

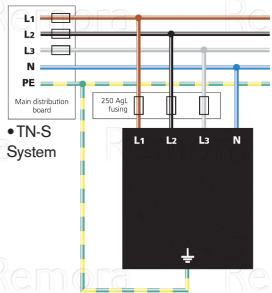
ELECTRONIC SYSTEM PROTECTION

ESP 415/XXX

Electronic System Protection

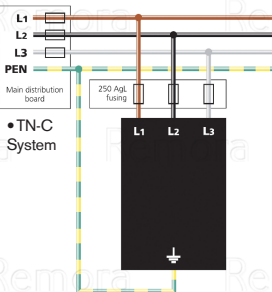


ESP 415 series are an Combined Type 1 and 2 tested protector (to BS EN 61643) for use on the main distribution board, particularly where a structural Lightning Protection System (LPS) is employed, for equipotential bonding. For use at boundaries up to LPZ 0A to protect against flashover (typically the main distribution board location) through to LPZ 2 to protect electrical equipment from damage.



ESP 415/XXX

- Enhanced protection (to BS EN 62305) offering low let-through voltage further minimizing the risk of flashover creating dangerous sparking or electric shock
- Repeated protection in lightning intense environments
- The varistor based design eliminates the high follow current (*If*) associated with spark gap based surge protection
- Compact space saving design
- Indicator shows when the protector requires replacement
- Remote signal contact can indicate the protector's status through interfacing with a building management systems
- Use on three phase supplies and power distribution systems for protection against partial direct or indirect lightning strikes
- ESP 415/I/XXX versions for use with Class I or II LPS
- ESP 415/III/XXX versions for use with Class III or IV LPS; or exposed overhead three phase power lines where no LPS is fitted
- ESP 415/X/TNS versions also cover TN-C-S earthing systems



Nominal Voltage - Phase-Neutral U_0 (RMS): 240 V

Maximum Voltage - Phase-Neutral U_c : 320 V/420 V

Temporary Over-voltage $TOV U_1^{(1)}$: 350 V

Short Circuit Withstand Capability: 25 kA/50 Hz

Frequency Range: 47-63 Hz

Max. Back-up Fuse: 250 V

Leakage Current (to earth): 2.5 mA

Volt Free Contact: Connect via screw / Current Rating 0.5 A / Nominal Voltage (RMS) 250 V

Temperature Range: -40°C to + 80°C

Connection Type: Screw Terminal

Conductor Size (stranded): 25mm²

Earth Connection: Screw Terminal

Protection: IP20

Transient Specification Type 1 (BS EN/EN), Class I (IEC)

Type 2 (BS EN/EN), Class II (IEC)

Code	For Use With	Type 1 (BS EN/EN), Class I (IEC)			Type 2 (BS EN/EN), Class II (IEC)			Enclosure
		Nom discharge current 8/20 up (per mode)/n	Let-through voltage up at /n ²	Impulse discharge current 10/350 us /imp	Nom discharge current 8/20 up (per mode)/n	Let-through voltage up at /n ²	Max discharge current /max (per mode) ³	
ESP415/I/TNS	Class I or II LPS	25	< 1.4kV	25kA	25kA	< 1.4kV	100kA	WBXD4
ESP415/III/TNS	Class III or IV LPS	25	< 1.5kV	12.5kA	20kA	< 1.2kV	50kA	WBXD4
ESP415/I/TNC	Class I or II LPS	25	< 1.4kV	25kA	25kA	< 1.3kV	100kA	WBXD4
ESP415/III/TNC	Class III or IV LPS	20	< 1.5kV	12.5kA	20kA	< 1.2kV	50kA	WBXD4