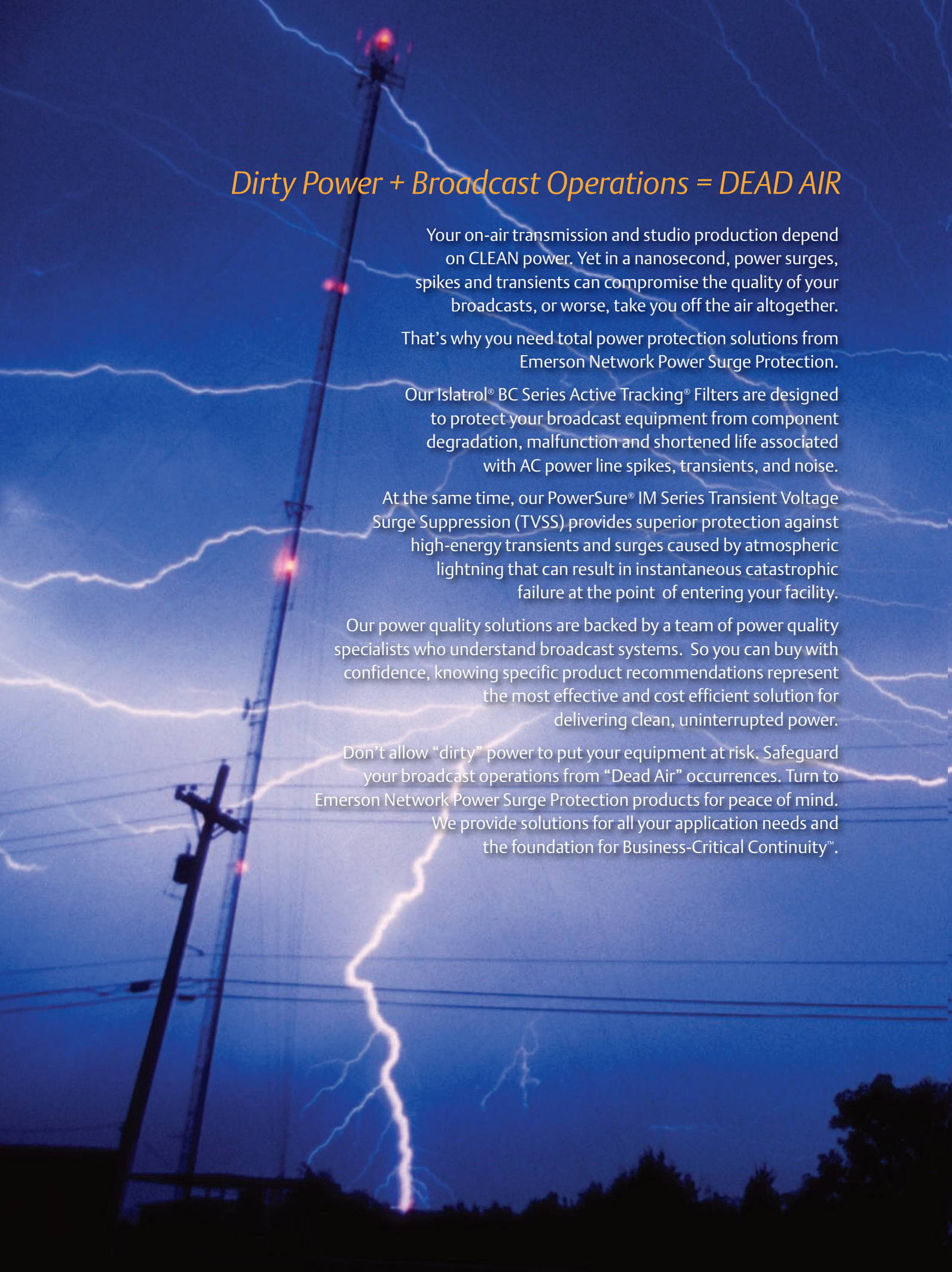


# ***Broadcast/Studio Protection***

## ***Product Catalog and Reference Guide***





## *Dirty Power + Broadcast Operations = DEAD AIR*

Your on-air transmission and studio production depend on CLEAN power. Yet in a nanosecond, power surges, spikes and transients can compromise the quality of your broadcasts, or worse, take you off the air altogether.

That's why you need total power protection solutions from Emerson Network Power Surge Protection.

Our Islatrol® BC Series Active Tracking® Filters are designed to protect your broadcast equipment from component degradation, malfunction and shortened life associated with AC power line spikes, transients, and noise.

