

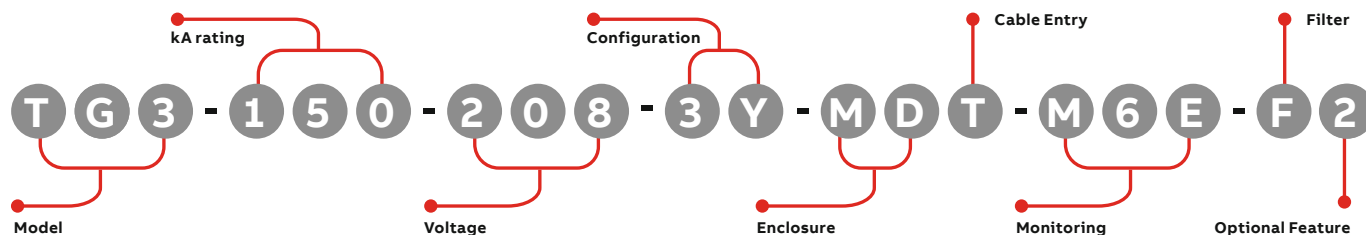
SURGE PROTECTIVE DEVICES

# TG3™ 150 Surge Protection

## TransGuard®



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.



kA Rating	Voltage* (Consult factory for additional Voltages)		Configuration* (Consult factory for additional Configurations)		Enclosure
050	208	120/208	1G	1 Phase, Grounded	MN Metal Without Disconnect
080	240	120/240	2G	2 Phase, Grounded, Split Phase	MD Metal With Disconnect
100	380	220/380	3Y	3 Phase, Grounded Wye	SN Stainless Steel Without Disconnect
125	480	277/480	3H	3 Phase, Grounded, High Leg Delta	SD Stainless Steel With Disconnect
150	600	347/600	3D	3 Phase, Grounded Delta	PN Fiberglass Reinforced Polyester Without Disconnect
200					
250					
300					

\*See table on back for more Voltage/Configuration Options.

Cable Entry		Monitoring		Filter		Optional Features		Stand-Alone Options (To Be Ordered As Separate Items)	
T	Top Feed	M0	No local monitoring (see remote MxX stand-alone option)	F	Filter	2	Test Port	DTS	DTS-2 Diagnostic Test Set
B	Bottom Feed	M1	Smart switching tri-color/LED/Phase, Audible Alarm & Dry Relay Contacts	N	No Filter			MxX	Remote Monitor Extension M1X through M6EX
		M2	M1 + Surge Counter					HPI	HPI Cable
		M3	Advanced Monitoring, Character Display, Modbus RTU						
		M4E	M3 + Ethernet, Modbus TCP						
		M5	Advanced Monitoring, Graphics Display, Modbus RTU						
		M6E	M5 + Ethernet, Modbus TCP						

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**Product Specifications**

**General Specifications**

<b>Maximum Surge Current Rating</b>	150kA Per Mode, 300kA Per Phase
<b>Nominal Discharge Surge Current</b>	I-n = 20kA
<b>Safety Listings</b>	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
<b>Protection Method</b>	Thermally protected MOVs, Capacitive Filter
<b>Product Design</b>	Individual thermally fused and protected MOVs, and All Copper, Tin-plated Bus
<b>Dimensions</b>	Metal/Stainless Steel: 24"H x 16"W x 9.2"D Fiberglass Reinforced Polyester: 16.75"H x 14.75"W x 6"D
<b>Weight</b>	Metal/Stainless Steel: 46 lbs. Fiberglass Reinforced Polyester: 22 lbs.
<b>Enclosure Type</b>	NEMA 4/12 Standard (NEMA 4X Option)
<b>Installation Location</b>	Outdoor or Indoor
<b>Operating Environment</b>	-25°C to +60°C 5% – 95% Non-Condensing Humidity
<b>Fault Current (SCCR)</b>	200kAIC
<b>Connection Method</b>	Parallel
<b>Protection Modes</b>	All Modes (L-N, L-G, N-G, L-L)
<b>Response Time</b>	< 0.5 Nanoseconds
<b>Operating Frequency</b>	47 – 63 Hz
<b>Warranty</b>	15 Years

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**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

