Dimmable LED Drivers

SMALL | SMART | EFFICIENT™

Revision: February 2017
Our Target Markets

- Indoor Residential and Commercial lighting
- Outdoor street and area lighting
- Office lighting
- Warehouses, manufacturing facilities, and Large retail store application
- Parking garages
- Architectural lighting
- Display / Signage
- Stage Lighting (entertainment, concert)
About ERP

ERP designs and manufactures energy-efficient LED drivers/power supplies for a wide range of lighting applications: from residential to commercial, industrial, outdoor, office buildings, architectural and stage lighting. Small, yet powerful, ERP products deliver an industry-leading combination of compact size, extensive dimmer compatibility, and high efficiency at competitive cost. Headquartered in Moorpark, CA, ERP owns and operates its own ISO 9001 certified manufacturing facility to ensure quality of design, sourcing, production and testing.

- Industry leader in high-efficiency (high-power-saving) & high-density (small footprint) LED drivers/power supplies
- Product offerings include standard and custom solutions for LED Lighting
- U.S.A. Headquarters in Moorpark, California, with sales/marketing, R&D, and technical support to serve the North-American market
- China Operations Center in Zhuhai include document center, QA, R&D, manufacturing, and sales / technical support to serve China and Asia

Our Presence
ERP Manufacturing

ERP products are manufactured in our wholly owned manufacturing facility in Zhuhai, China. The factory is configured with high-speed production lines for LED drivers and high-density power supplies, as well as state of the art burn-in chambers and automated test equipment. Strategic manufacturing partners provide significant upside capabilities. ERP products go through 100% burn-in to eliminate “infant mortality” failures. ISO 9001:2008 certified, with regular audits by safety agencies.

ERP Quality

Quality Management Systems (QMS)

- Design Qualification Assurance
  - Reliability testing
  - 4-stage development process
  - Component qualification (Derating, MTBF, Thermal testing)
  - Production auditing

- Supplier Quality Assurance / Incoming Quality Control
- Customer returns

Standard Certifications

ERP products are designed and manufactured to comply with worldwide international IEC standards for lighting applications, and carry certifications by safety agencies such as UL, CSA and Nemko.

ERP products also comply with EMC regulations from Europe, and FCC/ICES in North America.
Best-In-Class Dimming

About Dimming

Phase-cut dimmers represent the bulk of the dimmers on the market. They employ a technique which works by “cutting off” or chopping part of the AC line voltage to vary the RMS voltage supplied to the dimmer load. There are two types of phase-cut dimmers: forward-phase (TRIAC or leading-edge) and reverse-phase (ELV or trailing-edge).

Another popular dimming method is the 0-10V control. Basically, a 0-10V control applies a voltage between 0 and 10 volts DC to produce a varying intensity level, delivering 1% to 100% of the output current. There are actually two 0-10V standards: a theatrical dimming standard (current source) and a dimming light ballast standard (current sink). Developed in the 1980’s, the 0-10V sinking current control method was adopted by the International Electrotechnical Commission (IEC) as part of its IEC Standard 60929 Annex E. ERP LED drivers operate only with 0-10V dimmers that sink current.

Tri-Mode Dimming™

The ESS, ESP, ESM, EVM, EVB and SLM series of LED drivers are compatible with Tri-Mode Dimming™ from 6 W up to 160 W, i.e. they are compatible with forward-phase (TRIAC or leading-edge), reverse-phase (ELV or trailing-edge) and 0-10 V dimmers.

Broad Dimming Compatibility

ERP LED drivers deliver an extensive dimmer compatibility. For each LED driver, a dimming compatibility matrix is available upon request, showing how the LED driver scores against a long list of dimmers according to several criteria such as: flicker, shimmer, smooth dimming, no flash at startup, etc…
LED Cross-Reference

ERP has developed an extensive cross-reference for 12 different LED manufacturers. This cross-reference can be directly accessed from the ERP website at www.erp-power.com. On the homepage, using the pull-down menus, select the LED manufacturer and then the LED. You may also select your desired drive current. The cross-reference tool will return a list of driver(s) that are the most relevant for your LED selection. You can also access the cross-reference by clicking on LED GUIDE at the top of the homepage. The LED guide lists the 12 LED manufacturers whose LEDs have been cross referenced to some of our LED drivers.

<table>
<thead>
<tr>
<th>bridgeLux</th>
<th>CITIZEN</th>
<th>CREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE</td>
<td>LG Innotek</td>
<td>Luminus</td>
</tr>
<tr>
<td>Nichia</td>
<td>Philips Lumileds</td>
<td>Samsung</td>
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<tr>
<td>Seoul</td>
<td>Sharp</td>
<td>Xicato</td>
</tr>
</tbody>
</table>
ERP Constant Current LED Driver Portfolio

Below is a graph that illustrates our portfolio of constant current LED drivers. The color coded drivers >85% efficiency are represented in this brochure and include page number references, while the drivers in the grey are <85% and are not part of this brochure.

