AM3TW Series



3 watt dc-dc converters

- 24-PIN DIP PACKAGE
- LOW PROFILE METAL PACKAGE
- HIGH EFFICIENCY UP TO 79%
- WIDE 4:1 INPUT RANGE
- INPUT/OUTPUT ISOLATION: 1500 & 3500VDC
- OPERATING TEMPERATURE: -40°C ... +85°C
- PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS
- CONTINUOUS SHORT CIRCUIT PROTECTION

GENERAL DESCRIPTION

Our AM3TW series is a family of cost effective 3W single and dual output DC-DC converters. These converters combine nickel-coated copper package in a 24-pin DIP compatible case with high performance features such as 1500 & 3500VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line / load regulation. Wide range devices operate over 4:1 input voltage range providing stable output voltage. Devices are encapsulated using flame retardant resin. Input voltages of 24

& 48VDC with output voltages of 3.3, 5, 7.2, 9, 12, 15, 18, 24, ± 3.3 , ± 5 , ± 7.2 , ± 9 , ± 12 , ± 15 , ± 18 & ± 24 VDC. High performance features include high efficiency operation up to 79% and output voltage accuracy of $\pm 1\%$ maximum. All models are packaged in a low profile $31.75 \times 20.32 \times 10.16$ mm 24 pin DIP nickel-coated copper case. Operation is specified over the full operating temperature range of -40°C to +85°C with no derating required. Cooling is by free-air convection.

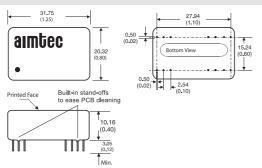
ELECTRICAL SPECIFICATIONS

Specifications typical at +25°C, nominal input voltage, rated output current unless otherwise specified

specifications typical at 25 °C, nonliner input voltage, rated output satisfies outer who specifica						
Input Specifications:		Output Specifications:				
Voltage range	24 VDC, 9~36VDC 48 VDC, 18~72VDC	Voltage accuracy Voltage balance (Dual Output)	±1%, max. ±1%			
Filter	p (Pi) Network	Ripple & noise (at 20MHz BW) Short circuit protection	60mVp-p, max. Continuous			
Isolation Specifications:		Short circuit restart	Automatic			
Rated voltage Resistance Capacitance	1500 & 3500VDC > 1000MOhm 80pF, typ.	Line voltage regulation Load voltage regulation	±0.5%, max. ±0.5%, max.			
Cupucitanee	сорг, сур.	Temperature Coefficient	±0.02%/°C, typ.			
General Specifications:		Environmental Specifications	:			
Efficiency Switching Frequency	75% to 79% 250KHz, typ. 100% load	Operating temperature (ambient) Storage temperature	-40°C +85°C -55°C +125°C			
Physical Specifications:		Case temperature	+100°C, max.			
Dimensions	31.75x20.32x10.16mm 1.25x0.8x0.4 inches	Derating Humidity (non-condensing)	None required Up to 90%			
Weight Case material	21g Nickel-Coated Copper	Cooling	Free-air Convection			

MTBF: >1 222000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C) Specifications are subject to change without notification

OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1500VDC		3500VDC			
	Single	Dual	Single	Dual		
1	+V Input	+V Input	Omitted	Omitted		
2	N.C.	-V Output	-V Input	-V Input		
3	N.C.	Common	-V Input	-V Input		
9	Omitted	Omitted	N.Ċ.	Common		
10	-V Output	Common	Omitted	Omitted		
11	+V Output	+V Output	N.C.	-V Output		
12/13	-V Input	-V Input	Omitted	Omitted		
14	+V Output	+V Output	+V Output	+V Output		
15	-V Output	Common	Omitted	Omitted		
16	Omitted	Omitted	-V Output	Common		
22	N.C.	Common	+V Input	+V Input		
23	N.C.	-V Output	+V Input	+V Input		
24	+V Input	+V Input	Omitted	Omitted		
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AM3TW Series

Models **Input Voltage Ouput Voltage Ouput Current max. Isolation 1500VDC Isolation 3500VDC** AM3TW-2403S AM3TW-2403SH35 3.3VDC 800mA AM3TW-2405S AM3TW-2405SH35 5VDC 600mA AM3TW-2407S AM3TW-2407SH35 7.2VDC 417mA AM3TW-2409S AM3TW-2409SH35 9VDC 333mA 9VDC - 36VDC 250mA AM3TW-2412S AM3TW-2412SH35 12VDC AM3TW-2415S AM3TW-2415SH35 15VDC 200mA AM3TW-2418S AM3TW-2418SH35 18VDC 167mA AM3TW-2424S AM3TW-2424SH35 24VDC 125mA AM3TW-4803S AM3TW-4803SH35 3.3VDC 800mA AM3TW-4805SH35 AM3TW-4805S 5VDC 600mA AM3TW-4807S AM3TW-4807SH35 7.2VDC 417mA 18VDC - 72VDC 9VDC 12VDC 12VDC 15VDC 18VDC 24VDC AM3TW-4809S AM3TW-4809SH35 333mA 250mA AM3TW-4812S AM3TW-4812SH35 AM3TW-4815SH35 200mA AM3TW-4815S AM3TW-4818S AM3TW-4818SH35 167mA AM3TW-4824S AM3TW-4824SH35 125mA

MODELS Single output

Dual	output

Models		Innut Valtaga	Ouput Voltage	Ouput Current max.
Isolation 1500VDC	Isolation 3500VDC	Input Voltage	Ouput voltage	Ouput Current max.
AM3TW-2403D	AM3TW-2403DH35	9VDC - 36VDC	±3.3VDC	±400mA
AM3TW-2405D	AM3TW-2405DH35		±5VDC	±300mA
AM3TW-2407D	AM3TW-2407DH35		±7.2VDC	±208mA
AM3TW-2409D	AM3TW-2409DH35		±9VDC	±167mA
AM3TW-2412D	AM3TW-2412DH35		±12VDC	±125mA
AM3TW-2415D	AM3TW-2415DH35		±15VDC	±100mA
AM3TW-2418D	AM3TW-2418DH35		±18VDC	±84mA
AM3TW-2424D	AM3TW-2424DH35		± 24 VDC	±63mA
AM3TW-4803D	AM3TW-4803DH35	18VDC - 72VDC	±3.3VDC	±400mA
AM3TW-4805D	AM3TW-4805DH35		±5VDC	±300mA
AM3TW-4807D	AM3TW-4807DH35		±7.2VDC	±208mA
AM3TW-4809D	AM3TW-4809DH35		±9VDC	±167mA
AM3TW-4812D	AM3TW-4812DH35		±12VDC	±125mA
AM3TW-4815D	AM3TW-4815DH35		±15VDC	±100mA
AM3TW-4818D	AM3TW-4818DH35		±18VDC	±84mA
AM3TW-4824D	AM3TW-4824DH35		±24VDC	±63mA