

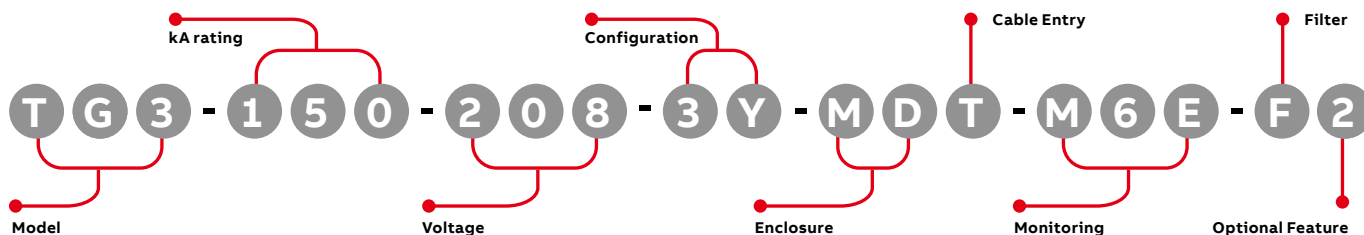
SURGE PROTECTIVE DEVICES

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

| | |
|--|--|
| Maximum Surge Current Rating | 150kA Per Mode, 300kA Per Phase |
| Nominal Discharge Surge Current | I-n = 20kA |
| Safety Listings | UL Listed 1449 5th 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 |
| 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: 24"H x 16"W x 9.2"D Fiberglass Reinforced Polyester: 16.75"H x 14.75"W x 6"D |
| Weight | Metal/Stainless Steel: 46 lbs. Fiberglass Reinforced Polyester: 22 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 |

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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 |

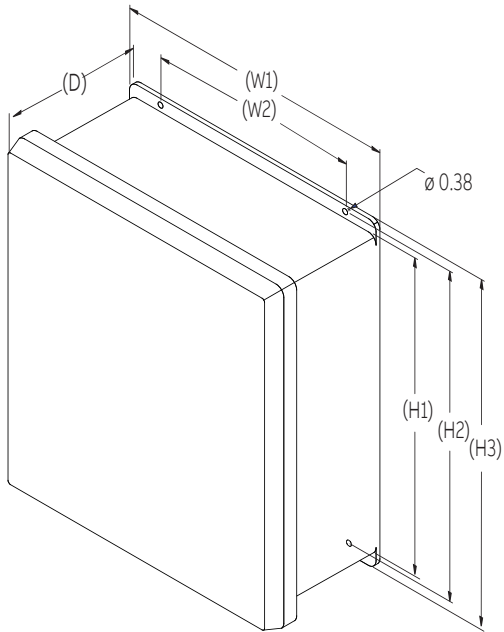
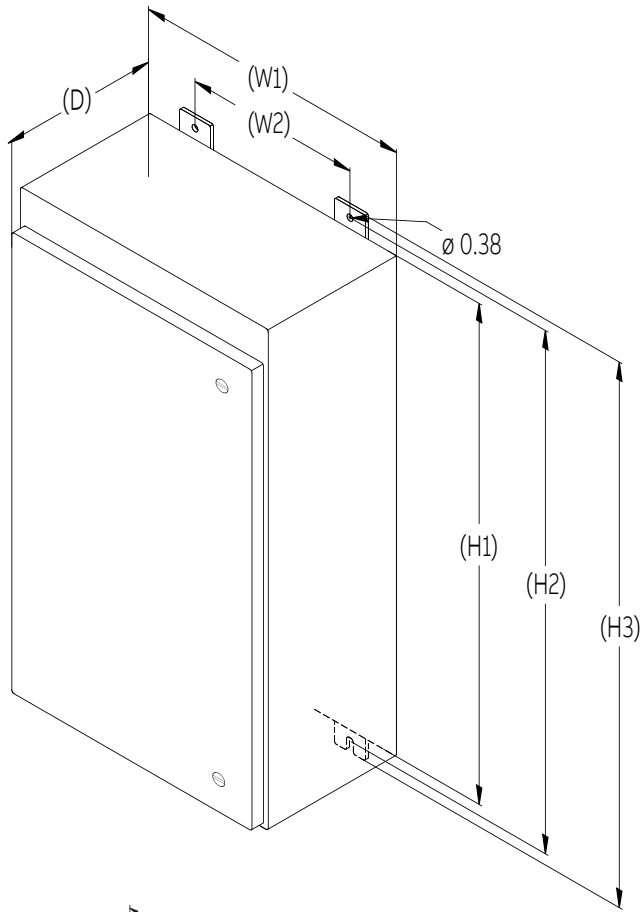
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Single/Repetitive Surge Current Capacities (Tested)**

| 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 | | | |
|---|----------------------|-----|------|------|----------|------|------|------|----------|------|------|------|------------|------|--|--|
| | 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 | | |
| MCOV | 150 | 150 | 150 | 300 | 320 | 320 | 320 | 552 | 420 | 420 | 420 | 690 | 552 | 552 | | |
| B3 Ring Wave 6kV, 500A | 490 | 570 | 640 | 500 | 450 | 540 | 570 | 530 | 490 | 520 | 600 | 550 | 1450 | 530 | | |
| B3/C1 Combo Wave 6kV, 3kA | 614 | 629 | 634 | 1011 | 1013 | 1031 | 950 | 1857 | 1197 | 1219 | 1175 | 2369 | 1542 | 1857 | | |
| C3 Combo Wave 20kV, 10kA | 980 | 980 | 1170 | 1600 | 1420 | 1540 | 1600 | 2600 | 1670 | 1670 | 1730 | 2980 | 2270 | 2600 | | |
| UL 1449 5th Edition VPR 6kV, 3kA | 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

