



# Slimline Power Supply

User Configurable 1U size



patents pending



Slimline

## PLUG & PLAY POWER next generation power source

### FEATURES

- Slimmest 400W configurable power
- Extra low profile: 1U height (40mm)
- All outputs fully floating
- Ultra high efficiency, up to 89%
- Plug & Play Power
  - allows fast custom configuration
  - allow easy logistics
- FLEXIMOUNT Flexible mounting system
- Few electrolytic capacitors (all long life)
- Visual LED indicators
- Series / Parallel of multiple outputs
- 5V bias standby voltage provided
- Individual output control signals

### APPLICATIONS INCLUDE

- Industrial machines
- Test and measurement
- Automation equipment
- Printing
- Telecommunications
- For Medical applications see Xmite

The Xlite family of power supplies provides up to 600W in a slimline 1U x 260 x 89mm package. Providing up to 8 isolated outputs, the Xlite family is the most flexible power supply in its class and brings affordable configurable power to the 200-600W market.

The slimline product boasts unrivalled power density saving valuable system space. Combine with ultra high efficiencies, the Xlite family provides system designers with flexible instant solutions that significantly shorten and simplify system design-in time.

The Xlite family consists of 3 *powerPac* models in 200W, 400W and 600W power levels. Each *powerPac* model may be populated with up to 4 *powerMods* selected from the table of *powerMods* shown below.

All configurations carry full safety agency approvals, UL60950, EN60950 and are CE marked.

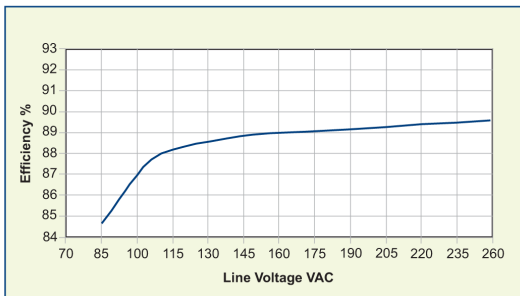
#### powerMods

| MODEL | Vmin | Vnom | Vmax | I <sub>max</sub> | Watts |     |
|-------|------|------|------|------------------|-------|-----|
| Xg1   | 1.5  | 2.5  | 3.6  | 50A              | 125W  |     |
| Xg2   | 3.2  | 5.0  | 6.0  | 40A              | 200W  |     |
| Xg3   | 6.0  | 12.0 | 15.0 | 20A              | 240W  |     |
| Xg4   | 12.0 | 24.0 | 30.0 | 10A              | 240W  |     |
| Xg5   | 28.0 | 48.0 | 58.0 | 6A               | 288W  |     |
| Xg7   | 5.0  | 24.0 | 28.0 | 5A               | 120W  |     |
| Xg8   | v1   | 5.0  | 24.0 | 28.0             | 3A    | 72W |
|       | v2   | 5.0  | 24.0 | 28.0             | 3A    | 72W |

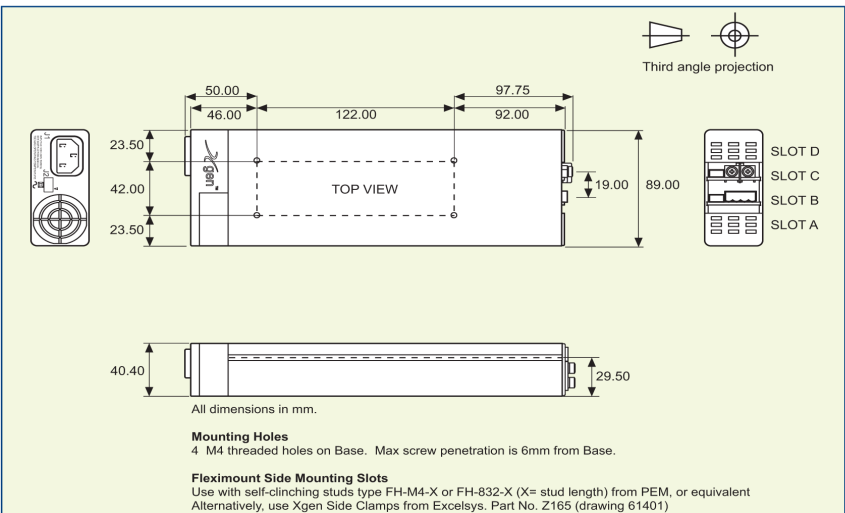
#### powerPacs

|       | MODEL | Watts |
|-------|-------|-------|
| Xlite | XLA   | 200W  |
|       | XLB   | 400W  |
|       | XLC   | 600W  |

### EFFICIENCY (typical)



### MECHANICAL SPECIFICATIONS



**SPECIFICATION** applies to configured units consisting of *powerMods* modules plugged into the appropriate *powerPac*

| 5INPUT                |                        |  |     |           |       |
|-----------------------|------------------------|--|-----|-----------|-------|
| Parameter             | Conditions/Description | Min  | Nom | Max       | Units |
| Input Voltage Range   | Universal Input        | 85   |     | 264       | VAC   |
|                       |                        | 120  |     | 380       | VDC   |
| Input Frequency Range |                        | 47   |     | 63        | Hz    |
| Power Rating          | XLA                    |  |     | 200       | W     |
|                       | XLB                    |  |     | 400       | W     |
|                       | XLC                    | Derate linearly from 600W at 180VAC to 400W at 85VAC |     | 600       | W     |
| Input Current         | XLA                    | 85VAC in 200W out                                    | 4.0 |           | A     |
|                       | XLB                    | 85VAC in 400W out                                    | 6.0 |           | A     |
|                       | XLC                    | 85VAC in 400W out                                    | 7.5 |           | A     |
| Inrush Current        | 230VAC @ 25°C          |  |     | 50        | A     |
| Undervoltage Lockout  | Shutdown               | 65   |     | 74        | VAC   |
| Fusing                | XLA                    | 250V 5 x 20mm  |     | F5A HRC   |       |
|                       | XLB                    | 250V 5 x 20mm  |     | F6.3A HRC |       |
|                       | XLC                    | 250V 5 x 20mm  |     | F8A HRC   |       |

