

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



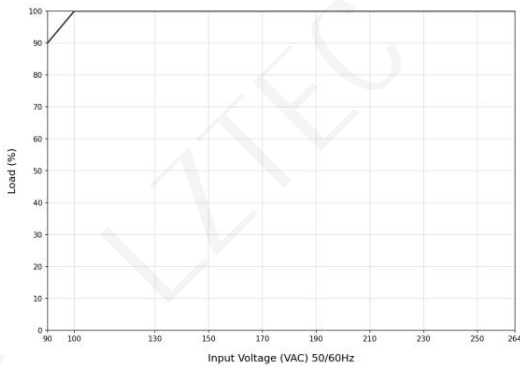
Product Model		LR120-S12A1	LR120-S24A1	LR120-S36A1	LR120-S48A1
INPUT	Voltage Range	90–264 VAC, 127–370 VDC (Refer to the derating curve)			
	Input current	2.2A/115VAC, 1.3A/230VAC			
	Frequency Range	47~63Hz			
	Efficiency (typ.)	85%	88%	88%	88%
	Leakage current	<1.0mA/240VAC			
	Surge current	Cold start inrush current: 50 A @ 230 VAC			
OUTPUT	DC Voltage	12V	24V	36V	48V
	Rated Current	10A	5A	3.3A	2.5A
	Power	120W	120W	120W	120W
	Voltage adjustment range	11~14V	23~28V	35~41V	47~55V
	Ripple & Noise	100mVp-p	120mVp-p	150mVp-p	150mVp-p
	Start, rise time	1200 ms, 60 ms/230 VAC (full load)			
	Hold-up Time	50 ms/230 VAC (full load)			
	Line regulation	±0.5%			
	Load regulation	±1%			
	Voltage accuracy	±2%	±1%	±1%	±1%
Environmental Requirements	Working Temperature and Humidity	-40 ~ +70°C, 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	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			

120W AC/DC Din Rail Mount Power Supply

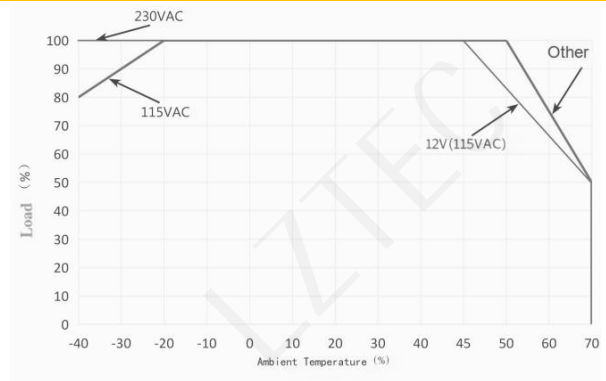


Safety standard	Safety Regulations Scope	TUV BS EN/EN 62368-1, AS/NZ 62368.1, GB 4943, UL 62368			
	Dielectric strength	Input-output I/P-O/P: 3.0kVAC/10 mA; Input-to-case I/P-CASE: 2.0kVAC/10 mA Output---Case O/P-CASE: 0.5Kvac/10mA. Test duration per item: 1 minute			
	Insulation resistance	I/P-O/P: 100 MΩ; I/P-FG: 100 MΩ; O/P-FG: 100 MΩ			
Protect	Overvoltage Protection	15~18V	29~34V	42~46V	60~65V
		Hiccup mode, auto-recovery			
	Overload protection	120%~180% of rated power, hiccup mode, auto-recovery			
	Overheat Protection	Output shutdown, auto-recovery after temperature drops			
	Short-circuit protection	Output short circuit triggers hiccup mode, auto-recovery after fault removal			
Reliability	MTBF	At 25°C: ≥300,000 hours, MIL-217 Method			
Other	Size	40×125.6×113.5mm (W×H×D)			
	Pack	0.6 kg per unit; 24units/carton; 15kg/carton			
	Cooling	Natural convection cooling			
Remarks	<p>*Unless otherwise noted, all specifications are measured at 230 VAC input, rated load, 25°C ambient.</p> <p>*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.</p> <p>*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.</p> <p>*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.</p>				

PRODUCT FEATURE CURVE DIAGRAM

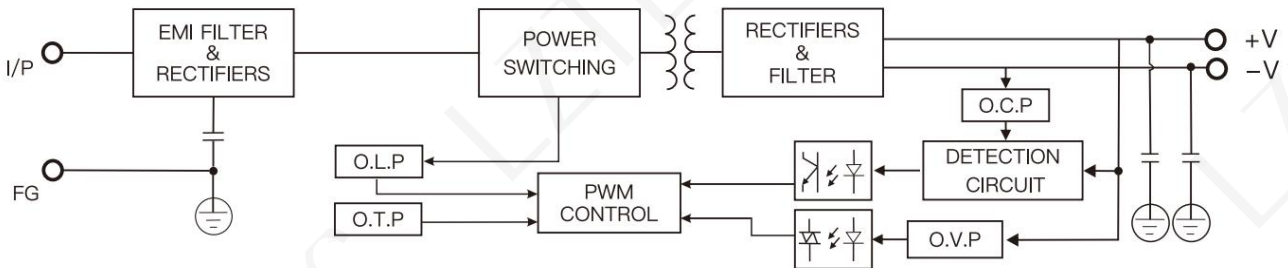


Input Voltage vs. Load Derating Curve

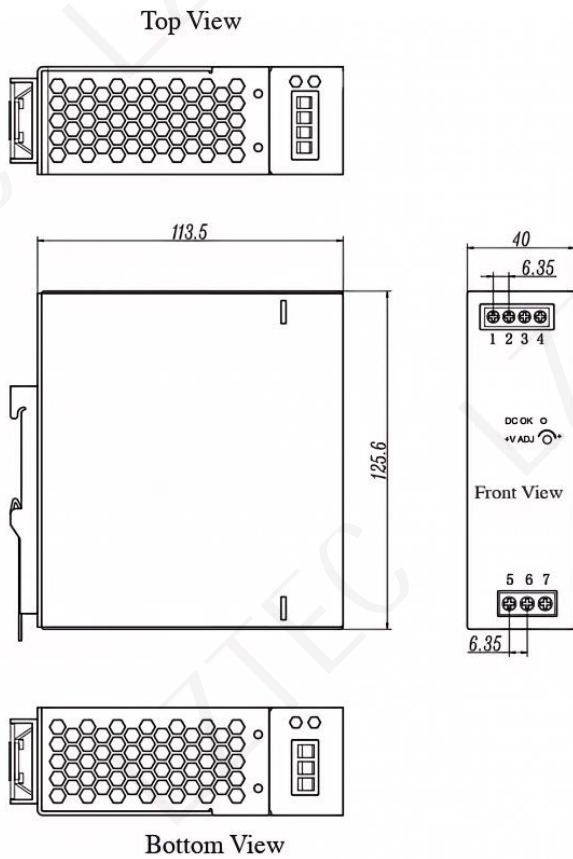


Temp vs. Load Derating Curve

BLOCK DIAGRAM



EXTERNAL DIMENSIONS



Pin	Function	Max. Torque (lb-in)	Terminal specifications/ Wire size & installation
1	-Vo	5.5Lb-in (Max)	6.35mm/ 22-12AWG
2	-Vo		
3	+Vo		
4	+Vo		
5	FG	6.5Lb-in (Max)	
6	AC(N)		
7	AC(L)		

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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