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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# LXV96 series

## **LED Power Supply**

## Constant Voltage Power Supplies

LED POWER
next generation power
source

#### **FEATURES**

- High Efficiency 90%
- UL1310 Class 2
- IP67 Waterproof
- Active PFC (Typical 0.96)
- OVP, SCP, OTP
- -35 to 70°C deg operation
- Wide Input 90-305VAC
- UL8750 recognised
- EN61347-1, -2-13 compliant



The LXV96 series of UL1310 Class 2 constant voltage LED power supplies from Excelsys Technologies can deliver up to 96W of output power in an extremely compact package size.

The LXV96 series of constant voltage power supplies provides a range of output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXV96 series provides high reliability and high performance in a compact package The LXV96 series carries the CE mark for safety and is also RoHS compliant. For more details contact sales@excelsys.com

| Model<br>Number            | Output<br>Voltage | Output<br>Current | Input<br>Voltage | OVP<br>Max | OCP<br>Hiccup | Efficiency |
|----------------------------|-------------------|-------------------|------------------|------------|---------------|------------|
| LXV96-024SW <sup>(3)</sup> | 24V               | 4.00A             | 90-305VAC        | 35V        | 100-110%      | 88.0%      |
| LXV96-036SW(3)             | 36V               | 2.66A             | 90-305VAC        | 50V        | 100-110%      | 89.0%      |
| LXV96-048SW                | 48V               | 2.00A             | 90-305VAC        | 60V        | 100-110%      | 89.0%      |
| LXV96-054SW                | 54V               | 1.77A             | 90-305VAC        | 75V        | 100-110%      | 90.0%      |

| 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, 96W output       |      |     | 1.2  | Α     |
| Leakage Current       | 277VAC in, 79W output       |      |     | 1.0  | mA    |
| Inrush Current        | 220VAC in, 25°C, Cold Start |      |     | 50   | Α     |
| Power Factor          | 220VAC, 110VAC              | 0.96 |     | 0.99 |       |

| Output Specifications      |  |     | j   |     |         |
|----------------------------|--|-----|-----|-----|---------|
| Parameter                  | Conditions/Description                     | Min | Nom | Max | Units   |
| Line Regulation            |  |     |     | ±1  | %       |
| Load Regulation            |  |     |     | ±2  | %       |
| Voltage Accuracy           | % of Vout                                  |     |     | ±5  | %       |
| Ripple and Noise           | 20MHz Bandwidth. See Note 1                |     |     | 3.0 | % pk-pk |
| Dynamic Response           | Output Deviation R/S: 1 A/uS               |     |     | 5   | %       |
|                            | Settling Time Load : 25% ~ 75% full Load   |     |     | 10  | mS      |
| Overshoot                  |  |     |     | 10  | %       |
| Turn-on Delay              | Measured at 220VAC and full load           |     |     | 1.0 | S       |
| Short Circuit Protection   | Auto Recovery                              |     |     |     |         |
| Over Voltage Protection    | Latching. See individual models OVP levels |     |     |     |         |
| OverTemperature Protection | Latching. Internal Component Temperature   |     |     | 110 | °C      |
|                            |  |     |     |     |         |

| General Specifications    |   |      |         |     |       |
|---------------------------|---|------|---------|-----|-------|
| Parameter                 | Conditions/Description                      | Min  | Nom     | Max | Units |
| Isolation Voltage         | Input to Output See Note 2                  | 3000 |         |     | VAC   |
|                           | Input to Chassis                            | 1500 |         |     | VAC   |
| Efficiency                | See individual models                       |      | 89.0    |     | %     |
| Safety Agency Approvals   | UL8750, EN61347-1, -2-13                    |      |         |     |       |
| No load Power Dissipation | Measured at 120VAC and 220VAC               |      |         | 1.5 | W     |
| MTBF                      | MIL-HDBK-217F, 110VAC input, 80% load, 25°C |      | 400,000 |     | Hours |
| Lifetime                  | 60°C Case temperature                       |      | 50,000  |     | Hours |
| Weight                    |   |      | 850     |     | g     |
| Operating Temperature     |   | -35  |         | +70 | °C    |
| Storage Temperature       |   | -40  |         | +85 | °C    |
| Relative Humidity         | Non-condensing (operating)                  | 10   |         | 100 | %RH   |

Note 1. Output connected in parallel with 0.1uF ceramic capacitor and 10uF electrolytic capacitor.

Note 2. Primary to Secondary Isolation test not to be carried on power supply.

Note 3. UL 1310 Class 2 product, except for LXV96-036SW which Class 2 for US only



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| EMC                       |              |           |       |
|---------------------------|--------------|-----------|-------|
| Parameter                 | Standard     | Level     | Units |
| Emissions                 |              |           |       |
| Conducted                 | EN55015      | Level B   |       |
| Radiated                  | EN55015      | Level B   |       |
| Harmonic Distortion       | EN61000-3-2  | Compliant |       |
| Flicker and Fluctuation   | EN61000-3-3  | Compliant |       |
| Immunity                  |              |           |       |
| ESD                       | EN61000-4-2  | Level 4   |       |
| Radiated RFI              | EN61000-4-3  | Level 3   |       |
| Fast Transients - burst   | EN61000-4-4  | Level 4   |       |
| Input Line Surges         | EN61000-4-5  | Level 4   |       |
| Conducted RFI             | EN61000-4-6  | Compliant |       |
| Power Freq Magnetic Field | EN61000-4-8  | Compliant |       |
| Voltage Dips              | EN61000-4-11 | Compliant |       |

### INPUT / OUTPUT WIRING

#### **INPUT CABLE**

SJTW 18AWG 3C

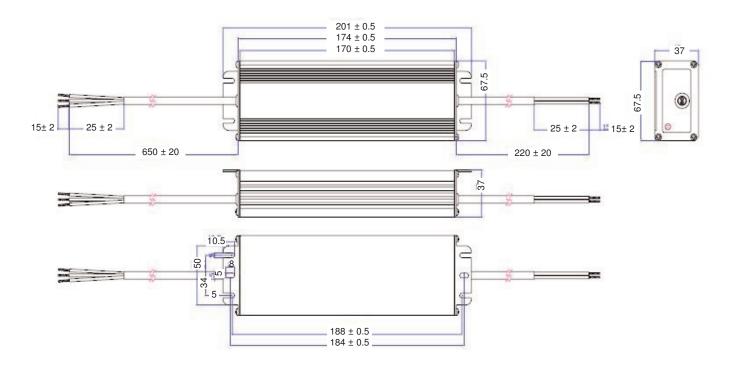
Black (L) and White(N), Green(E) 650±20mm

#### **MECHANICAL SPECIFICATIONS**

#### **OUTPUT CABLE**

SJTW 18AWG 2C

Black (-V) and Red (+V) 220±20mm



Specifications subject to change without notice

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