



TransGuard® TG3™ suppression filter systems feature a powerful failure-free ISM™ (Integrated Suppression Module). The ISM™ contains individual thermally fused and protected MOVs, surge-rated copper busing, robust filtering and advanced remote communications capabilities. The TG3™ protects today's facilities from costly downtime and equipment damage caused by routine or catastrophic electrical disturbances.

## PRODUCT SPECIFICATIONS

### General Specifications

Maximum Surge Current Rating	50kA Per Mode, 100kA Per Phase
Nominal Discharge Surge Current	I-n = 20kA
Safety Listings	UL Listed 1449 4th Edition for Type 1 and Type 2 SPD applications, cUL, and UL 1283 / Meets Requirements for UL 96A / Compliant to IEEE C62.41.1-2002, C62.41.2-2002 and C62.45-2002 / NFPA 70 [NEC], Article 285 / RoHS Compliant / CE, IEC 61643-11-2011 / FCC Part B Class B / EMC Directive 2004/108/EC / Low Voltage Directive 2006/95/EC
Protection Method	Thermally protected MOVs, Capacitive Filter
Product Design	Individual thermally fused and protected MOVs, and All Copper, Tin-plated Bus
Dimensions	Metal/Stainless Steel: 16"H x 16"W x 9.2"D Fiberglass Reinforced Polyester: 14"H x 12.75"W x 6.6"D
Weight	Metal/Stainless Steel: 40 lbs. Fiberglass Reinforced Polyester: 17 lbs.
Enclosure Type	NEMA 4/12 Standard (NEMA 4X Option)
Installation Location	Outdoor or Indoor
Operating Environment	-25°C to +60°C 5% – 95% Non-Condensing Humidity
Fault Current (SCCR)	200kAIC
Connection Method	Parallel
Protection Modes	All Modes (L-N, L-G, N-G, L-L)
Response Time	< 0.5 Nanoseconds
Operating Frequency	47 – 63 Hz
Warranty	15 Years

### Filtering Attenuation Frequencies (Per Mil-Std-220B January 2000)\*\*

10 KHz	100 KHz	1 MHz	10 MHz	Max at 142 KHz
18.1 dB	44 dB	22.8 dB	15.3 dB	54.6 dB

### Single/Repetitive Surge Current Capacities (Tested)\*\*

Protection Mode	Single Pulse Surge Current Capacity/Mode	Repetitive Surge Current Capacity/Mode
Line-to-Neutral	50,000A	5,000 Impulses
Line-to-Ground	50,000A	5,000 Impulses
Neutral-to-Ground	50,000A	5,000 Impulses
Line-to-Line	100,000A	10,000 Impulses
Per Phase	100,000A	10,000 Impulses

### Maximum Continuous Operating Voltage (MCOV)

Voltage	L-N MCOV	Voltage	L-L MCOV
120V	150V	240V	300V
277V	320V	480V	552V
347V	420V	600V	690V

\*\* Data based on actual tests. Contact factory for test reports

## MODEL NUMBER SCHEME (TG3™)

E.g.: TG3-050-208-3Y-PNT-M6E-F2 (as shown in above photo)

TG3	050	208	3Y	PNT	M6E	F2
Model	kA Rating	Voltage	Configuration	Enclosure Cable Entry	Monitoring	Filter Option Optional Feature

### kA Rating (Must Choose One)

Available TG3™ kA Ratings:  
050, 080, 100, 125, 150, 200, 250, 300

### Voltage\* (Must Choose One)

208	120/208
240	120/240
380	220/380
480	277/480
600	347/600

### Configuration\* (Must Choose One)

1G	1-Phase, Grounded
2G	2-Phase, Grounded, Split-Phase
3Y	3-Phase, Grounded, Wye
3R	3-Phase, Grounded, High-Resistance
3H	3-Phase, Grounded, High-Leg Delta
3D	3-Phase, Grounded, Delta

### Enclosure (Must Choose One)

MN	Metal Without Disconnect
MD	Metal With Disconnect
SN	Stainless Steel Without Disconnect
SD	Stainless Steel With Disconnect
PN	Fiberglass Reinforced Polyester Without Disconnect

