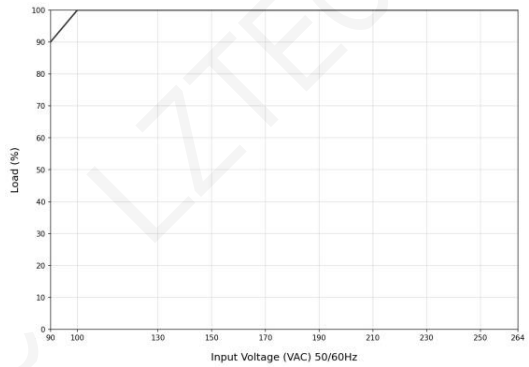
480W AC/DC Din Rail Mount Power Supply

- Voltage input range: 90–264 VAC/127–370 VDC
- Working temperature:-40~+70°C
- Short-circuit, overload, overvoltage & overtemperature protection
- Active PFC function, PF value up to 0.95
- Installation track: TS-35/7.5 or TS-35/15
- Natural air cooling
- 100% Full-load Aging

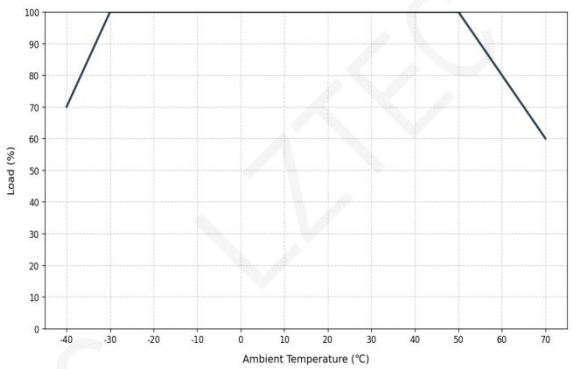
Product Model		LR480-S24A1	LR480-S36A1	LR480-S48A1
INPUT	Voltage Range	90~264VAC 127~370VDC(Refer to the derating curve)		
	Input current	2.5A/115VAC,1.3A/230VAC		
	Frequency Range	47~63Hz		
	Efficiency (typ.)	92%	92%	93%
	Power Factor	PF≥0.95@230VAC(Full Load)		
	Leakage current	< 2.0mA/240VAC		
	Surge current	Cold start inrush current: 50 A @ 230 VAC		
OUTPUT	DC Voltage	24V	36V	48V
	Rated Current	20A	13.3A	10A
	Power	480W	478W	480W
	Voltage adjustment range	23~28V	36~40V	48~53V
	Ripple & Noise	200mVp-p		
	Start, rise time	1500ms,100ms/230VAC(full load)		
	Hold-up time	16ms/230VAC(full load)		
	Line regulation	±0.5%		
	Load regulation	±1%		
	Voltage accuracy	±1%		
Environmental Requirements	Working Temperature and Humidity	-40 ~ +70℃, 20% ~ 95% RH, non-condensing (Refer to derating curve for details)		
	Storage Temperature and Humidity	Non-condensing at-40~+80°C and 10%~95% RH		
	Vibration	Frequency range: 10–500 Hz; acceleration: 2g; 10 minutes per sweep cycle; 6 cycles along X, Y, Z axes respectively.		
	Operating altitude	5000 m (above 2000 m; for every 100 m increase in elevation, the ambient temperature decreases by 0.5°C)		
EMC	EMC & Immunity	EN55035, EN61000-4-2, 3, 4, 5, 6, 8, 11;		
	EMC Emissions	EN55032 (CISPR 32), CLASS B GB17625.1, EN61000-3-2, 3		

Safety standard	Safety Regulations Scope	TUV BS EN/EN 62368-1, AS/NZ 62368.1, GB 4943, UL 62368		
	Dielectric strength	I/P-O/P: 3.0kVAC/10 mA; Input-to-case I/P-CASE: 2.0kVAC/10 mA Output---Case O/P-CASE: 0.5kVAC/10mA. Test duration per item: 1 minute		
	Insulation resistance	I/P-O/P：100 MΩ；I/P-FG：100 MΩ；O/P-FG：100 MΩ		
Protect	Overvoltage Protection	≤33V	≤46V	≤60V
		Latch mode, restore after restart upon fault clearance		
	Overload protection	110~180% rated power (constant current limiting, auto-recovery)		
	Overheat Protection	Output shutdown, auto-recovery after temperature drops		
	Short-circuit protection	Output short circuit protection, hiccup mode, auto-recovery after short removed		
Reliability	MTBF	At 25°C: ≥300,000 hours, MIL-217 Method		
Other	Size	85×123.4×128.4mm（W×H×D）		
	Pack	1.5kg per unit; 12units/carton; 19kg/carton		
	Cooling	Natural convection cooling		
Remarks	*Unless otherwise noted, all specifications are measured at 230 VAC input, rated load, 25°C ambient. *To extend service life, a 30% power margin is recommended when sizing loads. For example, if a device requires 100 W, select a power supply rated at no less than 130 W. *Measure at the power supply output terminals with a 20 MHz oscilloscope. The probe ground lead length shall not exceed 12 mm, and a 47 μF electrolytic capacitor and a 0.1 μF high-frequency capacitor shall be connected in parallel at the probe input. *The power supply is an integral component of the equipment system. All EMC tests must be conducted in conjunction with the terminal device to verify electromagnetic compatibility.			

