**Features**

- UL8750, EN61347, UL1310, UL48, cUL, CE, TUV, KAMA, CQC compliant
- FCC Part 15/18 Class B and EN55015 compliant
- Meet the RoHS directive; IP66 compliant,
- Suitable for high-temperature, high-dust location
- Suitable for indoor or outdoor applications
- Suitable in standard electrical junction boxes
- Compact, lightweight
- Single output, ranged from 4VDC up to 114VDC
- Active PFC reduces power consumption
- Isolation between primary and secondary
- Exceeds California Title 24 requirements

**Environmental Specifications**

1. Operating temperature: -30 to +60°C
2. Storage temperature range: -40 to +85°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: Free air cooling Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s
7. MTBF: 560,000 hours at full load and 40°C ambient conditions
8. Life 120,000 hours at full load and 40°C ambient conditions
9. LIFE: 120,000 hours at full load and 40°C ambient conditions
10. Warranty: 30,000 hours at full load and 40°C ambient conditions
11. EMC:
Compliant to CISPR 22 CLASS B, CISPR 14-1 CLASS B, GB4343. 1-2003, GB17625.1-2003
- Harmonic currents test conforming to GB4343-2003+A1, CISPR 14-1:EN 61000-3-2:1995
- RF Electromagnetic Field Immunity test conforming to GB/T13926.3, IEC61000-4-3, PrEN55014-2 Section 6.5
- Electrical fast transient/burst immunity test conforming to GB/T13926.4, IEC61000-4-4, PrEN55014-2 section 6.2
- Voltage dips and short interrupts immunity test conforming to IEC61000-4-11
- Voltage variations immunity test conforming to IEC61000-4-11
- Electrostatic discharge immunity test conforming to IEC61000-4-11

* Under confirmed thermal condition
**Electrical Specifications**

- Input range: 90 to 305VAC
- Frequency: 47-63Hz
- Power Factor: > 95% at full load.
- Inrush current: < 30A at 25°C, 230V, cold start.
- Input current: 0.75A at 120V
- Efficiency: Up to 92% typical at 230Vac Full Load.
- Maximum power: 60W
- Load regulation accuracy: ±4%, Current accuracy: ±3%
- Start-up delay: 1000 ms at Worst case.
- Turn-on overshoot in the output current: < 10%.
- Ripple & Noise: < 20% Peak-peak 20MHz Bandwidth.
- Optional DC Dimming control: 0-10Vdc, 2mA, 2-wire.
- Optional RD Dimming control: 3-wire 50KΩ Resistance Dimming.
- Leakage current: 400uA (typical).
- Hold up time: half cycle.
- Output over-voltage protection function: Less than 1.3 times the maximum output voltage.
- Output over-current protection: Less than 1.1 times the maximum output current.
- Energy Star: No-load power consumption less than the fixed type constant current 0.5W (at 120V input).

<table>
<thead>
<tr>
<th>Model #</th>
<th>Output Voltage Range</th>
<th>Output Constant Current</th>
<th>Current Accuracy</th>
<th>Power Factor</th>
<th>Output Power</th>
<th>Typical Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS60W0350C</td>
<td>56-170V DC</td>
<td>350mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>92%</td>
</tr>
<tr>
<td>DS60W0400C</td>
<td>45-134V DC</td>
<td>400mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>92%</td>
</tr>
<tr>
<td>DS60W0550C</td>
<td>36-110V DC</td>
<td>550mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
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<tr>
<td>DS60W0700C</td>
<td>28-86V DC</td>
<td>700mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W1050C</td>
<td>19-58V DC</td>
<td>1050mA</td>
<td>±3%</td>
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<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W1250C</td>
<td>16-48V DC</td>
<td>1250mA</td>
<td>±3%</td>
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<tr>
<td>DS60W1670C</td>
<td>12-36V DC</td>
<td>1670mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
</tr>
<tr>
<td>DS60W2300C</td>
<td>9-27V DC</td>
<td>2300mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
</tr>
<tr>
<td>DS60W2500C</td>
<td>8-24V DC</td>
<td>2500mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
</tr>
<tr>
<td>DS60W2720C</td>
<td>7-22V DC</td>
<td>2720mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>89%</td>
</tr>
<tr>
<td>DS60W3000C</td>
<td>7-20V DC</td>
<td>3000mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>89%</td>
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<tr>
<td>DS60W3330C</td>
<td>6-18V DC</td>
<td>3330mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>88%</td>
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<tr>
<td>DS60W4000C</td>
<td>5-15V DC</td>
<td>4000mA</td>
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<td>88%</td>
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<tr>
<td>DS60W5000C</td>
<td>4-12V DC</td>
<td>5000mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>87%</td>
</tr>
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</table>
### Constant Voltage

