



4 watt dc-dc converters

- 24PIN DIP PACKAGE
- WIDE 2:1 INPUT RANGE
- HIGH EFFICIENCY UP TO 81%
- LOW PROFILE METAL PACKAGE
- INPUT/OUTPUT ISOLATION: 1500 & 3500VDC
- CONTINUOUS SHORT CIRCUIT PROTECTION
- OPERATING TEMPERATURE: -40°C TO +85°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM4T series is a family of cost effective 4W single and dual outputs DC-DC converters. Input voltages of 12, 24 & 48VDC with output voltages of 3.3, 5, 7.2, 9, 12,

15, 18, 24, ± 3.3 , ± 5 , ± 7.2 , ± 9 , ± 12 , ± 15 , ± 18 & ± 24 VDC. Full SMD-design and a 100% production test of parameters ensures a high reliability in this product.

ELECTRICAL SPECIFICATIONS

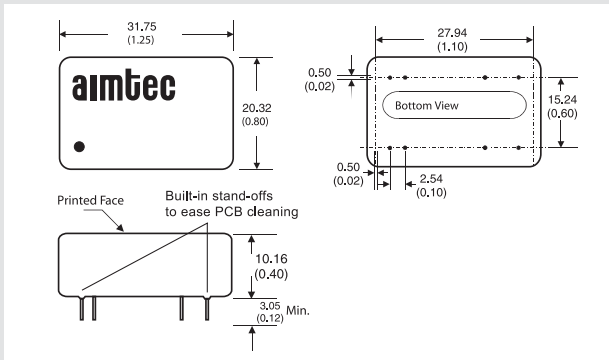
Specifications typical at +25°C, nominal input voltage, rated output current unless otherwise specified

| Input Specifications: | | General Specifications: | |
|---------------------------------|--|-------------------------------|---|
| Voltage range | 12VDC, 9~18VDC 24VDC, 18~36VDC 48VDC, 36~72VDC | Efficiency | 73% to 81% |
| Filter | p (Pi) Network | Switching Frequency | 250KHz, typ. 100% load |
| Isolation Specifications: | | Output Specifications: | |
| Rated voltage (60 sec) | 1500 & 3500VDC | Voltage accuracy | $\pm 1\%$, max. |
| Resistance | > 1000MOhm | Voltage balance (Dual Output) | $\pm 1\%$ |
| Capacitance | 120pF, typ. | Ripple & noise (at 20MHz BW) | 60mVp-p, max. |
| Environmental Specifications: | | Short circuit protection | Continuous |
| Operating temperature (ambient) | -40°C ... +85°C | Short circuit restart | Automatic |
| Storage temperature | -55°C ... +125°C | Line voltage regulation | $\pm 0.5\%$, max. |
| Case temperature | +100°C, max. | Load voltage regulation | $\pm 0.5\%$, max. |
| Derating | None required | Temperature coefficient | $\pm 0.02\%/^{\circ}\text{C}$, typ. |
| Humidity (non-condensing) | Up to 90% | Physical Specifications: | |
| Cooling | Free-air Convection | Dimensions | 31.75x20.32x10.16mm 1.25x0.8x0.4inches |
| | | Weight | 19g |
| | | Case material | Nickel-Coated Copper |

MTBF: > 1,036,000 hrs (MIL-HDBK-217F, Ground Benign, $t=+25^{\circ}\text{C}$)

Specifications are subject to change without notification

OUTLINE DIMENSIONS & PIN CONNECTIONS



| Pin | 1500 & 3500VDC | |
|-----|----------------|-----------|
| | Single | Dual |
| 2 | -V Input | -V Input |
| 3 | -V Input | -V Input |
| 9 | N.C | Common |
| 11 | N.C | -V Output |
| 14 | +V Output | +V Output |
| 16 | -V Output | Common |
| 22 | +V Input | +V Input |
| 23 | +V Input | +V Input |

