

12Vdc Power Supply (from 120VAC)

Features:

- Output: 12Vdc, 27Amperes
- Input: 100 to 240Vac, 50-60Hz
- Power: 300W
- Efficiency: 78% min.
- Overload protection
- Over voltage protection
- Enclosure material: polycarbonate
- Enclosure unaffected by humidity
- Enclosure is UL 508, self-extinguishing

General Description:

This power supply is optimized to operate with the LSI “LS089 - Relay Junction Box”.

Note: there are no serviceable parts in the power supply.



CAUTION!

For class 1 division 2: the power supply inside is certified class 1 division 2. The installation must be accomplished by a qualified technician to ensure compliance of the wiring to class 1 division 2.



WARNING!

For class 1 division 2: always ensure the area is known to be non-hazardous before connecting or disconnecting wires.

Table of contents

Features:.....	1
General Description:	1
Table of contents	2
Ordering information	2
Specifications.....	3
Absolute maximum ratings.....	3
Power supply approved standard	4
Enclosure approved standard	4
Overload protection	4
Overvoltage protection	4
Dimensions	5
Installation note	5
Wiring.....	6

Ordering information

Model	Description
LS088	Power supply in its enclosure

Related part numbers:

LS089: LSI Relay Junction Box
Enclosure Fibox AR1084SC

LS088

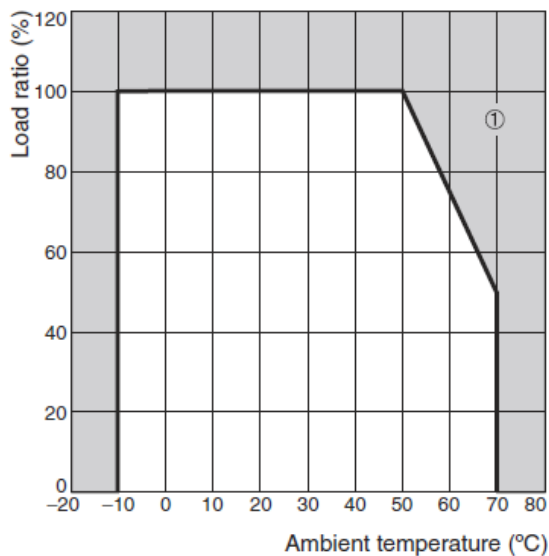
Specifications

Parameter		Min	Typ	Max	Unit
Input	Voltage	100		240	VAC
	Frequency	50		60	Hz
	Current on 100V			4.3	A
	Current on 200V			2.2	A
	In rush current on 100V			20	A
	In rush current on 200V			40	A
Output	Ripple			2.0%	p-p
	Input variance influence			0.4%	
	Load variation influence			0.6%	
	Temperature variance influence			2%	
	Startup time			1.0	Sec
Other	Weight	LS088		6 (2,7)	lbs (kg)

Absolute maximum ratings

Parameter	Test Condition	Min	Typ	Max	Unit
Input voltage		80		264	V
Storage Temperature		-25 (-13)		+65 (+150)	°C (°F)

Operating Temperature: see graph below



Power supply approved standard

UL: UL508 (Listing), UL60950-1, UL1604 (Class I/Division 2, Listing)
CSA: cUL: C22.2 No.14, No.213 (Class I/Division 2), cUR: No. 60950-1
EN: EN50178, EN60950-1
SELV (EN60950-1)
According to VDE0160/P100 SEMI-F47 (200 VAC input)
Conforms to EN61204-3 EN55011 Class B and based on FCC Class B

Enclosure approved standard

Flammability Rating (UL 746 C 5): complies with UL 508, Self-extinguishing
Glow Wire Test (IEC 695-2-1) °C: 960
NEMA Class: UL Type 4, 4X, 6, 6P, 12 and 13
Electrical insulation: Totally insulated
UV resistance: UL 508
Good resistance to chemical attack

