



Key Features



- Maximum No Load Power < 150mW
- Wide Operating Temperature Range (-40°C to 80°C)
- Fully Encapsulated Plastic Case
- Universal Input (90-264VAC, 47-440Hz)
- Low Ripple and Noise
- Class II Isolation
- CE, CB, UL, and cUL Approvals
- 3-Year Product Warranty
- Available in Through-hole and Chassis Mount Configurations

Electrical Specifications

Input

Input Voltage	90-264VAC ¹
Input Frequency	47-440 Hz ²
Input Current (RMS)	650mA max. @ 115VAC 400mA max. @ 230VAC
Inrush Current	30A max @ 115VAC 60A max @ 230VAC
No Load Power Consumption	<150mW

Environmental

Operating Temperature	-40°C to +80°C ⁴
Storage Temperature	-40°C to +90°C
Humidity	Up to 95% RH
Operating altitude	<5,000m
Atmospheric Pressure	70kPa—106kPa
MTBF:	>250K hours per MIL-HDBK-217F at full load and 25°C ambient

Output

Total Output Power	25 to 30W (See Models & Ratings Table)
Output Voltage	See Models & Ratings Table.
Hold Up Time	10mS minimum
Efficiency	Up to 89%. See Models & Ratings Table.
Line Regulation	±0.5% Typical
Load Regulation	±1% Typical ³
Setpoint accuracy	±2%
Minimum Load	No Minimum Load
Max. Load Capacitance	Up to 6.8mF. See Models & Ratings Table.

Safety & EMC

Approvals

USA/Canada

UL/cUL 60950-1
CAN/CSA C22.2 No. 60950-1-07
ANSI/AAMI ES 60601-1 (2005_C1:09 +A2:10)
CAN/CSA-C22.2 No. 60601-1 (2008)

CB Scheme

IEC 60950-1:2005+Am 1:2009+Am 2:2013
IEC 60601-1:2005+CORR.1(2006)+
CORR.2(2007)+Am 1(2012)

Isolation

Input to Output	4000VAC / 5656VDC ⁵ : 2 x MOPP
Input to Ground	2000VAC / 2828VDC ⁵ : 1 x MOPP
Output to Ground	1500VAC / 2121VDC ⁵ : 1 x MOPP

Protection Features

Overvoltage	Output is Zener clamped
Overpower	Hiccup Mode, Auto-Recovery
Short Circuit	Hiccup Mode, Auto-Recovery

Notes

- Derate output power by 2%/V below 100VAC
- Safety Approvals Cover Input Frequencies from 47-63Hz
- Valid for load currents between 10% and 100% of rated value.
- See derating curves on the second page.
 - Derate output power by 2%/°C below -30°C
 - Derate output power by 2.33%/°C above 50°C (For Vin>115VAC)
 - Derate output power by 2%/°C above 45°C (For Vin<115VAC)
 - Low-Line and Thermal Derating curves must be superimposed.
 - Valid for natural convection airflow (approximately 20LFM)
- Testing isolation with an AC generator is not recommended. Either perform isolation testing with a DC voltage, or consult with our engineering staff for AC test considerations.
- External 14S471K Varistor recommended between L and N in regions with less stable AC line voltages.

EMC (IEC60601-1-2:2014):

Emissions

Conducted	EN55011 Class B
Radiated	EN55011 Class B (Class A for Chassis Mount)
Susceptibility	IEC/EN60601-1-2 Ed. 4
Harmonic Currents	IEC 61000-3-2: Class A
Voltage Flicker	IEC 61000-3-3
ESD	IEC 61000-4-2: 15kV Air, 8kV contact
Radiated Immunity	IEC 61000-4-3: 10V/m
EFT/Burst	IEC 61000-4-4: +/-2kV
Surge Immunity	IEC 61000-4-5: 2005 1kV diff, 2kV com ⁶
Conducted Immunity	IEC 61000-4-6: 10Vrms
Magnetic Field	IEC 61000-4-8: 30A/m
Dips / Interruptions	IEC 61000-4-11: 30% reduction for 500ms, 100% reduction for 10ms.

Physical

Dimensions	2.52 x 1.8 x 0.93 Inches ±0.02 Inches
Weight	4.76oz Typical
Case Material	UL 94V-0 Plastic Resin

Your Partners in Power.....

