

**FEATURES:**

- RoHS Compliant
- Wide 2:1 Input Range
- High Efficiency up to 83%
- Continuous Short Circuit
- Operating Temperature -40°C to 85°C
- Input / Output Isolation of 500 VAC
- No Tantalum Capacitors Used Inside
- Over Voltage Protection



Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current Max (mA)	Isolation (VAC)	Input Current Full Load No Load (mA)		Max Capacitive Load (μF)	Efficiency (%)
AM2Q-0505SZ	4.5-9	5	300	500	410	60	100	73
AM2Q-0512SZ	4.5-9	12	130	500	384	60	100	78
AM2Q-0515SZ	4.5-9	15	100	500	384	60	100	78
AM2Q-1205SZ	9-18	5	300	500	166	50	100	75
AM2Q-1212SZ	9-18	12	130	500	156	50	100	80
AM2Q-1215SZ	9-18	15	100	500	154	50	100	81
AM2Q-2405SZ	18-36	5	300	500	84	40	100	74
AM2Q-2412SZ	18-36	12	130	500	80	40	100	78
AM2Q-2415SZ	18-36	15	100	500	79	40	100	79
AM2Q-4805SZ	36-75	5	300	500	43	30	100	73
AM2Q-4812SZ	36-75	12	130	500	40	30	100	78
AM2Q-4815SZ	36-75	15	100	500	40	30	100	78

Models

Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current Max (mA)	Isolation (VAC)	Input Current Full Load No Load (mA)		Max Capacitive Load (μF)	Efficiency (%)
AM2Q-0512DZ	4.5-9	±12	±65	500	390	60	± 100	82
AM2Q-0515DZ	4.5-9	±15	±50	500	379	60	± 100	81
AM2Q-1212DZ	9-18	±12	±65	500	160	20	± 100	83
AM2Q-1215DZ	9-18	±15	±50	500	154	30	± 100	83
AM2Q-2412DZ	18-36	±12	±65	500	81	20	± 100	81
AM2Q-2415DZ	18-36	±15	±50	500	78	15	± 100	82
AM2Q-4812DZ	36-75	±12	±65	500	40	10	± 100	80
AM2Q-4815DZ	36-75	±15	±50	500	41	10	± 100	79

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.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	5	4.5-9		VDC
	12	9-18		
	24	18-36		
	48	36-75		
Filter	LC Type			
Start up time		20		ms
Input reflected ripple current		20		mA p-p

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec	500		VAC
Resistance		50		MOhm
Capacitance		500		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Cross Regulation (Dual Output Models)	25% load on one output / 100% load on the other output	±5		%
Over voltage protection	Zener Diode Clamp	5	6.2	V
		12	15	
		15	18	
		±12	±15	
		±15	±18	
Short Circuit protection	Continuous			
Short circuit restart	Auto Recovery			
Line voltage regulation	LL-HL	±0.5		% of Vin
Load voltage regulation	Load:0-100% balanced	±1		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	50		mV p-p
Minimum Load Current		0		% of Max

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100		KHz
Operating temperature (Dual)	Derating above 60°C	-40 to +85		°C
Operating temperature (Single)	No Derating	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling	Free Air Convection			
Humidity			95	% RH
Case material	Nickel Coated Copper			
Weight		10		g
Dimensions (L x W x H)		1.08 x 0.70 x 0.28 inches	27.50 x 18.00 x 7.00 mm	
MTBF	>1.6Mhrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			
Transient recovery deviation		±3		%

Safety Specifications

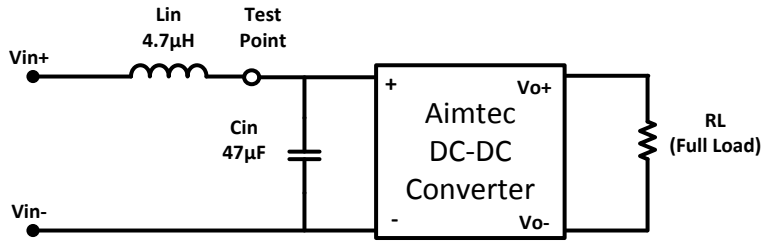
Parameters	
Standards	Designed to meet IEC/EN 60950-1

Pin Out Specifications

Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	+V Output	+V Output
4	NP	Common
5	-V Output	-V Output