At the same time, our PowerSure® IM Series Transient Voltage Surge Suppression (TVSS) provides superior protection against high-energy transients and surges caused by atmospheric lightning that can result in instantaneous catastrophic failure at the point of entering your facility.

Our power quality solutions are backed by a team of power quality specialists who understand broadcast systems. So you can buy with confidence, knowing specific product recommendations represent the most effective and cost efficient solution for delivering clean, uninterrupted power.

Don't allow "dirty" power to put your equipment at risk. Safeguard your broadcast operations from "Dead Air" occurrences. Turn to Emerson Network Power Surge Protection products for peace of mind.

We provide solutions for all your application needs and the foundation for Business-Critical Continuity™.

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### TVSS

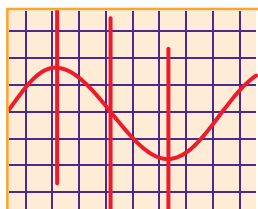
#### Using Transient Voltage Surge Suppression to Control High-Voltage Transients

Surge Suppressors provide a degree of protection against destructive surge events by limiting let-through voltage and diverting high currents away from electronic equipment.

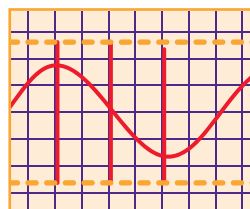
Applications:

Installed primarily at service entrances and branch panels throughout a facility, these devices are connected in parallel with the down-stream equipment.

High-Energy Transients



High-voltage spikes appearing on 120V, 60 Hz sine wave.



Surge suppression limits high-voltage spikes. It's your first line of defense for power quality.

#### Surge Suppression

### Active Tracking® Filters

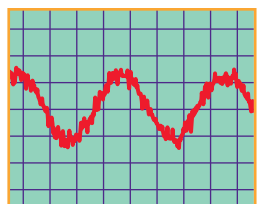
#### Using Active Tracking® Filters to Control Low- and High-Voltage Transients

Active Tracking® Filters offer a more comprehensive level of protection by providing clean AC power for highly sensitive equipment. This is accomplished by eliminating disruptive low-level noise as well as protecting against destructive high-energy events.

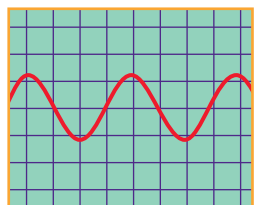
Applications:

These devices are typically installed directly in front and in series with sensitive equipment such as transmitters, programmable controllers, and high-end servers.

Low-Level Noise

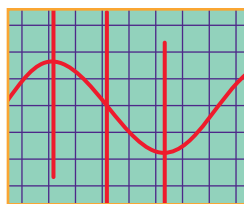


Lower-voltage transients (high-frequency noise) appearing on 120V, 60 Hz sine wave.



Active Tracking® Filtering eliminates potentially damaging noise, providing clean and reliable AC power.

High-Energy Transients



High-voltage spikes appearing on 120V, 60 Hz sine wave.



Active Tracking® Filtering virtually eliminates high-voltage transients.

#### Filtering

# Broadcast/Studio Product Selection Guide

Find your application in the left column

Then look across for the appropriate product

|                              | PRODUCTS                                                                                         |                                                                                               |                                                                                               |                                                                                                |                                                                                                  |                                                                                                  |
|------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|                              | Series Filter with TVSS                                                                          | TVSS                                                                                          |                                                                                               | Rackmount                                                                                      | Plug-In                                                                                          |                                                                                                  |
| APPLICATIONS                 | BC Series                                                                                        | PowerSure IH Series                                                                           | PowerSure IM Series                                                                           | Islatrol RM Series                                                                             | Islatrol SP-6TVN                                                                                 | Edco CAT6-5 POE                                                                                  |
| High Power Transmitter       | <br>Pages 4-6   |                                                                                               |                                                                                               |                                                                                                |                                                                                                  |                                                                                                  |
| Medium/Low Power Transmitter | <br>Pages 4-6 | <br>Page 8 | <br>Page 9 |                                                                                                |                                                                                                  |                                                                                                  |
| Studio Service Entrance      |                                                                                                  | <br>Page 8 | <br>Page 9 |                                                                                                |                                                                                                  |                                                                                                  |
| Studio Equipment             |                                                                                                  |                                                                                               |                                                                                               | <br>Page 7 | <br>Page 10 | <br>Page 11 |



## Islatrol® — BC Series

Two stage, high-frequency noise filter and high-energy current diverter available from 5 Amp single phase to 1200 Amp three phase. The Islatrol® BC Series is ideal protection against surges, transients and noise on incoming AC power lines.

