



CITEL



LED systems

Surge Protectors



Surge Protectors for LED lighting system



LED street lighting is now widely used for its efficiency, its energy cost savings and its life expectancy.

Nevertheless this attractive technology has an important weakness: its sensitivity to transient voltages created by lightning or by power switch operations on AC network.

Due to its scattered and over-exposed location, LED lighting system will face induced surges which will create failure of its power supply, damage LED components or loss of the lighting efficiency. For these reasons, the use of relevant surge protectors located upstream the LED lighting systems is highly recommended.

CITEL offers a full range of surge protectors designed to be installed at different points on the lighting network such as streetlights, the base of poles and street cabinets.

CITEL offers solutions adapted to every type of outdoor LED lighting systems : urban, architectural, tunnels etc...

Hard-wired surge protector

● MLP series

MLP range is a complete range of AC surge protectors specifically designed by CITEL for the protection of LED lighting systems at the lantern.







Many versions have been proposed to meet the various existing configurations : surge protection devices are available in different isolation classes (Class 1, Class 2) and connection type (wire or screw terminal). Some versions are equipped with additional protection for data line option (RS485,DALI, 0-10V) to provide a complete solution for LED systems with control lines.

In cases of extreme aggression, the surge protector will be in a state of retirement security: according to the different versions available, an indication of the failure of the surge protector is performed by the extinction of an indicator, a AC power supply failure and / or through a remote signalisation.

● MLPC series

The MLPC range is a compact solution surge protectors to be installed in small spaces. These devices are available in 2 types of connectors (screw terminal or spring) and in two orientations wiring (input / output opposite or input / output on the same side) in order to adapt to the installation as much as possible.

In cases of extreme aggression, lightning MLPC1 will be in a state of safe end of life: the indication of failure (disconnection) of the surge protector is performed by the extinction of an indicator and switching off the AC (extinction street luminaire) inform the user of the need for maintenance.

Series		Description	Characteristics	Page
MLPC		Compact Hard-wired surge protector Type 2 and Type 3	Compact. Many configurations	87
MLP		Hard-wired surge protector Type 2 or 3	Remote signaling and Data in option	89
MLPX		Ultra-compact hard-wired surge protector Type 2+3	Ultra compact IP67 VG Technology	91
MSB6		Hard-wired surge protector Type 3	Very Compact. Buzzer indicator	77
DSL DLPM		DIN surge protector Type 2 or 3	Compact. Montage DIN	92
DS98L		DIN surge protector Type 2 or 3	Double connector. DIN mounting	93

● **MLPX series**

The MLPX range is an ultra compact surge protection solution for installation in extremely tight spaces.

These surge protectors are available with an output by drivers and fixing bracket. In the end of life of security the MLPX indicates its failure (disconnection) by the extinction of an indicator and AC power supply switching off (extinction of the candelabra) inform the user of the need for maintenance.

The MLPX is available in IP67.

● **MSB6 series**

These very compact surge protectors can be integrated in the very small volumes of certain lights (linear LEDs). The surge protection circuit is equipped with an end of life indicator buzzer in order to indicate the disconnection of the surge protector.

● **DSLPL / DLPM series**

This device is installed inside the bottom of the lighting pole : its very compact dimension allows a easy integration with the connection box, on DIN rail .

DSLPL1 is based on a powerful association of MOV and GDT components, secured by thermal disconnecter and connection light indicator. The DLPM version offers a mechanical indicator in order to inform about the status of the SPD without voltage supply.

● **DS98L series**

The DS98L range is a series of AC surge protector for DIN assembly designed to be installed inside boxes at the bottom of poles: its high load current and double output connection allow several LED circuits to be protected. The DS98L is based on an efficient combination of a varistor and a gas discharge tube, secured by thermal disconnecter and status indicator.

