Generator Installation Problem Solvers
Load Shedding Contactors and Relays From 50-200 Amp Compatable with ANY Generator or Transfer Switch

50-100 Amp Contactor Panels with up to 8 different contactors and flush mount covers for Faster, Easier & Less Expensive Install

Universal contactor modules designed to work with any generator or transfer switch load shedding controller. Custom configured to each installation minimizing the size of the generator needed while meeting the new National Electric Codes.

Available in a variety of enclosures and can be configured with up to 8 individually controlled contactors ranging in combination from 50 to 100 amp loads

Universal Stand-Alone 100 Amp Load Shedding Relays. Automatically Disconnects load when utility is lost and reconnects when restored.

Universal electronically controlled load dropping relays are designed to work with ANY generator or transfer switch in dropping loads up to 100 amps when utility power is lost. The modules can be custom configured to each installation minimizing the size of the generator needed while meeting the new National Electric Codes.

Relays are available in a variety of sizes and can be configured with up to 4 electronically controlled relays ranging from 50 to 100 amp loads. Single 200 amp relay available.

Generator Transfer Switch Surge Protector
Sold Exclusively To The Trade ONLY

Protects Transfer Switch, Generator and Whole House From Damaging Surges.

We have installed over 5000 Back-Up Generators

Experience and know how have allowed us to put together a line of money-making, labor saving products that makes generator installations faster, neater and more profitable.

Every product we sell comes with a full 30 day money back guarantee. If for any reason a product purchased from us fails to work in your application and we can’t resolve the issue, send it back for a no questions asked refund and we pay the shipping both ways.

Our team of experienced experts are available to assist you with any generator installation issues you may encounter.

PSP Products Inc. - 8535 Phoenix Drive, Manassas, VA 20110
www.pspproducts.com - 800-648-6802 Email Sales@PSPProducts.com
Contactor and Relay Types

**Definite Purpose Contactors**

- Designed primarily for inductive loads
- Typically limited to 40 Amp circuits
- Run noisy and hot with 120 volts AC or require step-down transformer
- Limited life expectancy
- Inexpensive and typically used in mass production devices

**Industrial Grade Contactors**

- Designed for both inductive and resistive loads
- Works with 120 or 24 Volts AC coil voltage with out overheating
- Less prone to buzzing, humming and vibrating
- Din Rail Mount for faster and easier installation
- Available from 50 to 200 Amps

**Open Frame Relay**

- Dual contacts provide normally- closed and normally-open contacts
- Virtually silent operation, no heat, humming or buzzing when using normally closed contacts.
- Available in double pole 50 amp capacity

**Magnetic Relays**

- Small foot print typically ¼ the size of a 100 & 200 amp contactors
- Magnetic toggle is virtually silent operation, no heat, humming or buzzing
- Available in 1, 2, 3 or 4 relay models
- Available from 50 to 200 Amps
How Load Shedding Can Help You Sell More Generators

Problem: Customer has a 20KW Budget but wants to light up the entire house. The house has a 400 amp service with two 200 amp panels and a 100 amp sub panel in the addition (opposite end of the house from generator) that contains 60 Amp hot tub circuit.

Obvious Solution but over budget
Install a 60KW generator, 400 amp SER Switch and light the entire house up.

Typical solution offered by most generator dealers
Install a 12KW generator, 16 circuit sub panel and limit the customer to 16 circuits.

Solution Three
Install a 20KW generator, SR Transfer Switch. Load regulate the non essentials at power loss and light up the entire house.
Modular Contactor Panel
50 - 65- 100 Amp Circuits

Characteristics

- UL Listed & IEC-60947
- 50, 65 and 100 Amp contactor modules
- Any combination of 1- 8 contactor modules
- Surface and **Flush Mount** Enclosures
- Heavy duty industrial grade contactors

Modular Load Shedding Contactor Assembly Features

- Universal Load Shedding contactors works with most generator transfer switches with load controllers
- Provides Load Shedding capabilities for up to 8 double pole circuits with 15-100 amp breakers/loads
- Reduces installation time and space requirements and assist in meeting the new NEC codes
- Din rail mounting allows for fast and easy customization for any configuration required
- Available in a variety of enclosure configurations including NEMA 01, NEMA 3R and NEMA 04
- Compact Flush Mount version fits inside of studs and flush cover extends 1” past edge of can on all 4 sides for finished walls.

