

		SPN801 / SPN801R	SPN802 / SPN802R
Tested to		EN 61643-11 (VDE0675-6-11) 2002-12	EN 61643-11 (VDE0675-6-11) 2002-12
		L1/L2/L3/N => PE	L1/L2/L3 => N N => PE
SPD type / class		Type 1 + Type 2 / I / B	
Type of connection		Parallel connection	
Type of power supply system		TN-S - System	TT - System
Type of protection		Common modes	Common and differential modes
Nominal voltage	U_N	230V / 400V ac	
Rated voltage	U_C	255V ac	
Voltage protection level	U_p	$\leq 1.5kV$	255V ac
TOV-voltage	U_T	440V / 5s	1200V / 200ms
Rated load current	$I(L)$	315A	
	$I(L-L)$	125A	
Follow current interrupting rating	I_{fi}	50 kA	100kA
Nominal discharge current (8/20)	I_n	100kA	25kA 100kA
Impulse current (10/350)	I_{imp}	100kA	25kA 100kA
Residual current	I_{PE}	$\leq 100mA$	
Max. rating of overcurrent protection	fuse	125A gL / gG serial or 315A parallel	
	MCCB	125A serial or 160A parallel	
Short-circuit withstand capability with max. overcurrent protection	fuse	50kA ac	25kA ac
	MCCB	50kA ac	25kA ac
Response time	t_A	$< 100ns$	
Operating temperature range		- 40°C+ 60°C	
Indication of SPD disconnecter		Green - red on L1, L2, L3, N	
Cross sectional area	min	10mm ² solid / flexible	
L1, L2, L3, PE	max	50mm ² multi-stranded / 35mm ² flexible	
Tightening torque for terminals		7.0 Nm	
Mounting on		35mm DIN rail in accordance with EN 60715	
Enclosure material		grey thermoplastic, UL 94V-0	
Degree of protection		IP20	
Modular width		8	8
Weight		1260 g	1272 g
Approval marking		VDE	

		SPA201	SPA401
Tested to		EN 61643-11 2002-12	
SPD type / class		Type 1 + Type 2 / Class I	
Energy-coordinated protection effect on terminal equipment		Type 1 + Type 2	
Energy-coordinated protection effect on terminalequipment ≤ 5 m		Type 1 + Type 2 + Type 3	
Type of connection		Parallel connection	
Type of power supply system		TT / TN system	
Type of protection		common and differential modes	
Nominal voltage	U_N	230V/400V ac	
Rated voltage	U_c	255V ac	
Voltage protection level	U_p	≤ 1.5kV	
TOV Voltage	U_T	440V / 5s 1200V / 200ms	
Rated load current	I(L)	n/a	
	I(L-L)	n/a	
Follow current interrupting rating	I_{fi}	25kA rms 100A rms	
Nominal discharge current (8/20)	I_n	12.5kA 25kA	12.5kA 50kA
Impulse current (10/350)	I_{imp}	12.5kA 25kA	12.5kA 50kA
Max. rating of overcurrent protection	fuse	160A gL / gG	
	MCCB	n/a	160A
Short-circuit withstand capability with max. overcurrent protection	fuse	25kA rms	
	MCB	n/a	
Response time	t_A	≤ 100ns	
Operating temperature range		- 40°C+ 80°C	
Indication of SPD disconnecter		Green/Red flag on L and N	Green/Red flag on L1, L2, L3 and N
Cross sectional area	min	1,5mm ² solid / flexible	
	max	35mm ² stranded / 25mm ² flexible	
Tightening torque for terminals		4 Nm	
Mounting on		35mm DIN rail in accordance with EN 60715	
Enclosure material		grey thermoplastic, UL 94V-0	
Degree of protection		IP20	
Modular width		2	4
Weight		275 g	480 g
Approval marking		KEMA	