<table>
<thead>
<tr>
<th>Model #</th>
<th>Output Voltage Current</th>
<th>Maximum Output Current</th>
<th>Minimum Output Current</th>
<th>Voltage Accuracy</th>
<th>Power Factor</th>
<th>Output Power</th>
<th>Typical Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS60W170V</td>
<td>170V DC</td>
<td>350mA</td>
<td>20mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>92%</td>
</tr>
<tr>
<td>DS60W134V</td>
<td>134V DC</td>
<td>400mA</td>
<td>25mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>92%</td>
</tr>
<tr>
<td>DS60W110V</td>
<td>110V DC</td>
<td>550mA</td>
<td>40mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W86V</td>
<td>86V DC</td>
<td>700mA</td>
<td>60mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W58V</td>
<td>58V DC</td>
<td>1050mA</td>
<td>80mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W48V</td>
<td>48V DC</td>
<td>1250mA</td>
<td>100mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>91%</td>
</tr>
<tr>
<td>DS60W36V</td>
<td>36V DC</td>
<td>1670mA</td>
<td>120mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
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<tr>
<td>DS60W27V</td>
<td>27V DC</td>
<td>2300mA</td>
<td>140mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
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<tr>
<td>DS60W24V</td>
<td>24V DC</td>
<td>2500mA</td>
<td>150mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>90%</td>
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<tr>
<td>DS60W22V</td>
<td>22V DC</td>
<td>2720mA</td>
<td>180mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>89%</td>
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<tr>
<td>DS60W20V</td>
<td>20V DC</td>
<td>3000mA</td>
<td>200mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>89%</td>
</tr>
<tr>
<td>DS60W18V</td>
<td>18V DC</td>
<td>3330mA</td>
<td>230mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>88%</td>
</tr>
<tr>
<td>DS60W15V</td>
<td>15V DC</td>
<td>4000mA</td>
<td>260mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>88%</td>
</tr>
<tr>
<td>DS60W12V</td>
<td>12V DC</td>
<td>5000mA</td>
<td>300mA</td>
<td>±3%</td>
<td>95%</td>
<td>60W</td>
<td>87%</td>
</tr>
</tbody>
</table>

Note: Typical power factor measured at 220VAC input, full load. Maximum efficiency measured at 220VAC input, full load.

### Dimming Options

1. Optional DC Dimming control:
   a. 0-10V DC Dimming Mode.
   b. Input Voltage Range 0-10Vdc, Output constant current Adjustable range: 10%-MAX. When input >10V, Constant current output for maximum value. When input ≤ 0V (Include input open circuit), Constant current output for 10%.
   c. Input impedance 5KΩ, dimming response time: 20ms.
   d. Input Current: MAX. 2mA.
**Technical Specs.**

**Efficiency vs. Vout at 80°C case**

- Efficiency % vs. Vout (V)
- Curves for 120V, 230V, 277V

**PF vs. Pout at 80°C case**

- Power Factor % vs. Pout (W)
- Curves for 120V, 230V, 277V

**THD vs. Pout**

- THD % vs. Pout (W)
- Curves for 120V, 230V, 277V

**Life Time vs. Ambient Temp**

- Life Time (kWh) vs. Ambient Temp (°C)
- Curves for P0=50%, P0=80%, P0=100%

**Life Time vs. Tcase Temp**

- Life Time (kWh) vs. Tcase Temp (°C)
- Curves for PO=50%, PO=80%, PO=100%
**Installation Specifications**

- Aluminum metal enclosure, used with thermal conductivity and flame retardant glue potting.
- AC input for connection the three core ANSI/UL1015/AWG18 temperature 105 °C core copper wire connection, Cable Length: 150mm, Stripping on the tin: 10mm.
- DC output for connection the two core ANSI/UL1569/AWG14 temperature 105 °C core copper wire, Cable Length: 150mm, Stripping on the tin: 10mm.
- The dimmer control input is the two copper wires, ANSI/UL1569/AWG24 & temperature 105 °C, Cable Length: 150mm, Stripping on the tin: 10mm.
- Where: 0-10V input — Purple wire, GND — Grey wire.
- This product has two Φ3.6mm mounting holes.

**Mechanical Specs.**

<table>
<thead>
<tr>
<th>Available Form Factors</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>“L12”</td>
<td>242x20x29mm</td>
</tr>
<tr>
<td>“L19”</td>
<td>162x59x37mm</td>
</tr>
</tbody>
</table>

Remote Enclosure:

| “G2”                  | 233.1x85.5x48.9mm |
| “G3”                  | 280x103x56mm     |

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LED Driver - DS Series - Class 2

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