The Islatrol® BC Series responds instantaneously to flatten dangerous surges and protect your investment. Because of its unique Active Tracking® design, there is no significant deterioration of the Islatrol® BC Series filter components. Day after day, Islatrol® BC Series performs with unparalleled dependability.



### Features

- 15-80 kA surge protection
- 47-63 Hz line frequency
- < .5 ns response time
- Available in units noted from 15-1,200 Amps
- RMS voltage input range: 105 to over 480 volts
- 5 year warranty

### General Technical Specifications

|                      |                                                                                                                                                                                                      |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number          | Islatrol® BC                                                                                                                                                                                         |
| Input Voltage        | 120 VAC Single Phase, 240 VAC Single Phase<br>120/240 VAC Single Split Phase<br>120/208 VAC Three Phase Wye<br>240 VAC Three Phase Delta<br>277/240 VAC Three Phase Wye<br>480 VAC Three Phase Delta |
| Line Frequency       | 47-63 Hz                                                                                                                                                                                             |
| Connection Type      | Series connected<br>barrier strip input<br>and output standard                                                                                                                                       |
| Modes of Protection  | Line to neutral standard,<br>other modes available                                                                                                                                                   |
| Surge Current Rating | 15,000 to 80,000 Amps                                                                                                                                                                                |

|                                                                           |                                                                |
|---------------------------------------------------------------------------|----------------------------------------------------------------|
| ANSI/IEEE C62.41 Catagory A Ringwave<br>(6 kV, 200A, 100k Hz) Attenuation | Normal Mode $\pm$ 5 Volts                                      |
| ANSI/IEEE C62.41 Catagory B Ringwave<br>(6 kV, 500A, 100k Hz) Attenuation | Normal Mode $\pm$ 5 Volts                                      |
| 50 $\Omega$ RFI/EMI Attenuation Normal Mode                               | Minimum of 40 dB and maximum<br>of 90 dB from 3 kHz to 150 MHz |
|                                                                           | Attenuation >50 dB to the<br>surge withstand capability        |
|                                                                           | Ringwave (Cat. A & B)                                          |
| Mean Time Between Failures                                                | Greater Than 100,000 Hours (MIL217)                            |

|                       |                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging             | Single phase units through<br>30 Amps housed in high-<br>impact plastic enclosure.<br>Single phase units greater<br>than 30 Amps and all split<br>and three phase models<br>housed in NEMA 12 enclosures. |
| Operating Temperature | -40°C to +45°C @ Full Load.<br>Derate Linearly to 60%<br>at +70°C                                                                                                                                         |
| Load Surge Current    | 10M Sec 10 x Nominal<br>1 Sec 5 x Nominal<br>5 Sec 2 x Nominal                                                                                                                                            |
| Safety Approvals      | UL 1283, CUL                                                                                                                                                                                              |



400-1,200 Amp BC Series

## Ordering Information

### 100, 110, 120 VAC Single Phase

| Model   | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|---------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-150  | 50.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-1100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 80.0         | 1      |
| BC-1200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 100.0        | 1      |

### 220, 230, 240, 277 VAC Single Phase — Barrier strips at input & output

| Model   | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|---------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-250  | 50.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-2100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 78.0         | 1      |
| BC-2200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 110.0        | 1      |

### 347, 380, 415 VAC Single Phase

| Model   | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|---------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-315  | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-330  | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-350  | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 53.0         | 3      |
| BC-3100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 80.0         | 1      |
| BC-3200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 100.0        | 1      |

### 480 VAC Single Phase — Barrier strips at input & output

| Model   | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|---------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-415  | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-430  | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-450  | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 63.0         | 3      |
| BC-4100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 85.0         | 1      |
| BC-4200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 110.0        | 1      |

### 120/240 VAC Single Phase Dual Voltage — Barrier strips at input & output

| Model     | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|-----------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-2-215  | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-2-230  | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-2-250  | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 63.0         | 3      |
| BC-2-2100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 85.0         | 1      |
| BC-2-2200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 110.0        | 1      |

