

Combined Lightning Current and Surge Arrester

ProTec ZPN T1H 3+1(-R)-F

Class I • Class II • Class III • Type 1 • Type 2 • Type 3



Location of Use: Main Distribution Boards,
40mm Busbar Systems

Network Systems: TN-S, TT

Mode of Protection: L-N, N-PE

IEC/EN: Class I+II+III / Type 1+2+3

Technology: Hybrid

Leakage Current Free: Yes

Line Follow Current: No

Housing: Compact design

Compliance: IEC 61643-11:2011
EN 61643-11:2012 + A11:2018

Technical Data

ProTec ZPN T1H-xxx-3+1(-R)-F

300

IEC Electrical

Nominal AC Voltage (50/60Hz)	U_o/U_n	240V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	300V
	(N-PE) U_c	305V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_n	20kA / 80kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	40kA / 100kA
Impulse Discharge Current (10/350 μ s)	(L-N)/(N-PE) I_{imp}	12.5kA / 50kA
Specific Energy	(L-N)/(N-PE) W/R	39kJ/ Ω / 625kJ/ Ω
Charge	(L-N)/(N-PE) Q	6.25As / 25As
Open Circuit Voltage of Combination Wave Generator	U_{oc}	6kV
Voltage Protection Level	(L-N)/(N-PE) U_p	1500V / 1500V
Follow Current Interrupt Rating	(N-PE) I_{fi}	100A
Response Time	(L-N)/(N-PE) t_A	< 100ns / < 100ns
Overcurrent Protection (max)		160A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25kA
TOV Withstand 120min	(L-N) U_T	442V
TOV Withstand 200ms	(N-PE) U_T	1200V
Number of Ports		1

Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Altitude (max)		13123 ft [4000m]
Terminal Screw Torque	M_{max}	PH2 / 40 lbf.in [4.5Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)
		35mm ² (Solid, Stranded) / 25mm ² (Flexible)
Mounting		40mm Busbar Systems
Degree Of Protection		IP 20*
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Operating State / Fault Indication		Green Flag / Not Green Flag
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/ 1A, 125V/ 1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5mm ² (Solid)

Auxiliary Terminal (LA)

Rated Current Integrated Fuse	I_n	6.3A
Fuse Link		FF, 5 x 20 mm, 6.3A
Short Circuit Interrupt Capability		25kA
Wire Connection Method		Push In
Conductor Cross Section (max)		14 AWG / 2.5mm ² (Solid, Flexible)

Order Information


Order Code	300
ProTec ZPN T1H-xxx-3+1-F (with protected auxiliary terminal)	59.A610
ProTec ZPN T1H-xxx-3+1-R-F (with remote contacts and protected auxiliary terminal)	59.A611

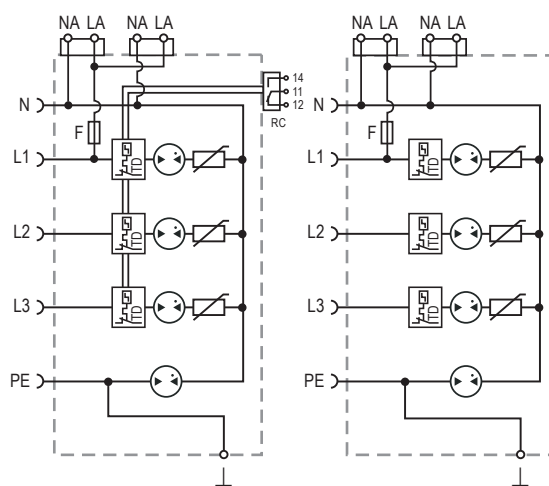
*IP 40 (in combination with cover)

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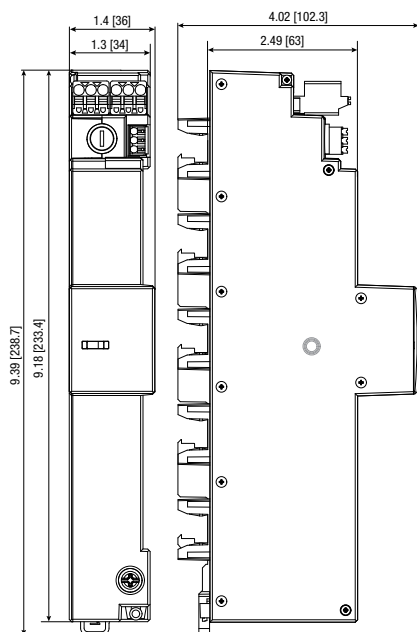
Internal Configuration

Legend

- F* Integrated Fuse Link
- NA* Neutral Auxiliary Terminal
- LA* Line Auxiliary Terminal
- L* Line Busbar Terminal
- N* Neutral Busbar Terminal
- PE* PE Busbar Terminal
-  Terminal for Main Earthing Terminal
- RC* Remote Contacts Terminal (Optional)
- TD* Thermal Disconnect



Complete Unit



Complete Unit Dimensions & Packaging

ProTec ZPN T1H-xxx-3+1-F	300
Weight	pounds [grams] 1.446 [656]
Packaging Dimensions (HxWxL)	270x375x395 [10.6x14.8x15.5]
Standard Order Quantity	24 Units
ProTec ZPN T1H-xxx-3+1-R-F	300
Weight	pounds [grams] 1.457 [661]
Packaging Dimensions (HxWxL)	270x375x395 [10.6x14.8x15.5]
Standard Order Quantity	24 Units

inches
[mm]

Information contained in this document is subject to change at any time without notice.