

## AM10GH-LPZ



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SIP8

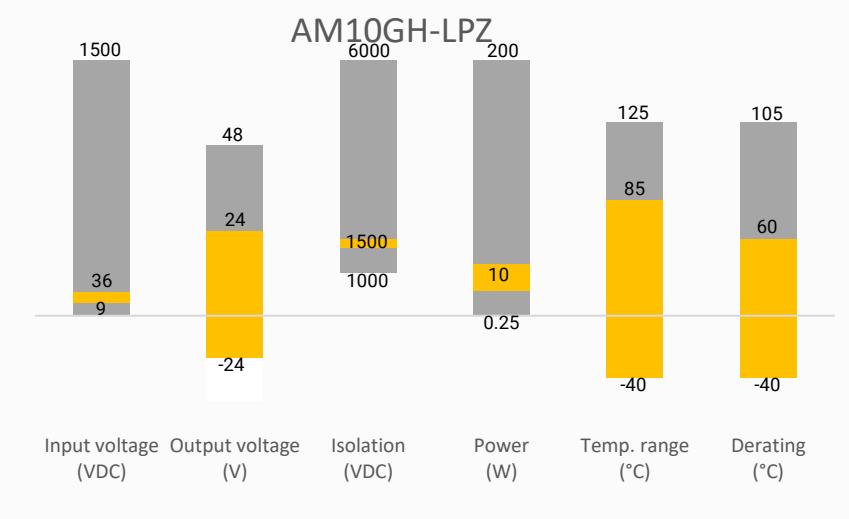
## Features



- Ultra-wide input voltage range: 9-36VDC
- Operating temperature range: -40°C to +85°C
- Efficiency up to 86%
- Input under-voltage protection, output short circuit, over-current protection
- High power density, SIP8 package
- International standard pin-out



## Summary



## Training



Press Release

Coming Soon!

Product Training Video  
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Application Notes

## Applications



Power Grid



Industrial



Telecom



Instrumentation

## Models & Specifications



### Single Output

Model	Input Voltage (VDC)	Output Voltage (VDC)	Input Current max (mA)	Output Current max (A)	Isolation (VDC)	Maximum capacitive Load (μF)	Efficiency Full Load (Min.) (%)
AM10GH-2403SLPZ*	24 (9 - 36)	3.3	474	2.4	1500	2200	82
AM10GH-2405SLPZ*	24 (9 - 36)	5	474	2	1500	2200	82
AM10GH-2406SLPZ*	24 (9 - 36)	6	474	1.67	1500	1500	84
AM10GH-2409SLPZ*	24 (9 - 36)	9	474	1.11	1500	680	86
AM10GH-2410SLPZ*	24 (9 - 36)	10	474	1	1500	680	86
AM10GH-2412SLPZ*	24 (9 - 36)	12	474	0.83	1500	470	86
AM10GH-2415SLPZ*	24 (9 - 36)	15	474	0.67	1500	330	86
AM10GH-2424SLPZ*	24 (9 - 36)	24	474	0.42	1500	220	86

### Dual Output

Model	Input Voltage (VDC)	Output Voltage (VDC)	Input Current max (mA)	Output Current max (A)	Isolation (VDC)	Maximum capacitive Load (μF)	Efficiency Full Load (Min.) (%)
AM10GH-2415DLPZ	24 (9 - 36)	±15	474	±0.33	1500	100	86

### Input Specification

Parameters	Conditions	Typical	Maximum	Units
Voltage range	Nominal 24V	9 – 36		VDC
Filter		Capacitor		
No load input current	5Vout model	25		mA
	Others	9		mA
Startup input voltage			9	VDC
Input under-voltage lockout		6.5		VDC
Absolute maximum rating	1 Sec.	≥ -0.7	50	VDC
Input reflected current		50		mA pk-pk
On/Off Control	ON – 3.5 to 12Vdc or open OFF – 0 to 1.2Vdc or connected to “-V Input”, idle current 10mA max.			

Note: The voltage of Ctrl pin is relative to “-V Input” pin .

