EMERGENCY UL924 BYPASS / SHUNT RELAYS

DESCRIPTION
Our UL924 Emergency Bypass/Shunt Relays are designed for applications that require an emergency load to be switched on during a loss of normal power. These economically priced relays are available prepackaged in their own NEMA 1 enclosure or panel versions to be installed inside an existing enclosure.

Models can be ordered with a two position closed/auto override test switch or with a custom two position momentary on/auto override test switch. These switches can be used to verify your emergency load is being switched properly during initial field wiring.

SPECIFICATIONS
See reverse side.

OPERATION
UL 924 Emergency Bypass/Shunt relays will switch a lighting load upon loss of normal power downstream of an emergency transfer switch, bypassing wall switch position (or any lighting control.) This ensures emergency lighting will be on during power loss.

FEATURES
• Multi-coil voltage input
• 10, 15, 20 Amp Contact Ratings
• Two position override test switch available
• Custom two position momentary override test switch available
• NEMA 1 enclosure
• Pre wired and prepackaged for convenience
• Red LED utility power indicator
• Mounts easily through ½” knockout or remotely on flat surfaces
• Bright yellow color for easy identification
• Panel style for use inside control panels
• UL 924 & California State Fire Marshall
• DPDT configurations
• 5 year warranty
• Made in USA
Initial Field Wiring Test Procedure

Models that have override test switches are set in the auto position from the factory. This allows emergency power to be switched to the load. To test field wiring connections at the time of installation, the override test switch should be changed to the “closed” position (illuminating emergency lighting) and then placed back to the “auto” position. The red LED shows the normal utility power is connected correctly.

# SPECIFICATIONS

- **Relays & Contact Type:** One (1) DPDT Continuous Duty Coil
- **Expected Relay Life:** 10 million cycles minimum mechanical
- **Operating Temperature:** -30 to 140° F
- **Operate Time:** 18mS
- **Relay Status:** LED On = Activated
- **Dimensions:** 4.00” x 4.00” x 1.80” with .50” NPT Nipple
- **Wires:** 16”, 600V Rated
- **Approvals:** UL Listed, UL924, C-UL, CE
- **Housing Rating:** Plenum, NEMA 1
- **Gold Flash:** Yes
- **Override (Test Switch):** No

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
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- **Contact Ratings:**
  - 20 Amp Resistive @ 300 Vac
  - 20 Amp Resistive @ 28 Vdc
  - 20 Amp Ballast @ 277-480 Vac
  - 15 Amp Resistive @ 600 Vac
  - 770 VA Pilot Duty @ 120 Vac
  - 1158 VA Pilot Duty @ 240 Vac
  - 1109 VA Pilot Duty @ 277 Vac
  - 1640 VA Pilot Duty @ 480 Vac
  - 2 HP @ 240-277 Vac
  - 1 HP @ 120 Vac

- **Coil Current:** 105 mA @ 120 Vac

- **Coil Voltage Input:**
  - 120 Vac, 50-60 Hz
  - Drop Out = 35 Vac
  - Pull In = 85 Vac

<table>
<thead>
<tr>
<th>STANDARDS SHUNT APPLICATION</th>
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Shunt Relay Applications

Our Emergency Bypass / Shunt Relays are UL924 listed and suitable for shunting around wall switches in order to turn on emergency lighting in the event of loss of normal utility power.

When normal power is present, the ESR relay coil is activated and the emergency panel is fed from normal power. The lighting load can be switched on/off using an individual wall switch.

When normal power drops out, the ESR coil is deactivated and N/C contact falls closed. The automatic transfer switch changes over to backup (generator) power, and the lighting load is illuminated regardless of the position of the wall switch.

(Not a wiring diagram for specific relay above. See wiring diagrams on next page.)
<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Voltage</th>
<th>Contact</th>
<th>Jumper Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESRU1</td>
<td>1/3 HP</td>
<td>120/240</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>1/4 HP</td>
<td>277</td>
<td>N/O</td>
<td></td>
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<tr>
<td>ESRU1</td>
<td>1/6 HP</td>
<td>120/240</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>1/8 HP</td>
<td>277</td>
<td>N/C</td>
<td></td>
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<td>1/8 HP</td>
<td>277</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>3 HP</td>
<td>480/600</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>2 HP</td>
<td>240/277</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>1 HP</td>
<td>120</td>
<td>N/O</td>
<td></td>
</tr>
<tr>
<td>ESRU1</td>
<td>2 HP</td>
<td>240/277</td>
<td>N/C</td>
<td></td>
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<tr>
<td>ESRU1</td>
<td>3 HP</td>
<td>220</td>
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*For supply connections use #14 AWG wires or larger rated for at least 75°C (167°F).*

**For supply connections use #12 AWG wires or larger rated for at least 75°C (167°F).**

(1) Standard model has N/C contact configuration. If -NC present, N/O contact configuration. If -NC not present, refer to label on -MNC & -N/O models for wiring.