Efficiency (%)

- 93%
- 90%
- 85%
- 80%

Output Power (W)

6 10 15 20 30 40 50 60 70 80 90 120 140 160 260

Dimming Types:

- Phase-Cut Dimming
  - Forward-Phase = Leading-Edge, aka TRIAC
  - Reverse-Phase = Trailing-Edge, aka ELV
- 0-10V Dimming

Use EBR for new designs

Use ESS for new designs

Use EMM for new designs

Use ESM for new designs

Use ESP for new designs

Use ESPT for new designs

Use EBT for new designs

Use ETC for new designs

Use ETP for new designs

Use EVM for new designs
EBR SERIES  6 W - 21 W

Constant Current LED Drivers with Deep TRIAC and ELV Dimming (1% to 100%) and with Fast Startup Time

Features

• Compatible with industry standard TRIAC (forward-phase or leading-edge), and ELV (reverse-phase or trailing-edge) phase-cut dimmers

• Lifetime: 50,000 hours at 70°C case temperature

• Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery

• Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B at 120 Vac and EN55015 (CISPR 15) at 220 to 240 Vac

• Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements

• IP20-rated case with silicone-based potting

• 94V-0 flammability rating (5VA available upon request)

• 90°C maximum case temperature

• Class 2 power supply

Applications

• Recessed lighting (downlights)

• Commercial & Residential lighting

• Architectural lighting

Typical Application Diagram

Nominal Input Voltage | Max. Output Power | Output Voltage | Output Current | Efficiency | Max. Case Temperature | THD | Power Factor | Dimming Method | Dimming Range | Startup Time |
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>120 Vac, 220 - 240 Vac</td>
<td>21 W</td>
<td>16 to 42 Vdc</td>
<td>200 to 700 mA</td>
<td>up to 87%</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase</td>
<td>1 to 100% (% of Iout)</td>
<td>150 ms typical</td>
</tr>
</tbody>
</table>

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
ERP SERIES 10 W - 40 W
High Power Density Constant Current
LED Drivers with 0-10 V Dimming

**Features**

**NOT RECOMMENDED FOR NEW DESIGNS. FOR NEW DESIGNS, USE THE ESS SERIES.**

- High power density of 8.5 W/in³
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC part 15 Class B (120 Vac) Class A (277 Vac) and EN55015 (CISPR 15) at 220 to 240 Vac
- Complies with ENERGY STAR® luminaire specification
- IP64-rated case with silicone-based potting
- Lifetime: 50,000 hours at 70°C case temperature
- 90°C maximum case temperature
- Class 2 power supply

**Typical Application Diagram**

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com

**Applications**

- Commercial lighting
- Residential lighting
- Architectural lighting
- Tunnels and street lighting
- Wide-area downlights

**Nominal Input Voltage**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>40 W</td>
<td>16 to 54.5 Vdc</td>
<td>350 to 1400 mA Current</td>
<td>up to 90% typical</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>0-10 V</td>
<td>10 to 100%</td>
</tr>
</tbody>
</table>

**ERP Part Number**

<table>
<thead>
<tr>
<th>ERP Part Number</th>
<th>Nominal Input Voltage (Vac)</th>
<th>Iout (mA)</th>
<th>Max. Output Power (W)</th>
<th>Output Voltage Range (Vdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERP020W-0350-28</td>
<td>120 to 277</td>
<td>350</td>
<td>9.8</td>
<td>21</td>
</tr>
<tr>
<td>ERP020W-0450-42</td>
<td>120 to 277</td>
<td>450</td>
<td>18.9</td>
<td>31.5</td>
</tr>
<tr>
<td>ERP020W-0720-24.5</td>
<td>120 to 277</td>
<td>720</td>
<td>17.6</td>
<td>18</td>
</tr>
<tr>
<td>ERP030W-21 to 30 W</td>
<td>21 to 30 W</td>
<td>700</td>
<td>22.4</td>
<td>22.5</td>
</tr>
<tr>
<td>ERP030W-0700-32</td>
<td>120 to 277</td>
<td>700</td>
<td>27.0</td>
<td>29</td>
</tr>
<tr>
<td>ERP030W-0700-38.5</td>
<td>120 to 277</td>
<td>700</td>
<td>27.0</td>
<td>29</td>
</tr>
<tr>
<td>ERP040W-31 to 40 W</td>
<td>31 to 40 W</td>
<td>900</td>
<td>37.8</td>
<td>31.5</td>
</tr>
<tr>
<td>ERP040W-1050-38</td>
<td>120 to 277</td>
<td>1050</td>
<td>39.9</td>
<td>38.5</td>
</tr>
</tbody>
</table>

