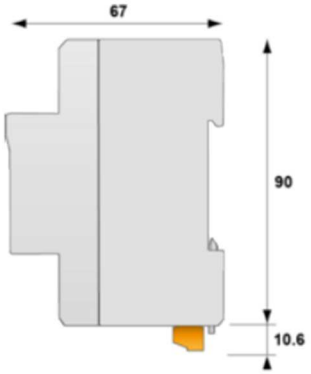
Indelec

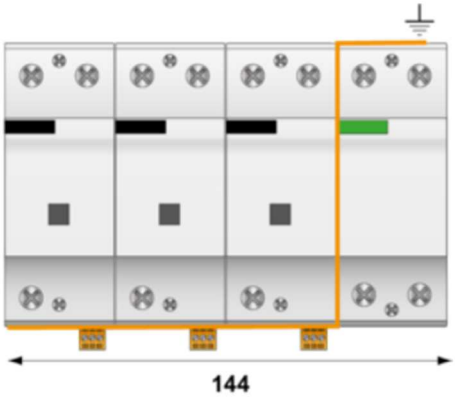
Type 1 + 2 + 3 SPD
DGV 440 + DI (C2)

Designation		DGV 440(x3) + DI
Part Number		P8312J + P8307J
Electrical Characteristics		
SPD type		1+2+3
Technology		MOV + GSG
SPD configuration		3Ph + N
Connection mode		C2 (3+1)
Network nominal voltage		230/400V
Neutral configuration		TT – TNS
Max. AC operating system	U_C	440 Vac
Temporary Over Voltage (TOV) 5sec.	U_T	580 Vac withstand
Temporary Over Voltage (TOV) 120 mn	U_T	770 Vac withstand
Leakage current	I_{pe}	None
Follow current	I_f	None
Max. impulse current by pole Max. withstand 10/350µs	I_{imp}	25 kA (with fuse SFD1-25 or 315A gG) 12,5 kA (with fuse SFD1-13 or 125A gG)
Nominal discharge current 15 x 8/20µs impulses	I_n	30 kA
Max. discharge current Max. withstand @ 8/20µs	I_{max}	70 kA
Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50µs - 8/20µs	U_{oc}	20 kV
Protection level@ In (8/20µs) and @ 6 kV (1,2/50 µs)	U_p	1,5 kV
Residual voltage @ In (8/20 µs)	U_p In	1,1 kV
Residual voltage at 5 kA @ 5 kA (8/20µs)	U_p 5kA	1 kV
Admissible short-circuit current	I_{sccr}	50 000 A (with fuse SFD1-25 ou 315A gG) 100 000 A (with fuse SFD1-13 ou 125A gG)
Associated disconnectors		
Thermal disconnector		Internal
Fuses		125 A min. – 315 A max. or SFD1-13 – SFD1-25
Installation ground fault breaker		Type “S” ou delayed
Mechanical Characteristics		
Connection to Network		By screw terminals: 6-35mm²
Format		Modular box
Mounting		Symmetrical rail 35 mm (EN 60715)
Housing material		Thermoplastic UL94 V-0
Operating temperature	Tu	-40°C /+85°C
Protection rating		IP20
Failsafe mode		Disconnection from AC network
Disconnection indicator		Mechanical indicator
Remote signaling of disconnection		Output on changeover contact
Dimensions EN43880 (see diagram in mm)		2TE
Standards compliance		IEC 61643-11 / NF EN 61643-11

V : High-energy varistor
GSG : Specific gas tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator







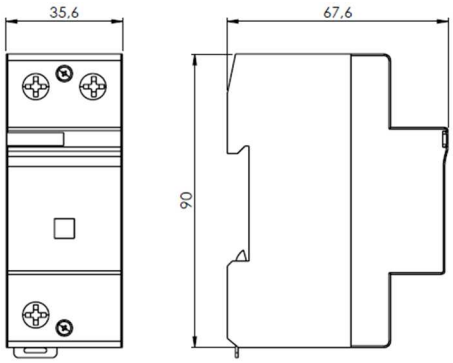
DOC293a.VEN-Rev1

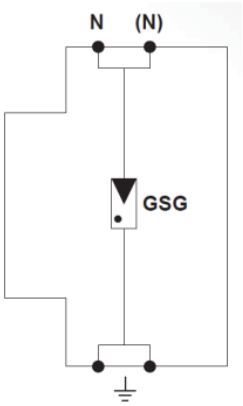
Made In Safety

Indelec

N/PE SPD
DI

Designation		DI
Part Number		P8307J
Electrical Characteristics		
SPD type		N/PE
Technology		Specific gas tube
SPD configuration		1 pole
Network nominal voltage		230/400V
Neutral configuration		TT - TNS (C2 mode)
Max. AC operating system	U_C	255 Vac
Temporary Over Voltage (TOV) 5sec.	U_T	580 Vac withstand
Temporary Over Voltage (TOV) 120 mn	U_T	770 Vac withstand
Leakage current	I_{pe}	None
Follow current	I_f	Yes
Follow current interrupting capability	I_{fi}	> 100 A
Max. impulse current by pole Max. withstand 10/350µs	I_{imp}	100 kA
Nominal discharge current 15 x 8/20µs impulses	I_n	100 kA
Max. discharge current Max. withstand @ 8/20µs	I_{max}	100 kA
Protection level@ In (8/20µs)	U_p	1,5 kV
Mechanical Characteristics		
Connection to Network		By screw terminals: 6-35mm²
Format		1-pole modular box
Mounting		Symmetrical rail 35 mm (EN 60715)
Housing material		Thermoplastic UL94 V-0
Operating temperature	Tu	-40°C /+85°C
Protection rating		IP20
Dimensions EN43880 (see diagram in mm)		2TE
Standards compliance		IEC 61643-11 / NF EN 61643-11





GSG : Specific gas tube

DOC238a.VEN-Rev3

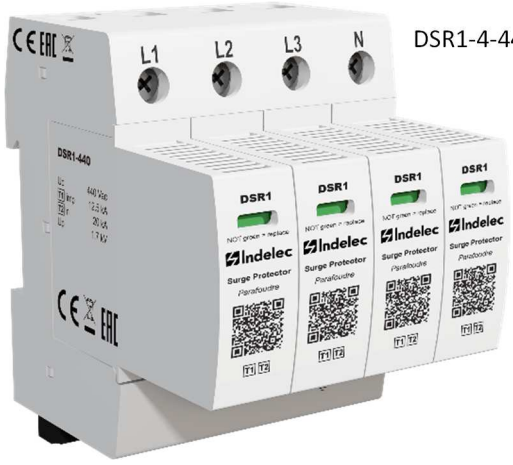
Made In Safety

Type 1 + 2 SPD
DSR1 Serie (C1)

