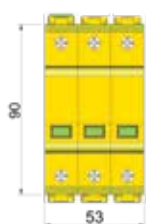
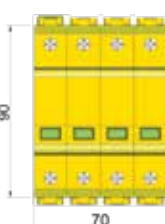




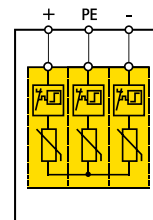
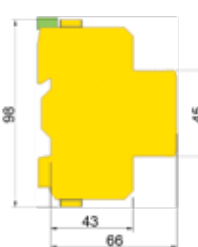
# Surge Protective Devices: ZOTUPLIMITER



Code 216 106



Code 216 110



L 13/60 PV Y ... ff

**L 13/60 PV Y ... ff is a voltage limiting SPD for photovoltaic systems providing three modes of protection, typically installed close to the PV inverter, close to the PV generator and/or in the junction box, with the following features and benefits:**

- **Impulse test classification: Test Class I and II according to IEC 61643-31 Ed.1 (2018-01) and Type 1 and Type 2 according to EN 61643-31 (2019-05);**
- **High short circuit current rating without backup protection  $I_{scpv} = 1000\text{ A}$  according to IEC 61643-31;**
- **High short circuit current rating without backup protection, additionally tested based on IEC/EN 61643-11;**
- **Three colour Status Indicator with progressive indication of remaining performance;**
- **Upon request the L 13/60 PV Y ... ff type SPD can be supplied with other ratings for discharge current and Max. Continuous Operating Voltage.**

Model L 13/60 PV Y ...

600 ff

1000 ff

CODE			216 106	216 110
Maximum Continuous Operating Voltage (all modes)		$U_{CPV}$	600 V	1000 V
Modes of protection (number of poles)			3	
Type (acc. to IEC/EN 61643-31)			T1+T2	
Impulse discharge current (10/350 $\mu\text{s}$ ) (all modes)		$I_{imp}$	7 kA	5 kA
Nominal discharge current (8/20 $\mu\text{s}$ ) (all modes)		$I_n$	20,0 kA	
Total discharge current (10/350 $\mu\text{s}$ ) DC+ and DC- to PE		$I_{Total\ 10/350}$	13 kA	10 kA
Total discharge current (8/20 $\mu\text{s}$ ) DC+ and DC- to PE		$I_{Total\ 8/20}$	35,0 kA	40,0 kA
Max. discharge current (8/20 $\mu\text{s}$ )		$I_{max}$	70,0 kA	
Voltage protection level at a discharge current of (all modes)	1 kA	$U_p$	$\leq 1,60\text{ kV}$	$\leq 2,60\text{ kV}$
	5 kA	$U_p$	$\leq 1,90\text{ kV}$	$\leq 3,10\text{ kV}$
	10 kA	$U_p$	$\leq 2,10\text{ kV}$	$\leq 3,30\text{ kV}$
	15 kA	$U_p$	$\leq 2,40\text{ kV}$	$\leq 4,00\text{ kV}$
	20 kA	$U_p$	$\leq 2,50\text{ kV}$	$\leq 4,20\text{ kV}$
Response time		$t_a$	$\leq 25\text{ ns}$	
End of life			OCFM (open circuit failure mode)	
Short-circuit current rating (acc. to IEC 61643-31)		$I_{scpv}$	1000 A	
Short-circuit current rating (based on IEC/EN 61643-11)		$I_{scCR}$	500 A	200 A
Follow current interrupt rating			NFC No Follow Current®	
Status indicator			3 colours with progressive performance indication	
Operating temperature range / Humidity			-40 ... +80 °C (extended) / 5% ... 95%	
Terminal-Conductor size			4-35 mm <sup>2</sup> flexible / 4-50 mm <sup>2</sup> semi rigid	
Mounting			indoor, 35 x 7,5 mm top hat DIN rail IEC/EN 60715	
Case material / Flammability grade			BMC / V-0 according to UL 94	
Pollution degree / Degree of protection		PD / IP	2 / 20 (built-in)	
Approximate weight			420 g	700 g
Dimensions: width			53 mm (3 modules)	70 mm (4 modules)
GTIN (EAN)			8054890321242	8054890321259

TECHNICAL DATA

Model L 13/60 PV Y ... with remote signal contact

600 t ff

1000 t ff

CODE			216 116	216 126
Remote signal contact			potential-free changeover contact	
Terminal - conductor size for remote signal contact			max. 1,5 mm <sup>2</sup> flexible	
Switching capacity remote signal contact			ac: 250 V / 0,5 A – dc: 125 V / 0,2 A; 75 V / 0,5 A	
GTIN (EAN)			8054890321273	8054890321303