

• Technical data

Type	LG B 50 RM/3+N	
Art.-No.	801 016	
Rated voltage (max. continuous voltage)	U_c	255V~
Lightning impulse current (10/350)	I_{imp}	250kA (L1+L2+L3+N-PE)
Lightning impulse current (10/350)	I_{imp}	50kA (L-N) 100kA (N-PE)
Nominal discharge current (8/20)	I_n	100kA (L-N) 200kA (N-PE)
Max. discharge current (8/20)	I_{max}	200kA (L-N) 300kA (N-PE)
Voltage protection level	U_p	$\leq 1.8kV$ (L-N) $\leq 1.5kV$ (N-PE)
Follow current extinguishing capability at U_c	I_f	32A fuse will not be triggered at $10kA_{rms}$
Response time	t_A	$\leq 25ns$ (L-N) $\leq 100ns$ (N-PE)
TOV voltage	U_T	335V / 5sec (L-N) 1200V / 200ms (N-PE)
Max. back up fuse (L)		200AgL/gG
Max. back up fuse (L-L')		125AgL/gG
Operating temperature range (parallel wiring)	T_{UP}	-40°C...+80°C
Operating temperature range (through wiring)	T_{US}	-40°C...+60°C
Cross-section area		35mm ² solid / 50 mm ² flexible
Mounting on		35mm DIN rail
Enclosure material		Gray thermoplastic, UL94-V0
Dimension		8 mods
Test standards		IEC 61643-11; GB 18802.11; YD/T 1235.1
Certification		CE (LVD, EMC)
Type of remote signalling contact		Switching contact
Switching capacity	U_N/I_N	AC:250V/0.5A DC:250V/0.1A, 125V/0.2A, 75V/0.5A
Cross-sectional area for remote signalling contact		Max. 1.5mm ² solid / flexible

• Product introduction

1. Summary

LG B 50 RM/3+N is designed to protect low voltage devices from lightning and surge damages, specially designed for TT and TN-S system ("3+1" circuit), mainly used in power supply system such as power distribution-room, distribution-cabinet and other important power supply system. Designed according to IEC 61643-11; GB 18802.11; YD/T 1235.1.

3. Application

LG B 50 RM/3+N is applied in three-phase TT and TN-S system ("3+1" circuit), mainly used in power supply system.

• Installation instruction

According to lightning protection zones concept, for installed at LPZ 0_A-1 or higher. This surge protection is usually installed in distribution-box or feeder bus of UPS, protecting devices or equipment downstream.

Fuse must be installed at the upstream of the SPD or the lightning arrester to make sure that protected system has double protection. The value of the fuse used in a SPD system should be conformed to:

- The value of FUSE should not be larger than the max. withstand capacity of the SPD's backup fuse value.
- Under the status of the max. current in the power supply & close loop circuit available current, the fuse should be able to disconnect when overloaded or short-circuited.
- Take 1 & 2 into consideration, the fuse should be as large as possible to allow the maximum surge discharge of SPD.

2. Main character

- Adopt hermetical GDT technology, high follow current extinguish capacity
- Lightning impulse current withstand max. 250kA (10/350 μ s)
- Extremely low voltage protection level
- Double terminals for parallel or series (V-shape) connection
- Multifunctional connection for conductor and busbars
- Green light indicates functional mode.

4. Application environment

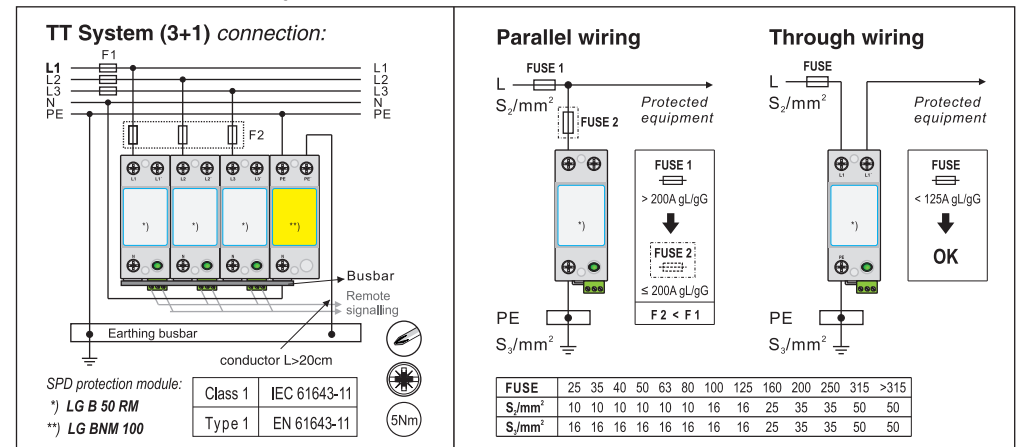
- Temperature: -40°C ~ +80°C
- Relative humidity: $\leq 95\%$ (25°C)

• Installation steps

- Check the product for integrity of the package; make sure the product window indicate green.
- Mount the SPD on the 35mm DIN rail.
- Connect conductors, the cross-sectional area of cable must be larger than 6mm². The withstand voltage value of cable is not smaller than AC500V; ensure wiring reliable.
- If need remote alarm, it should be connected signal lines to remote signal terminal 2 and 3 (When normal, 2 and 3 close; when fault, the state is reversed).
- After above, switch on the power supply and turn on the circuit breaker, if the SPD's light indicates green, this indicates the unit is operating normally.

Regularly inspect the operating status, especially after lightning. Once the fuse upstream break, electrician should check/replace the SPD.

LG B 50 RM/3+N installation diagram:



WARNING:

- The device must be installed by electrically skilled person, conforming to national standards and safety regulations.
- It is recommended that installation should be done under power off condition.