



LPI® Spark Gap Shunt Protector - NE Range

Features

- Encapsulated Spark Gap Technology
- Low follow on current
- 35mm DIN rail mount



Product Description

The LPI® NE range lightning arrester is intended for applications in unmeasured parts of electrical installations within the Lightning Protection Zones Concept at the boundaries LPZ 0 A(B) -1 (according to IEC 62305).

The LPI® NE range lightning arresters are constructed as encapsulated (Non-venting) chamber carbon spark gaps.

The LPI NE range is a single pole Neutral – Earth high energy protection device to protect electronic equipment from lightning current surges.

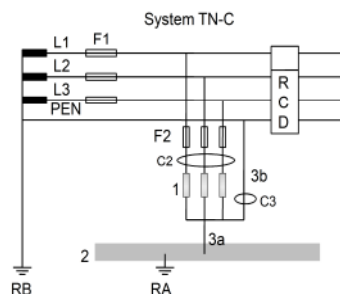
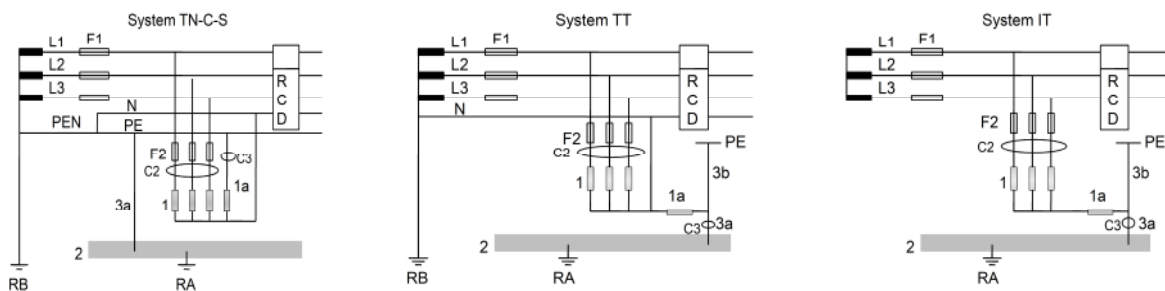
Ordering Code		LPI NE15	LPI NE100
Nominal Operating Voltage:	U_N	230V/50Hz	
Max. Continuous Operating Voltage:	U_C	255V/50Hz	
Follow current extinguishing capability at U_C :	I_f	100Arms	100Arms
Voltage protection level at I_{imp} :	U_P	<1.3kV	<1.5kV
Max. lightning impulse current:	I_{imp}	15kA (10/350 μ s)	100kA (10/350 μ s)
Max. lightning charge:	Q	7.5As	50As
Specific energy:	W/R	50kJ/ Ω	2500kJ/ Ω
Insulation resistance:	R_i	>1000M Ω	
Response time:	t_A	<100ns	
Standard:		IEC 61643 and EN 61643	
Operating temperature range:		-40 to +80 °C	
Recommended cross-section of connected conductors:		10mm ² (at 3 Nm clamping force)	50mm ² (solid) or 35mm ² (flexible) (at 4Nm clamping force)
Protection type:		IP20	
Mounting:		DIN rail 35mm	
Housing material:		SLOVAMID 6FRC2	
Colour:		Blue	
Weight:		84g	231g
Application:		Main and sub-distribution boards (between N&E conductors only)	
Dimensions:		65mm (H) x 18.5mm (W) x 90mm (L)	65mm (H) x 35mm (W) x 90mm (L)
Warranty:		5 Years	

Installation

The use of a closed, high performance spark gap (gas filled) renders the blow-out vent superfluous. A safety gap between adjacent components for fire protection reasons is unnecessary. The installation of this unit is normally in the main distributor at the building entrance. The protection circuit is contained in a snap-on housing for installation on 35mm DIN rail (in compliance with EN 50022) with multi-function terminals for wires and wiring bridges.

All connections should preferably be tightened to 3Nm. The entire length of the cable should not exceed 0.5m. But if it does exceed 0.5m, the PE line should be installed with a Kelvin connection. This device must not be bonded exclusively via the wiring bridge. Lightning currents must be discharged via a cable with an adequate cross-sectional area. Protected and unprotected lines must not be laid together.

Schematic Diagram for different distribution system



Legend

- 1 LPI SGT50-25/ SG60
- 1a LPI NE15/NE100
- 2 Main equipotential bus bar
- 3a, 3b Grounding wires for arresters
- F1 Main back-up fuse of service main
- F2 Recommended back-up fuse 315AgL/gG (only if the main back-up fuse F1 is fitted with back-up fuses >315AgL/gG)
- RA Equipment grounding
- RB Grounding system

Recommended Fuse and Cable Sizes

Fuse F1 gL/gG	C2 (mm sq.)	C3 (mm sq.)	Fuse F2 gL/gG
25A up to 80A	10	16	Not required
100A	16	16	Not required
125A	16	16	Not required
160A	25	25	Not required
> 160A	25	25	160A

Figure 1: Fuse and Cable size for NE15

Fuse F1 gL/gG	C2 (mm sq.)	C3 (mm sq.)	Fuse F2 gL/gG
25A up to 80A	10	16	Not required
100A-125A	16	16	Not required
160A	25	25	Not required
200A-315A	35	35	Not required
> 500A	35	35	315A

Figure 2: Fuse and Cable size for NE100



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