| OUTPUT                  |  |           |     |          |         |
|-------------------------|--|-----------|-----|----------|---------|
| Parameter               | Conditions/Description   | Min       | Nom | Max      | Units   |
| <i>powerMod</i> Power   | As per <i>powerMod</i> table   |           |     |          |         |
| Output Adjustment Range | Manual: Multi-turn potentiometer. As per <i>powerMod</i> table                                 |           |     |          |         |
|                         | Electronic: See Xgen Designers' Manual   |           |     |          |         |
| Minimum Load            |  |           | 0   |          | A       |
| Line Regulation         | For ±10% change from nominal line  |           |     | ±0.1     | %       |
| Load Regulation         | For 25% to 75% load change   |           |     | ±0.2     | %       |
| Cross Regulation        |  |           |     | ±0.2     | %       |
| Transient Response      | For 25% to 75% load change Voltage Deviation Settling Time                                     |           |     | 10       | %       |
|                         |  |           |     | 250      | µs      |
| Ripple and Noise        | 20MHz Bandwidth  |           |     | 1.0      | % pk-pk |
| Overvoltage Protection  | Two-level. 1st level: Vset Tracking. 2nd level: Vmax (Latching)                                | 110       |     | 125      | %       |
| Overcurrent Protection  | Straight line with hiccup activation at <30% of Vnom<br>See Designer's Manual for full details | 110       |     | 120      | %       |
| Remote Sense            | Max. line drop compensation. (except Xg7, Xg8)   |           |     | 0.5      | VDC     |
| Overshoot               |  |           |     | 2        | %       |
| Turn-on Delay           | From AC In / Enable signal   |           |     | 300 / 30 | ms      |
| Rise Time               | Monotonic  |           |     | 5        | ms      |
| Hold-up Time            | For nominal output voltages at full load   | 20        |     |          | ms      |
| Output Isolation        | Output to Output / Output to Chassis   | 500 / 500 |     |          | VDC     |

| GENERAL                 |  |      |     |     |       |
|-------------------------|--|------|-----|-----|-------|
| Parameter               | Conditions/Description                               | Min  | Nom | Max | Units |
| Isolation Voltage       | Input to Output                                      | 3000 |     |     | VAC   |
|                         | Input to Chassis                                     | 1500 |     |     | VAC   |
| Efficiency              | 230VAC, 400W @ 24V                                   |      | 89  |     | %     |
| Safety Agency Approvals | EN60950, UL60950, CSA22.2 No.950 UL File No. E181875 |      |     |     |       |
| Leakage Current         | 250VAC, 60Hz, 25°C                                   |      |     | 1.5 | mA    |
| Signals                 | See Xgen Series datasheet                            |      |     |     |       |
| Bias Supply             | Always ON. Current 250mA                             | 4.9  | 5.0 | 5.1 | VDC   |
| Reliability             | Failures per million hours at 25°C and full load     |      |     | 1.0 | fpmh  |
|                         | See Designers' Manual. <i>powerPac</i> excludes fans |      |     | 0.5 | fpmh  |

| EMC                     |                        |       |           |       |     |
|-------------------------|------------------------|-------|-----------|-------|-----|
| Parameter               | Standard               | Level |           | Units |     |
| <b>Emissions</b>        |                        |       |           |       |     |
| Conducted               | EN55011, EN55022, FCC  |       | Level B   |       |     |
| Radiated                | EN55011, EN55022, FCC  |       | Level B   |       |     |
| Harmonic Distortion     | EN61000-3-2            |       | Compliant |       |     |
| Flicker and Fluctuation | EN61000-3-3            |       | Compliant |       |     |
| <b>Immunity</b>         |                        |       |           |       |     |
| Electrostatic Discharge | 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            |       | Class 4   |       |     |
| Conducted RFI           | EN61000-4-6            |       | 10        |       | V/m |
| Voltage Dips            | EN61000-4-11 (EN55024) |       | 10        |       | ms  |

| ENVIRONMENTAL         |   |     |     |     |       |
|-----------------------|---|-----|-----|-----|-------|
| Parameter             | Conditions/Description  | Min | Nom | Max | Units |
| Operating Temperature |   | -20 |     | +70 | °C    |
| Storage Temperature   |   | -40 |     | +85 | °C    |
| Derating              | 2.5% per °C above 40°C. See Designers Manual for full deratings |     |     |     |       |
| Relative Humidity     | Non-condensing  | 5   |     | 95  | %RH   |
| Shock                 | 3000 Bumps, 10G (16ms) half sine                                |     |     |     |       |
| Vibration             | 1.5G  | 10  |     | 200 | Hz    |

- NOTES**
1. This product is not intended for use as a stand alone unit and must be installed by qualified personnel.
  2. The specifications contained herein are believed to be correct at time of publication and are subject to change without notice.
  3. All specifications at nominal input, full load, 25°C unless otherwise stated.