



## Product Specification

# Tranquell Integrally Mounted Surge Protective Device (SPD)

Enhanced Thermal Protection (ETP) Series

Medium Exposure - Rated 65kA to 100kA Per Mode

### STANDARDS

UL 1449 3rd Edition

UL 1283

UL 96A

CSA C22.2 (cUL)

ANSI/IEEE C62.41.1-2002, C62.41.2-2002,

C62.45 - 2002

IEEE 1100-2005

IEEE C62.62

IEEE C62.72

NEMA LS-1 - 1992 (R2000)

MIL-STD-220B

ANSI/NFPA70, NEC (Article 285)

### ELECTRICAL

#### Maximum Surge Current

The maximum surge current rating based on the 8/20 $\mu$ s test waveform is as follows. The rating is based on testing of a **complete** SPD unit and all components that make up the SPD system are expressed per **mode**.

Part Number	Mode L-L	Mode L-N	Mode N-G	Mode L-G	Phase (L-N + L-G)
TPMExxxx06*	65kA	65kA	65kA	65kA	130kA
TPMExxxx08*	80kA	80kA	80kA	80kA	160kA
TPMExxxx10*	100kA	100kA	100kA	100kA	200kA

\* See Model Number Suffix Descriptions Table

#### Maximum Continuous Operating Voltage (MCOV)

115% of nominal system voltage or greater (depending on model voltage type). 125% on 120 volts models.

#### Minimum Repetitive Surge Current Capacity

The Tranquell ME Series 65kA - 100kA rated device is capable of surviving the following impulses, at one-minute intervals, without failure and with less than 10% change in protective characteristics.

IEEE C62.41 Category C (High) Exposure Level, 10kA / 8x20 $\mu$ s:

5,000 impulses

#### UL 1449 Nominal Discharge Current Rating (In)

20kA - Rated for use on UL 96A Lightning Protection Systems

#### UL Witness Fault Current Withstand (NEC SCCR) Rating:

200,000A

#### SPD Type / Recommended Locations

Service Entrance Equipment, Primary Distribution Equipment - Rated for UL and NEC 2008 Type 1 and Type 2 Installation Locations

**UL-1449, 3rd Edition Voltage Protection Rating (VPR)**

<b>UL 1449 3rd Edition Voltage Protection Ratings (VPR)</b>				
<b>Model Voltage Type</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>
TPME120S	900	800	700	1200
TPME120Y	900	800	700	1200
TPME220Y	1500	1200	1200	2000
TPME240D	n/a	1200	n/a	1800
TPME240H	1000 / 1200HL	800 / 1200HL	700	2000 / 2200HL
TPME240Y	1500	1200	1200	2000
TPME277Y	1500	1200	1200	2000
TPME347Y	1500	1500	1500	2500
TPME480D	n/a	1800	n/a	3000

**UL-1449, 2nd Edition Suppression Voltage Rating (SVR)\***

<b>UL 1449 2nd Edition Suppressed Voltage Ratings (SVR)</b>				
<b>Model Voltage Type</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>
TPME120S	400	400	400	700
TPME120Y	400	400	400	700
TPME220Y	800	800	800	1500
TPME240D	n/a	800	n/a	1500
TPME240H	500 / 700HL	400 / 700HL	400	900
TPME240Y	800	800	800	1500
TPME277Y	800	800	800	1500
TPME347Y	1200	1000	1000	2000
TPME480D	n/a	1500	n/a	3000

