

**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

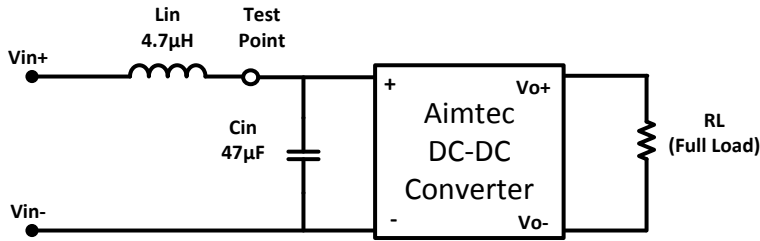
Parameters	
Standards	Designed to meet IEC/EN 60950-1

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

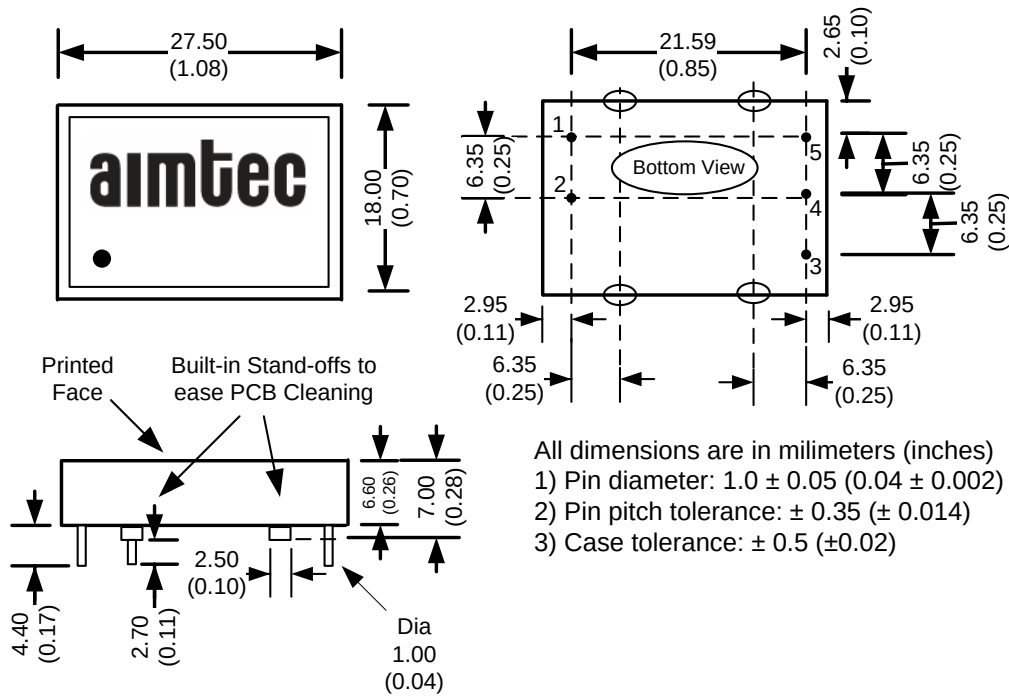
NP: Not Populated

Input Reflected Ripple Test Circuit



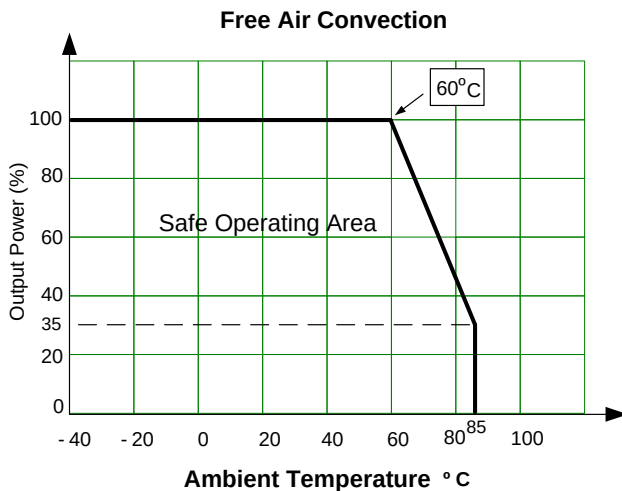
* Tested at full load, and nominal input