Allows 200 Amp Service Rated Switch on Smaller Generators to Meet National Electric Code.
50 - 65 - 100 Amp Contactor Specifications

Load Shedding Panels

LSC Series Contactor Specifications

<table>
<thead>
<tr>
<th>Electrical</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UL 508:</td>
<td>50 Amp Relay</td>
<td>65 Amp Relay</td>
<td>100 Amp Relay</td>
</tr>
<tr>
<td>Ith</td>
<td>60 Amps</td>
<td>100 Amps</td>
<td>135 Amps</td>
</tr>
<tr>
<td>Maximum Horse Power At 240 V AC Single Phase</td>
<td>7.5 Horse Power</td>
<td>10 Horse Power</td>
<td>15 Horse Power</td>
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</table>

IEC-60947: | | | |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>AC1 Load</td>
<td>60 Amps</td>
<td>100 Amps</td>
<td>150 Amps</td>
</tr>
<tr>
<td>AC3 Load 200-240 Volts</td>
<td>14KW / 50 Amps</td>
<td>18.5KW / 65 Amps</td>
<td>30KW / 100 Amps</td>
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Wire | | | |
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<thead>
<tr>
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<tr>
<td>Connection Terminal</td>
<td>CU Wire Only</td>
<td>CU Wire Only</td>
<td>CU Wire Only</td>
</tr>
<tr>
<td>Contactor Coil Voltage</td>
<td>Mechanical Lugs</td>
<td>Crimp Lugs</td>
<td>Crimp Lugs</td>
</tr>
<tr>
<td>120 Volts AC</td>
<td>120 Volts AC</td>
<td>120 Volts AC</td>
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<tr>
<td>5Ka RMS Sym 600 V Max</td>
<td>5Ka RMS Sym 600 V Max</td>
<td>10Ka RMS Sym 600 V Max</td>
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</tr>
<tr>
<td>-40°C to +85°C</td>
<td>-40°C to +85°C</td>
<td>-40°C to +85°C</td>
<td></td>
</tr>
<tr>
<td>Din-Rail</td>
<td>Din-Rail</td>
<td>Din-Rail</td>
<td></td>
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<tr>
<td>12 Months</td>
<td>12 Months</td>
<td>12 Months</td>
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Contactor Mounting: | | | |
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<tr>
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</thead>
<tbody>
<tr>
<td>Warranty</td>
<td>12 Months</td>
<td>12 Months</td>
<td>12 Months</td>
</tr>
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</table>

Enclosures and Contactors Wholesale Pricing

Select can size and add contactors as needed

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>NEMA</th>
<th>Mounting</th>
<th>Available Contactors</th>
<th>Maximum Units</th>
<th>Dealer Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>8X8X04</td>
<td>01</td>
<td>Surface/Flush</td>
<td>50 Amp Only</td>
<td>2</td>
<td>$ 35.00</td>
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<tr>
<td>12X12X04</td>
<td>01</td>
<td>Surface/Flush</td>
<td>50 Amp Only</td>
<td>1-4</td>
<td>$ 40.00</td>
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<tr>
<td>20X14X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>50/65/100 Amp</td>
<td>1-8</td>
<td>$ 97.00</td>
</tr>
<tr>
<td>12X08X06</td>
<td>01</td>
<td>Surface Mount</td>
<td>50/65/100 Amp</td>
<td>1-50 &amp; 1-65/100</td>
<td>$ 43.00</td>
</tr>
<tr>
<td>12X12X06</td>
<td>01</td>
<td>Surface Mount</td>
<td>50/65/100 Amp</td>
<td>1-3</td>
<td>$ 45.00</td>
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<tr>
<td>12X08X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>65/100 Amp</td>
<td>1</td>
<td>$ 59.00</td>
</tr>
<tr>
<td>12X12X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>50/65/100 Amp</td>
<td>1-3</td>
<td>$ 59.00</td>
</tr>
<tr>
<td>12X12 &amp; 8X8</td>
<td>01</td>
<td>Flush Mount Lid</td>
<td></td>
<td></td>
<td>$15.00</td>
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</tbody>
</table>