### Cable Entry (Must Choose One)

T	Top Feed
B	Bottom Feed

### Monitoring (Must Choose One)

M0	No local monitoring (see remote MxX stand-alone option)
M1	LED/Phase + Audible Alarm, Dry Relay Contacts
M2	M1 + Surge Counter
M3	Advanced Monitoring, Character Display, Modbus RTU
M4E	M3 + Ethernet, Modbus TCP
M5	Advanced Monitoring, Graphics Display, Modbus RTU
M6E	M5 + Ethernet, Modbus TCP

### Filter (Must Choose One)

F	Filter
N	No Filter

### Optional Feature (May Choose One)

2	Test Port
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### Stand-Alone Options

(To Be Ordered As Separate Items)

DTS	DTS-2 Diagnostic Test Set
MxX	Remote Monitor Extension M1X through M6EX
HPI	HPI Cable

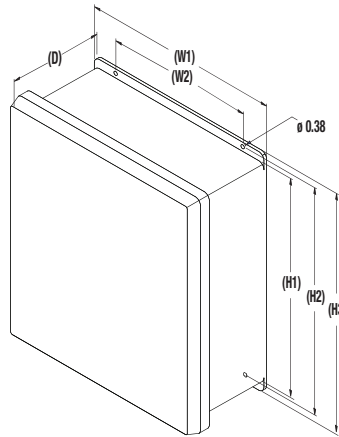
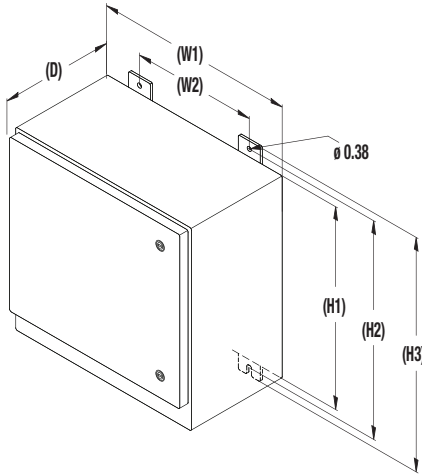
## DIMENSIONAL SPECIFICATIONS

### Metal/Stainless Steel

TG3™/50	Inches	(mm)
H1	16.00	(406.4)
H2	17.25	(438.2)
H3	18.50	(469.9)
W1	16.00	(406.4)
W2	10.00	(254.0)
D	9.20	(233.7)

### Fiberglass Reinforced Polyester

TG3™/50	Inches	(mm)
H1	14.00	(355.6)
H2	14.75	(374.7)
H3	15.50	(393.7)
W1	12.75	(323.9)
W2	10.00	(254.0)
D	6.60	(167.6)



## VOLTAGE/CONFIGURATION OPTIONS

Not all voltage configurations are displayed, contact Thomas & Betts Power Solutions for additional configurations.

Voltage	Configuration					
	1G	2G	3Y	3R	3H	3D
120	X					
208	X		X	X		X
220	X	X		X		X
230	X					X
240	X	X			X	X
380		X	X	X		X
415		X	X	X		X
480		X	X	X		X
600		X	X	X		X

## TG3™/50 PERFORMANCE DATA

System Voltage	120/240V or 120/208V				277/480V				347/600V				480V Delta	
	L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L-G	L-L
<b>MCOV</b>	150	150	150	300	320	320	320	552	420	420	420	690	552	552
<b>B3 Ring Wave 6kV, 500A</b>	490	570	640	500	450	540	570	530	490	520	600	550	1450	530
<b>B3/C1 Combo Wave 6kV, 3kA</b>	614	629	634	1011	1013	1031	950	1857	1197	1219	1175	2369	1542	1857
<b>C3 Combo Wave 20kV, 10kA</b>	980	980	1170	1600	1420	1540	1600	2600	1670	1670	1730	2980	2270	2600
<b>UL 1449 4th Edition VPR 6kV, 3kA</b>	700	700	700	1200	1200	1200	1000	2000	1200	1500	1200	2500	1800	2000

All TG3™ systems voltage protection ratings (VPR) are peak values ( $\pm 10\%$ ) measured from the 90° reference point and are in compliance with test and evaluation procedures outlined in ANSI/IEEE C62.41






**Current Technology**

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