

AM3N-S Series



3 watt dc-dc converters

- SINGLE REGULATED OUTPUTS
- 24 PIN DIP PACKAGE
- LOW RIPPLE & NOISE
- HIGH EFFICIENCY UP TO 70%
- LOW PROFILE PACKAGING
- INPUT/OUTPUT ISOLATION: 1000, 3000 & 5200VDC
- 5200VDC ISOLATION, PLASTIC CASE
- OPERATING TEMPERATURE: -40°C ... +85°C
- CONTINUOUS SHORT CIRCUIT PROTECTION
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

GENERAL DESCRIPTION

Our AM3N-S series is a family of cost effective 3W single output DC/DC converters. These converters combines miniature package in a 24-pin DIP compatible case with high performance features such as 1000, 3000 & 5200VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line/load

regulation. Seventy two models operate from input voltages of 5, 12 & 24VDC with producing output voltage levels of 3.3, 5, 7.2, 9, 12, 15, 18 & 24VDC. 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:

Voltage range	±10%
Filter	π (Pi) Network

Isolation Specifications:

Rated voltage	1000, 3000 or 5200VDC
Resistance	> 1000MΩ
Capacitance	60pF, typ.

General Specifications:

Efficiency	50% to 70%
Switching Frequency	125kHz, typ. 100% load

Physical Specifications:

Dimensions	31.75x20.32x10.16 mm 1.25x0.8x0.4 inches
Weight	14.5 g
Case material	Nickel-Coated Copper
Case material @ 5200VDC	Plastic

Output Specifications:

Voltage accuracy	±2%, max.
Ripple & noise (at 20MHz BW)	75mVp-p, max.
Short circuit protection	Continuous
Short circuit restart	Automatic
Line voltage regulation	±0.5%, max.
Load voltage regulation	±0.5%, max.
Temperature Coefficient	±0.02%/°C, typ.

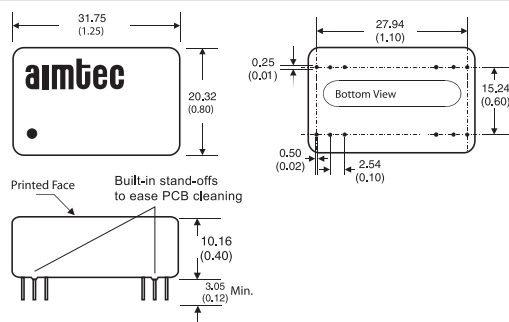
Environmental Specifications:

Operating temperature (ambient)	-40°C ... +85°C
Storage temperature	-55°C ... +125°C
Case Temperature	+90°C, max.
Derating	None required
Humidity (non-condensing)	Up to 90%
Cooling	Free-air Convection

MTBF: > 954,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1000VDC	3000 & 5200VDC
1	+V Input	+V Input
2	N.C.	+V Input
3	N.C.	Omitted
10	-V Output	Omitted
11	+V Output	Omitted
12	-V Input	-V Output
13	-V Input	+V Output
14	+V Output	Omitted
15	-V Output	Omitted
22	N.C.	Omitted
23	N.C.	-V Input
24	+V Input	-V Input

TO ORDER CALL 1-888-9-AIMTEC

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MODELS

Models			Input Voltage	Output Voltage	Output Current max.
Isolation 1000VDC	Isolation 3000VDC	Isolation 5200VDC			
AM3N-0503S	AM3N-0503SH30	AM3N-0503SH52	5V±10%	3.3VDC	800mA
AM3N-0505S	AM3N-0505SH30	AM3N-0505SH52		5VDC	600mA
AM3N-0507S	AM3N-0507SH30	AM3N-0507SH52		7.2VDC	417mA
AM3N-0509S	AM3N-0509SH30	AM3N-0509SH52		9VDC	333mA
AM3N-0512S	AM3N-0512SH30	AM3N-0512SH52		12VDC	250mA
AM3N-0515S	AM3N-0515SH30	AM3N-0515SH52		15VDC	200mA
AM3N-0518S	AM3N-0518SH30	AM3N-0518SH52		18VDC	167mA
AM3N-0524S	AM3N-0524SH30	AM3N-0524SH52		24VDC	125mA
AM3N-1203S	AM3N-1203SH30	AM3N-1203SH52	12V±10%	3.3VDC	800mA
AM3N-1205S	AM3N-1205SH30	AM3N-1205SH52		5VDC	600mA
AM3N-1207S	AM3N-1207SH30	AM3N-1207SH52		7.2VDC	417mA
AM3N-1209S	AM3N-1209SH30	AM3N-1209SH52		9VDC	333mA
AM3N-1212S	AM3N-1212SH30	AM3N-1212SH52		12VDC	250mA
AM3N-1215S	AM3N-1215SH30	AM3N-1215SH52		15VDC	200mA
AM3N-1218S	AM3N-1218SH30	AM3N-1218SH52		18VDC	167mA
AM3N-1224S	AM3N-1224SH30	AM3N-1224SH52		24VDC	125mA
AM3N-2403S	AM3N-2403SH30	AM3N-2403SH52	24V±10%	3.3VDC	800mA
AM3N-2405S	AM3N-2405SH30	AM3N-2405SH52		5VDC	600mA
AM3N-2407S	AM3N-2407SH30	AM3N-2407SH52		7.2VDC	417mA
AM3N-2409S	AM3N-2409SH30	AM3N-2409SH52		9VDC	333mA
AM3N-2412S	AM3N-2412SH30	AM3N-2412SH52		12VDC	250mA
AM3N-2415S	AM3N-2415SH30	AM3N-2415SH52		15VDC	200mA
AM3N-2418S	AM3N-2418SH30	AM3N-2418SH52		18VDC	167mA
AM3N-2424S	AM3N-2424SH30	AM3N-2424SH52		24VDC	125mA