

LXD36 series

LED Power Supply

Dimmable LED Power Supplies



LED POWER

next generation power source

FEATURES

- High Efficiency (up to 90%)
- Active PFC (Typical 0.95)
- IP67 Waterproof
- OVP, SCP, OLP, OTP
- -35 to +70°C deg operation
- Universal Input 90-305VAC
- UL8750 recognised
- EN61347-1, -2-13 compliant

The LXD36 series of Dimmable LED power supplies from Excelsys Technologies can deliver up to 36W of output power in an extremely compact package size.

The LXD36 series of Dimmable LED power supplies provides up to 1750mA of output current and 103V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD36 series provides high reliability and high performance in a compact package

The LXD36 series carries the UL and CE mark for safety and is also RoHS compliant.

| Model Number | Output Voltage | Output Current | Input Voltage | Efficiency |
|-----------------------------|----------------|----------------|---------------|------------|
| LXD36-0350SW ⁽²⁾ | 52-103V | 350mA | 90-305VAC | 90.0% |
| LXD36-0450SW ⁽²⁾ | 40-80V | 450mA | 90-305VAC | 89.0% |
| LXD36-0700SW ⁽³⁾ | 26-52V | 700mA | 90-305VAC | 88.0% |
| LXD36-1050SW ⁽⁴⁾ | 18-35V | 1050mA | 90-305VAC | 88.0% |
| LXD36-1400SW ⁽⁴⁾ | 13-26V | 1400mA | 90-305VAC | 87.0% |
| LXD36-1750SW ⁽⁴⁾ | 11-21V | 1750mA | 90-305VAC | 86.0% |

Input Specifications

| Parameter | Conditions/Description | Min | Nom | Max | Units |
|------------------------------|-----------------------------|------|-----|------|-------|
| Input Voltage Range | Universal Input | 90 | | 305 | VAC |
| Input Frequency Range | | 47 | | 63 | Hz |
| Input Current | 100VAC in, 36W output | | | 0.6 | A |
| Leakage Current | 277VAC Input, 50Hz | | | 0.75 | mA |
| Inrush Current | 230VAC in, 25°C, Cold Start | | | 60 | A |
| Power Factor | 220VAC, 110VAC | 0.95 | | 0.98 | |

Output Specifications

| Parameter | Conditions/Description | Min | Nom | Max | Units |
|------------------------------------|----------------------------------|-----|-----|-----|--------|
| Line Regulation | | | | ±1 | % |
| Load Regulation | | | | ±3 | % |
| Voltage Range | See individual models | | | | VDC |
| Output Current | See individual models | | | | mA |
| Output Current Tolerance | | | | ±5 | %/Load |
| Overshoot | | | | 10 | % |
| Turn-on Delay | Measured at 220VAC and full load | | 0.3 | 0.5 | s |
| Short Circuit Protection | Auto Recovery | | | | |
| Over Temperature Protection | Hiccup, Auto recovery | 95 | 110 | 125 | °C |

General Specifications

| Parameter | Conditions/Description | Min | Nom | Max | Units |
|----------------------------------|--|--------------|---------|-----|------------|
| Isolation Voltage | Input to Output (See Note 1) Input to Chassis | 3750 1500 | | | VAC VAC |
| Efficiency | See individual models | | 88 | | % |
| Safety Agency Approvals | UL8750, EN61347-1, -2-13, UL1310 (See Note 2, 3 & 4) | | | | |
| No load Power Dissipation | Measured at 230 Vac | | | 6.0 | W |
| MTBF | MIL-HDBK-217F, 110VAC input, 80% load, 25°C | | 469,000 | | Hours |
| Lifetime | 110VAC input, 80% load, 45°C | | 74,000 | | Hours |
| Weight | | | 480 | | g |
| Operating Temperature | | -35 | | +70 | °C |
| Storage Temperature | | -40 | | +85 | °C |
| Relative Humidity | Non-condensing (operating) | 10 | | 100 | %RH |

- Note 1. Primary to Secondary Isolation test not to be carried out on power supply.
 Note 2. Non - UL1310 Class 2 output in USA and Canada.
 Note 3. UL1310 Class 2 output for USA only.
 Note 4. UL1310 Class 2 outputs for USA and Canada.

Specifications are subject to change without notice



Europe/Asia

Excelsys Technologies Ltd t: +353 21 4354716
 27 Eastgate Drive f: +353 21 4354864
 Eastgate Business Park e: sales@excelsys.com
 Little Island, Cork, Ireland
 IRELAND

