

ELECTRONIC GRADE PANEL EXTENSION

Advanced Electrical Transient
Protection for Panelboard
Applications

New from the innovators of electronic grade panelboards, Current Technology® EGPE2™ Panelboard Extensions are ideal for retrofitting and upgrading existing electric panelboards. Designed for quick and easy installation, the EGPE2 provides Current Technology's UL 1283 Listed filtering and UL 1449, 2nd Edition Listed suppression with the Failure-Free ISB™ to provide permanent surge protection.

APPLICATIONS

EGPE2 is designed for easy field-installation in:

- branch panels with upstream protection
- branch panels with sensitive electronic loads
- branch panels without upstream protection

FEATURES AND BENEFITS

- Provides electronic grade power filtering for existing lighting and appliance distribution panels
- Extends equipment life by reducing equipment degrading high-frequency line noise and transients
- Easily mounts with most major brands of low-voltage (less than 600V) lighting and appliance panelboards
- Incorporates the Failure-Free ISB that eliminates printed circuit board (PCB) trace failures typical in many surge suppressors and provides precise current sharing
- Compatible with MasterMIND® and MasterTEST® real-time monitoring options
- Provides direct-bus connection capability to reduce wiring lead lengths, minimizing installation impedances and improving clamping voltages
- Offers space-saving design that fits within a standard 6-inch deep wall and conserves horizontal wall space
- Removable end-plates allow installation above or below panelboards.
- Available in surface-or flush-mount configurations
- Warranty: Seven-Year Product Warranty. Upgradeable to 10-Year Selenium-Enhanced Product Warranty when EGPE2 is simultaneously installed with Current Technology SElect® SEL300 or SEL250 units upstream.



EGPE2 FEATURES THE FAILURE-FREE ISB

The EGPE2 incorporates the Failure-Free Intergrated Surge Suppression Bus (ISB) to provide the most reliable suppression filter assembly available.

Unlike printed circuit board-based designs, the ISB's breakthrough technology does not rely on PCB traces to carry full surge current magnitude. Instead, cumulative surge current travels on copper bus bars to multiple metal oxide varistor (MOV) paths. PCB trace failures are eliminated and current sharing is enhanced.

Integral to the ISB is UL-Recognized fusing rated at 200 kAIC (patent pending). Designed by Current Technology, the internal fusing ensures uninterrupted protection at rated surge current levels and protects all paths and elements. The fuse block array increases safety and reliability by preventing the cross-arcing possible in designs without independently isolated fuses.



The EGPE2 may be easily top- or bottom-mounted (as shown here) to a panelboard.



Standard EGPE2-100 Model Numbers

EGPE2-100-120/208-3GY WYE	EGPE2-100-120/240-2G SPLIT
EGPE2-100-220/380-3GY WYE	EGPE2-100-120/240-3GHD HIGH-LEG DELTA
EGPE2-100-277/480-3GY WYE	EGPE2-100-240-3DG DELTA
EGPE2-100-347/600-3GY WYE	EGPE2-100-480-3DG DELTA

Contact factory for additional voltage configurations.

Maximum Continuous Operating Voltage (MCOV)

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

*For Delta configurations, (Phase-to-Phase)
All models comply with NEMA LS 1-1992, paragraphs 2.2.6 and 3.6.

Typical Clamping Voltage Data*

System Voltage	Mode	B3 Ringwave	B3/C1 Comb. Wave	C3 Comb. Wave	UL 1449 2nd Edition
120/240	L-N	325	425	625	400
	L-G	400	425	625	500
120/208	N-G	375	475	750	400
	L-L	375	775	975	700
277/480	L-N	525	875	1150	800
	L-G	850	850	1075	900
	N-G	700	900	1200	800
	L-L	675	1675	1950	1500

*Consult Guide Specifications for other models.
All Current Technology suppression filter systems' clamping voltages comply with test and evaluation procedures outline in NEMA LS 1-1992, paragraphs 2.2.10 and 3.10.

Monitoring

The EGPE2 base unit is equipped with power status indicator lights. Enhanced monitoring capabilities are available through these monitoring options:

Monitoring Options	Option Suffix
Primary Monitoring	L1
Advanced Monitoring	L2
MasterMIND Diagnostic Monitoring	L3
MasterTEST Hand-Held Tester	MT
DTS-2 Diagnostic Test Set	DTS

Monitoring Features

	Primary Advanced MasterMIND			
	Base	L1	L2	L3
% Protection Available				•
Surge Counter			•	•
Sag Counter				•
Swell Counter				•
Outage Counter				•
All-Phase Voltage Display				•
N-G Voltage Display				•
N-G Current Display				•
Audible Alarm			•	•
Dry Contacts for Remote Monitoring		•	•	•
All-Phase Monitoring (LEDs)	•	•	•	•

EMI/RFI Noise Rejection Filtering Attenuation Frequencies

100KHz	1MHz	10MHz	100MHz
50dB	37dB	38dB	53dB

All models comply with NEMA LS 1-1992, paragraphs 2.2.11 and 3.11.

Tested Single/Repetitive Surge Current Capacities

Protection Mode	Single-pulse surge current capacity mode	Repetitive surge current capacity/mode
L-N	100,000 amps	4,500 impulses
L-G	100,000 amps	4,500 impulses
N-G	100,000 amps	4,500 impulses
L-L	100,000 amps	4,500 impulses
Per Phase	200,000 amps	N/A

EGPE2 suppression filter systems are single-pulse surge current tested at rated currents by an industry-recognized independent laboratory. The single-pulse surge current tests comply with NEMA LS-1 1992, 2.2.9 and 3.9 recommendations.

EGPE2 Panelboard Conversion Service

Current Technology will install EGPE2 units into most standard panel types (furnished by customer or factory) and ship ready to install. Contact factory for details.

Mechanical Specifications

Dimensions:	16"H x 20"W x 5.75"D (41H x 51W x 15D cm approx.)
Weight (max.):	48 lbs. (21.8 kg.)
Enclosure Type/Mount:	NEMA 1, metallic, surface- or flush-mount styles
Operating Environment:	-40° to 140°F (-40° to +60° C) 5% to 95% noncondensing humidity

Electrical Specifications

Connection Method:	Parallel
Protection Modes:	L-N, L-G, N-G, L-L
Listings:	UL 1449, 2nd Edition UL 1283 UL-Recognized fusing UL 50 CUL



The MasterTEST connects to the ISB to perform real-time system testing of the EGPE2.