Part Number | Three Pole Contactors with Din-Rail Mounting Receiver | Dealer Cost |
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>VKC1-50</td>
<td>50 Amp 3-Pole Contactor - 110/24 Volts AC Coil</td>
<td>$ 21.00</td>
</tr>
<tr>
<td>VKC1-65</td>
<td>65 Amp 3-Pole Contactor - 110/24 Volts AC Coil</td>
<td>$ 52.00</td>
</tr>
<tr>
<td>VKC1-100</td>
<td>100 Amp 3-Pole Contactor - 110/24 Volts AC Coil</td>
<td>$ 66.00</td>
</tr>
</tbody>
</table>

UL Listed Enclosures with Grounding Bars and Din-Rail
100 & 200 Amp Models

Electronic Load Shedding Panel

Characteristics

- UL 508 & IEC-60947
- Electronically controlled with diagnostic LED
- 1-4 Double Pole Relay Models Available
- 100 and 200 Amp Relay Configuration
- Compact Magnetic Relays
- Surface and Flush Mount Options
- Operates with dry contact or AC Control Voltage

Universal Generator Load Shedding Module Features

- Universal Load Shedding circuitry works with virtually ANY generator or transfer switch
- Provides Load Shedding capabilities for up to 8 double pole circuits with 15-100 amp double pole breakers/loads
- Automatically removes load when utility power is lost and reconnects load when utility power is restored
- Utilizes Magnetic Relays eliminating the normal humming, chattering and heat associated with contactors
- Available in a variety of enclosure configurations including NEMA01, NEMA3R and NEMA04
- Compact Flush Mount version fits inside of studs and flush with sheet rock or finished wall
# Ultra Compact 100 & 200 Amp Electronically Controlled Universal Load Shedding Panel

## LSR Series Specifications

<table>
<thead>
<tr>
<th></th>
<th>100 Amp Relays</th>
<th>200 Amp Relays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Load at 277 Volts</td>
<td>120 Amps</td>
<td>200 Amps</td>
</tr>
<tr>
<td>Maximum Continuous Operating AC Voltage</td>
<td>480 Volts</td>
<td>480 Volts</td>
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<tr>
<td>Insulation resistance</td>
<td>1,000 MΩ (at 500Vdc)</td>
<td>1,000 MΩ (at 500Vdc)</td>
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<tr>
<td>Dielectric strength:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coil to contact</td>
<td>4,000 Vac for 1 min.</td>
<td>4,000 Vac for 1 min.</td>
</tr>
<tr>
<td>Across open contacts</td>
<td>2,500 Vac for 1 min.</td>
<td>2,500 Vac for 1 min.</td>
</tr>
<tr>
<td>Maximum Switching Current</td>
<td>120 Amps</td>
<td>240 Amps</td>
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<tr>
<td>Maximum Switching Power</td>
<td>27,700 VA</td>
<td>55,700 VA</td>
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<tr>
<td>Insulation Resistance</td>
<td>1000 M Ohms</td>
<td>1000 M Ohms</td>
</tr>
<tr>
<td>UL 508:</td>
<td></td>
<td></td>
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<tr>
<td>Itth</td>
<td>160 Amps</td>
<td>240 Amps</td>
</tr>
<tr>
<td>Maximum Horse Power At 240 V AC Single Phase</td>
<td>15 Horse Power</td>
<td>30 Horse Power</td>
</tr>
<tr>
<td>IEC-60947:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC1 Load</td>
<td>150 Amps</td>
<td>300 Amps</td>
</tr>
<tr>
<td>AC3 Load 200-240 Volts</td>
<td>30 KW / 105 Amps</td>
<td>60 KW / 210 Amps</td>
</tr>
<tr>
<td><strong>Mechanical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Terminal</td>
<td>Mechanical Lugs</td>
<td>Mechanical Lugs</td>
</tr>
<tr>
<td>Operation Temperature (°C):</td>
<td>-40°C to +85°C</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Enclosure Type</td>
<td>NEMA 01, 03R, 04</td>
<td>NEMA 01, 03R, 04</td>
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<tr>
<td>Weight:</td>
<td>TBD</td>
<td></td>
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<tr>
<td>Optional Flush Mount Cover Available:</td>
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<td></td>
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</tbody>
</table>

