

## ADVANCED ELECTRICAL TRANSIENT PROTECTION FOR LOW EXPOSURE APPLICATIONS



Fiberglass reinforced polyester enclosure



Metal enclosure

### Features and benefits

- Failure-Free ISB eliminates PCB trace failures, provides precise current sharing
- All-copper, tin-plated bus provides minimum impedance, eliminates wire bends
- All MOVs are fused to ensure ongoing performance
- Safety interlocked entry door for added safety (only with disconnect)
- “All modes protection” safeguards all electrical modes (L-N, L-G, L-L, N-G)
- Direct bus connection minimizes installation impedances; provides 200 kAIC fault current protection
- Seven-Year Product Warranty (MasterPLAN selenium-enhanced 10-Year Warranty available when simultaneously installed with Current Technology® SElect® SEL300 or SEL250 units)

### Applications

- Branch panels with upstream protection
- Branch panels with primarily sensitive electronic loading
- Branch panels deep within a facility

#### Standard TG80 Model Numbers

TG80-120/208-3GY	TG80-120/240-2G
TG80-220/380-3GY	TG80-120/240-3GHD
TG80-277/480-3GY	TG80-240-3DG
TG80-347/600-3GY	TG80-480-3DG

#### Maximum Continuous Operating Voltage (MCOV)

Voltage	MCOV	Voltage	MCOV
120V	150V	347V	420V
220V	275V	480V	640V
277V	320V	600V	840V

#### Typical Clamping Voltage Data

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 Second Edition
120/240	L-N	300 / 325	400 / 425	550 / 700	400/400
	L-G	400 / 425	400 / 450	600 / 750	500/500
	N-G	325 / 350	475 / 475	800 / 800	500/500
277/480	L-L	425 / 475	725 / 800	900 / 1125	700/700
	L-N	500 / 525	875 / 900	1050 / 1175	900/900
	L-G	825 / 875	825 / 875	1025 / 1150	1000/1000
	N-G	650 / 650	875 / 900	1200 / 1225	800/900
	L-L	700 / 775	1625 / 1675	1825 / 2025	1800/1800

All Current Technology suppression filter systems clamping voltages are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.210 and 3.10. Values following slash (/) indicate typical clamping voltage data for models with integral disconnect option.

#### Filtering Attenuation Frequencies

50KHz	100KHz	500KHz	1MHz	5MHz	10MHz	50MHz	100MHz
47dB	50dB	37dB	37dB	37dB	38dB	47dB	53dB

#### Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	80,000 amps	4,000 impulses
Line-to-Ground	80,000 amps	4,000 impulses
Neutral-to-Ground	80,000 amps	4,000 impulses
Line-to-Line	80,000 amps	4,000 impulses
Per Phase	160,000 amps	N/A

In compliance with NEMA LS 1-1992, TransGuard suppression filter systems are single pulse surge current tested in all modes at rated currents of the product by an industry-recognized independent test laboratory. Single pulse surge current capacities of 200,000 amps or less are established by single-unit testing of all components within each mode. Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992, TransGuard suppression filter systems are repetitive surge current capacity tested per mode utilizing a 1.2 x 50µsec 20KV open circuit voltage, 8 x 20µsec 10 kA short circuit current Category C3 bi-wave at one minute intervals without suffering either performance degradation or more than 10% deviation of clamping voltage at a specified surge current.

#### Options (see page 5 for details)

Primary Monitoring — L1	Integral Disconnect — DM (requires metal enclosure)
Advanced Monitoring — L2	DTS-2 Diagnostic Test Set — DTS
MasterMIND Diagnostic Monitoring — L3	MasterTEST Hand-Held Tester — MT
NEMA 4/12 Metal Enclosure — M	Stainless Steel Enclosure — SS

#### Mechanical Specifications

##### Dimensions:

Fiberglass reinforced polyester:  
15.5"H x 13.5"W x 7"D  
Metal: 16"H x 16"W x 9.5"D

##### Weight:

Fiberglass reinforced polyester: 28 lbs.  
Metal: 45 lbs.

Enclosure type/mount: NEMA 4/12 surface  
Operating environment: -40°C to +60°C

5% - 95% non-condensing humidity

#### Electrical Specifications

Connection method: Parallel

Protection Modes: L-N, L-G, N-G, L-L

UL Listings: 1449-Second Edition

1283

UL-Recognized fusing

**Contact factory for open-frame product specifications.**