



FEATURES:

- RoHS Compliant
- Low ripple and noise
- High efficiency up to 82%
- 7 pin SIP package
- Operating temperature -40°C to +75°C
- Pin compatible with multiple manufacturers
- Input / Output Isolation 1000,3000, 4000 and 5200VDC

Models
Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM2D-0503SZ	4.5-5.5	3.3	400	1000	470	72
AM2D-0505SZ	4.5-5.5	5	400	1000	470	78
AM2D-0507SZ	4.5-5.5	7.2	278	1000	470	80
AM2D-0509SZ	4.5-5.5	9	222	1000	470	80
AM2D-0512SZ	4.5-5.5	12	167	1000	470	82
AM2D-0515SZ	4.5-5.5	15	134	1000	470	82
AM2D-0518SZ	4.5-5.5	18	111	1000	470	82
AM2D-0524SZ	4.5-5.5	24	83	1000	470	82
AM2D-1203SZ	10.8-13.2	3.3	400	1000	470	65
AM2D-1205SZ	10.8-13.2	5	400	1000	470	77
AM2D-1207SZ	10.8-13.2	7.2	278	1000	470	80
AM2D-1209SZ	10.8-13.2	9	222	1000	470	80
AM2D-1212SZ	10.8-13.2	12	167	1000	470	82
AM2D-1215SZ	10.8-13.2	15	134	1000	470	82
AM2D-1218SZ	10.8-13.2	18	111	1000	470	80
AM2D-1224SZ	10.8-13.2	24	83	1000	470	80
AM2D-2403SZ	21.6-26.4	3.3	400	1000	470	72
AM2D-2405SZ	21.6-26.4	5	400	1000	470	79
AM2D-2407SZ	21.6-26.4	7.2	278	1000	470	80
AM2D-2409SZ	21.6-26.4	9	222	1000	470	80
AM2D-2412SZ	21.6-26.4	12	167	1000	470	80
AM2D-2415SZ	21.6-26.4	15	134	1000	470	82
AM2D-2418SZ	21.6-26.4	18	111	1000	470	82
AM2D-2424SZ	21.6-26.4	24	83	1000	470	82
AM2D-0503SH30Z	4.5-5.5	3.3	400	3000	470	72
AM2D-0505SH30Z	4.5-5.5	5	400	3000	470	78
AM2D-0507SH30Z	4.5-5.5	7.2	278	3000	470	80
AM2D-0509SH30Z	4.5-5.5	9	222	3000	470	80
AM2D-0512SH30Z	4.5-5.5	12	167	3000	470	82
AM2D-0515SH30Z	4.5-5.5	15	134	3000	470	82
AM2D-0518SH30Z	4.5-5.5	18	111	3000	470	82
AM2D-0524SH30Z	4.5-5.5	24	83	3000	470	82
AM2D-1203SH30Z	10.8-13.2	3.3	400	3000	470	65
AM2D-1205SH30Z	10.8-13.2	5	400	3000	470	77
AM2D-1207SH30Z	10.8-13.2	7.2	278	3000	470	80
AM2D-1209SH30Z	10.8-13.2	9	222	3000	470	80
AM2D-1212SH30Z	10.8-13.2	12	167	3000	470	82
AM2D-1215SH30Z	10.8-13.2	15	134	3000	470	82
AM2D-1218SH30Z	10.8-13.2	18	111	3000	470	80
AM2D-1224SH30Z	10.8-13.2	24	83	3000	470	80
AM2D-2403SH30Z	21.6-26.4	3.3	400	3000	470	72
AM2D-2405SH30Z	21.6-26.4	5	400	3000	470	79
AM2D-2407SH30Z	21.6-26.4	7.2	278	3000	470	80
AM2D-2409SH30Z	21.6-26.4	9	222	3000	470	80
AM2D-2412SH30Z	21.6-26.4	12	167	3000	470	80

