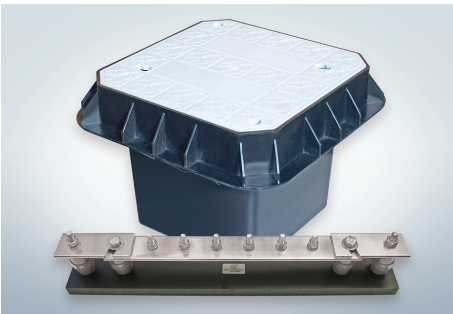




### Transient Earth Clamp

The LPI Transient Earth Clamp provides equipotential bonding under transient conditions by forming a closed circuit, whilst remaining 'open circuit' under normal operating conditions. The TEC should be used where earthing systems need to be kept separate.

Ordering Code	Description
TEC100-2L	Transient Earth Clamp, DC Sparkover voltage > 350 V DC, Impulse Current (Iimp) 100 kA 10/350 μs Max discharge current (I <sub>max</sub> ) 200 kA 8/20 μs



### Earth Bars and Inspection Pits

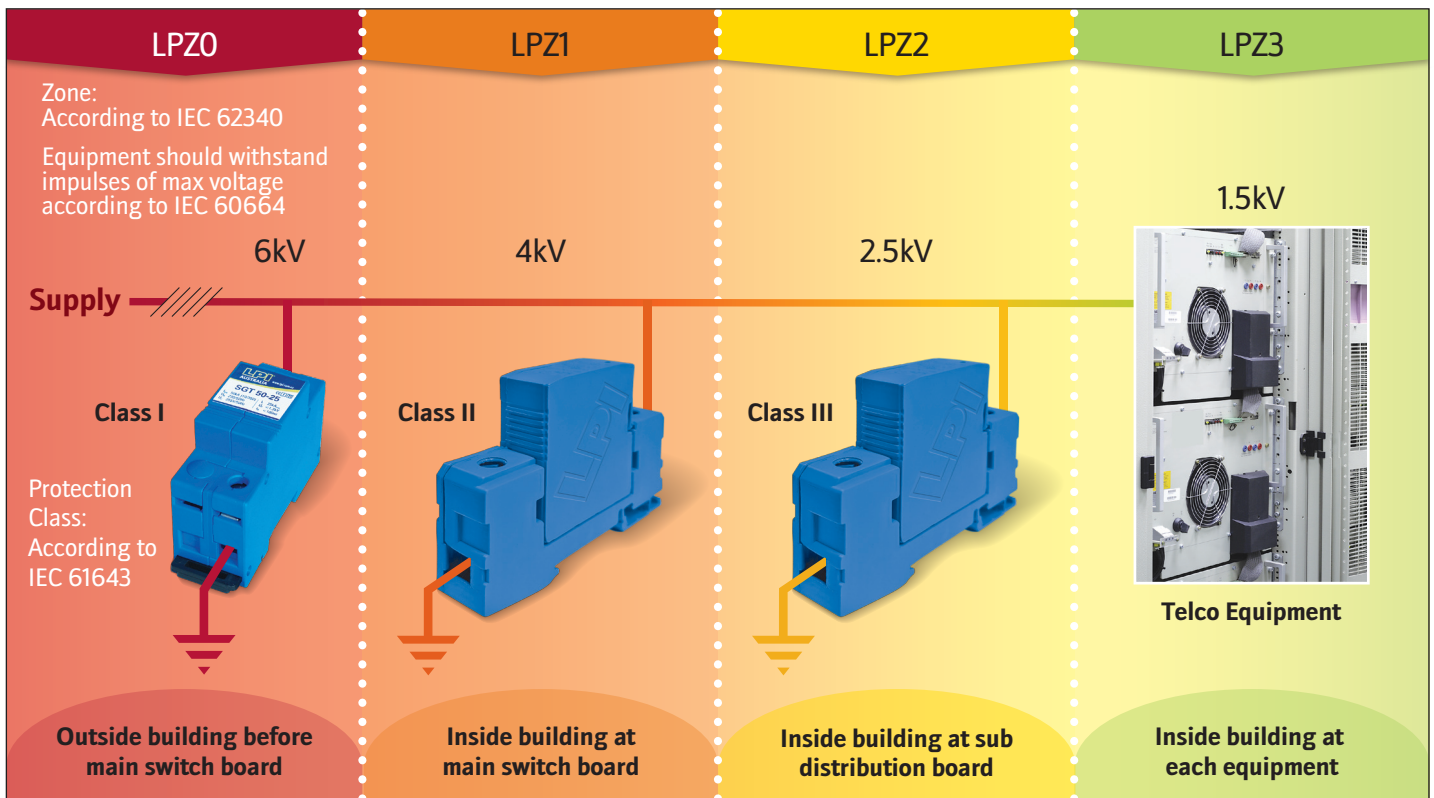
Ordering Code	Description
EPIT-P	Polymer Earth Pit, Rated + 5 Tonne, 250 mm (top) x 180 mm (base) x 210 mm (depth)
EB400	Earth Bar, 400 mm x 80 mm x 98 mm, 6 Way
DL-4751	Disconnecting Link, 6 Way earth bar, 475 mm x 80 mm x 98 mm, single disconnect link
DL-5502	Disconnecting Link, 6 Way earth bar, 550 mm x 80 mm x 98 mm, twin disconnect links

