

AC-DC Adapter

LAS75-220S48D

165Vac to 265Vac Input; -48Vdc/1.5A Output

RoHS Complaint



Applications

- Telecommunication networks

Features

- Compliance with RoHS6 EU Directive 2011/65/EU
- Single phase input
- Delivers up to 1.5A output current
- High efficiency up to 88%
- Low noise output
- Input under voltage lockout
- Output over voltage protection
- Output over current protection
- short circuit protection
- Meets IEC60950-1

Description

The LAS75-220S48D power module is an AC/DC adapter. It can operate 165-265Vac input and -48Vdc/1.5A output, The power supply provides input under voltage, output over voltage, over current and short circuit protection.

Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only, functional operation of the device is not implied at these or any other conditions in excess of those given in the operations sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect the device reliability.

Parameters	Units	Specifications		Notes & conditions
		Min.	Max.	
Operating Ambient Temperature	°C	-25	55	Tested in a enclosed box
Storage Temperature	°C	-40	70	
Operating Humidity	RH(%)	10	90	Non-condensing
Storage Humidity	RH(%)	10	90	Non-condensing
Operating Altitude	m	0	3000	
Non-operating Altitude	m	0	3000	

Electrical Specifications

Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and room temperature conditions.

Input Characteristics

Parameters	Units	Specifications			Notes & conditions
		Min.	Typ.	Max.	
Operating Input Voltage	Vac	165	200	265	
Input Fuse	A	-	2	-	250Vac slow blow fuse

Output Characteristics

Parameters	Units	Specifications			Notes & conditions
		Min.	Typ.	Max.	
Output Voltage	Vdc	-47.52	-48	-48.48	Io=Io(min) to Io(max)
Output Current	A	-	1.5	-	

AC-DC Adapter

Technical Specification LAS75-220S48D

Line regulation	%Vo	-	-	1	
Load regulation	%Vo	-	-	1	Vin=Vin(nom)
Output Voltage Precision	%Vo	-	-	1	
Output Current Limit	A	2	2.5	3	
Temperature Coefficient	ppm/°C	-	-	200	-25-55°C
Ripple and Noise	mVp-p	-	-	150	Vin=Vin(min) to Vin(max) Io=Io(nom) Measured with 10uF Tantalum and 1uF ceramic capacitor in parallel, 20MHz bandwidth
Dynamic Response	Overshoot	%Vo	-	-	±5
	Recovery Time	ms	-	1.5	-

Protection Characteristics

Parameters	Units	Specifications			Notes & conditions
		Min.	Typ.	Max.	
Input Under Voltage Lockout	Vac	-	80	-	Io=Io(max)
Output Over voltage Protection	Vdc	-	-54	-	Latch off
Output Over current Protection		-	Yes	-	Hiccup Mode, Automatic Recovery
Short Circuit Protection		-	Yes	-	Hiccup Mode, Automatic Recovery

General Specifications

Parameters	Units	Specifications			Notes & conditions
		Min.	Typ.	Max.	
Efficiency	%	86	88	-	25°C, 220Vac input, 100% load
MTBF	Hour	1,000,000			25°C, 100% load

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Safety	Compliant to IEC60950-1, UL60950-1, EN60950-1 and GB4943
Vibration	IEC60068-2-6:10-500Hz sweep, 0.75mm excursion, 10g acceleration, 10 minutes in each 3 perpendicular directions
Transportation	ETS300019-1-2
Shock	IEC60068-2-27:200g acceleration, duration 3 ms, 6 drops in each 3 perpendicular directions

Isolation Specifications

Parameters		Units	Specifications			Notes & conditions
			Min.	Typ.	Max.	
Isolation Voltage	Input-Output	Vac	-	3000	-	3000Vac test duration 1 minute, leakage current is no more than 10mA, no arcing or breakdown
	Input-Case	Vac	-	1500	-	1500Vac test duration 1 minute, leakage current is no more than 10mA, no arcing or breakdown
	Output-Case	Vac	-	500	-	500Vac test duration 1 minute, leakage current is no more than 10mA, no arcing or breakdown
Isolation Resistance		MΩ	100	-	-	25°C, 70% humidity, 750Vdc test voltage
Ground Resistance		Ω	-	-	0.1	

Outline Diagram and Pin Designation

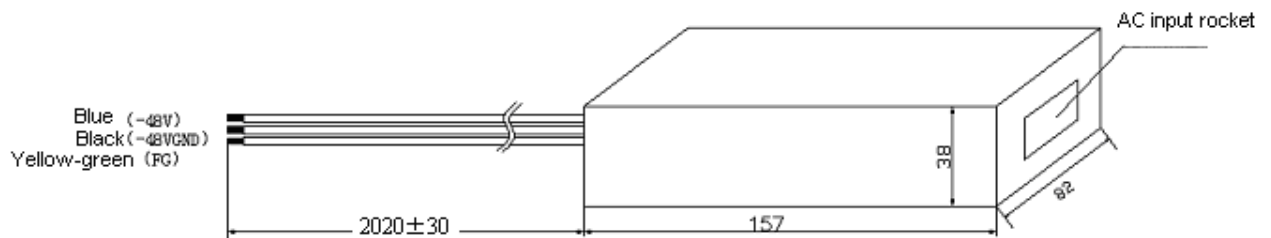


Figure1. Adapter Outline Diagram

Dimensions are in millimeters.