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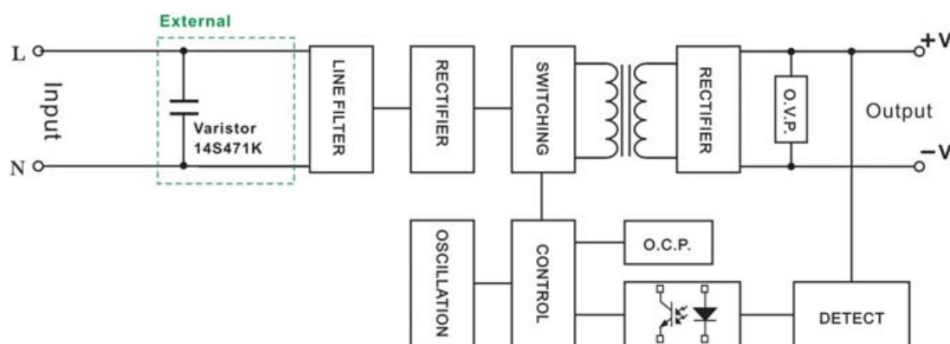
Models and Ratings

Model Number ⁷	Output Voltage	Maximum Load	Maximum Output Power	Ripple & Noise ⁸	Max Capacitive Load	Typical Efficiency at 230VAC
PAA30-10	5V	5A	25W	100mV _{p-p}	6,800μF	84%
PAA30-12	12V	2.5A	30W	150mV _{p-p}	1,600μF	89%
PAA30-13	15V	2A	30W	150mV _{p-p}	1,200μF	86%
PAA30-14	24V	1.25A	30W	240mV _{p-p}	470μF	86%

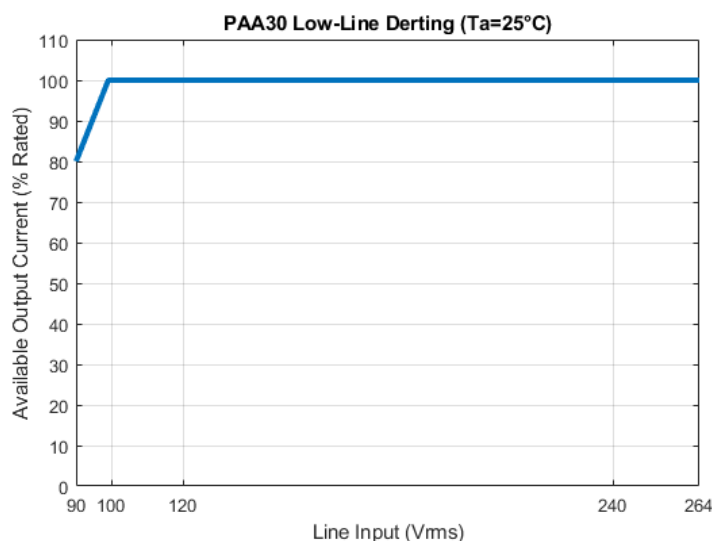
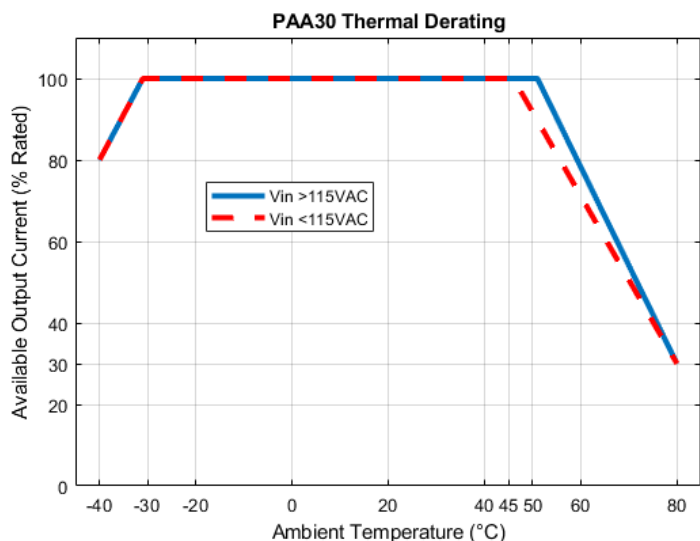
Notes

- Append the letter "C" to the end of the model number for chassis mount option. I.e. PAA30-10 becomes PAA30-10C.
- Measured with a 20MHz bandwidth. A filtering network consisting, at minimum, of 0.1μF of electrostatic and 47μF of electrolytic capacitance recommended.

