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AMA150D-GY

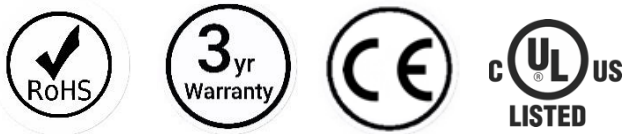
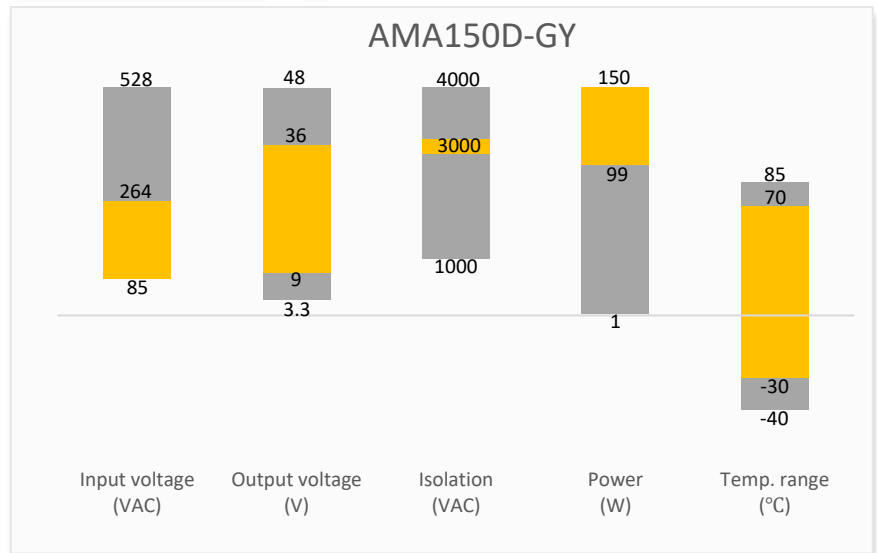


The new AMA150D-GY is a brand-new AC/DC adapter that features a cost-effective, energy efficient green power supply solution. It accepts a power distribution system with a wide input voltage range of 85-264VAC and an output voltage range from 9-36VDC, this series can benefit your new equipment system design. This new series offers great operating temperatures, from -30°C to 70°C also features an isolation of 3000VAC for improved reliability and system safety. Furthermore, a higher MTBF of 500,000h at full load 25°C ambient temperature, output over-load protection (OLP), over-voltage protection (OVP), over temperature protection, and output short circuit protection (OSCP) come standard with the series. The AMA150D-GY is suitable for office facilities, consumer electronic devices, industrial equipment, telecommunication devices and other equipment.

Features

- Wide Input: 85-264VAC
- Operating Temp: -30 °C to +70 °C
- Isolation voltage: 3000VAC
- Over-load, over-voltage, over temperature, and short circuit protection
- leakage current: <0.25mA

Summary



Training



Product Training Video
(click to open)



Press Release

Coming Soon!

Application Notes

Applications



Portable Equipment

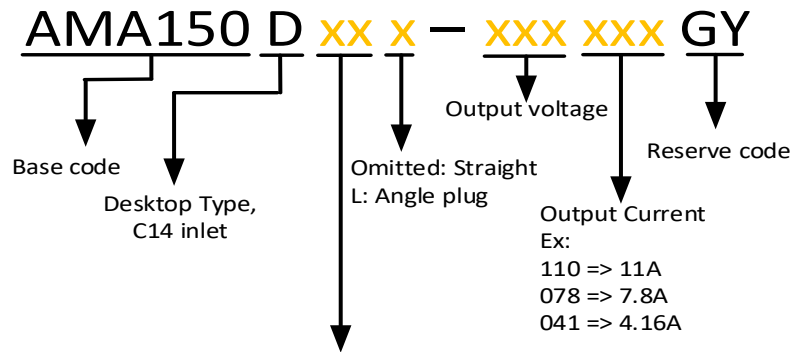


Industrial

Models & Specifications

Model	Input Voltage (VAC/Hz)	Output Voltage (VDC)	Output Current max (A)	Output Power max (W)	Efficiency (%)
AMA150D-090110GY	85~264/50~60	9	11	99	89
AMA150D-120100GY	85~264/50~60	12	10	120	90
AMA150D-120125GY	85~264/50~60	12	12.5	150	90
AMA150D-150100GY	85~264/50~60	15	10	150	91
AMA150D-190078GY	85~264/50~60	19	7.8	148.2	91
AMA150D-240062GY	85~264/50~60	24	6.25	150	93
AMA150D-360041GY	85~264/50~60	36	4.16	149	92

Please refer to the coding rule for completed part numbers. Eg. AMA150D**R5**-120125GY for industrial grade desktop type adapter which comes with 5.5mm*2.5mm*9.5mm straight standard output plug.



