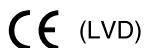


- **UL, CSA, VDE and BABT approved**
- **115/230VAC input selectable**
- **Input surge current protection**
- **Overvoltage protection on +5V output**
- **Fast transient response**

These low power multi-output switchers offer 60 Watts of output power in a compact open frame package. The XL50 are quad output units, which can deliver 60 Watts. The four models in this series provide output voltage combinations of +5V, -5V, +12V, -12V, +15V, -15V and +24V. VDE/FCC level B conducted EMI compliance are standard as is VDE, UL, CSA and BABT approvals. These low power units are ideal for small computer applications. Designed for microprocessor and VDU applications, with memory, disk drives, printers and other I/O devices.

[2 YEAR WARRANTY]



SPECIFICATION

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

OUTPUT SPECIFICATIONS		
Line regulation	All outputs, LL to HL See Notes 2 and 3	±0.3%
Load regulation	+5V output Auxiliary outputs See Notes 1, 2 and 3	±3.0% typ. ±5.0% typ.
Overshoot/undershoot	At turn-on	0%
Transient response	+5V (2.5A to 5.0A) 12V, 15V, 24V, (50% to 100% FL)	60mV peak dev., 500µs recovery 100mV peak dev., 500µs recovery
Temperature coefficient	All outputs	±0.02%/°C, max.
Overvoltage protection	+5V output	6.25V ±0.75V
Output power limit		Pin 90W max. Pout 70W, min.
INPUT SPECIFICATIONS		
Input voltage range	110VAC 230VAC	90 to 132VAC 180 to 264VAC
Input frequency range		47Hz to 440Hz
Input surge current	230VAC	14A
Safety ground leakage current	110VAC, 60Hz	0.5mA, max.

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS		
Conducted emissions	EN55022, EN55011 FCC, VDE0871	Level B Level B
GENERAL SPECIFICATIONS		
Hold-up time	110/230VAC	30ms typ.
Efficiency		70% typical
Isolation voltage	Input/output Input/chassis	3000VAC 1500VAC
Switching frequency	Fixed	20kHz min.
Approvals and standards	Safety	VDE0805, EN60950 IEC950, UL1950, BABT CSA C22.2 No. 950
Weight		550g (19.42oz)
MTBF		460,000 hours
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating Non-operating 0°C to +50°C, convection cooled +50°C to +70°C, convection cooled	0°C to +70°C -20°C to +85°C 60W Derate 1.5W/°C
Relative humidity	Non-condensing	5% to 95% RH
Altitude	Operating Non-operating	10,000 feet max. 30,000 feet max.
Vibration, See Note 4	5Hz to 500Hz	1G Peak

International Safety Standard Approvals

VDE0805/EN60950/IEC950 File No. 10401-3336-1003
Licence No. 1230

UL1950 File No. E136005

CSA C22.2 No. 950 File No. LR41062C/LR50913C/LR101320

XL50-4601 Certificate No. 601004, XL50-4602 Certificate No. 601003,
XL50-4603 Certificate No. 601002

60 Watt AC/DC user-selectable input switch mode power supplies

OUTPUT POWER	OUTPUT VOLTAGE AND CURRENT ⁽¹⁾				REGULATION ^(2,3)		NOISE PK-PK	MODEL NUMBER
	V1	V2	V3	V4	V1	V2, 3, 4		
60W	+5V@6A*	+12V@3A*	-12V@0.7A	-5V@0.7A	±3.0%	±5.0%	1.0%	XL50-4601
60W	+5V@6A*	+24V@2A*	-12V@0.7A	+12V@0.7A	±4.0%	±5.0%	1.0%	XL50-4602
60W	+5V@6A*	+12V@3A*	-12V@1.5A	+12V@0.7A	±3.0%	±5.0%	1.0%	XL50-4603
60W	+5V@6A*	+15V@2A*	-15V@0.7A	-5V@0.7A	±4.0%	±5.0%	1.0%	XL50-4604

Notes

- Peak current in excess of the maximum indicated rating may be available on some outputs. However, this will affect output regulation. Consult factory for details.
- For stated regulation:
* $0.4 \leq I_1/I_2 \leq 6$ and $I_1 + I_2 \leq 8A$
where I_1 is V1 output current and I_2 is V2 output current.
Regulation in the output voltage and current table is defined as the static output regulation at 25°C, including initial tolerance, line voltage within stated limits, and output voltages adjusted to their factory settings.
- The following minimum loads are required to ensure operation within specified regulation limits:
XL50-4601: 5V/1A, +12V/500mA
XL50-4602: 5V/1A, +24V/400mA
XL50-4603: 5V/1A, +12V/500mA +12V/1A
XL50-4604: 5V/1A, +15V/500mA
- Three orthogonal axes, sweep at 1 octave per minute. 30 minute dwell at each major resonance.
- Fuse is rated at 2A/250V.
- This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.

PIN CONNECTIONS				
P1	-4601	-4602	-4603	-4604
Pin 1	AC Live	AC Live	AC Live	AC Live
Pin 2	AC Neutral	AC Neutral	AC Neutral	AC Neutral
Pin 3	AC Ground	AC Ground	AC Ground	AC Ground
P2				
Pin 1	-5V	+12V	+12V	-5V
Pin 2	-12V	-12V	-12V	-15V
Pin 3	+12V	+24V	+12V	+15V
Pin 4	Return	Return	Return	Return
Pin 5	Return	Return	Return	Return
Pin 6	+5V	+5V	+5V	+5V
Pin 7	+5V	+5V	+5V	+5V

AC mating connector

Molex 09-92-0500 or equivalent with 2478 series crimp terminal or equivalent.

DC mating connector

Molex 09-92-1300 or equivalent with 2478 series crimp terminal or equivalent.

