

LX350 SERIES

Flexible single and multiple outputs

- **350W continuous, 550W peak output power**
- **Industry standard footprint, low profile**
- **Conducted noise to meet EN55022 class B**
- **AC and DC input voltage options in same package**
- **Efficiency up to 88%**
- **Optional power sharing/VME signals**
- **Autoranging input**



[2 YEAR WARRANTY]



The LX350 series offers 350 Watts of continuous output power in a low profile industry standard footprint. With two standard single output options and a flexible standard multiple output version, the series can address most requirements as standard. The design is specifically tailored to allow full flexibility and modifications to meet customer applications can be implemented with relative ease. The LX350 AC input series meets the safety requirements of EN60950, VDE0805, UL1950 and CSA 22.2 No. 950. Input conducted noise levels meet the requirements of EN55022 class B. LX350 series power supplies are ideal for use in applications such as point-of-sale equipment, central and public telecom power systems and network equipment.

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

OUTPUT SPECIFICATIONS		
Voltage adjustability	Vout on singles +5V output on multiple	-8%/+16% ±20%
Remote sense		±10%
Line regulation (LL to HL, FL)	Single outputs Multiple: +5V output Multiple: aux. outputs, Note 4	±0.2% ±0.2% ±0.5%
Load regulation (20% to 100% FL)	Singles Multiple: +5V output Multiple: ±12, +24V outputs Multiple: -5V output, Note 4	±0.2% ±1.0% ±2.0% ±4.0%
Cross regulation	5A load step on main output Auxiliary outputs, Note 4	1.0%
Transient response	25% di/dt	1% max. dev. 1ms recovery
Temperature coefficient	Main/single output Multiple: auxiliary outputs	±0.02%/°C ±0.04%/°C
Overvoltage protection	Main/single output	130% ±10% Vout
Output power limit	Multiples: primary power limited Singles: current foldback	600W Pout 105%-120% Iout
Short circuit protection	All outputs	Yes
INPUT SPECIFICATIONS		
Input voltage range See Note 5	Autorange fitted as standard Drop-out voltage	98 to 132VAC 190 to 264VAC 90VAC
Input surge current		25A, max.
Input frequency		50Hz/60Hz
Safety ground leakage current	110VAC, 60Hz 230VAC, 50Hz	1.6mA 2.5mA
Remote OFF		Logic 0 on ROF

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS		
Conducted emissions	EN55022, level B	
Radiated emissions	EN55022	
ESD air	EN61000-4-2, level 3	Perf. criteria 1
ESD contact	EN61000-4-2, level 4	Perf. criteria 1
Surge	EN61000-4-5, level 3	Perf. criteria 1
Fast transients	EN61000-4-4, level 3	Perf. criteria 1
Radiated immunity	EN61000-4-3, level 3	Perf. criteria 2
Conducted immunity	EN61000-4-6, level 3	Perf. criteria 1
GENERAL SPECIFICATIONS		
Hold-up time	110/230VAC	28ms
Efficiency		82% min.
Isolation voltage	Input/output Input/chassis	3000VAC 1500VAC
Switching frequency	Fixed	44kHz
Approvals and standards, See Note 7	EN60950, VDE0805, UL1950 CSA C22.2 No. 950	
Weight		2.5kg (88oz)
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating Non-operating 0°C to 40°C ambient, convection cooled 40°C to 70°C ambient, convection cooled Peak (0°C to 40°C, max. 10s)	0°C to +70°C -25°C to +85°C 350W Derate linearly to 25% full load 550W
Relative humidity	Non-condensing	5% to 95% RH
Altitude	Operating Non-operating	10,000 feet max. 30,000 feet max.
Vibration	Operating, 5-50Hz Operating, 50-100Hz Non-operating	0.05mm, pk-pk 0.025mm pk-pk 100mm drop on chassis face

350 Watt

AC/DC universal input switch mode power supplies

OUTPUT VOLTAGE	OUTPUT CURRENTS		OUTPUT RIPPLE		MODEL NUMBER
	MAX (1)	PEAK (2)	RMS	PK-PK	
+5.0V	50.0A	100.0A	0.2%	2.0%	LX350-7620
-5.0V	4.0A	10.0A	0.2%	2.0%	
-12.0V	4.0A	10.0A	0.2%	2.0%	
+12.0V	8.0A	20.0A	0.2%	2.0%	
+24.0V	4.0A	10.0A	0.2%	2.0%	
24.0V (3)	16.0A	-	0.1%	1.0%	LX350-7624
48.0V (3)	8.0A	-	0.1%	1.0%	LX350-7617

