

# LDV series

## LED Power Supply

### Miniature LED Power Supplies

LED Power  
100W

#### LDV Series

##### FEATURES

- Universal Input: 90-264VAC
- Constant Output Voltage
- High Efficiency 91%
- IP67 rated
- Class 2 device (UL1310)
- Power Factor: Typical 0.95
- OCP, OVP, SCP, OTP

The LDV series can deliver up to 92W of output power in the smallest package size in the industry. These waterproof IP67, Class 2 LED drivers offer industry leading efficiencies of over 90% in the lowest profile (28mm) package.

These ultra compact LED power supplies are ideal for space critical applications including commercial refrigeration, retail and office lighting as well as harsh outdoor and urban lighting applications such as street lighting, emergency lighting, signs and displays.

For more information contact [sales@excelsys.com](mailto:sales@excelsys.com) or visit [www.excelsys.com](http://www.excelsys.com)

| Model Number | Output Voltage | Output Current (max) | Efficiency |
|--------------|----------------|----------------------|------------|
| LDV075-024SN | 24V            | 3.125A               | 90.0%      |
| LDV100-024SN | 24V            | 3.830A               | 91.0%      |

| Input Specifications      |  |              |           |             |            |
|---------------------------|--|--------------|-----------|-------------|------------|
| Parameter                 | Conditions/Description                                       | Min          | Nom       | Max         | Units      |
| Input Voltage Range       | Universal Input  | 90           |           | 264         | VAC        |
| Input Frequency Range     |  | 47           |           | 63          | Hz         |
| Input Current             | 240VAC, 92W<br>240VAC, 75W                                   |              |           | 0.45<br>0.4 | A          |
| Inrush Current            | 240VAC in, 25°C, Cold Start                                  |              |           | 40          | A          |
| Power Factor              | 240VAC, 110VAC   | 0.9          |           | 0.98        |            |
| Output Specifications     |  |              |           |             |            |
| Parameter                 | Conditions/Description                                       | Min          | Nom       | Max         | Units      |
| Line Regulation           |  |              |           | ±0.5        | %          |
| Load Regulation           |  |              |           | ±1.5        | %          |
| Voltage Accuracy          | % of Vout  |              |           | ±2.0        | %          |
| Ripple and Noise          | 20MHz Bandwidth. See Note 1                                  |              |           | 2.5         | % pk-pk    |
| Turn-on Delay             | Measured at 220VAC and full load                             |              |           | 0.5         | s          |
| Hold Up Time              |  | 15           | 20        |             | ms         |
| Over Current Protection   |  | 3.83         |           | 4.166       | A          |
| Overload Protection       | See Note 2   | 92           |           | 100         | W          |
| Short Circuit Protection  | Auto Recovery  |              |           |             |            |
| Over Voltage Protection   | Auto Recovery  |              |           | 34          | V          |
| Over Temp Protection      | Auto Recovery  | 90           | 100       | 110         | °C         |
| General Specifications    |  |              |           |             |            |
| Parameter                 | Conditions/Description                                       | Min          | Nom       | Max         | Units      |
| Isolation Voltage         | Input to Output See Note 3<br>Input to Chassis               | 3750<br>3750 |           |             | VAC<br>VAC |
| Efficiency                | See individual models  |              |           |             | %          |
| Safety Agency Approvals   | UL8750, UL1310, CSA C22.2 No.223,<br>EN61347-2-13, EN61347-1 |              |           |             |            |
| No load Power Dissipation | Measured at 100VAC and 240VAC                                |              |           | 1.5         | W          |
| MTBF                      | Telecordia SR-33, Full Load, 25°C                            |              | 1,000,000 |             | Hours      |
| Lifetime                  | T case = 60°C  |              | 100,000   |             | Hours      |
| Weight                    |  |              | 0.66      |             | Kg         |
| Operating Temperature     | Maximum T case = 80°C  | -30          |           | +50         | °C         |
| Storage Temperature       |  | -40          |           | +85         | °C         |
| Relative Humidity         | Non-condensing (operating)                                   | 5            |           | 95          | %RH        |
| Altitude                  | Operating, Non Operating 10,000m                             |              |           | 2000        | m          |
| Vibration                 | 5-500Hz, random vibration                                    |              |           | 1.0         | Grms       |
| Shock                     | Half-Sine, 11ms duration                                     |              |           | 10          | Grms       |

Note 1.  
Note 2.

Output connected in parallel with 0.1uF ceramic capacitor and 10uF electrolytic capacitor.  
LDV100-024SN is guaranteed to provide 92W output power at nominal output voltage. Output power will not exceed 100W under normal operating conditions, ensuring UL1310 Class 2 compliance under all conditions.

Note 3.  
Note 4.