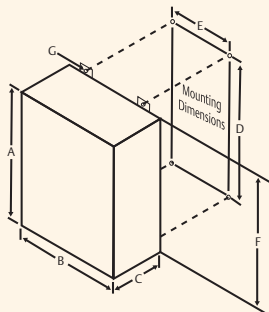


Figure 1

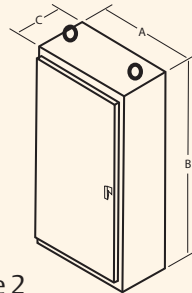


Figure 2

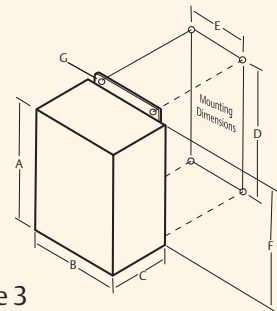


Figure 3

## Series Filters with Transient Voltage Surge Suppression

### 220/380, 220/440, 240/480 VAC Single Phase Dual Voltage — Barrier strips at input & output

| Model     | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|-----------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-2-315  | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 35.0         | 3      |
| BC-2-330  | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-2-350  | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 63.0         | 3      |
| BC-2-3100 | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 85.0         | 1      |
| BC-2-3200 | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 110.0        | 1      |

### 120/208 VAC Three Phase Wye or 208, 240 VAC Three Phase Delta — Barrier strips at input & output

| Model      | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|------------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-3-215   | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-230   | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-250   | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 65.0         | 3      |
| BC-3-2100  | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 90.0         | 1      |
| BC-3-2200  | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 115.0        | 1      |
| BC-3-2400  | 400.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-2600  | 600.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-21000 | 1000.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |
| BC-3-21200 | 1200.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |

### 220/380, 230/400, 240/415 VAC Three Phase Wye or 380, 400, 415 VAC Three Phase Delta — Barrier strips at input & output

| Model      | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|------------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-3-315   | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-330   | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-350   | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 65.0         | 3      |
| BC-3-3100  | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 90.0         | 1      |
| BC-3-3200  | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 115.0        | 1      |
| BC-3-3400  | 400.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-3600  | 600.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-31000 | 1000.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |
| BC-3-31200 | 1200.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |

### 277/480 VAC Three Phase Wye or 440, 480 VAC Three Phase Delta — Barrier strips at input & output

| Model      | Rated Output (Amps) | Case Dimensions (In)<br>A x B x C | Mounting Flange Dimensions (In)<br>D x E x F | MTG (g) | Screw Size | Weight (lbs) | Figure |
|------------|---------------------|-----------------------------------|----------------------------------------------|---------|------------|--------------|--------|
| BC-3-415   | 15.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-430   | 30.0                | 14x12x6                           | 14.75x10.0xN/A                               | .31 (4) | N/A        | 38.0         | 3      |
| BC-3-450   | 50.0                | 16x14x8                           | 16.75x12.0xN/A                               | .31 (4) | N/A        | 65.0         | 3      |
| BC-3-4100  | 100.0               | 20x16x9                           | 21.25x10.0xN/A                               | .44 (4) | N/A        | 90.0         | 1      |
| BC-3-4200  | 200.0               | 24x20x9                           | 25.25x14.0xN/A                               | .44 (4) | N/A        | 115.0        | 1      |
| BC-3-4400  | 400.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-4600  | 600.0               | 80x36x18                          | N/A                                          | N/A     | N/A        | 500.0        | 2      |
| BC-3-41000 | 1000.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |
| BC-3-41200 | 1200.0              | 100x46x28                         | N/A                                          | N/A     | N/A        | 850.0        | 2      |

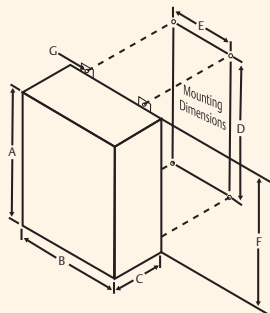


Figure 1

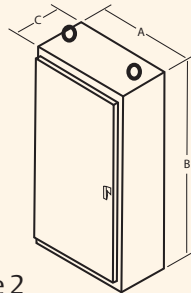


Figure 2

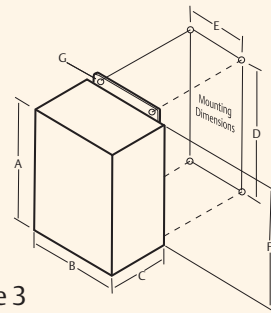


Figure 3



Model shown: RM-115-10 RM

## Islatrol® — RM Series 120 VAC Rackmount

This line of AC surge protectors is ideal for protecting the power feeding valuable rack equipment. All models provide ten protected outlets on the back and two protected convenience outlets on the front. This series provides 40,000 Amps of surge protection and up to 60 dB of high-frequency noise filtering. Status LEDs indicate the correct power is coming to the unit, whether the unit is properly grounded and whether the surge components are still intact. Units are available with an optional digital meter, mounted on the front of the unit, that will monitor the voltage, current and power of the protected equipment.