MODELS

Single output

| Models | | Input Voltage | Output Voltage | Output Current max. |
|-------------------|-------------------|---------------|----------------|---------------------|
| Isolation 1500VDC | Isolation 3500VDC | | | |
| AM4T-1203S | AM4T-1203SH35 | 9VDC - 18VDC | 3.3VDC | 1000mA |
| AM4T-1205S | AM4T-1205SH35 | | 5VDC | 800mA |
| AM4T-1207S | AM4T-1207SH35 | | 7.2VDC | 556mA |
| AM4T-1209S | AM4T-1209SH35 | | 9VDC | 444mA |
| AM4T-1212S | AM4T-1212SH35 | | 12VDC | 333mA |
| AM4T-1215S | AM4T-1215SH35 | | 15VDC | 267mA |
| AM4T-1218S | AM4T-1218SH35 | | 18VDC | 222mA |
| AM4T-1224S | AM4T-1224SH35 | | 24VDC | 167mA |
| AM4T-2403S | AM4T-2403SH35 | 18VDC - 36VDC | 3.3VDC | 1000mA |
| AM4T-2405S | AM4T-2405SH35 | | 5VDC | 800mA |
| AM4T-2407S | AM4T-2407SH35 | | 7.2VDC | 556mA |
| AM4T-2409S | AM4T-2409SH35 | | 9VDC | 444mA |
| AM4T-2412S | AM4T-2412SH35 | | 12VDC | 333mA |
| AM4T-2415S | AM4T-2415SH35 | | 15VDC | 267mA |
| AM4T-2418S | AM4T-2418SH35 | | 18VDC | 222mA |
| AM4T-2424S | AM4T-2424SH35 | | 24VDC | 167mA |
| AM4T-4803S | AM4T-4803SH35 | 36VDC - 72VDC | 3.3VDC | 1000mA |
| AM4T-4805S | AM4T-4805SH35 | | 5VDC | 800mA |
| AM4T-4807S | AM4T-4807SH35 | | 7.2VDC | 556mA |
| AM4T-4809S | AM4T-4809SH35 | | 9VDC | 444mA |
| AM4T-4812S | AM4T-4812SH35 | | 12VDC | 333mA |
| AM4T-4815S | AM4T-4815SH35 | | 15VDC | 267mA |
| AM4T-4818S | AM4T-4818SH35 | | 18VDC | 222mA |
| AM4T-4824S | AM4T-4824SH35 | | 24VDC | 167mA |

AM4T Series

MODELS Dual output

| Models | | Input Voltage | Output Voltage | Output Current max. |
|-------------------|-------------------|---------------|----------------|---------------------|
| Isolation 1500VDC | Isolation 3500VDC | | | |
| AM4T-1203D | AM4T-1203DH35 | 9VDC - 18VDC | ±3.3VDC | ±500mA |
| AM4T-1205D | AM4T-1205DH35 | | ±5VDC | ±400mA |
| AM4T-1207D | AM4T-1207DH35 | | ±7.2VDC | ±278mA |
| AM4T-1209D | AM4T-1209DH35 | | ±9VDC | ±222mA |
| AM4T-1212D | AM4T-1212DH35 | | ±12VDC | ±167mA |
| AM4T-1215D | AM4T-1215DH35 | | ±15VDC | ±133mA |
| AM4T-1218D | AM4T-1218DH35 | | ±18VDC | ±111mA |
| AM4T-1224D | AM4T-1224DH35 | | ±24VDC | ±83mA |
| AM4T-2403D | AM4T-2403DH35 | 18VDC - 36VDC | ±3.3VDC | ±500mA |
| AM4T-2405D | AM4T-2405DH35 | | ±5VDC | ±400mA |
| AM4T-2407D | AM4T-2407DH35 | | ±7.2VDC | ±278mA |
| AM4T-2409D | AM4T-2409DH35 | | ±9VDC | ±222mA |
| AM4T-2412D | AM4T-2412DH35 | | ±12VDC | ±167mA |
| AM4T-2415D | AM4T-2415DH35 | | ±15VDC | ±133mA |
| AM4T-2418D | AM4T-2418DH35 | | ±18VDC | ±111mA |
| AM4T-2424D | AM4T-2424DH35 | | ±24VDC | ±83mA |
| AM4T-4803D | AM4T-4803DH35 | 36VDC - 72VDC | ±3.3VDC | ±500mA |
| AM4T-4805D | AM4T-4805DH35 | | ±5VDC | ±400mA |
| AM4T-4807D | AM4T-4807DH35 | | ±7.2VDC | ±278mA |
| AM4T-4809D | AM4T-4809DH35 | | ±9VDC | ±222mA |
| AM4T-4812D | AM4T-4812DH35 | | ±12VDC | ±167mA |
| AM4T-4815D | AM4T-4815DH35 | | ±15VDC | ±133mA |
| AM4T-4818D | AM4T-4818DH35 | | ±18VDC | ±111mA |
| AM4T-4824D | AM4T-4824DH35 | | ±24VDC | ±83mA |