

FEATURES

- Ultra-compact AC-DC power supply for PCB Mounting
- Over Load and Over Voltage Protection
- EMI meets EN55022, Class B and EMS compliance to EN61000-4
- Universal Input voltage range 85-264 VAC, 47-440 Hz
- UL/IEC/EN 60950-1 Certified , CE Marked
- 3kVAC Isolation , Protection Class II level
- Lead free, RoHs Compliant
- 3 Years Product Warranty



The AA10S series , isolated fully encapsulated 10W 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

Model List

| Model Number | Output Voltage VDC | Output Current Max. mA | Input Current | Max. capacitive Load uF | Efficiency (typ.) @Max. Load % |
|--------------|-----------------------|------------------------------|--|-------------------------------|---|
| | | | 115VAC, 60Hz @Max. Load mA(typ.) | | |
| AA10S0300A | 3.3 | 2500 | 171 | 2200 | 70 |
| AA10S0500A | 5 | 2000 | 201 | 2200 | 72 |
| AA10S1200A | 12 | 833 | 191 | 1000 | 76 |
| AA10S1500A | 15 | 667 | 193 | 1000 | 75 |
| AA10S2400A | 24 | 417 | 201 | 680 | 72 |

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 |
| No-Load Power Consumption | | --- | --- | 0.3 | W |
| Inrush Current (Cold Start at 25°C) | 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. | --- | ±0.5 | ±1.0 | % |
| Ripple & Noise (20MHz) | 3.3 & 5.0VDC Output Models | --- | 1.5 | 1.8 | %V _{PP} of |
| | Other Output Models | --- | 0.8 | 1.0 | %V _{PP} of |
| Minimum Load | | --- | 10 | --- | %I _{nom.} |
| Over Voltage Protection | Zener diode clamp | --- | 120 | --- | % of V _o |
| Temperature Coefficient | | --- | ±0.01 | ±0.02 | %/°C |
| Overshoot | | --- | --- | 5 | % V _{out} |
| Current Limitation | Foldback, auto-recovery (long term overload condition may cause damage) | 105 | --- | --- | %I _{nom.} |
| 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 | | --- | 125 | --- | KHz |
| Hold-up Time | | --- | 20 | --- | ms |
| MTBF (calculated) | MIL-HDBK-217F @25°C, Ground Benign | 300,000 | --- | --- | 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(8/20uS) AC dif. ±1KV DC ±0.5KV 0.15~80MHz, 10Vrms (functional earth ports included) | | | B |
| | EN61000-4-6 | 80% AM, 1KHz modulation | | | B |
| | EN61000-4-8 | 50Hz/60Hz, 30A/m | | | A |
| | EN61000-4-11 | 30%, 10ms 60%, 100ms, 95%, 5000ms | | | B C |
| Protection Class II | | According IEC/EN 60536 | | | |
| Safety Approvals | | cUL/UL 60950-1, IEC/EN 60950-1 | | | |

