



- UL / IEC / EN 60601 3.1 Edition & UL / IEC / EN 60950 AM2 Safety Approvals
- High power density: 500W in 3" x 5" footprint
- Open Frame or Enclosed Versions Available
- Remote ON/OFF Function
- Built-in 12V/0.3A Auxiliary Output
- Standby 5V @ 1A with Fan, @ 0.4A without Fan
- High Efficiency up to 93%
- P.F.C. Function >0.95

Electrical Specifications

Input

Input Voltage	90-264 VAC or 120-370 VDC
Input Frequency	47-63 Hz
Input Current (RMS)	<6.0A @ 115 VAC; <3.00A @ 230 VAC
Power Factor	>0.95 @ full load (230 VAC)
Inrush Current (<2ms)	<40A @ 115 VAC; <80A @ 230 VAC
Earth Leakage Current	< 0.1 mA max. (Input-Output)

Environmental & Operating

Operating Temperature	-40°C to +70°C (with derating)
Storage Temperature	-40°C to +85°C
Humidity	95% RH
Operating altitude	<3000m for medical use
MTBF:	>160K hours per MIL-HDBK-217F at full load and 25°C ambient

Output

Total Output	500W max. See table for details
Output Voltage	See table
Hold Up Time	8ms typical at full load and 115VAC nominal line. ^(Note 4)
Efficiency	Up to 93%. See table for details
Minimum Load	0%

Compliance

Safety Approvals

USA/Canada	UL60601-1 3 rd Edition , UL/cUL60950-1 UL62368-1 (Pending)
Europe	IEC/EN60601-1 3rd edition, TUV EN60950-1 CB Report EN62368-1 (Pending)

Isolation:

4000VAC input to output, 2 x MOPP
1500VAC input to ground, 1 x MOPP
1500VAC output to ground, 1 x MOPP

EMC (IEC60601-1-2:2014) :

Harmonic Currents	IEC 61000-3-2:
Voltage Flicker	IEC 61000-3-3
Electrostatic Discharge	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
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.

Protection

Overvoltage	110-132%, Auto recovery
Overload	145-170%, Auto recovery
Short Circuit	Auto recovery

General

Dimensions	3.0"W x 5.03"L x 1.38"H
Weight	1.058 pounds (480 g)