Tolerances: x.x mm ± 0.5 mm, x.xx mm ± 0.25 mm [unless otherwise indicated]

Table1 AC input connector pin-outs

Symbol	Function
L	Input live line
N	Input Neutral line
PE	Protected Earth

Table2 AC output connector pin-outs

Symbol	Function
Blue	-48V positive output
Black	-48V negative output
Yellow-green	Protected Earth

Packaging Details

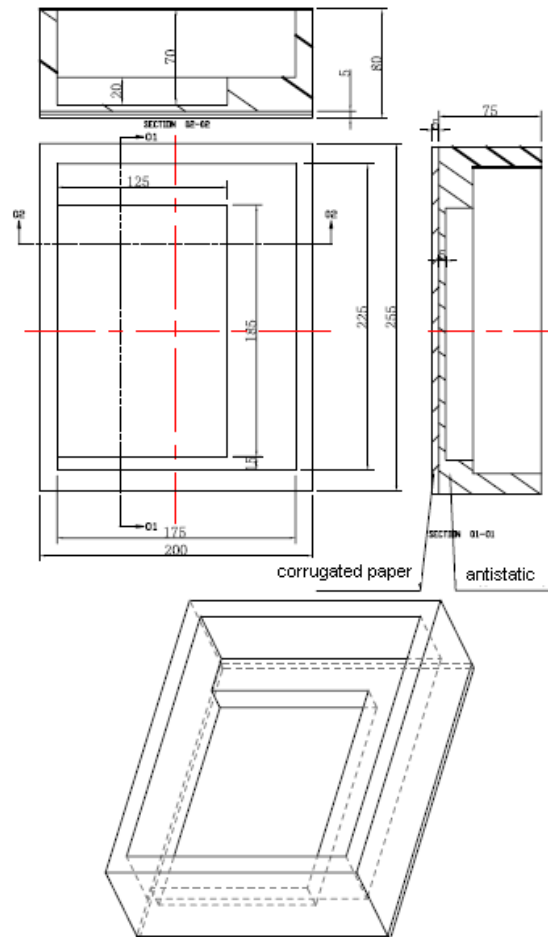
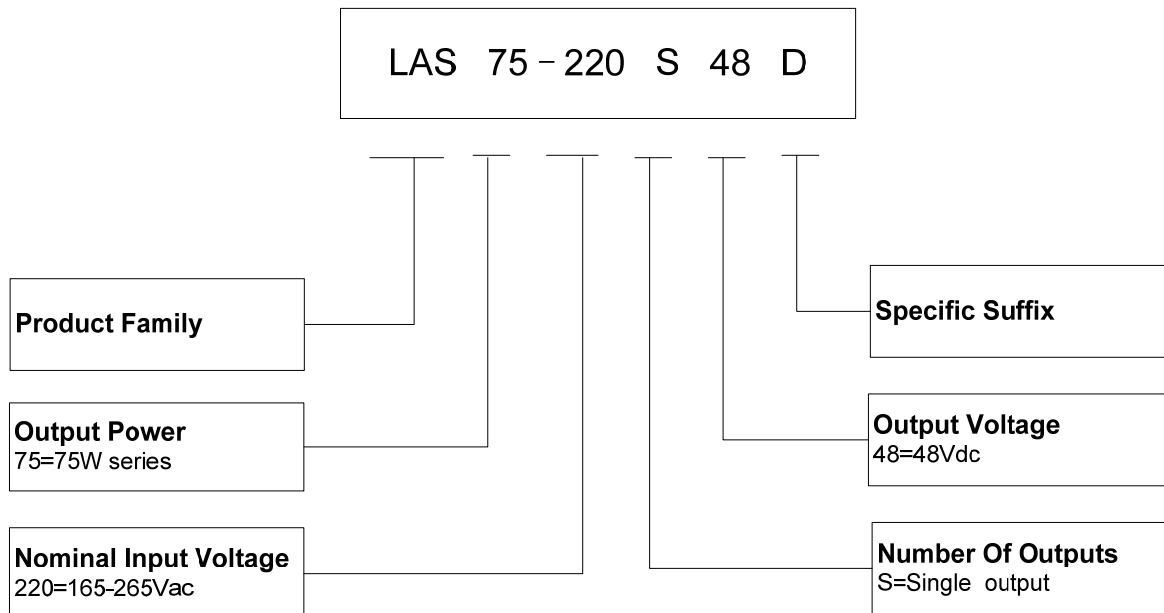


Figure2. Pac kaging Tray Diagram

Tray Specifications

Material	PPE ,antistatic
Surface resistance	$<10^{10}\text{Ohm}$
Bakability	The trays can be baked at maximum 125°C for 48 hours maximum
Tray capacity	1 products/tray

Naming Rules On Models

For more information please contact SUPLET Co., Ltd.

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