

AM40U-C Series

40 watt dc-dc converters



- POWER MODULES FOR PCB MOUNTING
- V-OUT TRIM AND ON/OFF CONTROL
- REGULATED OUTPUT
- LOW RIPPLE & NOISE
- SYNCHRONOUS RECTIFIER TOPOLOGY



GENERAL DESCRIPTION

Our AM40U-C series is a family of cost effective 40W single output DC-DC converters. These converters are shielded on all six sides and encapsulated with a nickel-coated copper with a non-conductive base and dimensions of 50.8x40.64x10.8mm. The high performance features of our AM40U-C components include short circuit protection with hiccup auto recovery, tight line regulation and a high efficiency operation coefficient up to 88%.

Seven models operate from an input voltage of 48VDC producing output voltages of 1.8, 2.5, 3.3, 5, 12, 15 & 24VDC. The normal operation is specified over the full operating temperature range of -25°C to +71°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°C after warm-up time unless otherwise stated.

Input Specifications:

Voltage range	48 VDC, 36~75VDC
Filter	π (Pi) Network

Isolation Specifications:

Rated voltage	1500VDC
Resistance	>1000 Mohms
Capacitance	1000pF

General Specifications:

Efficiency	83% to 88%
Switching frequency	400KHz, typ. 100% load

Environmental Specifications:

Operating temperature	-25°C ...+71°C
Storage temperature	-55°C ...+105°C
Case temperature	+95°C, max.
Humidity (non-condensing)	Up to 95%
Cooling	Free-air convection

Output Specifications:

Voltage accuracy	±2%, max.
Ripple	<0.2% Vout +20mVmax (Vp-p)
Noise	<0.5% Vout +50mVmax (Vp-p)
Short circuit protection	Hiccup, auto-recovery
Over current protection	Works over 120% of rating and recovers automatically
Over voltage protection	Zener diode clamp protection
Line regulation (HL-LL)	±0.5%, typ.
Load regulation (10-100%)	±1%, typ.
Temperature coefficient	±0.02%/°C, typ.

Physical Specifications:

Dimensions	50.8x50.8x10.8mm 2.0x2.0x0.42inches
Weight	70g
Case material	Nickel-Coated Copper with Non-Conductive base, six sides' shielded

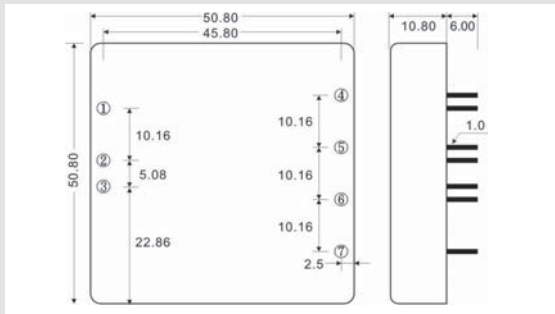
MTBF: > 550,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

AM40U-C Series

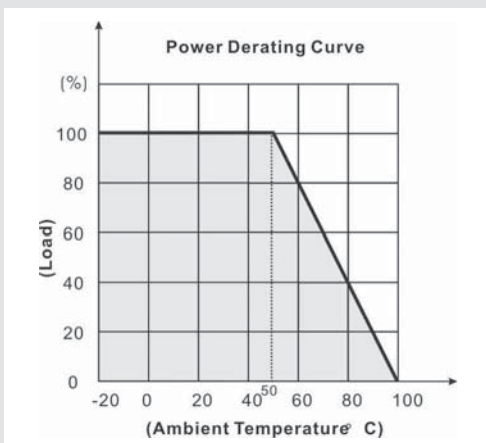
OUTLINE DIMENSIONS & PIN CONNECTIONS

MECHANICAL DIMENSION (Top View)

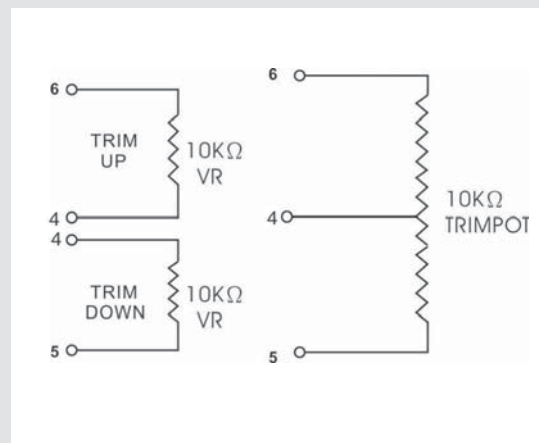


Pin	Single
1	On/Off Control (Optional)
2	-V Input
3	+V Input
4	Trim
5	-V Output
6	+V Output
7	N.C.

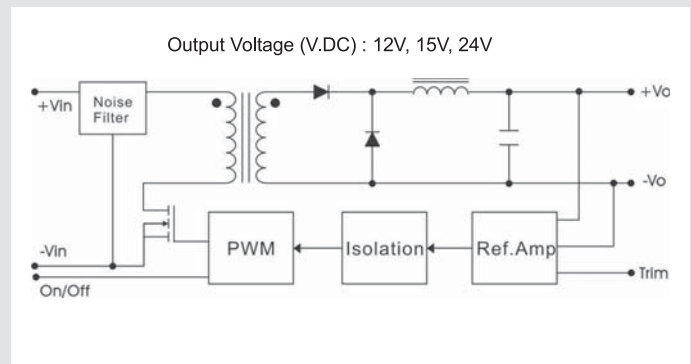
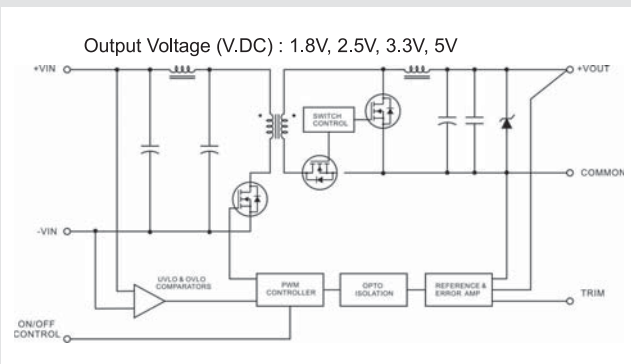
DERATING



TRIMMING



BLOCK DIAGRAM



MODELS Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM40U-4801SC	36VDC-75VDC	1.8VDC	8000mA
AM40U-4802SC		2.5VDC	8000mA
AM40U-4803SC		3.3VDC	8000mA
AM40U-4805SC		5VDC	8000mA
AM40U-4812SC		12VDC	3300mA
AM40U-4815SC		15VDC	2660mA
AM40U-4824SC		24VDC	1660mA