

AM10GH-EZ







The AM10GH-EZ is a 10W SIP8 DC/DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range of 9-75VDC as well as an output voltage of -15 to 24V. This compact SIP8 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40 to 75°C with full power up to 50°C. Also, an isolation of 1600VDC for improved reliability and system safety as well as a great 2,696,000h MTBF come standard.

The AM10GH-EZ is suitable for many applications such as industrial systems, portable equipment, and internet of things.

Features



- Continuous Short circuit protection
- Operating Temp: -40 °C to +75 °C
- Industry standard SIP8 pin-out
- Efficiency up to 89%
- Regulated output
- Made in Taiwan

RoHS



Training



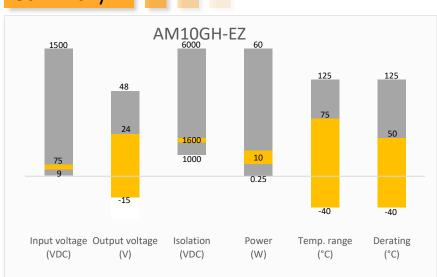
Product Training Video (click to open)



Coming Soon!

Application Notes

Summary



Applications







Industrial

Portable Equipment

IoT



Models & Specifications



Single Output							
Model	Input Voltage (VDC)	No Load/	Current 'Full Load TYP)	Output Voltage (VDC)	Output Current max (mA)	Isolation (VDC)	Efficiency Typ. (%)
AM10GH-2403SEZ	24 (9-36)	7	335	3.3	2000	1600	82
AM10GH-2405SEZ	24 (9-36)	7	392	5	1600	1600	85
AM10GH-2412SEZ	24 (9-36)	7	426	12	750	1600	88
AM10GH-2415SEZ	24 (9-36)	7	426	15	600	1600	88
AM10GH-2424SEZ	24 (9-36)	7	421	24	375	1600	89
AM10GH-4803SEZ	48 (18-75)	7	168	3.3	2000	1600	82
AM10GH-4805SEZ	48 (18-75)	7	196	5	1600	1600	85
AM10GH-4812SEZ	48 (18-75)	7	213	12	750	1600	88
AM10GH-4815SEZ	48 (18-75)	7	213	15	600	1600	88
AM10GH-4824SEZ	48 (18-75)	7	211	24	375	1600	89

Dual Output							
Model	Input Voltage (VDC)	No Load/	Current 'Full Load TYP)	Output Voltage (VDC)	Output Current max (mA)	Isolation (VDC)	Efficiency Typ. (%)
AM10GH-2405DEZ	24 (9-36)	7	388	±5	±800	1600	86
AM10GH-2412DEZ	24 (9-36)	7	426	±12	±375	1600	88
AM10GH-2415DEZ	24 (9-36)	7	426	±15	±300	1600	88
AM10GH-4805DEZ	48 (18-75)	7	196	±5	±800	1600	85
AM10GH-4812DEZ	48 (18-75)	7	213	±12	±375	1600	88
AM10GH-4815DEZ	48 (18-75)	7	216	±15	±300	1600	87

Input Specification				
Parameters	Conditions	Typical	Maximum	Units
Filter	Capacitor	-		
Voltage Tolerance	Vo, lo Nom		4:1	

Isolation Specification				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, leakage ≤ 1mA	1600		VDC
Resistance	500VDC	>1000		ΜΩ

Output Specification				
Parameters	Conditions	Typical	Maximum	Units
Voltage Tolerance	100% Full Load		±2	%
Line Regulation	Regulated		±0.5	%
Load regulation	Single output models		±0.5	
Load regulation	Dual output models (Balanced Load)		±1.0	%
Dinula 9 Naisa*	3.3V, 5V output models		100	mV p-p
Ripple & Noise*	12V output model		120	mV p-p