### Confidential Wholesale Pricing

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Dimensions</th>
<th>NEMA</th>
<th>Mounting</th>
<th>Number of Relays</th>
<th>Dealer Cost</th>
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</thead>
<tbody>
<tr>
<td>110DF1208-1-10R</td>
<td>10X10X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>1 - 100 Amp Relay</td>
<td>$ 185.00</td>
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<tr>
<td>110DF1208-2-10R</td>
<td>12X12X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>2 - 100 Amp Relays</td>
<td>$ 235.00</td>
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<tr>
<td>110DF1208-3-10R</td>
<td>12X12X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>3 - 100 Amp Relays</td>
<td>$ 375.00</td>
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<tr>
<td>110DF1208-4-10R</td>
<td>12X12X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>4 - 100 Amp Relays</td>
<td>$ 425.00</td>
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<tr>
<td>P345-13-004-6-10R</td>
<td>20X14X04</td>
<td>01</td>
<td>Flush Mount</td>
<td>6 - 100 Amp Relays</td>
<td>$ 645.00</td>
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<tr>
<td>1300-12086-1-10R</td>
<td>12X08X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>1 - 100 Amp Relay</td>
<td>$ 215.00</td>
</tr>
<tr>
<td>1300-12086-2-10R</td>
<td>12X08X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>2 - 100 Amp Relays</td>
<td>$ 265.00</td>
</tr>
<tr>
<td>1300-12086-3-10R</td>
<td>12X12X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>3 - 100 Amp Relays</td>
<td>$ 395.00</td>
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<tr>
<td>1300-12086-4-10R</td>
<td>12X12X06</td>
<td>3R</td>
<td>Surface Mount</td>
<td>4 - 100 Amp Relays</td>
<td>$ 455.00</td>
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</tbody>
</table>
HHC71F
2 Pole 50 AMP Normally Closed - Normally Open Relay

50 Amp Normally-Closed Relay

- Normally Open/Normally Closed contacts for universal application
- Box Lug termination
- Small Footprint, Standard open frame relay configuration
- UL and CUL Listed to 508 standard
- Available as an individual component or mounted in NEMA 01 or 3R enclosures with grounding bar
- Low profile allows for flush mounting in standard 2 X 4 stud wall
- Available in 120 Volts ac, 24 Volts ac and 12 Volts DC
## Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Pole Configuration:</td>
<td>DPDT Silver Alloy Contacts</td>
</tr>
<tr>
<td>Maximum Switching Voltage:</td>
<td>250 Volts AC / 30 Volts DC</td>
</tr>
<tr>
<td>Maximum Amperage:</td>
<td>50 Amps/250 Volts AC</td>
</tr>
<tr>
<td>Operating Voltage:</td>
<td>80% Rated Voltage</td>
</tr>
<tr>
<td>Maximum Voltage:</td>
<td>110% Rated Voltage</td>
</tr>
<tr>
<td>Contact Resistance:</td>
<td>&lt;100 Meg Ohm</td>
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<tr>
<td>Operate Voltage (25 C):</td>
<td>80% Rated Voltage</td>
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<tr>
<td>Release Voltage (25 C):</td>
<td>30% Rated Voltage</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>-25 C to 55 C</td>
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<tr>
<td>Normal Coil Power:</td>
<td>10 VA</td>
</tr>
<tr>
<td>Dialectic Strength:</td>
<td>2500 VAC / 1 Min Leakage Current 1 ma</td>
</tr>
<tr>
<td>Terminal Connections:</td>
<td>CU Rated Box Lug Terminals</td>
</tr>
<tr>
<td>Coil Connections:</td>
<td>Screw Terminal</td>
</tr>
<tr>
<td>Listings:</td>
<td>UL / CUL</td>
</tr>
</tbody>
</table>

Specifications Subject to Change Without Notice
KC-02 OVERVIEW

- Provides a Universal interface to adapt load shedding controller outputs configured for normally Closed relays to work with any Normally Open Contactor.
- Works with any standard 120 Volt A.C. Contactor.
- Two individual inputs Control two contactors independently.
- Compact foot print only 1.5” X 3.5”
- Din-Rail Mountable
- Reduces wire clutter and simplifies installation.