System Block Diagram



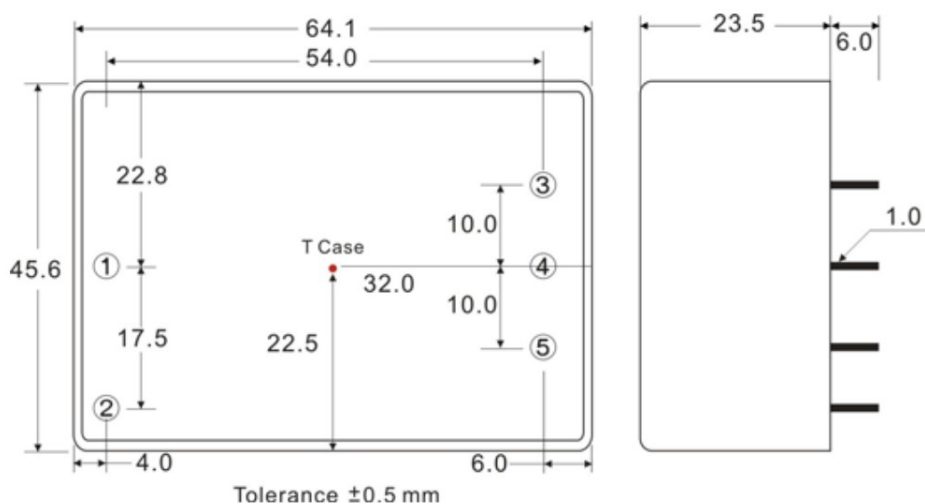
Derating Curves





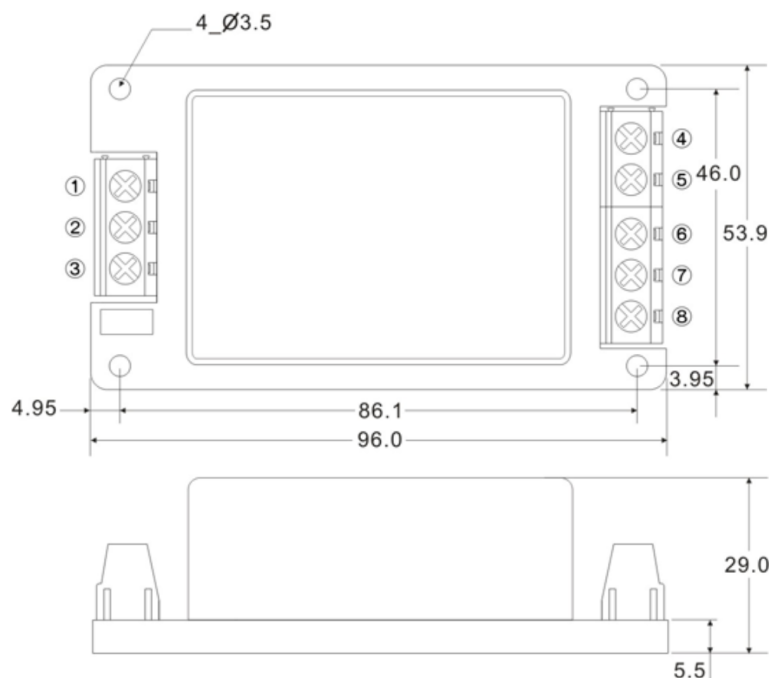
Mechanical Drawings and Pin Functions

Through Hole Configuration



PIN	FUNCTION
1	AC IN (N)
2	AC IN (L)
3	DC RETURN
4	NC
5	DC OUT (+)

Chassis Mount Configuration



TERMINAL	FUNCTION
1	AC IN (N)
2	NC
3	AC IN (L)
4	NC
5	DC RETURN
6	NC
7	DC OUT (+)
8	NC