### Isolation Specification

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, < 1mA	1500		VDC
Resistance	500Vdc	>1000		MΩ
Capacitance	Input to output, 100KHz/0.1V	1000		pF

### Output Specification

Parameters	Conditions	Typical	Maximum	Units
<b>Voltage accuracy</b>	0-100% load	±1	±2	%
<b>Line regulation</b>	Full load, main input range	±0.5	±1	%
<b>Load regulation</b>	5-100% load	±0.5	±1	%
<b>Short circuit protection</b>		Continuous, Auto recovery		
<b>Over current protection</b>		160	230	% of Iout
<b>Temperature coefficient</b>	Full load		±0.03	%/°C
<b>Ripple &amp; Noise*</b>	20MHz bandwidth, 5-100% load	75	150	mV pk-pk
<b>Transient recovery time</b>	25% load step change	300	500	μs
<b>Transient response deviation</b>	25% load step change, 3.3/5V Output	±5	±8	%
	25% load step change, Others	±3	±5	%

\* Ripple & noise under 0-5% load is 300mV max. Please refer to the ripple & noise reduction circuit for testing method.

### General Specifications

Parameters	Conditions	Typical	Maximum	Units
<b>Switching frequency*</b>	100% load	500		KHz
<b>Operating temperature</b>	See derating graph	-40 to +85		°C
<b>Storage temperature</b>		-55 to +125		°C
<b>Maximum case temperature</b>			95	°C
<b>Lead temperature</b>	1.5mm from case 10 sec.		300	°C
<b>Cooling</b>	Free air convection			
<b>Humidity</b>	Non-condensing		95	% RH
<b>Case material</b>	Heat resistant black Plastic (flammability to UL 94V-0)			
<b>Weight</b>		4.9		g
<b>Dimensions (L x W x H)</b>	0.87 x 0.37 x 0.47 inches, 22.00 x 9.50 x 12.00mm			
<b>MTBF</b>	> 1 000 000 hrs (MIL-HDBK -217F, t=+25°C) / Full Load			

\*Switching frequency reduces when load under 50%.

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.

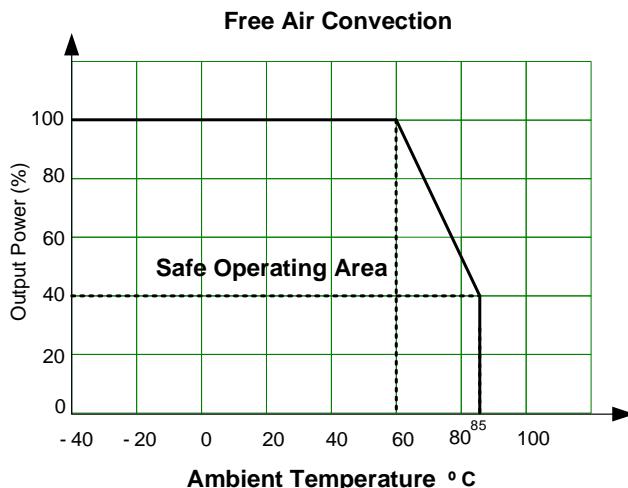
### Environmental Specifications

Parameters
<b>Vibration</b>

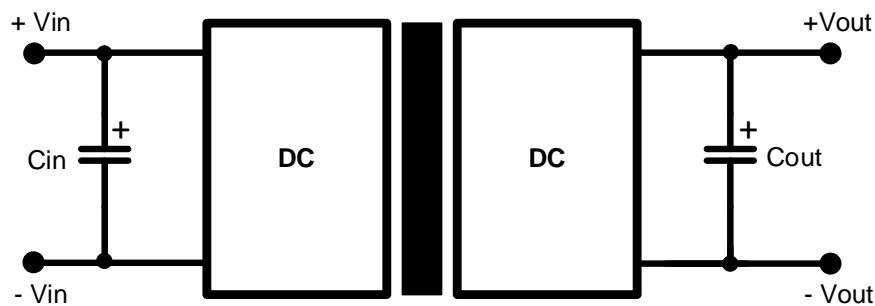
### Safety Specifications

Parameters	
<b>Agency Approvals</b>	UL62368-1 models marked with * only
<b>Standards</b>	Information technology Equipment
	Design to meet IEC/UL/EN 62368-1
	EMC - Conducted and radiated emission
	CISPR32/EN55032 Class B with recommended EMC circuit
	Electrostatic Discharge Immunity
	IEC 61000-4-2 Contact ±6KV, Criteria B
	RF, Electromagnetic Field Immunity
	IEC 61000-4-3 10V/m, Criteria A
<b>Electrical Fast Transient/Burst Immunity</b>	IEC 61000-4-4 ±2KV, Criteria B with recommended EMC circuit
	Surge Immunity
<b>RF, Conducted Disturbance Immunity</b>	IEC 61000-4-5 L-L ±2KV, Criteria B with recommended EMC circuit
	IEC 61000-4-6 3Vr.m.s, Criteria A