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
**Features**

- Very high power density in the market: 8.2 W/in³
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: FCC CFR Title 47 Part 15 compliant with Class B at 120 Vac and Class A at 277 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP64-rated case with silicone-based potting
- Lifetime: 50,000 hours at 70°C case temperature
- 90°C maximum case temperature
- Class 2 power supply

**Applications**

- High Bay Lights
- Troffers
- Outdoor LED Lighting
- Office LED Lighting
- Industrial LED Lighting
- High current COB LEDs

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**Typical Application Diagram**

**Nominal Input Voltage** | **Max. Output Power** | **Output Voltage** | **Output Current** | **Efficiency** | **Max. Case Temperature** | **THD** | **Power Factor** | **Dimming Method** | **Dimming Range**
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
120 & 277 Vac | 70 W | 21 to 82 Vdc | 700 to 2100 mA | up to 90% typical | 90°C (measured at hot spot) | < 20% | > 0.9 | 0-10 V | 10 to 100%

**ERP Part Number** | **Nominal Input Voltage (Vac)** | **Iout (mA)** | **Max. Output Power (W)** | **Output Voltage Range (Vdc)** | **min.** | **max.**
--- | --- | --- | --- | --- | --- | ---
ERM050W-4050-42 | 120 & 277 | 1050 | 44.1 | 32 | 42
ERM050W-1200-42 | 120 & 277 | 1200 | 50.4 | 32 | 42
ERM050W-1800-28 | 120 & 277 | 1800 | 50.4 | 21 | 28
ERM060W-5700-82 | 120 & 277 | 700 | 57.4 | 62 | 82
ERM060W-1400-42 | 120 & 277 | 1400 | 58.8 | 32 | 42
ERM060W-1500-60 | 120 & 277 | 1500 | 67.2 | 32 | 42
ERM060W-1750-40 | 120 & 277 | 1750 | 70 | 30 | 40
ERM060W-2100-28 | 120 & 277 | 2100 | 58.8 | 21 | 28

1. Not Class 2

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
Features

- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- TRIAC and ELV dimming only at 120 Vac
- Linear 0-10 V dimming transfer function: 10V=100%, 1V=10%, 0.1V=1%
- Lifetime: 50,000 hours at 70°C case temperature
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220 to 240 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP20-rated Bottom Leads with Studs metal case with silicone-based potting
- 90°C maximum case temperature
- Class 2 power supply

Applications

- Recessed downlights
- Commercial lighting
- Residential lighting
- Architectural lighting

TPM SERIES (TRIAC, ELV & 0-10 V) Constant Current LED Drivers with Fast Startup Time

Typical Application Diagram
Typical Application Diagram

**Features**

- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- ESSxxxW: TRIAC and ELV dimming only at 120 Vac.
- ESSxxxE: TRIAC and ELV dimming only at 230 Vac.
- Linear 0-10 V dimming transfer function: 10V=100%, 1V=10%, 0.1V=1% lifetime: 50,000 hours at 70°C case temperature
- Protections: output open load, over-current and short-circuit (hiccups), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220 to 240 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP64-rated case with silicone-based potting
- 90°C maximum case temperature
- Class 2 power supply
ESSV SERIES  6 W - 40 W

Tri-Mode Dimming™ (TRIAC, ELV & 0-10 V) Constant Current LED Drivers with 10-Year Lifetime

Features

• Same features as ESS series but with 10-year lifetime at 70°C case hot spot temperature
• 90°C maximum case temperature
• UL Class P
• IP64-rated case with silicone-based potting with 5 VA flammability rating
• Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
• TRIAC and ELV dimming only at 120 Vac.
• Protocols: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
• Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220 to 240 Vac
• Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
• Class 2 power supply

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>40 W</td>
<td>14 to 42 Vdc</td>
<td>up to 87%</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0-10 V</td>
<td>1 to 100% (% of Iout)</td>
<td>300 ms typical</td>
</tr>
</tbody>
</table>

Typical Application Diagram

Applications

• Commercial lighting  • Residential lighting  • Architectural lighting  • Wide-area downlights

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
**Features**

**NOT RECOMMENDED FOR NEW DESIGNS. FOR NEW DESIGNS, USE THE ESPT SERIES.**

- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- ESPxxxW: TRIAC and ELV dimming only at 120 Vac.
- ESPxxxE: TRIAC and ELV dimming only at 230 Vac.
- Lifetime: 50,000 hours at 70°C case temperature
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP64-rated case with silicone-based potting
- 90°C maximum case hot spot temperature
- Class 2 power supply

**Applications**

- Recessed lighting (down lights)
- Commercial & Residential lighting
- Architectural lighting

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**Typical Application Diagram**

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**Nominal Input Voltage**

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>40 W</td>
<td>21 to 56 Vdc</td>
<td>700 to 1400 mA</td>
<td>up to 87%</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0-10 V</td>
<td>1 to 100% (% of Iout)</td>
<td>300 ms typical</td>
</tr>
</tbody>
</table>