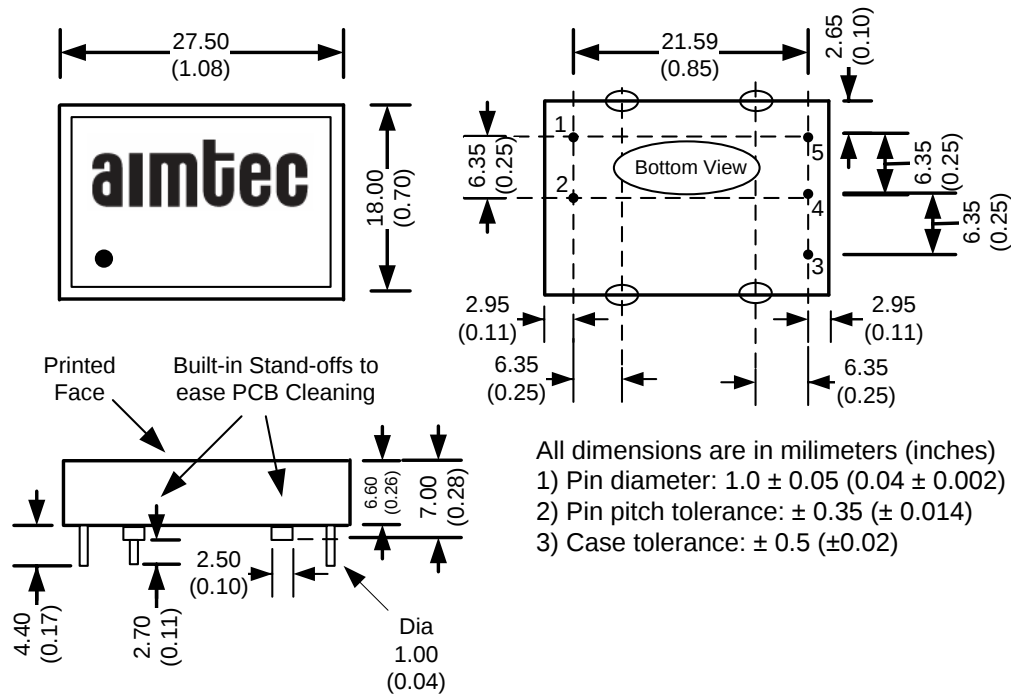
NP: Not Populated

Input Reflected Ripple Test Circuit



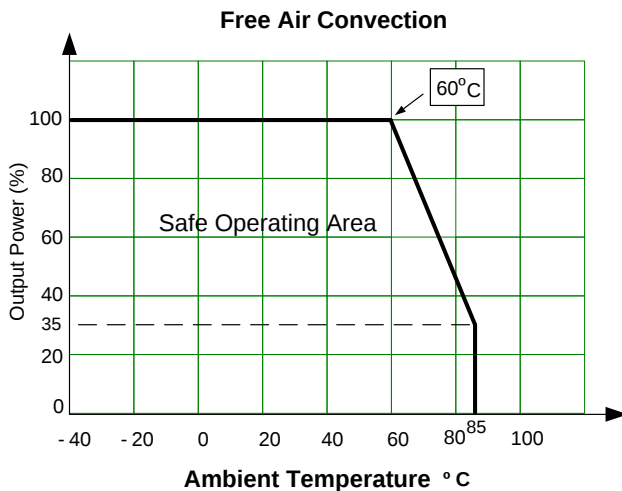
* Tested at full load, and nominal input

Dimensions

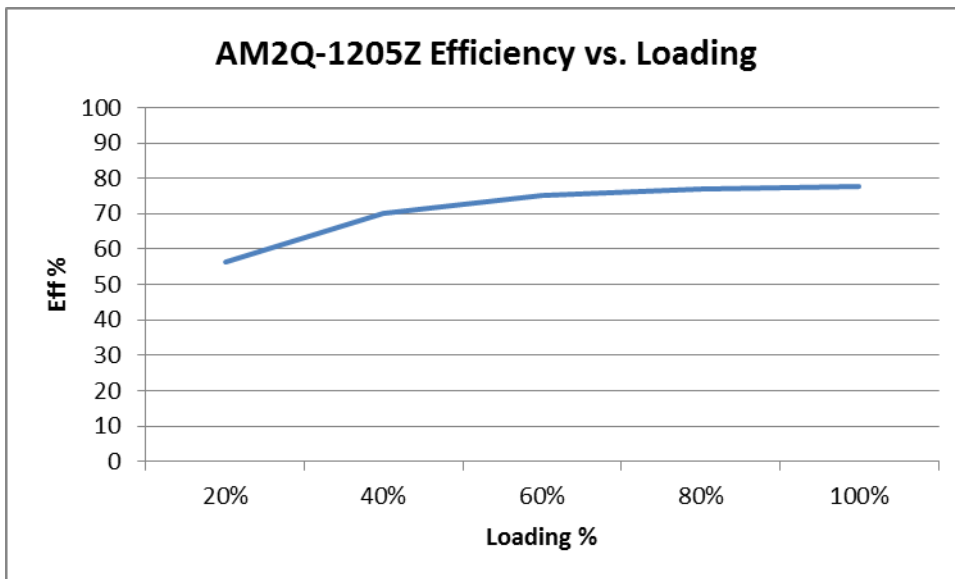
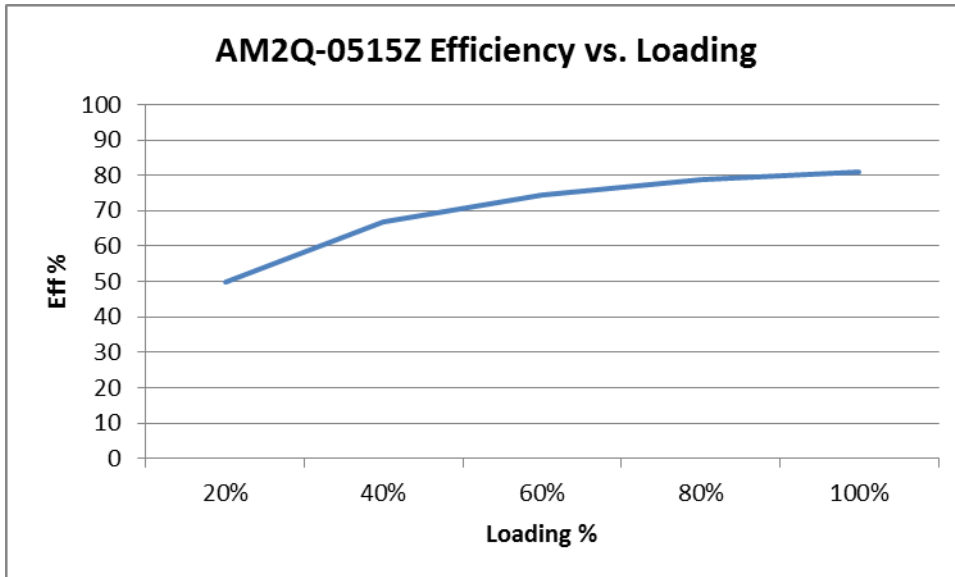


