AM30K-C Series



30 watt dc-dc converters

- POWER MODULES FOR PCB MOUNTING
- SIX-SIDED CONTINUOUS SHIELD
- HIGH EFFICIENCY
- STANDARD PACKAGE

GENERAL DESCRIPTION

Our AM30K-C series is a family of cost effective 30W 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 AM30K-C components include short circuit protection with hiccup auto recovery, tight line regulation and a high efficiency operation coefficient up to 89%.

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	p (Pi) Network	
Isolation Specifications:		
Rated voltage	1500VDC	
Resistance	>1000 Mohms	
Capacitance	1000pF	
General Specifications:		
Efficiency	83% to 89%	
Switching frequency	400KHz, typ. 100% load	
Environmental Specificat	ions:	
Operating temperature	-25°C+71°C	

Output Specifications:		
Voltage accuracy	±1%, 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	50.8x40.64x10.8mm,	
	2.0x1.6x0.43inches	
Weight	58g	
Case material	Nickel-Coated Copper with	
	Non-Conductive base,	
	six sides' shielded	

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

-55°C ...+105°C +95°C, max.

Free-air convection

Up to 95%

Specifications are subject to change without notification

Storage temperature

Humidity (non-condensing)

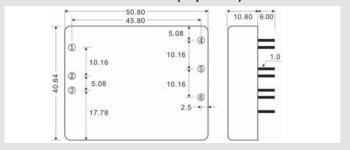
Case temperature

Cooling

AM30K-C Series

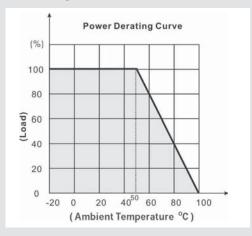
OUTLINE DIMENSIONS & PIN CONNECTIONS

MECHANICAL DIMENSION (Top View)

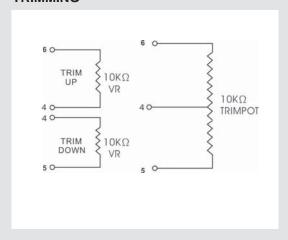


Pin	Single	
1	On/Off Control (Optional)	
2	-V Input	
3	+V Input	
4	Trim	
5	-V Output	
6	+V Output	

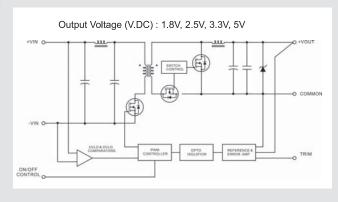
DERATING

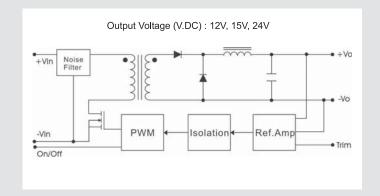


TRIMMING



BLOCK DIAGRAM





MODELS Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM30K-4801SC	36VDC-75VDC	1.8VDC	6000mA
AM30K-4802SC		2.5VDC	6000mA
AM30K-4803SC		3.3VDC	6000mA
AM30K-4805SC		5VDC	6000mA
AM30K-4812SC		12VDC	2500mA
AM30K-4815SC		15VDC	2000mA
AM30K-4824SC		24VDC	1250mA