

# LCL Series



- Single Output Industrial Supplies
- High Efficiency
- Low Cost
- 150 W Convection Cooled
- 300 W & 500 W with Internal Fans
- Outputs from 12 V to 48 V
- 3 Year Warranty

The LCL series is a low cost chassis mount product that is popular in industrial applications. The AC/DC supplies are enclosed in a metal case with terminal block input and output connectors. Three series offer 150, 300 and 500 Watts. Each power range includes six single output models from 12 to 48 VDC. The user adjustable outputs cover all nominal voltage ranges. The LCL150 is convection cooled while the 300 and 500 Watt have internal fans.

All LCL models are approved to ITE (60950-1) safety standards and meet EN55022 Level B conducted emissions. Operating temperature range is from -10 °C to +70 °C with derating above +50 °C. Standard features include overvoltage, overload, short circuit, and over temperature protection. Remote sense is included on the LCL500 with Remote On/Off available with the LCL300 and LCL500.

## Models and Ratings

| Output Power | Output Voltage | Trim Range  | Output Current | Ripple & Noise <sup>(1)</sup> | Model Number |
|--------------|----------------|-------------|----------------|-------------------------------|--------------|
| 150 W        | 12.0 V         | 11.0-13.0 V | 12.5 A         | 100 mV pk-pk                  | LCL150PS12   |
|              | 13.5 V         | 12.5-14.5 V | 11.1 A         | 100 mV pk-pk                  | LCL150PS13   |
|              | 15.0 V         | 14.0-16.0 V | 10.0 A         | 100 mV pk-pk                  | LCL150PS15   |
|              | 24.0 V         | 23.0-25.0 V | 6.3 A          | 150 mV pk-pk                  | LCL150PS24   |
|              | 27.0 V         | 26.0-28.0 V | 5.6 A          | 150 mV pk-pk                  | LCL150PS27   |
|              | 48.0 V         | 47.0-49.0 V | 3.1 A          | 250 mV pk-pk                  | LCL150PS48   |
| 300 W        | 12.0 V         | 11.0-13.0 V | 25.0 A         | 150 mV pk-pk                  | LCL300PS12   |
|              | 13.5 V         | 12.5-14.5 V | 22.0 A         | 150 mV pk-pk                  | LCL300PS13   |
|              | 15.0 V         | 14.0-16.0 V | 20.0 A         | 150 mV pk-pk                  | LCL300PS15   |
| 310 W        | 24.0 V         | 23.0-25.0 V | 13.0 A         | 150 mV pk-pk                  | LCL300PS24   |
| 315 W        | 27.0 V         | 26.0-28.0 V | 11.7 A         | 200 mV pk-pk                  | LCL300PS27   |
| 320 W        | 48.0 V         | 47.0-49.0 V | 6.70 A         | 240 mV pk-pk                  | LCL300PS48   |
| 500 W        | 12.0 V         | 11.0-13.0 V | 42.0 A         | 120 mV pk-pk                  | LCL500PS12   |
|              | 13.5 V         | 12.5-14.5 V | 37.0 A         | 150 mV pk-pk                  | LCL500PS13   |
|              | 15.0 V         | 14.0-16.0 V | 34.0 A         | 150 mV pk-pk                  | LCL500PS15   |
|              | 24.0 V         | 23.0-25.0 V | 21.0 A         | 150 mV pk-pk                  | LCL500PS24   |
|              | 27.0 V         | 26.0-28.0 V | 18.5 A         | 150 mV pk-pk                  | LCL500PS27   |
|              | 48.0 V         | 47.0-49.0 V | 10.5 A         | 240 mV pk-pk                  | LCL500PS48   |

Notes:

1. Measured with 20 MHz bandwidth.

## Input Characteristics

| Characteristic            | Minimum                             | Typical | Maximum | Units | Notes & Conditions                                                                                                                 |
|---------------------------|-------------------------------------|---------|---------|-------|------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage - Operating | 85                                  |         | 264     | VAC   | Derate output power < 90 VAC. See fig. 1.                                                                                          |
| Input Frequency           | 47                                  |         | 63      | Hz    |                                                                                                                                    |
| Power Factor              |                                     | >0.9    |         |       | EN61000-3-2 class A compliant<br>LCL150: EN61000-3-2 class C for loads ≥40%<br>LCL300 & LCL500: EN61000-3-2 class C for loads ≥40% |
| Input Current - Full Load |                                     |         | 2.1     | A     | LCL150 at 90 VAC                                                                                                                   |
|                           |                                     |         | 4.5     |       | LCL300 at 90 VAC                                                                                                                   |
|                           |                                     |         | 6.6     |       | LCL500 at 90 VAC                                                                                                                   |
| Inrush Current            |                                     |         | 50      | A     | LCL150, 230 VAC, cold start 25 °C                                                                                                  |
|                           |                                     |         | 60      |       | LCL300 & LCL500, 230 VAC, cold start 25 °C                                                                                         |
| Earth Leakage Current     |                                     |         | <2      | mA    | 264 VAC/60 Hz                                                                                                                      |
| Input Protection          | T3.15 A/250 V internal in-line fuse |         |         |       | LCL150                                                                                                                             |
|                           | T6.3 A/250 V internal in-line fuse  |         |         |       | LCL300                                                                                                                             |
|                           | T10 A/250 V internal in-line fuse   |         |         |       | LCL500                                                                                                                             |

## Input Derating Curve

Figure 1

