

AC-DC ITE Power Module PAA25 Series

Features:

- Ultra Compact Size: 2.07" x 1.08"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +70°C
- No Load Power Consumption < 0.1W
- High Efficiency up to 88%
- EMC Compliant without External Components
- Safety Approval to UL/IEC/EN 62368-1, IEC/EN 60950, TUV IEC/EN60335-1, and TUV IEC/EN 61558-2-16
- 3-Year Product Warranty



Description:

The PAA25 series of encapsulated AC/DC modules provide up to 25W of continuous output power in a small 1.1" x 2.1" package. These modules operate over a wide range of ambient temperatures and AC input voltages and frequencies, making them suitable for countless global applications.

Model Number ¹	Max Output Wattage	Output Voltage	Output Current (mA) max	Output Line Regulation	Output Load Regulation	Ripple & Noise (mVp-p)	Max Capacitive Load (μF)	Average Efficiency @ 230VAC
PAA25-10	20W	5.1V	3922	±1%	±3%	120 max	2000	84%
PAA25-12	25W	12V	2083	±1%	±2%	150 max	680	88%
PAA25-13	25W	15V	1666	±1%	±2%	160 max	220	88%
PAA25-14	25W	24V	1042	±1%	±2%	240 max	220	87%

NOTES:

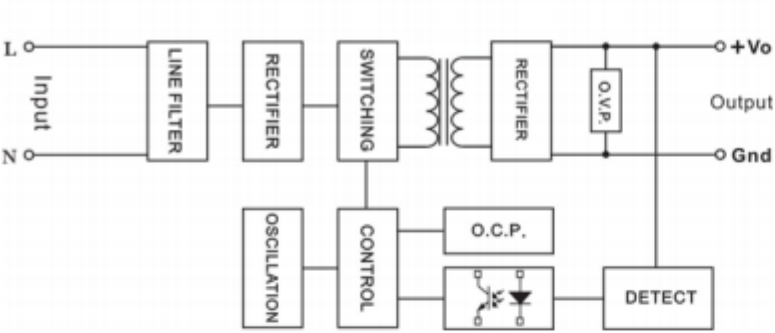
1. Add the letter "C" to the end of the model number for chassis mount option. Ex. "PAA25-12C".
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1μF & 47μF parallel capacitor.
3. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.

Specifications	
Input	
Input Voltage	90-305VAC or 127-430VDC
Input Frequency	47-440Hz
Input Current	490mA max. (115VAC) / 320mA max. (230VAC)
Inrush Current	30A max. (115VAC) / 60A max. (230 VAC)
Leakage Current	0.25mA max.
Output	
Total Output Power	Up to 25W
Voltage Accuracy	±2%
Minimum Load	0%
Line Regulation	1%
Hold Up Time	36ms min. (at 230VAC)
Protection	
Overpower Protection	Hiccup mode, auto-recovery
Over Voltage Protection	Zener diode clamp
Short Circuit Protection	Hiccup mode, indefinite (auto-recovery)
Isolation	
Input—Output (VAC)	4000V
Environmental	
Operating Temperature	-40°C +70°C (with derating)
Storage Temperature	-40°C +85°C
Temperature Coefficient	±0.05%/°C
Humidity	95% RH
MTBF	>400,000h at 25°C (MIL-HDBK-217F)
Vibration	IEC60068-2-27 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)
Shock	IEC60068-2-6
General Specifications	
Dimensions	2.07 x 1.08 x 0.93 Inches (52.5x27.5x23.5 mm) Chassis Mount: 2.12 x 3.78 x 1.14 Inches (53.9x96.0x29.0 mm)
Case Material	Plastic resin (flammability to UL 94V-0)
Weight	55g
Cooling Method	Free air convection
Safety	
Agency Approvals	UL/ EC/EN 62368-1, IEC/EN 60950, TUV IEC/EN 60335-1(Chassis Series N/A), IEC/EN 61558-2-16(Chassis Series N/A)
EMC	
EMI (Conducted & Radiated Emissions)	EN 55032 Class B
EMS (Noise Immunity)	EN 55035

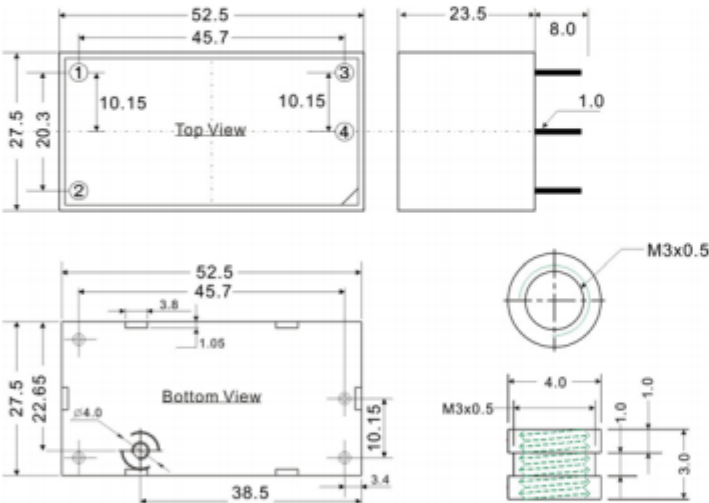
Diagrams

BLOCK DIAGRAM

Single Output

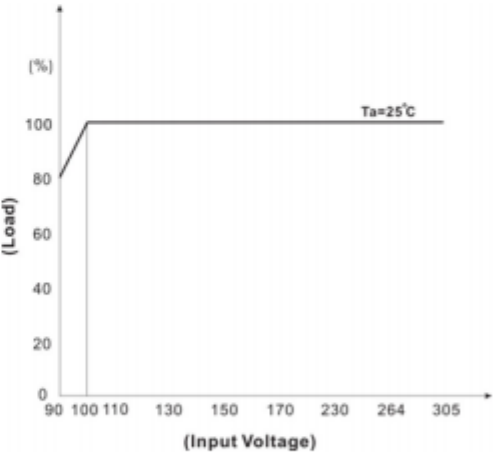
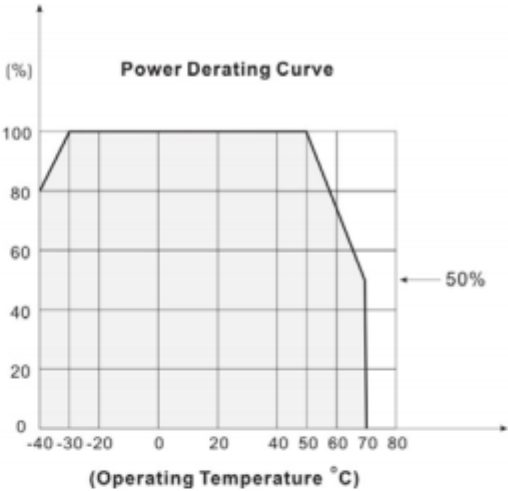


MECHANICAL DIMENSION (Top View)



Maximum Torque 1 2 { 1.2 1 } (k g f . c m { N . m })

DERATING



PIN #	FUNCTION
1	AC (N)
2	AC (L)
3	DC (+)
4	DC (-)

Chassis Mount



PIN#	Single
1	NO CONNECT
2	AC IN (L)
3	AC IN (N)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT

