

Type: SAE-IPW-120D48

Technical Specification of: SAE-IPW-120D48

120W/48V Industrial DIN Rail Power Supply



- Power Input: AC 90~264V
- Support 120W/48V industrial Din Rail Power Supply
- 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



SAE-IPW-120D48 is one economical slim 120W industrial DIN Rail power supply series, adapting to be installed on TS-35/7.5 or TS-35/15 mounting DIN rail. 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.

SAE-IPW-120D48 is made with high quality of rigorous screened components, which have superior performance in stability, environmental adaptability. It can



work normally in very cold environment to hot from -10°C to $+70^{\circ}\text{C}$. It is equipped with constant current mode for over load protection, fitting various inductive or capacitive applications. The complete protection functions and relevant certificates for industrial control apparatus make **SAE-IPW-120D48** a very competitive power supply solution for industrial applications.

: Applications

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

**Technical Specification**

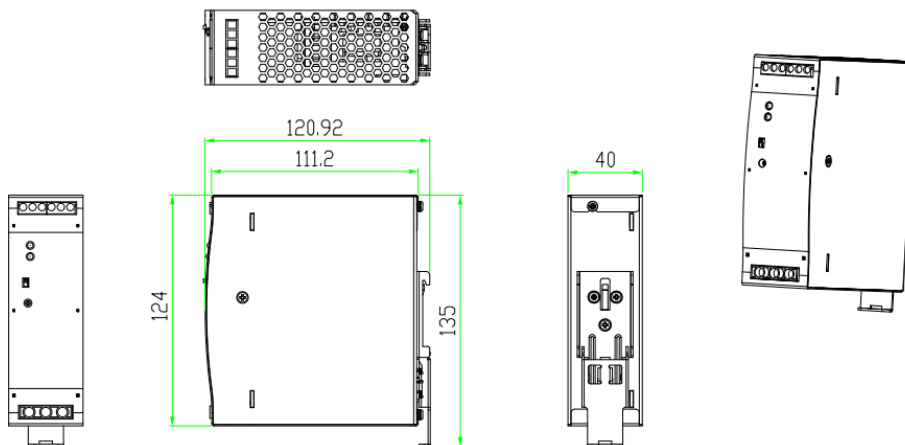
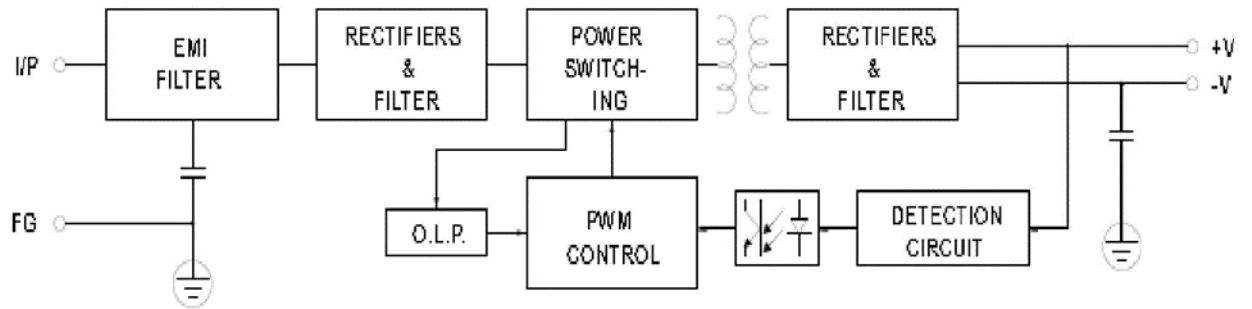
Product	Industrial DIN Rail Power Supply
Product Model	SAE-IPW-120D48
Output	
Group of Output	1
DC Voltage	48V DC
Default Output Voltage	48.00-48.2V (VIN: 220VAC / LOAD: 0A)
Output Rated Current	2.5A
Output Current Range	0-2.5A
Output Rated Power	120W
Total Peak Output Power	Up to 180W (Sustainable time <u>10S</u> /220VAC)
Peak Output Current	3.75A (Sustainable time <u>10S</u> /220VAC)
Ripple noise	Peak - Peak $\leq 100\text{mV}$ (Test Method: The terminal shall be in parallel with capacitance of 0.1 μF and 47 μF , 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)
Output Start Time	$\pm 0.03\%/^{\circ}\text{C}$
Output Hold Time	< 2S @ nominal input (100% load)
Voltage Overshoot	> 20ms @ 115VAC, > 50 ms @ 230Vac (100% load)

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
Power Factor	< 35A @ 115Vac & 230Vac
Inrush Starting Current	> 0.99 @ 115Vac, > 0.93 @ 230Vac
Protection	
<ul style="list-style-type: none"> ➤ 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 Swing machine (Short circuit the Pin1-2 of U8 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	-30~70°C; 20%~95%RH
Storage Temperature	-40°C~85°C; 10%~95%RH non-condensing
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 @25°C	
Dielectric Strength	Input—Output:3KVAC/10mA; Input--Case:1.5KVAC/10mA; Output---Case:0.5KVDC/10mA Time for each testing is 1min.
Security Standard	GB4943/EN60950 ■Reference /□Certification
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)
Leakage Current	Input—Output: 10M ohms
EMI	EN55022, EN55024, FCC PART 15 CLASS B
EMS	<ul style="list-style-type: none">➤ 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
Dimension	135*121*40mm

Product Application Display



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