480W/48V Industrial DIN Rail Power Supply

(RTG480-48)

480W Industrial Power Supply

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

Application

- Industrial Control System
- Semiconductor fabrication equipment
- Factory automation
- Electro-mechanical apparatus

Description

RTG480-48 is one economical slim 480W industrial DIN Rail 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.

RTG480-48 is designed with a metal shell, which is easy to increase the heat dissipation of the machine. The working efficiency is as high as 90%. The product can work in -40C to 70Cambient temperature under the condition of air circulation. It has a constant current mode overload protection function and is suitable for various Inductive or capacitive load applications, complete protection functions and compliance with industrial control equipment certifications, making RTG480-48 a very competitive power solution for industrial applications.

Technical Specification

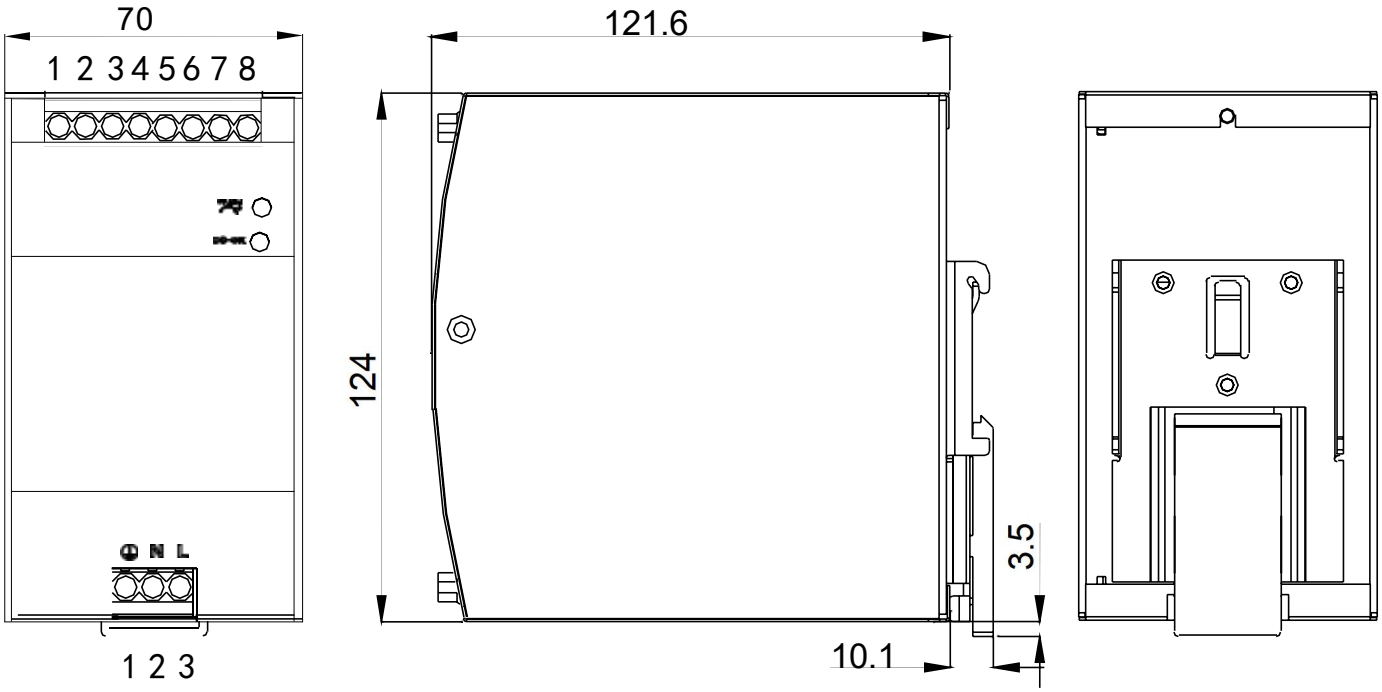
Model	RTG480-48	
Output	Group of Output	1
	DC Voltage	DC 48V
	Default Output Voltage	48.00-48.2V (VIN: 220VAC / LOAD: 0A)
	Output Rated Current	10A
	Output Current Range	0-10A
	Output Rated Power	720W
	Total Peak Output Power	Up to 720W(Sustainable time 10S/220VAC)
	Peak Output Current	15A(Sustainable 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	47~56V
	Stabilized Voltage Precision	± 1% (@ 90V-264Vac input, 100% load)
	Line Regulation	±1% (@ 90-264Vac input, 100% load)
	Load Regulation	± 1% (@ 90-264Vac input, 0- 100% load)
	Output Start Time	< 2S @ nominal input (100% load)
	Output Hold Time	> 20ms @ 115Vac, > 115 ms @ 230Vac (100% load)
	Voltage Overshoot	≤5%
Input	Input Voltage Range	90~264VAC
	Input Rated Voltage Range	100~240VAC
	Frequency Range	47~63Hz
	Rated Frequency	50/60Hz
	Starting Voltage	90Vac
	Efficiency	> 87.0% @ 115Vac, > 92.0% @ 230Vac
	Input Current @25C	< 8.80A @ 115Vac, < 4.40A @ 230Vac
	Inrush Starting Current @25C	< 35A @ 115Vac & 230Vac
	Power Factor	> 0.99 @ 115Vac, > 0.93 @ 230Vac