● **Street cabinet protection**

In order to ensure the real security of the lighting network, the main AC cabinet must also be protected by surge protection devices: surge protectors on the AC network (e.g.: DS40 range) and, if present, surge

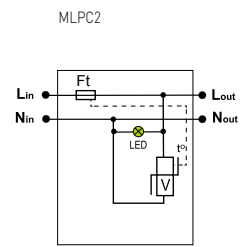
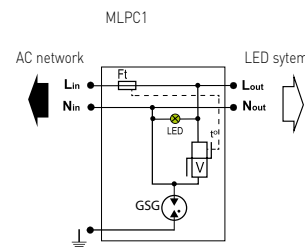
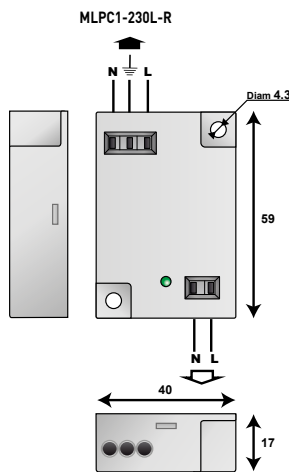
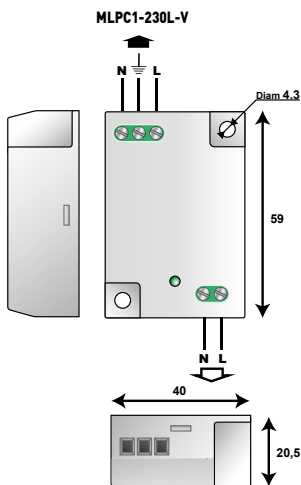
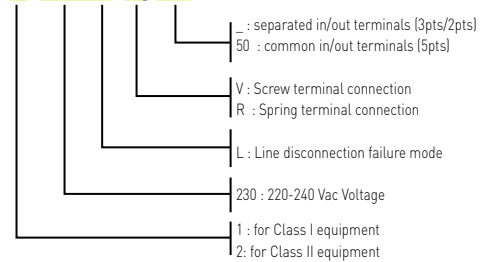


Surge Protectors for LED lighting system MLPC series

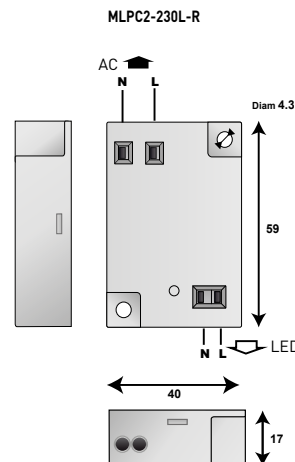
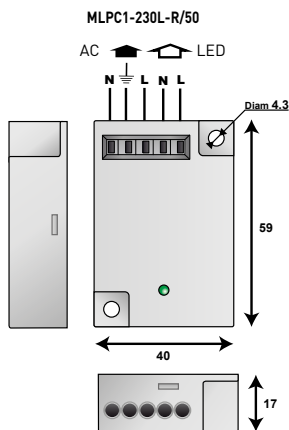
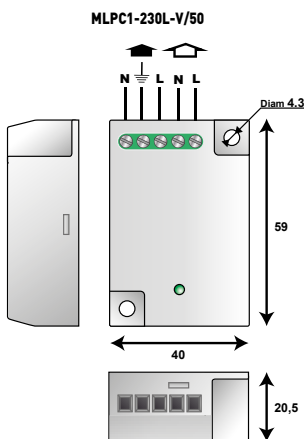


- Type 2 (or 3) surge protectors for Led lighting
- Very compact
- Plate mounting
- Screw terminal or spring terminal connection
- Status indicator
- End of life AC Disconnection
- IEC 61643-11 and EN 61643-11 compliance
- TUV certification

MLPC1-230L-V/50



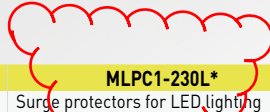
Ft: Thermal fuse
Led: Status indicator
V: MOV
GSG: Specific Gas Tube
T*: Thermal system disconnection



