

TGSSURGE



# MODEL NUMBER SCHEME (TG3TM)

ergía Verde

E.g.: TG3-200-208-3Y-MDT-M6E-F2 (as shown in above photo)

| TG3      | <b>— 200 –</b> | - 208 - | - 3Y -       | – MDT —               | M6E -     | – F 2                          |
|----------|----------------|---------|--------------|-----------------------|-----------|--------------------------------|
| <u>a</u> | 6              | 9       |              | , e                   | 9         | . e. u                         |
| Mode     | KA Ratin       | Voltag  | Configuratio | Enclosui<br>Cable Ent | Monitorin | Filter Optic<br>Optional Featu |

### 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 |
| ЗН | 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)

Top Feed

| В   | Bottom Feed                        |
|-----|------------------------------------|
| Mon | itoring (Must Choose One)          |
| MO  | No local monitoring                |
|     | (see remote MxX stand-alone option |
| M1  | LED/Phase + Audible Alarm,         |

|     | (see remote wixx stand-alone opti- |
|-----|------------------------------------|
| M1  | LED/Phase + Audible Alarm,         |
|     | Dry Relay Contacts                 |
| M2  | M1 + Surge Counter                 |
| МЗ  | Advanced Monitoring,               |
|     | Character Display, Modbus RTU      |
| M4E | M3 + Ethernet, Modbus TCP          |
| M5  | Advanced Monitoring,               |
|     | Graphics Display, Modbus RTU       |

|       |                      | _ |
|-------|----------------------|---|
| Filte | er (Must Choose One) |   |
| F     | Filter               | _ |
| N     | No Filter            |   |

M6E M5 + Ethernet, Modbus TCP

### Optional Feature (May Choose One)

2 Test Port (available in metal or stainless steel enclosures)

### **Stand-Alone Options**

(To Be Ordered As Separate Items)

| 1   | , , ,  |
|-----|--|
| DTS | DTS-2 Diagnostic Test Set                    |
| MxX | Remote Monitor Extension<br>M1X through M6EX |
| HPI | HPI Cable                                    |

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.

| General Specifications          |  |
|---------------------------------|--|
| Maximum Surge Current Rating    | 200kA Per Mode, 400kA Per Phase  |
| Nominal Discharge Surge Current | I-n = 20kA   |
| Safety Listings                 | UL Listed 1449 4th Edition for Type 1<br>and Type 2 SPD applications, cUL, and UL<br>1283 / Meets Requirements for UL 96A /<br>Compliant to IEEE C62.41.1-2002,<br>C62.41.2-2002 and C62.45-2002 / NFP/<br>70 [NEC], Article 285 / RoHS Compliant /<br>CE, IEC 61643-11-2011 / FCC Part B<br>Class B / EMC Directive 2004/108/EC /<br>Low Voltage Directive 2006/95/EC |
| Protection Method               | Thermally protected MOVs, Capacitive Filt  |
| Product Design                  | Individual thermally fused and protected Mo<br>and All Copper, Tin-plated Bus  |
| Dimensions                      | Metal/Stainless Steel: 24"H x 16"W x 9.2<br>Fiberglass Reinforced Polyester:<br>16.75"H x 14.75"W x 6"D  |
| Weight                          | Metal/Stainless Steel: 48 lbs.<br>Fiberglass Reinforced Polyester: 23 lbs.   |
| Enclosure Type                  | NEMA 4/12 Standard (NEMA 4X Option)  |
| Installation Location           | Outdoor or Indoor  |
| Operating Environment           | -25°C to +60°C<br>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)\*\*

| <b>Protection Mode</b> | Single Pulse Surge    | Repetitive Surge             |  |
|------------------------|-----------------------|------------------------------|--|
|                        | Current Capacity/Mode | <b>Current Capacity/Mode</b> |  |
| Line-to-Neutral        | 200,000A              | 9,000 Impulses               |  |
| Line-to-Ground         | 200,000A              | 9,000 Impulses               |  |
| Neutral-to-Ground      | 200,000A              | 9,000 Impulses               |  |
| Line-to-Line           | 400,000A              | 18,000 Impulses              |  |
| Per Phase              | 400,000A              | 18,000 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     |