**ERP Part Number**

<table>
<thead>
<tr>
<th>ERP Part Number</th>
<th>Nominal Input Voltage (Vac)</th>
<th>Iout (mA)</th>
<th>Max. Output Power (W)</th>
<th>Output Voltage Range (Vdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESP040W-0700-56</td>
<td>120 to 277</td>
<td>700</td>
<td>39.2</td>
<td>40 to 56</td>
</tr>
<tr>
<td>ESP040W-0800-42</td>
<td>120 to 277</td>
<td>800</td>
<td>33.6</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040W-0850-42</td>
<td>120 to 277</td>
<td>850</td>
<td>35.7</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040W-0900-42</td>
<td>120 to 277</td>
<td>900</td>
<td>37.8</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040W-0940-33</td>
<td>120 to 277</td>
<td>940</td>
<td>31.0</td>
<td>28 to 33</td>
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<tr>
<td>ESP040W-0940-43</td>
<td>120 to 277</td>
<td>940</td>
<td>40.4</td>
<td>35 to 43</td>
</tr>
<tr>
<td>ESP050W-1050-42</td>
<td>120 to 277</td>
<td>1050</td>
<td>44.1</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP050W-1200-42</td>
<td>120 to 277</td>
<td>1200</td>
<td>50.4</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP050W-1400-32</td>
<td>120 to 277</td>
<td>1400</td>
<td>44.8</td>
<td>21 to 32</td>
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<tr>
<td>ESP050W-1400-34</td>
<td>120 to 277</td>
<td>1400</td>
<td>47.6</td>
<td>23 to 34</td>
</tr>
<tr>
<td>ESP060W-1400-42</td>
<td>120 to 277</td>
<td>1400</td>
<td>58.8</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040E-0800-42</td>
<td>220 to 240</td>
<td>800</td>
<td>33.6</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040E-0850-42</td>
<td>220 to 240</td>
<td>850</td>
<td>35.7</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP040E-0900-42</td>
<td>220 to 240</td>
<td>900</td>
<td>37.8</td>
<td>28 to 42</td>
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<tr>
<td>ESP050E-1050-42</td>
<td>220 to 240</td>
<td>1050</td>
<td>44.1</td>
<td>28 to 42</td>
</tr>
<tr>
<td>ESP050E-1200-42</td>
<td>220 to 240</td>
<td>1200</td>
<td>50.4</td>
<td>28 to 42</td>
</tr>
</tbody>
</table>

1. The ESP040W-0940-33-SS-F1 is specifically intended to drive the Cree LMI®2 3000 sunset module and exhibits a customized 0-10V dimming transfer function. It will not work with any other LED or LED string.

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
ESPT SERIES  30 W - 60 W

Tri-Mode Dimming™ (TRIAC, ELV & 0-10 V) Constant Current LED Drivers with Fast Startup Time

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>40 W</td>
<td>21 to 56 Vdc</td>
<td>700 to 1400 mA</td>
<td>up to 87%</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0-10 V</td>
<td>1 to 100% (% of Iout)</td>
<td>300 ms typical</td>
</tr>
</tbody>
</table>

Features

• Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
• ESPTxxxW: TRIAC and ELV dimming only at 120 Vac.
• ESPTxxxE: TRIAC and ELV dimming only at 230 Vac.
• Linear 0-10 V dimming transfer function: 10V=100%, 1V=10%, 0.1V=1%
• Lifetime: 50,000 hours at 70°C case temperature
• Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
• Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac
• Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
• IP64-rated case with silicone-based potting
• 90°C maximum case temperature
• Class 2 power supply

Applications

• Recessed lighting (down lights)
• Commercial & Residential lighting
• Architectural lighting

Typical Application Diagram

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
**Features**

- Same features as ESP series but with 10-year lifetime at 70°C case hot spot temperature
- 90°C maximum case temperature
- Non-linear 0-10V dimming profile: 10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off
- Dims to off
- UL Class P
- IP64-rated case with silicone-based potting with 5VA flammability rating
- Compatible with TRIAC (forward-phase or leading-edge), ELV(reverse-phase or trailing-edge) and 0-10V dimmers
- TRIAC and ELV dimming only at 120 Vac
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- Class 2 power supply

---

**Typical Application Diagram**

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**Applications**

- Commercial lighting
- Residential lighting
- Troffers
- Architectural lighting
- Wide-area downlights
EVM SERIES  60 W - 120 W
Tri-Mode Dimming™ (TRIAC, ELV & 0-10 V) Constant Current
LED Drivers with Deep Dimming

Features

• Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers

• TRIAC and ELV dimming only at 120 Vac

• Outdoor surge protection: 3 kV line to line/6 kV line to earth

• Linear 0-10 V dimming transfer function: 10V=100%, 1V=10%, 0.1V=1%

• Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery

• Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 VAC)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac

• Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements

• IP20-rated Bottom Leads with Studs metal case with silicone-based potting

• Optional IP64 metal case with side leads

• Lifetime: 50,000 hours at 70°C case temperature

• 90°C maximum case temperature

• Class 2 power supply (only some models)

Applications

• High Bay Lights  • Industrial LED Lighting  • Metal Halide replacement

• Tunnels and street lighting  • Outdoor LED Lighting

• Wide-area downlights

• Suitable for driving high current COB LEDs such as Cree’s CXA3050/3070/2590/3590, Bridgelux® Vero series and modules such as Cree’s LMH2 6000/8000

---

EVM Series + DIM

Dimmer - DIM

- LEDs

+ DIM

0-10 V DIMMER

---

Typical Application Diagram

---

Nominal Input Voltage Max. Output Power Output Voltage Output Current Efficiency Max. Case Temperature THD Power Factor Dimming Method Dimming Range Startup Time

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVM060W: up to 60 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TRIAC, ELV, 0-10 V</td>
<td>1 to 100% (% of Iout)</td>
<td>400 ms typical</td>
</tr>
</tbody>
</table>

---

1. The EVMxxxW-xxxx-42-Z1B exhibits a non-linear 0-10V Dimming Profile (10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off).

2. Not Class 2.

3. The EVM090W-1700-48-N1B is specifically intended to drive the Cree LMH2 6000 module and exhibits a customized 0-10V dimming transfer function.

4. The EVM110W-2000-52-N1B is specifically intended to drive the Cree LMH2 8000 module and exhibits a customized 0-10V dimming transfer function.

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
**Features**

- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- TRIAC and ELV dimming only at 120 Vac
- Outdoor surge protection: 3 kV line to line/6 kV line to earth
- Linear 0-10 V dimming transfer function: 10V=100%, 1V=10%, 0.1V=1%
- Can also be offered with two and three channels
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP66-rated case with silicone-based potting
- Lifetime: 50,000 hours at 70°C case temperature
- 90°C maximum case temperature
- Class 2 power supply (some models only)

### Nominal Input Voltage

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage Range (Vdc)</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>120 W</td>
<td>30 to 42 V</td>
<td>1800 to 2300 mA</td>
<td>up to 87% typical</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0-10 V</td>
<td>1 to 100% (% of Iout)</td>
<td>400 ms typical</td>
</tr>
</tbody>
</table>

**EVB Series 70 W - 120 W**

Constant Current, Single/Dual/Triple Channel LED Drivers with Tri-Mode Dimming™ (TRIAC, ELV and 0-10 V)

**Applications**

- Industrial LED Lighting
- Troffers
- Tunnels and Street lighting

**Typical Application Diagram**

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
Features

- Low profile of 16.5 mm
- Compatible with industry standard TRIAC (forward-phase or leading-edge) and ELV (reverse-phase or trailing-edge)
- 1% to 100% dimmable output
- Very short startup time of 200 ms
- Active power factor correction (PF) > 0.9 and THD < 20%
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: compliant with FCC CFR Title 47 Part 15 Class B
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- 90°C maximum case temperature
- Lifetime: 50,000 hours at 70°C case temperature

Applications

- Undercabinet Lighting

Typical Application Diagram

Nominal Input Voltage | Max. Output Power | Output Voltage | Output Current | Efficiency | Max. Case Temperature | THD | Power Factor | Dimming Method | Dimming Range | Startup Time |
---|---|---|---|---|---|---|---|---|---|---|
120 Vac | 17.3 W | 11 to 36 Vdc | 120 to 480 mA Constant Current | up to 87% typical | 90°C | < 20% | > 0.9 | TRIAC & ELV | 1 to 100% | 200 ms |

ERP Part Number | Nominal Input Voltage (Vac) | Max. Output Power (W) | lout (mA) | Output Voltage Range (Vdc) | min. | max. |
---|---|---|---|---|---|
UCP05U-120-36 | 120 | 4.3 | 120 | 28 | 36 |
UCP10U-350-16 | 120 | 5.6 | 350 | 11 | 16 |
UCP10U-240-36 | 120 | 8.6 | 240 | 28 | 36 |
UCP15U-350-30 | 120 | 10.5 | 350 | 24 | 30 |
UCP15U-360-36 | 120 | 13.0 | 360 | 28 | 36 |
UCP20U-480-36 | 120 | 17.3 | 480 | 28 | 36 |

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
Features

- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge), and 0-10 V dimmers
- +12 V/100 mA auxiliary output to power external fan, motion or ambient light sensor, or wireless module
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class A (120 Vac and 277 Vac)
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- IP66-rated case with silicone-based potting
- 90°C maximum case hot spot temperature
- Lifetime: 50,000 hours at 70°C case temperature