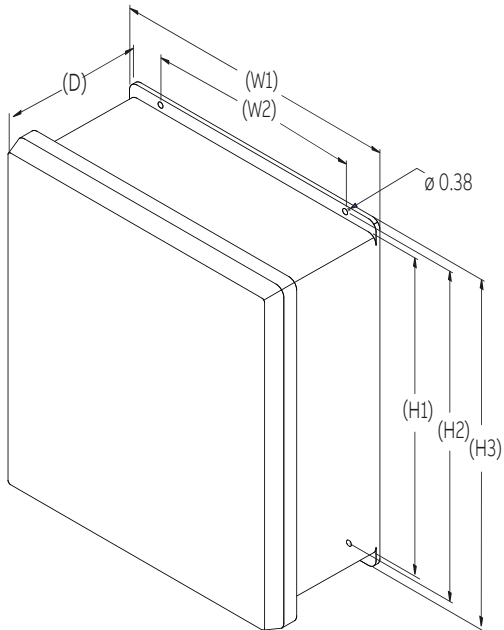
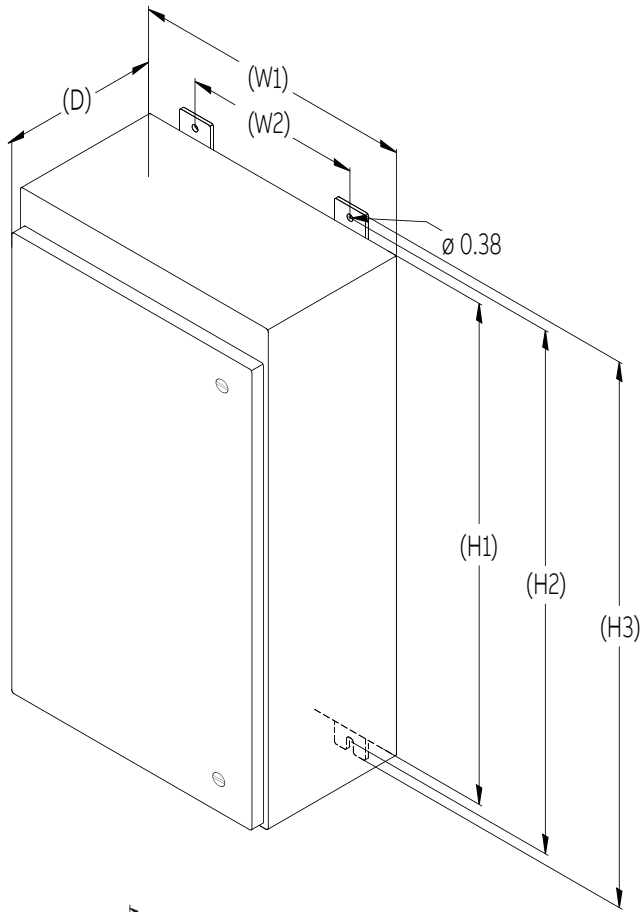
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**Single/Repetitive Surge Current Capacities (Tested)\*\***

Protection Mode	Single Pulse Surge Current Capacity/Mode	Repetitive Surge Current Capacity/Mode
Line-to-Neutral	150,000A	8,000 Impulses
Line-to-Ground	150,000A	8,000 Impulses
Neutral-to-Ground	150,000A	8,000 Impulses
Line-to-Line	300,000A	16,000 Impulses
Per Phase	300,000A	16,000 Impulses

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

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**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



#### Dimensional specifications

##### Metal/Stainless Steel

TG3™/150	Inches	(mm)
H1	24.00	(609.6)
H2	25.25	(641.4)
H3	26.50	(673.1)
W1	16.00	(406.4)
W2	10.00	(254.0)
D	9.20	(233.7)

##### Fiberglass Reinforced Polyester

TG3™/150	Inches	(mm)
H1	16.75	(425.5)
H2	16.75	(425.5)
H3	17.50	(444.5)
W1	14.75	(374.7)
W2	12.00	(304.3)
D	6.67	(169.4)

#### Voltage/configuration options

Not all voltage configurations are displayed, contact your local sales representative for additional configurations.

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

##### Voltage Configuration

120	X				
208	X		X		X
220	X	X			X
230	X				X
240	X	X		X	X
380		X	X		X
415		X	X		X
480		X	X		X
600		X	X		X

TG3™/150 performance data

System Voltage	120/240V or 120/208V				277/480V				347/600V				480V Delta			
Protection Mode	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 (±10%) measured from the 90° reference point and are in compliance with test and evaluation procedures outlined in ANSI/IEEE C62.41



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