### Features

- 40 kA surge protection
- 60 dB max noise filtering
- 15 A & 20 A models available
- Power, ground and surge status indicators
- Digital meter
- Optional twist lock plug
- 1 year warranty

### General Technical Specifications

| Part Number | Voltage | Amperage | Plug (NEMA) | Receptacles (NEMA) | Digital Meter | Locking Plug |
|-------------|---------|----------|-------------|--------------------|---------------|--------------|
| RM-115-10RM | 120 V   | 15 A     | 5-15P       | 5-15R              | Yes           | No           |
| RM-120-10RM | 120 V   | 20 A     | 5-20P       | 5-20R              | Yes           | No           |

#### Rackmount AC Power Protection

|                    |                                                                                    |                         |                                                |
|--------------------|------------------------------------------------------------------------------------|-------------------------|------------------------------------------------|
| Rated Voltage      | 120 V                                                                              | Output Receptacles      |                                                |
| Rated Current      | 15 A & 20 A                                                                        | 15 A Models             | Front- (2) NEMA 5-15R<br>Back- (10) NEMA 5-15R |
| Peak Surge Current | 20 kA/mode, 40 kA/phase                                                            | 20 A Models             | Front- (2) NEMA 5-20R<br>Back- (10) NEMA 5-20R |
| Response Time      | <5 ns                                                                              | Thermal Protection      | Thermal Protected MOVs                         |
| EMI/RFI Filtering  | 60 dB Max                                                                          | Over-current Protection | Circuit                                        |
| LED Indicators     | Green-Power On<br>Green-Ground OK<br>Green-Surge Circuit OK                        | Dimensions              | 1.75"H x 19"W x 2.0"D (1U)                     |
| Digital Meter      | Voltage Amps, Watts, VA, Hz, PF, Kwh, and Clock                                    | Warranty                | 1 Year                                         |
| Input Power        |                                                                                    |                         |                                                |
| 15 A Models        | SJT 14/3C Power Cord (15 ft)<br>with NEMA 5-15P Plug                               |                         |                                                |
| 20A Models         | SJT 12/3C Power Cord (15 ft)<br>with NEMA 5-20P Plug<br>NEMA L5-20P Plug- Optional |                         |                                                |



1449

## PowerSure® — IH Series

Modular Surge Protective Device (SPD) capable of handling the high-impulse, potentially damaging transients commonly found at the service entrance or distribution panels. Its robust design allows for placement and protection in the most severe exposure locations.

### Features

- Surge current capacity — 100,000 to 400,000 Amps per phase
- Replaceable modules ensure protected mode flexibility
- All voltage and phase configurations
- Unique MOV/silver link fuse array enables the IH Series to deliver the industry's most robust design; Coordination between fuse gauge and MOV ensures repeatable strike performance
- Status indication includes: audible alarm, form C contact, and internal/external status indication
- Optional equipment includes rotary disconnect, surge counter, NEMA 3R, 4 or 4X enclosures
- 5 year warranty

### Performance Technical Specifications

Part Number PowerSure® IH

#### Clamping

##### UL 1449 Classification\*

##### 120/208

|                   |           |
|-------------------|-----------|
| Line to Neutral   | 500 Volts |
| Line to Line      | 700 Volts |
| Line to Ground    | 500 Volts |
| Neutral to Ground | 400 Volts |

##### 277/480

|                   |             |
|-------------------|-------------|
| Line to Neutral   | 900 Volts   |
| Line to Line      | 1,600 Volts |
| Line to Ground    | 900 Volts   |
| Neutral to Ground | 800 Volts   |

##### 480

|                |             |
|----------------|-------------|
| Line to Line   | 1,800 Volts |
| Line to Ground | 1,800 Volts |

\* UL classifications for other voltages available upon request.

#### Peak Surge Current Capability (8 x 20 $\mu$ s)

##### Model: IHxxxx400

|        |              |
|--------|--------------|
| Phase: | 400,000 Amps |
| L-N:   | 200,000 Amps |
| L-L:   | 200,000 Amps |
| L-G:   | 200,000 Amps |
| N-G:   | 200,000 Amps |

##### Model: IHxxxx200

|        |              |
|--------|--------------|
| Phase: | 200,000 Amps |
| L-N:   | 100,000 Amps |
| L-L:   | 100,000 Amps |
| L-G:   | 100,000 Amps |
| N-G:   | 100,000 Amps |

##### Model: IHxxxx200-2

|        |              |
|--------|--------------|
| Phase: | 200,000 Amps |
| L-N:   | 200,000 Amps |
| L-L:   | 200,000 Amps |
| L-G:   | N/A          |
| N-G:   | 200,000 Amps |

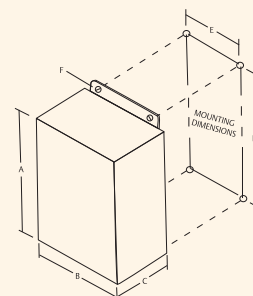
##### Model: IHxxxx100-2

|        |              |
|--------|--------------|
| Phase: | 100,000 Amps |
| L-N:   | 100,000 Amps |
| L-L:   | 100,000 Amps |
| L-G:   | N/A          |
| N-G:   | 100,000 Amp  |

### General Technical Specifications

|                                 |                        |
|---------------------------------|------------------------|
| Operating Voltage Range         | +/- 15%                |
| Fault Current Rating (AIC)      | 200 kAIC               |
| Operating Frequency Range       | 47–63 Hz               |
| Capacity                        | Continuous             |
| 50 $\Omega$ EMI/RFI Attenuation | 50 dB                  |
| Response Time                   | < 0.5 ns               |
| Operating Temperature           | -40°C to +50°C         |
| Operating Humidity              | 0% to 95%              |
| Certifications                  | UL 1449, 1283, CUL, CE |
| Warranty                        | 5 Year                 |

### Dimensional Diagram



| Model       | A  | B  | C | D     | E  | F   |
|-------------|----|----|---|-------|----|-----|
| IHxxxY400   | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxD400   | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxY200-2 | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxD200-2 | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxY200   | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxD200   | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxY100-2 | 16 | 14 | 8 | 16.75 | 12 | .31 |
| IHxxxD100-2 | 16 | 14 | 8 | 16.75 | 12 | .31 |



1449

## PowerSure® — IM Series

A compact Surge Protective Device (SPD) designed to protect electronic equipment and microprocessor-based systems from transients on distribution and sub-distribution panels, or any medium exposure locations.

### Features

- Surge current capacity — 100,000 to 160,000 Amps per phase
- All mode and 2 mode protection option
- Small footprints
- All voltage and phase configurations
- NEMA 12 metal enclosure
- Sand encapsulation
- Form C contact for remote indication, LED status indication, and audible alarm standard
- Thermal protection
- Silver link fusing
- 5 year warranty

### Performance Technical Specifications

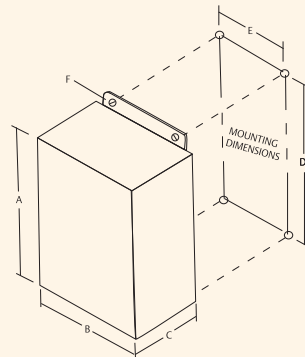
| Part Number              |             | PowerSure® IM |
|--------------------------|-------------|---------------|
| Clamping                 |             |               |
| UL 1449 Classification * |             |               |
| 120/208                  | 100-2       | 160           |
| Line to Neutral          | 400 Volts   | 400 Volts     |
| Line to Line             | 800 Volts   | 700 Volts     |
| Line to Ground           | 800 Volts   | 400 Volts     |
| Neutral to Ground        | 400 Volts   | 400 Volts     |
| 277/480                  | 100-2       | 160           |
| Line to Neutral          | 800 Volts   | 800 Volts     |
| Line to Line             | 1,500 Volts | 2,500 Volts   |
| Line to Ground           | 1,500 Volts | 800 Volts     |
| Neutral to Ground        | 800 Volts   | 800 Volts     |
| 480                      | 100-2       | 160           |
| Line to Line             | 1,500 Volts | 2,500 Volts   |
| Line to Ground           | 800 Volts   | 1,500 Volts   |

\* UL classifications for other voltages available upon request.