PRODUCT FEATURE CURVE DIAGRAM

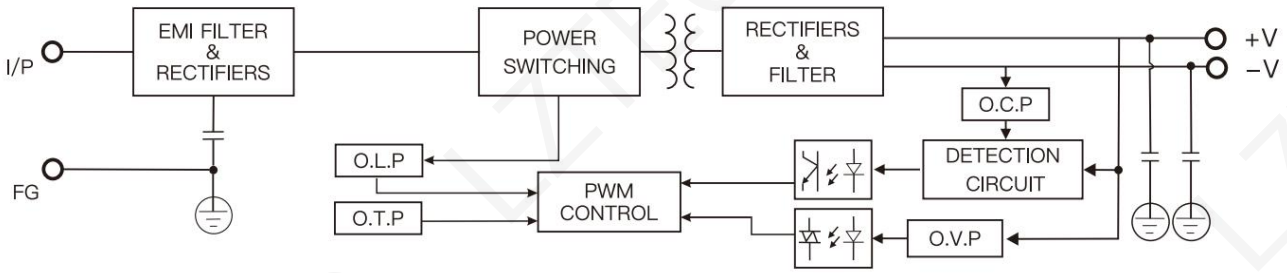


Input Voltage vs. Load Derating Curve



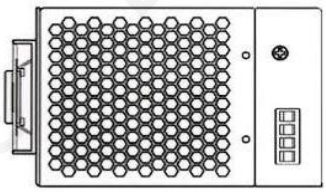
Temp vs. Load Derating Curve

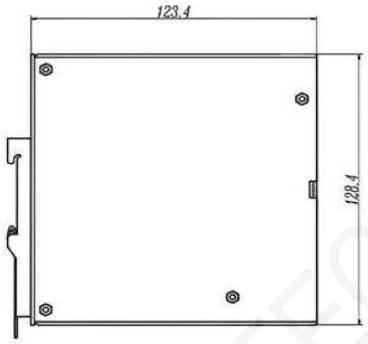
BLOCK DIAGRAM

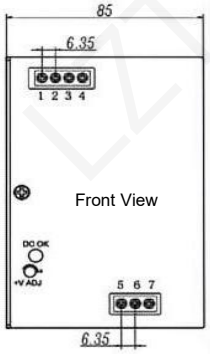


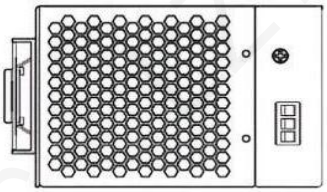
EXTERNAL DIMENSIONS

Top View









Bottom View

Pin	Function	Max. Torque (lb-in)	Terminal specifications/ Wire size & installation
1	+Vo	7Lb-in (Max)	6.35mm /22-12AWG
2	+Vo		
3	-Vo		
4	-Vo		
5	AC(L)	9Lb-in (Max)	
6	AC(N)		
7	FG		

Unit: mm

DC OK: Output status LED

ADJ: Adjustable output resistor

Track type: TS35; The track must be grounded.

No tolerance specified: ±1 mm

PRODUCT INSTALLATION AND USAGE INSTRUCTIONS

1. During installation, follow the installation instructions.

2. Before completing installation and initiating power-on trial operation, inspect and verify all wiring connections at the terminals to ensure correct input/output configurations, AC/DC polarity, positive/negative terminals, and voltage current values. Prevent reverse or incorrect connections to avoid damaging both the power supply and user equipment.

3. Before energizing, use a multimeter to check for short circuits in the live wire, neutral wire, and ground wire, as well as at the output terminals; it is advisable to initiate operation under no-load conditions.

4. Do not exceed the rated power output during use to avoid compromising product reliability. If you need to modify the power supply's output parameters, please consult our technical department before use to ensure optimal performance and reliability.

5. To ensure safety and minimize interference during use, ensure the grounding terminal is reliably grounded (using a grounding wire with a diameter greater than AWG18).

6.If the power supply malfunctions, do not repair it without authorization. Please contact our Customer Service Department as soon as possible.

7. The power supply must not be submerged in water or buried in soil for extended periods.

TRANSPORTATION&STORAGE

1. Transportation: This packaging is suitable for transportation by automobile, ship, aircraft, train, etc. During transit, protection against rain and proper handling during loading/unloading are required.

2. Storage: When not in use, the product should be stored within its packaging box under conditions where the ambient temperature and relative humidity meet the product's specifications. The warehouse must be free from corrosive gases or chemicals, and protected from strong mechanical vibrations, impacts, and strong magnetic fields. The packaging box should be placed at least 20 cm above the ground and at least 50 cm away from walls, heat sources, windows, or air vents; it must not be exposed to water. If stored for an extended period (over one year), the product must be re-inspected by qualified personnel before reuse.

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