

## ADVANCED ELECTRICAL TRANSIENT PROTECTION FOR HIGH 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

- Service entrances near utility substations
- Service entrances on grid with other large industrial users
- Lower ampacity service entrances
- Service entrance remotely located from utility power factor correction capacitors and grid switching
- Large distribution panels

### Single/Repetitive Surge Current Capacities

Protection mode	Single pulse surge current capacity/mode	Repetitive surge current capacity/mode
Line-to-Neutral	250,000 amps	7,000 impulses
Line-to-Ground	250,000 amps	7,000 impulses
Neutral-to-Ground	250,000 amps	7,000 impulses
Line-to-Line	250,000 amps	7,000 impulses
Per Phase	500,000 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. Due to present industry test equipment limitations, single pulse surge current capacities over 200,000 amps are established via testing of individual components or sub-assemblies within a 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

### Standard TG250 Model Numbers

TG250-120/208-3GY	TG250-120/240-2G
TG250-220/380-3GY	TG250-120/240-3GHD
TG250-277/480-3GY	TG250-240-3DG
TG250-347/600-3GY	TG250-480-3DG

### 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
120/240 120/208	L-N	325 / 375	425/450	650 / 775	400/400
	L-G	400 / 450	425/450	650 / 825	500/500
	N-G	350 / 350	475 / 475	750 / 750	500/500
277/480	L-L	400 / 500	775 / 850	950 / 1250	700/700
	L-N	550 / 600	875 / 900	1125 / 1225	800/800
	L-G	850 / 875	850 / 900	1075 / 1225	1000/1000
	N-G	700 / 700	900 / 900	1225 / 1225	800/900
	L-L	650 / 750	1650 / 1725	1950 / 2200	1500/1500

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
53dB	41dB	32dB	31dB	32dB	35dB	47dB	53dB

### Mechanical Specifications

#### Dimensions:

Fiberglass reinforced polyester:

19.5”H x 17.5”W x 9.5”D

Metal: 28”H x 16”W x 9.5”D

#### Weight:

Fiberglass reinforced polyester: 57 lbs.

Metal: 91 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.**