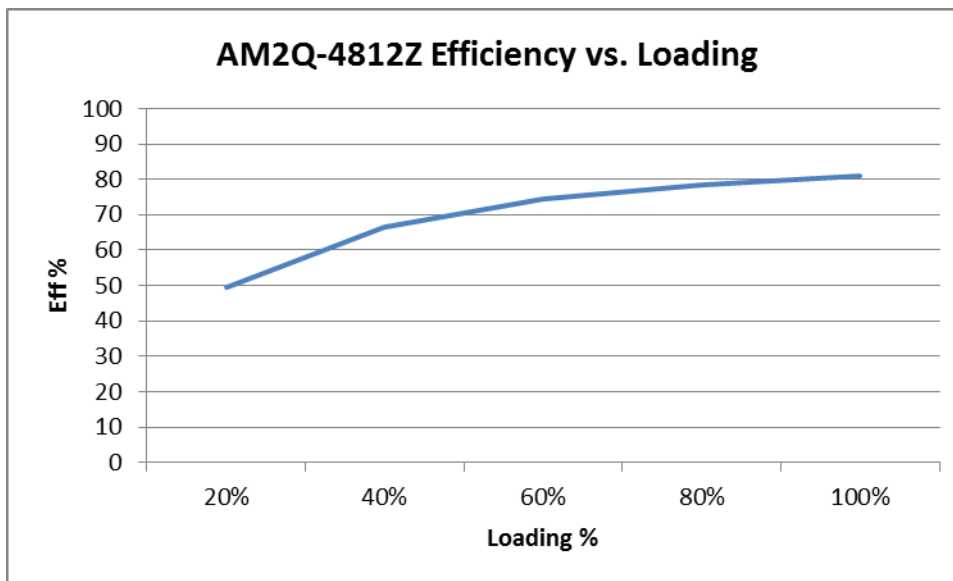
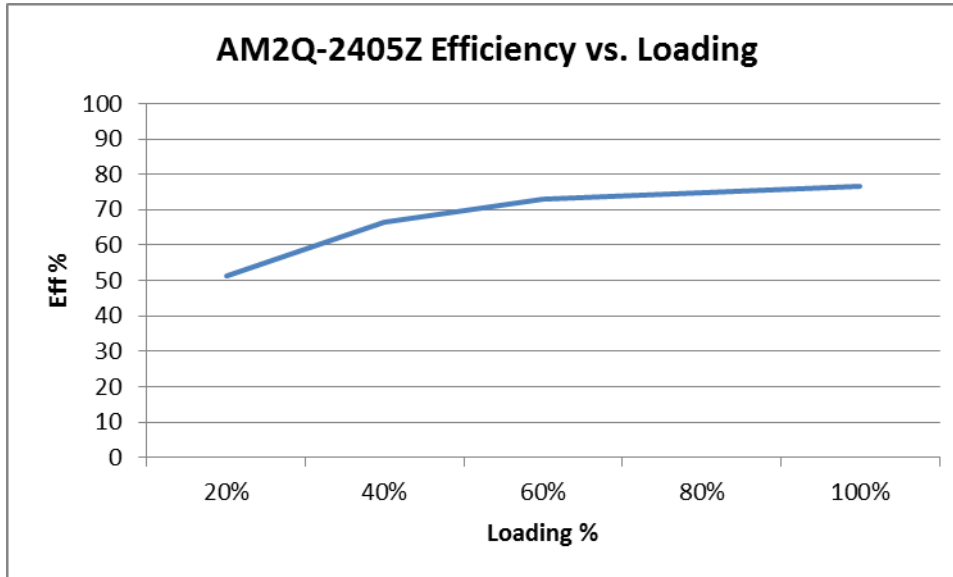
Derating

(Dual output models)



Typical Efficiency Example Charts





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