# **LPS® PC-CCTV/240** SURGE PROTECTIVE DEVICES



Protects simultaneously 240 VAC Power and Coaxial Video Signal of AC powered CCTV cameras against lightning induced surges

The LPS® PC-CCTV/240 surge protective device (SPD) is specially designed to protect simultaneously 240 VAC Power and Coaxial Video Signal of AC powered CCTV cameras. Sensitive CCTV cameras are effectively protected against lightning induced surges without impairing the system's normal operation or causing excessive in-line resistance.

Following extensive R&D, the LPS<sup>®</sup> PC-CCTV/240 has been created to deploy state-of-the-art engineering technology. This Malaysian-made device is cost-effective, providing unsurpassed performance in lightning surge protection, even in the most lightning prone regions in the world.

#### How it works

When surges occur, the LPS<sup>®</sup> PC-CCTV/240 will switch to a fully conductive state and divert high current. It will then reset automatically to a non-conducting state when the surge impulse is over. Under excessive surge conditions, it 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 the device is 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

- It protects simultaneously 240 VAC Power and Coaxial Video Signal of AC powered CCTV cameras against lightning induced surges.
- It provides both common and differential modes of protection.
- It has a LED indicator enabling user to monitor the 240 VAC power protection status.
- It is housed in a fail-safe IP20 metal enclosure suitable for DIN rail/panel mount.

### **Technical Specifications**

AC Power		Video Signal	
Test Standard	IEC 61643-1, Class III	Signal Type	1 V P-P Standard Video Signal
Type of LV System	π	Nominal Operating Signal Voltage	±1V
Nominal Voltage U <sub>o</sub>	240 VAC (Line – Neutral)	Maximum Operating Signal Voltage	± 2 V
Maximum Continuous Operating Voltage U <sub>c</sub>	275 VAC (Line – Neutral)	Standard Clamp Voltage @1 mA	± 2 V (Centre Conductor to Screen) 82 V (Screen Conductor to Earth)
Mode of Protection	Line – Neutral, Line – Ground, Neutral – Ground	Protection Modes	Common and Transverse Modes
Voltage Protection Level $U_p$ T3 at combination wave test 6 kV / 3 kA	900 V (Line – Neutral)	Let-through Voltage @ IEEE C62.36 – 1994 (CCITT) / ITU k.21 Enhanced 6 kV @10/700 μs, 150 A @ 5/310 μs	25 V (Centre Conductor to Screen) 160 V (Screen Conductor to Earth)
Combination Wave Open Circuit Voltage $U_{oc}$	6 kV		
Number of Ports	1 (Parallel Connection)	Maximum Surge Current @ 8/20 μs	10 kA (Centre Conductor to Earth) 11 kA (Screen Conductor to Earth)
Total Discharge Current I <sub>TOTAL</sub>	25 kA	–3 db Bandwidth @ 75 Ω Circuit	From DC to 140 MHz
Residual Current I <sub>PE</sub>	< 1 mA	Maximum Signal Current	350 mA (Centre Conductor to Screen)
Short-circuit Current Rating	25 kA	Insertion Loss @ 75 Ω Circuit	< 0.5 db
Frequency	50 – 60Hz	Maximum Shunt Capacitance	< 30 pF
Status Indicator	Visual – LED	Loop Resistance	4Ω
2.5 mm <sup>2</sup> Lead Length	300 mm	Circuit Impedance	75 Ω
Rating for External Disconnector	16 A Switch Fuse	Connector Interface	BNC Female
Degree of Protection	IP 20		
Method of Mounting	35 mm Din Rail / Panel Mount		
Operating and Storage Temperatures	-40° C to 70° C		
Weight	300 g		
Dimensions	36 mm x 119 mm x 71 mm		
Warranty	5 years		

## **Dimensions**

All dimensions in millimetres

Top View





Awarded the National Mark of Malaysian Brand 2015

Side View



## Lightning Protection System Sdn. Bhd. (362924-D)

No. 42-4, Jalan Kuchai Maju 10, Kuchai Entrepreneurs' Park, 58200 Kuala Lumpur, Malaysia T: +603-7980 5911 • F: + 603-7980 4862 • E: info@lpsystem.com • www.lpsystem.com

