AA15S/D/T Series

15W Single, Dual, and Triple Output AC/DC Power Module



FEATURES

- Encapsulated compact AC-DC power supply
- Single-, Dual- and Triple Output Models
- Over Load and Over Voltage Protection
- 3 Mounting Package Versoins:
  - Solder pins for direct PCB mount
  -Screw terminal block for chassis mount
  - DIN-Rail Mounting
- Universal Input voltage range 85-264 VAC, 47-440 Hz
- 3kVAC Isolatoin, Protection Class II level
- UL/UL/IEC/EN 60950-1 Certified , CE Marked
- UL508 Approval (Selective)
- Lead free, RoHs Compliant
- 3 Year Product Warranty



The AA15S/D/T series , isolated fully encapsulated 15W AC/DC power module with 3,000VAC isolation. With Universal input voltage 85-264VAC and International safety approvals, these power modules are ideal for applications in commercial and industrial electronic equipment. These isolated AC/DC converters are the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. With creative design technology and optimization of component placement, these converters possess outstanding electrical and thermal performance, as well as extremely high reliability under highly stressful operating conditions. industrial electronic equipment.

Model List

Model Number	Output Voltage	Output Current	Input Current 115VAC, 60Hz		Max. capacitive Load	Efficiency (typ.)	UL60950-1 Approval	UL508 Approval
		Max.	@Max. Load	@No Load		@Max. Load		
	VDC	mA	mA(typ.)	mA(typ.)	μF	%		
AA15S0500A	5	3000	290	30	3900	75	O	O
AA15S1200A	12	1250	275	30	2200	79	O	O
AA15S1500A	15	1000	275	30	2200	79	O	O
AA15S2400A	24	625	275	30	1000	79	O	O
AA15S4800A	48	310	273	30	680	79	O	O
AA15D1212A	±12	±650	275	30	*1500	79	O	O
AA15D1515A	±15	±500	275	30	*1500	79	O	O
AA15D0512A	5	1500	302	30	2000	72	O	
	*12	625			1500			
AA15T051212A	5	2000	290	30	2200	74	O	
	*12	200			1500			
	*-12	-200			1500			
AA15T051515A	*5	2000	284	30	2200	74	O	
	*15	150			1500			
	*-15	-150			1500			

* Output voltage accuracy 4% max.

* For each output

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Input Characteristics

Parameter	Model	Min.	Typ.	Max.	Unit
Input Voltage Range	All Models	85	---	264	VAC
Input Frequency Range		47	---	440	Hz
Input Voltage Range		120	---	370	VDC
Inrush Current (Cold Start at 25℃)	115VAC	---	---	15	A
	230VAC	---	---	30	A

Output Characteristics

Parameter		Conditions		Min.	Typ.	Max.	Unit
Output Voltage Accuracy				---	±1.0	±2.0	%
Line Regulation		Vin=Min. to Max.		---	±0.5	±1.0	%
Load Regulation		Iout=Min. to Max.	Single Output Models	---	±0.5	±1.0	%
			Dual/ Triple Output Models	---	±2.5	±5.0	%
Cross Regulation-Dual Positives / Triple Output	Vo1	Measured output Io = 20% to 100% of rated load Other output(s) set at 50% of rated load		---	±1.0	---	%
	Vo2			---	±2.5	---	%
	Vo3			---	±2.5	---	%
Ripple & Noise (20MHz)		5VDC Output Models		---	1.5	1.8	$\%V_{PP}$ of
		Other Output Models		---	0.8	1.0	$\%V_{PP}$ of
Minimum Load				---	10	---	%Inom.
Over Voltage Protection		Zener diode clamp		---	120	---	% of Vo
Temperature Coefficient				---	±0.01	±0.02	%/℃
Overshoot				---	---	5	% Vout
Current Limitation		Foldback, auto-recovery (long term overload condition may cause damage)		105	---	---	%Inom.
Short Circuit Protection		Hiccup mode, indefinite (automatic recovery)					

General Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Unit
I/O Isolation Voltage	Input to Output, 60 Seconds	3000	---	---	VACrms
I/O Isolation Resistance	500 VDC	100	---	---	MΩ
Switching Frequency		---	100	---	KHz
Hold-up Time		---	20	---	ms
MTBF (calculated)	MIL-HDBK-217F@25℃, Ground Benign	280,000	---	---	Hours
EMC Emission	Conducted and radiated	EN 55011 class B, EN 55022 class B, FCC part 15 class B			
EMC Immunity according EN61000-6-1	Standard	Specification Requirement			Performance Criteria
	EN61000-4-2	Air ±8KV Cont. ±4KV			B
	EN61000-4-3	80~1000MHz, 10V/m 80% AM, 1KHz modulation			A
	EN61000-4-4	AC port ±2KV DC, SL, TL ±2KV not less than 1 min.			B
	EN61000-4-5	1.2/50uS(8/20μS) AC dif. ±1KV DC ±0.5KV			B
	EN61000-4-6	0.15~80MHz, 10Vrms (functional earth ports included) 80% AM, 1KHz modulation			B
	EN61000-4-8	50Hz/60Hz, 30A/m			A
	EN61000-4-11	30%, 10ms			B
		60%, 100ms, 95%, 5000ms			C
Protection Class II		According IEC/EN 60536			
Safety Approvals		cUL/UL 60950-1,IEC/EN 60950-1			
		UL508 for selective models			

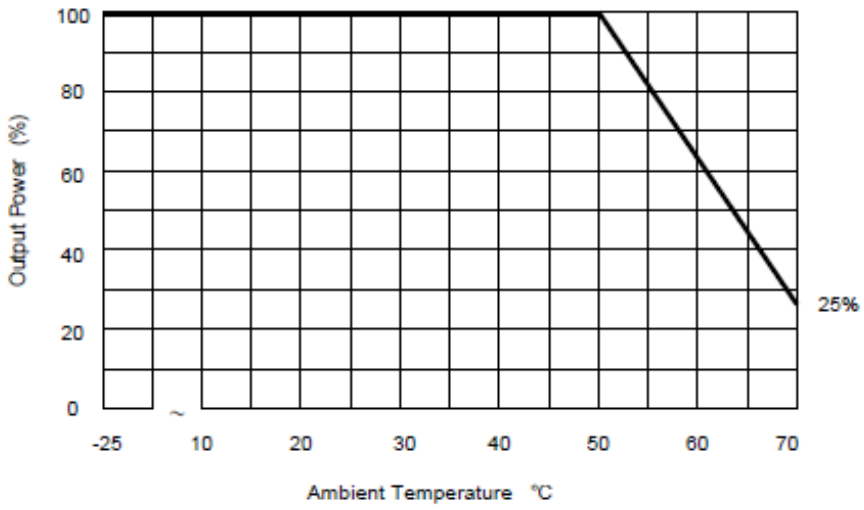
Input Fuse

All Models	
Built-in Fuse	2A / 250VAC
External Fuse (Recommended)	1.5A Slow – Blow Type

Environmental Specifications

Parameter	Conditions		
Temperature Range (operational)	Ambient	-25℃	+70℃
Storage Temperature Range		-40℃	+85℃
Over Temperature Protection	at 90℃ (automatic recovery at 67℃)		
Cooling	Free-Air convection		
Humidity (non condensing)		---	95 % rel. H

