

# AC-DC ITE Power Module PAA30B Series

## Features:

- Ultra Compact Size: 2.53" x 1.78"
- 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, TUV IEC/EN 61558-2-16
- 3-Year Product Warranty



## Description:

The PAA30B series of encapsulated AC/DC modules provides up to 30W of continuous output power in a small 1.8" x 2.5" 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 <sup>1</sup>	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
PAA30B-10	23.46W	5.1V	4600	±1%	±3%	120 max	6800	84%
PAA30B-12	30W	12V	2500	±1%	±2%	150 max	1600	88%
PAA30B-13	30W	15V	2000	±1%	±2%	150 max	1200	87%
PAA30B-14	30W	24V	1250	±1%	±2%	240 max	470	86%

### NOTES:

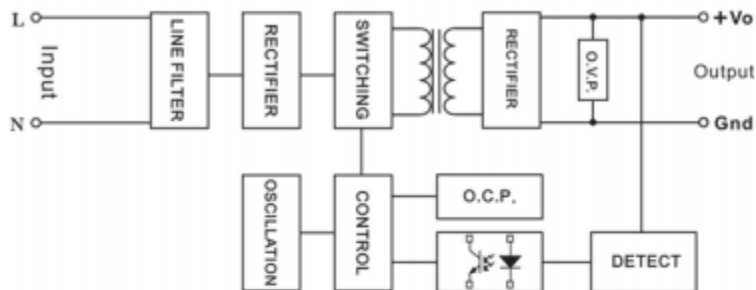
1. Add the letter "C" to the end of the model number for chassis mount option. Ex. "PAA30B-10C".
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1μF & 47μF parallel capacitor.

Specifications	
Input	
Input Voltage	90-305VAC or 127-430VDC
Input Frequency	47-440Hz
Input Current	600mA max. (115VAC) / 400mA max. (230VAC)
Inrush Current	30A max. (115VAC) / 60A max. (230VAC)
Leakage Current	0.25mA max. (230VAC)
Output	
Total Output Power	Up to 35W
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	±0.02%/°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	2.53 x 1.78 x 0.85 Inches (64.3x45.1x21.7mm) Chassis Mount: 2.12 x 1.14 x 3.78 Inches (96.0x53.9x29.0 mm)
Case Material	Plastic resin (flammability to UL 94V-0)
Weight	106g
Cooling Method	Free air convection
Safety	
Agency Approvals	UL/ EC/EN 62368-1, IEC/EN 60950, TUV IEC/EN 60335-1, TUV IEC/ EN 61558-2-16
*Consult with TT Electronics for information on additional country safety approvals	
EMC	
EMI (Conducted & Radiated Emissions)	EN 55032 Class B
EMS (Noise Immunity)	EN 55035
*EMC filtering occurs internally within the module	

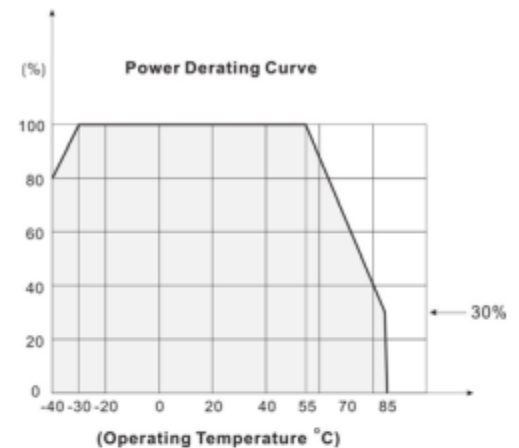
## Diagrams

### BLOCK DIAGRAM

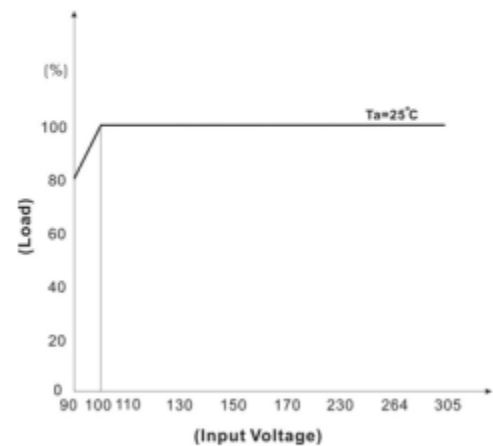
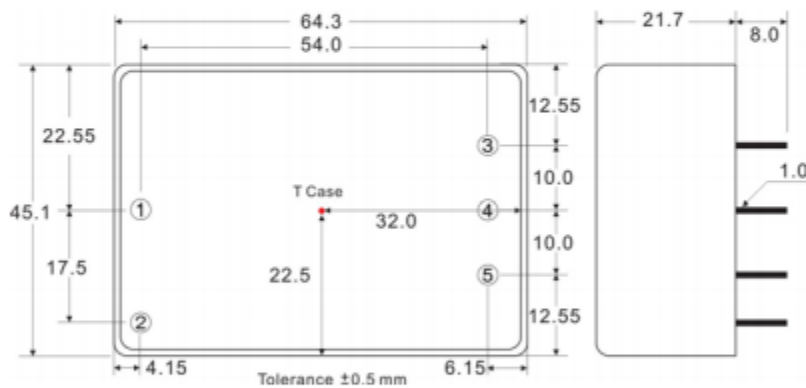
Single Output



### DERATING



### MECHANICAL DIMENSION (Top View)



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

Chassis Mount



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