		SPN215D/R	SPN415D/R	SPN440D/R
Tested to		EN 61643-11 (VDE0675-6-11) 2002-12		
SPD type		Type 2 according to EN 61643-11		
SPD class		Class II according to IEC 61643-1		
Type of connection		Parallel connection		
Maximum continuous operating voltage U_c	Line / Neutral	$\leq 255V$		
	Neutral/ PE	$\leq 275V$		
Voltage protection level	U_p	$\leq 1kV$	$\leq 1kV$	$\leq 1.2kV$
Nominal discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_n	5kA	5kA	15kA
Max. discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_{max}	15kA	15kA	40kA
Short-circuit withstand capability with max. overcurrent protection		10kA - 32A	10kA - 32A	20kA - 32A
Operating temperature range		- 40°C+ 80°C		
Indication of SPD disconnector		Green - Yellow - Red		
Cross sectional area	min	1,5mm ² solid / flexible		
	max	35mm ² multi-stranded / 25mm ² flexible		
Tightening torque for terminals		4.0 Nm		
Mounting on		35mm DIN rail in accordance with EN 60715		
Enclosure material		grey thermoplastic, UL 94V-0		
Degree of protection		IP20		
Modular width (DIN 43880)		2	2	4
Auxiliary contact. Voltage/ nominal current (only applicable on the R suffix products)		230V/ 0.5A 12Vdc 10mA		

		SPV325
Tested to		EN 61643-11 (VDE0675-6-11) 2002-12
SPD type		Type 2 according to EN 61643-11
SPD class		Class II according to IEC 61643-1
Type of connection		Parallel connection
Maximum continuous operating voltage	U_{cPV}	$\leq 1000V$
Voltage protection level	U_p	$\leq 4kV$
Voltage protection level for 5kA	U_p	$\leq 3,5kV$
Total discharge current (8/20 μs)	I_{total}	40kA
Nominal discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_n	12.5kA
Max. discharge current (8/20 μs) [(DC+/DC-) --> PE]	I_{max}	25kA
Short-circuit withstand capability with max. overcurrent protection	I_{scwPV}	50 A / 1000 V DC
Response time	t_A	$\leq 25ns$
Operating temperature range		- 40°C+ 80°C
Indication of SPD disconnector		green - red
Cross sectional area	min	1.5mm ² solid / flexible
	max	35mm ² multi-stranded / 25mm ² flexible
Tightening torque for terminals		4.0 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		Grey thermoplastic, UL 94V-0
Degree of protection		IP20
Installation width		3 modules, DIN 43880
Weight		316g

Characteristics		
Tested to		EN 61643-11 (VDE0675-6-11) 2007-08
SPD type / class		Type 3 / III
Ports		one port
Type of connection		Parallel connection
Type of power supply system		TT / TN system
Nominal voltage	U_N	230V ac
Rated voltage	U_c	255V ac
Voltage protection level (L - N)	U_p	$\leq 1.25kV$
Voltage protection level (L/N - PE)	U_p	$\leq 1.5kV$
TOV - Characteristic (L - N)	U_T	335V / 5s
TOV - Characteristic (L/N - PE) (I)	U_T	400V / 5s
TOV - Characteristic (L/N - PE) (II)	U_T	1200V / 200 ms
Rated load current	I_L	16 Aeff
Nominal discharge current (8/20)	I_n	3kA
Maximal discharge current (8/20)	I_{max}	5kA
Combination wave (1,2/50 - 8/20) (L - N)	U_{oc}	6 kV
Combination wave (1,2/50 - 8/20) (L/N - PE)	U_{oc}	10 kV
Residual current	IPE	$\leq 5\mu A$
Replacement cartridge		NO
Maximal rating of overcurrent protection	fuse	16 A gL / gG
	MCB	16A B curve
Short-circuit withstand capability with max. overcurrent protection	fuse	6kA eff ac
	MCB	1kA eff ac
Response time	t_A	$\leq 25ns$
Operating temperature range		- 25°C+ 40°C
Indication of SPD disconnector		NO
Remote signalisation contact		Green light off
Cross sectional area	min	1.5mm ² solid / flexible
	max	10mm ² stranded / 6mm ² flexible
Tightening torque for terminals		1.2 Nm
Mounting on		35mm DIN rail in accordance with EN 60715
Enclosure material		Grey thermoplastic, UL 94V-2
Degree of protection		IP20
Installation width		2 modules, DIN 43880

Reserve Indicator Light

Neutral cartridges cannot be put into spares reserved for phase cartridges and visa versa.

