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

**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 0-10V dimming transfer function (10V=100%, 1V=10%, 0.1V=1%). Models with the “Z1” suffix exhibit a non-linear 0-10V dimming profile: (10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off).
- Lifetime: 50,000 hours min at 70°C case temperature
- 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®, DLC (DesignLight Consortium®) and CA Title 24 technical requirements
- IP20-rated Bottom Leads with Studs metal case with silicone-based potting.
- 90°C maximum case hot spot temperature
- Class 2 power supply

**APPLICATIONS**

- Recessed downlights
- Residential lighting
- Commercial lighting
- Architecture Lighting

**Specifications**

<table>
<thead>
<tr>
<th>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 nominal</td>
<td>60 W</td>
<td>280 mA to 1.4 A CC</td>
<td>up to 87% typical</td>
<td>&lt; 20%</td>
<td>&gt; 0.9</td>
<td>Forward-Phase, Reverse-Phase &amp; 0 - 10 V</td>
<td>1 - 100% (% of load)</td>
<td>300 ms typical</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. The ESM020W-0440-25-SS-F1B is specifically intended to drive the Cree LMH2 500.
2. The ESM030W-0940-33-SS-F1B is specifically intended to drive the Cree LMH2 1000.
3. The ESM040W-0940-33-SS-F1B is specifically intended to drive the Cree LMH2 2000.
4. The ESM050W-0940-33-SS-F1B is specifically intended to drive the Cree LMH2 3000.
5. Models with the “Z1” suffix exhibit a non-linear 0-10V dimming profile: (10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off).
6. For additional options of output current and output voltage, contact your sales representative or send email to: SaveEnergy@erp-power.com.