

## 240W/48V Din Rail Industrial Power Supply

### (D240-48)

#### 240W Industrial Power Supply



- Power Input: AC 90~264V
- Support production for short circuit/over current/over voltage
- Wide operation temperature range: -40℃~65℃
- 100% full load aging test
- High efficiency, long life time and high reliability
- Meet EMC Standard

#### Application

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

## : Description

D240-48 is an economical 240W rail-mounted power supply that complies with German industrial standards. It is suitable for mounting on the TS-35 / 7.5, or 35-fold TS-15 rails, and communicates in the full range from 90VAC to 264VAC. Inputs, and all comply with the EN61000-3-2 standard on EU-specified harmonic current specifications.

D240-48 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 -20°C to 70°C ambient 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 D240-48 a very competitive power solution for industrial applications.

## : Technical Specification

Model	D240-48	
Output	Group of Output	1
	DC Voltage	DC 48V
	Default Output Voltage	48.00-48.2V (VIN: 220VAC / LOAD: 0A)
	Output Rated Current	5A
	Output Current Range	0-5A
	Output Rated Power	240W
	Total Peak Output Power	Up to 360W(Sustainable time 10S/220VAC)
	Peak Output Current	7.5A( 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	±0.5% (@ 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%	
<b>Input</b>	Input Voltage Range	90~264VAC	
	Input Rated Voltage Range	100~240VAC	
	Frequency Range	47~63Hz	
	Rated Frequency	50/60Hz	
	Starting Voltage	90Vac	
	Efficiency	> 90.0% @ 115Vac, > 91.0% @ 230Vac	
	Input Current @25□	< 4.40A @ 115Vac, < 2.20A @ 230Vac	
	Inrush Starting Current @25°C	< 35A @ 115Vac & 230Vac	
	Power Factor	> 0.99 @ 115Vac, > 0.93 @ 230Vac	
<b>Protection</b>	Output	Over power	288~360W 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	6~7.5A 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.
<b>Operation Environment</b>	Operation Temperature and Humidity		-40~65°C ; 20%~95%RH
	Storage Temperature and Humidity		-40~85°C ; 10%~95%RH non-condensing
	Temperature Coefficient		±0.03%/°C (0~50°C)
	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	
<b>Safety and EMC Standard @25°C</b>	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 @25°C	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 Level3 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	
<b>Lightning/Protection Rating</b>	Port Lightning Protection	4KV 8/20us;	
	Protection Level	IP40	
	IEC61000-4-2 (ESD)	±8kV Contact Discharge, ±15kV Air Discharge	
	IEC61000-4-3 (RS)	10V/m (80~1000MHz)	
	IEC61000-4-4 (EFT)	Power Line: ±4kV; Data Line: ±2kV	

	IEC61000-4-5 (Surge)	Power Line, CM±4kV/DM±2kV; Data Line, ±4kV
	IEC61000-4-6 (Radio Frequency Conduction)	10V (150kHz~80MHz)
	IEC61000-4-8 (Power Frequency Magnetic Field)	100A/m Continued; 1000A/m, 1s to 3s
	IEC61000-4-9 (Pulsed Magnetic Field)	1000A/m
	IEC61000-4-10 (Damping Oscillation)	30A/m 1MHz
	IEC61000-4-12/18 (SHOCKWAVE)	CM 2.5kV, DM 1kV
	IEC61000-4-16 (Common Mode Conduction)	30V Continued; 300V, 1s
	FCC Part 15/CISPR22(EN55022)	Class A
	IEC61000-6-2(General Industry Standard)	
Dimensions (W*H*D)		45mm*130.5mm*121mm(1.77"*5.13"*4.76")