Models

Single output (continue)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM2D-2415SH30Z	21.6-26.4	15	134	3000	470	82
AM2D-2418SH30Z	21.6-26.4	18	111	3000	470	82
AM2D-2424SH30Z	21.6-26.4	24	83	3000	470	80
AM2D-0503SH40Z	4.5-5.5	3.3	400	4000	470	72
AM2D-0505SH40Z	4.5-5.5	5	400	4000	470	78
AM2D-0507SH40Z	4.5-5.5	7.2	278	4000	470	80
AM2D-0509SH40Z	4.5-5.5	9	222	4000	470	80
AM2D-0512SH40Z	4.5-5.5	12	167	4000	470	82
AM2D-0515SH40Z	4.5-5.5	15	134	4000	470	82
AM2D-0518SH40Z	4.5-5.5	18	111	4000	470	82
AM2D-0524SH40Z	4.5-5.5	24	83	4000	470	82
AM2D-1203SH40Z	10.8-13.2	3.3	400	4000	470	65
AM2D-1205SH40Z	10.8-13.2	5	400	4000	470	77
AM2D-1207SH40Z	10.8-13.2	7.2	278	4000	470	80
AM2D-1209SH40Z	10.8-13.2	9	222	4000	470	80
AM2D-1212SH40Z	10.8-13.2	12	167	4000	470	82
AM2D-1215SH40Z	10.8-13.2	15	134	4000	470	82
AM2D-1218SH40Z	10.8-13.2	18	111	4000	470	80
AM2D-1224SH40Z	10.8-13.2	24	83	4000	470	80
AM2D-2403SH40Z	21.6-26.4	3.3	400	4000	470	72
AM2D-2405SH40Z	21.6-26.4	5	400	4000	470	79
AM2D-2407SH40Z	21.6-26.4	7.2	278	4000	470	80
AM2D-2409SH40Z	21.6-26.4	9	222	4000	470	80
AM2D-2412SH40Z	21.6-26.4	12	167	4000	470	80
AM2D-2415SH40Z	21.6-26.4	15	134	4000	470	82
AM2D-2418SH40Z	21.6-26.4	18	111	4000	470	82
AM2D-2424SH40Z	21.6-26.4	24	83	4000	470	80
AM2D-0503SH52Z	4.5-5.5	3.3	400	5200	470	72
AM2D-0505SH52Z	4.5-5.5	5	400	5200	470	78
AM2D-0507SH52Z	4.5-5.5	7.2	278	5200	470	80
AM2D-0509SH52Z	4.5-5.5	9	222	5200	470	80
AM2D-0512SH52Z	4.5-5.5	12	167	5200	470	82
AM2D-0515SH52Z	4.5-5.5	15	134	5200	470	82
AM2D-0518SH52Z	4.5-5.5	18	111	5200	470	82
AM2D-0524SH52Z	4.5-5.5	24	83	5200	470	82
AM2D-1203SH52Z	10.8-13.2	3.3	400	5200	470	65
AM2D-1205SH52Z	10.8-13.2	5	400	5200	470	77
AM2D-1207SH52Z	10.8-13.2	7.2	278	5200	470	80
AM2D-1209SH52Z	10.8-13.2	9	222	5200	470	80
AM2D-1212SH52Z	10.8-13.2	12	167	5200	470	82
AM2D-1215SH52Z	10.8-13.2	15	134	5200	470	82
AM2D-1218SH52Z	10.8-13.2	18	111	5200	470	80
AM2D-1224SH52Z	10.8-13.2	24	83	5200	470	80
AM2D-2403SH52Z	21.6-26.4	3.3	400	5200	470	72
AM2D-2405SH52Z	21.6-26.4	5	400	5200	470	79
AM2D-2407SH52Z	21.6-26.4	7.2	278	5200	470	80
AM2D-2409SH52Z	21.6-26.4	9	222	5200	470	80
AM2D-2412SH52Z	21.6-26.4	12	167	5200	470	80
AM2D-2415SH52Z	21.6-26.4	15	134	5200	470	82
AM2D-2418SH52Z	21.6-26.4	18	111	5200	470	82
AM2D-2424SH52Z	21.6-26.4	24	83	5200	470	80

