

■ Surge Protection  
For *Business-Critical Continuity™*

## Liebert® PowerSure® Panel TVSS

Surge Suppression Solutions For Distribution Panels



Electric power line disturbances such as high voltage transients can disrupt or damage sensitive electronic equipment – causing a major loss in productivity and money. Liebert understands this problem and offers the Liebert PowerSure® Panel Low and Medium Exposure surge suppression systems – the reliable way to keep these power problems from getting into your facility in the first place.

■ **Liebert PowerSure® Panel**

**Low Exposure** – Designed for use on branch panels or equipment in low exposure locations. Available up to 100kA/phase surge current capacity. LED status indication and Form C contacts for remote indication are standard.

■ **Liebert PowerSure® Panel**

**Medium Exposure** – Offers protection from transients on distribution panels or any medium exposure location.

Available in 100kA/phase and 160kA/phase, all mode and two mode protection, small footprints, NEMA 12 enclosure, silver link fusing with thermal protection, all voltage and phase configurations, 5-year warranty.

## Liebert PowerSure® Panel TVSS Technical Specifications

	Low Exposure	Medium Exposure
Connection Type	Parallel	Parallel
Operating Voltage Range	±15%	±15%
Surge Current Capacity	25kA, 50kA or 100kA	100kA or 160kA
Fault Current Rating (AIC)	14kAIC	65kAIC
Dimensions	4.72"x4.72"x2.36"	(160 kA units) 8"x6"x4" (100 kA units) 6"x4"x3"
Operating Frequency Range	47–63 Hz	47–63 Hz
Capacity	Continuous	Continuous
EMI/RFI Attenuation	40 dB typical	40 dB typical
Response Time	<0.5 nanoseconds	<0.5 nanoseconds
Dry Contract rating	125 VAC, 8.0A, 1.0pf	125 VAC, 8.0A, 1.0pf
Operating Temperature	-40°C to +50°C	-40°C to +50°C
Operating Humidity	0% to 95%	0% to 95%
Status Indication	LED, Dry Contacts	LEDs, Dry Contacts
Certifications	UL 1449, CUL(CE-optional)	UL 1449, CUL
Warranty	5-Years	5-Years

## UL 1449 (second edition) Classification

	Low Exposure	Medium Exposure
120 Volt systems	400 Volts all modes	400 Volts all modes
208 through 277 Volt systems	800 Volts all modes	800 Volts all modes
480 Volt systems	1,500 Volts all modes	1,500 Volts all modes

## Ordering Information

### Building a Low and Medium Exposure Model Number:

#### Examples

L P L 1 2 3 (Low Exposure Unit)  
L P M 1 2 3 (Medium Exposure Unit)

{ (use Model ID column when determining 1, 2, 3 portion of Model Number)

1	Nominal Voltage Requirements			Model ID
	L-N	L-L	L-G	
■	120	N/A	120	<u>120</u>
■	120	208	120	<u>120</u>
■	120	240	240	<u>120</u>
■	N/A	208	208	<u>208</u>
■	230	400	230	<u>230</u>
■	N/A	240	240	<u>240</u>
■	277	480	277	<u>277</u>
■	N/A	400	400	<u>400</u>
■	N/A	480	480	<u>480</u>

3	Surge Current Capacity		Model ID
	(Low Exposure)		
■	100 kA/Phase (L-N: 50 kA + L-G: 50 kA; N-G: 50 kA)		<b>100</b>
■	50 kA/Phase (L-N: 25 kA + L-G: 25 kA; N-G: 25 kA)		<b>50</b>
■	25 kA/Phase (L-N: 25 kA; N-G: 25 kA)		<b>25-2</b>
<b>(Medium Exposure)</b>			
■	160 kA/Phase (L-N: 80 kA + L-G: 80 kA; N-G: 80 kA)		<b>160</b>
■	100 kA/Phase (L-N: 100 kA; N-G: 100 kA)		<b>100-2</b>

2	System Configuration	Model ID
	■ Single (2 Wire + Gnd)	<u>N or L</u>
■ Split (3 Wire + Gnd)	<u>S</u>	
■ Wye (4 Wire + Gnd)	<u>Y</u>	
■ Delta Hi-Leg (4 Wire + Gnd)	<u>H</u>	
■ Delta (3 Wire + Gnd)	<u>D</u>	

## 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 disclaims 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-22034 (R06/08) Printed in USA

## Emerson Network Power.

The global leader in enabling *Business-Critical Continuity™*.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

## Emerson Network Power.com

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