

**DATA SHEET**

# Combined Lightning Current and Surge Arrester

## ProTec ZPS T1H 3+0 E(-R)

Class I • Class II • Type 1 • Type 2



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

Network Systems: TN-C

Mode of Protection: L-PEN

Voltage:  $U_c = 300V$

Surge Ratings:  $I_{imp} = 7.5kA (10/350\mu s)$   
 $I_n = 20kA (8/20\mu s)$

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

Technology: Hybrid

Leakage Current Free: Yes

Line Follow Current: No

Housing: Compact design

Compliance: IEC 61643-11:2011  
EN 61643-11:2012

**Technical Data****ProTec ZPS T1H-xxx-3+0-E(-R)****IEC Electrical**

Nominal AC Voltage (50/60Hz)	$U_o / U_n$	240V
Maximum Continuous Operating Voltage (AC)	$U_c$	300V
Nominal Discharge Current (8/20 $\mu s$ )	$I_n$	20kA
Maximum Discharge Current (8/20 $\mu s$ )	$I_{max}$	50kA
Impulse Discharge Current (10/350 $\mu s$ )	$I_{imp}$	7.5kA
Specific Energy	W/R	14kJ/ $\Omega$
Charge	Q	3.75As
Voltage Protection Level	$U_p$	1500V
Response Time	$t_A$	< 100ns
Back-Up Fuse (max)		315A gG
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25kA
TOV Withstand 120min	$U_T$	442V
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		13123 ft [4000m]
Terminal Screw Torque	$M_{max}$	PZ2 / 39.9 lbf-in [4.5 Nm]
Conductor Cross Section (max)		35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible) 2 AWG (Solid, Stranded) / 4 AWG (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)		1.5mm <sup>2</sup> (Solid) / 16 AWG (Solid)

**Order Information**

Order Code		
ProTec ZPS T1H-300-3+0-E (basic)		59.0904
ProTec ZPS T1H-300-3+0-E-R (with remote contacts)		59.0905

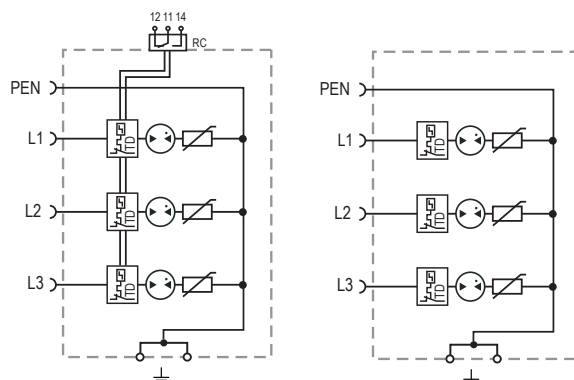
\*IP 40 (in combination with cover)

## ProTec ZPS T1H 3+0 E(-R)

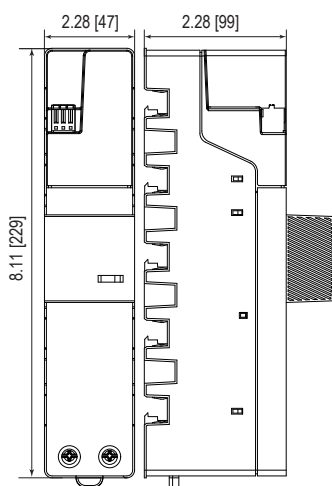
### Internal Configuration

#### Legend

- L Line Busbar Terminal
- PEN PEN Busbar Terminal
- ⏚ Terminal for Main Earthing Terminal
- RC Remote Contacts (Optional) Terminal
- TD Thermal Disconnecter



### Complete Unit



#### Complete Unit Dimensions & Packaging

<b>ProTec ZPS T1H-xxx-3+0-E</b>	<b>300</b>
Weight	pounds [grams] 1.548 [702]
Packaging Dimensions (HxWxL)	2.9 x 4.5 x 8.6" [75 x 116 x 220 mm]
Standard Order Quantity	1 Unit
<b>ProTec ZPS T1H-xxx-3+0-E-R</b>	<b>300</b>
Weight	pounds [grams] 1.565 [710]
Packaging Dimensions (HxWxL)	2.9 x 4.5 x 8.6" [75 x 116 x 220 mm]
Standard Order Quantity	1 Unit

inches  
[mm]