Designation		DSR1-440	DSR1-2-440	DSR1-4-440
Part number		P8340	P8341	P8342
Electrical Characteristics				
SPD type		1+2		
Technology		MOV		
SPD configuration		1 pole	Single Phase	3Ph+N
Connection mode		-	C1 (2+0)	C1 (4+0)
Neutral configuration		IT - TNS - TNC	IT - TNS	IT - TNS
Max. AC operating system	U_C	440 Vac		
Temporary Over Voltage (TOV)) 5sec.	U_T	580 Vac withstand		
Temporary Over Voltage (TOV)) 120 mn	U_T	770 Vac disconnection		
Residual Current-Leakage current to Ground	I_{pe}	< 1 mA		
Follow current	I_f	None		
Max. impulse current by pole Max. withstand 10/350µs	I_{imp}	12,5 kA		
Total lightning current Max. total withstand @ 10/350µs	I_{total}	-	25 kA	50kA
Nominal discharge current 15 x 8/20µs impulses	I_n	20 kA		
Max. discharge current Max. withstand @ 8/20µs	I_{max}	50 kA		
Specific energy by pole	W/R	40 kJ/ohm		
Protection level@ In (8/20µs)	U_p	1,7 kV		
Residual voltage at 5 kA @ 5 kA (8/20µs)	U_p 5kA	1,5 kV		
Admissible short-circuit current	I_{sccr}	50 000 A		
Associated disconnectors				
Thermal disconnector		Internal		
Fuses		125 A min. 315 A max. type gG or SFD-13		
Installation ground fault breaker		Type “S” or delayed		
Mechanical Characteristics				
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)		
Format		Plug-in modular box		
Mounting		Symmetrical rail 35 mm (EN 60715)		
Housing material		Thermoplastic UL94 V-0		
Operating temperature	Tu	-40°C /+85°C		
Protection rating		IP20		
Failsafe mode		Disconnection from AC network		
Disconnection indicator		Mechanical Indicator		
Spare module(s)		yes		
Remote signaling of disconnection		Output on changeover contact		
Wiring for remote signaling		Wiring for remote signaling		
Max. Voltage/Current for remote signaling		250 V / 0.5 A (AC) / 30 V / 3 A (DC)		
Dimensions EN43880 (see diagram in mm)		1TE	2TE	4TE
Weight		0,179 kg	0,349 kg	0,656 kg
Standards compliance		IEC 61643-11 / NF EN 61643-11		

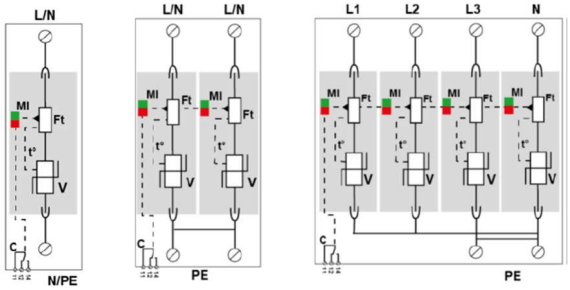
DSR1-440

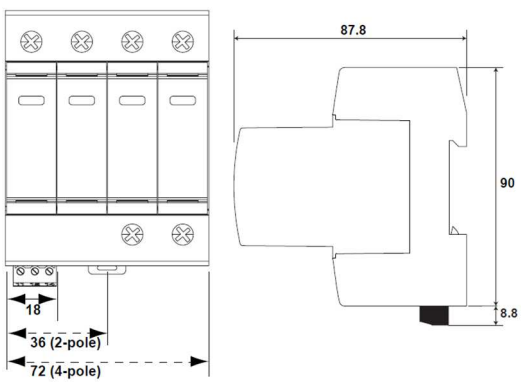
DSR1-2-440



DSR1-4-440

V : High-energy varistor
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator





DOC302a.VEN-Rev0

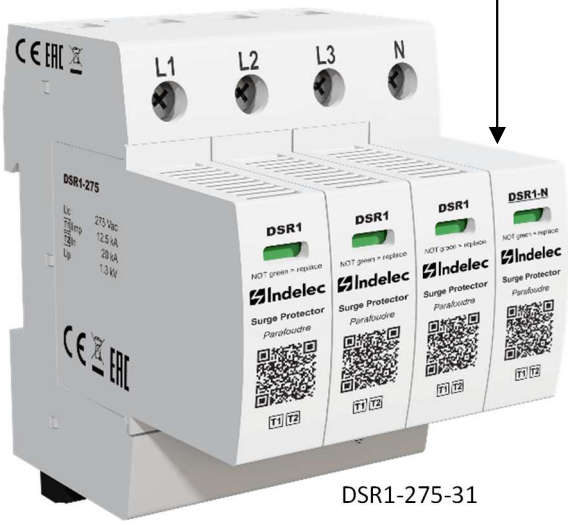
Made In Safety

Type 1 + 2 SPD
DSR1 Serie (C2)

Designation		DSR1-275-11	DSR1-275-31
Part number		P8343	P8344
Electrical Characteristics			
SPD type		1+2	
Technology		MOV+GSG	
SPD configuration		Single Phase	3Ph+N
Connection mode		C2 (1+1)	C2 (3+1)
Neutral configuration		TT - TNS	TT - TNS
Max. AC operating system	U_C	275 Vac	
Temporary Over Voltage (TOV) 5sec.	U_T	335 Vac withstand	
Temporary Over Voltage (TOV) 120 mn	U_T	440 Vac disconnection	
Temporary Over Voltage N/PE (TOV HT) Without disconnection or with safety disconnection	U_T	1200 V/300A/200 ms withstand	
Residual Current - Leakage current to Ground	I_{pe}	None	
Follow current	I_f	None	
Max. impulse current by pole Max. withstand 10/350µs	I_{imp}	12,5 kA	
Total lightning current Max. total withstand @ 10/350µs	I_{total}	25 kA	50 kA
Nominal discharge current 15 x 8/20µs impulses	I_n	20 kA	
Max. discharge current Max. withstand @ 8/20µs	I_{max}	50 kA	
Specific energy by pole	W/R	40 kJ/ohm	
Protection mode		L/N et N/PE	
Protection level @ In (8/20µs)	U_p L/N	1,3 kV	
Residual voltage L/N at 5 kA @ 5 kA (8/20µs)	U_p 5kA	1 kV	1,2 kV
Protection level N/PE at 5 kA@ 5 kA (8/20µs)	U_p 5kA	1 kV	1,2 kV
Admissible short-circuit current	I_{sccr}	50 000 A	
Associated disconnectors			
Thermal disconnector		Internal	
Fuses		125 A min. 315 A max. type gG or SFD-13	
Installation ground fault breaker		Type “S” or delayed	
Mechanical Characteristics			
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)	
Format		Plug-in modular box	
Mounting		Symmetrical rail 35 mm (EN 60715)	
Housing material		Thermoplastic UL94 V-0	
Operating temperature	Tu	-40°C /+85°C	
Protection rating		IP20	
Failsafe mode		Disconnection from AC network	
Disconnection indicator		Mechanical Indicator	
Spare module(s)		yes	
Remote signaling of disconnection		Output on changeover contact	
Wiring for remote signaling		1.5 mm² max.	
Max. Voltage/Current for remote signaling		250 V / 0.5 A (AC) / 30 V / 3 A (DC)	
Dimensions EN43880 (see diagram in mm)		2TE	4TE
Weight		0,286 kg	0,530 kg
Standards compliance		IEC 61643-11 / NF EN 61643-11	