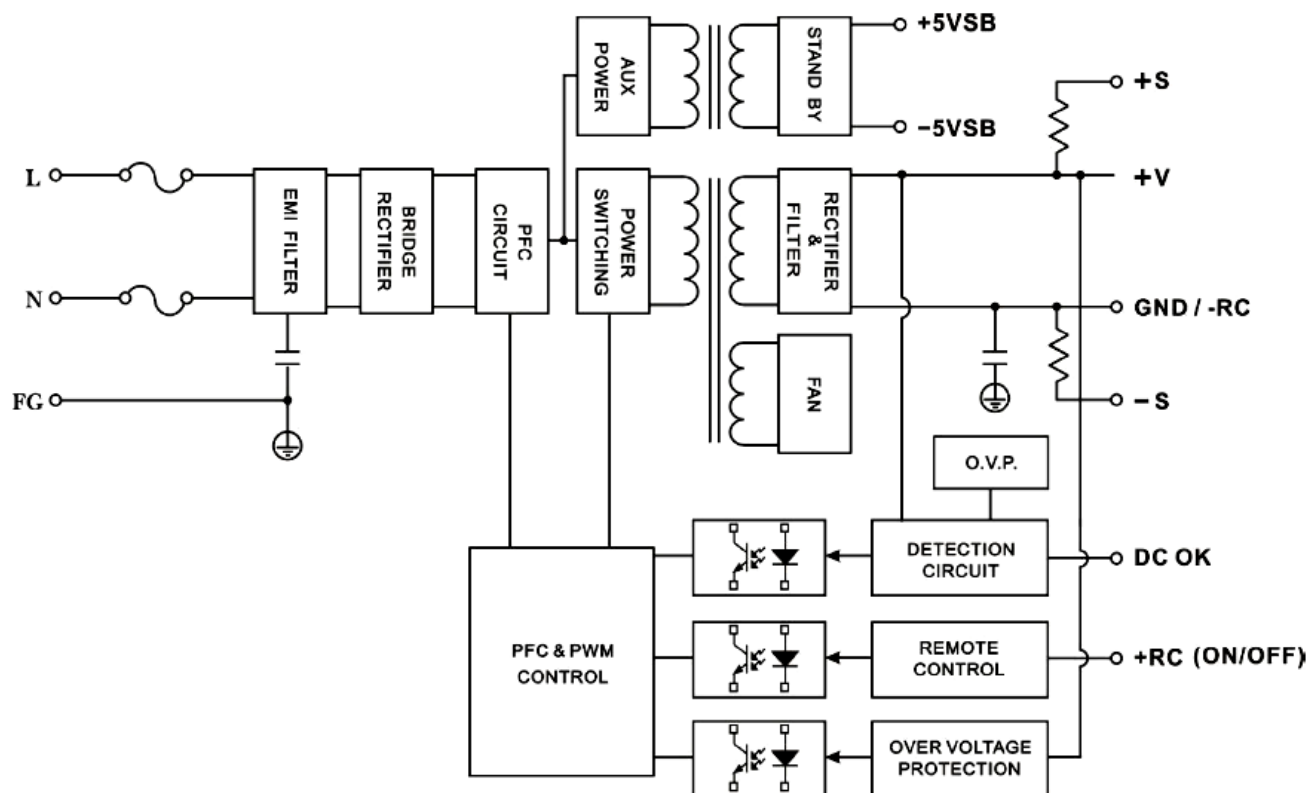
Models and Ratings

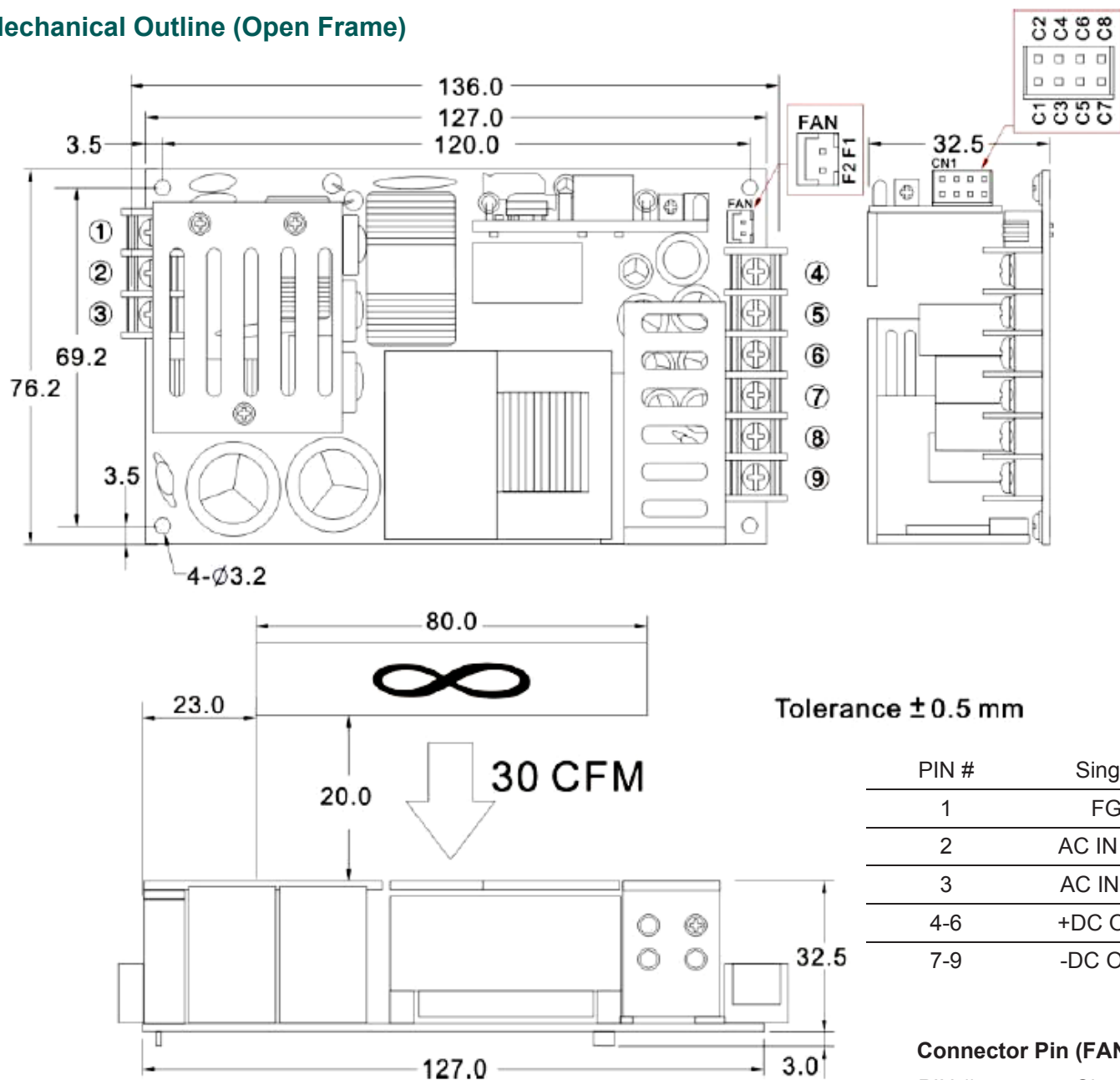
Model ¹	Output Voltage	Max Load Convection ²	Max Load 30CFM Forced Air	Output Regulation	Ripple & Noise ⁶	Efficiency (230 VAC)	Fan Output	+5VSB Output ⁷
PDAM500-12A	12V	20A	41.5A	±1.2%	160mV	90.5%	12V/0.3A	5V/1A
PDAM500-13A	15V	14.66A	33.3A	±1.0%	160mV	90.5%	12V/0.3A	5V/1A
PDAM500-14A	24V	10A	20.8A	±1.0%	240mV	92%	12V/0.3A	5V/1A
PDAM500-18A	48V	5A	10.41A	±1.0%	480mV	93%	12V/0.3A	5V/1A