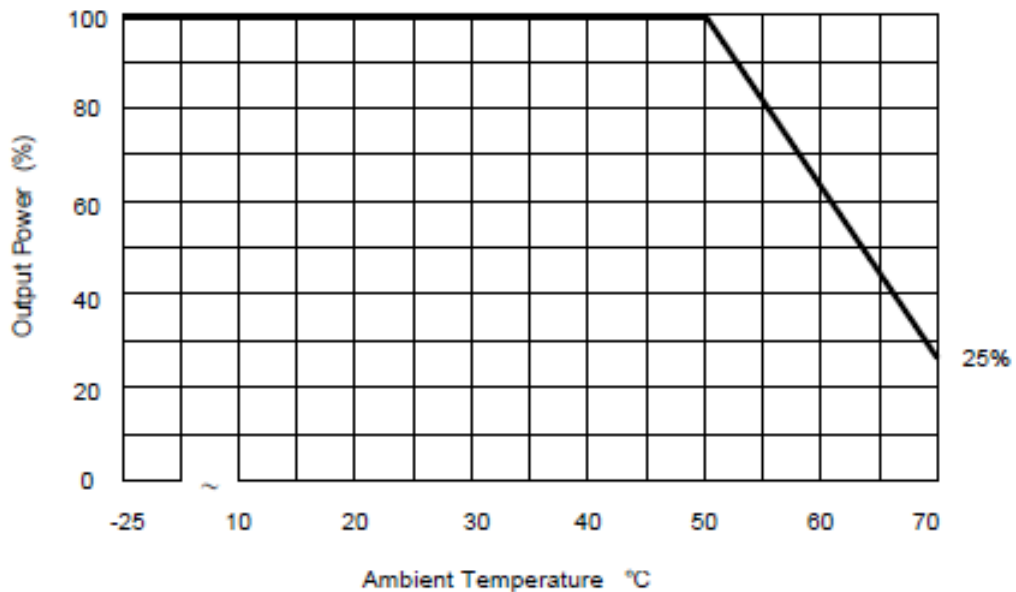
Recommended Input Fuse

| All Models | |
|-----------------------------|-----------------------|
| External Fuse (Recommended) | 1.5A Slow – Blow Type |

Environmental Specifications

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

Power Derating Curve

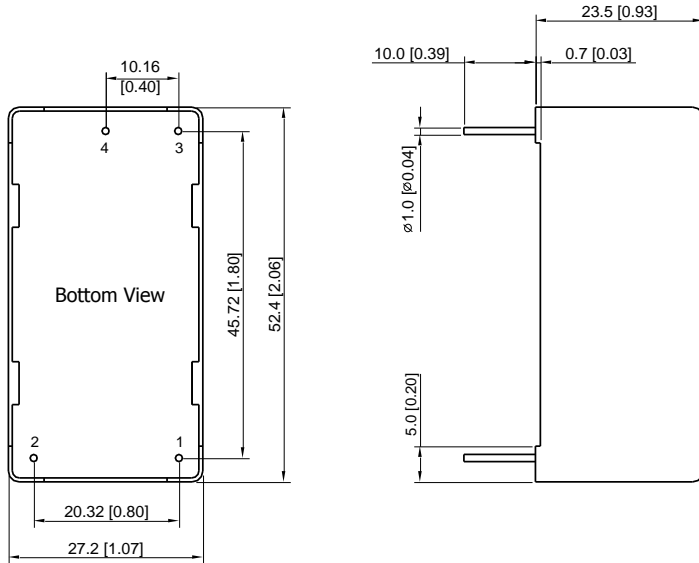


Notes

- 1 All specifications typical at Ta=+25°C, 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 All AC/DC modules should be externally fused at the front end for protection.
- 5 Other input and output voltage may be available, please contact us for custom solution
- 6 Specifications subject to change without notice

Mechanical Drawing

Mechanical Dimensions



Pin Connections

| Pin | Function |
|-----|--------------------|
| 1 | AC(N) – AC Neutral |
| 2 | AC(L) – AC Line |
| 3 | +Vout |
| 4 | -Vout |

- ▶ All dimensions in mm (inches)
- ▶ Tolerance: ± 0.5 (± 0.02)
- ▶ Pin diameter $\leftrightarrow 1.0 \pm 0.1$ (0.04 ± 0.004)

Physical Outline

| | |
|---------------|---|
| Case Size | : 52.4x27.2x23.5mm (2.06x1.07x0.93 Inches) |
| Case Material | : Plastic resin + Fiberglass (flammability to UL 94V-0 rated) |
| Weight | : 54g |

Part Numbering System

| A | A | 10 | S | 05 | 00 | A |
|--------------------|------------------------|----------|-------------------|------------------|---------------------|---------------|
| Product type | Family series | Watt | Number of Outputs | Output Voltage I | Output Voltage II | Option Code |
| AC/DC Power Module | Industrial application | 10 - 10W | S - Single | 03 - 3.3V | 00 - not applicable | A - PCB Mount |
| | | | | 05 - 5V | | |
| | | | | 12 - 12V | | |
| | | | | 15 - 15V | | |
| | | | | 24 - 24V | | |

CONTACT: www.deltaww.com/dcdc

USA:

Telephone:
East Coast: 978-656-3993
West Coast: 510-668-5100
Fax: (978) 656 3964
Email: DCDC@delta-corp.com

Europe:

Phone: +31-20-655-0967
Fax: +31-20-655-0999
Email: DCDC@delta-es.com

Asia & the rest of world:

Telephone: +886 3 4526107
ext 6220~6224
Fax: +886 3 4513485
Email: DCDC@delta.com.tw

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.

Information furnished by Delta is believed to be accurate and reliable. However, no responsibility is assumed by Delta for its use, nor for any infringements of patents or other rights of third parties, which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Delta. Delta reserves the right to revise these specifications at any time, without notice

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А