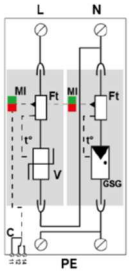
DSR1-275-11

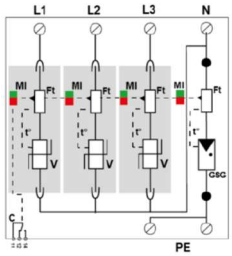
N/PE Module

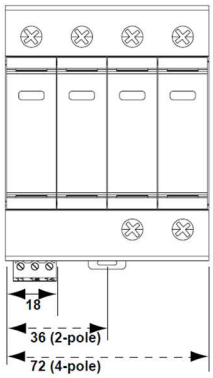


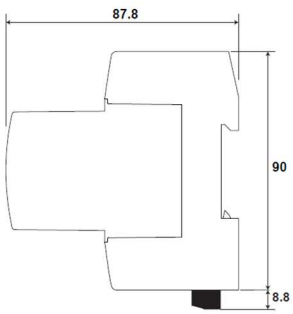
DSR1-275-31

V : High-energy varistor
GSG : Specific gas tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator









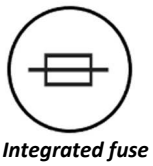
DOC303a.VEN-Rev0

Made In Safety

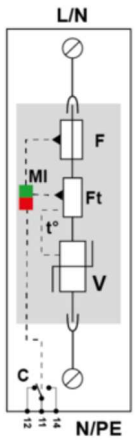
Indelec

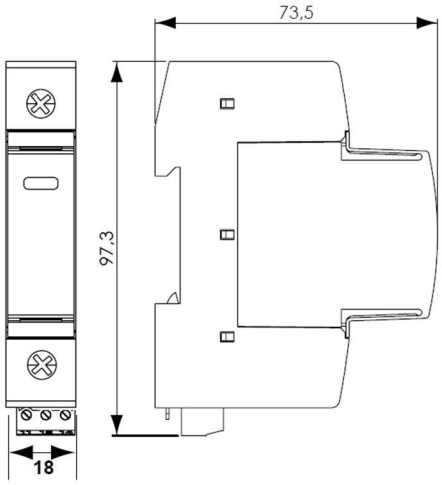
Type 2 (or 3) SPD with integrated fuse
DGXF-440

Designation		DGXF-440
Part Number		P8348
Electrical Characteristics		
SPD type		2 (or 3)
Technology		MOV
SPD configuration		1 pole
Neutral configuration		IT - TNS - TNC
Max. AC operating system	U_C	440 Vac
Temporary Over Voltage (TOV) 5sec.	U_T	580 Vac withstand
Temporary Over Voltage (TOV) 120 mn	U_T	770 Vac disconnection
Residual Current - Leakage current to Ground	I_{pe}	< 1 mA
Follow current	I_f	aucun
Nominal discharge current 15 x 8/20µs impulses	I_n	5 kA
Max. discharge current Max. withstand @ 8/20µs	I_{max}	15 kA
Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50µs - 8/20µs	U_{oc}	10 kV
Protection level @ In (8/20µs)	U_p	1,5 kV
Admissible short-circuit current	I_{sccr}	100 000 A
Associated disconnectors		
Thermal disconnector		Internal
Fuses		Internal (equivalent AC rating : 25 A, gG Type)
Installation ground fault breaker		Type “S” or delayed
Mechanical Characteristics		
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)
Format		Plug-in modular box
Mounting		Symmetrical rail 35 mm (EN 60715)
Housing material		Thermoplastic UL94 V-0
Operating temperature	Tu	-40°C /+85°C
Protection rating		IP20
Failsafe mode		Disconnection from AC network
Disconnection indicator		Mechanical Indicator
Spare module(s)		yes
Remote signaling of disconnection		Output on changeover contact
Dimensions EN43880 (see diagram in mm)		1TE
Weight		0,117 kg
Standards compliance		IEC 61643-11 / NF EN 61643-11



V : High-energy varistor
F: Integrated fuse
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator





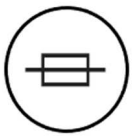
DOC303a.VEN-Rev0

Made In Safety

Type 2 (or 3) SPD with integrated fuse
DGXF-275 (C2)

Designation		DGXF-275-11	DGXF-275-31
Part number		P8349	P8350
Electrical Characteristics			
SPD type		2 (or 3)	
Technology		MOV+GSG	
SPD configuration		Single phase	3 Ph + N
Connection mode		C2 (1+1)	C2 (3+1)
Neutral configuration		TT - TNS	
Max. AC operating system	U_C	275 Vac	
Temporary Over Voltage (TOV) 5sec	U_T	335 Vac withstand	
Temporary Over Voltage (TOV) 120 mn	U_T	440 Vac disconnection	
Residual Current - Leakage current to Ground	I_{pe}	none	
Follow current	I_f	none	
Nominal discharge current 15 x 8/20µs impulses	I_n	5 kA	
Max. discharge current Max. withstand @ 8/20µs	I_{max}	15 kA	
Withstand on Combination waveform IEC 61643-11 Class III test: 1.2/50µs - 8/20µs	U_{oc}	10 kV	
Protection level @ In (8/20µs)	$U_{p\ L/N}$	1 kV	
Protection level N/PE @ In (8/20µs)	$U_{p\ N/PE}$	1,5 kV	
Admissible short-circuit current	I_{sccr}	100 000 A	
Associated disconnectors			
Thermal disconnector		Interne	
Fuses		Internal (equivalent AC rating : 25 A, gG Type)	
Installation ground fault breaker		Type “S” or delayed	
Mechanical Characteristics			
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)	
Format		Plug-in modular box	
Mounting		Symmetrical rail 35 mm (EN 60715)	
Housing material		Thermoplastic UL94 V-0	
Operating temperature	Tu	-40°C /+85°C	
Protection rating		IP20	
Failsafe mode		Disconnection from AC network	
Disconnection indicator		Mechanical Indicator	
Spare module(s)		yes	
Remote signaling of disconnection		Output on changeover contact	
Dimensions EN43880 (see diagram in mm)		2TE	4TE
Standards compliance		IEC 61643-11 / NF EN 61643-11	

