

ESP D1 Series

(Three Phase) System Protection



Combined Type 1, 2 and 3 tested protector (to BS EN 61643) for use on single phase 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 0 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 D1 (Three Phase)

- 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
- ESP XXX D1R or ESP XXX D1R/LCD units (where XXX = 208, or 415, or 490) have a remote display that allows the protector to be mounted close to the incoming feed or distribution board with the display being mounted in a visible position e.g. at the front of the panel
- ESP XXX D1/LCD or ESP XXX D1R/LCD units have a backlit LCD intelligent display offering clear status information that can be rotated for the side mounting to facilitate short connecting leads
- 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)
- Through terminal facility allows series connection on low current supplies to eliminate high additive voltage associated with the connecting leads on units installed in parallel
- Compact space saving DIN housing

Short Circuit Withstand Capability: 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): 25mm²

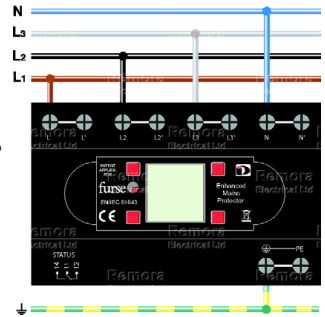
Earth Connection: Screw Terminal

Volt Free Contact: Connect via screw terminal with conductor up to 1.5mm² (stranded)

Display (D1R & D1R/LCD Version): HD-D Type 1 Metre Interconnection Cable 2 Metre Cable (ESP RLA HD-2) or 4 Metre Cable Interconnection Cable (ESP RLA HD-4) optional

Protection: IP20

Code	Description	Nom Voltage	Max Voltage	Temporary	Short circuit withstand	WBX Enclosure	Weight (Kg)
		Phase Neutral Uo (RMS)	Phase Neutral Uc (RMS)	Over-voltage TOV U _T ⁽²⁾	Working Voltage (RMS)		
ESP 415 D1	Three phase, full mode	240 V	280 V	350 V	346-484 V	WBX D8	0.85
ESP 415 D1R	Three phase, full mode with remote display	240 V	280 V	350 V	346-484 V	WBX 4	1.10



- Parallel Connection ESP 415 D1 (fuses not shown for clarity)