

## 120W/48V INDUSTRIAL POWER SUPPLY WITH DIN-RAIL: (KL-120WPS-48)



### DESCRIPTION:

KL-120WPA-48 is one economical slim 60W DIN Rail industrial power supply series, adapting to be installed on TS-35/7.5 or TS-35/15 mounting rails. The entire series adopts the full range AC input from 90VAC to 264VAC and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current.

KL-120WPA-48 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 89%, the entire series can operate at the ambient temperature between -40°C to 70°C under air convection. It is equipped with constant current mode for over load protection, fitting various inductive or capacitive applications.

### PRODUCT DETAILS:

- Power Input: AC 90~264V;
- Support production for short circuit/over current/over voltage;
- Wide operation temperature range: -40°C~70°C;
- 100% full load aging test;
- High efficiency, long life time and high reliability;
- Meet EMC Standard;

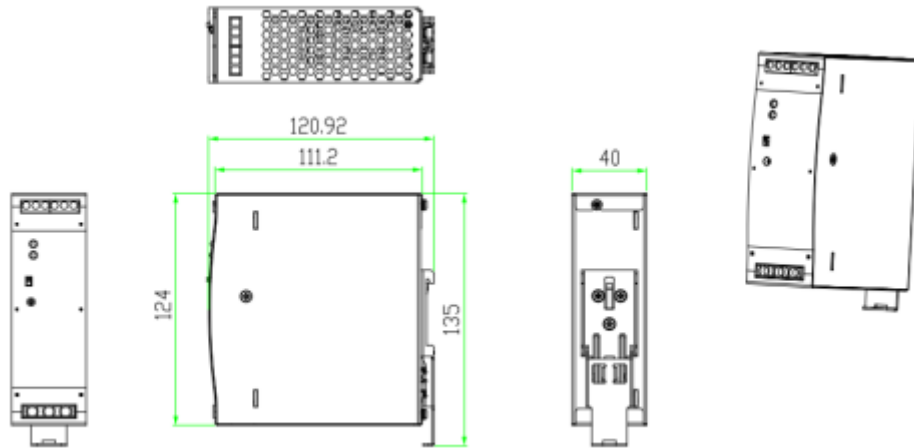
### TECHNICAL SPECIFICATIONS:

Specifications		KL-120WPA-48
Output	Group of Output	1
	DC Voltage	48V DC
	Default Output Voltage	48.00-48.2V (VIN: 220VAC / LOAD: 0A)
	Output Rated Current	2.5A