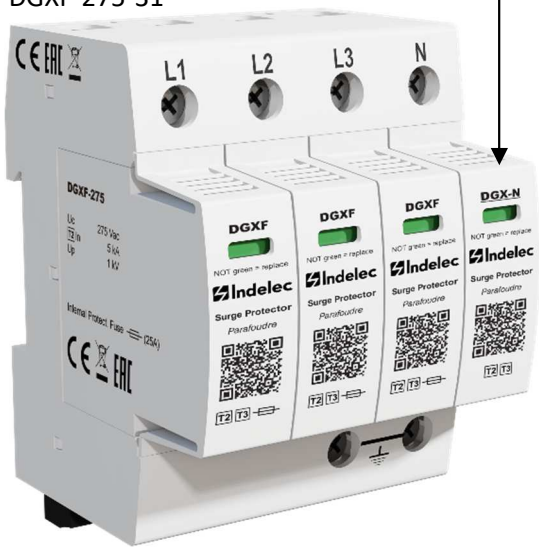
DGXF-275-11

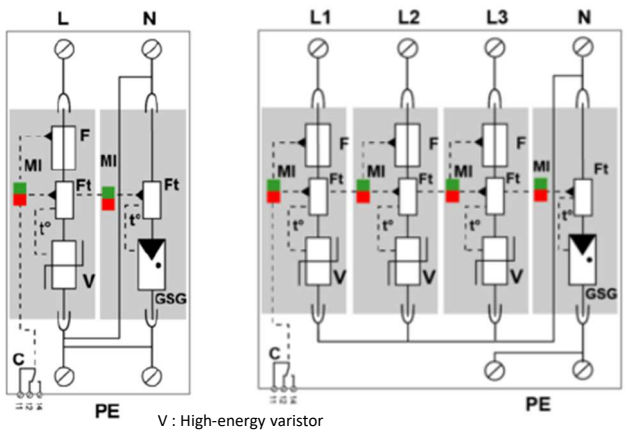


Integrated fuse

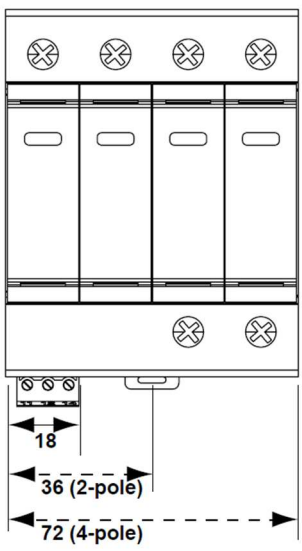
N/PE Module

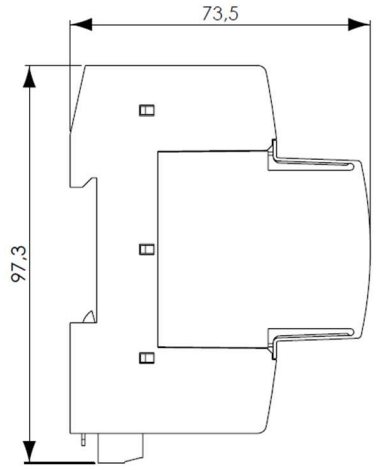
DGXF-275-31





V : High-energy varistor
GSG : Specifi gas tube
F: Integrated fuse
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator





DOC304a.VEN-Rev0

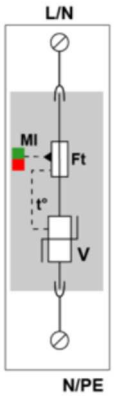
Made In Safety

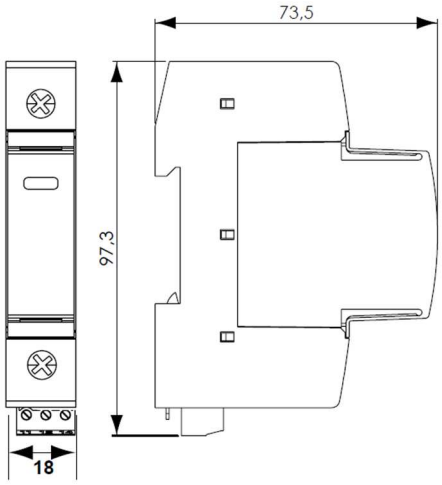
Indelec

Type 2 SPD
DGT2-440

Designation		DGT2-440
Part number		P8345
Electrical Characteristics		
SPD type		2
Technology		MOV
SPD configuration		1 pole
Neutral configuration		IT - TNS - TNC
Max. AC operating system	U_C	440 Vac
Temporary Over Voltage (TOV) 5sec.	U_T	580 Vac withstand
Temporary Over Voltage (TOV) 120 mn	U_T	770 Vac disconnection
Residual Current - Leakage current to Ground	I_{pe}	< 1 mA
Follow current	I_f	None
Nominal discharge current 15 x 8/20µs impulses	I_n	20 kA
Max. discharge current Max. withstand @ 8/20µs	I_{max}	50 kA
Protection level @ In 8/20µs	U_p	2 kV
Residual voltage at 5 kA @ 5 kA (8/20µs)	$U_{p\ 5kA}$	1,5 kV
Admissible short-circuit current	I_{sccr}	50 000 A
Associated disconnectors		
Thermal disconnector		Internal
Fuses		50 A min. - 125 A max. - Fuses Type gG
Installation ground fault breaker		Type “S” or delayed
Mechanical Characteristics		
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)
Format		Plug-in modular box
Mounting		Symmetrical rail 35 mm (EN 60715)
Housing material		Thermoplastic UL94 V-0
Operating temperature	Tu	-40°C /+85°C
Protection rating		IP20
Failsafe mode		Disconnection from AC network
Disconnection indicator		Mechanical Indicator
Spare module(s)		yes
Remote signaling of disconnection		Output on changeover contact
Dimensions EN43880 (see diagram in mm)		1TE
Standards compliance		IEC 61643-11 / NF EN 61643-11

V : High-energy varistor
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator





DOC305a.VEN-Rev0

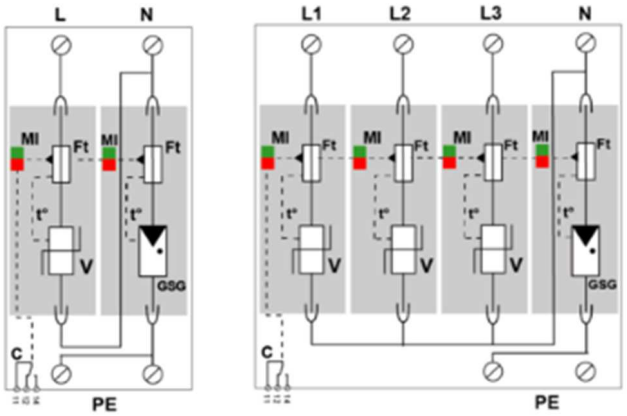
Made In Safety

Type 2 SPD
DGT2-275 (C2)

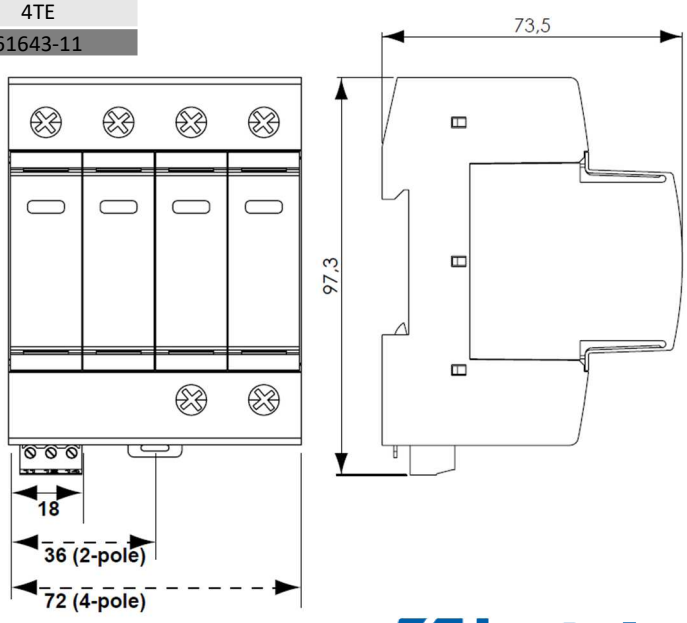
Designation		DGT2-275-11	DGT2-275-31
Part number		P8346	P8347
Electrical Characteristics			
SPD type		2 (or 3)	
Technology		MOV + GSG	
SPD Configuration		Single Phase	3Ph + N
Connection mode		C2 (1+1)	C2 (3+1)
Neutral configuration		TT - TNS	
Max. AC operating system	U_C	275 Vac	
Temporary Over Voltage (TOV) 5sec.	U_T	335 Vac withstand	
Temporary Over Voltage (TOV) 120 mn	U_T	440 Vac disconnection	
Temporary Over Voltage N/PE (TOV HT)	U_T	1200 V/300A/200 ms withstand	
Residual Current- Leakage current to Ground	I_{pe}	none	
Follow current	I_f	none	
Nominal discharge current 15 x 8/20µs impulses	I_n	20 kA	
Max. discharge current Max. withstand @ 8/20µs	I_{max}	50 kA	
Protection level L/N @ In 8/20µs	$U_{p\ L/N}$	1,25 kV	
Protection level N/PE @ In 8/20µs	$U_{p\ N/PE}$	1,5 kV	
Protection level L/N @ 5kA 8/20µs	$U_{p\ 5kA}$	1 kV	
Protection level N/PE @ 5kA 8/20µs	$U_{p\ 5kA}$	1 kV	
Admissible short-circuit current	I_{sccr}	50 000 A	
Associated disconnectors			
Thermal disconnector		Internal	
Fuses		50 A min. - 125 A max. - Fuses Type gG	
Installation ground fault breaker		Type “S” or delayed	
Mechanical Characteristics			
Connection to Network		By screw: 2.5-25mm² (35mm² rigid)	
Format		Plug-in modular box	
Mounting		Symmetrical rail 35 mm (EN 60715)	
Housing material		Thermoplastic UL94 V-0	
Operating temperature	Tu	-40°C /+85°C	
Protection rating		IP20	
Failsafe mode		Disconnection from AC network	
Disconnection indicator		Mechanical Indicator	
Spare module(s)		yes	
Remote signaling of disconnection		Output on changeover contact	
Dimensions EN43880 (see diagram in mm)		2TE	4TE
Conformité aux normes		IEC 61643-11 / NF EN 61643-11	