Nominal Input Voltage | Max. Output Power | Output Voltage | Output Current | Efficiency | Max. Case Temperature | THD | Power Factor | Dimming Method | Dimming Range | Startup Time |
---|---|---|---|---|---|---|---|---|---|---|
120 to 277 Vac | 160 W | 28 to 130 Vdc | 1.0 to 4.4 A | up to 90% typical | 90°C (measured at the hot spot) | < 20% | > 0.9 | Forward-Phase, Reverse-Phase & 0-10 V | 1 to 100% (% of Iout) | 0.5 sec |

Applications

- Street and Area lighting
- Horticulture
- High bay lights
- Low bay lights
### TLM SERIES 90 W - 160 W

**Tri-Mode Dimming™ (TRIAC, ELV & 0-10 V) High Power Constant Current LED Drivers with 0.01 to 100% Dimming Range**

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac, 220 to 240 Vac</td>
<td>160 W</td>
<td>68 to 85 Vdc</td>
<td>1.8 A Constant Current</td>
<td>up to 90% typical</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0 - 10V</td>
<td>0.01 to 100% (% of Iout)</td>
<td>0.5 sec</td>
</tr>
</tbody>
</table>

### Features
- Dimming range: 0.01% – 100% with ETC, Leprecon and Elation stage lighting AC phase dimmers
- +12 V/100 mA auxiliary output to power external fan
- TLMxxW: TRIAC and ELV dimming only at 120 Vac
- TLMxxxE: TRIAC and ELV dimming only at 230 Vac
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class A at 120 Vac & 277 Vac and EN55015 (CISPR 15) at 220/230/240 Vac
- Complies with ENERGY STAR® luminaire specification and DLC (Design Light Consortium®) technical requirements
- IP66-rated case with silicone-based potting
- 90°C maximum case hot spot temperature

### Applications
- Stage lighting
- Studio Lighting

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**Typical Application Diagram**

![Typical Application Diagram](image)

** ERP Part Number | Nominal Input Voltage (Vac) | Iout (mA) | Max. Output Power (W) | Output Voltage Range (Vdc) | min. | max.  
--- | --- | --- | --- | --- | --- |
TLM160W: 151 to 160 W               | 120 to 277 | 1800 | 153.0 | 68 | 85   
TLM160E: 151 to 160 W               | 220 to 240 | 1800 | 153.0 | 68 | 85   

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
**EXP SERIES**  30 W - 50 W

**Tri-Mode Dimming™ (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Auxiliary +12V Output**

### Features

- Auxiliary output of +12 V with 20 mA max output current to drive external fan, motion or light sensor, etc...
- 0-10 V dimming profile: 10V - 9.1V = 100%, 1V to 0.8V = 1%, <0.8V = dim to off
- Dims to off
- TRIAC and ELV dimming only at 120 Vac
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Complies with ENERGY STAR® luminaire specification and DLC (Design Light Consortium®) technical requirements
- IP64-rated case with silicone-based potting
- 90°C maximum case hot spot temperature
- Class 2 power supply

### Typical Application Diagram

![Typical Application Diagram](image)

### Nominal Input Voltage | Max. Output Power | Output Voltage | Output Current | Auxiliary Output | Efficiency | Max. Case Temperature | THD | Power Factor | Dimming Method | Dimming Range | Startup Time
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
120 to 277 Vac | 44.1 W | 30 to 42 Vdc | 700 to 1050 mA | Constant Current | +12 V / 20 mA max | up to 82% typical | 90°C (measured at the hot spot) | < 20% | > 0.9 | Forward-Phase, Reverse-Phase & 0-10 V | 1 to 100% (% of Iout) | 300 ms typical

### ERP Part Number | Nominal Input Voltage (Vac) | Iout (mA) | Max. Output Power (W) | Output Voltage Range (Vdc)
--- | --- | --- | --- | ---
EXPN030W: 21 to 30 W | 120 to 277 | 700 | 29.4 | 30
EXPN050W: 31 to 50 W | 120 to 277 | 1050 | 44.1 | 30

1. The ESPNxxxW-xxxx-42-Z1 exhibits a non-linear 0-10V Dimming Profile (10V to 9.1V = 100%, 1V to 0.8V = 1%, <0.8V = dim to off).

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com

### Applications

- Recessed lighting (downlights)
- Commercial & Residential lighting
- Architectural lighting

![Applications Image](image)
EXP-AVI SERIES  30 W - 50 W

Wireless Avi-on Bluetooth® Smart Mesh Integrated Constant Current Driver

<table>
<thead>
<tr>
<th>Nominal Input Voltage</th>
<th>Max. Output Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency</th>
<th>Max. Case Temperature</th>
<th>THD</th>
<th>Power Factor</th>
<th>Dimming Method</th>
<th>Dimming Range</th>
<th>Startup Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 to 277 Vac</td>
<td>44.1 W</td>
<td>30 to 42 Vdc</td>
<td>700 to 1050 mA Constant Current</td>
<td>up to 82% typical</td>
<td>90°C (measured at the hot spot)</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Bluetooth®</td>
<td>1 - 100% (% of Iout)</td>
<td>300 ms typical</td>
</tr>
</tbody>
</table>