## Derating

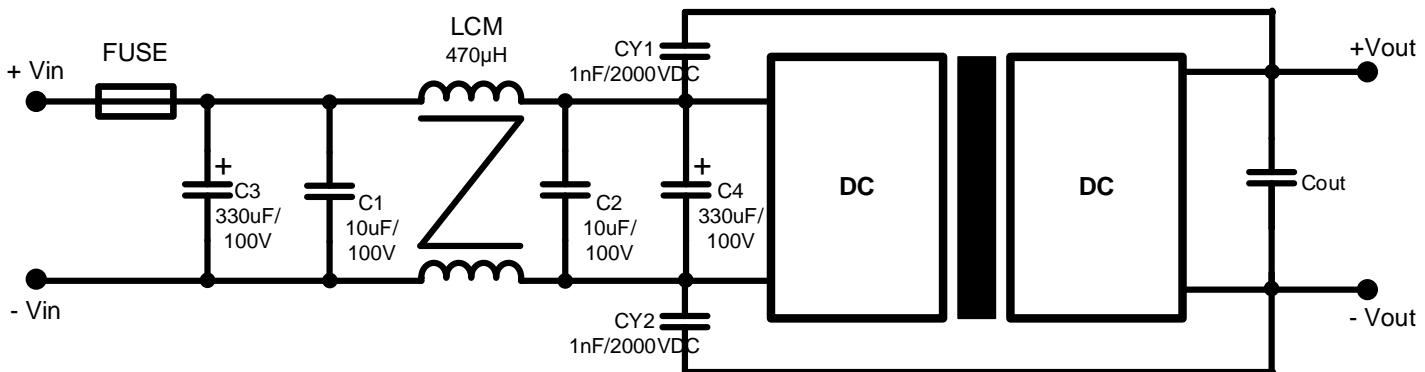


## Typical Application Circuit

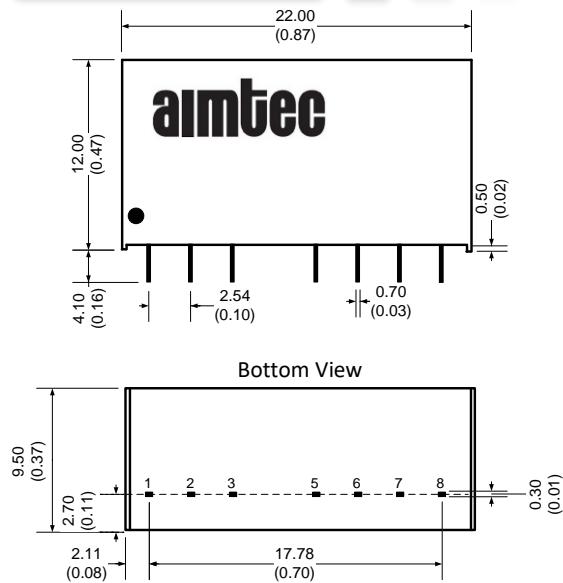


Vout(VDC)	Cin	Cout
3.3, 5, 9		
12, 15	47µF/100V	
24		22µF/50V

## Recommended EMC Circuit



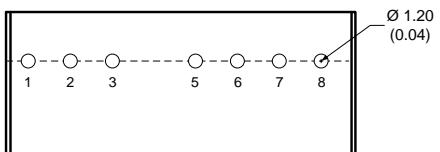
## Dimensions



Dimensions mm (inch)  
Case Tolerance  $\pm 0.50$  ( $\pm 0.02$ )  
Pin Diameter  $\pm 0.10$  ( $\pm 0.004$ )

Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	Ctrl	Ctrl
5	NC	NC
6	+V Output	+V Output
7	-V Output	-V Output
8	NC	-V Output

Top View



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