

Product Datasheet

240W/48V Industrial DIN Rail Power Supply

(GWS-DP240-48)



OVERVIEW

GWS-DP240-48 is an economical 240W DIN rail power supply that conforms to German industrial standards. It is suitable for installation on TS-35/7.5, or TS-35/15 rails, using 90VAC to 264VAC input, and complies with EN61000-3-2 Standard on Harmonic Current Specifications Specified by the European Union.

GWS-DP240-48 adopts a metal shell design to improve heat dissipation consumption. The working efficiency is as high as 90%, and the product can work in an ambient temperature of -40 degrees to 70 degrees under the condition of air circulation. It has a constant current mode overload protection function, suitable for a variety of inductive or capacitive load applications, complete protection functions, and compliance with relevant certifications for industrial control equipment, making it a very competitive power supply solution for industrial applications.



FEATURE

Meet EMC Standard

• 100% full load aging test

• Power Input: AC90-264V

• Wide operation temperature range: $-40^{\circ}\text{C}-70^{\circ}\text{C}$

• High efficiency, long life time and high reliability

Support production for short circuit/over current/over voltage

APPLICATION

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

TECHNICAL SPECIFICATION

Model	GWS-DP240-48
Output	
Group of Output	1
DC Voltage	48VDC
Output Voltage Factory	48.00-48.2VDC (Vin: 220Vac / Load: 0A)
Setting	
Output Rated Current	5A
Output Current Range	0-5A
Rated Output Power	240W
Total Peak Output Power	360W (sustainable time 10S/220Vac)
Peak Output Current	7.5A (sustainable time 10S/220Vac)
Ripple Noise	Peak-to-peak value ≤100mV. (Measurement method: The terminal should
	be connected in parallel with 0.1uF and 47uF capacitors, and the



	measurement should be performed at a bandwidth of 20MHz)	
Output Voltage Range	47-56VDC	
Stabilized Voltage Precision	±1% (@ 90-264VAC 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, >50 ms @ 230VAC (100% load)	
Voltage Overshoot	≤5.0%	
Input		
Input Voltage Range	90-264VAC	
Input Rated Voltage	100-240VAC	
Range		
Frequency Range	47Hz-63Hz	
Rated Frequency	50Hz/60Hz	
Starting Voltage	90VAC	
Efficiency	>90.0% @115VAC, >91.0% @ 230VAC	
Input Current	<4.40A @115VAC, <2.20 @ 230VAC	
Start Inrush Current	<35A @ 115VAC& 230VAC	
Power Factor	>0.99 @ 115VAC, >0.93 @ 230VAC	
Protection		
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.)	
Output 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.	
Output Over Current	6-7.5A Swing machine (Testing method: Increase the output current until	

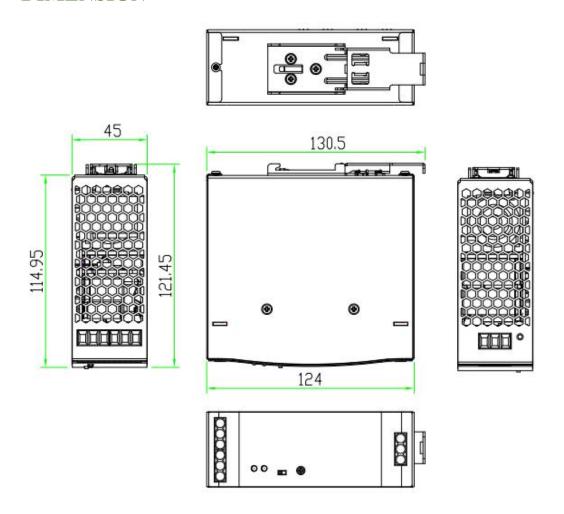


	enabling the protection. Protection mode: Swing machine, Self-recovery	
	after over-current released.)	
Output Short Circuit	Use a copper wire with a sufficient cross-sectional area and a length of	
	15cm±5cm to directly short-circuit at the power output port, which can be	
	short-circuited for a long time, and can be automatically restored after the	
	short-circuit is eliminated.	
Operation Environment		
Operation TEMP /	-40°C-70°C, 20%-95%RH No condensing	
Humidity		
Storage TEMP/	-40°C-85°C, 10%-95%RH No condensing	
Humidity		
Temperature Coefficient	±0.03%/℃ (0-50℃)	
Vibration	Frequency range 10-500Hz, acceleration 2G, each sweep cycle 10min. 6	
violation	sweep cycles along the X, Y, and Z axes	
Impact	Acceleration 20G, duration 11ms, 3 shocks along X, Y, and Z axis each	
Altitude	2000m	
Safety and Electromagnetic Compatibility Standard		
Security Standard	GB4943/EN62368-1 ■Reference □Certification	
Dielectric Strength	Input—Output: 3KVAC/10mA, InputCase:1.5KVAC/10mA	
	OutputCase: 0.5KVDC/10mA, Time for each testing is 1min.	
Ground Test	Test conditions: 32A/2 minutes, Ground impedance: <0.1 ohms.	
leakage Current	Input to ground ≤3.5mA, Input to output ≤0.25mA (Input 264VAC,	
	Frequency 63Hz)	
Insulation Resistance	Input-Output: 10M ohms	
Conducted Disturbance	EN55022, EN55024, FCC PART 15 Class B	
Radiated Interference	EN55022, EN55024, FCC PART 15 Class B	
Harmaonic Current	EN61000-3-2 Class D	
Conducted Disturbance	EN61000-4-6 Level 3	



Radiation Harassment	EN61000-4-3 Level 3 Class B	
Power Frequency	EN61000-4-8 Level 3	
Harassment		
Static Harassment	EN61000-4-2 Level 4 Class B	
fast Burst	EN61000-4-4 Level 4 Class B	
Lightning Strike (Surge)	EN61000-4-5 Level 4 Class B	
interrupted Fall	EN61000-4-11	
Others		
Dimension	131*121*45mm	
Warranty	5 years	

DIMENSION





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