GC-02 OVERVIEW

- Provides a Universal interface to adapt load shedding controller outputs configured for 120 volt contactor to work with any Normally closed relay.
- Works with any standard 120 Volt normally closed relay.
- Two individual inputs Control two relays independently.
- Compact foot print only 1.5” X 3.5”
- Din-Rail Mountable
- Reduces wire clutter and simplifies installation.
**KC-02 & GC-02 Relay Inverters**

120 Volt AC 16 Amp 2-Channel Relay Inverter

---

**Typical Wiring Diagram KC-02**

**Contactor Function Chart**

- Input #1 Open - Contactor #1 Energized
- Input #1 Closed - Contactor #1 De-Energized
- Input #2 Open - Contactor #2 Energized
- Input #2 Closed - Contactor #2 De-Energized

To Dry Contacts or KOHLER Load Shedding Control Module

**Specifications KC-2 & GC-2**

- Maximum Contactor Coil Amps: 16 Amps @ 120 Volts AC
- Input Voltage: 120 Volts AC
- Rated Coil Power: 400Mw
- Operate Voltage: 86 Volts AC
- Release Voltage: 18 Volts AC
- Wire: Stranded or Solid
- Terminal Wire Size: 12-22 gauge wire
- Strip Length: 5.5 - 7.0 mm
- Operation Temperature (°C): 40°C to +85°C
- Module Mounting: Din-Rail
- Module Size: 3.55" X 1.42" X 2.10"

---

**Typical Wiring Diagram GC-02**

120 Volt Coil Normally Closed

Works with the old and new version boards

See install sheet for various wiring diagrams

**Contactor Function Chart**

- Input #1 120 Vac input - Relay #1 De-energized
- Input #1 De-energized - Relay #1 Energized
- Input #2 120 Vac input - Relay #1 De-energized
- Input #2 De-energized - Relay #1 Energized

To Load Shedding Control Module

**Dimensions KC-2 & GC-2**

- 3.55 in
- 1.429 in
Universal Load Shedding Control Module

4 Circuit Load Management Controller Overview

Utilizes dual CT inputs, not frequency loss for precision control of both small and large generators. Field adjustments include individual current settings for each load, inrush current delay, startup and restore delay, generator full load amps and CT matching adjust for universal installation.

Controller Kit
Includes 4 channel controller, 2 CT’s and 24 volt DC power supply
$279.00

Universal dry contact outputs allows control of any contactor, relay or low voltage control circuit or combination of multiple devices for most any load shedding application.
Programmable Features

Low Cost easy to use LSC-4 allows up to four loads to be controlled independently based on the available power from the generator and the load on each contactor. No laptop or computer required, all adjustments can be performed using the eight buttons on the front panel. Available in single and three phase configurations. Works on any size generator.

Generator Full Load DR02 - Adjust to generators maximum amperage output in whole amps.

DelayShed DR01 - Delay period in seconds from the generator start up until any loads will be reactivated.

Relay #1 Current DR03 - Adjust to maximum amperage output in whole amps for contactor # 1

Relay #2 Current DR04 - Adjust to maximum amperage output in whole amps for contactor # 2

Relay #3 Current DR05 - Adjust to maximum amperage output in whole amps for contactor # 3

Relay #4 Current DR06 - Adjust to maximum amperage output in whole amps for contactor # 4

Actual Generator Current as measured by the controller (Real Time)

Inrush Time DR08 - Adjust controller delay in seconds when restoring/activating loads to allow for inrush preventing premature load shedding

CT Full Current DR09: Calibration adjustment set in amps for CT maximum current rating

Real Time State of contactors
GEN-160-SER Overview

The GEN-160-SER is designed to be the first line of defense against damaging electrical surges and spikes originating from utility power lines. The GEN-160-SER is UL 1449 3rd edition listed and designed for installation at the Utility Entrance side of the generator transfer switch providing robust protection for both the transfer switch and the whole home against damaging electrical surges and spikes.

