

# Surger Protection Device

## MSPPT-10K-SURGE



### Features:

- Suitable for use luminaire with Class 1 or Class II installations
- Protection Level L-N, L-PE, N-PE
- Built-in thermal detachment function, higher security
- Parallel connection mode, convenient maintenance
- Excellent impact resistance, low voltage limit
- High pressure heat shrinkable tube package, small size, easy to install
- IP65, dust-tight and water resistant

Model	MSPPT-10K-Surge
Application system	Single Phase power supply Protection level D
Input voltage $U_n$	100-277VAC 50/60Hz
Continued operating voltage $U_c$	320VAC
Residual Voltage	L-N:1.3kV ; L/N-PE:1.3kV
Nominal Discharge Current / $I_n$ (kA) (2)	5 kA (10kA)
Maximum Discharge Current / $I_{max}$ (kA) (3)	10 kA (20kA)
Open Circuit Voltage / $U_{oc}$	10 kV
Voltage Protective Level / $U_p$ (V) (4)	$\leq 1.2$ kV (L-N, L-G/PE, N-G/PE)
Wire for terminal	Calibre 1.0mm <sup>2</sup> Parallel
Connection mode	Parallel connection
Protection Degree	IP65
Ambient temperature	-40~+85°C

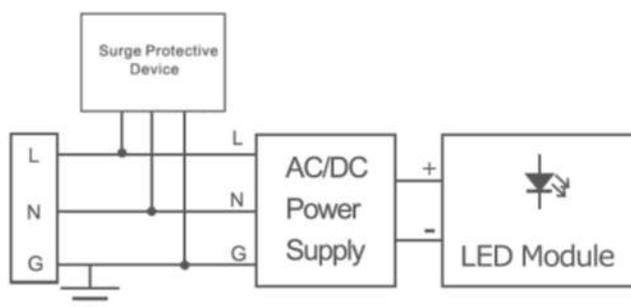
### Outline drawing



### Notes:

- 1.- MCOV/ $U_c$ (VAC) :The Maximum Continuous Operating Voltage can be continuously applied to the SPD.
- 2.- Nominal Discharge Current( $I_n$ )(kA):The nominal discharge current is a measure of the SPDs endurance capability 15 impulses of discharge current uses the 8/20us current waveform .
- 3.- Maximum Discharge Current( $I_{max}$ )(kA):The maximum discharge current is a measure of the SPOs maximum capability single impulse of discharge current uses the 8/20us current waveform. All devices pass maximum discharge current with possible, safe opening of thermal disconnect.
- 4.- Voltage Protective Level/ $U_p$ , The highest value of residual voltage measurements during the application of impulses of 8/20us nominal discharge ( $I_n$ ); rounding voltage value of maximum measurement.

### Installation



Parallel Connection

### Notes:

1. Black: Line; White: Neutral; Green: Ground.
2. Wire Gauge: 1.0mm<sup>2</sup> wire line in; Wire Length .150mm or customized.

# Surger Protection Device

## MSPPT-20K-SURGE



### Features:

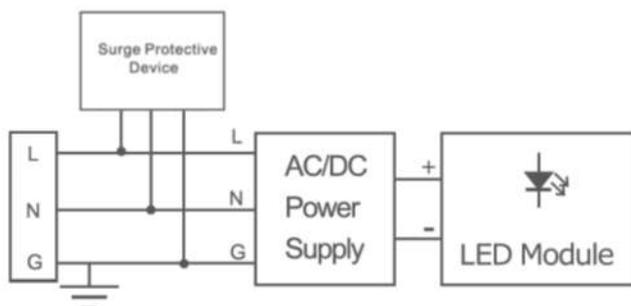
- Suitable for use luminaire with Class 1 or Class II installations
- Protection Level L-N, L-PE, N-PE
- Built-in thermal detachment function, higher security
- Parallel connection mode, convenient maintenance
- Excellent impact resistance, low voltage limit
- High pressure heat shrinkable tube package, small size, easy to install
- IP65, dust-tight and water resistant