Plug type	Code	O. D.	I. D.	Length
Standard	R4 / B4	5.5mm	2.1mm	9.5mm
	R5 / B5	5.5mm	2.5mm	9.5mm
	R6 / B6	5.5mm	2.1mm	11.0mm
	R7 / B7	5.5mm	2.5mm	11.0mm
Locking	K3	5.53mm	2.03mm	12.06mm
	K4	5.53mm	2.54mm	12.06mm
	K5	5.53mm	2.03mm	9.52mm
	K6	5.53mm	2.54mm	9.52mm
Center Pin	C1	5.5mm	3.4mm	11.0mm
	C2	6.5mm	4.4mm	11.0mm
	C3	7.4mm	5.1mm	11.0mm
Min. Pin	M1	2.35mm	0.7mm	11.0mm
	M2	4.0mm	1.7mm	11.0mm
	M3	4.75mm	1.7mm	11.0mm
Molex	CM	Molex 455590002		
3 Pin with Lock (male)	3M	max 7.5A		
4 Pin with Lock (male)	4M	max 7.5A		
4 Pin with Lock (female)	4F			
5 Pin (male)	5M	max 7.5A		
Wire	WI	Wire with stripped ends		

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input Current			1.5	A
Inrush Current	Vin at 115VAC	40		A
	Vin at 230VAC	60		A
Leakage Current	240VAC	<0.25		mA

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0 - 100% load	± 5		%
Line regulation	Rated load	± 3		%
Load regulation	0 - 100% load	± 5		%
Ripple & Noise*	9 VDC Output		120	mV p-p
	12 VDC Output		120	mV p-p
	15 VDC Output		200	mV p-p
	19 VDC Output		200	mV p-p
	24 VDC Output		220	mV p-p
	36 VDC Output		250	mV p-p
Start-up time	230VAC input, full load	0.5		s
	115VAC input, full load	1.0		s
Rise time	230VAC at full load	30		ms
	115VAC at full load	30		ms
Hold up time	230VAC at full load	120		ms
	115VAC at full load	25		ms

* Ripple and Noise are measured at 20MHz bandwidth.

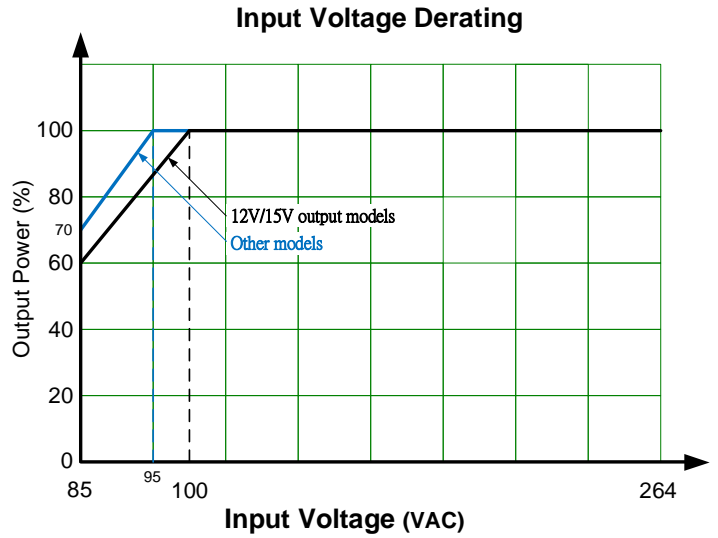
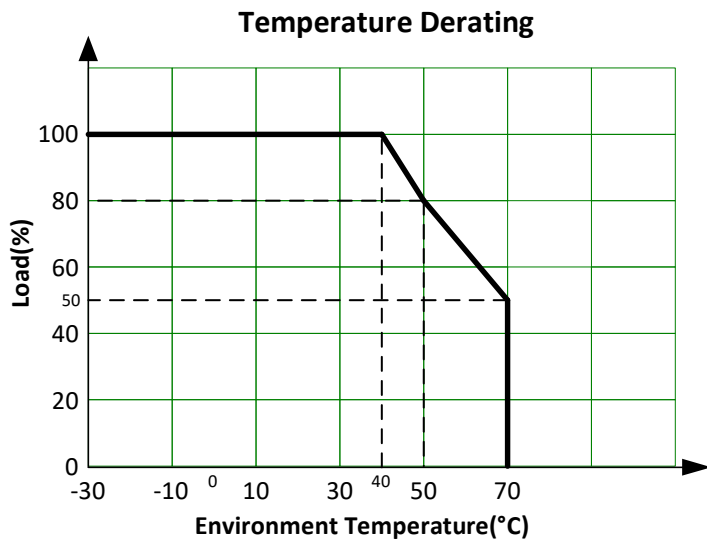
Isolation Specifications				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage		3000		VAC
Tested Input to GND voltage		2000		VAC
Tested Output to GND voltage		500		VAC
Insulation resistance	I to O, I/O to PE, 500VDC, 25°C, 70%RH	100		MΩ