Surge Protectors for LED lighting system

MLPC series

Characteristics



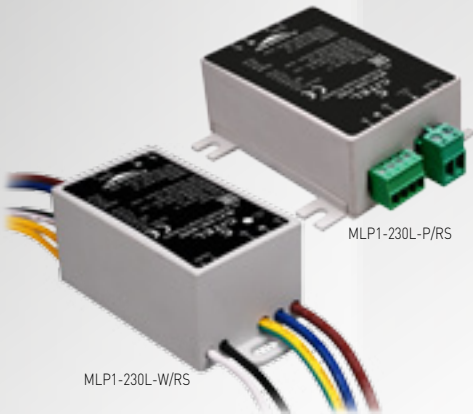
CITEL Model	MLPC1-230L*	MLPC2-230L-R
Description	Surge protectors for LED lighting system Class 1	Surge protectors for LED lighting system Class 2
Network	220-240 V single phase	220-240 V single phase
AC system	TT/TN	TT/TN
Protection mode(s)	CM/DM	DM
Max. AC operating voltage	Uc 320 Vac	320 Vac
Max. Load current	IL 5 A	5 A
Residual current - Leakage current at Uc	Ipe none	none
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT 335 Vac withstand	335 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT 440 Vac disconnection	440 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT 1200 V/300A/200 ms disconnection	-
Nominal discharge current - 15 x 8/20 μ s impulses	In 5 kA	5 kA
Max. discharge current - max. withstand @ 8/20 μ s by pole	I _{max} 10 kA	10 kA
Total lightning current - max. total withstand @ 8/20 μ s	I _{total} 20 kA	20 kA
Withstand on Combination waveform - Class III test	Uoc 10 kV/5 kA	10 kV/5 kA
Withstand on overvoltages IEEE C62.41.1	10 kV/10 kA	10 kV/10 kA
Protection level CM/DM @In (8/20 μ s) and @ 6kV (1.2/50 μ s)	Up 1.5 kV/ 1.5 kV	1.5 kV
Admissible short-circuit current	I _{sc} 10000 A	10000 A
Associated disconnectors		
Thermal disconnector	internal	
Installation ground fault breaker	Type "S" or delayed	
Mechanical characteristics		
Dimensions	see diagram	
Connection to Network	Screw (2,5 mm ² max) or Spring (1,5 mm ² max) contact terminal	2 spring terminals opposite side in/out - wire 1.5 mm ² max.
Voltage/operating indicator	Green Led ON	
Disconnection indicator	Disconnection	
Failsafe behavior	Led green OFF and AC network cut-off	
Remote signaling of disconnection	none	
Mounting	on plate	
Operating temperature	-40/+85°C	
Protection rating	IP20	
Housing material	Thermoplastic UL94-V0	
Standards compliance	EN 61643-11 / IEC 61643-11	
Model/Part number		
version Spring contact / 2 opposed terminals	MLPC1-230L-R 831211	MLPC2-230L-R 832211
version Screw terminal / 2 opposed terminals	MLPC1-230L-V 831221	- -
version Spring contact / 1 common terminal	MLPC1-230L-R/50 831212	- -
version Screw terminal / 1 common terminal	MLPC1-230L-V/50 831222	- -

CM/DM: Common Mode / Differential Mode



Surge Protectors for LED lighting system

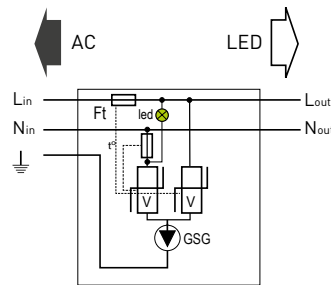
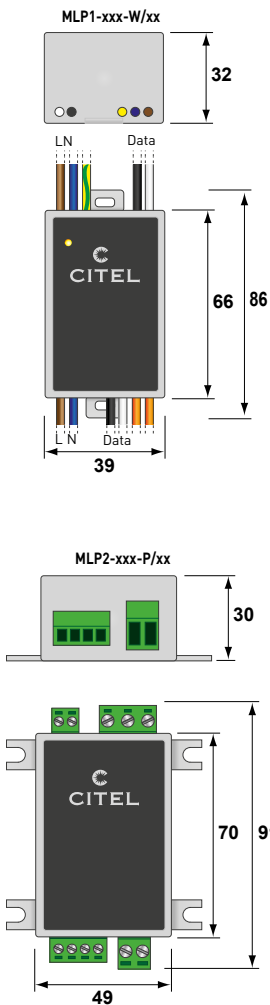
MLP series



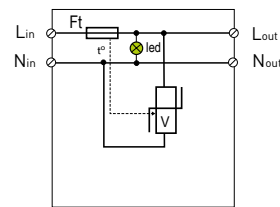
- Type 2 (or 3) surge protector
- Class I or Class II configurations
- Comprehensive range for all configurations
- Compact dimensions
- IP65 version
- Combined AC/Dateline version
- Wire or Screw connection
- Max. discharge current 10 kA
- Remote signaling (option)
- IEC 61643-11 and EN 61643-11 compliance

