**LED-40W Series**

Fixed Output and Dimmable Switch Mode LED Drivers

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### Electrical Specifications

- **Input Voltage Range:** 100-277 Vac Nom. (90-305 V Min/Max)
- **Input Over-Voltage:** Can endure 320Vac for 48 Hrs, 350Vac for 2 Hrs
- **Frequency:** 50/60 Hz Nom. (47-63 Hz Min/Max)
- **Power Factor:** >0.90 @ full load, 100V through 277V
- **Inrush Current:** <20.0 Amps max @ 230Vac, cold start 25ºC
- **Input Current:** 0.40 Amps max
- **Maximum Power:** 40W
- **Current Accuracy:** ± 1% Over input line variation
- **Load Regulation:** ± 3%
- **THD:** 20% @ full load
- **Leakage Current:** 400 µA Typical
- **Hold Up Time:** Half Cycle

### Protections

- Over-voltage: Output
- Over-current: Output
- Short Circuit: Auto Recovery

### Environmental Specifications

- **Max Case Life Temp:** (5 year warranty) 66ºC
- **Maximum Case Temp (UL):** 90ºC
- **Minimum Starting Temp:** -30ºC
- **Storage Temperature:** -40ºC to +85ºC
- **Humidity:** 5% to 95%
- **Cooling:** Convection
- **Vibration Frequency:** 5 to 55 Hz/2g, 30 minutes
- **Sound Rating:** Class A
- **MTBF:** 482,000 Hours at full load and 40ºC ambient conditions per MIL-217F Notice 2
- **EMC:** FCC 47CFR Part 15 Class B compliant

- Constant Current & Constant Voltage with Isolation
- Black Magic Thermal Advantage™ Plastic Housing
- UL Sign Components Manual (S.A.M. Models)

**Dimming Option:**

- **“-D”** 0-10V & Resistance dimmable models include an extra two wires (+Purple/-Pink) on the output side. “-D” Compatible with most 0-10V wall dimmers. See page 3.
- **“-D3”** 3-wire dimmable model dims 100% to 10%. Three extra wires included on the output side: Yellow/Purple/Pink. This model is suitable for potentiometer dimming. See page 3.

**Note:**

LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

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**LED40W Series Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Current (mA ±5%)</th>
<th>Output Voltage Range (Vdc)</th>
<th>Max Output Power (W)</th>
<th>Max Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED40W-114-C0350-XX</td>
<td>350</td>
<td>38-114</td>
<td>40</td>
<td>87%</td>
</tr>
<tr>
<td>LED40W-100-C0400-XX</td>
<td>400</td>
<td>33-100</td>
<td>40</td>
<td>87%</td>
</tr>
<tr>
<td>LED40W-089-C0450-XX</td>
<td>450</td>
<td>30-89</td>
<td>40</td>
<td>87%</td>
</tr>
<tr>
<td>LED40W-074-C0700-XX</td>
<td>700</td>
<td>18-54</td>
<td>37.8</td>
<td>86%</td>
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<tr>
<td>LED40W-064-C0830-XX</td>
<td>830</td>
<td>16-48</td>
<td>40</td>
<td>86%</td>
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<tr>
<td>LED40W-054-C0900-XX</td>
<td>900</td>
<td>15-45</td>
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<tr>
<td>LED40W-040-C1000-XX</td>
<td>1000</td>
<td>13-40</td>
<td>40</td>
<td>85%</td>
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<tr>
<td>LED40W-030-C1100-XX</td>
<td>1100</td>
<td>12-36</td>
<td>40</td>
<td>86%</td>
</tr>
<tr>
<td>LED40W-025-C1300-XX</td>
<td>1300</td>
<td>10-30</td>
<td>40</td>
<td>86%</td>
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<tr>
<td>LED40W-020-C1400-XX</td>
<td>1400</td>
<td>8-24</td>
<td>31.2</td>
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<tr>
<td>LED40W-016-C1660-XX</td>
<td>1660</td>
<td>8-24</td>
<td>33.6</td>
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<tr>
<td>LED40W-012-C1820-XX</td>
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<td>7-22</td>
<td>40</td>
<td>86%</td>
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<td>LED40W-010-C2000-XX</td>
<td>2000</td>
<td>6-18</td>
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<tr>
<td>LED40W-008-C2200-XX</td>
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<td>5-15</td>
<td>40</td>
<td>85%</td>
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<tr>
<td>LED40W-006-C2680-XX</td>
<td>2680</td>
<td>4-13</td>
<td>40</td>
<td>85%</td>
</tr>
<tr>
<td>LED40W-006-C3330-XX</td>
<td>3330</td>
<td>4-12</td>
<td>40</td>
<td>84%</td>
</tr>
<tr>
<td>LED40W-004-C4000-XX</td>
<td>4000</td>
<td>3-10</td>
<td>40</td>
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<tr>
<td>LED40W-009-C4450-XX</td>
<td>4450</td>
<td>3-9</td>
<td>40</td>
<td>83%</td>
</tr>
</tbody>
</table>

-XX indicates dimming options are available. See options below. Blank = fixed current output.