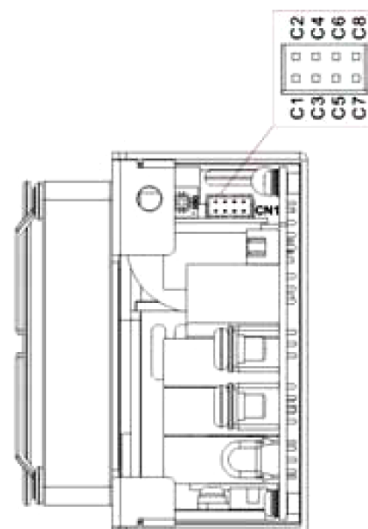
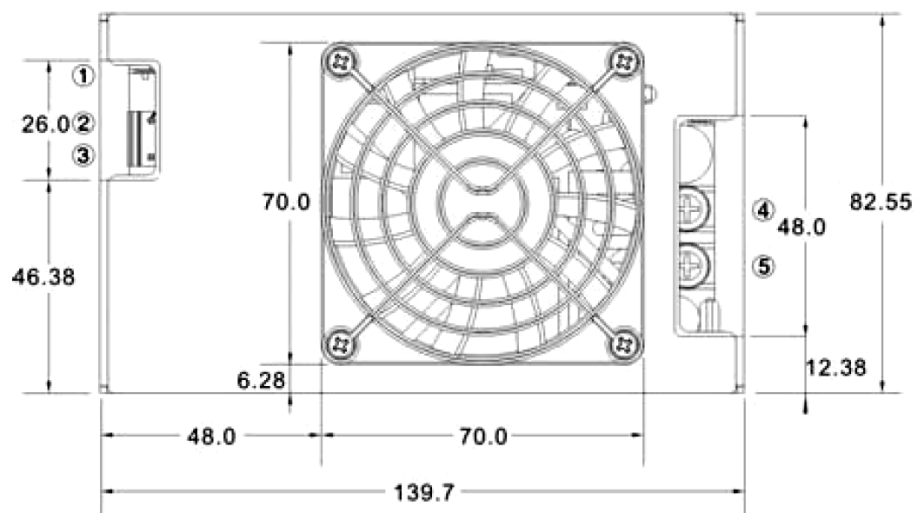
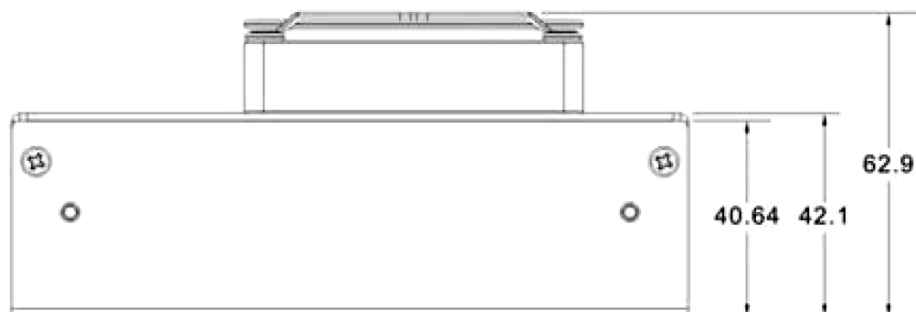
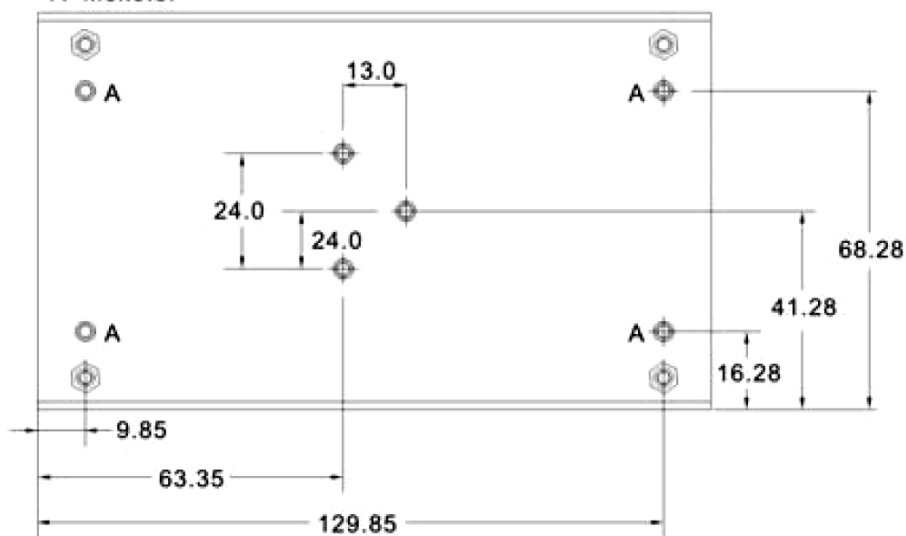
Note:

