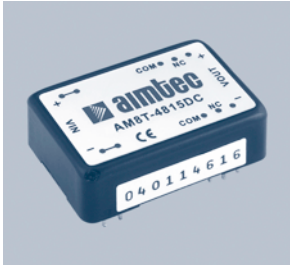


# AM8T-C Series



## 8 watt dc-dc converters

- 24PIN DIP PACKAGE
- PLASTIC ENCAPSULATED CASE
- POWER MODULES FOR PCB MOUNTING
- 2:1 WIDE INPUT RANGE
- REGULATED OUTPUT
- LOW RIPPLE & NOISE
- OPERATING TEMPERATURE : -25...+71°C



### GENERAL DESCRIPTION

Our AM8T-C series is a family of cost effective 8W single and dual output DC-DC converters. These converters are shielded on all six sides and aluminum encapsulated, have a non-conductive base and retain an anodized black DIP24 compatible plastic case and dimensions of 31.8x20.3x10.2mm. The high performance features of our AM8T-C components include short circuit protection with current limit auto recovery, tight line regulation and a high

efficiency operation coefficient up to 82%. Twenty four models operate from an input voltage range of 12, 24 & 48VDC producing output voltages of 3,3, 5, 12, 15, 24,  $\pm 5$ ,  $\pm 12$  &  $\pm 15$ VDC. The normal operation is specified over the full operating temperature range of  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$  with no derating required. Cooling is done by free air convection.

### ELECTRICAL SPECIFICATIONS

All specifications valid at nominal input voltage, full load and  $+25^{\circ}\text{C}$  after warm-up time unless otherwise stated.

#### Input Specifications:

Voltage range	12VDC, 9~18VDC 24VDC, 18~36VDC 48 VDC, 36~75VDC
Filter	p (Pi) Network

#### Isolation Specifications:

Rated voltage	1500VDC
Resistance	>1000 Mohms
Capacitance	1000pF, typ.

#### General Specifications:

Efficiency	78% to 82%
Switching frequency	300KHz, typ. 100% load

#### Environmental Specifications:

Operating temperature	$-25^{\circ}\text{C}$ ... $+71^{\circ}\text{C}$
Storage temperature	$-55^{\circ}\text{C}$ ... $+105^{\circ}\text{C}$
Case temperature	$+95^{\circ}\text{C}$ , max.
Humidity (non-condensing)	Up to 95%
Cooling	Free-air convection

#### Output Specifications:

Voltage accuracy	$\pm 2\%$ , max.
Ripple	$< 0.2\%$ $V_{out} + 20\text{mVmax}$ (Vp-p)
Noise	$< 0.5\%$ $V_{out} + 50\text{mVmax}$ (Vp-p)
Short circuit protection	Current limit, auto-recovery
Over current protection	Works over 120% of rating and recovers automatically
Line regulation (HL-LL)	$\pm 0.5\%$ , typ.
Load regulation (10-100%)	$\pm 2\%$ , typ.
Temperature coefficient	$\pm 0.02\%/^{\circ}\text{C}$ , typ.

#### Physical Specifications:

Dimensions	31.8x20.3x10.2mm, tolerance $\pm 0.5\text{mm}$ 1.25x0.8x0.4inches
Weight	13g
Case material	Six-side shielded Aluminum with Non-Conductive base, Black Anodize

MTBF: > 800,000 hrs (MIL-HDBK-217F, Ground Benign,  $t=+25^{\circ}\text{C}$ )

*Specifications are subject to change without notification*