GEN-160-SER Transfer Switch Protector Features

- UL 1449 3rd edition type 1 listed.
- Flush mount plate option available for finished walls.
- Common mode suppression with 160,000 Surge Amp Capacity
- Thermal fused metal oxide varistor (MOV) suppression technology
- Light-emitting diode (LED) visual indicator for transfer switch protection status
- Type 4 Enclosure suitable for transfer switches installed inside or outdoors.
- Provides whole house surge protection
- Lifetime Warranty with $25,000 down line protection coverage.
GEN-160-SER  Service Entrance Rated
Generator Transfer Switch Surge Protector

**Electrical**

**Model**
- Surge Protection Device (SPD) Type to UL

**Operating AC Voltage**
- 120/240V Single Phase
- 3W+G

**Maximum Continuous Operating AC Voltage (MCOV):**
- Line-Neutral: 140 V
- Line-Ground: 140 V
- Neutral-Ground: 140 V
- Line-Line: 280 V

**Nominal Discharge Current ($I_n$):**
- Line-Neutral: 20 kA
- Line-Ground: 80 kA
- Neutral-Ground: 80 kA
- Line-Line: 100 kA

**Maximum Surge Current Capacity ($I_{max}$):**
- Line-Neutral: 80 kA
- Line-Ground: 80 kA
- Neutral-Ground: 80 kA
- Line-Line: 100 kA

**Fault Current Rating**
- 10kA No Breaker
- 200ka With Breaker

**Voltage Protection Rating (VPR):**
- Line-Neutral: 600 V
- Line-Ground: 1000V
- Neutral-Ground: 600 V
- Line-Line: 1000V

**Suppression Technology**
- MOV

**Listing**
- UL 1449 3rd Edition Type 1

**Mechanical**

**Connection Terminal (Suppression) Hardwired**
- #12 AWG pigtail leads

**Operation Temperature (°C):**
- -40° C to +80° C

**Enclosure Type (Outdoor):**
- Type 4 PVC Plastic

**Enclosure Dimension (L × W × H):**
- 4.0 × 4.0 × 2.45 [294.14 × 130.43 × 62.31mm]

**Weight**
- 2.5 lbs [1.81 kg]

---

**Product Diagram**

- [Diagram of GEN-160-SER Service Entrance Rated Generator Transfer Switch Surge Protector]

- Optional Flush Mount Cover

---

[UL Listed Logo]
GSP-01 OVERVIEW

Overview
Provides 25,000 surge amp of protection per mode for L1 and L2, 120 Volt source line to control board, 12 Volt DC power supply line, generator transfer control line and potential neutral to ground transients. Diagnostic LED indicated all modes of surge protection are functioning.

• Protects Utility Sense L1 & L2
• Protects Utility 120 Volt Charge Circuit
• Protects Neutral Line
• Protects 12 Volt DC Power Supply
• Protects Transfer Signal Control Line
• Diagnostic LED Monitors Protection
**Control Wire Surge Protection**

**GSP-01**

25,000 Per Mode Control Wire Surge Protector

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**Specifications**

T1-120 Volts AC Charge
- MCOV: 150 Volts
- Imax: 25,000 Amps

N1-120 Volt Utility Sense
- MCOV: 150 Volts
- Imax: 25,000 Amps

Neutral to Ground
- MCOV: 150 Volts
- Imax: 25,000 Amps

194 12 Volts DC
- MCOV: 18 Volts DC
- Imax: 25,000 Amps

23 Transfer
- MCOV: 18 Volts DC
- Imax: 25,000 Amps

In. All Modes
- 8/20 ka 1449 3rd Edition: 20,000 Amps
- Wire Terminals: Screw terminals 18~12 AWG

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**Terminal Configuration**

- Connect Ground wire Using Shortest Lead Length Possible
- LED indicates surge protection is Not Required
- Use shortest lead length possible for ground wire