DGT2-275-11

DGT2-275-31



V : High-energy varistor
GSG : Specific gas tube
Ft : Thermal fuse
C : Remote signaling contact
t° : Thermal disconnection system
Mi : Disconnection indicator



DOC306a.VEN-Rev0

Made In Safety

Indelec

Type 1 + 2 SPD
DGI 440

Designation		**DGI 440**
Part number		**P8308H**
Electrical characteristics		
Technology		MOV
Number of pole		One pole (1)
Network nominal voltage		230/400 V
Neutral configuration		IT - TN C1 mode
		TT – TNS C2 mode with DI module for N/PE
Max. AC operating system	U_C	440 Vac
Temporary Over Voltage (TOV)	U_T	580 Vac/5 s withstand
Temporary Over Voltage (TOV)	UT	770 Vac/120mn disconnection
Leakage current	I_{pe}	< 3 mA
Follow current	I_f	None
Impulse current by pole	I_{imp}	50 kA
Max. withstand 10/350µs		
Nominal discharge current	I_n	50 kA
15 x 8/20µs impulses		
Max. discharge current	I_{max}	200 kA
Max. withstand @ 8/20µs		
Protection level (@In)	U_p	2,2 kV
Admissible short-circuit current	I_{sccr}	50 000 A

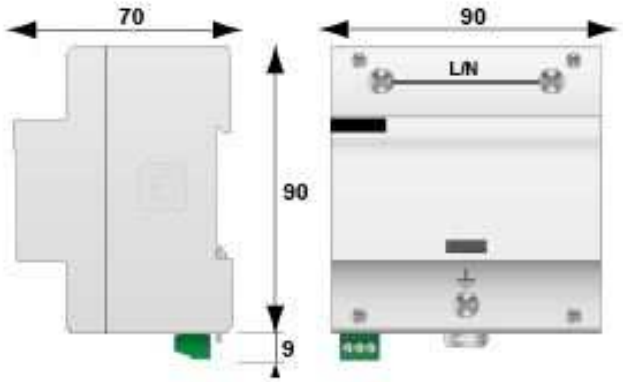
Associated disconnectors		
Thermal disconnector		internal
Fuses		Fuses type gG – 500 A max.
Installation ground fault breaker		Type “S” or delayed
Mechanical characteristics		
Connection		by screw : 6-35 mm² / by bus
Disconnection indicator		mechanical indicator
Remote signaling of disconnection	output on changeover contact	
Mounting		DIN rail 35mm
Operating temperature		-40°C /+85°C
Ingress Protection	IP20	

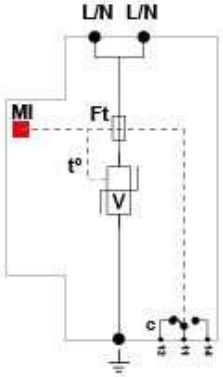
Standards compliance

IEC 61 643-11 (Internationale) Low voltage SPD – test class I and II

NF EN 61 643-11 (France) Parafoudres basse tension – essais classe I et II

V : High energy MOV
MI : Disconnection indicator
Ft : Thermal fuse
t°: Thermal disconnection mechanism
C : Contact for remote signaling





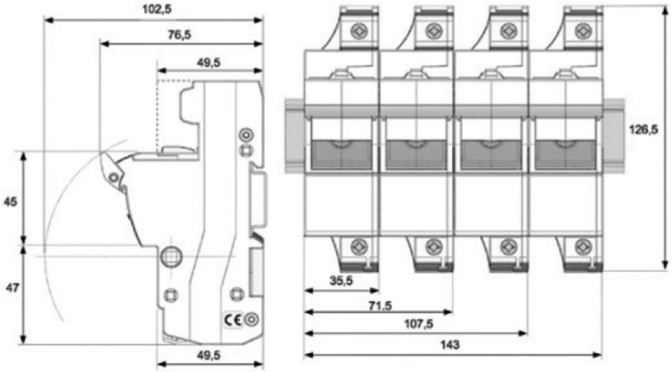
DOC239a.VEN-Rev1

Made In Safety

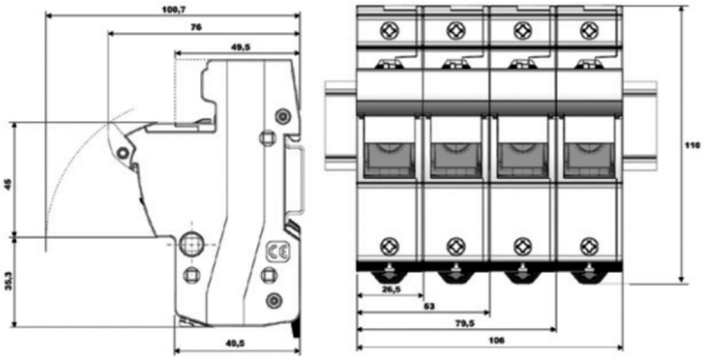
Gg cylindrical Fuses & Fuse holder

- Modular fuse holder
- DIN Rail Mounting
- Microswitch for fusion signaling
- Equipped with gG cylindrical fuses with striker
- Breaking capacity 125A and 50A : 120kA
- Breaking capacity 20 A : 80kA

Caliber	Designation	**Part number**
125 A	Fuse holder 22x58 1PH+N + fuses 125 A gG	P8927
	Fuse holder 22x58 3PH+N + fuses 125 A gG	P8925
50 A	Fuse holder 14x51 1PH+N + fuses 50A gG	P8905
	Fuse holder 14x51 3PH+N + fuses 50 A gG	P8907
20 A	Fuse holder 14x51 1PH+N + fuses 25A gG	P8908
	Fuse holder 14x51 3PH+N + fuses 25 A gG	P8900



Fuse holder 22x58



fuse holder 14x51

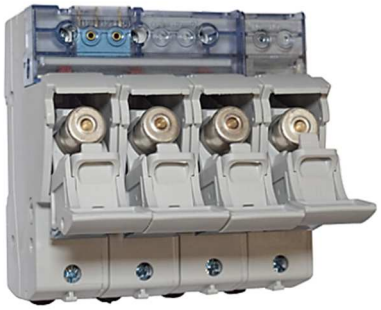
Nota : 22x58 fuse holder are marked 100 A normative value defined according to IEC/EN60269-2 standard.
They accept 125A fuse links.