Isolation test may not be carried out on unit. Contact Applications Support for details  
Maximum allowable case temperature is 80°C



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| EMC                              |                          |             |       |
|----------------------------------|--------------------------|-------------|-------|
| Parameter                        | Standard Tested To       | Level       | Units |
| <b>Emissions</b>                 |                          |             |       |
| <b>Conducted</b>                 | EN55015, EN55022 Class B | Compliant   |       |
| <b>Radiated</b>                  | EN55015, EN55022 Class B | Compliant   |       |
| <b>Harmonic Distortion</b>       | EN61000-3-2, Class C     | Compliant   |       |
| <b>Flicker and Fluctuation</b>   | EN61000-3-3              | Compliant   |       |
| <b>Immunity</b>                  |                          |             |       |
| <b>ESD</b>                       | EN61000-4-2              | Level 2     |       |
| <b>Radiated RFI</b>              | EN61000-4-3              | Level 3     |       |
| <b>Fast Transients - burst</b>   | EN61000-4-4              | Level 3     |       |
| <b>Input Line Surges</b>         | EN61000-4-5              | Level 3     |       |
| <b>Conducted RFI</b>             | EN61000-4-6              | Level 3     |       |
| <b>Power Freq Magnetic Field</b> | EN61000-4-8              | Compliant   |       |
| <b>Voltage Dips</b>              | EN61000-4-11             | Criterion B |       |

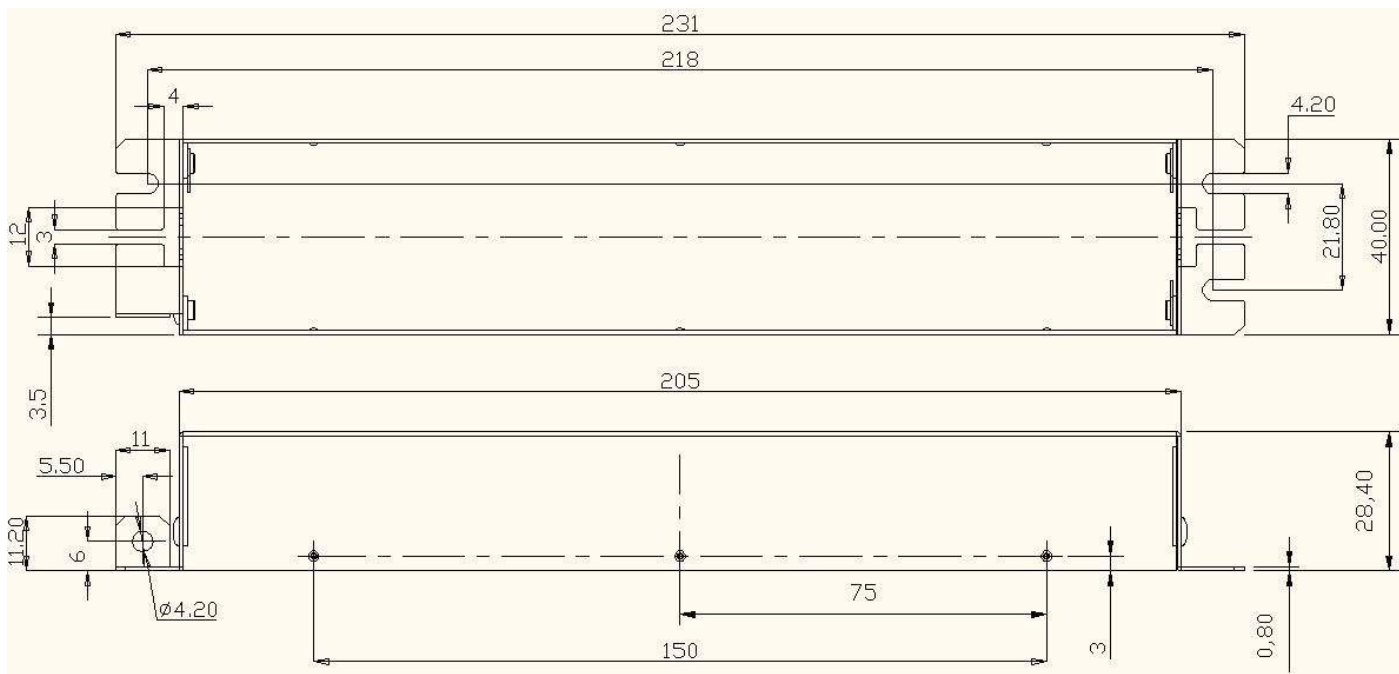
## INPUT / OUTPUT WIRING

### INPUT CABLE

Black (L) and White(N) 300±20mm  
18AWG

### OUTPUT CABLE

Red (+V) and Black (-V) 300±20mm  
18AWG



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