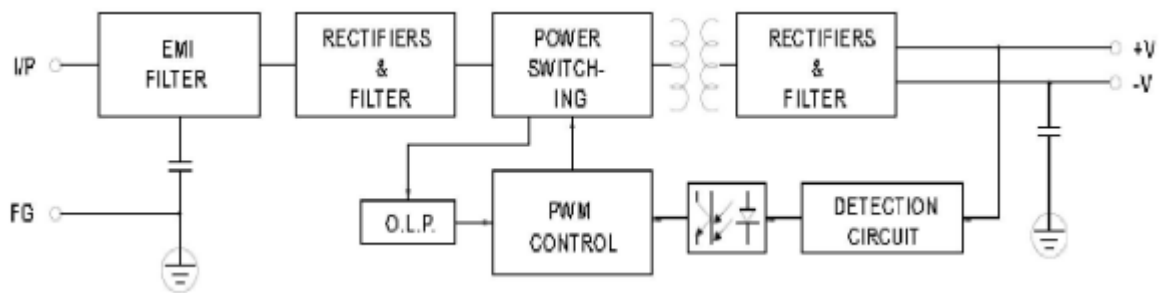
	Output Current Range	0-2.5A	
	Output Rated Power	120W	
	Total Peak Output Power	Up to 180W (Sustainable time 10S/220VAC)	
	Peak Output Current	3.75A(Sustainable time 10S/220VAC)	
	Ripple noise	Peak - Peak ≤100mV (Test Method: The terminal shall be in parallel with capacitance of 0.1uF and 47uF, testing at 20MHz)	
	Output Regulation Range	DC47~56V	
	Stabilized Voltage Precision	±1% (@ 90-264Vac input, 100% load)	
	Line Regulation	±0.5% (@ 90-264Vac input, 100% load)	
	Load Regulation	±1% (@ 90-264Vac input, 100% load)	
	Temperature Coefficient	±0.03%/°C	
	Output Start Time	< 2S @ nominal input (100% load)	
	Output Hold Time	> 20ms @ 115VAC, > 50 ms @ 230Vac (100% load)	
	Voltage Overshoot	≤5%	
Input	Input Voltage Range	90~264VAC	
	Input Rated Voltage Range	100~240VAC	
	Frequency Range	47Hz~63Hz	
	Rated Frequency	50/60Hz	
	Starting Voltage	90V AC	
	Efficiency	> 90.0% @ 115Vac, > 91.0% @ 230Vac	
	Input Current	< 2.20A @ 115Vac; < 1.10A @ 230Vac	
	Inrush Starting Current	< 35A @ 115Vac & 230Vac	
	Power Factor	> 0.99 @ 115Vac, > 0.93 @ 230Vac	
Protection	Output	Over power	144~180W Swing machine (Testing method: Increase the output current until enabling the protection. Protection mode: Swing machine, Self-recovery after over-power released.)
		Over voltage	57~70V V Swing machine (Short circuit the Pin1-2 of U8, swing machine. Output recovery to normal after removing the short circuit) Note: Do not use external voltage.
		Over current	3~3.75A Swing machine (Testing method: Increase the output current until enabling the protection. Protection mode: Swing machine, Self-recovery after over-current

			released.)
		Short circuit	It achieves the long-term short circuit by connecting a sufficient cross-sectional area copper cable (Length at 15cm±5cm) with power output port. Self-recovery to normal after removing the short circuit.
Operation Environment	Operation Temperature and Humidity		-30~70°C; 20%~95%RH
	Storage Temperature and Humidity		-40°C~85°C; 10%~95%RH non-condensing
	Liberation		Frequency range: 10 ~ 500Hz, Acceleration: 2G, Each sweep cycle 10min. Six sweeps along the X, Y, and Z axis
	Surge		Acceleration: 20G, Duration time: 11ms, Three shocks along X, Y and Z axis
	Altitude		2000m
Safety and EMC Standard @25°C	Security Standard		GB4943/EN60950 ■Reference □Certification
	Dielectric Strength		Input—Output:3KVAC/10mA; Input--Case:1.5KVAC/10mA; Output---Case:0.5KVDC/10mA Time for each testing is 1min.
	Grounding Test		Test Condition: 32A/2min; Ground bond: < 0.1 ohms.
	Leakage Current		Input to GND ≤3.5mA; Input to output ≤0.25mA (Input 264Vac, 63Hz)
	Insulation Resistance		Input—Output: 10M ohms;
	EMI	Conducted Interference	EN55022, EN55024, FCC PART 15 CLASS B
		Radiated Interference	EN55022, EN55024, FCC PART 15 CLASS B
	Harmonic current		EN61000-3-2 CLASS D
	EMS	Conducted Emission	EN61000-4-6 Level3
		Radiated Emission	EN61000-4-3 Leve3 criterion B
		Power Frequency Emission	EN61000-4-8 Level3
		Electrostatic Emission	EN61000-4-2 Level4 criterion B
		EFT	EN61000-4-4 Level4 criterion B
		Surge	EN61000-4-5 Level4 criterion B
Dip and Interruption		EN61000-4-11	
Dimension (L*W*H)			135*121*40mm

## DIMENSIONS:



## BLOCK DIAGRAM:



## HEAD QUARTERS:

BARTYCKA 22B M21A 00-716  
WARSZAWA, POLAND.

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