

25-Watt Metal Enclosed, Single Output

INPUT SPECIFICATIONS

All specifications are typical at nominal input, full load.

INPUT SPECIFICATIONS

Input Voltage	90Vac–264Vac, 127~370Vdc
Input Frequency	47Hz– 63Hz
Input Current	<2.5A Max
Protection	Internal Primary Current Fuse Inrush Limiting



OUTPUT SPECIFICATIONS

Output Voltage	See Chart
Efficiency	70-85%
Protection	Over Load Over Voltage Short Circuit
Ripple and Noise	50mV - 120mV
Hold-Up Time	>14mS (115Vac input, Full load); >30mS (230Vac input, Full load)
Transient Response	0.5mS for 50% Load Change(typ)
Load Regulation	2.0% max
Leakage Current	Input-output: <2.5mA Input-PG: <0.75mA

FEATURES

- NO LOAD POWER CONSUMPTION <0.5W
- WITHSTAND 300VA SURGE INPUT FOR 5 SECS.
- ALL USING 105°C LONG LIFE ELECTROLYTIC CAPACITORS
- SUITABLE FOR CRITICAL APPLICATIONS
- 3 YEARS WARRANTY

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C~+70°C with Derating
Storage Temperature	-40°C~+85°C
Cooling.	Cooling by free air convection
Operating Humidity	20 – 90% RH No condensing
Storage Humidity	10 – 95% RH

GENERAL SPECIFICATIONS

MTBF(MILHDBK-217F)	More than 200,000Hrs (25°C, Full load)
Withstand Voltage	Primary-Secondary 3,0KVac ≤10mA. Primary-PG: 1.5KVac; ≤10mA. Secondary-PG: 0.5KVDC; ≤10mA
EMI Conduction & Radiation	Compliance to EN55022, EN55024 CLASS B
Harmonic Current	Compliance to EN61000-3-2,-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024 heavy industry level
Safety Approvals	UL60950-1 2 ND Ed; IEC 60950-1; 2005(2 ND Ed); EN60950-1:2006

MECHANICAL SPECIFICATIONS

Case Dimension	L79 x W51 x H28.8 mm
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Model Number	Output Voltage	Output Current	Max Output Power
PDN-25-3.3	3.3V	0~5.0A	16.5W
PDN-25-5	5.0V	0~5.0A	25.2W
PDN-25-12	12.0V	0~2.1A	25.2W
PDN-25-15	15.0V	0~1.6A	24.0W
PDN-25 24	24.0V	0~1.1A	26.4W

■ Mechanical Specification Unit:mm

The mechanical drawing shows the top and side views of the power supply. Key dimensions include a total length of 79mm, a mounting hole offset of 10.5mm, and a main body length of 55mm. The height is 51mm. The terminal block has a width of 41mm and a height of 7.62mm. The terminal layout includes +V5, -V4, N 2, and L 1. A detail view shows the assembly with a customer plate, SMPS cover, and an assemble screw, with a length L < 3mm.

■ Block Diagram

The block diagram illustrates the internal circuitry. It starts with an input (IP) and ground (FG) connected to an EMI FILTER. The output of the EMI filter goes to a RECTIFIERS & FILTER stage. This is followed by a POWER SWITCHING stage, which is controlled by a PWM CONTROL block. The PWM CONTROL block also receives feedback from a DETECTION CIRCUIT. The output of the power switching stage goes through another RECTIFIERS & FILTER stage to produce the final +V and -V outputs. An O.L.P. (Over Load Protection) block is connected to the power switching stage.

■ Derating Curve

The derating curve graph plots Load (%) on the y-axis (ranging from 0 to 100) against Ambient Temperature (°C) on the x-axis (ranging from -25 to 70). The load is constant at 100% from -25°C to 50°C. At 50°C, the load begins to derate linearly, reaching 60% at 70°C. The graph shows a sharp drop to 0% load at 70°C.