



FEATURES:

- Wide 2:1 input range
- 24 Pin DIP Package
- High efficiency up to 82%
- Metal package
- Operating temperature -40°C to + 85°C
- Input / Output isolation 1500 or 3500VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection



Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM3T-0503S-VZ	4.5-9	3.3	800	2200	73
AM3T-0505S-VZ	4.5-9	5	600	2200	70
AM3T-0507S-VZ	4.5-9	7.2	417	1000	72
AM3T-0509S-VZ	4.5-9	9	333	470	72
AM3T-0512S-VZ	4.5-9	12	250	470	74
AM3T-0515S-VZ	4.5-9	15	200	470	74
AM3T-0518S-VZ	4.5-9	18	167	220	74
AM3T-0524S-VZ	4.5-9	24	125	220	70
AM3T-1203S-VZ	9-18	3.3	800	2200	73
AM3T-1205S-VZ	9-18	5	600	2200	76
AM3T-1207S-VZ	9-18	7.2	417	1000	74
AM3T-1209S-VZ	9-18	9	333	470	77
AM3T-1212S-VZ	9-18	12	250	470	79
AM3T-1215S-VZ	9-18	15	200	470	79
AM3T-1218S-VZ	9-18	18	167	220	79
AM3T-1224S-VZ	9-18	24	125	220	79
AM3T-2403S-VZ	18-36	3.3	800	2200	70
AM3T-2405S-VZ	18-36	5	600	2200	80
AM3T-2407S-VZ	18-36	7.2	417	1000	77
AM3T-2409S-VZ	18-36	9	333	470	80
AM3T-2412S-VZ	18-36	12	250	470	82
AM3T-2415S-VZ	18-36	15	200	470	82
AM3T-2418S-VZ	18-36	18	167	220	79
AM3T-2424S-VZ	18-36	24	125	220	80
AM3T-4803S-VZ	36-72	3.3	800	2200	77
AM3T-4805S-VZ	36-72	5	600	2200	77
AM3T-4807S-VZ	36-72	7.2	417	1000	78
AM3T-4809S-VZ	36-72	9	333	470	78
AM3T-4812S-VZ	36-72	12	250	470	80
AM3T-4815S-VZ	36-72	15	200	470	80
AM3T-4818S-VZ	36-72	18	167	220	77
AM3T-4824S-VZ	36-72	24	125	220	80
AM3T-0503SH35-VZ	4.5-9	3.3	800	2200	73
AM3T-0505SH35-VZ	4.5-9	5	600	2200	70
AM3T-0507SH35-VZ	4.5-9	7.2	417	1000	72
AM3T-0509SH35-VZ	4.5-9	9	333	470	72
AM3T-0512SH35-VZ	4.5-9	12	250	470	74
AM3T-0515SH35-VZ	4.5-9	15	200	470	74
AM3T-0518SH35-VZ	4.5-9	18	167	220	74
AM3T-0524SH35-VZ	4.5-9	24	125	220	70
AM3T-1203SH35-VZ	9-18	3.3	800	2200	73
AM3T-1205SH35-VZ	9-18	5	600	2200	76
AM3T-1207SH35-VZ	9-18	7.2	417	1000	74
AM3T-1209SH35-VZ	9-18	9	333	470	77
AM3T-1212SH35-VZ	9-18	12	250	470	79
AM3T-1215SH35-VZ	9-18	15	200	470	79
AM3T-1218SH35-VZ	9-18	18	167	220	79

Models

Single output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM3T-1224SH35-VZ	9-18	24	125	220	79
AM3T-2403SH35-VZ	18-36	3.3	800	2200	70
AM3T-2405SH35-VZ	18-36	5	600	2200	80
AM3T-2407SH35-VZ	18-36	7.2	417	1000	77
AM3T-2409SH35-VZ	18-36	9	333	470	80
AM3T-2412SH35-VZ	18-36	12	250	470	82
AM3T-2415SH35-VZ	18-36	15	200	470	82
AM3T-2418SH35-VZ	18-36	18	167	220	79
AM3T-2424SH35-VZ	18-36	24	125	220	80
AM3T-4803SH35-VZ	36-72	3.3	800	2200	77
AM3T-4805SH35-VZ	36-72	5	600	2200	77
AM3T-4807SH35-VZ	36-72	7.2	417	1000	78
AM3T-4809SH35-VZ	36-72	9	333	470	78
AM3T-4812SH35-VZ	36-72	12	250	470	80
AM3T-4815SH35-VZ	36-72	15	200	470	80
AM3T-4818SH35-VZ	36-72	18	167	220	77
AM3T-4824SH35-VZ	36-72	24	125	220	80