Power Derating Curve

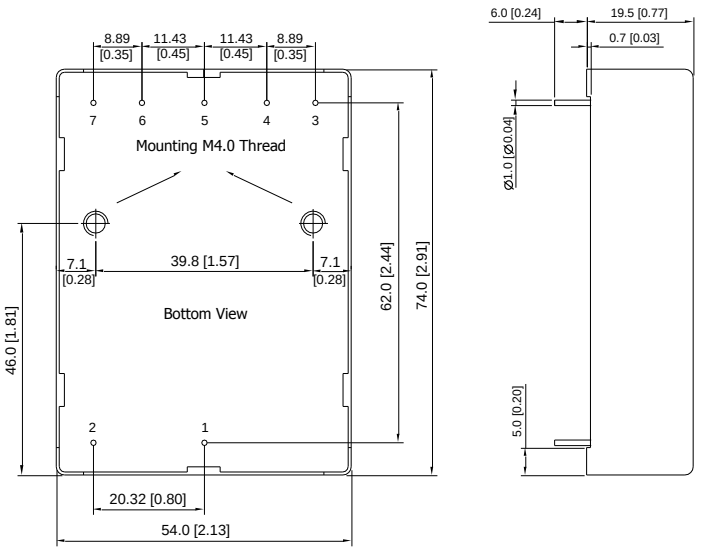


Notes

1 All Specifications typical at Ta=+25℃, resistive load, 115VAC, 60Hz input voltage and after warm-up time rated output current unless otherwise noted.
2 Ripple & Noise measurement bandwidth is 0~20 MHz
3 These power modules require a minimum output loading to maintain specified regulation, operation under no-load conditions will not damage the power supplies however they may not meet all listed specifications.
4 Other input and output voltage may be available, please contact us for custom solution
5 Specifications are subject to change anytime without notice

Mechancial Drawing PCB Mount

Mechanical Dimensions



Pin Connections

Pin	Single	Dual (D12,D15)	Dual (D512)	Triple
1	AC(N) – AC Neutral			
2	AC(L) – AC Line			
3	No Pin			-Vout3
4	-Vout	-Vout	-Vout2	Common
5	No Pin	Common	+Vout2	+Vout2
6	+Vout	+Vout	-Vout1	-Vout1
7	No Pin		+Vout1	+Vout1

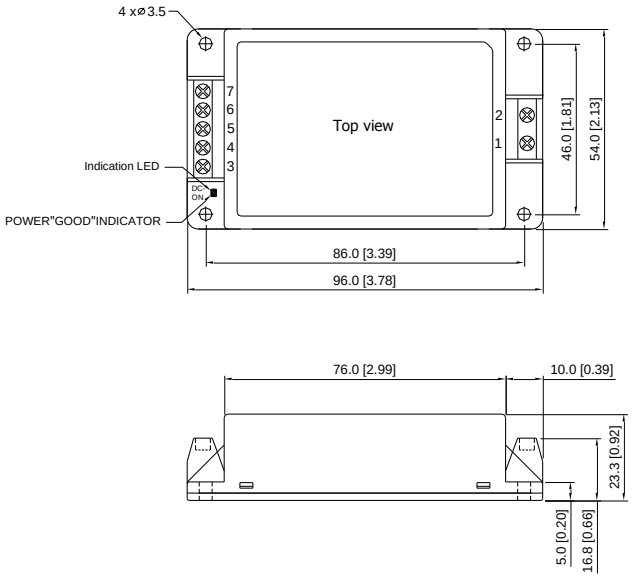
- ▸All dimensions in mm (inches)
- ▸Tolerance: ±0.5 (±0.02)
- ▸Pin diameter ⇔ 1.0 ±0.1 (0.04±0.004)

Physical Outline

Case Size	:	74.0x54.0x19.5mm (2.91x2.13x0.77 inches)
Case Material	:	Plastic resin + Fiberglass (flammability to UL 94V-0 rated)
Pin Material	:	Copper Alloy with Gold Plate Over Nickel Subplate
Weight	:	174g

Mechancial Drawings Chassis Mount (Option code, suffix C)

Mechanical Dimensions



Connections

Terminal	Single	Dual (D12,D15)	Dual (D512)	Triple
1	AC(N) – AC Neutral			
2	AC(L) – AC Line			
3	NC			-Vout3
4	-Vout	-Vout	-Vout2	Common
5	NC	Common	+Vout2	+Vout2
6	+Vout	+Vout	-Vout1	-Vout1
7	NC		+Vout1	+Vout1