INPUT CONNECTIONS

Pin 1	Earth
Pin 2	Neutral
Pin 3	Live

OUTPUT CONNECTIONS

	MULTI O/P	SINGLE O/P	SIGNALS
1	+5VS	0VS	$\overline{\text{SRS}}$
2	+5V	0V	$\overline{\text{ACF}}$
3	+5V	0V	$\overline{\text{DCF}}$
4	+5V	0V	PM
5	0V	0V	PS
6	0V	0V	$\overline{\text{ROF}}$
7	0V	+V	+VS
8	-5V	+V	0V
9	-12V	+V	-
10	+12V	+V	-
11	+24V	+VS	-
12	$\overline{\text{ROF}}$	$\overline{\text{ROF}}$	-

OVERLOAD/SHORT CIRCUIT PROTECTION

The overload/short circuit protection mechanisms are different for the single output models and the multiple output model.

The single output models will current limit when the output load reaches 105-120% of maximum load during overload or short circuit conditions.

The unit will operate in a constant current mode making the single output models suitable for battery charging applications.

The multiple output model uses a power limiting function. When the total output power reaches 600W the outputs will foldback to the values detailed below:

Output	Foldback Value
+5V	30A continuous
+12V	8A continuous
+24V	4A continuous
-5V/-12V	Protected by 4A Multi Fuse™

The outputs will not foldback until the total output power exceeds the maximum power limits. This allows the units to have a peak power capability but it requires that care must be taken not to permanently overload any individual output. The +5V, +12V and +24V outputs are not individually protected and it is recommended that the maximum continuous load does not exceed the value given in the output specifications. The -5V and -12V outputs are individually protected by a 4A Multi Fuse™ and the maximum continuous load should not exceed the value given in the output specifications.

Notes

- The multiple output LX350 has a continuous output power rating of 350W. The single-output versions have a continuous output power rating of 385W.
- Peak power figures for individual outputs on the multiple output unit are for less than 10 seconds duration. The overall peak power for the unit is 550W for 10 seconds duration.
- Single output models are adjustable -8%, +16%.
- A 10% load on the main output is necessary to maintain regulation on the auxiliaries at full load (multi output model).
- The input board is fitted with an autorange circuit as standard which automatically senses the input voltage and switches to the appropriate voltage range.
- This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- Consideration should be given to measuring the temperature on the main transformer (T1) when the power supply is installed in end-use equipment. The measured temperature on T1 must not exceed 90°C. For further information on the LX350 safety approvals, contact Computer Products.

Options

- DC input models for 24V and 48V operation are detailed on the LX200, LX350 and LX550 series DC/DC converter data sheet on page 170.
- A safety cover and signals board are available as options. To order, add the suffixes '-C', '-S' respectively, see table below.

OPTIONS	SUFFIX	EXAMPLE
None		LX350-76xx
Cover	-C	LX350-76xx-C
Signals	-S	LX350-76xx-S
Cover and Signals	-C-S	LX350-76xx-C-S

SIGNALS (OPTIONAL)