North America

Excelsys Technologies t: (972) 771 4544
 519 Interstate 30, #309 f: (972) 421 1805
 Rockwall, TX 75087 e: salesusa@excelsys.com
 USA

| EMC | | | | |
|---------------------------|--------------|--|-----------|-------|
| Parameter | Standard | | Level | Units |
| Emissions | | | | |
| Conducted | EN55015 | | Compliant | |
| Radiated | EN55015 | | Compliant | |
| Harmonic Distortion | EN61000-3-2 | | Compliant | |
| Flicker and Fluctuation | EN61000-3-3 | | Compliant | |
| Immunity | | | | |
| ESD | EN61000-4-2 | | Compliant | |
| Radiated RFI | EN61000-4-3 | | Compliant | |
| Fast Transients - burst | EN61000-4-4 | | Compliant | |
| Conducted RFI | EN61000-4-6 | | Compliant | |
| Power Freq Magnetic Field | EN61000-4-8 | | Compliant | |
| Voltage Dips | EN61000-4-11 | | Compliant | |

| Dimming Control | | | | | |
|-------------------------------|-------------------------------------|------|-----|------|-------|
| Parameter | | Min | Nom | Max | Units |
| 12V Output Voltage | | 10.8 | 12 | 13.2 | V |
| 12V Output Source Current | | 0 | | 20 | mA |
| Control Voltage (1-10V input) | Voltage applied on 1-10V input wire | -2 | | 15 | V |
| Source Current (1-10V input) | Source current on 1-10V input wire | 0 | | 200 | uA |

- Note A. If dimming function is not used, 12V(yellow) and 1-10V(purple)wire must be connected together.
- Note B. Primary to Secondary Isolation test not to be carried on power supply.
- Note C. Load Voltage must be maintained above minimum voltage. See models for voltage range.
- Note D. Dimming range is 10%-100%
- Note E. Dimming Signal Voltage should be above 1V for linear dimming control.
- Note F. See Dimming Implementation diagrams for various dimming methods.
- Note G. Do not connect Dim - (Gray) cable to Output -V cable

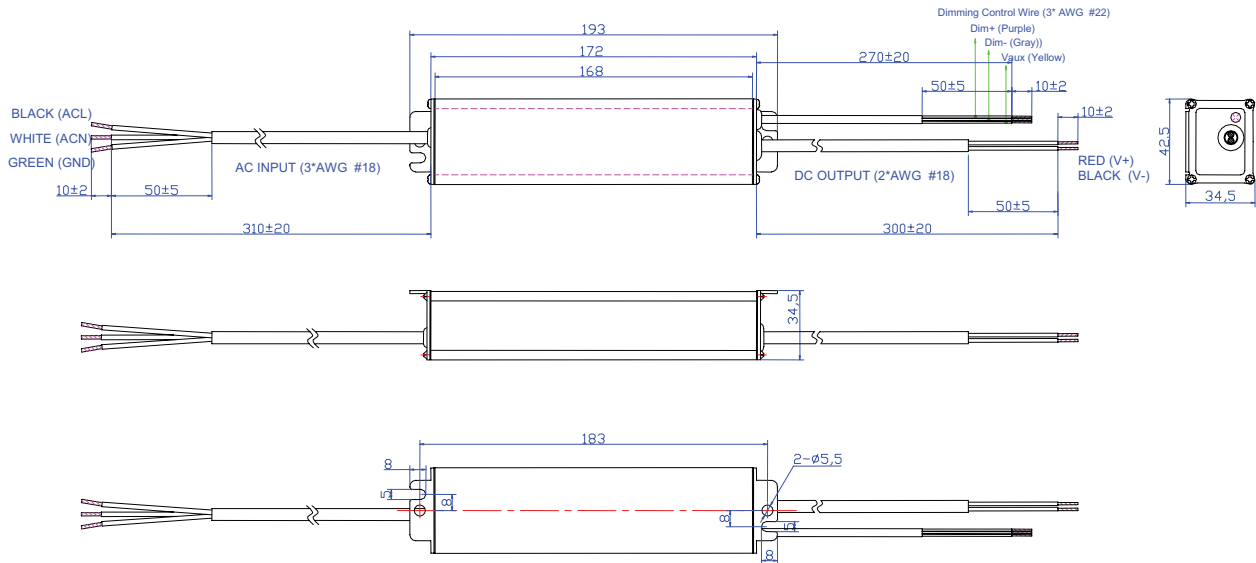
INPUT / OUTPUT WIRING

INPUT CABLE
SJTW 18AWG 3C
Black (L),White(N), Green (G)310±20mm

OUTPUT CABLE
SJTW 18AWG 2C
Black (-V) and Red (+V) 300±20mm

DIMMING CONTROL CABLE
22AWG 3C
Yellow (12V), Purple (1-10V), Gray (Dim -)
270±20mm

