

Surge Protection Device

SPD 20/320 D G3

Surge Protection Device (SPD) is to offer comprehensive protection solution against high surges for Outdoor lighting systems.

Benefits

- Maximize the lifetime of outdoor lighting system
- Lower maintenance costs
- Suitable for luminaries of protection class II
- Long lifetime & high working temperature
- High surge protection of up to 20 kV (T3) / 20 kA (T2) for all lighting applications
- Compact and thin
- Failure indication LED
- Fully comply with IEC 61643-11

Applications

- Street, Urban and Industrial lighting
- Suitable for outdoor applications in fixtures with IP > 54

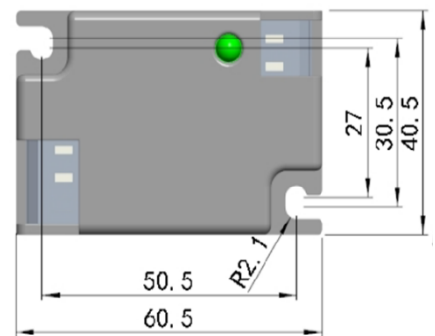
Approval marks



In preparation, if not already printed on product label

Product Features

- Mains voltage to 320Vac
- Suitable for luminaries of protection class II
- Push-in terminal
- Fully LED Driver protection by $U_p < 1.8\text{kV}$
- High surge protection of up to 20 kV / 10 kA; comply with IEC 61643-11 - T3
- Maximum surge protection of up to 20 kA; comply with IEC 61643-11 - T2
- TÜV approved acc. to IEC 61643-11 – T2 & T3



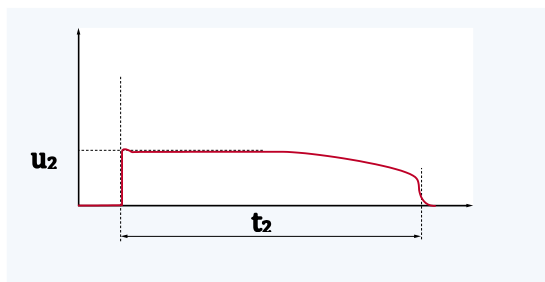
Housing material: plastic material, dark grey

Electrical Characterization

	Item	Value	Unit	Remarks, Conditions
INPUT	Max. continuous operating voltage (L-N)	320	V _{ac}	The L N input line must be connected correctly and cannot be reversed.
	Nominal frequency	50 / 60	Hz	
	Classification	Class II + III (T2 + T3)		Acc. IEC61643-11
	Power grids	TN		Including all TN varieties TN-C, TN-C-S, TN-S
	Open-circuit voltage (U _{oc})	20	kV	
	Nominal current	5	A	Rated load current at 50/60 Hz
	Power losses	<0.5	W	max. at U _c = 320VAC, loading current = 5A
	Protection class	II		Insulation Class acc. IEC60598
	Temporary overvoltage	441.7 336.6	V	LV system fault: 255 V x 1.73 at t _t = 120 m, TN LV system fault: 255 V x 1.32 at t _t = 5 s, TN
	Max discharge current (I _{max})	20	kA	L-N
	Protection mode	Different mode		Please refer to Protection levels.
	Nominal discharge current (I _n)	10	kA	L-N; @ UOC=20KV, internal resistance=2Ω
	Max. voltage protection level (U _p)	1.8	kV	L-N; @ UOC=20KV, internal resistance=2Ω
	Backup fuse	16	A	Max., gG fuse
	ENVIRONMENT	Max earth leakage current	NA	μA
Surge withstand capability		20 50	strike	Max. at 20kA (L-N) Min. at 10kA (L-N) Min. at 5kA (L-N)
Ambient temperature range t _a		-40 ... +80	°C	
Max. case temperature at t _c point		85	°C	
Storage temperature range		-40...+85	°C	
Relative humidity		5 ... 95	%	Not condensing
IP rating		IP 20		Built-in only
End of life indication (by LED light)		Yes		Optical, light ON: SPD is functional. Light OFF: SPD has reached end-of-life.
Expected lifetime		100'000	h	t _c = 85°C with max. 10% failure rate
Dimensions (L x W x H)		60.5 x 40.5 x 17	mm	
Weight	38	g		

