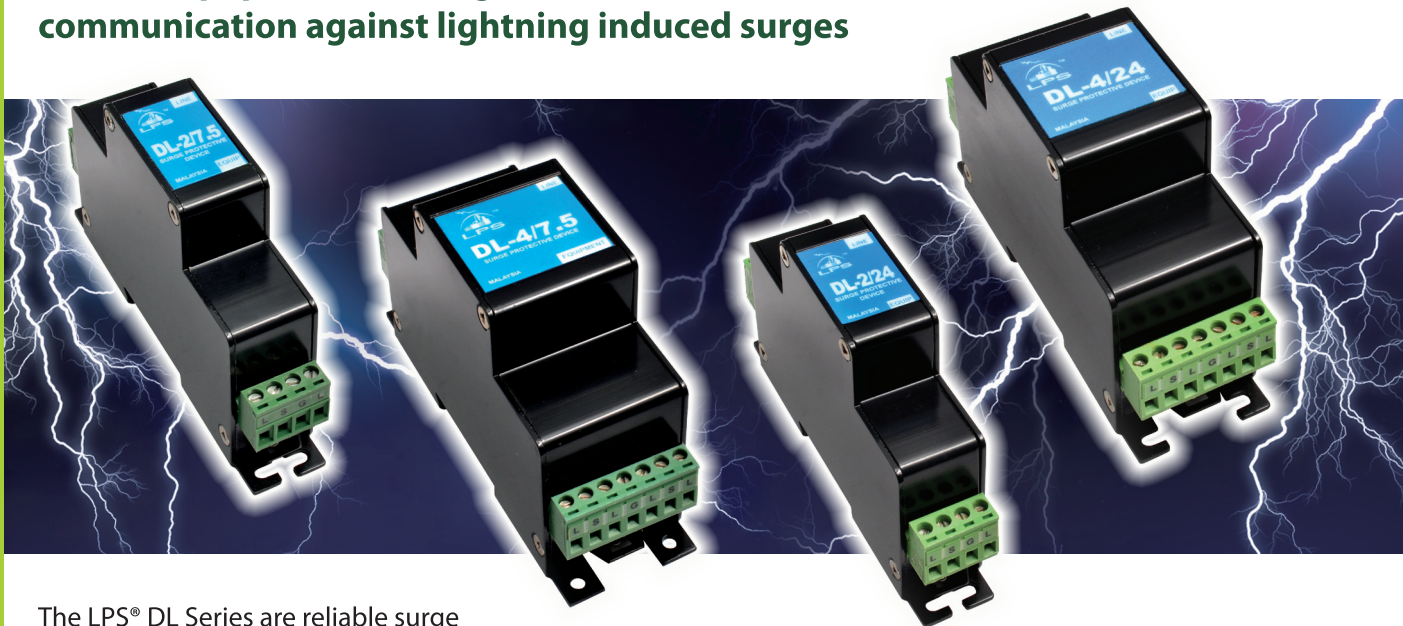


LPS® DL Series

SURGE PROTECTIVE DEVICES



Protect equipment utilising screen cable for data and communication against lightning induced surges



The LPS® DL Series are reliable surge protective devices specially designed for systems using screen cable plus equipment with screen terminal for high baud rate data transmission. They are ideal for RS 485, RS 422, RS 423, Ethernet signal of instrumentation interfaces and equipment which include servers, Card Reader Controllers, lift controllers as well as twisted pair CCTV circuit. They provide unsurpassed performance in lightning surge protection.

How they work

The LPS® DL Series devices are manufactured in Malaysia with multi-stage protection. Primary protection starts with GDT (Gas Discharge Tube) which is then supported with a second-stage surge attenuate component network and finally to a semiconductor voltage dependent device. These devices deploy state-of-the-art engineering technology with high surge capacity to protect sensitive data networks effectively even in the most lightning prone regions in the world. All this is done without impairing the system's normal operation or cause excessive in-line resistance.

When surges occur, these devices will switch to a fully conductive state and divert surge current, after which it will reset automatically. However, under excessive surge conditions, the LPS® DL Series devices will fail in shorted mode to earth, securing the protection of the equipment.