MLP1-230L-W/RS

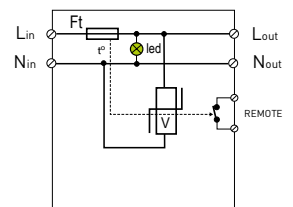
- : No dataline surge protection
- RS : RS485 or 0-10 V dataline surge protection
- DL : Dali transmission surge protection
- W : Wire connection
- P : Pluggable screw terminal connection
- L : Line disconnection failure mode without remote signal
- LS : Line disconnection failure mode with remote signal
- S : Parallel disconnection failure mode with remote signal
- : Parallel disconnection failure mode without remote signal
- 230 : 230-277 Vac voltage
- 120 : 110-120 Vac voltage
- 1 : Class I equipment
- 2 : Class II equipment



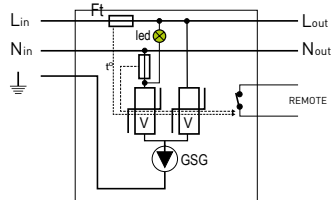
MLP1-230L-W



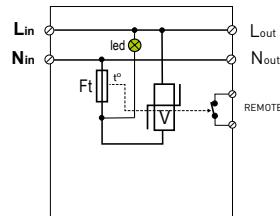
MLP2-230L-P



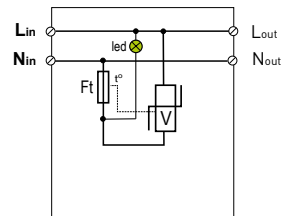
MLP2-230LS-P



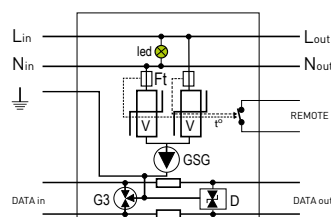
MLP1-230LS-W



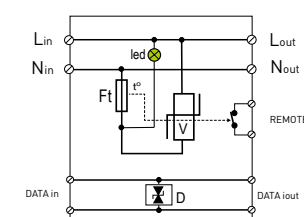
MLP2-230S-P



MLP2-230-P



MLP1-230S-W/RS



MLP2-230S-P/RS

- Ft : Thermal fuse
- Led : Status indicator
- V : MOV
- GSG : Specific Gas Tube
- G3 : 3-pole Gas Tube
- D : Clamping diode network
- Remote : Dry contact for remote signalling

MLP series

Characteristics

CITEL Model		MLP*-120*	MLP*-230*	MLP*/RS	MLP*/DL
		AC voltage specifications			Dateline specifications
Network		110-120 V single phase	220-240 V single phase	RS485 or 0-10V	DALI
Protection mode(s)		CM/DM	CM/DM	CM/DM	CM/DM
Max. AC operating voltage	Uc	180 Vac	305 Vac	15 V	28 V
Max. Load current	IL	2.5 A	2.5 A	300mA	300mA
Residual current - Leakage current at Uc	Ipe	None	None	None	None
Nominal discharge current - 15 x 8/20 μs impulses	In	5 kA	5 kA	100 A	5 kA
Max. discharge current - max. withstand @ 8/20 μs by pole	Imax	10 kA	10 kA	200 A	10 kA
Total lightning current - max. total withstand @ 8/20 μs	Itotal	20 kA	20 kA	20 kA	20 kA
Withstand on Combination waveform - Class III test	Uoc	10 kV/5 kA	10 kV/5 kA	-	-
Withstand on overvoltages IEEE C62.41.1		10 kV/10 kA	10 kV/10 kA	-	-
Protection level CM/DM @In (8/20μs) and @ 6kV (1.2/50μs)	Up	1.5 kV/ 1.2 kV	1.5 kV/ 1.5 kV	30 V	50 V
Admissible short-circuit current	Iscrr	10000 A	10000 A	-	-

Mechanical characteristics

Connection to Network		Screw or spring terminal - 1.5 mm ² max		Screw or spring terminal - 1 mm ² max	
Voltage/operating indicator		Green Led ON		-	
Failsafe behavior		Led green OFF and AC network cut-off		Short-circuit	
Disconnection indicator		Led green OFF and AC network cut-off or remote signal (option)		Transmission cut-off	
Remote signaling of disconnection		Option		none	
Standards compliance		IEC 61643-11 / EN 61643-11 / UL1449 ed.4		IEC 61643-21 / EN 61643-21 / UL497A	