NC: No Connection

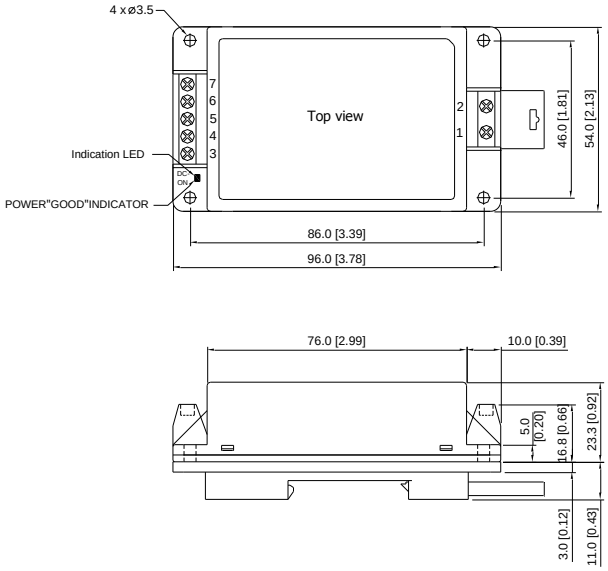
- ▸All dimensions in mm (inches)
- ▸Tolerance: X.X±0.5 (X.XX±0.02)
  X.XX±0.25 (X.XXX±0.01)
- ▸Pin pitch tolerance: ±0.25 (0.01)

Physical Outline

Case Size	:	96.0x54.0x23.3mm (3.78x2.13x0.92 inches)
Case Material	:	Plastic resin + Fiberglass (flammability to UL 94V-0 rated)
Weight	:	162g

Mechancial Dawings Chassis Mounting with DIN Rail Kit (Option code, suffix D)

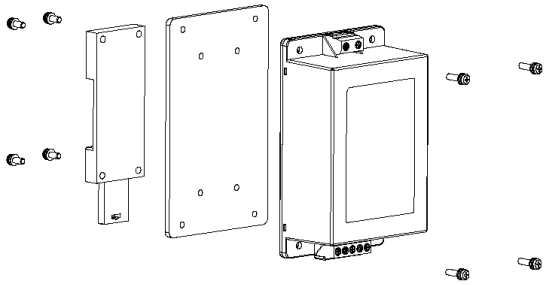
Mechanical Dimensions

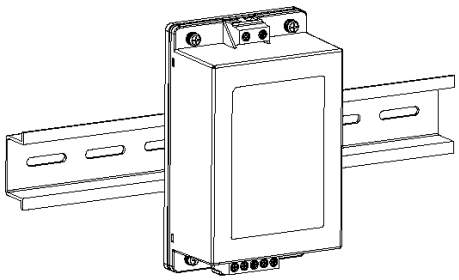


Physical Outline

Case Size	:	96.0x54.0x23.3mm (3.78x2.13x0.92 inches)
Case Material	:	Plastic resin + Fiberglass (flammability to UL 94V-0 rated)
Weight	:	216g

DIN-Rail Mounting Kit





Part Numbering System

A	A	15	T	05	12	12	A
Form factor	Family series	Watt	Number of Outputs	0nput Voltage I	Output Voltage II	Output Voltage III	Option Code
AC/DC Power Module	A~Z	15:15W	S - Single	05 : 5V	05 : 5V	05 : 5V	A - Std PCB Mounting
			D - Dual	12 : 12V	12 : 12	12 : -12V	C - Chasis Mounting
			T - Triple	15 : 15V	15 : 15	15 : -15V	D – Chassis Mounting with DIN-Rail kit
				24 : 24V	24 : 24V	24 : -24V	
				48 : 48V			

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WARRANTY

Delta offers a three(3) years limited warranty. Complete warranty information is listed on our web site or is available upon request from Delta.

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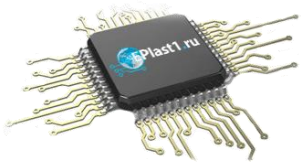
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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