Super Duty Power Pack Line
High performance line includes models for daylight harvesting, bi-level switching, plug load control, CA Title 24, occupancy sensing control and manual switching

DEFINITION
The OPP20 is the latest addition to the Leviton Power Pack family, delivering a wide array of switching solutions in a single unit. Submitted for stringent testing, this robust power pack line is designed to deliver unmatched performance. The OPP20 line features robust and reliable mechanical latching relays, exclusive fail-safe circuitry, daylight harvesting, bi-level switching and is configurable for energy code requirements (CA Title 24, ASHRAE 90.1, NYC LL48). Exclusive Leviton High Inrush Stability (H.I.S.) circuitry is specifically designed to handle high inrush electronic ballast loads and offer unmatched durability and service.

APPLICATIONS
- Daylight harvesting
- Bi-level switching
- Plug load control
- Meets energy code requirements for CA Title 24
- Auto-ON/auto-OFF with local switch
- Manual-ON/auto-OFF with local switch

OPP20 SOFTWARE FEATURES
- Fail-safe circuitry/return-to-closed capability

OPP20-OD2
- Exclusive patented self-detect configurable local switch input - momentary or maintained
- Configurable for auto-ON and manual-ON occupancy sensor inputs
- Meets energy code requirements for CA Title 24

OPP20-RD3
- Auto-ON occupancy sensor input
- Photocell ready

OPP20-RD4
- Exclusive patented self-detect configurable local switch input - momentary or maintained
- Configurable for auto-ON and manual-ON occupancy sensor inputs
- Photocell ready
- Meets energy code requirements for CA Title 24

OPP20 HARDWARE FEATURES
- Robust and reliable mechanically held latching relay provides dependability and robust performance for all load types and provides power savings over electrically held relay power packs
- Industry exclusive fail-safe circuitry - in the event of product failure, return-to-closed capability causes relay to default to a closed position (ON) for safe operation and alleviates life safety concerns
- Industry exclusive H.I.S. circuit designed to handle high inrush electronic ballast loads
  - Factory calibrated zero crossing for extended life of the relay
- Submitted and passed for stringent testing:
  - Tested over 1,500,000 loaded cycles
  - Passed NEMA 410 testing for Electronic Ballast Inrush Current
  - UL/cUL 916 listed for Energy Management Equipment
- Power supply output short circuit protection
- Voltage regulated at 24VDC, 225mA
- Optimal installation flexibility
  - Class 2 wires are Teflon coated for UL2043 Plenum Rated applications
  - Mounts inside or outside fluorescent ballast cavity
  - Mounts inside or outside junction box
- RoHS compliant
**APPLICATION DIAGRAMS**

**Photocell ONLY Room Control**

```
+-----------------+     +-----------------+
| OPP20-RD3       |     | OPP20-RD3        |
|                 |     |                 |
+-----------------+     +-----------------+
```

*NOTE:* Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Manual ON/Auto OFF with Local Switch**

```
+-----------------+     +-----------------+
| OPP20-0D2       |     | OPP20-RD4        |
|                 |     |                 |
+-----------------+     +-----------------+
```

*NOTE:* Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Photocell and Occupancy Sensor Room Control**

```
+-----------------+     +-----------------+
| OPP20-RD3       |     | OPP20-RD3        |
|                 |     |                 |
+-----------------+     +-----------------+
```

*NOTE:* Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Photocell and Occupancy Sensor with Local Switch**

```
+-----------------+     +-----------------+
| OPP20-RD4       |     | OPP20-RD4        |
|                 |     |                 |
+-----------------+     +-----------------+
```

*NOTE:* Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Multiple Occupancy Sensors Exceeding the Power Pack’s Rating**

```
+-----------------+     +-----------------+
| All Models      |     | All Models       |
|                 |     |                 |
+-----------------+     +-----------------+
```

**Multiple Loads Exceeding a Single Power Pack’s Load Rating**

```
+-----------------+     +-----------------+
| All Models      |     | All Models       |
|                 |     |                 |
+-----------------+     +-----------------+
```

*NOTE:* Power Pack and the load switched by the power pack MUST be fed from the same phase.
Power Pack and the load switched by the power pack MUST be fed from the same phase.