For more effective protection, we highly recommend that the LPS® DL Series devices be installed at both ends of the cable, especially when the connecting equipment is located 30 metres away, in an adjacent building or outdoors. The cable should not exceed 75 metres for optimal performance at 100 MHz transmission rate. All equipment and SPD earth must be linked to the system's common earth.

HIGHLIGHTS

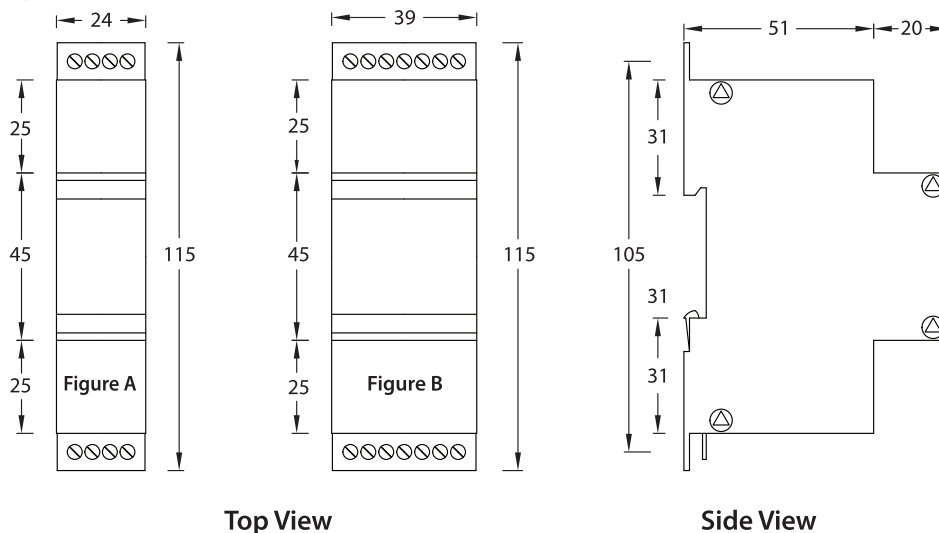
- ▶ They are multi-stage hybrid protectors
- ▶ They protect equipment with high-speed signal or higher bandwidth with working voltages of 7.5 V and 24 V
- ▶ They protect all modes from signal to earth and signal to signal
- ▶ They are housed in a fail-safe metal enclosures with Din Rail or Panel Mount features

Technical Specifications

Technical Data	DL- (*)/7.5	DL- (*)/24
Nominal Operating Signal Voltage	±5 V	±20 V
Maximum Operating Signal Voltage	±7.5 V	±24 V
Standard Clamp Voltage @ 1 mA	9.5 V (Line to Screen, Line to Line); 90 V (Screen to Earth)	27 V (Line to Screen, Line to Line); 90 V (Screen to Earth)
Let-through Voltage @ IEEE C62.36 – 1994 (CCITT) / ITU-T k.20, Enhanced 6 kV @ 10/700 µs, 150 A @ 5/310 µs	12 V (Line to Screen, Line to Line); 600 V (Screen to Earth)	36 V (Line to Screen, Line to Line); 600 V (Screen to Earth)
Protection Modes	Common and Transverse Modes	
Maximum Surge Current @ 8/20 µs	10 kA / wire	
– 3db Bandwidth @ 110 Ω Circuit	DC – 100 MHz @ cable length < 75 metres	
Insertion Loss	< 0.1 db	
Maximum Signal Current (Line to Line)	350 mA	
Maximum Shunt Capacitance	< 30 pF	
Series Resistance Per Wire	2 Ω	
Connector Interface	Pluggable Screw Terminal	
Mounting Interface	DIN Rail / Panel Mount	
Maximum Conductor Size	2.5 mm ²	
Operation and Storage Temperatures	– 40° C to 70° C	
Warranty	5 years	

Protected Wires	Model Number		Dimensions	Weight
2 Wires + Screen	DL- 2/7.5	DL- 2/24	Figure A	225 g
4 Wires + Screen	DL- 4/7.5	DL- 4/24	Figure B	270 g

Dimensions



All dimensions in millimetres

All the above specifications are subjected to changes without prior notice.
Customised products are available upon request.

Awarded the National Mark of
Malaysian Brand 2015



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