

AM30K-I Series



30 watt dc-dc converters

- POWER MODULES FOR PCB MOUNTING
- TERMAL SHUTDOWN
- REMOTE ON OFF CONTROL
- SOFT START
- HIGH EFFICIENCY
- STANDARD PACKAGE
- UVLO / OVLO SHUTDOWN

GENERAL DESCRIPTION

Our AM30K-I series is a family of cost effective 30W 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-I components include continuous short circuit protection with auto recovery, tight line regulation and a high efficiency operation coefficient up to 88%.

Twenty one models operate from an input voltage of 12, 24 & 48VDC producing output voltages of 3.3, 5, 12, 15, \pm 5, \pm 12, & \pm 15VDC. The normal operation is specified over the full operating temperature range of -40°C to +75°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 (2:1)	12VDC, 9~18VDC
	24VDC, 18~36VDC
	48 VDC, 36~75VDC
Filter	π (Pi) Network

Isolation Specifications:

Rated voltage 1500VDC
Resistance >1000 Mohms
Capacitance 1000pF

General Specifications:

Efficiency 81% to 88%

Switching frequency 250KHz, typ. 100% load

Environmental Specifications:

Operating temperature -40°C ...+75°C
Storage temperature -55°C ...+115°C
Case temperature +100°C, max.
Humidity (non-condensing) Up to 95%
Cooling Free-air convection

Output Specifications:

Voltage accuracy ±2%, max.

Ripple Noise (3.3 & 5V) 80m Vp-pmax

Ripple Noise (Others) 1% P-Pmax (Vp-p)

Short circuit protection Continuous, auto-recovery

Over current protection Over 110% of full load and recovers automatically

Over voltage protection Zener diode clamp protection

Line regulation (HL-LL) ±0.5%, max.

Load regulation (10-100%) Single ±0.5%, max., dual ±2%, max.

Temperature coefficient ±0.05%/°C, max.

Physical Specifications:

Dimensions	50.8x40.6x10.2mm,
	2.0x1.6x0.4inches
Weight	50g
Case material	Nickel-Coated Copper

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

Specifications are subject to change without notification

Continued on next page

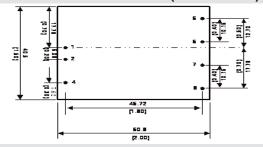




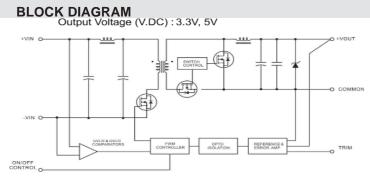
AM30K-I Series

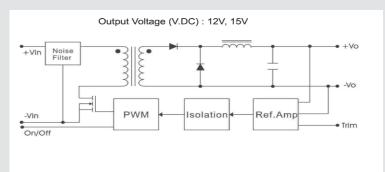
OUTLINE DIMENSIONS & PIN CONNECTIONS

MECHANICAL DIMENSION (Bottom View)

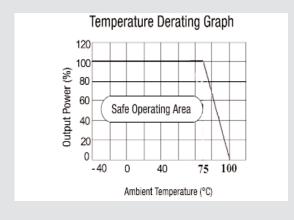


Pin	1500VDC		
	Single	Dual	
1	+ V Input	+ V Input	
2	- V Input	- V Input	
4	On / Off Control	On / Off Control	
5	N.P.	+ V Output	
6	+ V Output	Common	
7	-V Output	-V Output	
8	Trim	Trim	

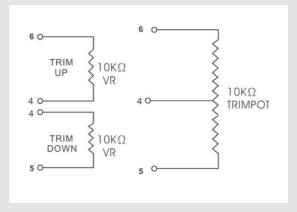




DERATING



TRIMMING





AM30K-I Series

MODELS Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM30K-1203SI		3.3VDC	5500mA
AM30K-1205SI	9-18VDC	5VDC	5000mA
AM30K-1212SI		12VDC	2500mA
AM30K-1215SI		15VDC	2000mA
AM30K-2403SI		3.3VDC	5500mA
AM30K-2405SI	18-36VDC	5VDC	5000mA
AM30K-2412SI		12VDC	2500mA
AM30K-2415SI		15VDC	2000mA
AM30K-4803SI		3.3VDC	5500mA
AM30K-4805SI	36-75VDC	5VDC	5000mA
AM30K-4812SI		12VDC	2500mA
AM30K-4815SI		15VDC	2000mA

MODELS Dual output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM30K-1205DI	9-18VDC	±5VDC	±2500mA
AM30K-1212DI		±12VDC	±1250mA
AM30K-1215DI		±15VDC	±1000mA
AM30K-2405DI	18-36VDC	+5VDC	±2500mA
AM30K-2412DI		±12VDC	±1250mA
AM30K-2415DI		±15VDC	±1000mA
AM30K-4805DI	36-75VDC	±5VDC	±2500mA
AM30K-4812DI		±12VDC	±1250mA
AM30K-4815DI		±15VDC	±1000mA