For additional wiring diagrams, see the Occupancy Sensors Application Cookbook at www.leviton.com/lesdrawings.
# PRODUCT DATA

## SPECIFICATIONS

### ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Operating Temperature Range</th>
<th>32 to 122°F (0 to 50°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Humidity</td>
<td>0 to 90% non-condensing, for indoor use only</td>
</tr>
</tbody>
</table>

### OTHER

<table>
<thead>
<tr>
<th>Construction</th>
<th>Case: high impact, UL rated plastic Relay: 60A rated magnetic latching relay; silver alloy contacts Wire: 6&quot; leads, 18AWG input; 14AWG load; LV connections: 8&quot; leads 22AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>2.40”H x 3.81”W x 1.43”D (60.96mm x 96.80mm x 36.37mm)</td>
</tr>
<tr>
<td>Listings</td>
<td>UL/cUL Listed, FCC Certified, NOM Certified, meets energy code requirements for ASHRAE 90.1 2015 and CA Title 24, RoHS Compliant</td>
</tr>
<tr>
<td>Color</td>
<td>Gray</td>
</tr>
<tr>
<td>Warranty</td>
<td>Limited five-year warranty</td>
</tr>
</tbody>
</table>

## ORDERING INFORMATION*

### DESCRIPTION

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CAT. NO.</th>
<th>POWER INPUT</th>
<th>RELAY RATING</th>
<th>CONTROL INPUTS</th>
<th>POWER SUPPLY OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Back, Basic with Auto-ON</td>
<td>OPP20-0D1</td>
<td>120-230-277VAC, 50/60 Hz</td>
<td>20A, 2400W @ 120V – Resistive 20A, 2400W @ 120V – General Purpose 20A, 2400W @ 120V – Incandescent 20A, 2400W @ 120V – Fluorescent 16A, 1920VA @ 120V – Electronic Ballasts 16A, 1920W @ 120V – LED 20A, 5540VA @ 277V – Resistive 20A, 5540W @ 277V – General Purpose 20A, 5540VA @ 277V – Fluorescent 16A, 4430VA @ 277V – Electronic Ballasts 16A, 4430W @ 277V – LED 1/2 HP @ 120V – Motor Load 2 HP @ 240/277V – Motor Load</td>
<td>2mA, 24VDC</td>
<td>225mA, 24VDC, 5.4W</td>
</tr>
<tr>
<td>Power pack with auto-ON, manual-ON, and local switch inputs, Title 24</td>
<td>OPP20-0D2</td>
<td>120-230-277VAC, 50/60 Hz</td>
<td>2mA, 24VDC, 5.4W</td>
<td>225mA, 24VDC, 5.4W</td>
<td></td>
</tr>
<tr>
<td>Power pack with auto-ON and photocell input</td>
<td>OPP20-RD3</td>
<td>120-230-277VAC, 50/60 Hz</td>
<td>2mA, 24VDC, 5.4W</td>
<td>225mA, 24VDC, 5.4W</td>
<td></td>
</tr>
<tr>
<td>Power pack with auto-ON, manual-ON, local switch, and photocell input, Title 24</td>
<td>OPP20-RD4</td>
<td>120-230-277VAC, 50/60 Hz</td>
<td>2mA, 24VDC, 5.4W</td>
<td>225mA, 24VDC, 5.4W</td>
<td></td>
</tr>
</tbody>
</table>

For CE Compliant Lighting Control Module, see the OPPCE data sheet.

## POWER PACK CAPACITY FORMULA

Leviton power packs can be used to provide power to one or more occupancy sensors. Since current consumptions of occupancy sensors may vary, the best way to ensure you order the correct number of power packs and add-a-relays is by using this formula:

\[
\text{Power pack capacity} = \left( \sum_{i=1}^{n} \left( \frac{\text{Model A current consumption}}{\text{Model A current consumption}} \times \text{Model A quantity} \right) \right) + \left( \sum_{i=1}^{m} \left( \frac{\text{Model B current consumption}}{\text{Model B current consumption}} \times \text{Model B quantity} \right) \right) + \left( \sum_{i=1}^{p} \left( \frac{\text{Add-a-relay current consumption}}{50mA} \times \text{Add-a-relay quantity} \right) \right)
\]

Power supply output per below chart

### DESCRIPTION

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CURRENT CONSUMPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSC04-I, OSC15-I, OWSHB-I, OWSLR-I, OSWWV-I</td>
<td>10-15mA</td>
</tr>
<tr>
<td>OSC05-M, OSC05-U, OWS12-M</td>
<td>25mA</td>
</tr>
<tr>
<td>OSC10-M, OSC10-U</td>
<td>35mA</td>
</tr>
<tr>
<td>OSC20-M, OSC20-U</td>
<td>30mA</td>
</tr>
<tr>
<td>OSA20-R Add-a-Relay</td>
<td>50mA</td>
</tr>
<tr>
<td>ODCOP-50W Switching Photocell</td>
<td>10mA</td>
</tr>
<tr>
<td>ODCOP-DOW Dimming Photocell</td>
<td>10mA</td>
</tr>
</tbody>
</table>

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