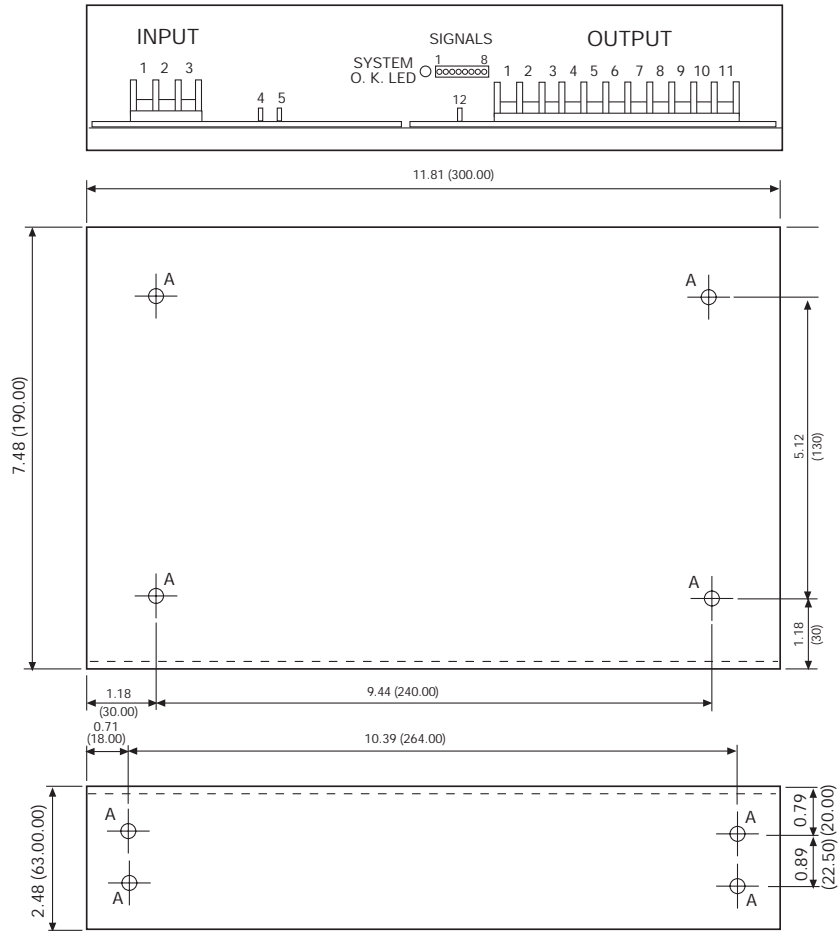
An optional signals board supplies the following VME utility bus signals:

- $\overline{\text{ACF}}$ (AC Fail) Logic 1 to 0 transition occurs >10ms before outputs fall below 80%-85% of nominal in the event of input failure.
- $\overline{\text{DCF}}$ (DC Fail) Logic 0 occurs if output falls below <85%-95% of nominal.
- $\overline{\text{SRS}}$ (System Reset) Logic 1 for system OK (AC and DC good and reset times [200ms])
- PM Power Monitor signal, proportional to the output power, ratio of 10mV/W, $\pm 10\%$.
- PS Power Share connections, to be joined for parallel operation of two or more units, ensuring equal power share. For power share operation unit outputs need to be set to $\pm 5\%$ of each other and should be connected in star configurations with the load as star centre.

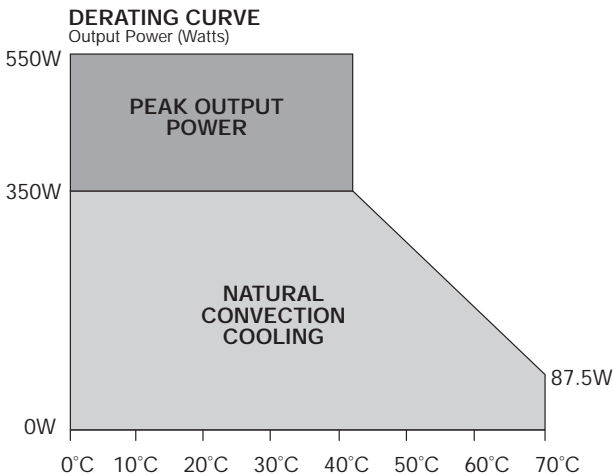
350 Watt AC/DC universal input switch mode power supplies

Mechanical notes

- A Input and output connectors are 3 way and 11 way 9.5mm barrier strip with M4 X 8 fixings, 250V 20A. Signals board connector is 8 way, single row right angle 0.1", Molex 910210128, this mates with 90147 1108 or equivalent.
- B Customer fixing screws (A) are M3 isometric. They must not penetrate into unit by more than 5mm.



ALL DIMENSIONS IN INCHES (mm)



International Safety Standard Approvals:

Multiple output and 24V Single output units are approved to these standards. Safety approval pending for 48V output model. See Note 7

EN60950/VDE0805 Reg. File No. 90370

UL1950 File No. E136005

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

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