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM2D-0503DZ	4.5-5.5	±3.3	±200	1000	±220	65
AM2D-0505DZ	4.5-5.5	±5	±200	1000	±220	72
AM2D-0507DZ	4.5-5.5	±7.2	±139	1000	±220	72
AM2D-0509DZ	4.5-5.5	±9	±111	1000	±220	77
AM2D-0512DZ	4.5-5.5	±12	±83	1000	±220	78
AM2D-0515DZ	4.5-5.5	±15	±67	1000	±220	80
AM2D-0518DZ	4.5-5.5	±18	±55	1000	±220	80
AM2D-0524DZ	4.5-5.5	±24	±42	1000	±220	80
AM2D-1203DZ	10.8-13.2	±3.3	±200	1000	±220	67
AM2D-1205DZ	10.8-13.2	±5	±200	1000	±220	75
AM2D-1207DZ	10.8-13.2	±7.2	±139	1000	±220	76
AM2D-1209DZ	10.8-13.2	±9	±111	1000	±220	77
AM2D-1212DZ	10.8-13.2	±12	±83	1000	±220	82
AM2D-1215DZ	10.8-13.2	±15	±67	1000	±220	82
AM2D-1218DZ	10.8-13.2	±18	±55	1000	±220	82
AM2D-1224DZ	10.8-13.2	±24	±42	1000	±220	82
AM2D-2403DZ	21.6-26.4	±3.3	±200	1000	±220	68
AM2D-2405DZ	21.6-26.4	±5	±200	1000	±220	75
AM2D-2407DZ	21.6-26.4	±7.2	±139	1000	±220	75
AM2D-2409DZ	21.6-26.4	±9	±111	1000	±220	80
AM2D-2412DZ	21.6-26.4	±12	±83	1000	±220	82
AM2D-2415DZ	21.6-26.4	±15	±67	1000	±220	82
AM2D-2418DZ	21.6-26.4	±18	±55	1000	±220	82
AM2D-2424DZ	21.6-26.4	±24	±42	1000	±220	82
AM2D-0503DH30Z	4.5-5.5	±3.3	±200	3000	±220	65
AM2D-0505DH30Z	4.5-5.5	±5	±200	3000	±220	72
AM2D-0507DH30Z	4.5-5.5	±7.2	±139	3000	±220	72
AM2D-0509DH30Z	4.5-5.5	±9	±111	3000	±220	77
AM2D-0512DH30Z	4.5-5.5	±12	±83	3000	±220	78
AM2D-0515DH30Z	4.5-5.5	±15	±67	3000	±220	80
AM2D-0518DH30Z	4.5-5.5	±18	±55	3000	±220	80
AM2D-0524DH30Z	4.5-5.5	±24	±42	3000	±220	80
AM2D-1203DH30Z	10.8-13.2	±3.3	±200	3000	±220	67
AM2D-1205DH30Z	10.8-13.2	±5	±200	3000	±220	75
AM2D-1207DH30Z	10.8-13.2	±7.2	±139	3000	±220	76
AM2D-1209DH30Z	10.8-13.2	±9	±111	3000	±220	77
AM2D-1212DH30Z	10.8-13.2	±12	±83	3000	±220	82
AM2D-1215DH30Z	10.8-13.2	±15	±67	3000	±220	82
AM2D-1218DH30Z	10.8-13.2	±18	±55	3000	±220	82
AM2D-1224DH30Z	10.8-13.2	±24	±42	3000	±220	82
AM2D-2403DH30Z	21.6-26.4	±3.3	±200	3000	±220	68
AM2D-2405DH30Z	21.6-26.4	±5	±200	3000	±220	75
AM2D-2407DH30Z	21.6-26.4	±7.2	±139	3000	±220	75
AM2D-2409DH30Z	21.6-26.4	±9	±111	3000	±220	80
AM2D-2412DH30Z	21.6-26.4	±12	±83	3000	±220	82
AM2D-2415DH30Z	21.6-26.4	±15	±67	3000	±220	82
AM2D-2418DH30Z	21.6-26.4	±18	±55	3000	±220	82
AM2D-2424DH30Z	21.6-26.4	±24	±42	3000	±220	82