Typical Application Diagram

Features

- EXP-AVI series incorporates a fully compliant Bluetooth® Smart Mesh module from Avi-on labs (www.avi-on.com)
- Complies with ENERGY STAR® luminaire specification and DLC (DesignLight Consortium®) technical requirements
- Dims to off
- 90°C maximum case temperature
- Class 2 power supply

Avi-on Bluetooth® Mesh Solution

- Wireless lighting controls with simple set-up that anyone can use
- Pre-integrated Bluetooth® Smart + CSRmesh module enables brands to create multi-way controls and switching without additional wiring; no central gateway required
- Utility grade, secure, reliable mobile app & software
- Dimming, grouping, many users, schedules, timers
- Virtually unlimited range with mesh
- Download for free, additional services available
- Compatible with large ecosystem of products from major brands
- Avi-on battery-powered movable dimming switches available to complete the turnkey solution

Applications

- Recessed lighting (downlights)
- Commercial & Residential lighting
- Architectural lighting

ERP Part Number | Nominal Input Voltage (Vac) | Iout (mA) | Max. Output Power (W) | Output Voltage Range (Vdc) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPN030W</td>
<td>120 to 277</td>
<td>700</td>
<td>29.4</td>
<td>30 to 42</td>
</tr>
<tr>
<td>EXPN050W</td>
<td>120 to 277</td>
<td>1050</td>
<td>44.1</td>
<td>30 to 42</td>
</tr>
</tbody>
</table>

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
PDB260 SERIES  150 W - 260 W
Programmable IP66 Constant Current LED Driver
with 0-10 V Dimming and 1-100% Dimming Range

**Features**
- Non-linear 0-10 V dimming profile with dim-to-off (10 V to 9.1 V=100%, 1.5 V to 0.6 V=1%, <0.6 V=dim-to-off)
- Auxiliary output 12 V/100 mA
- IP66-rated case with silicone-based potting
- Surge protection:
  - Combination wave IEC61000-4-5: 4 kV line to line/4 kV line to earth
  - 2.5 kV ring wave: ANSI/IEEE c62.41.1-2002 & c62.41.2-2002 category A
- Ripple: 25%
- Protections: Output open load, over-current and short-circuit (hiccup), over-power, over-temperature with foldback and auto-recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class A at 120 Vac & 277 Vac and EN55015 (CISPR 15) at 220/230/240 Vac
- Lifetime: 50,000 hours at 70°C case temperature
- 90°C maximum case temperature

**Nominal Input Voltage**

<table>
<thead>
<tr>
<th>ERP Part Number</th>
<th>Nominal Input Voltage (Vac)</th>
<th>Max. Output Power (W)</th>
<th>Iout 1 (mA)</th>
<th>Vout 1 (Vdc)</th>
<th>Iout 2 (mA)</th>
<th>Vout 2 (Vdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDB260W-0860-400</td>
<td>120 to 277</td>
<td>260.0</td>
<td>325 to 650</td>
<td>304 to 400</td>
<td>430 to 860</td>
<td>228 to 300</td>
</tr>
<tr>
<td>PDB260W-1300-280</td>
<td>120 to 277</td>
<td>260.0</td>
<td>465 to 930</td>
<td>213 to 280</td>
<td>650 to 1300</td>
<td>152 to 200</td>
</tr>
<tr>
<td>PDB260W-1700-210</td>
<td>120 to 277</td>
<td>260.0</td>
<td>620 to 1240</td>
<td>160 to 210</td>
<td>850 to 1700</td>
<td>114 to 150</td>
</tr>
</tbody>
</table>

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com

**Typical Application Diagram**

- Dual output voltage range selection (only for dual range models)
- Serial port programming
  - Current: 100% to 50% in each voltage range
  - Data log read: SKU, S/N, lot code, hours of operation, FW rev., fault events: power failure, transients (short or surge), thermal events

**Options**
- Ripple <10% @ 120 Hz and <8% @ 120 Hz (IEEE1789)
- Auxiliary output: up to 24 V / down to 3.3 V / up to 500 mA
- Alternate 0-10V dimming profiles: Linear, Logarithmic, Ballast type Mark7 (IEC60929, ANSI C82.11)
- Energy metering (as part of future software upgrade)

**Applications**
- Street lighting
- Industrial LED Lighting
- Outdoor Lighting
- Wide-area Lighting
- Tunnels lighting
CDB260 SERIES 150 W - 260 W
Programmable IP66 Constant Current LED Driver with 0-10 V Dimming & Communication

Typical Application Diagram

Programming
- Dual output voltage range selection (only for dual range models)
- Serial port programming
- Current: 100% to 50% in each voltage range
- Maximum output voltage
- Data log read: SKU, S/N, lot code, hours of operation, FW rev., fault events: power failure, transients (short or surge), thermal events

