# LPS® PM40 Series
## SURGE PROTECTIVE DEVICES

**Protect electronic and electrical equipment against lightning induced surges**


The LPS® PM40 Series devices are reliable surge protectors designed to protect electronic and electrical equipment. They are ideal for sub-switchboards and distribution boards of commercial and industrial buildings, as well as main switchboards for homes and office units.

Following extensive R&D, these devices have been created to deploy state-of-the-art engineering technology to protect your equipment effectively even in the most lightning prone regions in the world.

LPS® PM40 Series devices provide 40,000 amps per phase of surge protection in common and differential modes with instantaneous response. Thus your equipment is protected from lightning surges caused by direct lightning strikes, electro-magnetic couplings, the switch of power networks as well as from inductive loads.

Metal Oxide Varistors (MOVs) are used to maximise performance and reliability. LPS® PM40 Series devices are specially designed with built-in thermal cut-out fuse that assist in avoiding fire hazards when dangerous thermal run-away occurs.

Each device is equipped with a LED indicator. LPS® PM40-220 and PM40-480 have additional audible alarm which provides users with audio monitoring on protection status. Furthermore, they are also armed with a NO/NC dry contact for remote monitoring on protection and power supply status with user-friendly RJ II connector.

## How they works

LPS® PM40 Series devices provide unsurpassed performances in lightning surge protection. When a transient surge occurs, the 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 varistor voltage

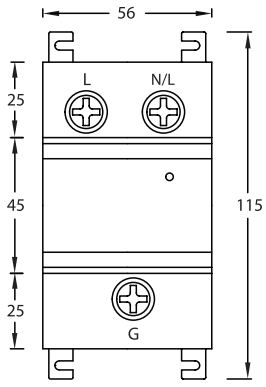
## HIGHLIGHTS

- **They protect Distribution Boards (DB) receiving energy from Sub-Switchboards Boards (SSB) located in the same buildings**
- **They are designed with a built-in thermal cut-out fuse that assist in avoiding fire hazards when dangerous thermal run-away occurs**
- **They are housed in a fail-safe IP 20 metal enclosures for maximum safety**

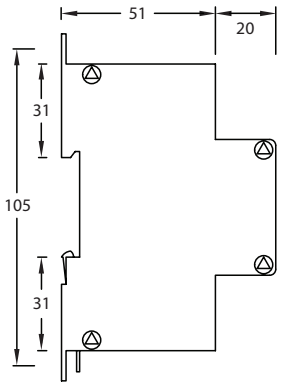
## Technical Specifications

| Technical Data | PM 40 – 110 | PM 40 – 130 | PM 40 – 220 | PM 40 – 480 |
|---|---|---|---|---|
| Compiled Standard | IEC 61643-11, Class III | | | |
| Type of LV System | TT / TN | TN | | |
| Location | Distribution Board (DB) receiving energy from SSB located in the same building | | | |
| Number of Ports | 1 (Parallel Connection) | | | |
| Mode of Protection | L – G, L – N, N – G | L – G, L – L | L – G | |
| Nominal Voltage $U_O$ | 110 VAC (L – G & L – N) | 130 VAC (L – G) 225 VAC (L – L) | 120 VAC (L – G) 208 VAC (L – L) | 277 VAC (L – G) 480 VAC (L – L) |
| Maximum Continuous Operating Voltage $U_C$ | 130 VAC (L – G & L – N) | 150 VAC (L – G) 260 VAC (L – L) | 138 VAC (L – G) 239 VAC (L – L) | 318 VAC (L – G) 552 VAC (L – L) |
| Voltage Protection Level $U_P$ T3 at combination wave test 6 kV / 3 kA | 500 VAC (L – N) | 500 V (L – N) | 500 V (L – G) | 1.1 kV (L – G) |
| Combination Wave Open Circuit Voltage $U_{CO}$ | 6 kV | | | |
| Maximum Discharge Current $I_{max}$ – Designed | 40 kA / phase | | | |
| Temporary Overvoltage $U_T$ (L – N) – 5s | 228 V | | | 528V |
| Total Discharge Current $I_{TOTAL}$ | 40 kA | | 120 kA | |
| Residual Current $I_{PE}$ | < 1 mA | | | |
| Short-circuit Current Rating $I_{SCCR}$ | 25 kA | | | |
| Frequency | 50 / 60 Hz | | | |
| Status Indicator | Visual – LED | | Visual – LED<br>Remote Monitoring – Dry Contact<br>Audible Alarm | |
| Degree of Protection | IP 20 | | | |
| Max. Conductor Size | 10 $mm^2$ | | | |
| Operating & Storage Temperatures | – 40 °C to 70 °C | | | |
| Method of Mounting | 35 mm Din Rail / Panel Mount | | | |
| Rating for External Disconnector | 16 A HRC Fuse or Nuisance Tripping Protected RCCB | | | |
| Weight | 400 g | 350 g | 520 g | 600 g |
| Dimensions | 56 mm x 115 mm x 71 mm | | 109 mm x 115 mm x 71 mm | |
| Warranty | 5 years | | | |

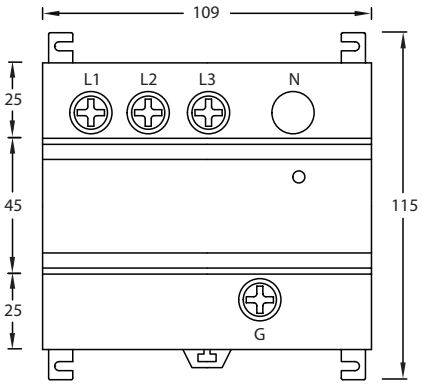
## Dimensions




Top View: PM 40–110 / PM 40–130




Side View




Top View: PM 40–220 / PM 40–480

*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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