Models
Dual output (continue)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM2D-0503DH40Z	4.5-5.5	±3.3	±200	4000	±220	65
AM2D-0505DH40Z	4.5-5.5	±5	±200	4000	±220	72
AM2D-0507DH40Z	4.5-5.5	±7.2	±139	4000	±220	72
AM2D-0509DH40Z	4.5-5.5	±9	±111	4000	±220	77
AM2D-0512DH40Z	4.5-5.5	±12	±83	4000	±220	78
AM2D-0515DH40Z	4.5-5.5	±15	±67	4000	±220	80
AM2D-0518DH40Z	4.5-5.5	±18	±55	4000	±220	80
AM2D-0524DH40Z	4.5-5.5	±24	±42	4000	±220	80
AM2D-1203DH40Z	10.8-13.2	±3.3	±200	4000	±220	67
AM2D-1205DH40Z	10.8-13.2	±5	±200	4000	±220	75
AM2D-1207DH40Z	10.8-13.2	±7.2	±139	4000	±220	76
AM2D-1209DH40Z	10.8-13.2	±9	±111	4000	±220	77
AM2D-1212DH40Z	10.8-13.2	±12	±83	4000	±220	82
AM2D-1215DH40Z	10.8-13.2	±15	±67	4000	±220	82
AM2D-1218DH40Z	10.8-13.2	±18	±55	4000	±220	82
AM2D-1224DH40Z	10.8-13.2	±24	±42	4000	±220	82
AM2D-2403DH40Z	21.6-26.4	±3.3	±200	4000	±220	68
AM2D-2405DH40Z	21.6-26.4	±5	±200	4000	±220	75
AM2D-2407DH40Z	21.6-26.4	±7.2	±139	4000	±220	75
AM2D-2409DH40Z	21.6-26.4	±9	±111	4000	±220	80
AM2D-2412DH40Z	21.6-26.4	±12	±83	4000	±220	82
AM2D-2415DH40Z	21.6-26.4	±15	±67	4000	±220	82
AM2D-2418DH40Z	21.6-26.4	±18	±55	4000	±220	82
AM2D-2424DH40Z	21.6-26.4	±24	±42	4000	±220	82
AM2D-0503DH52Z	4.5-5.5	±3.3	±200	5200	±220	65
AM2D-0505DH52Z	4.5-5.5	±5	±200	5200	±220	72
AM2D-0507DH52Z	4.5-5.5	±7.2	±139	5200	±220	72
AM2D-0509DH52Z	4.5-5.5	±9	±111	5200	±220	77
AM2D-0512DH52Z	4.5-5.5	±12	±83	5200	±220	78
AM2D-0515DH52Z	4.5-5.5	±15	±67	5200	±220	80
AM2D-0518DH52Z	4.5-5.5	±18	±55	5200	±220	80
AM2D-0524DH52Z	4.5-5.5	±24	±42	5200	±220	80
AM2D-1203DH52Z	10.8-13.2	±3.3	±200	5200	±220	67
AM2D-1205DH52Z	10.8-13.2	±5	±200	5200	±220	75
AM2D-1207DH52Z	10.8-13.2	±7.2	±139	5200	±220	76
AM2D-1209DH52Z	10.8-13.2	±9	±111	5200	±220	77
AM2D-1212DH52Z	10.8-13.2	±12	±83	5200	±220	82
AM2D-1215DH52Z	10.8-13.2	±15	±67	5200	±220	82
AM2D-1218DH52Z	10.8-13.2	±18	±55	5200	±220	82
AM2D-1224DH52Z	10.8-13.2	±24	±42	5200	±220	82
AM2D-2403DH52Z	21.6-26.4	±3.3	±200	5200	±220	68
AM2D-2405DH52Z	21.6-26.4	±5	±200	5200	±220	75
AM2D-2407DH52Z	21.6-26.4	±7.2	±139	5200	±220	75
AM2D-2409DH52Z	21.6-26.4	±9	±111	5200	±220	80
AM2D-2412DH52Z	21.6-26.4	±12	±83	5200	±220	82
AM2D-2415DH52Z	21.6-26.4	±15	±67	5200	±220	82
AM2D-2418DH52Z	21.6-26.4	±18	±55	5200	±220	82
AM2D-2424DH52Z	21.6-26.4	±24	±42	5200	±220	82