MECHANICAL SPECIFICATIONS

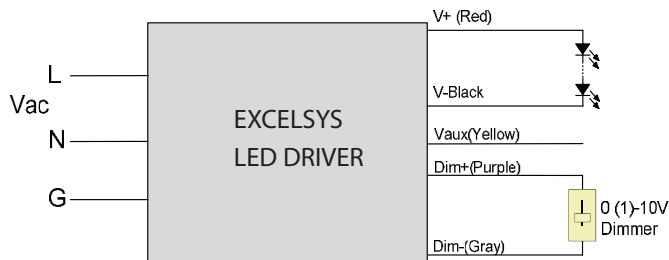


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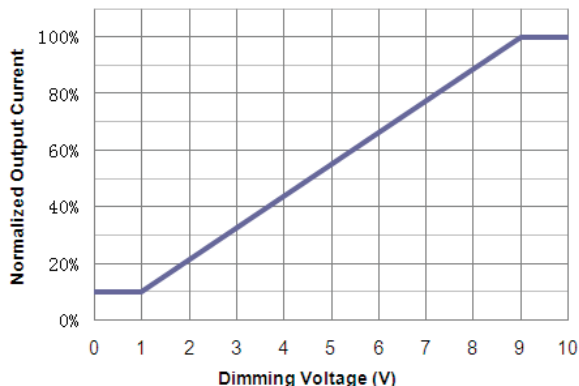


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|------------------------------|-----------------------|-------------------------|--------------------------|
| Europe/Asia | | North America | |
| Excelsys Technologies Ltd | t: +353 21 4354716 | Excelsys Technologies | t: (972) 771 4544 |
| 27 Eastgate Drive | f: +353 21 4354864 | 519 Interstate 30, #309 | f: (972) 421 1805 |
| Eastgate Business Park | e: sales@excelsys.com | Rockwall, TX 75087 | e: salesusa@excelsys.com |
| Little Island, Cork, Ireland | | USA | |
| IRELAND | | | |

Dimming Implementation Diagrams

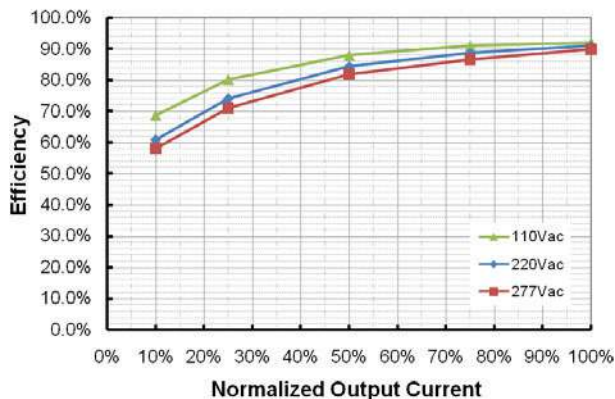


Output Current vs. Dimming Voltage

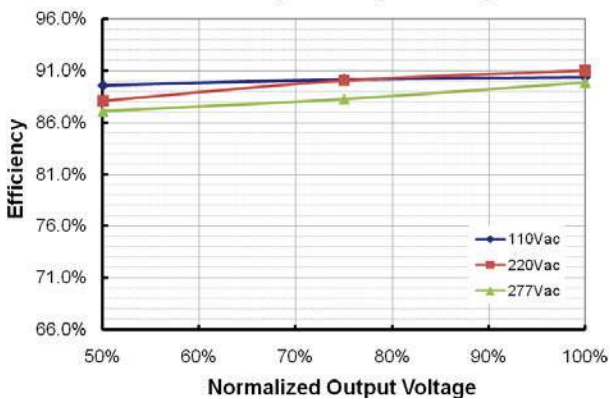


Efficiency vs. Load (350mA Model)

Efficiency vs. Output Current

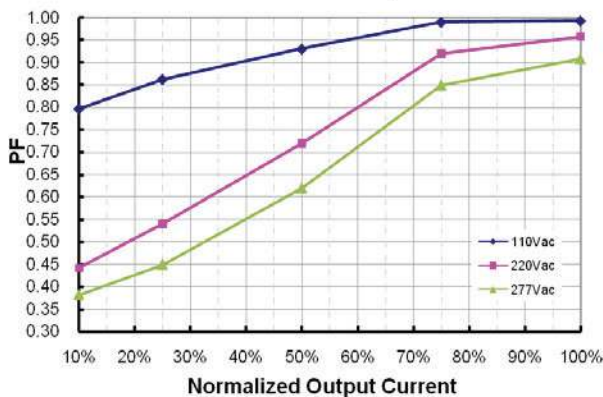


Efficiency vs. Output Voltage

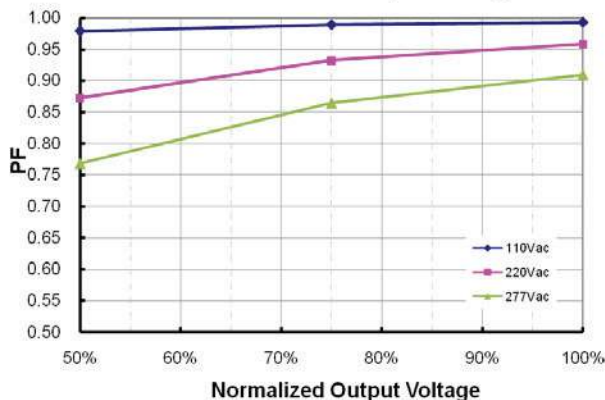


Power Factor Characteristics

Power Factor vs. Output Current



Power Factor vs. Output Voltage



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| | | | |
|---|--|--|---|
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