

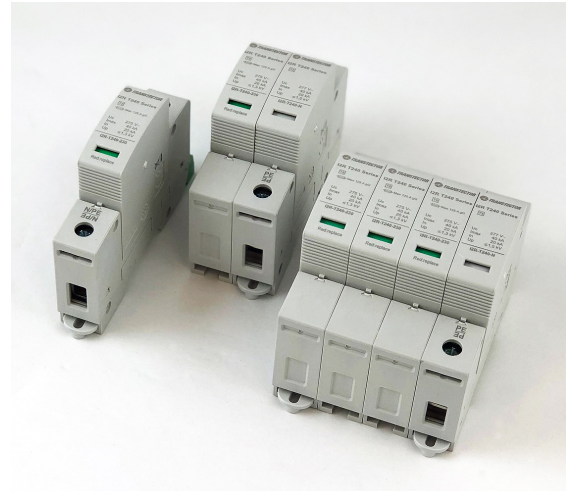
## AC SURGE PROTECTION

# I2R T240 Series

Type 2 / Class II

The I2R T240 series of modular AC Surge Protection Devices (SPD) are designed to CE, RU and UL standards and engineered for a wide range of industrial, commercial, and automation control applications in accordance with EN/IEC 61643-11 and UL 1449.

Designed to protect critical equipment in harsh environments that are at risk for induced lightning threats, the I2R T240 series of combined Type 2/Class II devices are ideal for TNS, TNC, TT networks.



### FEATURES

- Induced lightning maximum current 40 kA per phase
- Nominal discharge current 20 kA per phase
- Reverse chassis direction capability allows cable entry from top to bottom
- Visual and remote end of life indicators to ensure your network is always online
- Compact DIN Rail mounted SPD easy to install or retrofit
- Coded modules ensure safe and error free replacement

### APPLICATIONS

- Industrial Automation and Controls
- Telecommunications Networks
- IT and Data Centers
- LED Outdoor Lighting
- Water Treatment
- Smart Grid & LV Metering
- Photovoltaic & Wind
- Commercial and Residential Facility Protection

### SPECIFICATIONS

Description	Specification
Class	Type 2 / Class II
Nominal Operating Voltage Un	120/208, 230/400, 277/480, 400/690 Vac
Max Discharge Current I <sub>max</sub> (8/20μs)	40 kA
Nominal Discharge Current I <sub>n</sub> (8/20μs)	20 kA
Response Time	25 ns
Body Material	PA66 CT1; V-0
System Types	TT, TNS, TNC
Number of Poles	1, 2, 3, 4
Form Factor	Modular
Temperature Range	-40°C to +80°C
I <sub>cc</sub>	25 kA
IP Code	IP 20
Back-up Fuse	125 A gG
Stranded Wire Range	6 - 25 mm <sup>2</sup>
Rigid Wire Range	6 - 35 mm <sup>2</sup>
Standards	UL 1449 4th Edition, IEC 61643-11, EN 61643-11, CE, RU

## PRODUCT NUMBERING GUIDE

Looking for the right part number is quick and logical with the I2R T240 Series from Transtector.

### AC Surge Protector

I2R-T2	40-	1	(G)	230
	↑	↑	↑	↑
Imax	Number of Poles	(G)	Voltage	
40 kA	1, 2, 3 or 4	Indicates last pole is CM N-PE Module	120, 230, 277, 400, 480 or 690	

### Spare Modules

I2R-T2	40-	R	(G)	230
	↑	↑	↑	↑
Imax	R	(G)	Voltage or Neutral	
40 kA	Replacement	Indicates CM N-PE Replacement Module	120, 230, 277, 400, 480 or 690 Neutral	

## PRODUCT ORDERING GUIDE

The following charts are available to provide unique part specifications and wiring diagrams to determine the correct I2R T240 series of AC Surge protection device for your application. Contact Transtector at 208 635 6400 or visit us at [www.transtector.com](http://www.transtector.com) to request technical support or to place an order.

