## Surge Protection For Business-Critical Continuity<sup>™</sup>

# Liebert<sup>®</sup> PanelGuard<sup>™</sup> Extension Clean Power Distribution For Electronic Panelboards



The Liebert PanelGuard Extension is an add-on device for integration with panelboards **at the jobsite** for enhanced surge suppression.

Liebert PanelGuard Extension minimizes data corruption, errors, system re-boots and component failure. Sine wave tracking circuitry filters high frequency electrical line noise. Patented component level monitoring, including neutral to ground, allows status detection in real time.

### **Features & Benefits**

- Flexible mounting (top or bottom) to virtually any panelboard.
- Universal panelboard application can be used with most major manufacturers.
- UL 1449 and UL 1283
- Surge current capacity levels from 130kA per phase to 200kA per phase.
- Standard features include all modes of protection, unit status indicators and isolated form C dry contacts.
- **Options include:** audible alarm, transient counter.



# Specifications

### **Surge Current Capacity**

|                   | Minimum Tested    | Single Pulse Surge Current Capacity |             |             |
|-------------------|-------------------|-------------------------------------|-------------|-------------|
| Protection Mode   | Impulses Per Mode | Model 100                           | Model 80    | Model 65    |
| Line-to-Neutral   | > 3,500           | > 100,000 A                         | > 80,000 A  | >65,000 A   |
| Line-to-Ground    | > 3,500           | > 100,000 A                         | > 80,000 A  | >65,000 A   |
| Neutral-to-Ground | > 3,500           | > 100,000 A                         | > 80,000 A  | >65,000 A   |
| Line-to-Line      | > 3,500           | > 100,000 A                         | > 80,000 A  | >65,000 A   |
| Per Phase         | > 7,000           | > 200,000 A                         | > 160,000 A | > 130,000 A |

Duty life cycle tested to survive 20kV, 10kA, IEEE C62.41 Category C3 surge current with less than 5% degradation of clamping voltage.

### **EMI/RFI Noise Rejection Values**

| Single Unit | Frequency | System Installation |
|-------------|-----------|---------------------|
| 34 dB       | 100 kHz   | 51 dB               |
| 51 dB       | 1 MHz     | 94 dB               |
| 54 dB       | 10 MHz    | 114 dB              |
| 48 dB       | 100 MHz   | 120 dB              |

All systems EMI-RFI noise or attenuation rejection values are in compliance with test and evaluation procedures outlined in NEMA LS 1-1992, paragraphs 2.2.11 and 3.11.

### **UL 1449 RATINGS**

| System Voltage           | Line to<br>Neutral | Line to<br>Ground | Line<br>to Line | Neutral<br>to Ground |
|--------------------------|--------------------|-------------------|-----------------|----------------------|
| 120/208 or 120/240       | 400 V              | 400 V             | 800 V           | 400 V                |
| 208, 240, 277 or 277/480 | 800 V              | 800 V             | 1500 V          | 800 V                |

### Enclosure

#### NEMA 1 rated.

Surface mount dimensions are 12" x 20" x 6". Flush mount unit is 12" x 21.5" x 6". Weight is 15 lbs.

### How To Order Liebert Liebert PanelGuard<sup>™</sup> Extension

| Phase configuration  | Code |
|--|------|
| 1 Ph, 3W+G. 120/240 VAC  | 1205 |
| 3 Ph, 4W+G. 120/208 VAC  | 120Y |
| 3 Ph, 4W+G. 277/480 VAC  | 277Y |
| Other phase configurations available.<br>Please consult factory. |      |

| kA per mode/per phase             | Code |
|-----------------------------------|------|
| 65 kA per mode, 130 kA per phase  | 65   |
| 80 kA per mode, 160 kA per phase  | 80   |
| 100 kA per mode, 200 kA per phase | 100  |

| Trim type          | Code |
|--------------------|------|
| Surface mount trim | S    |
| Flush mount trim   | F    |

| Monitoring options           | Code |
|------------------------------|------|
| Standard Status LEDs only    | -00  |
| LEDs, Audible Alarm, Counter | -01  |
| LEDs, Audible Alarm          | -02  |
| LEDs, Counter                | -03  |
|                              |      |

| How to construct a Liebert PanelGuard |      |
|---------------------------------------|------|
| Extension (LPGE) model #              | Code |
| 1. Liebert PanelGuard Extension       | LPGE |
| 2. Phase configuration                | 120S |
| 3. kA per mode / per phase            | 65   |
| 4. Trim type: surface mount           | S    |
| 5. Monitoring options                 | -01  |
| Sample model #: LPGE120S65S-01        |      |

#### **Liebert Corporation**

1050 Dearborn Drive P.O. Box 29186 Columbus, Ohio 43229 800 877 9222 Phone (U.S. & Canada Only) 614 888 0246 Phone (Outside U.S.) 614 841 6022 FAX

Via Leonardo Da Vinci 8 Zona Industriale Tognana 35028 Piove Di Sacco (PD) Italy 39 049 9719 111 Phone 39 049 5841 257 FAX

Emerson Network Power Asia Pacific 7/F., Dah Sing Financial Centre 108 Gloucester Rd, Wanchai Hong Kong 852 25722201 Phone 852 28029250 FAX

#### liebert.com

#### **Technical Support**

800 288 6169 Toll-Free 607 721 8865 Phone 607 722 8713 Fax

While every precaution has been taken to ensure accuracy and completeness in this literature, Liebert Corporation assumes no responsibility, and disclamis all liability for damages resulting from use of this information or for any errors or omissions.

@ 2008 Liebert Corporation. All rights reserved throughout the world. Specifications subject to change without notice.

All names referred to are trademarks or registered trademarks of their respective owners.

© Liebert is a registered trademark of the Liebert Corporation. SL-22065 (R06/08) Printed in USA

#### **Emerson Network Power.**

The global leader in enabling *Business-Critical Continuity*<sup> $\mathbb{M}$ </sup>.



#### **Emerson Network Power.com**

Business-Critical Continuity<sup>™</sup>, Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2008 Emerson Electric Co.