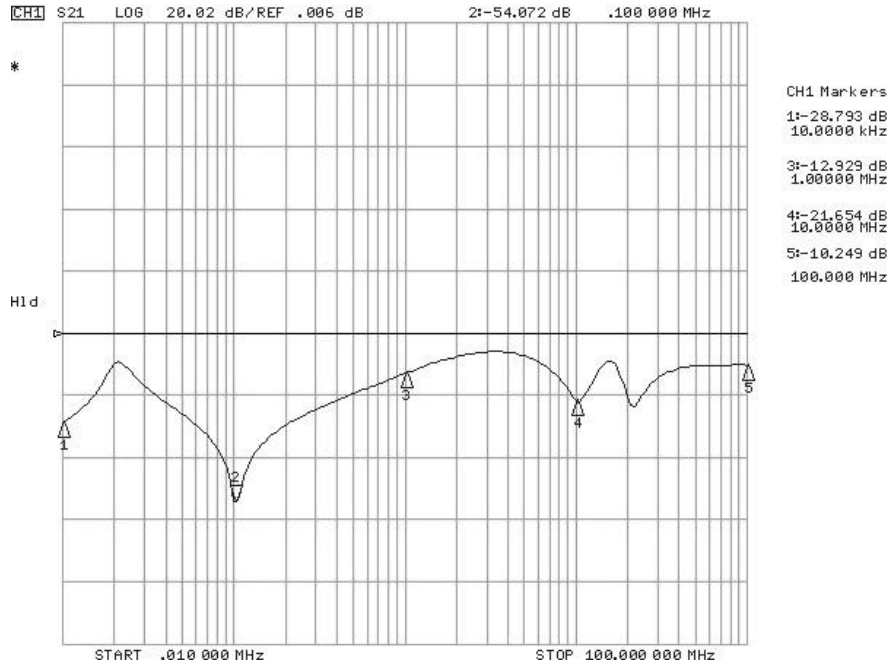
\*SVR ratings are no longer assigned by UL and are provided for reference purposes only.  
 VPR ratings now supersede SVR ratings per UL 1449 3<sup>rd</sup> Edition Standard, effective Sept. 29, 2009.

**IEEE C62.41 Clamping Voltages**

<b>Model Type</b>	<b>Cat. B Ringwave 100kHz / 500A</b>				<b>Cat. B3/C1 Combination Wave 6kV / 3kA</b>				<b>Cat. C3 Combination Wave 20kV / 10kA</b>			
	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>	<b>L-N</b>	<b>L-G</b>	<b>N-G</b>	<b>L-L</b>
TPME120S	470	463	452	752	600	485	476	844	793	670	680	1007
TPME120Y	470	463	452	752	600	485	476	844	793	670	680	1007
TPME220Y	763	836	828	1393	1053	893	880	1597	1170	1073	1180	1827
TPME240D	n/a	750	n/a	1240	n/a	763	n/a	1453	n/a	890	n/a	1640
TPME240H	465	466	476	1025	600	498	476	1025	775	670	680	1163
TPME240Y	763	836	828	1393	1053	893	880	1597	1170	1073	1180	1827
TPME277Y	763	836	828	1393	1053	893	880	1597	1170	1073	1180	1827
TPME347Y	883	1000	1000	1723	1187	1113	1120	2020	1467	1240	1240	2220
TPME480D	n/a	1223	n/a	1800	n/a	1407	n/a	2647	n/a	1607	n/a	2933

### EMI -RFI Filtering / Noise Attenuation / Sinewave Tracking

The EMI-RFI noise rejection or attenuation value is measured in accordance with the procedures outlined in NEMA LS 1-1992/MIL -STD-220B. Noise Filter Capability: -50db minimum @ 100kHz.



### Fusing

Individually fused Thermally Protected MOV Technology.

### Standard Monitoring

The SPD is monitored with a green indicating light per each phase, and red service light.  
Audible alarm with silencer & test switch  
Contacts for remote monitoring (2 amp, 125VAC)-(1 AMP, 30 VDC)  
6 Digit LCD re-settable surge event counter

### Connection

Direct Bus Connection. Mechanical Wire Lugs. Minimum 6 AWG / Maximum 2/0 wire required.

### Surge Rated Disconnect

Standard Equipped on all models.