1. All models are available in an enclosed version (e.g. PDAM500-12A would be PDAM500-12C).
2. Listed values are taken at 230VAC. At 115VAC, 19.16A, 9.58A, and 4.8A for the models listed as shown.
3. Recommended to add Varistor 14S471K at L/N input side in parallel.
4. Hold-up Time measured at 90% Vout
5. Main Vout >3% Load, 12V (Aux) / 0.3A.
6. Measured at 20MHz bandwidth with a 47uF electrolytic capacitor and 0.1uF ceramic capacitor in parallel at the output connector.
7. 400mA convection rated.

Block Diagram



Mechanical Outline (Open Frame)


Mechanical Outline (Enclosed)

Tolerance ± 0.5 mm

A=M3x0.5P

Connector Pin (CN1)

PIN #	Single
C1	-5VSB
C2	+5VSB
C3	GND
C4	DC OK
C5	-RC
C6	+RC
C7	-S
C8	+S

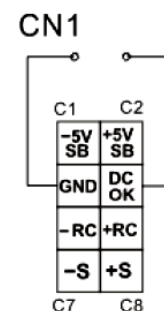
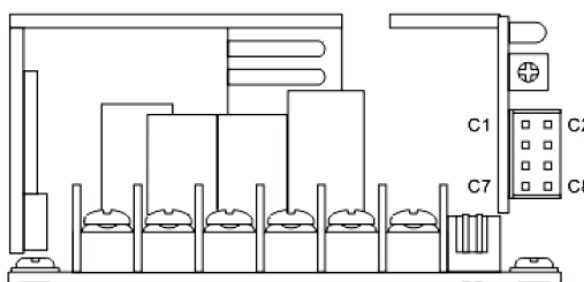
Function Description of CN1

Pin No.	Function	Description
C1	-5VSB	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C2	+5VSB	Stand by voltage output ground 3.7~6V, referenced to pin C8 (+5VSB). The maximum load current is 0.6A.
C3	GND	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C4	DC OK	DC-OK signal is a DC output, referenced to pin C6 (DC-OK GND).
C5	-RC	This pin connects to the negative terminal (-V). Return for DC-OK and -RC signal output.
C6	+RC	Turns the output on and off by electrical or dry contact between pin C4 (-RC), Short: Power OFF, Open: Power ON.
C7	-S	Negative sensing. The -S Signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.
C8	+S	Positive sensing. The +S Signal should be connected to the negative terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.