DOC236a.VEN-Rev1

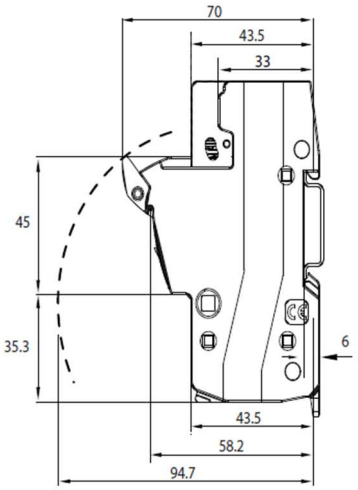
Made In Safety

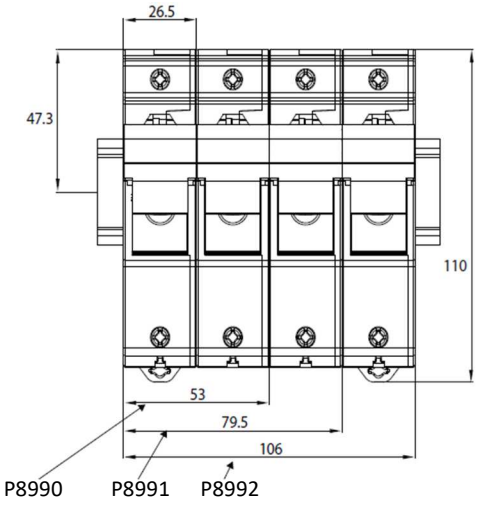
Fuse Holder & SFD1-13 Fuse Link

- Specific Fuses (SPD Fusing Disconnectors) for short circuit protection
- For Type 1 AC surge protectors
- Surge current withstand: 12.5 kA (@10/350µs)
- Very compact
- Fusion signaling feature
- Remote signaling through fuse holder



2P fuse holder including SFD1-13S fuses	Ref.	P8990
3P fuse holder including SFD1-13S fuses	Ref.	P8991
4P fuse holder including SFD1-13S fuses	Ref.	P8992
Electrical characteristics		
Max. AC operating voltage	Uc	500 Vac
Nominal discharge current *15 x 8/20µs impulses*	In	50 kA
Max. discharge current *1 x 8/20µs impulse*	Imax	80 kA
Max. discharge current *Max withstand 10/350µs by pole*	Iimp	12,5 kA
Equivalent rated AC current		125 A (gL/gG)
Breaking capacity		100 000 A
Residual voltage *@Iimp*	Up	< 0.4 kV @ 12,5 kA
Mechanical characteristics		
Fuses configuration		Cylindrique 14x51 mm
Mounting		Rail DIN symétrique 35 mm (EN 60715)
Accessory provided		Fusible(s) inclus
Operating temperature	Tu	-40/+85°C
Protection rating		IP20
Remote signaling of disconnection		Percuteur
Spare modules		SFD1-13
Dimensions		Voir schéma
Standards		
Compliance		EN 61643-11 / IEC 61643-11 / EN 60269-1 / EN 60269-2 / IEC 60269-1 / IEC 60269-2



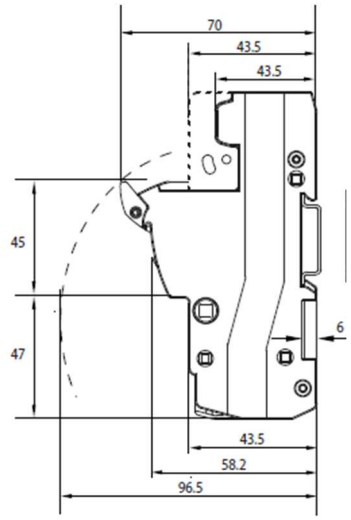


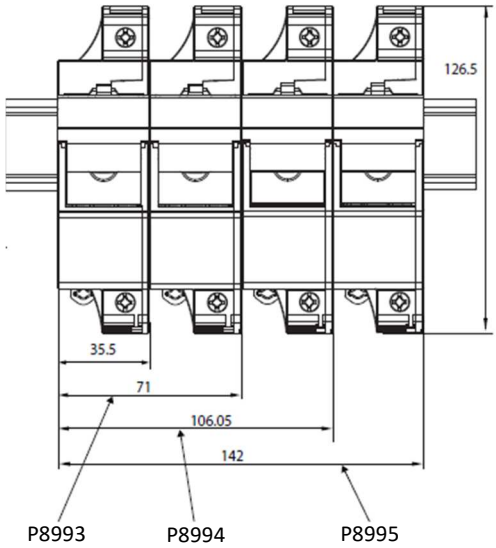
DOC294a.VEN-Rev0

Fuse Holder & SFD1-25 Fuse Link

- Specific Fuses (SPD Fusing Disconnectors) for short circuit protection
- For Type 1 AC surge protectors
- Surge current withstand: 25 kA (@10/350µs)
- Very compact
- Fusion signaling feature
- Remote signaling through fuse holder

2P fuse holder including SFD1-25S fuses	Ref.	P8993
3P fuse holder including SFD1-25S fuses	Ref.	P8994
4P fuse holder including SFD1-25S fuses	Ref.	P8995
Electrical characteristics		
Max. AC operating voltage	Uc	500 Vac
Nominal discharge current *15 x 8/20µs impulses*	In	80 kA
Max. discharge current *1 x 8/20µs impulse*	Imax	100 kA
Max. discharge current *Max withstand 10/350µs by pole*	Iimp	25 kA
Equivalent rated AC current		250 A
Breaking capacity		100 000 A
Residual voltage *@Iimp*	Up	< 0,5 kV @ 25 kA
Mechanical characteristics		
Fuses configuration		Cylindrical 22x58 mm
Mounting		Symmetrical rail 35 mm (EN 60715)
Accessory provided		Fuses included
Operating temperature	Tu	-40/+85°C
Protection rating		IP20
Remote signaling of disconnection		Yes
Spare modules		SFD1-25
Dimensions		See diagram
Standards		
Compliance		EN 61643-11 / IEC 61643-11 / EN 60269-1 / EN 60269-2 / IEC 60269-1 / IEC 60269-2





DOC295a.VEN-Rev0

Surge Protection Cabinets

Surge protection cabinets are dedicated to 230 / 400V Low Voltage Network (single phase or 3 phases+N).
These cabinets are based on the use of Indelec modular SPD. The implementation of these cabinets do not require any additional device, they are equipped with Surge protection device and relevant external protection fuses.

Several configurations are possible.