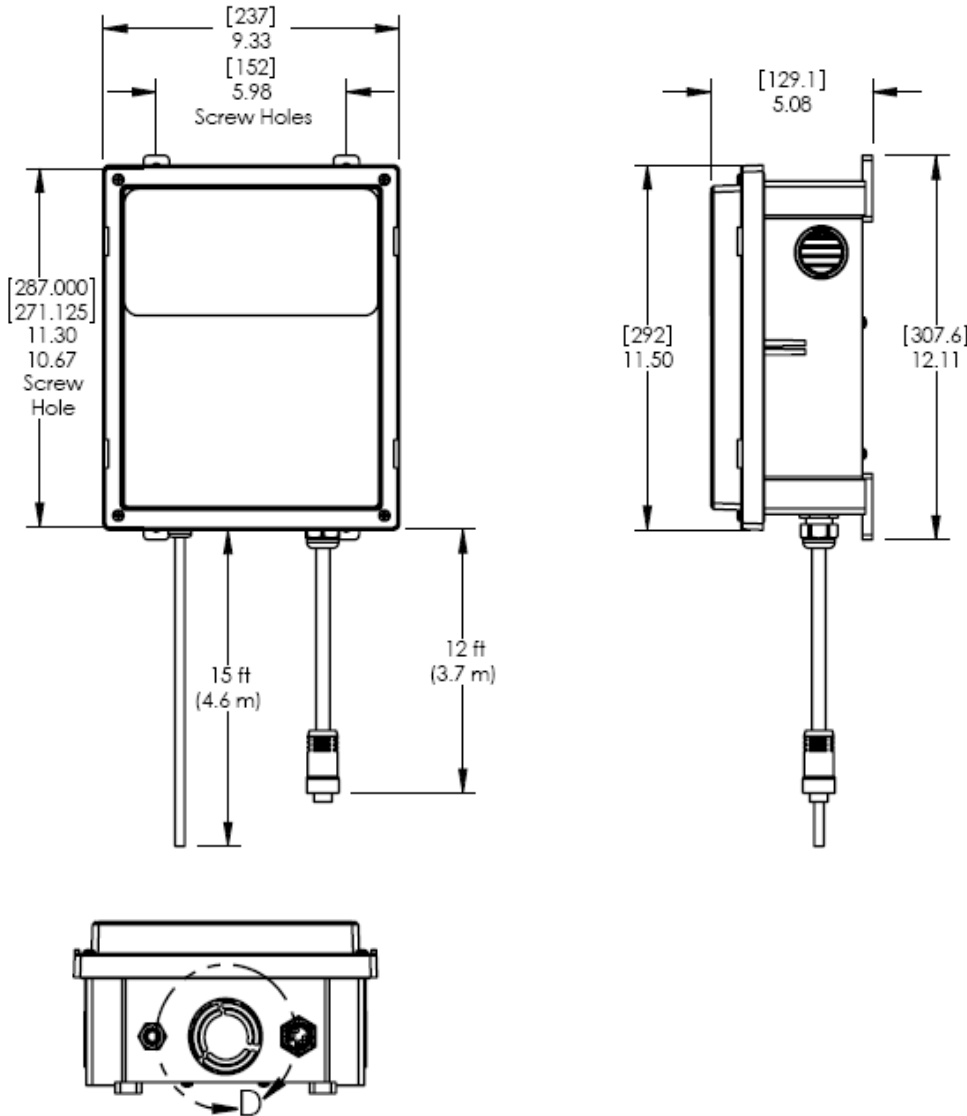
Overload protection

The Power Supply is provided with an overload protection function that protects the Power Supply from possible damage by short-circuit and overcurrent. When the output current rises above 105% min. of the rated current, the protection function is triggered, automatically decreasing the output voltage. When the output current falls within the rated range, the overload protection function is automatically cleared.

Overvoltage protection

When an excessive voltage (approximately 140% of the rated voltage or more) is output, the output voltage is shut OFF, preventing damage to the load. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

Dimensions




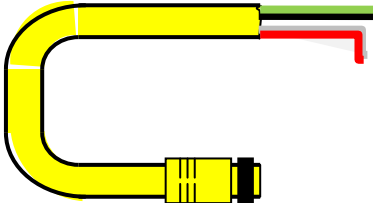
Power supply enclosure (not to scale)

Units are in inches [millimeters]

Installation note

Install the power supply in an area protected from direct rain.

Wiring

 <p><i>Power supply cable: 120Vac</i></p>	<p>120 Volts cable, input voltage</p> <table border="0"> <thead> <tr> <th><u>Wire Colour</u></th> <th><u>Function</u></th> </tr> </thead> <tbody> <tr> <td>Black:</td> <td>120Vac (called 'live')</td> </tr> <tr> <td>White</td> <td>120Vac (called 'neutral')</td> </tr> <tr> <td>Green</td> <td>Ground</td> </tr> </tbody> </table>	<u>Wire Colour</u>	<u>Function</u>	Black:	120Vac (called 'live')	White	120Vac (called 'neutral')	Green	Ground
<u>Wire Colour</u>	<u>Function</u>								
Black:	120Vac (called 'live')								
White	120Vac (called 'neutral')								
Green	Ground								
 <p><i>Figure: Yellow cable, LSI part N^o TM174 12 ft, 4 conductors</i></p> <p><i>Note: the connector mates with the "LS089 Relay junction box"</i></p>	<p>12 Volts cable, output voltage</p> <table border="0"> <thead> <tr> <th><u>Wire Colour</u></th> <th><u>Function</u></th> </tr> </thead> <tbody> <tr> <td>Black & Green</td> <td>Negative (ground)</td> </tr> <tr> <td>Red & White</td> <td>Positive 12 V</td> </tr> </tbody> </table> <p>Note: both black and green wires are connected to ground and both the red and the white are connected to the positive supply to reach the maximum cable power rating and prevent cable heating.</p>	<u>Wire Colour</u>	<u>Function</u>	Black & Green	Negative (ground)	Red & White	Positive 12 V		
<u>Wire Colour</u>	<u>Function</u>								
Black & Green	Negative (ground)								
Red & White	Positive 12 V								