Function Manual & Application

1. DC-OK Signal

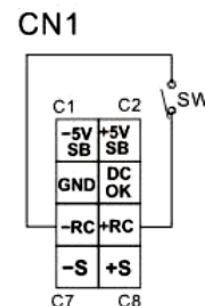
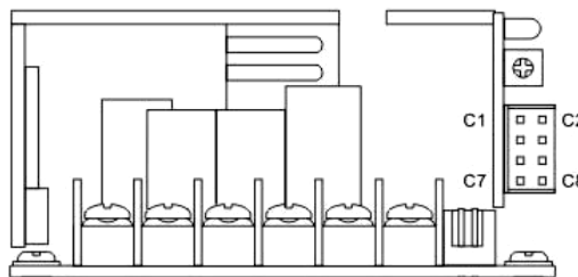
Between DC-OK and GND	Output Status
3.7~6V	ON
0~1V	OFF



2. Remote Control

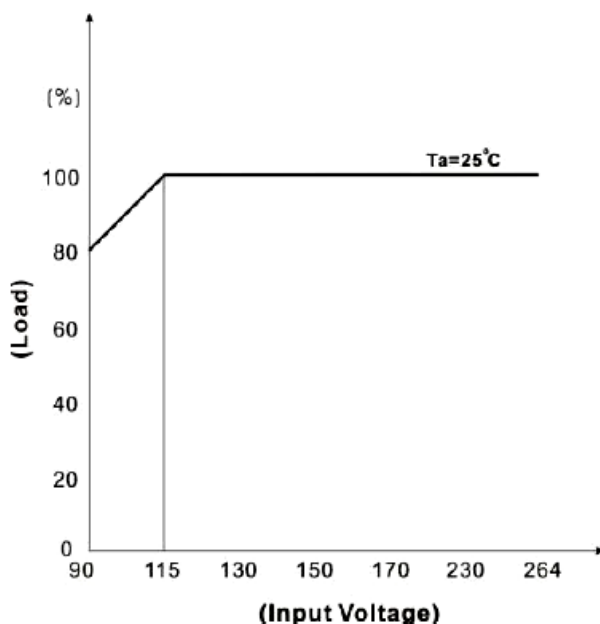
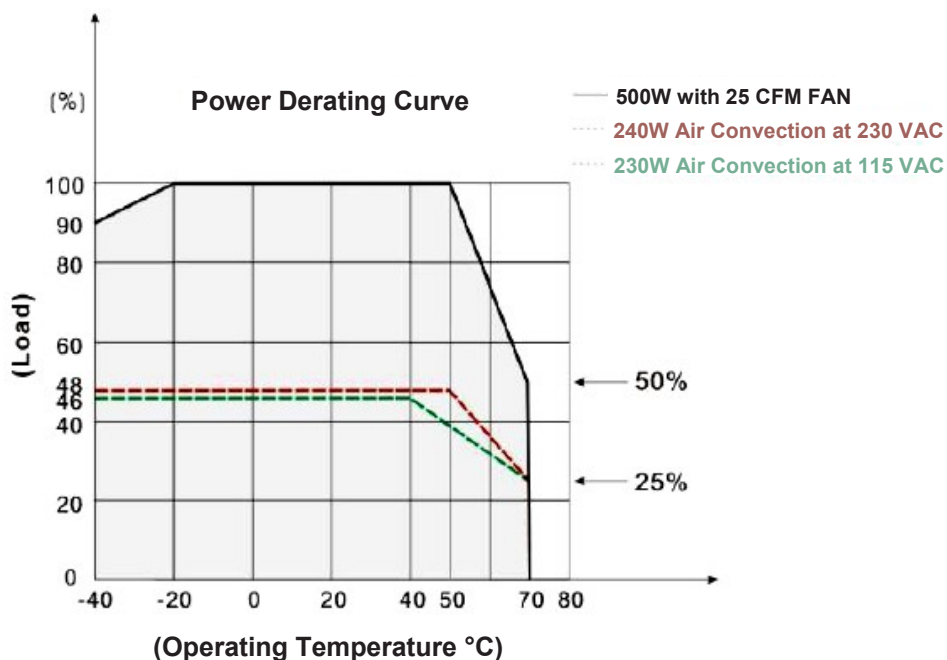
The unit can be turned ON/OFF by using the "Remote Control" function.