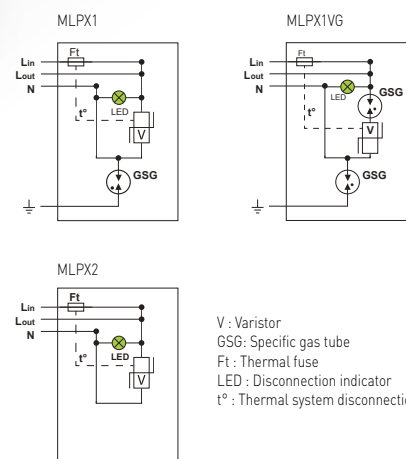
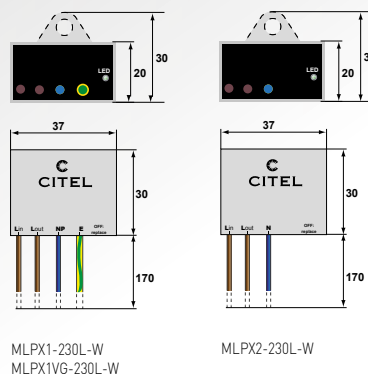
CM/DM: Common Mode / Differential Mode



Characteristics for version type

CITEL Model	MLP1-230L-W	MLP2-230S-P	MLP1-230L-W/DL	MLP2-230S-P/RS
Description	Surge protector for LED lighting system Class 1	Surge protector for LED lighting system Class 2	AC/Data surge protector for Led lighting system Class 1	AC/Data surge protector for Led lighting system Class 2
AC voltage specifications				
Description	220-240 V single phase	220-240 V single phase	220-240 V single phase	220-240 V single phase
AC system	TT-TN	TT-TN	TT-TN	TT-TN
Protection mode(s)	CM/DM	DM	CM/DM	DM
Max. AC operating voltage	Uc 305 Vac	305 Vac	305 Vac	12 V
Max. Load current	IL 2,5 A	2,5 A	2.5 A	2,5 A
Residual current - Leakage current at Uc	Ipe None	None	None	None
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT 335 Vac withstand	335 Vac withstand	335 Vac withstand	335 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT 440 Vac disconnection	440 Vac disconnection	440 Vac disconnection	440 Vac disconnection
Nominal discharge current - 15 x 8/20 μs impulses	In 5 kA	5 kA	5 kA	5 kA
Max. discharge current - max. withstand @ 8/20 μs by pole	Imax 10 kA	10 kA	10 kA	10 kA
Total lightning current - max. total withstand @ 8/20 μs	Itotal 20 kA	20 kA	20 kA	20 kA
Withstand on Combination waveform - Class III test	Uoc 10 kV/5 kA	10 kV/5 kA	10 kV/5 kA	10 kV/5 kA
Withstand on overvoltages IEEE C62.41.1	10 kV/10 kA	10 kV/10 kA	10 kV/10 kA	10 kV/10 kA
Protection level CM/DM @In (8/20μs) and @ 6kV (1.2/50μs)	Up 1.5 kV/ 1.5 kV	1.5 kV	1.5 kV/ 1.5 kV	1.5 kV
Admissible short-circuit current	Iscrr 10000 A	10000 A	10000 A	10000 A
Connection to Network	wire 1.5mm ² max	screw 1.5mm ² max	wire 1.5mm ² max	screw 1.5mm ² max
Voltage/operating indicator	Green Led ON	Green Led ON	Green led ON	Green Led ON
Failsafe behavior	Disconnection from AC line	Disconnection from AC line	Disconnection from AC line	Disconnection from AC line
Disconnection indicator	Green Led OFF and AC line cut-off	Green Led OFF and remote signaling	Green Led OFF and AC line cut-off	Green Led OFF and remote signaling
Remote signaling of disconnection	none	yes : output on contact NO	none	yes : output on contact NO
Associated disconnectors				
Thermal disconnector	internal	internal	internal	internal
Installation ground fault breaker	Type "S" or delayed	Type "S" or delayed	Type "S" or delayed	Type "S" or delayed
Dateline specifications				
Network	-	-	DALI	RS485 or 0-10V
Nominal line voltage	Un -	-	24 V	12 V
Max. DC operating voltage	Uc -	-	28 V	15 V
Max. Load current	IL -	-	300mA	300mA
Max. frequency	f max -	-	10 MHz	10 MHz
Insertion loss	-	-	< 1dB	< 1dB
Nominal discharge current - 15 x 8/20 μs impulses	In -	-	5 kA	100 A
Max. discharge current - max. withstand @ 8/20 μs by pole	Imax -	-	10 kA	200 A
Protection level	Up -	-	50 V	30 V
Connection to Network	-	-	wire 1 mm ² max	wire 1 mm ² max
Disconnection indicator	-	-	Transmission cut-off	Transmission cut-off
Mechanical characteristics				
Dimensions	see diagram	see diagram	see diagram	see diagram
Mounting	on plate	on plate	on plate	on plate
Operating temperature	-40/+85°C	-40/+85°C	-40/+85°C	-40/+85°C
Protection rating	IP65	IP20	IP65	IP20
Housing material	Thermoplastic UL94-V0	Thermoplastic UL94-V0	Thermoplastic UL94-V0	Thermoplastic UL94-V0
Standards compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.4		IEC 61643-11 / EN 61643-11 / UL1449 ed.4 IEC 61643-21 / EN 61643-21 / UL497A	
Part number	711211	721202	711231	721242

