

L2000 SERIES

Single output



[2 YEAR WARRANTY]

- Load currents up to 400A
- 3 phase or single phase input
- Shutdown on phase loss
- 3 phase power factor correction
- Single wire current share to 5%
- Ideal for N+1 applications
- Current monitor output included
- UL, CSA, TÜV safety approvals

The L series is a range of single output, high current power supplies ideally suited to a broad range of applications. Robust performance and field proven reliability are hallmarks of this series. Field reliability in excess of 100,000 hours has been documented. The L series will provide stable power for any large electronic system including telecommunication, data processing and industrial. Typical applications include broadcast systems, ATM systems and RISC processors and systems. Semiconductor test equipment, semiconductor and wafer processing equipment and functional board level testers are other possible applications. Industrial uses include applications such as laser cutting, water purification, battery charging, machine control, large scale data logging and optical inspection equipment. Current sharing, built-in current monitoring, voltage margining and remote adjustment capability are standard features. Other system interface features include AC and DC good, OVP, OCP, over temperature protection and remote enable. Worldwide safety certifications are included.

SPECIFICATION All specifications are typical at nominal input, full load at 25°C unless otherwise stated

| OUTPUT SPECIFICATIONS | | |
|--------------------------|--|---|
| Voltage adjustability | Accessible at front panel | ±10% |
| Remote sense | Open/reverse sense lead protection Compensates for voltage drop of up to 0.5V to the load | |
| Regulation, line or load | All outputs, NL to FL at nominal line or all line variations at FL | ±0.2%; 10mV |
| Overshoot/undershoot | | None at turn on/off |
| Transient response | Main output 25% step load change at 1A/μs | ≤5.0% max. dev., ≤200μs recovery to 1.0% |
| Temperature coefficient | | ±0.02%/°C |
| Ripple and noise | 0Hz to 20MHz | 50mV pk-pk or 1.0% |
| Overvoltage protection | Reset by cycling AC | 115% to 130% of nominal |
| Overload protection | | 105% to 115% full load |
| Short circuit protection | 90% of rated load | Auto recovery |
| Thermal protection | | Auto shutdown, AC reset |
| Current sharing | ±5.0% | 50% to 100% load |
| Current monitor (V1) | 5VDC at full load | ±0.5V |
| INPUT SPECIFICATIONS | | |
| Input voltage range | 3 phase 1 phase (optional) | 180 to 264VAC 180 to 264VAC |
| Input frequency range | | 47Hz to 63Hz |
| Input surge current | | Meets IEEE std. 587.1980; 3kV ring wave |
| Input current | 208VAC, 3 phase 208VAC, 1 phase | 8A 20A |
| Power factor | 3 phase 1 phase | 0.94 0.65 |
| Power up time | Full load | 1.0s max. |

| EMC CHARACTERISTICS | | |
|-----------------------------------|--|---|
| Radiated noise | EN55022/11, FCC part 15 | Level A |
| Conducted noise | EN55022/11, FCC part 15 | Level A |
| Electrostatic discharge | EN61000-4-2 | Level 3 |
| RF field susceptibility | EN61000-4-3 | Level 3 |
| Electrical fast transients/bursts | EN61000-4-4 | Level 3 |
| Surge susceptibility | EN61000-4-5 | Level 3 |
| GENERAL SPECIFICATIONS | | |
| Hold-up time | 230VAC, 2kW load | 25ms min. |
| Efficiency | 230VAC, full load | 78% |
| Isolation voltage | Input/output Input/chassis Output/output | 3000VAC 1500VAC 500VAC |
| Switching frequency | | 100kHz |
| Approvals and standards | | TÜV EN60950, UL1950, CSA C22.2 No. 234/950 |
| Weight | | 10kg (22lbs) |
| Size | | 5 x 8 x 11 inches 127 x 203.2 x 279.4 mm |
| MTBF | | >100,000 hours |
| ENVIRONMENTAL SPECIFICATIONS | | |
| Thermal performance | Operating ambient Non-operating | 0°C to +50°C -15°C to +85°C |
| Cooling | 45CFM | Internal DC ball bearing fan |
| Relative humidity | Non-condensing | 0% to 95% RH |
| Altitude | Operating Non-operating | 6,000 feet max. 55,000 feet max. |
| Vibration | 5Hz to 500Hz | 2.4G rms peak |

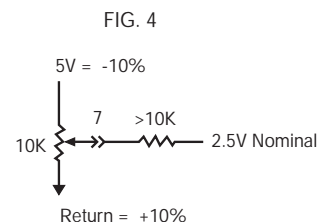
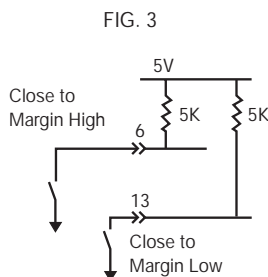
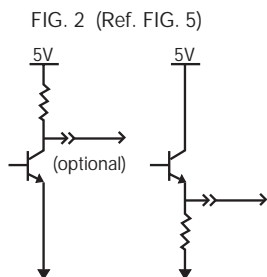
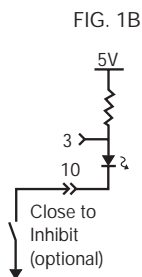
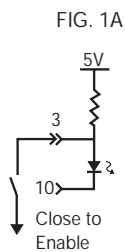
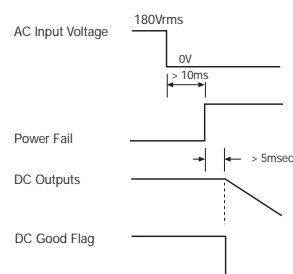
2000 Watt AC/DC high current power supplies

