



ESP M1 Series

Electronic System Protection

ESP M1 Series are an combined Type 1, 2 and 3 tested protector (to BS EN 61643) for use on mains power distribution systems primarily to protect connected electronic equipment from transient over voltages on the mains supply, e.g. computer, communications or control equipment. For use at boundaries up to LPZ 0B to protect against flashover (typically the main distribution board location, with multiple metallic services entering) through to LPZ 3 to protect sensitive electronic equipment..

ESP M1

- Very low let-through voltage (enhanced protection to BS EN 62305) between all sets of conductors (phase to neutral, phase to earth, neutral to earth – Full Mode protection)
- Full mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- Innovative multiple thermal disconnect technology for safe disconnection from faulty or abnormal supplies (without compromising protective performance)
- Three way visual indication of protection status and advanced pre-failure warning so you need to be unprotected
- Remote indication facility allows pre-failure warning to be linked to a building management system, buzzer or light
- Changeover active volt-free contact enables the protector to be used to warn of phase loss (i.e. power failure, blown fuses etc)
- Flashing warning of potentially fatal neutral to earth supply faults (due to incorrect earthing, wiring errors or unbalanced conditions)
- Robust steel housing
- Base provides ultra-low inductance earth bond to metal panels
- Compact size for installation in the power distribution board
- ESP 120 M1 and ESP 240 M1 have Network Rail Approval PA05/02700 and PA05/01832 respectively. NRS PADS reference 086/000556 (ESP 120 M1) and 086/047149 (ESP 240 M1)

Short Circuit Withstand Capacity: 25 kA, 50 Hz

Frequency Range: 47-63 Hz

Max. Back-up Fuse: 125 A

Leakage Current (to earth): <250 µA

Indicator Circuit Current: <10 mA

Volt Free Contact²: Screw Terminal / Current rating 1 A / Nominal Voltage (RMS) 250 V

Temperature Range: -40°C to + 80°C

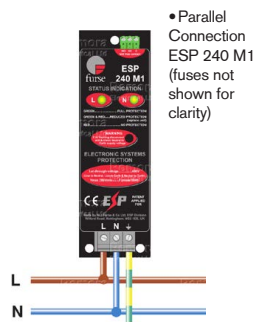
Connection Type: Screw Terminal

Conductor Size (stranded): 16mm²

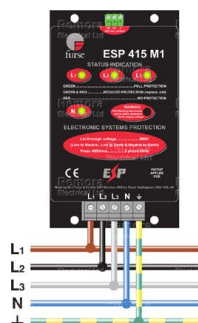
Earth Connection: Screw Terminal

Volt Free Contact: Connect via screw terminal with conductor up to 2.5mm² (stranded)

Protection: IP20



- Parallel Connection ESP 240 M1 (fuses not shown for clarity)



- Parallel Connection ESP 415 M1 (fuses not shown for clarity)

Code	Description	Nom Voltage		Max Voltage	Short circuit withstand		Working Voltage (RMS)	WBX Enclosure Size	Weight (Kg)
		Phase	Neutral	Phase Neutral	Temporary Over-voltage	TOV U ⁽¹⁾			
ESP 240 M1	Single phase, full mode	240 V	280 V	280 V	350 V	350 V	200-280 V	WBX 3	0.6
ESP 415 M1	3 phase, full mode	240 V	280 V	280 V	350 V	350 V	346-484 V	WBX 4	1.0
ESP 415 M1R	3 phase, full mode with remote display	240 V	280 V	280 V	350 V	350 V	346-484 V	WBX 4	1.1