Hard-wired single-phase Type 2 + 3 AC surge protector MLPX series



V : Varistor
GSG: Specific gas tube
Ft : Thermal fuse
LED : Disconnection indicator
t° : Thermal system disconnection

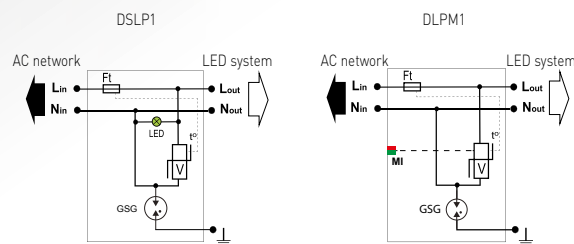
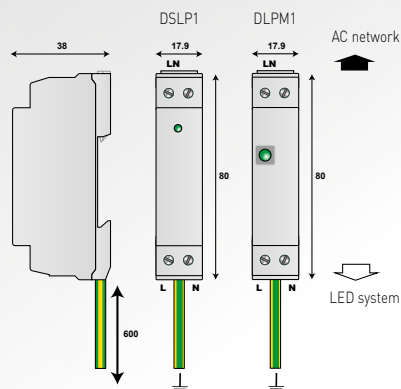
- Ultra compact Type 2 + 3 surge protector for 230 Vac networks
- For Classe I and Classe II
- Wall mounting and hard wired connection
- Breakable mounting bracket
- Protection rating : IP67
- VG Technology (MLPX1VG)
- improved coordination with driver (MLPX1VG)
- Disconnection signaling by indicator
- AC disconnection in case of end of life

Characteristics

CITEL Model	MLPX1-230L-W	MLPX1VG-230L-W	MLPX2-230L-W
Description	Compact Type 2 +3 hard-wired surge protector		
Application	Classe I	Classe I	Classe II
Network	230-277 V single phase		
AC system	TT/TN	TT/TN	TT/TN
Protection mode(s)	CM/DM	CM/DM	DM
Max. AC operating voltage	Uc 320 Vac	320 Vac	320 Vac
Max. Load current	IL 10 A	10 A	10 A
Residual current - Leakage current at Uc	Ipe none	none	none
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT 335 Vac withstand	335 Vac withstand	335 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT 440 Vac disconnection	440 Vac disconnection	440 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT 1200 V/300A/200 ms disconnection	1200 V/300A/200 ms disconnection	NA
Nominal discharge current - 15 x 8/20 µs impulses	In 5 kA	5 kA	5 kA
Max. discharge current - max. withstand @ 8/20 µs by pole	Imax 10 kA	10 kA	10 kA
Total max. discharge current - max. total withstand @ 8/20 µs	Itotal 20 kA	20 kA	NA
Withstand on Combination waveform - Class III test	Uoc 10 kV	10 kV	10 kV
Withstand on overvoltages IEEE C62.41.1	10 kV/10 kA	10 kV/10 kA	10 kV/10 kA
Protection level CM/DM @In (8/20µs) and @ 6kV (1.2/50µs)	Up 1.5 kV/1.5 kV	1.5 kV/1.5 kV	1.5 kV
Admissible short-circuit current	Isc cr 10000 A	10000 A	10000 A
Associated disconnectors			
Thermal disconnector	internal		
Installation ground fault breaker	Type «S» or delayed		
Mechanical characteristics			
Dimensions	see diagram		
Connection to Network	by wires :1.5 mm ² (L/N) and 2.5 mm ² (PE)		by wires :1.5 mm ² (L/N)
Voltage/operating indicator	Green Led ON		
Disconnection indicator	Disconnection		
Failsafe behavior	Led green OFF and AC network cut-off		
Remote signaling of disconnection	none		
Mounting	wall or plate		
Operating temperature	-40/+85°C		
Protection rating	IP67		
Housing material	Thermoplastic UL94-V0		
Standards compliance	EN 61643-11 / IEC 61643-11 / UL1449 4ed		
Part number	711214	711294	711217