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM3T-0505D-VZ	4.5-9	±5	±300	±1000	69
AM3T-0507D-VZ	4.5-9	±7.2	±208	±220	67
AM3T-0509D-VZ	4.5-9	±9	±167	±220	70
AM3T-0512D-VZ	4.5-9	±12	±125	±220	72
AM3T-0515D-VZ	4.5-9	±15	±100	±220	74
AM3T-0518D-VZ	4.5-9	±18	±83	±220	74
AM3T-0524D-VZ	4.5-9	±24	±63	±100	70
AM3T-1205D-VZ	9-18	±5	±300	±1000	76
AM3T-1207D-VZ	9-18	±7.2	±208	±220	77
AM3T-1209D-VZ	9-18	±9	±167	±220	77
AM3T-1212D-VZ	9-18	±12	±125	±220	79
AM3T-1215D-VZ	9-18	±15	±100	±220	79
AM3T-1218D-VZ	9-18	±18	±83	±220	78
AM3T-1224D-VZ	9-18	±24	±63	±100	79
AM3T-2405D-VZ	18-36	±5	±300	±1000	80
AM3T-2407D-VZ	18-36	±7.2	±208	±220	78
AM3T-2409D-VZ	18-36	±9	±167	±220	80
AM3T-2412D-VZ	18-36	±12	±125	±220	82
AM3T-2415D-VZ	18-36	±15	±100	±220	82
AM3T-2418D-VZ	18-36	±18	±83	±220	80
AM3T-2424D-VZ	18-36	±24	±63	±100	80
AM3T-4805D-VZ	36-72	±5	±300	±1000	78
AM3T-4807D-VZ	36-72	±7.2	±208	±220	78
AM3T-4809D-VZ	36-72	±9	±167	±220	79
AM3T-4812D-VZ	36-72	±12	±125	±220	80
AM3T-4815D-VZ	36-72	±15	±100	±220	80
AM3T-4818D-VZ	36-72	±18	±83	±220	78
AM3T-4824D-VZ	36-72	±24	±63	±100	80
AM3T-0505DH35-VZ	4.5-9	±5	±300	±1000	69
AM3T-0507DH35-VZ	4.5-9	±7.2	±208	±220	67
AM3T-0509DH35-VZ	4.5-9	±9	±167	±220	70
AM3T-0512DH35-VZ	4.5-9	±12	±125	±220	72
AM3T-0515DH35-VZ	4.5-9	±15	±100	±220	74
AM3T-0518DH35-VZ	4.5-9	±18	±83	±220	74

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (μF)	Efficiency (%)
AM3T-0524DH35-VZ	4.5-9	±24	±63	±100	70
AM3T-1205DH35-VZ	9-18	±5	±300	±1000	76
AM3T-1207DH35-VZ	9-18	±7.2	±208	±220	77
AM3T-1209DH35-VZ	9-18	±9	±167	±220	77
AM3T-1212DH35-VZ	9-18	±12	±125	±220	79
AM3T-1215DH35-VZ	9-18	±15	±100	±220	79
AM3T-1218DH35-VZ	9-18	±18	±83	±220	78
AM3T-1224DH35-VZ	9-18	±24	±63	±100	79
AM3T-2405DH35-VZ	18-36	±5	±300	±1000	80
AM3T-2407DH35-VZ	18-36	±7.2	±208	±220	78
AM3T-2409DH35-VZ	18-36	±9	±167	±220	80
AM3T-2412DH35-VZ	18-36	±12	±125	±220	82
AM3T-2415DH35-VZ	18-36	±15	±100	±220	82
AM3T-2418DH35-VZ	18-36	±18	±83	±220	80
AM3T-2424DH35-VZ	18-36	±24	±63	±100	80
AM3T-4805DH35-VZ	36-72	±5	±300	±1000	78
AM3T-4807DH35-VZ	36-72	±7.2	±208	±220	78
AM3T-4809DH35-VZ	36-72	±9	±167	±220	79
AM3T-4812DH35-VZ	36-72	±12	±125	±220	80
AM3T-4815DH35-VZ	36-72	±15	±100	±220	80
AM3T-4818DH35-VZ	36-72	±18	±83	±220	78
AM3T-4824DH35-VZ	36-72	±24	±63	±100	80

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-9		VDC
	12	9-18		
	24	18-36		
	48	36-72		
Filter	π (Pi) Network			
Start-up time		20		ms
Absolute Maximum Rating	5 Vin	-0.7-15		VDC
	12 Vin	-0.7-24		
	24 Vin	-0.7-40		
	48 Vin	-0.7-80		
Peak Input Voltage time		15		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1500 (3500 'H35' model)	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance	Balanced Load	±1		%
Short circuit protection	Continuous			
Short circuit restart	Auto Recovery			
Line voltage regulation		±0.5		%
Load voltage regulation		±0.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	60		mV p-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100-400		KHz
Operating temperature	Full Load (see derating chart)	-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Nickel coated copper			
Weight		15		g
Dimensions(L x W x H)	Tolerance ± 0.5 mm or ± 0.02 inches	1.25 x 0.8 x 0.4 inches	31.75 x 20.32 x 10.16 mm	
MTBF	>2,200,000 hrs (MIL-HDBK -217F, Ground Benign, $t=+25^{\circ}\text{C}$)			