### Peak Surge Current Capability (8 x 20 $\mu$ s)

|                          |              |
|--------------------------|--------------|
| <b>Model: IMxxx160</b>   |              |
| Phase:                   | 160,000 Amps |
| L-N:                     | 80,000 Amps  |
| L-L:                     | 80,000 Amps  |
| L-G:                     | 80,000 Amps  |
| N-G:                     | 80,000 Amps  |
| <b>Model: IMxxx100-2</b> |              |
| Phase:                   | 100,000 Amps |
| L-N:                     | 100,000 Amps |
| L-L:                     | 100,000 Amps |
| L-G:                     | N/A          |
| N-G:                     | 100,000 Amps |

### Dimensional Diagram



### General Technical Specifications

|                                 |                     |
|---------------------------------|---------------------|
| Operating Voltage Range         | +/- 15%             |
| Fault Current Rating (AIC)      | 65 kAIC             |
| Operating Frequency Range       | 47–63 Hz            |
| Capacity                        | Continuous          |
| 50 $\Omega$ EMI/RFI Attenuation | 40 dB               |
| Dry Contact Rating              | 125 VAC, 8A, 1.0 pF |
| Response Time                   | < 0.5 ns            |
| Operating Temperature           | -45°C to +50°C      |
| Operating Humidity              | 0% to 95%           |
| Certifications                  | UL 1449, CUL        |
| Warranty                        | 5 Year              |

| Model       | A | B | C | D    | E | F   |
|-------------|---|---|---|------|---|-----|
| IMxxxY160   | 8 | 6 | 4 | 8.75 | 4 | .31 |
| IMxxxD160   | 8 | 6 | 4 | 8.75 | 4 | .31 |
| IMxxxY100-2 | 6 | 4 | 3 | 6.75 | 2 | .31 |
| IMxxxD100-2 | 6 | 4 | 3 | 6.75 | 2 | .31 |



REPOSITIONABLE OUTLETS



## Islatrol® — SP-6TVN Industrial Strength Surge Suppression (Series)

The Islatrol® SP-6TVN is an industrial-strength surge suppression/filtering device that plugs into a standard duplex receptacle. It features uniquely designed repositionable outlets and protects against damaging power disturbances traveling through your wiring into your electrical outlets.

### Features

- Plugs into standard 120 V, 15 Amp electrical outlet
- Total peak surge current capacity of 39,000 Amps
- Cables for telephone, video, and data connectors
- Repositionable outlets rotate to accommodate available space
- Intelligent monitoring against improper wiring/grounding
- 60 dB maximum high frequency
- Operational indicator lamp
- 5 year limited warranty

### General Technical Specifications

#### AC Power Protection

|                                  |                                      |
|----------------------------------|--------------------------------------|
| Part Number                      | Islatrol® – SP-6TVN                  |
| Nominal Operating Voltage        | 120 VAC, Single Phase                |
| Operating Voltage Range          | 120 VAC +/- 10%                      |
| Operating Frequency Range        | 47 – 63 Hz                           |
| Rated Output (Amps)              | 15 Amperes                           |
| ANSI/IEEE C62.41 Category        | Category A & B                       |
| Connection Type                  | (6) 5-15R Receptacles and 5-15P Plug |
| Phase Configuration              | 2 Wire + Gnd                         |
| Size                             | 7.5 x 4.75 x 1.75 (Inches)           |
| Enclosure                        | High Impact Plastic                  |
| Weight                           | 2.0 lbs (0.9 kgs)                    |
| Modes Of Protection              | L – N, L – G, N – G                  |
| Indication of Suppression Status | Status Indicator                     |
| Response Time                    | < .5 ns Normal Mode                  |
| Certifications                   | UL 1449 Listed                       |
| Warranty                         | 5 Year                               |

#### Maximum Continuous Operating Voltage (MCOV)

|                 |         |
|-----------------|---------|
| Line to Neutral | 130 VAC |
|-----------------|---------|

#### Peak Surge Current (8 x 20 μs)

|                   |             |
|-------------------|-------------|
| Line to Neutral   | 13,000 Amps |
| Line to Ground    | 13,000 Amps |
| Neutral to Ground | 13,000 Amps |
| Total             | 39,000 Amps |

#### ANSI/IEEE C62.41 Cat A Ringwave (6 kV, 200 A, 100 KHz) Attenuation

|             |       |
|-------------|-------|
| Normal Mode | 265 V |
| Common Mode | 290 V |