| MAX. OUTPUT POWER | INPUT VOLTAGE ⁽³⁾ | OUTPUT VOLTAGE | OUTPUT CURRENT | MODEL NUMBER ⁽³⁾ |
|-------------------|------------------------------|----------------|----------------|-----------------------------|
| 2000W | Single Phase | 2V | 400A | L2000-26-0 |
| 2000W | Single Phase | 3.3V | 400A | L2000-26-9 |
| 2000W | Single Phase | 5V | 400A | L2000-26-1 |
| 2000W | Single Phase | 12V | 166A | L2000-26-2 |
| 2000W | Single Phase | 15V | 133A | L2000-26-3 |
| 2000W | Single Phase | 24V | 83A | L2000-26-4 |
| 2000W | Single Phase | 28V | 71A | L2000-26-5 |
| 2000W | Single Phase | 48V | 42A | L2000-26-6 |
| 2000W | Three Phase | 2V | 400A | L2000-86-0 |
| 2000W | Three Phase | 3.3V | 400A | L2000-86-9 |
| 2000W | Three Phase | 5V | 400A | L2000-86-1 |
| 2000W | Three Phase | 12V | 166A | L2000-86-2 |
| 2000W | Three Phase | 15V | 133A | L2000-86-3 |
| 2000W | Three Phase | 24V | 83A | L2000-86-4 |
| 2000W | Three Phase | 28V | 71A | L2000-86-5 |
| 2000W | Three Phase | 48V | 42A | L2000-86-6 |

| STANDARD CONTROL SIGNALS | |
|-------------------------------------|--|
| Remote Enable | See Figure 1A |
| DC OK (See Figures 2, 5) | Signal remains "Hi" as long as output is $\pm 5.0\%$ of nominal |
| AC Good (See Figures 2, 5) | Signal "Hi" when AC >175VAC and "Lo" when <175VAC |
| Margin Hi/Lo (V1) (See Figure 3) | Switch closure allows $\pm 5\%$ change in output for system margin checking |
| Remote Adjust (See Figure 4) | The outputs may be remotely adjusted linearly $\pm 10\%$ for system margin checking |
| Current Monitor | Analog signal indicates load current in single or parallel operation. $5 \pm 0.5\text{VDC}$ represents FL, resistive load $10^3\text{k}\Omega$ |
| Supply Fault | Ovoltage, overtemperature indicated by 'low' signal |

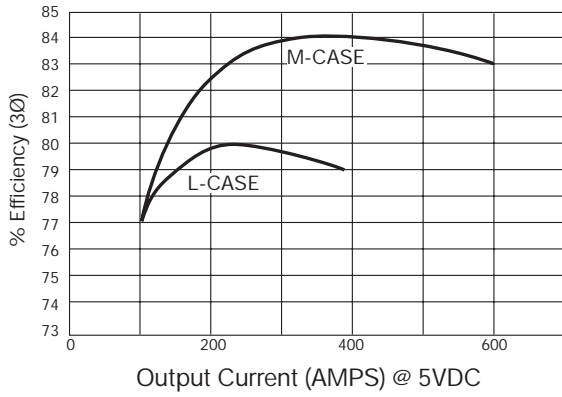
- Note**
- Units available with 4.5V, 5.2V, 10V, 13V, 20V, 30V and 32V. Please consult factory for further details.
 - Consult factory for any output voltage requirement up to 60VDC which is not listed.
 - Models with '-26' are single phase input; '-86' indicates 3 phase input.

FIG. 5
AC Power Fail Signal/DC OK Timing

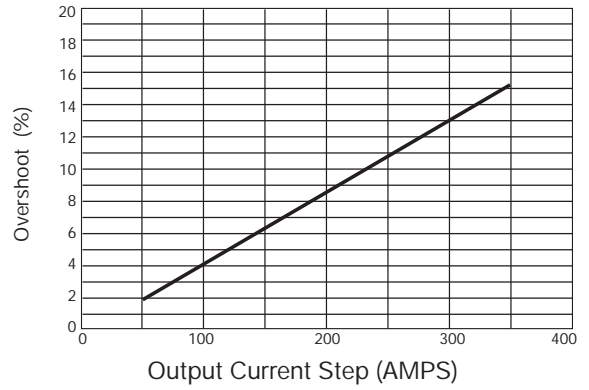


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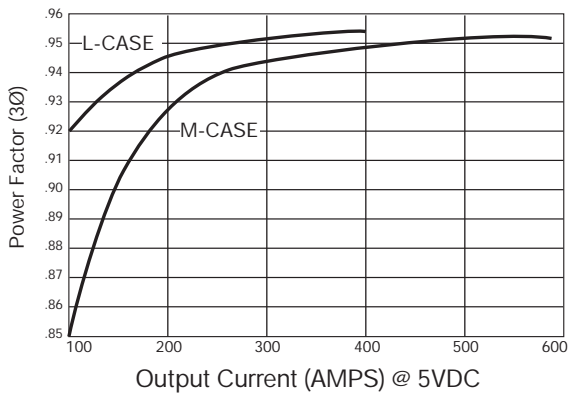
EFFICIENCY V'S OUTPUT CURRENT



TRANSIENT RESPONSE



POWER FACTOR V'S OUTPUT CURRENT



International Safety Standard Approvals

TÜV VDE0805/EN60950/IEC950 File No. R9172195



UL1950 File No. E135734



CSA C22.2 No. 950 Bulletin No. 1402C