### 1-Pole

Part Number	Configuration	Systems	Un	Uc	Imax	In	Up at In	Weight
I2R-T240-1P120	1 + 0	All	120 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV	0.13 kg (0.286 lbs)
I2R-T240-1P230	1 + 0	All	230 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV	0.14 kg (0.308 lbs)
I2R-T240-1P277	1 + 0	All	277 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV	0.14 kg (0.308 lbs)
I2R-T240-1P400	1 + 0	All	400 Vac	440 Vac	40 kA	20 kA	≤ 2.0 kV	0.15 kg (0.33 lbs)
I2R-T240-1P690	1 + 0	All	690 Vac	750 Vac	30 kA	15 kA	≤ 3.0 kV	0.15 kg (0.33 lbs)
I2R-T240-G	0 + 1	All	Neutral	277 Vac	40 kA	20 kA	≤ 1.5 kV	0.12 kg (0.264 lbs)

### 2-Poles

Part Number	Configuration	Systems	Un	Uc	Imax	In	Up at In	Weight
I2R-T240-2PG120	1 + 1	TT	120 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV (L-N) ≤ 1.5 kV (N-PE)	0.23 kg (0.506 lbs)
I2R-T240-2PG230	1 + 1	TT	230 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	0.23 kg (0.506 lbs)
I2R-T240-2PG277	1 + 1	TT	277 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV (L-N) ≤ 1.5 kV (N-PE)	0.23 kg (0.506 lbs)

### 3-Poles

Part Number	Configuration	Systems	Un	Uc	Imax	In	Up at In	Weight
I2R-T240-3P208	3 + 0	TNC	208 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV	0.34 kg (0.748 lbs)
I2R-T240-3P400	3 + 0	TNC	400 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV	0.36 kg (0.792 lbs)
I2R-T240-3P480	3 + 0	TNC	480 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV	0.35 kg (0.77 lbs)
I2R-T240-3P690	3 + 0	TNC	690 Vac	750 Vac	30 kA	15 kA	≤ 3.0 kV	0.4 kg (0.88 lbs)

### 4-Poles

Part Number	Configuration	Systems	Un	Uc	I <sub>max</sub>	I <sub>n</sub>	Up at I <sub>n</sub>	Weight
I2R-T240-4PG120	3 + 1	TT	120 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV (L-N) ≤ 1.5 kV (N-PE)	0.42 kg (0.924 lbs)
I2R-T240-4PG230	3 + 1	TT	230 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV (L-N) ≤ 1.5 kV (N-PE)	0.45 kg (0.99 lbs)
I2R-T240-4PG277	3 + 1	TT	277 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV (L-N) ≤ 1.5 kV (N-PE)	0.42 kg (0.924 lbs)
I2R-T240-4P120	4 + 0	TNS	120 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV	0.42 kg (0.924 lbs)
I2R-T240-4P230	4 + 0	TNS	230 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV	0.46 kg (1.012 lbs)
I2R-T240-4P277	4 + 0	TNS	277 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV	0.45 kg (0.99 lbs)