#### ANSI/IEEE C62.41 Cat B Ringwave (6 kV, 500 A, 100 KHz) Attenuation

|             |       |
|-------------|-------|
| Normal Mode | 275 V |
| Common Mode | 290 V |

#### Frequency Response

|             |                                                   |
|-------------|---------------------------------------------------|
| Normal Mode | 60 dB maximum, forward/reverse, 100 KHz to 50 MHz |
| Common Mode | 40 dB maximum, forward/reverse, 5 MHz to 50 MHz   |

#### Low Voltage Protection

|                       | Video 1 & 2           | Phone               | Network            |
|-----------------------|-----------------------|---------------------|--------------------|
| Connection Type       | Type "F"              | Type RJ-11          | Type RJ-45         |
| Cables Provided       | 6' (2x) Type "F" Ends | 6' RJ-11 Male Ends  | 6' RJ-45 Male Ends |
| Peak Surge Current    | 5 kA (8 x 20 μs)      | 2 kA (10 x 1000 μs) | 3 kA (8 x 20 μs)   |
| Capacitance           | <12 pf                | <50 pf              | <70 pf             |
| Protection Level      | L-G                   | T-R, T-G, R-G       | L-G (8 Lines)      |
| Clamping Voltage (DC) | 145 V                 | 270-350 V           | 30 V               |
| Attenuation           | 1 dB @ 2 GHz          | N/A                 | N/A                |



## Edco CAT6-5 POE

### CAT6/CAT5 Power Over Ethernet

The Edco CAT6-5 POE Series is designed to work on Category 5 **Power-Over-Ethernet** transmission lines as well as Category 6 applications. Ideal to protect expensive equipment against surges and transients entering a building on exposed transmission lines. Available in both female to female and male to female RJ-45 connectors.

#### Features

- Exceeds CAT5 & 6 transmission values
- CAT5 POE compatible
- CAT6 compatible
- Applications up to 60 VDC @ 300 mA
- 1 year warranty

#### General Technical Specifications

|                    |                          |
|--------------------|--------------------------|
| Part Number        | Edco CAT6-5 POE          |
| Operating Voltage  | 60 VDC                   |
| Clamping Voltage   | 65 VDC                   |
| Operating Current  | 300 mA                   |
| Peak Surge Current | 60 A (10 x 1000 $\mu$ s) |
| Frequency Range    | 0–250MHz                 |
| Insertion Loss     | < 0.1 dB at 20 MHz       |

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| SPD Technology        | Silicon Avalanche Diode(SAD)                       |
| Connection Type       | RJ-45 Jacks                                        |
| Operating Temperature | -40°C to +85°C                                     |
| Dimensions (Inches)   | 0.8H x 1.0W x 2.3L (FF)<br>0.8H x 1.0W x 3.0L (MF) |
| Weight                | 1 oz                                               |
| Certifications        | ISO 9001:2000                                      |

#### Ordering Information

|            |              |
|------------|--------------|
| RJ-45 (FF) | CAT6-5POE-FF |
| RJ-45 (MF) | CAT6-5POE-MF |



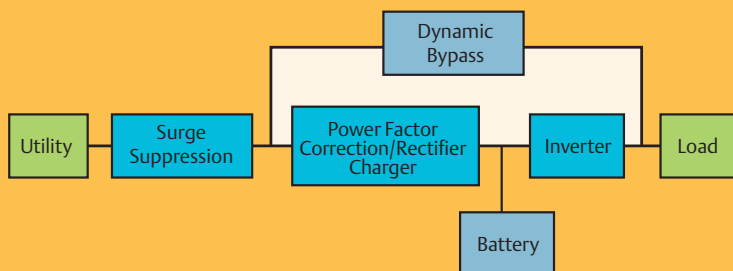
### On-Line UPS *Protection for Essential and Critical Applications*

The Liebert® GXT will transfer the critical load to utility power (bypass mode) in the event of adverse conditions within the UPS. This adds an extra measure of reliability and availability to the supported equipment. No additional cabinets are necessary.

Unlike other UPS technologies, the Liebert GXT handles all of the following potential power problems:

- Power spikes and transients
- EMI/RFI noise
- Voltage sags and brownout conditions
- Harmonics
- Power-factor corrected loads
- Outages
- Frequency variations

The Liebert® GTX is available in 500, 700, 1000, 1500, 2000 and 3000 VA capacities.





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## Emerson Network Power.

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- |                |                      |                              |                                 |
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| ■ Connectivity | ■ Embedded Power     | ■ Power Switching & Controls | ■ Services                      |
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