Models

Dual separated output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Max Capacitive Load (uF)	Efficiency (%)
AM2D-050303DZ	4.5-5.5	3.3 / 3.3	200 / 200	1000	220	73
AM2D-050505DZ	4.5-5.5	5 / 5	200 / 200	1000	220	78
AM2D-050707DZ	4.5-5.5	7.2 / 7.2	139 / 139	1000	220	75
AM2D-050909DZ	4.5-5.5	9 / 9	111 / 111	1000	220	78
AM2D-051212DZ	4.5-5.5	12 / 12	83 / 83	1000	220	82
AM2D-051515DZ	4.5-5.5	15 / 15	67 / 67	1000	220	82
AM2D-051818DZ	4.5-5.5	18 / 18	55 / 55	1000	220	79
AM2D-052424DZ	4.5-5.5	24 / 24	42 / 42	1000	220	75
AM2D-120303DZ	10.8-13.2	3.3 / 3.3	200 / 200	1000	220	73
AM2D-120505DZ	10.8-13.2	5 / 5	200 / 200	1000	220	78
AM2D-120707DZ	10.8-13.2	7.2 / 7.2	139 / 139	1000	220	75
AM2D-120909DZ	10.8-13.2	9 / 9	111 / 111	1000	220	78
AM2D-121212DZ	10.8-13.2	12 / 12	83 / 83	1000	220	82
AM2D-121515DZ	10.8-13.2	15 / 15	67 / 67	1000	220	82
AM2D-121818DZ	10.8-13.2	18 / 18	55 / 55	1000	220	78
AM2D-122424DZ	10.8-13.2	24 / 24	42 / 42	1000	220	75
AM2D-240303DZ	21.6-26.4	3.3 / 3.3	200 / 200	1000	220	73
AM2D-240505DZ	21.6-26.4	5 / 5	200 / 200	1000	220	78
AM2D-240707DZ	21.6-26.4	7.2 / 7.2	139 / 139	1000	220	75
AM2D-240909DZ	21.6-26.4	9 / 9	111 / 111	1000	220	78
AM2D-241212DZ	21.6-26.4	12 / 12	83 / 83	1000	220	82
AM2D-241515DZ	21.6-26.4	15 / 15	67 / 67	1000	220	82
AM2D-241818DZ	21.6-26.4	18 / 18	55 / 55	1000	220	75
AM2D-242424DZ	21.6-26.4	24 / 24	42 / 42	1000	220	75

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-5.5		VDC
	12	10.8-13.2		
	24	21.6-26.4		
Filter	Capacitor			
Turn on Transient process time			25	ms
Start up time		200		ms
Absolute Maximum Rating	5 Vin	0-7		VDC
	12 Vin	0-15		
	24 Vin	0-28		
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1000, 3000, 4000 and 5200	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Voltage balance	Dual output	±1		%
Short Circuit protection	Momentary (1sec).			
Line voltage regulation (Single)	For 1.0% of Vin	±1.2		%
Line voltage regulation (Dual)	For 1.0% of Vin	±1.2		%
Load voltage regulation (Single)	Load 20~100%	±10		%

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Load voltage regulation (Single) 3.3V output model	Load 20~100%	±20		%
Load voltage regulation (Dual)	Load 20~100%	±10		%
Load voltage regulation (Dual) 3.3V output model	Load 20~100%	±20		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	At 20MHz Bandwidth	75		mV p-p
Capacitive load	Single output		470	μF
	Dual output		220	μF
Rising time		100		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	85		KHz
Operating temperature		-40 to +75		°C
Storage temperature		-55 to +125		°C
Max Case temperature			+95	°C
Cooling		Free air convection		
Humidity			90	%
Case material		Plastic UL94-VO		
Weight		2.5		g
Dimensions (L x W x H)		0.76 x 0.24 x 0.37 inch	19.50 x 6.00 x 9.50 mm	
MTBF		>688 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°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