Between +RC and -RC	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON





Power Derating

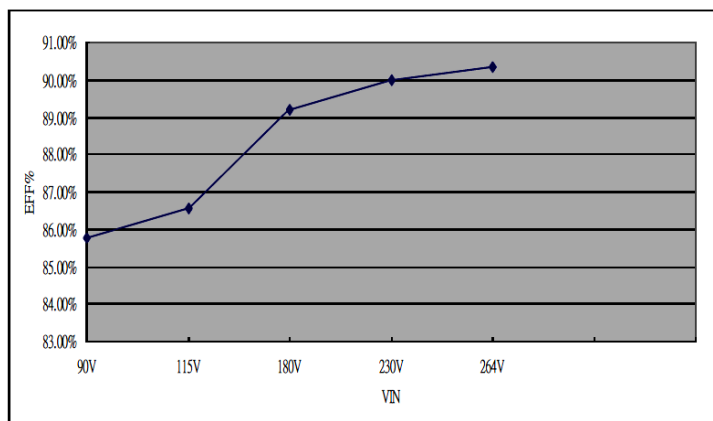




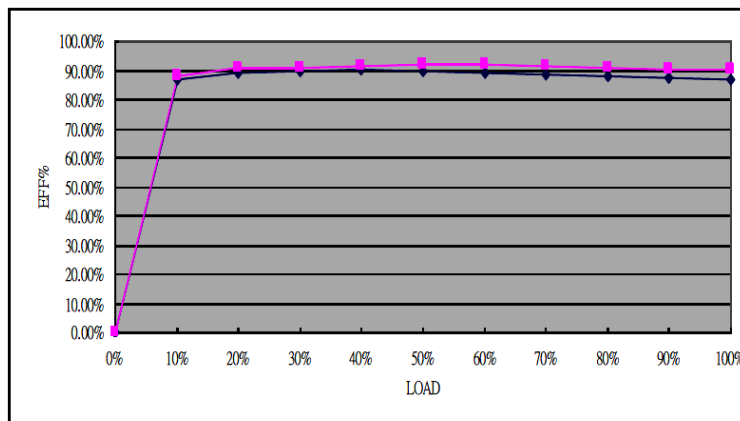
Efficiency Versus Load

PDAM500-12

VIN VS Efficiency					
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	85.78	86.58	89.21	90.01	90.34



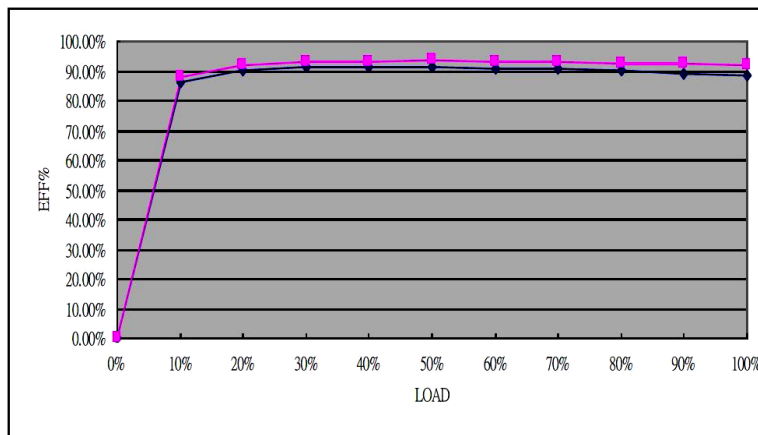
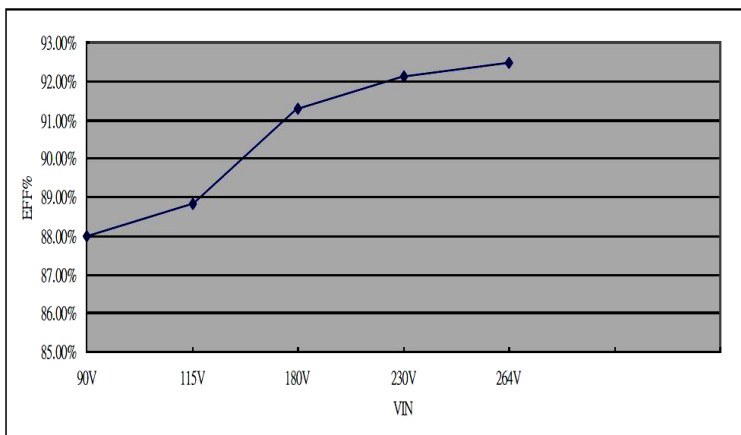
LOAD VS Efficiency					
Load (%)	10	20	30	40	50
115V (%)	86.67	89.20	89.80	90.06	89.87
230V (%)	88.19	90.82	91.00	91.71	91.86
Load (%)	60	70	80	90	100
115V (%)	89.30	88.77	88.18	87.27	86.58
230V (%)	91.77	91.40	90.79	90.44	90.01