- Pre-wired cabinet type 1 and 2
- metallic or plastic box
- Waterproof
- Protection in common mode and differential
- Compliant to IEC / EN 61643-11

Surge protection device
Type 2, Direct Current

Specifications

Designation		DS220 12Vdc	DS220 24Vdc	DS230 48Vdc	DS240 75 V dc	DS240 110 Vdc
Part number		P82012	P82024	P82048	P82075	P82110
nominal voltageDC	Un	12 Vdc	24Vdc	48Vdc	75Vdc	150Vdc
maximal voltage DC	Uc	24Vdc	38Vdc	65Vdc	100Vdc	125Vdc
Nominal discharge current	In	10kA	10kA	15kA	20kA	20kA
Maximal discharge current	Imax	20kA	20kA	30kA	40kA	40kA
Protection level	Up	250V	250V	300V	390V	500V

Associated disconnectors

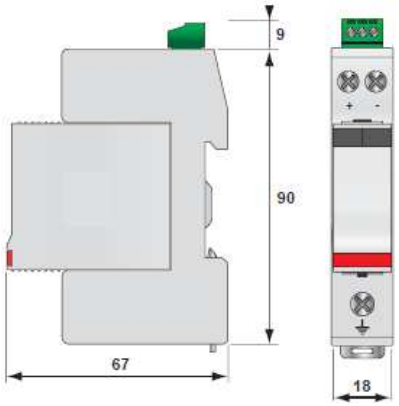
Thermal disconnector	internal
Protection Fuses (if required)	Fuses type gG – 20 A (12 V cc à 48 V cc) Fuses type gG - 50A (75Vdc à 110Vdc.

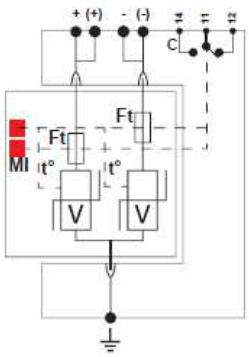
Mechanical characteristics

Connection	by screw 1.5 à 10 mm² maxi (active conductors)
Disconnection indicator	2 mechanical indicators
Mounting	DIN rail 35mm
Operating temperature	-40°C /+85°C
Ingress Protection	IP20
Plastic	Thermoplastique UL94-V0

Standards compliance

CEI 61 643-1 international Low Voltage SPD - Test class II
EN 61 643-11 Europe parafoudres basse tension – Essais classe II





V : High energy MOV
MI : Disconnection indicator
Ft : Thermal fuse
t°: Thermal disconnection mechanism
C : Contact for remote signaling

DOC233a.VEN-Rev1

Made In Safety

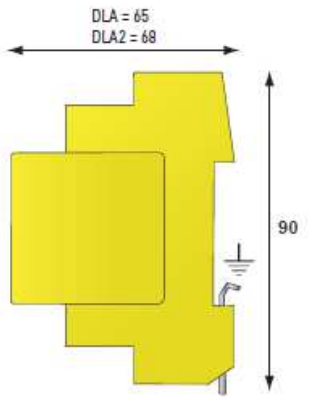
SPD
Telecom/Data

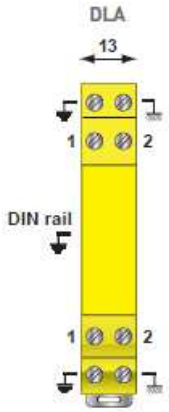
Specifications

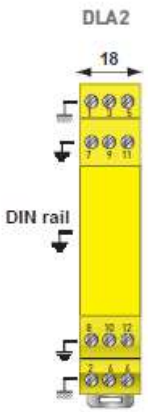
Designation Protection 1 paire + blindage Protection 2 paires + blindage	DLA-170 DLA2-170	DLA-48D3 DLA2-48D3	DLA-24D3 DLA2-24D3	DLA-12D3 DLA2-12D3	DLA-06D3 DLA2-06D3
Part number	P82960A P82970A	P82961A P82971	P82962A P82972	P82963A P82973	P82964A P82974A
Network	RTC, ADSL2, VDSL2	RNIS, T0, Ligne 48V	4-20mA	RS232 RS485	RS422
Nominal voltage (Un)	150 V	48V	24V	12V	6V
Voltage max (Uc)	170V	53V	28V	15V	8V
Current max. (Il)	300 mA	300 Ma	300 Ma	300 mA	300 mA
Impulse current (Iimp) *on wave 10/350 µs -*	5kA	5kA	5kA	5kA	5kA
Nominal impulse current (In) *On wave 8/20 µs -*	5kA	5kA	5kA	5kA	5kA
Max. discharge currentImax *On wave 8/20 µs -1 choc*	20kA	20kA	20kA	20kA	20kA
Protection level In (Up)	220V	70V	40V	30V	20V
frequency max.	> 10 MHz	> 3 MHz	> 3 MHz	> 3 MHz	> 3 MHz

Mechanical characteristics

Connection	by screw 0.4 – 1.5 mm² max
Mounting	DIN rail 35mm
Operating temperature	-40°C /+85°C
Plastic	Thermoplastique UL94-V0







DOC235a.VEN-Rev1

Made In Safety

SPD
Telecom/Data

Specifications

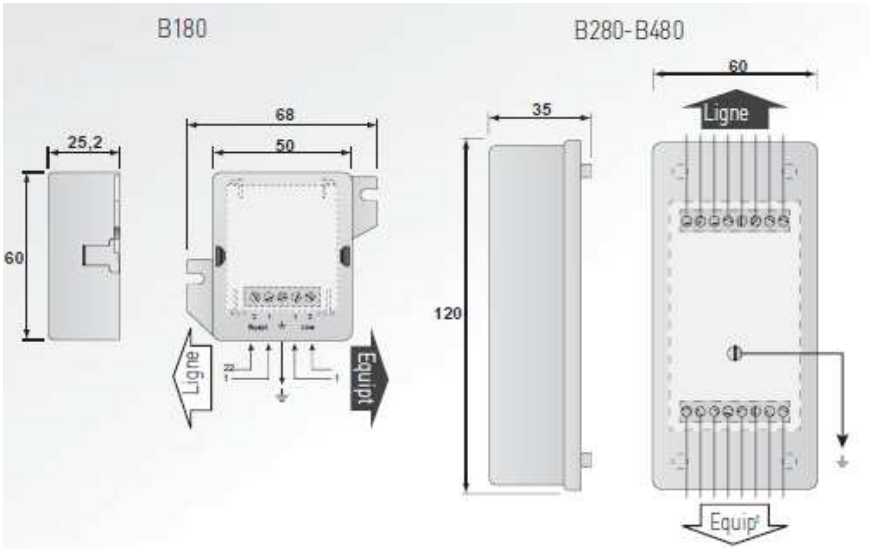
Designation	B180	B280	B480
Part Number	P8820	P8821	P8822
SPD configuration	1 pair	2 pairs	4 pairs
Network	RTC-ADSL SDL-SHDSL	RTC-ADSL SDL-SHDSL	RTC-ADSL SDL-SHDSL
Nominal Line Voltage (Un)	150 V	150 V	150 V
Max DC operating Voltage (Uc)	170V	170V	170V
Max Load Current (IL)	300 mA	300 mA	300 mA
Impulse Current (Iimp) *Test 10/350 µs x 2*	2,5 kA	2,5 kA	2,5 kA
Nominal discharge current (In) *Test 8/20 µs x 10*	5kA	5kA	5kA
Max Discharge Current Imax *Test 8/20 µs x 1*	20kA	20kA	20kA
Protection Level @In (Up)	220V	220V	220V
Max Frequency	> 10 MHz	> 10 MHz	> 10 MHz