### Replacement Modules

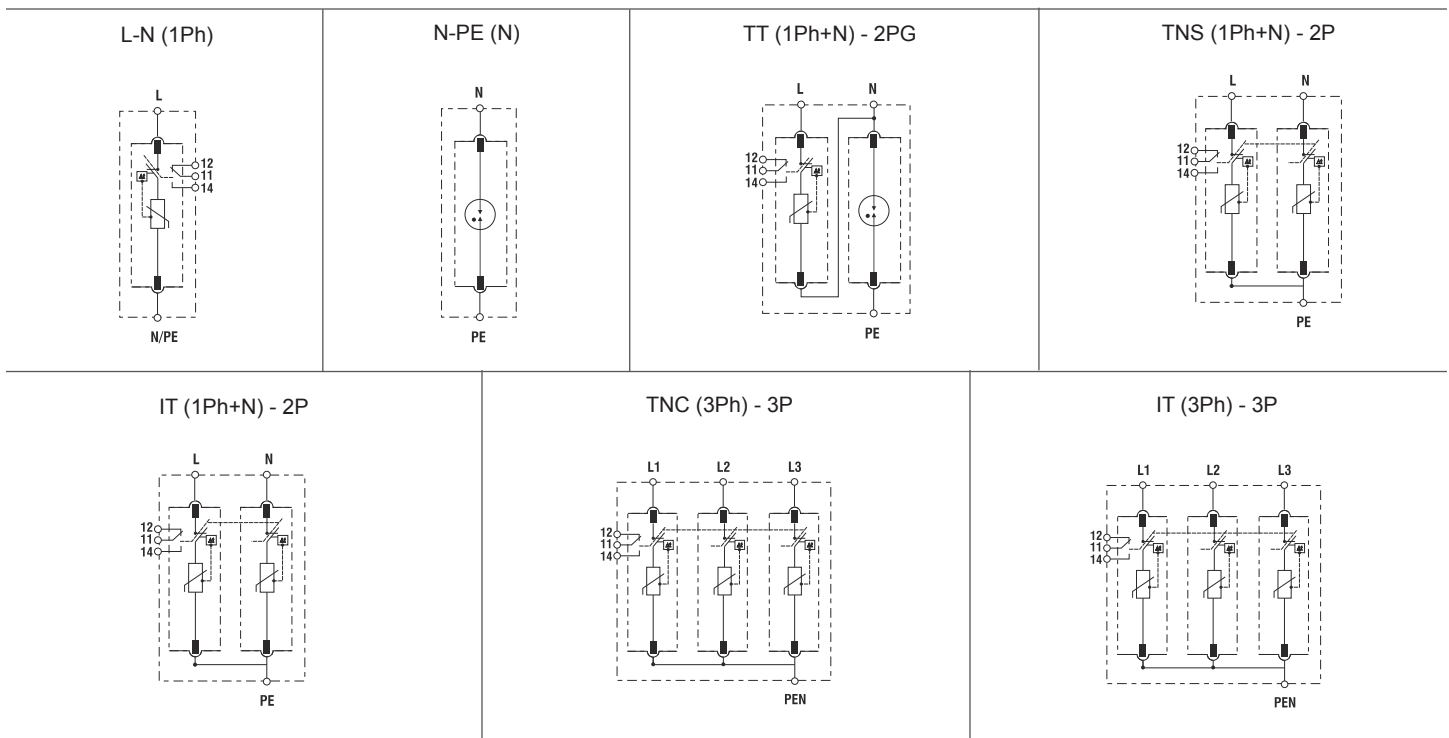
Part Number	Configuration	Systems	Un	Uc	I <sub>max</sub>	I <sub>n</sub>	Up at I <sub>n</sub>	Weight
I2R-T240-R120	L-N	TNC/TNS	120 Vac	150 Vac	40 kA	20 kA	≤ 1.0 kV	.08 kg (0.176 lbs)
I2R-T240-R230	L-N	TNC/TNS	230 Vac	275 Vac	40 kA	20 kA	≤ 1.3 kV	0.1 kg (0.22 lbs)
I2R-T240-R277	L-N	TNC/TNS	277 Vac	320 Vac	40 kA	20 kA	≤ 1.5 kV	.08 kg (0.176 lbs)
I2R-T240-R400	L-N	TNC/TNS	400 Vac	440 Vac	40 kA	20 kA	≤ 2.0 kV	.08 kg (0.176 lbs)
I2R-T240-R690	L-N	TNC/TNS	690 Vac	750 Vac	30 kA	20 kA	≤ 3.0 kV	.08 kg (0.176 lbs)
I2R-T240-RGN	N-PE	TT	Neutral	277 Vac	40 kA	20 kA	≤ 1.5 kV	0.1 kg (0.22 lbs)

Un - reflects nominal operating voltage

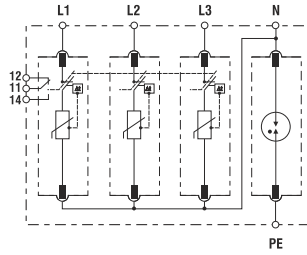
Uc - reflects maximum continuous operating voltage

Up - reflects maximum voltage protection level at nominal discharge current

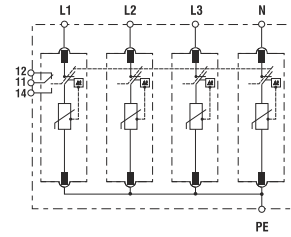
### WIRING DIAGRAM



TT (3Ph+N) - 4PG

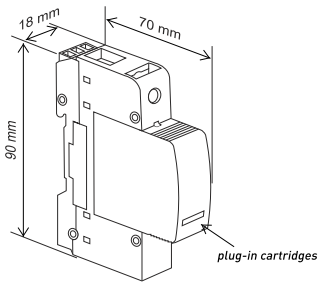


TNS (3Ph+N) - 4P

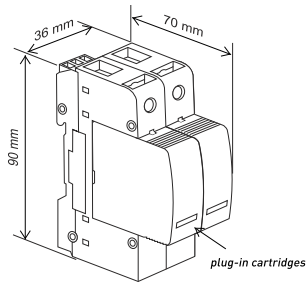


## DIMENSIONS

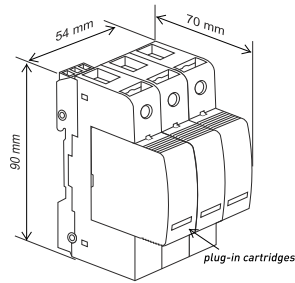
1 Pole



2 Pole



3 Pole



4 Pole

