

60W/48V INDUSTRIAL POWER SUPPLY WITH DIN-RAIL: (KL-60WPS-48)



DESCRIPTION:

KL-60WPA-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-60WPA-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;

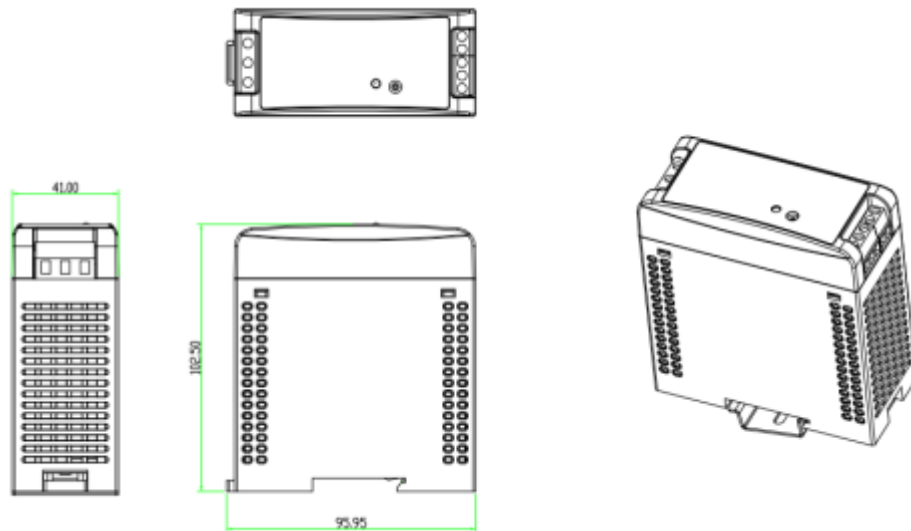
TECHNICAL SPECIFICATIONS:

Specifications		KL-60WPA-48
Output	Group of Output	1
	DC Voltage	48V DC
	Default Output Voltage	48.00-48.2V (VIN: 220VAC / LOAD: 0A)
	Output Rated Current	1.25A
	Output Current Range	0-1.25A
	Output Rated Power	60W
	Total Peak Output Power	Up to 90W (Sustainable time 10S/220VAC)
	Peak Output Current	1.5A(Sustainable time 10S/220VAC)

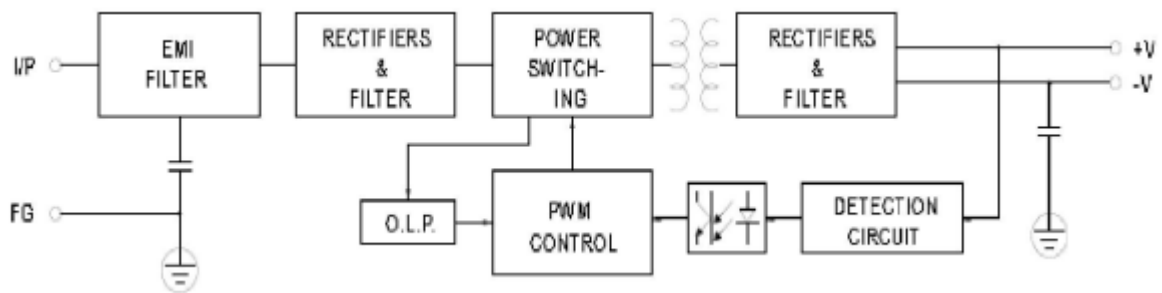
	Ripple noise	Peak - Peak $\leq 100\text{mV}$ (Test Method: The terminal shall be in parallel with capacitance of $0.1\mu\text{F}$ and $47\mu\text{F}$, testing at 20MHz)	
	Output Regulation Range	DC47~56V	
	Stabilized Voltage Precision	$\pm 1\%$ (@ 90-264Vac input, 100% load)	
	Line Regulation	$\pm 0.5\%$ (@ 90-264Vac input, 100% load)	
	Load Regulation	$\pm 1\%$ (@ 90-264Vac input, 100% load)	
	Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$	
	Output Start Time	$< 1.5\text{S}$ @ 115VAC	
	Output Hold Time	$> 20\text{ms}$ @ 115VAC, $> 125\text{ms}$ @ 230Vac (100% load)	
	Voltage Overshoot	$\leq 5\%$	
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	$> 85.0\%$ @ 115Vac, $> 89.0\%$ @ 230Vac	
	Input Current	$< 1.40\text{A}$ @ 115Vac, $< 0.80\text{A}$ @ 230Vac	
	Inrush Starting Current	$< 20\text{A}$ @ 115Vac, $< 35\text{A}$ @ 230Vac	
	Power Factor	PF >0.6 (at full load)	
Protection	Output	Over power	78~97W 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 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	1.5~1.875A 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 $15\text{cm}\pm 5\text{cm}$) with power output port. Self-recovery to normal after removing the short circuit.

Operation Environment	Operation Temperature and Humidity		-40~70°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)		93*102.5*41mm	

DIMENSIONS:



BLOCK DIAGRAM:



HEAD QUARTERS:

BARTYCKA 22B M21A 00-716
WARSAWA, POLAND.

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