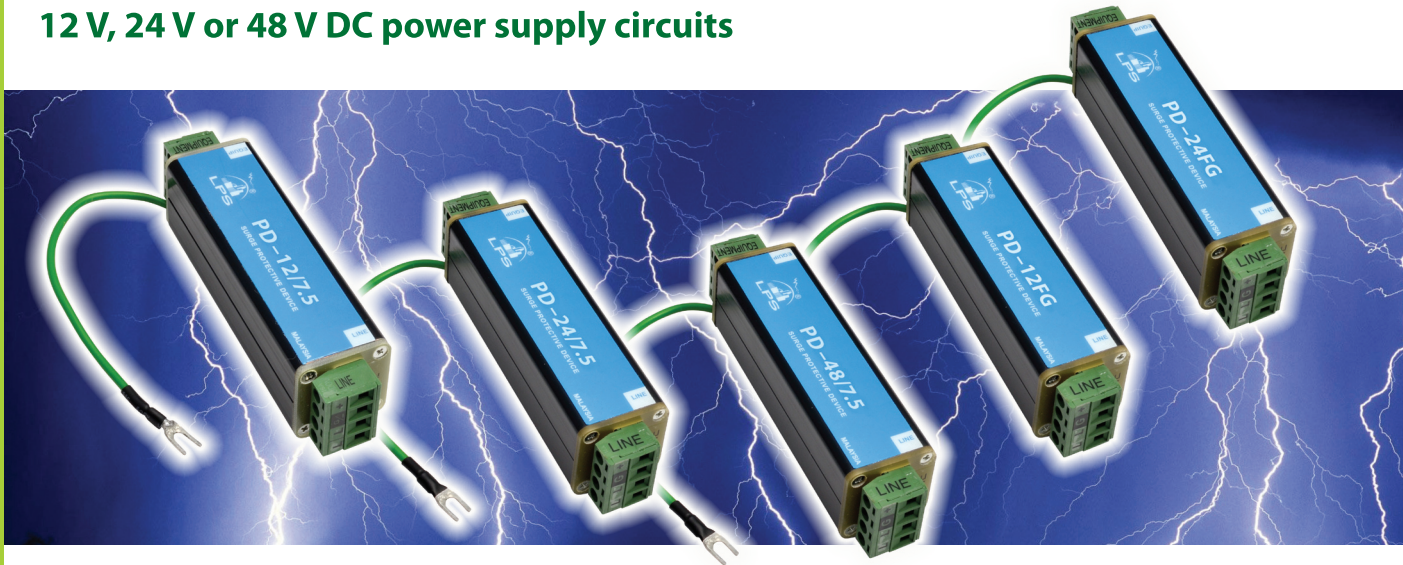


LPS® PD Series

SURGE PROTECTIVE DEVICES



**Protect both power and data equipment with
12 V, 24 V or 48 V DC power supply circuits**



The LPS® PD Series surge protective devices (SPD) are specially designed to protect both data equipment and power supply circuits of 12 V, 24 V or 48 V DC. They protect data signals right up to 90 MHz transmission rate including RS 485, RS 422 and RS 423. They are reliable and cost-effective.

Following extensive R&D, these devices have been created with a clear understanding of how vulnerable and sensitive the extra low voltage equipment (such as the Vehicle Access System) could be during a thunderstorm. Thus by deploying state-of-the-art engineering technology, these devices can protect your equipment effectively even in the most lightning prone regions in the world.

The devices are housed in fail-safe metal enclosures.

How they work

The LPS® PD Series provide unsurpassed performances in lightning surge protection. They deploy multi-stage protection with GDT (Gas Discharge Tube) for primary defence. They are then linked to a second stage surge attenuation component and finally to a solid state voltage dependant component. When a transient surge occurs, the LPS® PD Series of surge protective devices will switch to a fully conductive state to divert high current. They will then reset automatically to a non-conducting state when the current falls below the holding current.

Under excessive surge conditions, these devices will generally fail in shorted mode to earth or line-to-line to continuously keep the circuit protected. For a more comprehensive protection, we recommend that they are installed at both ends of a cable especially when connecting equipment are located more than 30 metres away, in adjacent buildings or outdoors. Any SPD added to the cable will contribute some signal loss. In order to compensate the signal loss, it is recommended to reduce the maximum allowable cable length of the type of signal by 30%. All equipment and SPD earth must be linked to the system's common earth.

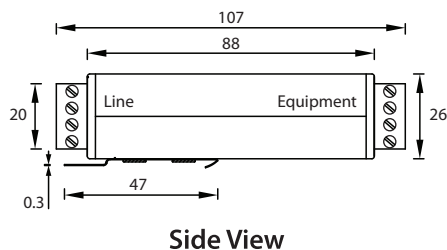
HIGHLIGHTS

- ▶ **They are multi-stage hybrid protectors**
- ▶ **They protect all lines on both common and transverse modes**
- ▶ **They protect equipment with 12 V, 24 V or 48 V DC power supply circuits together with data signals (i.e., RS 485, RS 422 and RS 423)**
- ▶ **They are housed in fail-safe metal enclosures**

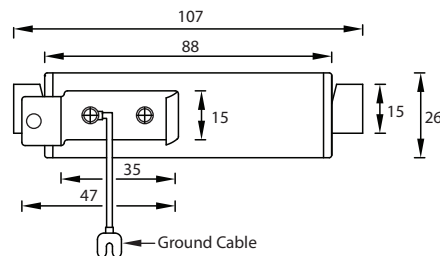
Technical Specifications

Technical Data	PD-XX/7.5				PD-XXFG		
	Power Specifications			Data Specs.	Power Specs.		Data Specs.
	PD-12/7.5	PD-24/7.5	PD-48/7.5		PD-12FG	PD-24FG	
Protected Wires	2	2	2	2	2	2	2
Nominal Operating Voltage (Line to Line)	±12 V	±24 V	±48 V	±5 V	±12 V	±24 V	±12 V
Maximum Operating Voltage (Line to Line)	±18 V	±30 V	±65 V	±7.5 V	±18 V	±30 V	±18 V
1 mA Standard Clamp Voltage ±15%	22 V	39 V	82 V	9.7 V	22 V	39 V	22 V
Let-through Voltage (Line to Line) @ MS IEC 61643-21:2012	21 V @ D1	25 V @ D1	30 V @ D1	41 V @ C3	23 V @ D1	25 V @ D1	41 V @ C3
- 3db Bandwidth @ 110 Ω Circuit	-			DC - 90 MHz	-		DC - 90 MHz
Insertion Loss	-			< 0.76 db	-		< 0.76 db
Maximum Signal Current (Line to Line)	-			350 mA	-		350 mA
Maximum Shunt Capacitance	-			< 30 pF	-		< 30 pF
Maximum Loading Current	5 A			-	5 A		-
Inductance Per Wire	14 μH positive wire			-	14 μH positive wire		-
Earth Polarity	Floating						
Maximum Surge Current @ 8/20μs Per wire	10 kA						
Protection Modes	Common and Transverse Modes						
Connector Interface	Pluggable Screw Terminal						
Operation and Storage Temperatures	- 40° C to 70° C						
Housing Ratings	IP 20 and NEMA 1						
Maximum Conductor Size	2.5 mm ²						
Weight	100 g						
Warranty	5 years						

Dimensions



Side View



Back View

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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