Protection levels of U_p

IC 8/20 μs	Differential mode U ₂ (L-N)
10kA	≤1800 V



Differential mode L-N

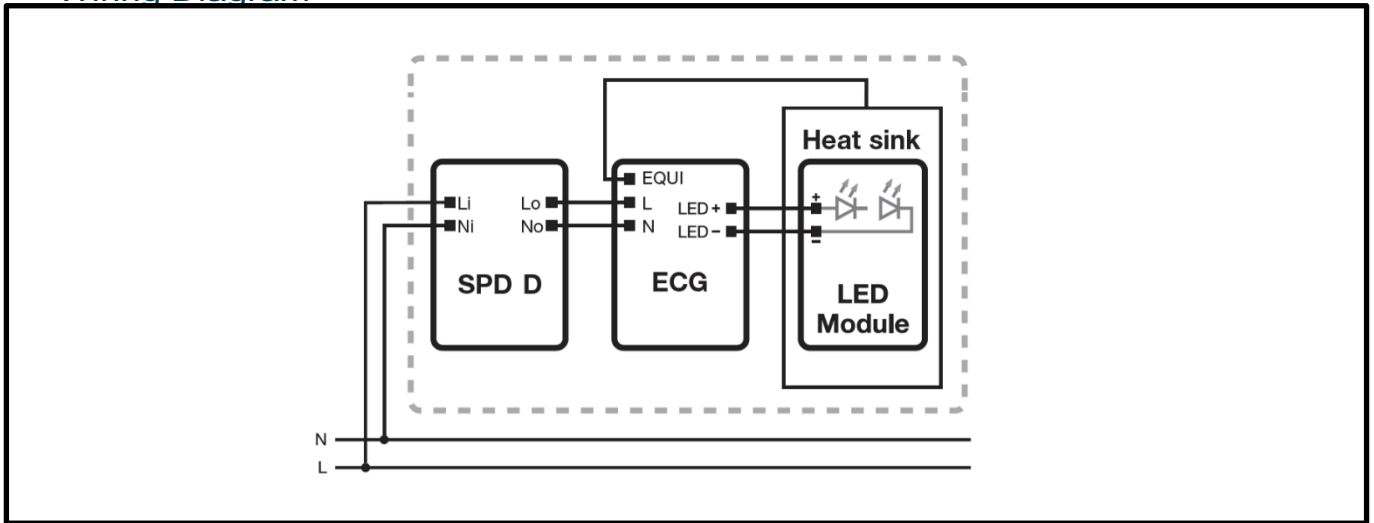
Additional Information

Product Datasheet

Approvals*	CE, CB, TUV
Standards	Acc. to IEC 61643-11

*In preparation, if not already printed on product label

Wiring Diagram



	Item	Value	Unit	Remarks
INPUT	Cable cross section	0.75...2.5	mm ²	Solid and stranded
	Wire preparation length	7...9	mm	
	Type of terminal	Push in, Single wire only		
OUTPUT	Cable cross section	0.75...2.5	mm ²	Solid and stranded
	Wire preparation length	7...9	mm	
	Type of terminal	Push in, Single wire only		
	Cable length from SPD to LED Driver	<3	m	

Standards

IEC 61643-11

ordering information

Product name	EAN10	EAN40	Pieces / box
SPD20/320 D G3	6977078992848	6977078992855	120

Disclaimer

Inventronics GmbH
 Parking 31-33, 85748 Garching,
 Germany

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.inventronicsglobal.com
 contact@inventronicsglobal.com