General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Over-load protection	Hiccup mode, auto recovery	105	150	% of Iout
Over voltage protection	Shut down o/p voltage, manual recovery	105	130	% of Iout
Over temperature protection	Protected when the NTC resistance temperature is between 85°C and 100°C			
Short circuit protection	Hiccup, Continuous, auto-recovery			
Operating temperature	20% ~ 95% RH Non-Condensing	-30 to +70		°C
Storage temperature	10 ~ 95% RH	-40 to +85		°C
Power derating	+40°C to +70°C	1.67		% / °C
	12, 15 VDC Output, 85VAC - 100VAC	2.67		% / VAC

	Others, 85VAC - 95VAC	3.0	% / VAC
Weight		590	g
Dimensions (L x W x H)	6.77 x 2.80 x 1.65 inches (172.00 x 71.00 x 42.00 mm)		
MTBF	> 500 000 hrs min. MIL-HDBK-217F(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.			

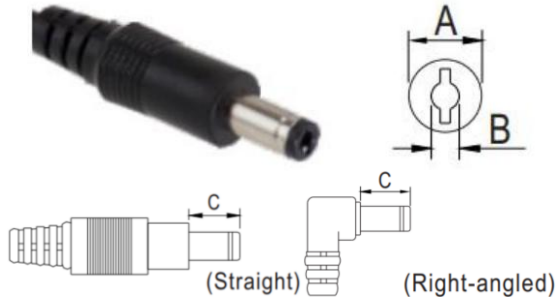
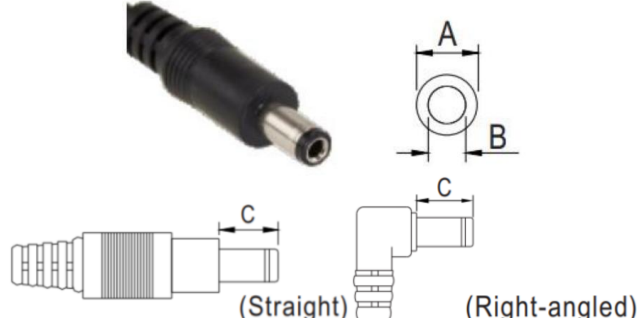
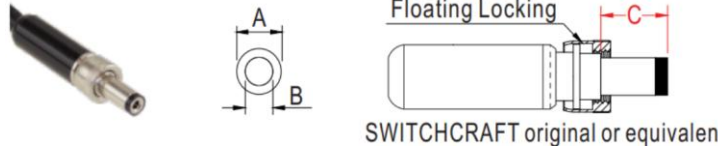
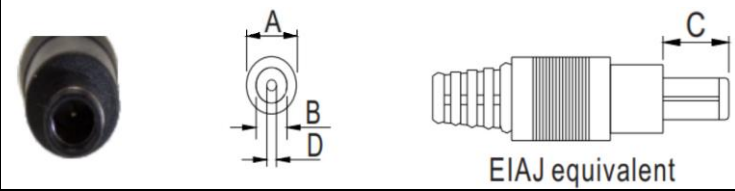
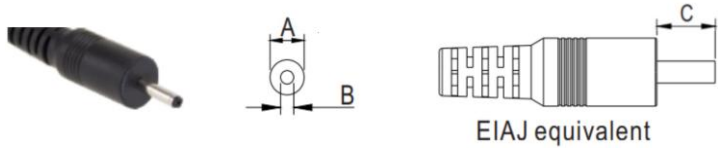
Safety Specifications			
Parameters			
Agency approval	UL62368-1, TUV BS EN/EN62368-1		
Standards	EMC - Conducted and radiated emission	BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,3	
	EMC - Immunity	EN/EN 61000-4-2,3,4,5,6,8,11	

Derating



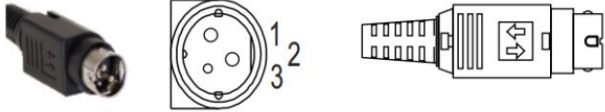
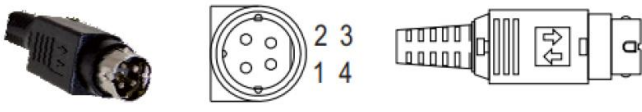