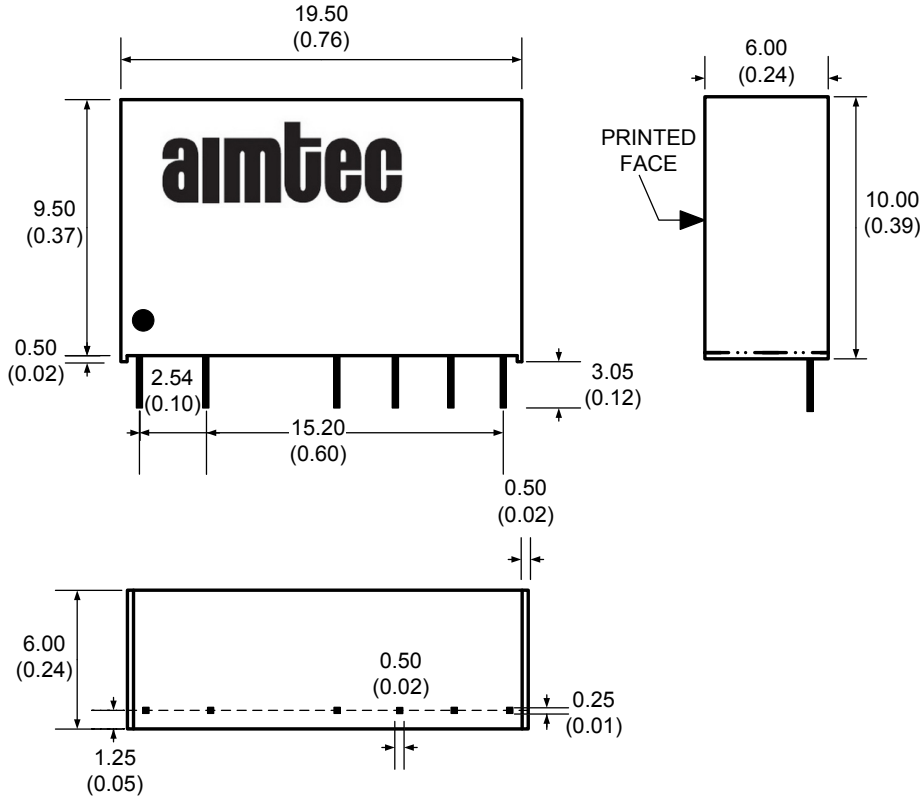
Safety Specifications

Parameters	
Agency approvals	CE (Except dual separated models)
Standards	EN55022 (Radiated Emissions) class B
	EN55024 (Noise Immunity), IEC61000-4-2(ESD)
	IEC61000-4-3 (Radiated immunity)

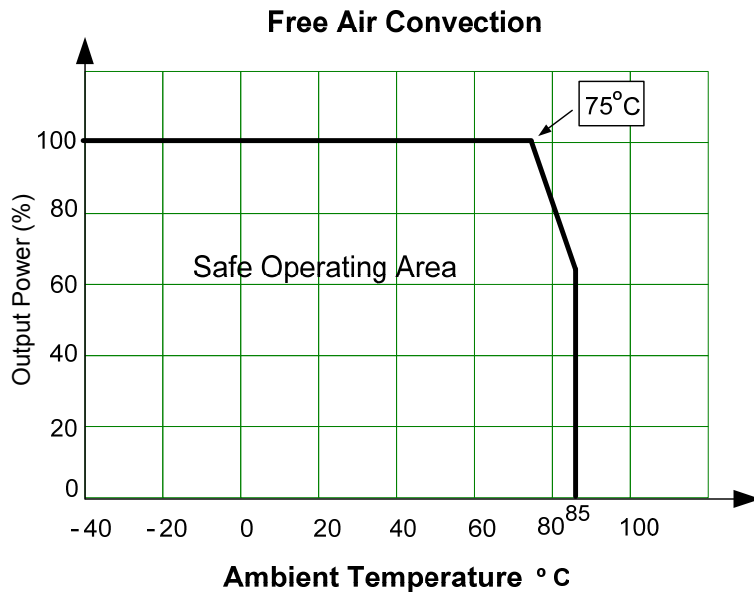
Pin Out Specifications

Pin	1000 VDC			3000, 4000 , 5200 VDC	
	Single	Dual	Dual separated	Single	Dual
1	+ V Input	+ V Input	+ V Input	+ V Input	+ V Input
2	- V Input	- V Input	- V Input	- V Input	- V Input
4	- V Output	- V Output	+V1 Output	No pin	No pin
5	No pin	Common	-V1 Output	-V Output	-V Output
6	+ V Output	+ V Output	+V2 Output	No pin	Common
7	No pin	No pin	-V2 Output	+V Output	+V Output

Dimensions



Derating



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity < 75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.