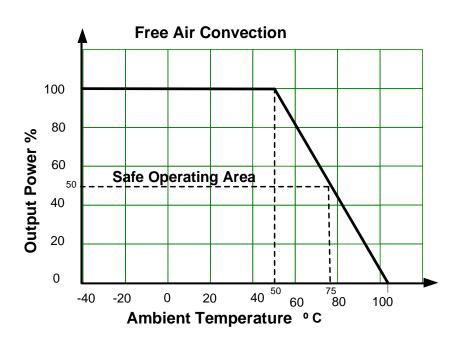
	15V output model		150	mV p-p	
	24V output model		240	mV p-p	
* Dinnle and Noice are maggined at 2000 to be admired by Diagon refer to the application note for energic datails					

General Specifications						
Parameters	Conditions	Typical	Maximum	Units		
Contable a formula or	Single	400		KHz		
Switching frequency	Dual	500		KHz		
Short circuit protection	Continuous, Auto-Recovery					
Operating temperature	With Derating	-40 to +75		°C		
Storage temperature		-55 to +125		°C		
Cooling	Natural convection (20LFM)					
Humidity	Non-condensing	>5	95	% RH		
Case material	Black plastic (flammability to UL 94V-0)					
Weight		4.8		g		
Dimensions (L x W x H)	0.86 x 0.36 x 0.44 inches (21.80 x 9.20 x 11.10 mm)					
MTBF	2 696 000 hrs (MIL-HDBK -217F, t=+25°C) / Full Load					
NOTE: All specifications in this da	atasheet are measured at an ambient temperature of 25°C, hur	midity<75%, nomi	nal input voltage a	and at rated		

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.

Derating

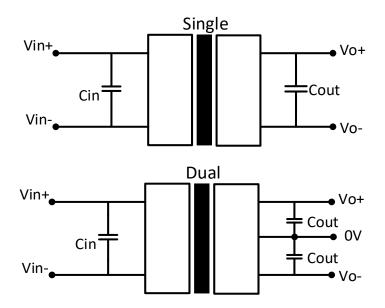






Typical application circuit





Vin	Cin
24VDC	10μF/100V
48VDC	10μF/100V

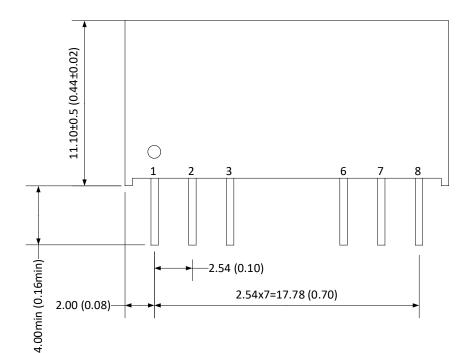
Single Vout	Cout
3.3VDC	100μF/25V
5VDC	100μF/25V
12VDC	100μF/25V
15VDC	100μF/25V
24VDC	100μF/25V

Dual Vout	Cout
±5VDC	100μF/25V
±12VDC	100μF/25V
±15VDC	100μF/25V

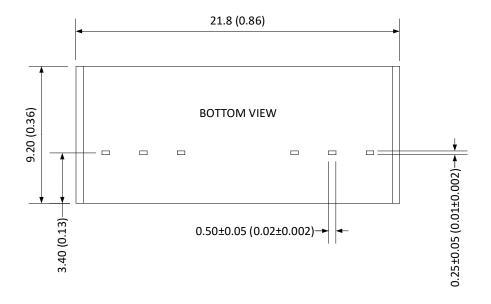
Table 1



Dimensions



Pin Out Specifications					
Pin	Single output	Dual output			
1	-V Input	-V Input			
2	+V Input	+V Input			
3	Remote ON/OFF	Remote ON/OFF			
	+V Output	+V Output			
7	-V Output	Common			
8	NC	-V Output			



UNIT: mm (inch) tolerances are XX.X±0.5, XX.XX±0.25

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 the ones listed in this datasheet. **7.** Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.