Surge Protector for LED lighting system

DSLPP and DLPM series



V: Varistor
 Ft: Thermal fuse
 LED: Disconnection indicator
 MI: Mechanical disconnection indicator
 t[°]: Thermal system disconnection
 GSG: Specific Gas Tube

- **Type 2 (or 3) surge protectors for Led**
- **Very compact (low profile)**
- **Mechanical status indicator: DLPM**
- **DIN rail mounting**
- **Screw terminal connection**
- **Status indicator**
- **Disconnection AC end of life**
- **IEC 61643-11 and EN 61643-11 compliance**

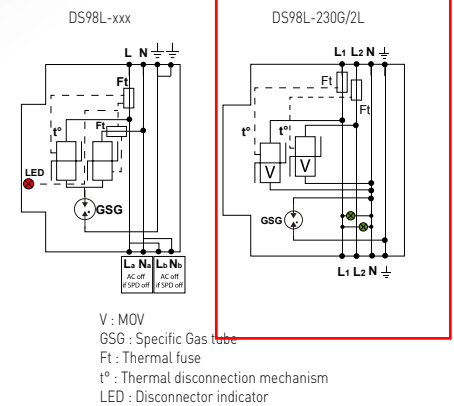
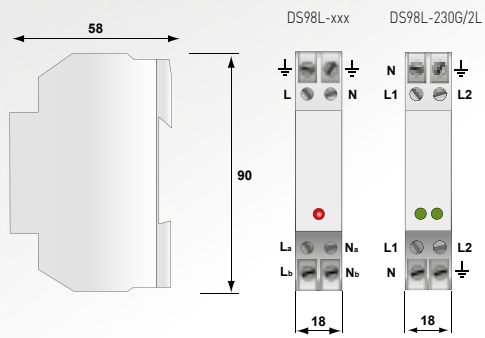
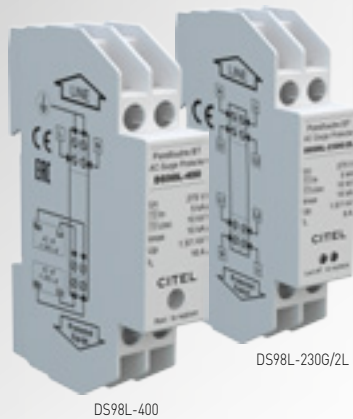
Characteristics

CITEL Model	DSLPP1-230L	DSLPP1-120L	DLPM1-230L	DLPM1-120L
Description	Surge protectors for LED lighting system Class 1			
Network	220-240 V single phase	120 V single phase	220-240 V single phase	120 V single phase
AC system	TT/TN	TT/TN	TT/TN	TT/TN
Protection mode(s)	CM/DM	CM/DM	CM/DM	CM/DM
Max. AC operating voltage	Uc 320 Vac	150 Vac	320 Vac	150 Vac
Max. Load current	IL 10 A	10 A	10 A	10 A
Residual current - Leakage current at Uc	Ipe none	none	none	none
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT 335 Vac withstand	180 Vac withstand	335 Vac withstand	180 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT 440 Vac disconnection	230 Vac disconnection	440 Vac disconnection	230 Vac disconnection
Temporary Over Voltage N/PE (TOV HT)	UT 1200 V/300A/200 ms disconnection	1200 V/300A/200 ms disconnection	1200 V/300A/200 ms disconnection	1200 V/300A/200 ms disconnection
Nominal discharge current - 15 x 8/20 μs impulses	In 5 kA	5 kA	5 kA	5 kA
Max. discharge current - max. withstand @ 8/20 μs by pole	I _{max} 10 kA	10 kA	10 kA	10 kA
Total lightning current - max. total withstand @ 8/20 μs	I _{total} 20 kA	20 kA	20 kA	20 kA
Withstand on Combination waveform - Class III test	Uoc 10 kV / 5 kA	10 kV / 5 kA	10 kV / 5 kA	10 kV / 5 kA
Withstand on overvoltages IEEE C62.41.1	10 kV/10 kA	10 kV/10 kA	10 kV/10 kA	10 kV/10 kA
Protection level CM/DM @In (8/20μs) and @ 6kV (1.2/50μs)	Up 1.5 kV/ 1.5 kV	1.5 kV/ 0.7 kV	1.5 kV/ 1.5 kV	1.5 kV/ 0.7 kV
Admissible short-circuit current	I _{sc} 10000 A	10000 A	10000 A	10000 A
Associated disconnectors				
Thermal disconnector	internal			
Installation ground fault breaker	Type «S» or delayed			
Mechanical characteristics				
Dimensions	see diagram			
Connection to Network	Screw terminal 2.5 mm ² max. Earthing conductor 2 mm ² - length 60 cm			
Voltage/operating indicator	Led green ON		Green indicator	
Disconnection indicator	Disconnection and AC line cut-off		Red indicator and AC line disconnection	
Failsafe behavior	Led green OFF and AC network cut-off		SPD disconnection from AC line	
Remote signaling of disconnection	none			
Mounting	Symmetrical rail 35mm (EN60715)			
Operating temperature	-40/+85°C			
Protection rating	IP20			
Housing material	Thermoplastic UL94-V0			
Standards compliance	EN 61643-11 / IEC 61643-11			
Part number	352913	352912	355913	-