Communication
- Bi-directional (dimming and data log read)
- Available communication protocols:
  - First: Bluetooth Mesh with & w/o external antenna
  - Next: DALI, ZigBee (with & w/o external antenna), DMX
  - Other IEEE802.15.4 protocols available upon request

Options
- Ripple <10% @ 120 Hz and <8% @ 120 Hz (IEEE1789)
- Auxiliary output: up to 24 V / down to 3.3 V / up to 500 mA
- Alternate 0-10V dimming profiles: Linear, Logarithmic, Ballast type Mark7 (IEC60929, ANSI C82.11)
- Energy metering (as part of future software upgrade)

Applications
- Street lighting
- Industrial LED Lighting
- Wide-area Lighting
- Tunnels lighting
- Outdoor Lighting

Features
- Non-linear 0-10 V dimming profile with dim-to-off (10 V to 9.1 V=100%, 1.5 V to 0.6 V=1%, <0.6 V=dim-to-off)
- Auxiliary output 12 V/100 mA
- IP66-rated case with silicone-based potting
- Surge protection:
  - Combination wave IEC61000-4-5: 4 kV line to line/4 kV line to earth
  - 2.5 kV ring wave: ANSI/IEEE c62.41.1-2002 & c62.41.2-2002 category A
- Ripple: 25%
- Protections: Output open load, over-current and short-circuit (hiccup), over-power, over-temperature with foldback and auto-recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class A at 120 Vac & 277 Vac and EN55015 (CISPR 15) at 220/230/240 Vac
- Lifetime: 50,000 hours at 70°C case temperature
- 90°C maximum case temperature

ERP Part Number  Nominal Input Voltage  Max. Output Power  Iout 1  Vout 1  Iout 2  Vout 2
CDB260W-0860-400  120 to 277  260.0  325 to 650  304 to 400  430 to 860  228 to 300
CDB260W-1300-280  120 to 277  260.0  465 to 930  213 to 280  650 to 1300  152 to 200
CDB260W-1700-210  120 to 277  260.0  620 to 1240  160 to 210  850 to 1700  114 to 150

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
Features

- 100 W max in a single gang box
- Constant voltage option: 12 & 24 V, Maximum output current: 4.2 A
- Dimming is provided via a sliding button
- On/Off button
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B at 120 Vac
- Complies with ENERGY STAR® luminaire specification and with DLC (Design Light Consortium®) technical requirements
- 90°C maximum case hot spot temperature
- Class 2 power supply

Applications

- Track lights, downlights
- For tape/strip lights, under-cabinet lights, please contact Diode LED at https://www.diodeled.com/switchex.html

Nominal Input Voltage | Max. Output Power | Output Voltage | Output Current Min | Output Current Max | Efficiency | Max. Ambient Temperature | THD | Power Factor | Dimming Range | Startup Time |
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Vac</td>
<td>100 W</td>
<td>12, 24 V</td>
<td>0</td>
<td>4.2 A</td>
<td>up to 92% typical</td>
<td>40°C</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>1 to 100%</td>
<td>500 ms typical</td>
</tr>
</tbody>
</table>

ERP Part Number | Pout Max (W) | Vout Nom (V) | Iout Max (A) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VSW40U-12-ERP</td>
<td>40</td>
<td>12</td>
<td>3.3</td>
</tr>
<tr>
<td>VSW60U-12-ERP</td>
<td>60</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>VSW60U-24-ERP</td>
<td>60</td>
<td>24</td>
<td>2.5</td>
</tr>
<tr>
<td>VSW100U-24-ERP</td>
<td>100</td>
<td>24</td>
<td>4.2</td>
</tr>
</tbody>
</table>

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com
Features

- Very high power density of 20.8 W/in²
- IP20-rated case with silicone-based potting
- Complies with ENERGY STAR® luminaire specification and DLC (DesignLight Consortium®) technical requirements
- 90°C maximum case temperature
- Class 2 power supply
- Worldwide safety approvals

Typical Application Diagram

ERP Part Number | Nominal Input Voltage (Vac) | Pout Max (W) | Vout Nom (Vdc) | Iout Max (A)
--- | --- | --- | --- | ---
VLM40W-12 | 120 to 277 | 40.0 | 12 | 3.3
VLM40W-24 | 120 to 277 | 40.0 | 24 | 1.65
VLM40W-48 | 120 to 277 | 40.0 | 48 | 0.8
VLM60W-12 | 120 to 277 | 40.0 | 12 | 5
VLM60W-24 | 120 to 277 | 40.0 | 24 | 2.5
VLM60W-48 | 120 to 277 | 40.0 | 48 | 1.25

For additional options of output current and output voltage, contact your sales representative or send an email to: SaveEnergy@ERP-Power.com

Applications

- Strip lights
- Pendant lights
- Linear lights

Wiring Diagram

ERP POWER™