\* Contact LPI or an authorised representative for details on the full range of LPI earth bars and inspection pits.

## SHUNT POWERLINE PROTECTION

LPI offers a wide selection of technologies and products which are available for transient protection of the mains power supply at the point of entry to your facility. These products and technologies are represented in two categories - shunt protection and series protection.

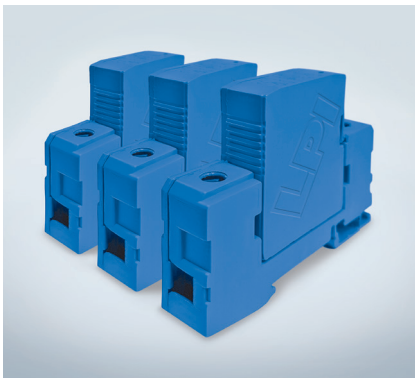
- Ideal for robust equipment such as air conditioning, pumps and motors
- Point-of-entry protection
- Energy diversion only, voltage clamping devices installed between each phase and neutral or earth on mains switch board





### Class I Protectors, (Spark Gap based) per IEC 61643

Ordering Code	Description
SGT50-25	DIN Mount Spark Gap L-N, L-E protection, 240 VAC Nominal, 50 kA 10/350 $\mu$ s
SG60	DIN Mount Spark Gap L-N, L-E protection, 440 VAC Nominal, 60 kA 10/350 $\mu$ s
NE100	DIN Mount Spark Gap N-E protection, 240 VAC Nominal, 100 kA 10/350 $\mu$ s



### Class II Protectors, (MOV based) per IEC 61643



Ordering Code	Description
SST150B-385	DIN Mount, L-N, L-E protection, 220-240 VAC Nominal, (385 V Uc), 50 kA 8/20 $\mu$ s
SST150B-480	DIN Mount L-N, L-E protection, 220-277 VAC Nominal, (480 V Uc), 50 kA 8/20 $\mu$ s
1 ph & 3 ph Shunt Protection	DIN Mount 1 phase or 3 phase with L-N and NE Protection. Please contact LPI for more details.
NE-15-B	DIN Mount, N-E Protection, 15 kA 10/350 $\mu$ s

Alarm interface module (AIM) offers alarm contacts and Bluetooth connectivity.

Single-phase and three-phase protectors fitted into aluminium enclosures (IP67) are available as 1PPM and 3PPM. Ask LPI for further details.

## SERIES POWERLINE PROTECTION



Series powerline protection is the best available protection for sensitive electronics such as rectifiers, switchmode power supplies, and other mission critical equipment. The Series Filter reduces the rate of rise of any transient overvoltage to acceptable levels, and also reduces the overall magnitude of the transient voltage the equipment receives.

### Low Current Single Phase Filters Location: IEC 61643 Class III

Ordering Code	Description
DLSF-XXA-24V	DIN line surge filter, 1Ph 240 Vac, 3 modes of protection, 25 kA 8/20 $\mu$ s L-N primary protection, 25 kA 8/20 $\mu$ s L-N secondary protection, and 25 kA 8/20 $\mu$ s N-E protection. 110 Vac version available upon request. Variants available with 8 A, 16 A and 20 A load current capacity
DLSF-XXA-230V	
DLSF-XXA-385V	
DLSF-XXA-480V	