CM/DM : Common Mode / Differential Mode



Surge Protector for LED lighting system DS98L series



- Cost effective Single phase or 2-phase+N Surge Protector
- Type 2 (or 3) monobloc
- In: 5 kA
- I_{max}: 10 kA
- Safety disconnection line
- Double connection output
- Common/Differential mode
- IEC 61643-11 and EN 61643-11 compliance

Characteristics

CITEL Model	DS98L-400	DS98L-120	DS98L-230G/2L
Description	Compact single-phase type 2 (or 3) surge protector - 230 V - Monobloc 230 V single phase	Compact single-phase type 2 (or 3) surge protector - 120 V - Monobloc 120 V single phase	Compact 2-phase+N Type 2 (or 3) surge protector - 230 V - Monobloc 230 V 2-phase + N
Network			
Protection mode	CM/DM	CM/DM	CM/DM
AC system	TN	TN	TT-TN
Max. AC operating voltage	U _c 275 Vac	150 Vac	275 Vac
Temporary Over Voltage (TOV) Characteristics - 5 sec.	UT 335 Vac withstand	180 Vac withstand	335 Vac withstand
Temporary Over Voltage (TOV) Characteristics - 120 mn	UT 440 Vac disconnection	230 Vac disconnection	440 Vac disconnection
Residual current - Leakage current at U _c	I _{pe} None	None	None
Max. Load current	I _L 16 A	16 A	8 A
Nominal discharge current - 15 x 8/20 μs impulses	I _n 5 kA	5 kA	5 kA
Max. discharge current - max. withstand @ 8/20 μs by pole	I _{max} 10 kA	10 kA	10 kA
Total lightning current - max. total withstand @ 8/20 μs	I _{total} 20 kA	20 kA	20 kA
Withstand on Combination waveform - Class III test	U _{oc} 10 kV	10 kV	10 kA
Protection level CM/DM @In (8/20μs) and @ 6kV (1.2/50μs)	U _p 1.5 kV / 1 kV	0.7 kV/ 0.7 kV	1.5 kV / 1 kV
Admissible short-circuit current	I _{scrr} 10000 A	10000 A	10000 A
Associated disconnectors			
Thermal disconnector	internal		
Fuses	Fuses type gG - 20A		
Installation ground fault breaker	Type «S» or delayed		
Mechanical characteristics			
Dimensions	see diagram		
Connection to Network	by screw terminals: 2.5 mm ² max.		
Failsafe behavior	Disconnection		Disconnection
Disconnection indicator	Red light on and AC network cut-off		Green lights off and and AC cut-off
Remote signaling of disconnection	No		No
Mounting	Symmetrical rail 35 mm (EN60715)		
Operating temperature	-40/+85°C		
Protection rating	IP20		
Housing material	Thermoplastic UL94-V0		
Standards compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.4		
Certification	EAC		
Part number	3519011	3519012	351933

CM/DM: Common Mode / Differential Mode