### Model Number Suffix Descriptions

P/N Suffix	Target Application	Mounting	Disconnect	UL SPD Type
PP	GE Spectra Power Panels	Integral	Yes	Type 2
ME	GE Motor Control Centers	Integral	Yes	Type 2
SG	GE Switchgear	Integral w/ Remote Display	Yes	Type 2
PPT1	GE Spectra Power Panels	Integral	Yes	Type 1
MET1	GE Motor Control Centers	Integral	Yes	Type 1
SGT1	GE Switchgear	Integral w/ Remote Display	Yes	Type 1

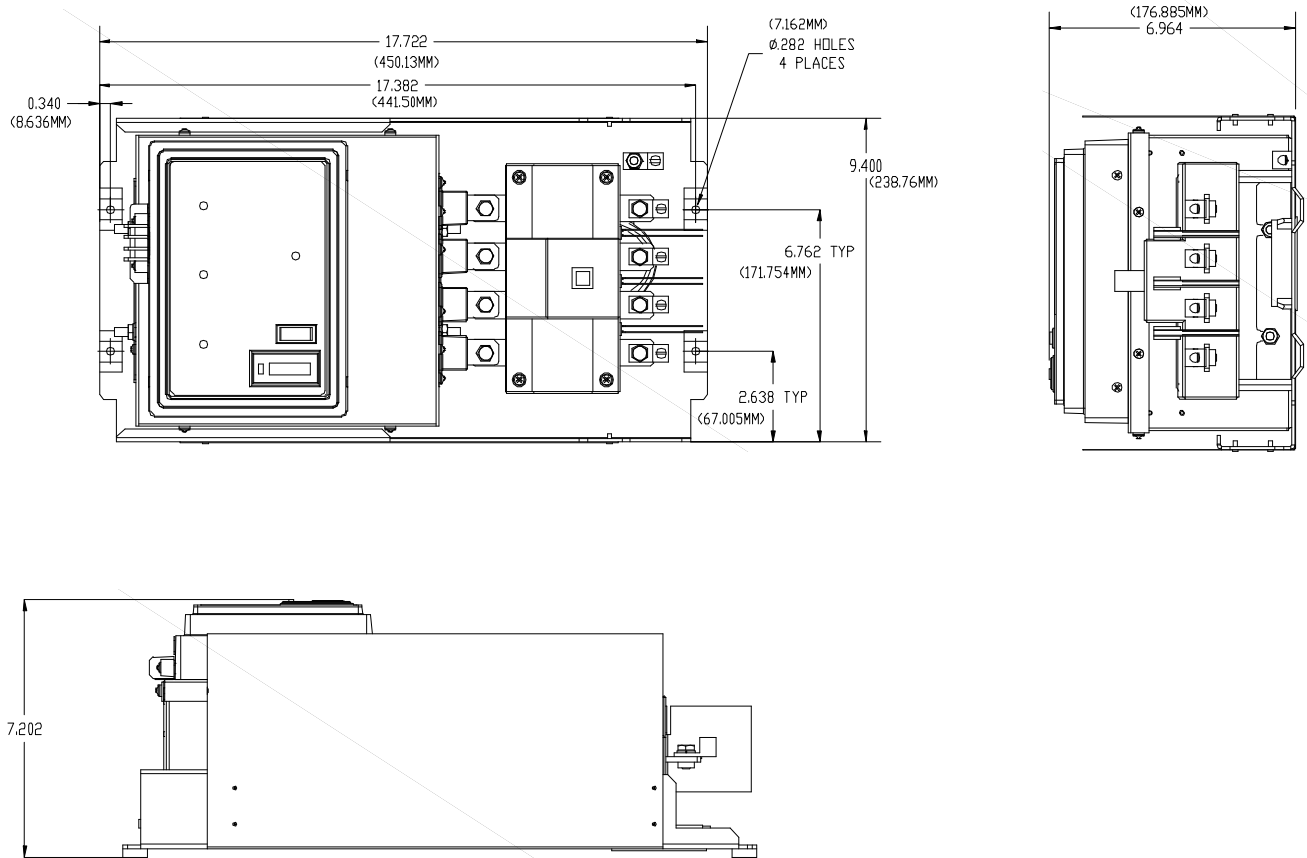
### Environmental and External Conditions

Temperature	-40°F (-40°C) to +149°F (+65°C)	Operating Altitude	0 - 12,000 ft (3.66 km)
Surface Temperature	Less than 131°F ( 55°C)	Humidity	0 -95% RH
Noise	No Audible Noise	Frequency	50/60 Hz

### Warranty

Standard GE Terms and Conditions cover the GE SPD for a period of 5 years.

# DIMENSIONS



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