B180

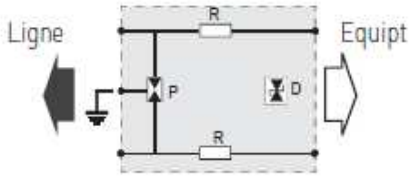
B480

Mechanical characteristics

Mounting	Wall (screws not included)
Housing Material	UL94-V0 Thermoplastic
Ingress Protection	IP20



1 pair version
Bx80



P : Gas Discharge Tube
R : Resistor
D: Clamping Diod

DOC255a.VEN-Rev0

Made In Safety

SPD Ethernet network

Specifications

Designation	RJ45 Ethernet Cat 5E	RJ45 Ethernet Cat 6	RJ45 Ethernet POE
Part number	P8615	P8616	C3470
Network	Ethernet Cat.5E	Ethernet Cat 6	POE-A, High POE
Data rate max.	1 000 Mbps	10 Gbps	1 000 Mbps
Nominal Voltage signal Un	5 Vdc	5 Vdc	48 Vdc
Voltage max. signal Uc	8 Vdc	8 Vdc	60Vdc – 1200mA
Configuration	4 pairs + shielded + earth	4 pairs + earth	8 wires + shielded
Nominal discharge current In : *8/20µs*			
Phase / Phase	500A	500A	500A
Phase / Earth	2000A	2000A	2000A
Max Discharge Current Iimp - *test 10/350µs x2*	500 A	500 A	500 A
Protection Level Up	20 V	20 V	70 V

Mechanical characteristics

Connection	RJ45 armored
Disconnection indicator	Transmission interrupt
Earth connection	mounting flange/ DIN rail/screw lug
Housing Material	Aluminum
Ingress protection	IP20

Standards compliance

CEI 61 643-21
EN 61 643-21
IEEE 802-3af (transmission)
IEC 61000-4-5 (overvoltage withstanding)

NOTE

SPD RJ 11 and RJ 45 are also available on request specifically for telecommunications applications RTC or ADSL, ISDN

DOC260a.VEN-Rev1

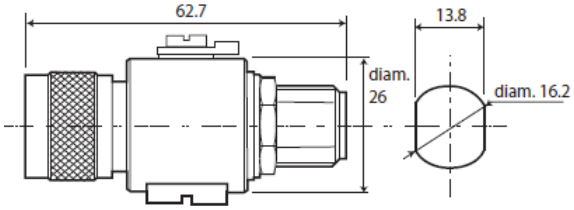
Made In Safety

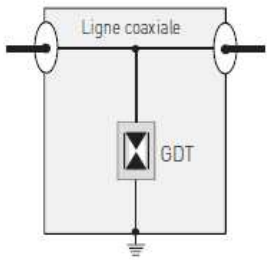
Coaxial SPD
HF – 4GHz

- SPDcoaxial 4 GHz
- Low insertion loss
- Watterproof IP65
- Specific gas discharge tube removable
- DC-pass
- Two-way

Specifications

Designation	Coaxial – 25W	Coaxial – 190W	Coaxial – 780W
Part #	P8613	P8612C	P8614
Fréquency	DC – 4 GHz	DC – 4 GHz	DC – 4 GHz
Insertion loss	< 0.2 dB	< 0.2 dB	< 0.2 dB
Return Loss	> 20 dB	> 20 dB	> 20 dB
Stationary wave rate	< 1.2 : 1	< 1.2 : 1	< 1.2 : 1
Discharge current (8/20 µs)	20kA	20kA	20kA
Protection level Up	< 600V	< 600V	< 1000V
Power max.	25W	190W	780W
Current max.	10A	10A	10A
Impedance	50 ohms	50 ohms	50 ohms
Connection	Serie (two-way)		
Mechanical characteristics			
Connection to network	N, BNC, F, TNC, SMA, 7/16		
Ground connection	Feedthrough, M6 screw lug		
Ingress Protection	IP65		
Operating Temperature	-40°C à +85°C		





GDT: Gas Discharge Tube

DOC254a.VEN-Rev0

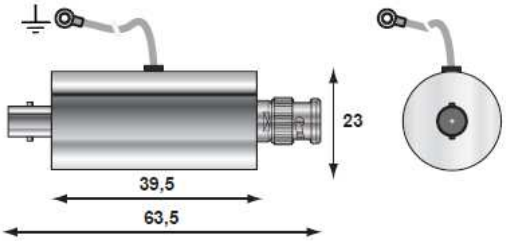
Made In Safety

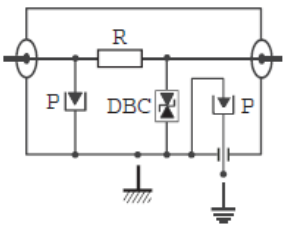
CCTV SPD

- Coaxial SPD 70 MHz
- Low insertion loss
- easy mounting

Specifications

Designation	CCTV SPD
Part number	P8603
Frequency	DC – 70 MHz
Insertion loss	< 0.6 dB
Return Loss	> 20 dB
Stationary wave rate	< 1.2 : 1
Discharge current(8/20 µs) max. Imax in wave 8/20 µs	10kA
Powermax.	100W
Current max.	6A
Impedance	50 ohms
Mechanical characteristics	
connectivity	BNC, F
Ground connection	Wire
Ingress Protection	IP65
Operating Temperature	-40°C à +85°C





P: Spark Gap
DBC: Clamping Diod
R: Resistor

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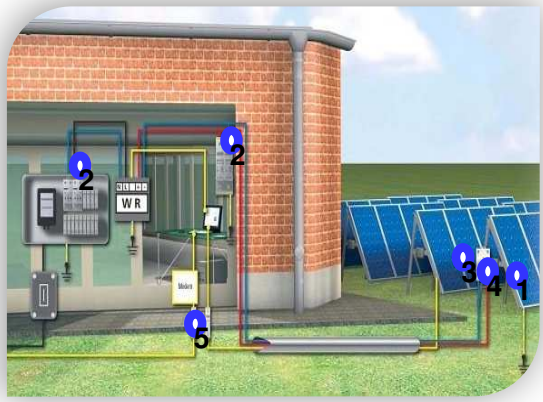
SPD on request

Telecoms

A range of surge protectors Telecom by:
- type of line
- site configuration (number of lines to protect)
- type of installation (wall casing, DIN rail, distribution ...) and kind of connection (wrapped, CAD, screw ...)



Surge protection device Type 1 and 2 installed between the photovoltaic panels and the inverter - DC up to 1250Vdc.

SPD plug box

Several versions:
Telecom / TV
Indicators of operating voltage
General switch
Compliant with IEC 61643-1
Option "Master / Slave"

- Imax from 80 to 200 kA (8/20 µs)
- Protection mode Common and Differential
- 200 kA current Admissible shortcut
- Multi-redundant circuit for each phase?
- Signaling and fault Remote signaling
- Filtering function EMI / RFI
- Convenience with Casing NEMA standards 4/12 and UL 1449 3ed. and IEC 61643-1

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