Dimensions

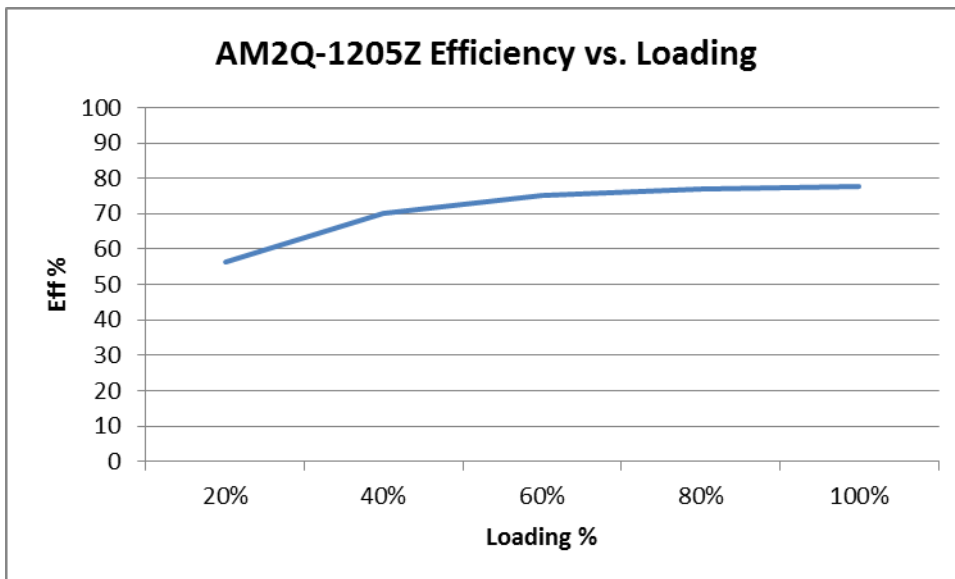
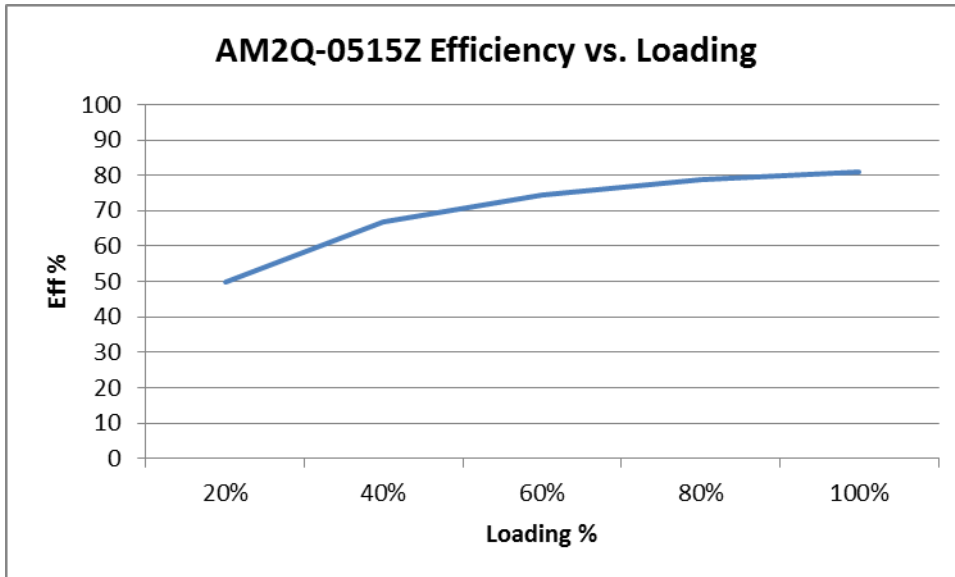