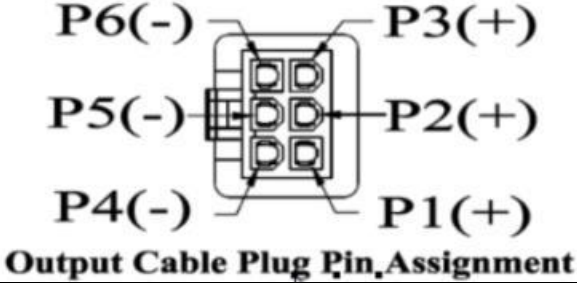
DC output plug



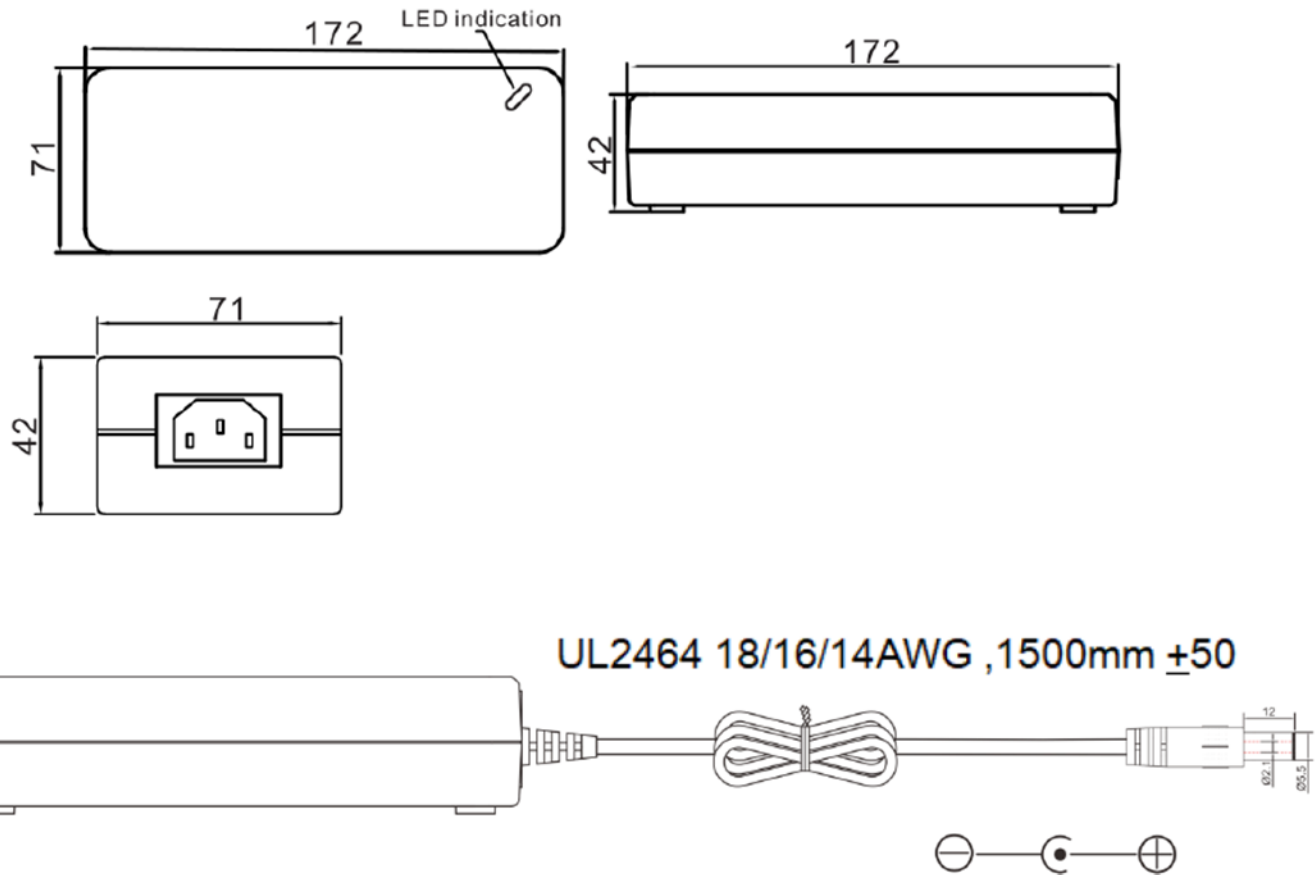
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Optional Connector



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Dimensions



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. 8. Adapters are intended for industrial use only.