PDAM500-14

VIN VS Efficiency					
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.99	88.84	91.29	92.13	92.48

LOAD VS Efficiency					
Load (%)	10	20	30	40	50
115V (%)	86.38	90.14	91.42	91.48	91.52
230V (%)	87.90	91.79	93.12	93.40	93.58
Load (%)	60	70	80	90	100
115V (%)	91.12	90.61	90.20	89.35	88.84
230V (%)	93.39	93.27	92.72	92.47	92.13

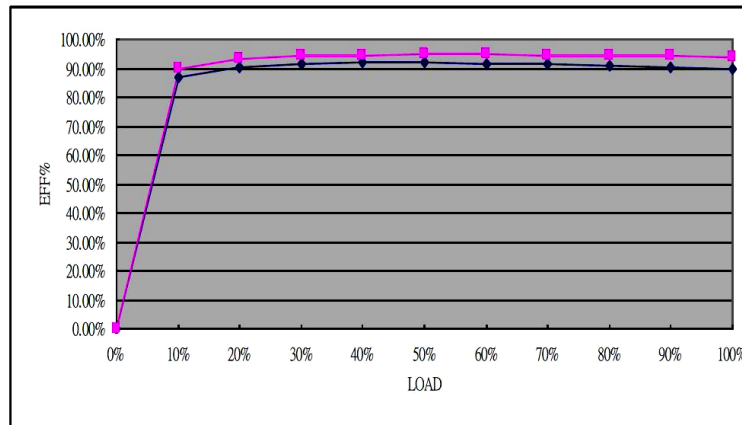
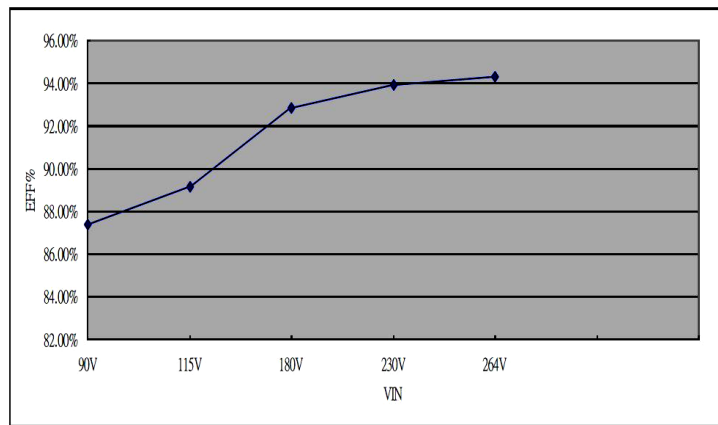


Efficiency Versus Load

PDAM500-18

VIN VS Efficiency					
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.36	89.18	92.88	93.89	94.33

LOAD VS Efficiency					
Load (%)	10	20	30	40	50
115V (%)	86.60	90.27	91.54	91.83	91.84
230V (%)	89.45	93.31	94.10	94.45	94.66
Load (%)	60	70	80	90	100
115V (%)	91.67	91.33	90.72	90.14	89.47
230V (%)	94.65	94.47	94.22	94.29	93.96



Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9