Protection	Output	Over power	576~720W 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	12~15A 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		-40C~70C; 20%~95%RH
	Storage Temperature and Humidity		--40C~85C; 10%~95%RH non-condensing
	Temperature Coefficient		±0.03%/C (0~50C)
	Libration		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 @25C	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 @25C		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
	Harmaonic 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
Dimensions (W*H*D)			130.5*124*45mm

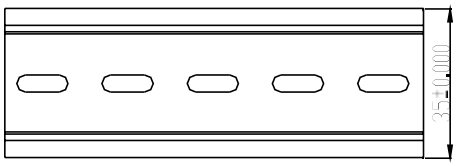
Dimension

■ **结构尺寸：**



交流输入端子定义

位号	脚位功能	规格
1	⏚	6.35mm，3PIN螺钉式接线端子
2	N	
3	L	

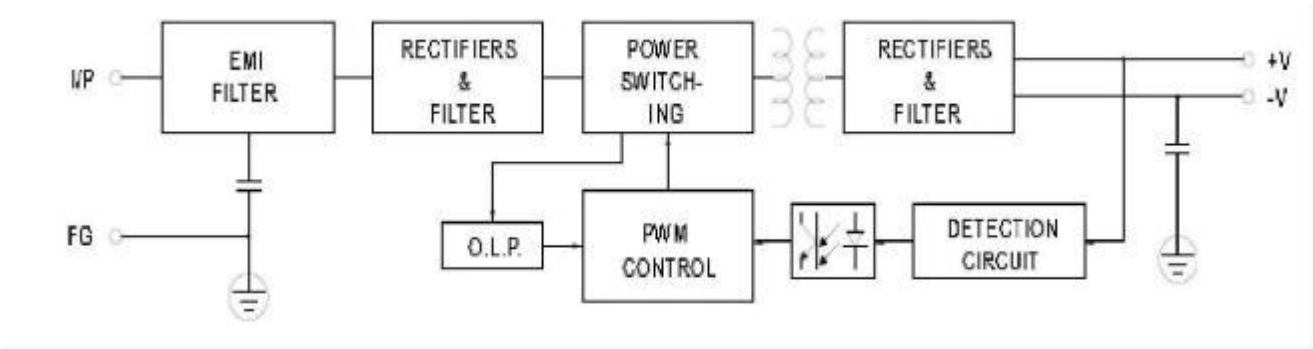


安装轨道：TS35/7.5或TS35/15

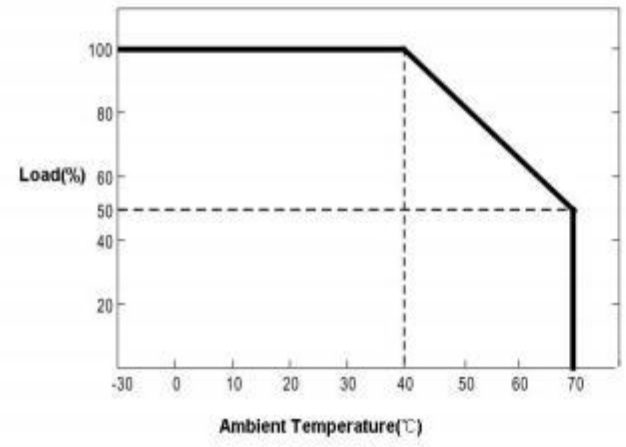
直流输出端子定义

位号	脚位功能	规格
1/2/3	V-	6.35mm，6PIN螺钉式接线端子
4/5/6	V+	

Block Diagram



Derating Curve



Static Characteristic Curve