XX refers to load currents in amps = 8 or 16 or 20

Please ask for Technical Data Sheet (TDS) on DLSF Surge Filters for more details

### Single and Three Phase Surge Filters

Location: IEC 61643 Class I, II & III



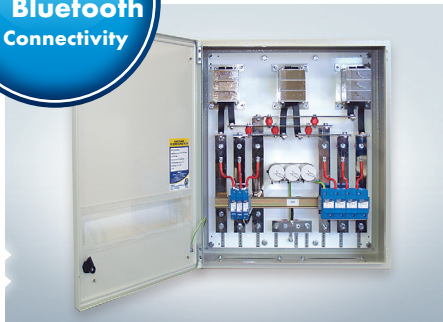
Standard Surge Filter Order Code:

SF X YY ZZZ-100+50-AIMCB

Where X is the number of phases, YY is circuit current rating per phase, ZZZ is the voltage. Standard filters are manufactured and supplied 100 kA line and 50 kA load size. All surge filters are supplied with Alarm interface module (AIM).

Standard Surge Filter specifications:

All units can withstand overvoltage and fault conditions in accordance with IEC 61643 requirements. All units incorporate non saturating inductors combined with high reliability capacitors to form an effective low pass filter, incorporating shunt protection elements on the line and load sides.



Number of Phases X	Current Rating YY	Max. Continuous Operating Voltage (Uc)	Description
1 or 3	32 A, 63 A, 125 A	385, 480 Vrms	Surge filter with Class II protection applied P-N, 100 kA 8/20 $\mu$ s line side protection, 50 kA 8/20 $\mu$ s load side protection per phase. 100 kA 10/350 $\mu$ s N-E
3	200 A 315 A, 400 A, 630A	385, 480 Vrms	Surge filter with Class I protection applied P-N, 135 kA 8/20 $\mu$ s line side protection, 50 kA 8/20 $\mu$ s load side protection per phase. 100 kA 10/350 $\mu$ s N-E
3	800 A, 1000 A, 1250 A, 1500 A, 1750 A	385, 480 Vrms	Surge filter with Class I protection applied P-N, 110 kA 10/350 $\mu$ s, line side protection, 50 kA 8/20 $\mu$ s load side protection per phase. 100 kA 10/350 $\mu$ s N-E

## TELECOMMUNICATION PROTECTION

### DIN Mount Data and Telephone Line Protectors



- New DD range used directly with EIA standard interfaces RS-232, RS-422, RS-423, RS-485 and with 4-20mA instrumentation loops
- DD-1T single pair telephone line protector is suitable for analogue phone lines, ISDN, ADSL and PCM circuits

Electrical Specifications		DD-06	DD-06-BNC	DD-12	DD-24	DD-48	DD-1T	
Nominal Operating Voltage	$U_N$	6 V	6 V	12 V	24 V	48 V	Telephone	
Max. Continuous Operating Voltage		6.6 VDC		15.6 VDC	29 VDC	62 VDC		
Voltage	$U_C$	4.7 VRMS	6.6 VDC	11.0 VRMS	20 VRMS	44 VRMS	190 VDC	
Surge Current rating (8/20 $\mu$ s)	$I_{MAX}$	20 kA						
Operating Current (DC or RMS)	IL	2 A						150 mA
Voltage Protection Level @ 3 kA (8/20 $\mu$ s)	UP	16 V	16 V	28 V	60 V	120 V	240 V	
Loop Resistance		< 0.1 $\Omega$						6.6 $\Omega$
Bandwidth		5 MHz						1 MHz
Protection Modes		Line-Line & Line-Ground						
Operating Temperature		-40° C to 60° C						

Application	DD-06	DD-06-BNC	DD-12	DD-24	DD-48	DD-1T
RS-232				✓		
RS-422	✓					
RS-485			✓			
Fire Alarm Panels				✓		
Security Systems			✓	✓		
Process Control loops				✓		
C-BUS					✓	
Analogue telephone line						
Digital telephone line						✓
CCTV		✓				✓



### Telephone and Data Line Protectors

Ordering Code	Description
VHS-K10-72	Very High Speed, 10 Pair, 12 MHz, 8 Mbits/s, 72 V, a+b+e 20 kA 8/20 $\mu$ s, Multistage, Krone, LSA
VHS-K10-230	Very High Speed, 10 Pair, 12 MHz, 8 Mbits/s, 230 V, a+b+e 20 kA 8/20 $\mu$ s, Multistage, Krone, LSA

- Telephone and data line protection
- Multistage / over voltage protection
- Plugs directly into a KRONE\* disconnect block

\* KRONE, KRONE LSA and PROFIL are registered Trade Marks of KRONE GmbH Germany.

Please add "A" at the end of product code for markets outside of Australia.