**Din-Rail Mounting Procedure**

1. Control wires out to generator control board
2. Control wires in from transfer switch

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Enclosure Types

4” Deep Surface / Flush Mount NEMA 01 Enclosures

- 8X8X4 NEMA 01
- 12X12X04 NEMA 01
- 20X14X04 NEMA 01

6” Deep Surface Mount NEMA 01 Enclosures

- 12X08X06 NEMA 01
- 12X10X06* NEMA 01
- 12X12X06 NEMA 01

6” Deep Surface Mount NEMA 3R Enclosures

- 12X6X6* NEMA 3R
- 12X8X6* NEMA 3R
- 12X12X06 NEMA 3R

*Denotes Special Order
A.C. Applications

Category AC-1
This category applies to all types of a.c. load with a power factor equal to or greater than 0.95.
Application examples: heating, distribution.

Category AC-2
This category applies to starting, plugging and inching of slip ring motors.
On closing, the contactor makes the starting current, which is about 2.5 times the rated current of the motor.
On opening, it must break the starting current, at a voltage less than or equal to the mains supply voltage.

Category AC-3
This category applies to squirrel cage motors with breaking during normal running of the motor.
On closing, the contactor makes the starting current, which is about 5 to 7 times the rated current of the motor.
On opening, it breaks the rated current drawn by the motor; at this point, the voltage at the contactor terminals is about 20% of the mains supply voltage. Breaking is light.
Application examples: all standard squirrel cage motors: lifts, escalators, conveyor belts, bucket elevators, compressors, pumps, mixers, air conditioning units, etc....

Rated conventional thermal current (Ith)
The current which a closed contactor can sustain for a minimum of 8 hours without its temperature rise exceeding the limits given in the standards.

Rated operational voltage (Ue)
The voltage at which the contactor or starter, and on which the corresponding tests and the utilization category are based. For 3-phase circuits it is expressed as the voltage between phases. Apart from exceptional cases such as rotor short-circuiting, the rated operational voltage Ue is less than or equal to the rated insulation voltage Ui.

Rated control circuit voltage (Uc)
The rated value of the control circuit voltage, on which the operating characteristics are based. For a.c. applications, the values are given for a near sinusoidal wave form (less than 5% total harmonic distortion).

Rated insulation voltage (Ui)
This is the voltage value used to define the insulation characteristics of a device and referred to in dielectric tests determining leakage paths and creepage distances. As the specifications are not identical for all standards, the rated value given for each of them is not necessarily the same.

Rated impulse withstand voltage (Uimp)
The peak value of a voltage surge which the device is able to withstand without breaking down.

Rated operational power (expressed in kW)
The rated power of the standard motor which can be switched by the contactor, at the stated operational voltage.

Rated breaking capacity (2)
This is the current value which the contactor can break in accordance with the breaking conditions specified in the IEC standard.

Rated making capacity (2)
This is the current value which the contactor can make in accordance with the making conditions specified in the IEC standard.

On-load factor (m)
This is the ratio between the time the current flows (t) and the duration of the cycle (T)
m =
Cycle duration: duration of current flow + time at zero current

Pole impedance
The impedance of one pole is the sum of the impedance of all the circuit components between the input terminal and the output terminal.
The impedance comprises a resistive component (R) and an inductive component (X = L / ω). The total impedance therefore depends on the frequency and is normally given for 50 Hz. This average value is given for the pole at its rated operational current.

Electrical durability
This is the average number of on-load operating cycles which the main pole contacts can perform without maintenance. The electrical durability depends on the utilization category, the rated operational current and the rated operational voltage.

Mechanical durability
This is the average number of no-load operating cycles (i.e. with zero current flow through the main poles) which the contactor can perform without mechanical failure.
Current Special

3 - 50 Amp Contactor Panel Assembly

Includes

1 - 12” X 12” x 04” NEMA 01 Steel Powder Coated Enclosure with standard cover and hardware

3 - 50 Amp Contactors with 120 or 24 Volt ac Coils with snap-in Din-Rail mounting receiver

Pre-Installed Din-Rail and grounding bars for fast and hassle free installation.

Optional Flush-Mount Cover available

Only $89.00

PSP Products Inc.
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