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**Constant Voltage Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage (Vdc ±5%)</th>
<th>Output Current Range (mA)</th>
<th>Max Output Power (W)</th>
<th>Max Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED40W-009</td>
<td>9</td>
<td>1113-4450</td>
<td>40</td>
<td>83%</td>
</tr>
<tr>
<td>LED40W-010</td>
<td>10</td>
<td>1000-4000</td>
<td>40</td>
<td>84%</td>
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<tr>
<td>LED40W-028</td>
<td>12</td>
<td>833-3130</td>
<td>40</td>
<td>84%</td>
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<tr>
<td>LED40W-013</td>
<td>13</td>
<td>770-3080</td>
<td>40</td>
<td>85%</td>
</tr>
<tr>
<td>LED40W-015</td>
<td>15</td>
<td>670-2680</td>
<td>40</td>
<td>85%</td>
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<tr>
<td>LED40W-018</td>
<td>18</td>
<td>550-2200</td>
<td>40</td>
<td>85%</td>
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<tr>
<td>LED40W-022</td>
<td>22</td>
<td>455-1820</td>
<td>40</td>
<td>86%</td>
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<tr>
<td>LED40W-024</td>
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<td>418-1670</td>
<td>40</td>
<td>86%</td>
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<tr>
<td>LED40W-030</td>
<td>30</td>
<td>350-1400</td>
<td>40</td>
<td>85%</td>
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<tr>
<td>LED40W-036</td>
<td>36</td>
<td>275-1100</td>
<td>40</td>
<td>86%</td>
</tr>
<tr>
<td>LED40W-040</td>
<td>40</td>
<td>250-1000</td>
<td>40</td>
<td>86%</td>
</tr>
<tr>
<td>LED40W-045</td>
<td>45</td>
<td>225-900</td>
<td>40</td>
<td>86%</td>
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<tr>
<td>LED40W-048</td>
<td>48</td>
<td>208-830</td>
<td>40</td>
<td>86%</td>
</tr>
<tr>
<td>LED40W-054</td>
<td>54</td>
<td>175-700</td>
<td>40</td>
<td>86%</td>
</tr>
<tr>
<td>LED40W-089</td>
<td>89</td>
<td>113-450</td>
<td>40</td>
<td>87%</td>
</tr>
<tr>
<td>LED40W-100</td>
<td>100</td>
<td>100-400</td>
<td>40</td>
<td>87%</td>
</tr>
<tr>
<td>LED40W-114</td>
<td>114</td>
<td>88-350</td>
<td>40</td>
<td>87%</td>
</tr>
</tbody>
</table>

* Indicates S.A.M.  
Class 2: US/Canada
Power Characteristics

**Power Factor / Load** (LED40W Rev E1.1 models)

- 120Vac
- 277Vac

**THD / Load** (LED40W Rev E1.1 models)

- 120Vac
- 277Vac

**Lifetime / Case Temperature**

- Lifetime (hrs) vs. Case Hotspot Temperature (°C)

**Safety Cert. / Standard**

- UL/CUL: UL8750
- CSA: 222
- CE: EN61347
- **EMC Standard / Notes**
  - EN61000-3-2
  - EN61000-3-3: Class C
  - FCC, 47CFR Part 15: Class B
  - EN61000-4-5: 2KV L-N, 8/20 µsec
  - Surge Protection

**IN [mm]**

- 0.16 (4.0)
- 0.39 (10.0)
- 1.18 (30.0)
- 2.76 (70.0)
- 1.85 (47.0)
- 0.16 (4.0)
- 2.31 (58.0)
- 1.38 (34.0)
- 2.91 (73.0)
- 1.89 (47.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)

**WIRE SPECS:**

- Input Leads: 18 AWG, rated 600 V, 105°C, min.
- Output Leads: 18 AWG, rated 300 V, 105°C, min.
- Dimming Leads: 22 AWG, rated 300 V, 105°C.

All wires are stranded with solder dipped ends.

**IN [mm]**

- 0.16 (4.0)
- 0.39 (10.0)
- 1.18 (30.0)
- 2.76 (70.0)
- 1.85 (47.0)
- 0.16 (4.0)
- 2.31 (58.0)
- 1.38 (34.0)
- 2.91 (73.0)
- 1.89 (47.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)
- 0.39 (10.0)

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- UL/CUL: UL8750
- CSA: 222
- CE: EN61347

**EMC Standard / Notes**

- EN61000-3-2
- EN61000-3-3: Class C
- FCC, 47CFR Part 15: Class B
- EN61000-4-5: 2KV L-N, 8/20 µsec
- Surge Protection

**Notes:** The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.

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"-D" and "-D3" Option: 0-10VDC and Resistance Dimming

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Current out of 0-10V Purple Wire</td>
<td>0 mA</td>
<td>—</td>
<td>2 mA</td>
</tr>
<tr>
<td>Absolute Voltage Range on 0-10V (+) Yellow Wire</td>
<td>-2.0V</td>
<td>—</td>
<td>+15V</td>
</tr>
<tr>
<td>Source Current out of Aux Yellow Wire</td>
<td>—</td>
<td>—</td>
<td>10mA</td>
</tr>
</tbody>
</table>

“-D” Typical Dimming Circuit

**LED40W-xxx-Cxxxx-D**

| Dim (+) Purple                  | IP710 Wall Dimmer | Dim (-) Pink |

“-D3” 3-Wire Dimming Circuit

**LED40W-xxx-Cxxxx-D3**

<table>
<thead>
<tr>
<th>10V Output (Yellow)</th>
<th>0-10V Input (Purple)</th>
<th>Return (Pink)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20K Potentiometer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Dimmer must be current-sink type control)

Notes:
1. D dimmable version comes with an extra two wires on the output side: +Purple/-Pink.
2. Compatible with most 0-10V dimmers. Recommended dimmer is Leviton IP710 or equivalent.
3. D & D3 dimmable versions are not intended to dim below about 5% @ 0V or 10% @ 1.0V.
4. Output will be 100% with Purple/Pink open and minimum with Purple/Pink Shorted.
5. For units manufactured before Date of January 1st 2022, the Dim(-) wire will be gray, not pink.