Model	MSPPT-20K-Surge
Application system	Single Phase power supply Protection level D
Input voltage $U_n$	100-277VAC 50/60Hz
Continued operating voltage $U_c$	320VAC
Residual Voltage	L-N:1.3kV ; L/N-PE:1.3kV
Nominal Discharge Current / $I_n$ (kA) (2)	10 kA (20kA)
Maximum Discharge Current / $I_{max}$ (kA) (3)	20 kA (40kA)
Open Circuit Voltage / $U_{oc}$	20 kV
Voltage Protective Level / $U_p$ (V) (4)	$\leq 1.5$ kV (L-N, L-G/PE, N-G/PE)
Wire for terminal	Calibre 1.0mm <sup>2</sup> Parallel
Connection mode	Parallel connection
Protection Degree	IP65
Ambient temperature	-40~+85°C

### Notes:

- 1.- MCOV/ $U_c$ (VAC) :The Maximum Continuous Operating Voltage can be continuously applied to the SPD.
- 2.- Nominal Discharge Current( $I_n$ )(kA):The nominal discharge current is a measure of the SPDs endurance capability 15 impulses of discharge current uses the 8/20us current waveform .
- 3.- Maximum Discharge Current( $I_{max}$ )(kA):The maximum discharge current is a measure of the SPOs maximum capability single impulse of discharge current uses the 8/20us current waveform. All devices pass maximum discharge current with possible, safe opening of thermal disconnect.
- 4.- Voltage Protective Level/ $U_p$ , The highest value of residual voltage measurements during the application of impulses of 8/20us nominal discharge ( $I_n$ ); rounding voltage value of maximum measurement.

### Installation



Parallel Connection

### Notes:

1. Black: Line; White: Neutral; Green: Ground.
2. Wire Gauge: 1.0mm<sup>2</sup> wire line in; Wire Length .150mm or customized.



# Surger Protection Device

## MSPSB-20K-SURGE

### Features:

- Class I configuration
- Protection Level L-N, L-PE, N-PE
- Conform to UL 1449(3rd Edition)
- Thermal Fuse Disconnected
- Three-wire series connection
- Suitable for LED driver
- IP67, Can be used Indoor and Outdoor



Model	MSPSB-20K-Surge		
Application system	Single Phase power supply Protection level D		
Input voltage $U_n$	100-277VAC 50/60Hz		
Continued operating voltage $U_c$	320VAC		
Residual Voltage	L-N:1.2kV ; L/N-PE:1.5kV		
Nominal discharge Current $I_n(8/20\mu s)$	L-N	L-PE	N-PE
	10KA(20kA)	10KA(10kA)	10KA(10kA)
Resist lightning strike voltage $U_{oc}$	L-N	L-PE	N-PE
	20KA(40kA)	20KA(20kA)	20KA(20kA)
Combination Wave $U_{DC}$	20kV		
Maximum Input Current	10A(AC)		
Response time $t_A$	L-N:≤25ns ; L- PE:≤100ns; N-PE:≤100ns		
Nominal Load Power $P_w$	2kW		
Applicable temperature	-40~+80℃		
Standards complied	Conform to UL 1449 ( Class I ) ; GB18802.1 ; EN61643-11		
Dimension	75x38x37 (LxWxH) Unit: mm		
Safety standard	Refer to UL1449 3rd Edition, GB18802.1,EN61643-11:2011 EN61000-4-5 .		
Lead wiring	1.0mm <sup>2</sup>		
LED indication function	SPD working Normal		SPD Failure
	Turn On		Turn Off

### Installation

Wire series connection: connect one wire with power grid, connect another wire to LED driver. Then connect SPD brown wire to Live wire, connect blue wire to Neutral wire, connect yellow/green wire to earth wire. The connection point need to be welded safely according to IEC standard. Then put SPD into the street lighting fixture.

