WHITECLIFFE ELECTRICAL
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Photovoltaic surge protection Device

Description

WSPDTE-4 3P+N Type 1+2 (Class I+II) SPDs are developed as the best solution available to protect service entrance at industrial sites, especially those with existing lightning protection system or meshed cage applications. This type of surge protection can protect all electrical installations against lightning strikes by discharging the current created from a lightning surge and keeping it from spreading to the equipment. The Type 1+2 / Class I+II SPD has a 10/350 µs current waveform

Key Features

- Nominal discharge current: (In 8/20us) 20kA
- Max. Discharge current: (Imax 8/20us) 50kA
- Impulse Discharge Current (10/350 µs) : 12.5kA(L-N), 50kA(N-PE)
- Voltage Protection Level up≤ 1.25kV (L-N), 1.5kV(N-PE)
- Flag indication: Red = Replace, Green=Good
- Recommended Torque: 2.5 N.m
- Complies with IEC61643-11 & EN 61643-11

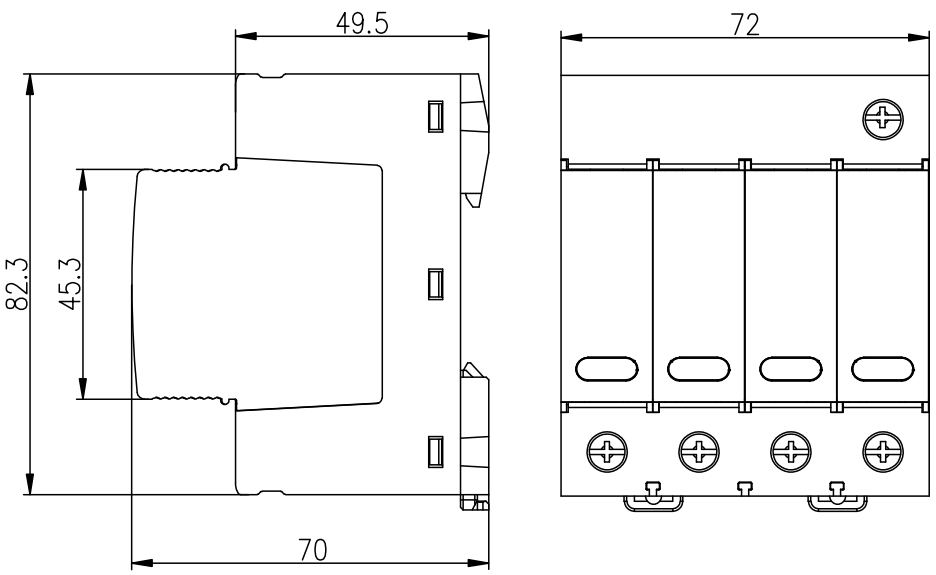
Part No	Description
WSPDTE-4	3P+N T1+T2+T3 AC surge protection Device

CAUTION

WHEN CONDUCTING INSULATION RESISTANCE TESTING WITH SPD FITTED IT IS RECOMMENDED EITHER THE **EARTH CONNECTION OR THE PLUG IN CARTRIDGE IS REMOVED.**

IF YOU DO NOT WISH TO REMOVE THE CARTRIDGE OR EARTH CONNECTION, THEN TESTING MUST BE AT A **MAXIMUM OF 250V DC**.

Before powering up the installation check all connections are torqued 2.5Nm. Loose connection cause fires.



Type1 SPDs shall be installed as close as possible to the origin of the electrical installation (main distribution board) 534.4.1.1

This device must be installed and tested by a qualified electrician in accordance with the current IET Wiring Regulation BS7671.

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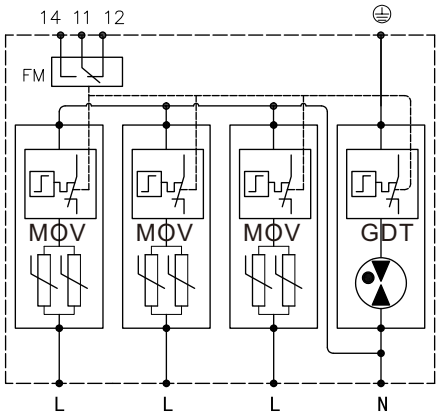
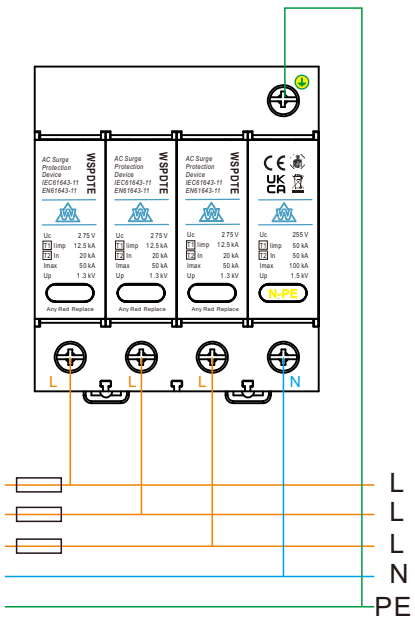
Technical Data

Product codes	WSPDTE-4
Type	Type1+2 (Class I+II)
Technology	MOV(L-PE)/ GDT(N-PE)
Voltage (Un)	230V~ 50/60Hz
System	TN-C-S, TN-S, TT
Maximum Continuous Operating Voltage (AC) Uc	275V(L-N), 255V(N-PE)
Nominal Discharge Current (8/20 μs) In	20kA
Maximum Discharge Current (8/20 μs) Imax	50kA
Impulse Discharge Current (10/350 μs) Iimp	12.5 kA(L-N), 50 kA (N-PE)
Specific Energy W/R	39.06 kJ / Ω(L-N), 156.25kJ/Ω
Voltage Protection Level Up	<1.3kV(L-N) , <1.5kV (N-PE)
Voltage Protection Level Up	2.0kV
Response Time tA	≤ 100 ns
Back-Up Fuse (max)	160A gL / gG
Recommended back-up MCB	63A
Short-Circuit Current Rating (AC) ISCCR	50 kA
Temporary overvoltage (TOV) L-N (UT)	440V/12 MIN--withstand
Temporary overvoltage (TOV) L-N (UT)	1200V/200ms-withstand
Operating Temperature Range Ta	-40 °C to +70 °C
Permissible Operating Humidity RH	5%...95%
Atmospheric pressure and altitude	70k Pa ... 106k Pa / -500 m ... 2000 m
Terminal Screw Torque Max	26.5 lbf·in [3.0 Nm]
Connection to Network	By screw terminals: 6-35 mm²
Mounting	35mm DIN rail (to EN 60715)
Protection rating	IP20
Disconnection indicator	Red = Replace, Green=Good
Standards compliance	IEC 61643-11 / EN 61643-11



TN-S/TN-C-S(PME) System



TT System