<sup>\*\*</sup> Data based on actual tests. Contact factory for test reports



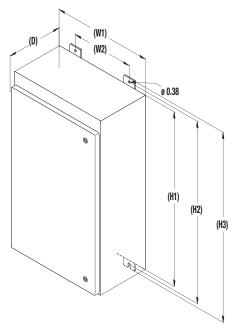


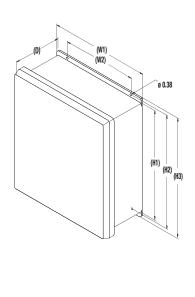


## **DIMENSIONAL SPECIFICATIONS**

| Metal/Stainless Steel |        |         |  |  |  |  |  |
|-----------------------|--------|---------|--|--|--|--|--|
| TG3 <sup>™</sup> /200 | 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™/200                        | Inches | (mm)    |  |  |  |  |  |  |
| H1                              | 16.75  | (425.5) |  |  |  |  |  |  |
| H2                              | 16.75  | (425.5) |  |  |  |  |  |  |
| НЗ                              | 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 Thomas & Betts Power Solutions for additional configurations.

|                                 | 1-Phase, Grounded | 2-Phase, Grounded, Split-Phase | 3-Phase, Grounded, Wye | 3-Phase, Grounded, High-Resistance | 3-Phase, Grounded, High-Leg Delta | 3-Phase, Grounded, Delta |  |  |  |  |
|---------------------------------|-------------------|--------------------------------|------------------------|------------------------------------|-----------------------------------|--------------------------|--|--|--|--|
|                                 | 1G                | 2G                             | 3Y                     | 3R                                 | 3H                                | 3D                       |  |  |  |  |
| Voltage                         | Configuration     |                                |                        |                                    |                                   |                          |  |  |  |  |
|                                 |                   |                                |                        |                                    |                                   |                          |  |  |  |  |
| 120                             | X                 |                                |                        |                                    |                                   |                          |  |  |  |  |
| 120<br>208                      | X                 |                                | X                      | X                                  |                                   | X                        |  |  |  |  |
|                                 |                   | X                              | X                      | X                                  |                                   | X<br>X                   |  |  |  |  |
| 208                             | X                 | X                              | X                      |                                    |                                   |                          |  |  |  |  |
| 208<br>220                      | X                 | X                              | X                      |                                    | X                                 | X                        |  |  |  |  |
| 208<br>220<br>230               | X<br>X<br>X       |                                | X                      |                                    | X                                 | X                        |  |  |  |  |
| 208<br>220<br>230<br>240        | X<br>X<br>X       | X                              |                        | X                                  | X                                 | X<br>X<br>X              |  |  |  |  |
| 208<br>220<br>230<br>240<br>380 | X<br>X<br>X       | X                              | X                      | X                                  | X                                 | X<br>X<br>X              |  |  |  |  |

# TG3™/200 PERFORMANCE DATA

| System Voltage                      |     | 120/240V<br>or<br>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  |
| MCOV                                | 150 | 150                        | 150  | 300  | 320      | 320  | 320  | 552      | 420  | 420  | 420  | 690        | 552  | 552  |
| B3 Ring Wave<br>6kV, 500A           | 490 | 570                        | 640  | 500  | 450      | 540  | 570  | 530      | 490  | 520  | 600  | 550        | 1450 | 530  |
| B3/C1 Combo Wave<br>6kV, 3kA        | 614 | 629                        | 634  | 1011 | 1013     | 1031 | 950  | 1857     | 1197 | 1219 | 1175 | 2369       | 1542 | 1857 |
| C3 Combo Wave<br>20kV, 10kA         | 980 | 980                        | 1170 | 1600 | 1420     | 1540 | 1600 | 2600     | 1670 | 1670 | 1730 | 2980       | 2270 | 2600 |
| UL 1449 4th Edition<br>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







Ahorra y contribuye con tu ambiente

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