75W DC Class 2 Power Supply
DS75W Aluminum Case Series 100-277V

EFFICIENCY
- higher than 85%

POWER FACTOR
- >95%

CASE TC*
- 85°C Max

PROTECTION
- Input / Output

STORAGE
- -40°C / +85°C

HUMIDITY
- 95% RH max

IP RATING
- IP 66

CLASS
- Class 2 power supply

DIMMING
- 0-10 Dimming

OPTIONAL DIMMING
- Phase Dimming

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: 482,000 hours at full load and 40°C ambient conditions
8. LIFEL 500,000 hours at full load and 40°C ambient conditions
9. WARRANTY: 30,000 hours at full load and 40°C ambient conditions
10. 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 305V AC
- Frequency: 47-63HZ
- Power Factor: > 95% at full load.
- Inrush current: < 30A at 25C, 230V, cold start.
- Input current: 0.8A at 120V
- Efficiency: Up to 92% typical at 230Vac Full Load.
- Maximum power: 75W
- 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>DS75W0350C</td>
<td>72~214V DC</td>
<td>350mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>92%</td>
</tr>
<tr>
<td>DS75W0530C</td>
<td>48~142V DC</td>
<td>530mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>92%</td>
</tr>
<tr>
<td>DS75W0700C</td>
<td>36~108V DC</td>
<td>700mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>91%</td>
</tr>
<tr>
<td>DS75W1050C</td>
<td>24~72V DC</td>
<td>1050mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>91%</td>
</tr>
<tr>
<td>DS75W1100C</td>
<td>22~68V DC</td>
<td>1100mA</td>
<td>±3%</td>
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<td>91%</td>
</tr>
<tr>
<td>DS75W1330C</td>
<td>19~56V DC</td>
<td>1330mA</td>
<td>±3%</td>
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<td>75W</td>
<td>90%</td>
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<tr>
<td>DS75W1560C</td>
<td>16~48V DC</td>
<td>1560mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>90%</td>
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<tr>
<td>DS75W1740C</td>
<td>14~43V DC</td>
<td>1740mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>90%</td>
</tr>
<tr>
<td>DS75W2080C</td>
<td>12~36V DC</td>
<td>2080mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>89%</td>
</tr>
<tr>
<td>DS75W2670C</td>
<td>9~28V DC</td>
<td>2670mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>89%</td>
</tr>
<tr>
<td>DS75W3120C</td>
<td>8~24V DC</td>
<td>3120mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>88%</td>
</tr>
<tr>
<td>DS75W4160C</td>
<td>6~18V DC</td>
<td>4160mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>88%</td>
</tr>
<tr>
<td>DS75W5000C</td>
<td>5~15V DC</td>
<td>5000mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>87%</td>
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<tr>
<td>DS75W6250C</td>
<td>4~12V DC</td>
<td>6250mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>87%</td>
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</table>
## Constant Voltage

<table>
<thead>
<tr>
<th>Model #</th>
<th>Output Voltage</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>DS75W214V</td>
<td>214V DC</td>
<td>350mA</td>
<td>20mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>92%</td>
</tr>
<tr>
<td>DS75W142V</td>
<td>142V DC</td>
<td>530mA</td>
<td>25mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>92%</td>
</tr>
<tr>
<td>DS75W108V</td>
<td>108V DC</td>
<td>700mA</td>
<td>40mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>91%</td>
</tr>
<tr>
<td>DS75W72V</td>
<td>72V DC</td>
<td>1050mA</td>
<td>60mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>91%</td>
</tr>
<tr>
<td>DS75W68V</td>
<td>68V DC</td>
<td>1100mA</td>
<td>80mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>91%</td>
</tr>
<tr>
<td>DS75W56V</td>
<td>56V DC</td>
<td>1330mA</td>
<td>100mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>90%</td>
</tr>
<tr>
<td>DS75W48V</td>
<td>48V DC</td>
<td>1560mA</td>
<td>120mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>90%</td>
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<tr>
<td>DS75W43V</td>
<td>43V DC</td>
<td>1740mA</td>
<td>140mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>90%</td>
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<tr>
<td>DS75W36V</td>
<td>36V DC</td>
<td>2080mA</td>
<td>150mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>89%</td>
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<tr>
<td>DS75W28V</td>
<td>28V DC</td>
<td>2670mA</td>
<td>180mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>89%</td>
</tr>
<tr>
<td>DS75W24V</td>
<td>24V DC</td>
<td>3120mA</td>
<td>200mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>88%</td>
</tr>
<tr>
<td>DS75W18V</td>
<td>18V DC</td>
<td>4160mA</td>
<td>230mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>88%</td>
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<tr>
<td>DS75W15V</td>
<td>15V DC</td>
<td>5000mA</td>
<td>260mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</td>
<td>87%</td>
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<tr>
<td>DS75W12V</td>
<td>12V DC</td>
<td>6250mA</td>
<td>300mA</td>
<td>±3%</td>
<td>95%</td>
<td>75W</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

PF vs. Pout at 80°C case

THD vs. Pout

Life Time vs. Ambient Temp

Life Time vs. Tcase Temp

Technical Specifications:
- THD vs. Pout
- Life Time vs. Ambient Temp
- Efficiency vs. Vout at 80°C case
- PF vs. Pout at 80°C case
- THD %
- Life Time (KHRS)
- Vout (V)
- Power Factor %
- Tcase Temp (°C)
- Pout (W)
- Efficiency %
- Life Time vs. Tcase Temp
- Tcase Temp (°C)
- Life Time (KHRS)
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>“L2”</td>
<td>355X31X26mm</td>
</tr>
<tr>
<td>“L19”</td>
<td>126X59X37mm</td>
</tr>
<tr>
<td>Remote Enclosure</td>
<td></td>
</tr>
<tr>
<td>“G2”</td>
<td>233.1X85.5X48.9mm</td>
</tr>
<tr>
<td>“G3”</td>
<td>280X103X56mm</td>
</tr>
</tbody>
</table>

LED Driver - DS Series - Class 2