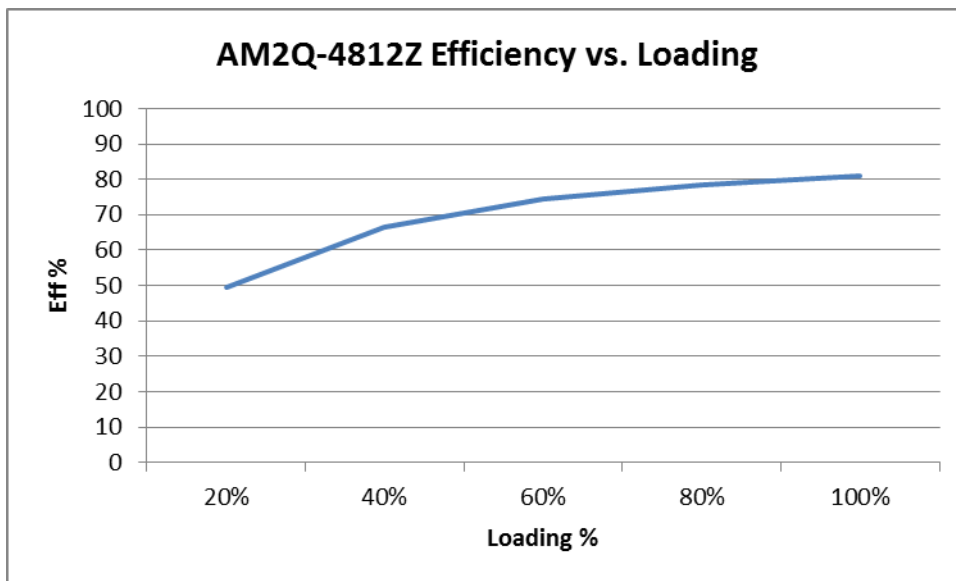
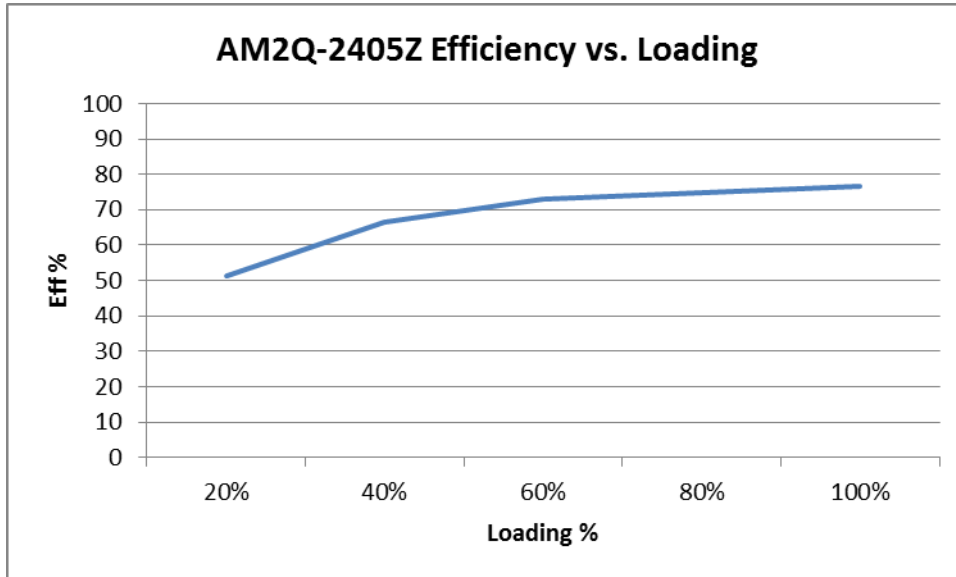
Derating

(Dual output models)



Typical Efficiency Example Charts





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