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

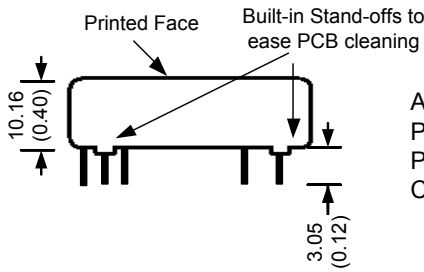
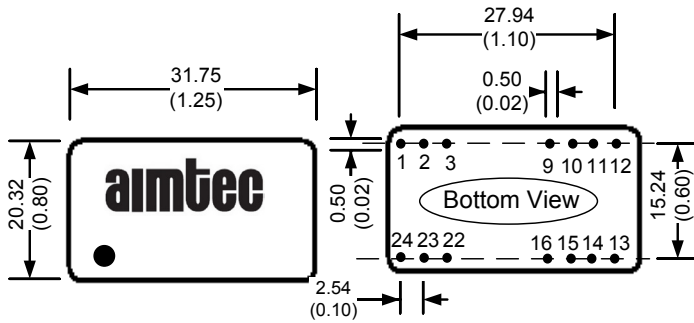
Safety Specifications

Parameters	
Agency approvals	CE
Standards	Designed to meet IEC 60950-1

Pin Out Specifications

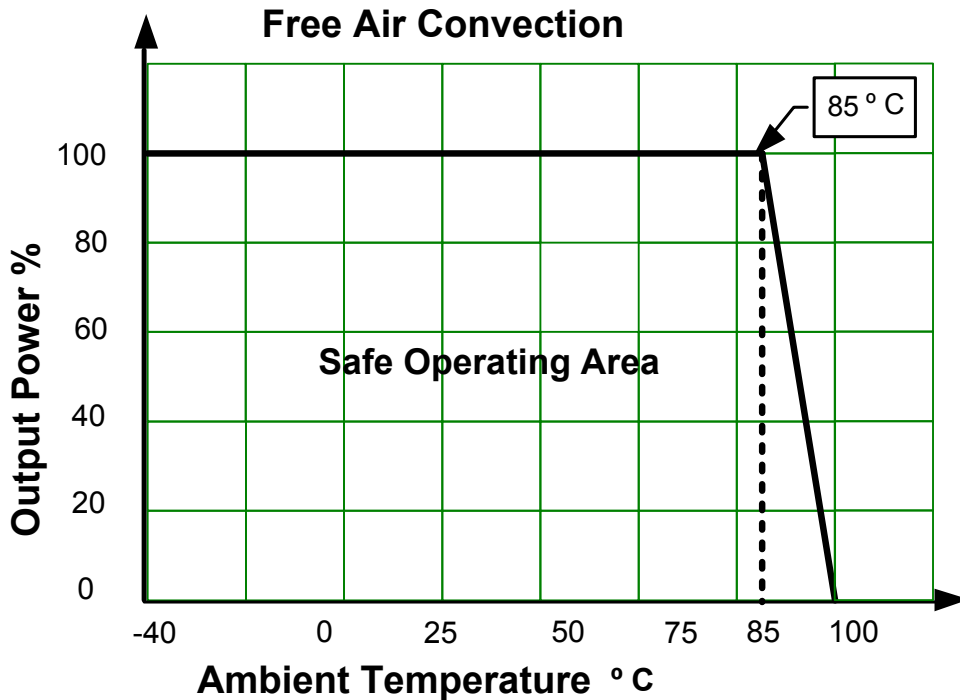
Pin	1500 VDC Isolation		3500 VDC Isolation	
	Single	Dual	Single	Dual
1	+V Input	+V Input	No Pin	No Pin
2	N.C.	-V Input	-V Input	-V Input
3	N.C.	Common	-V Input	-V Input
9	No pin	No pin	No pin	Common
10	-V Output	Common	No pin	No pin
11	+V Input	+V Input	N.C.	-V Input
12	-V Output	-V Output	No pin	No pin
13	-V Output	-V Output	No pin	No pin
14	+V Input	+V Input	+V Input	+V Input
15	-V Output	Common	No pin	No pin
16	No pin	No pin	-V Input	Common
22	N.C.	Common	+V Input	+V Input
23	N.C.	-V Output	+V Input	+V Input
24	+V Input	+V Input	No pin	No pin

Dimensions



All dimensions are typical: millimeters (i)
 Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
 Pin Pitch Tolerance: ± 0.35 (± 0.014)
 Case Tolerance: ± 0.5 (± 0.02)

Derating



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