AMA40D-Y

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Desktop Adaptor

The AMA40D-Y is a small industrial grade desktop adapter. Offering a commercial input voltage range of 90-264VAC and an output power of 40W. This adapter will offer many benefits to powering your system such as low power consumption, high efficiency (complies with DoE level VI), meeting IEC60950-1, IEC62368-1, FCC Class B, CISPR22 Class B.

It also features an isolation of 3000VAC for improved reliability and system safety and comes standard with output short circuit protection (OSCP) and output over-current protection (OCP).

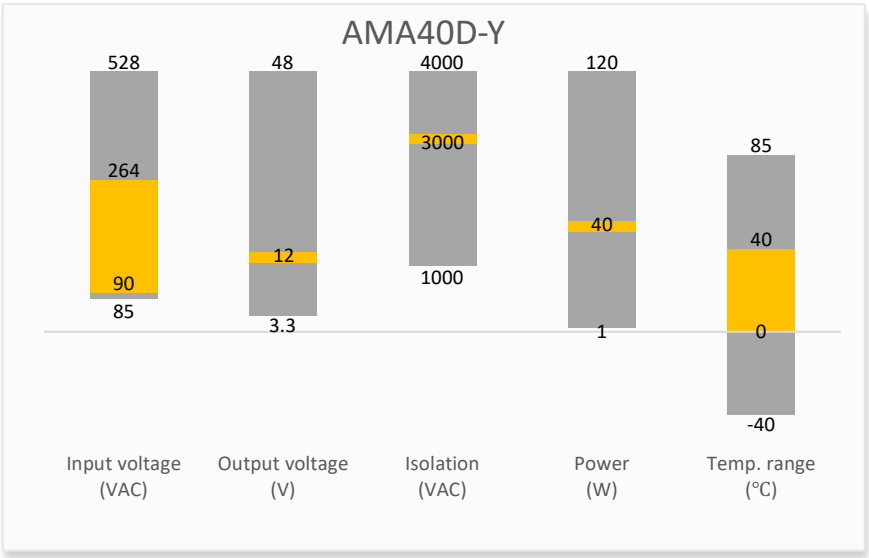
Features

- Universal Input: 90 - 264VAC/47 - 63Hz
- Operating Temp: 0 °C to +40 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 120mV(p-p), max
- Output short circuit, over-current, over-voltage protection
- Regulated Output

RoHS

3yr Warranty

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

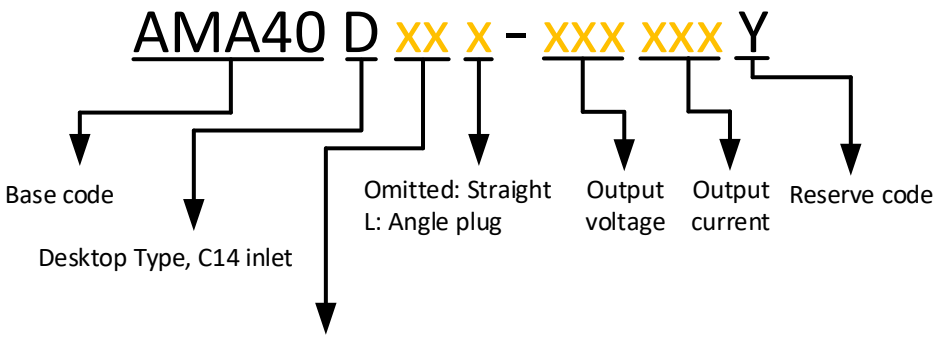
Applications

Portable Equipment

Industrial

Models & Specifications

General Feature					
Model	Input Voltage (VAC)	Output Voltage (VDC)	Output Current max (A)	Output Power max (W)	Efficiency (%)
AMA40D-120033Y	90 - 264	12	3.34	40	87
Please refer to below coding rule for completed part numbers. Eg. AMA40DR5-12Y for industrial grade adaptor which comes with 5.5mm*2.5mm*9.5mm straight standard output plug.					



Plug type	Code	O. D.	I. D.	Length
Standard	R1	3.5mm	1.35mm	9.5mm
	R2	3.8mm	1.05mm	9.5mm
	R3	3.8mm	1.35mm	9.5mm
	R4	5.5mm	2.1mm	9.5mm
	R5	5.5mm	2.5mm	9.5mm
Locking	K1	5.5mm	2.1mm	9.5mm
	K2	5.5mm	2.5mm	9.5mm
USB	U2	USB type C		

Input Specification					
Parameters	Conditions	Minimum	Typical	Maximum	Units
Voltage range		90	100 - 240	264	VAC
Frequency		47	50 - 60	63	Hz
Input current				1.2	A
Leakage current	240VAC/50Hz			0.25	mA

Output Specification					
Parameters	Conditions	Minimum	Typical	Maximum	Units
Output voltage	12VDC output	11.4	12	12.6	VDC
Output current	12VDC output	0		3.34	A
Voltage regulation				±5	%

Line regulation				±1	%
Load regulation	50% - 100% Load			±5	%
Dynamic load	50% to 100% step change, 100Hz & 1KHz 50%duty, Slew rate 0.5A uS			±5	%
Over shoot				10	%
Ripple and Noise	20 MHz bandwidth			120	mVp-p
Start-up time				3	S
Hold-up time	Vin at 115VAC	8			mS
Ripple and Noise are measured at 20MHz bandwidth by using a 0.1uF (M/C) and 10uF (E/C) parallel capacitor.					

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec, leakage current < 10mA, I/O		3000	VAC
	60 sec, leakage current < 10mA, I&O/PE		1500	
Insulation resistance	500VDC		50	MΩ

General Specification

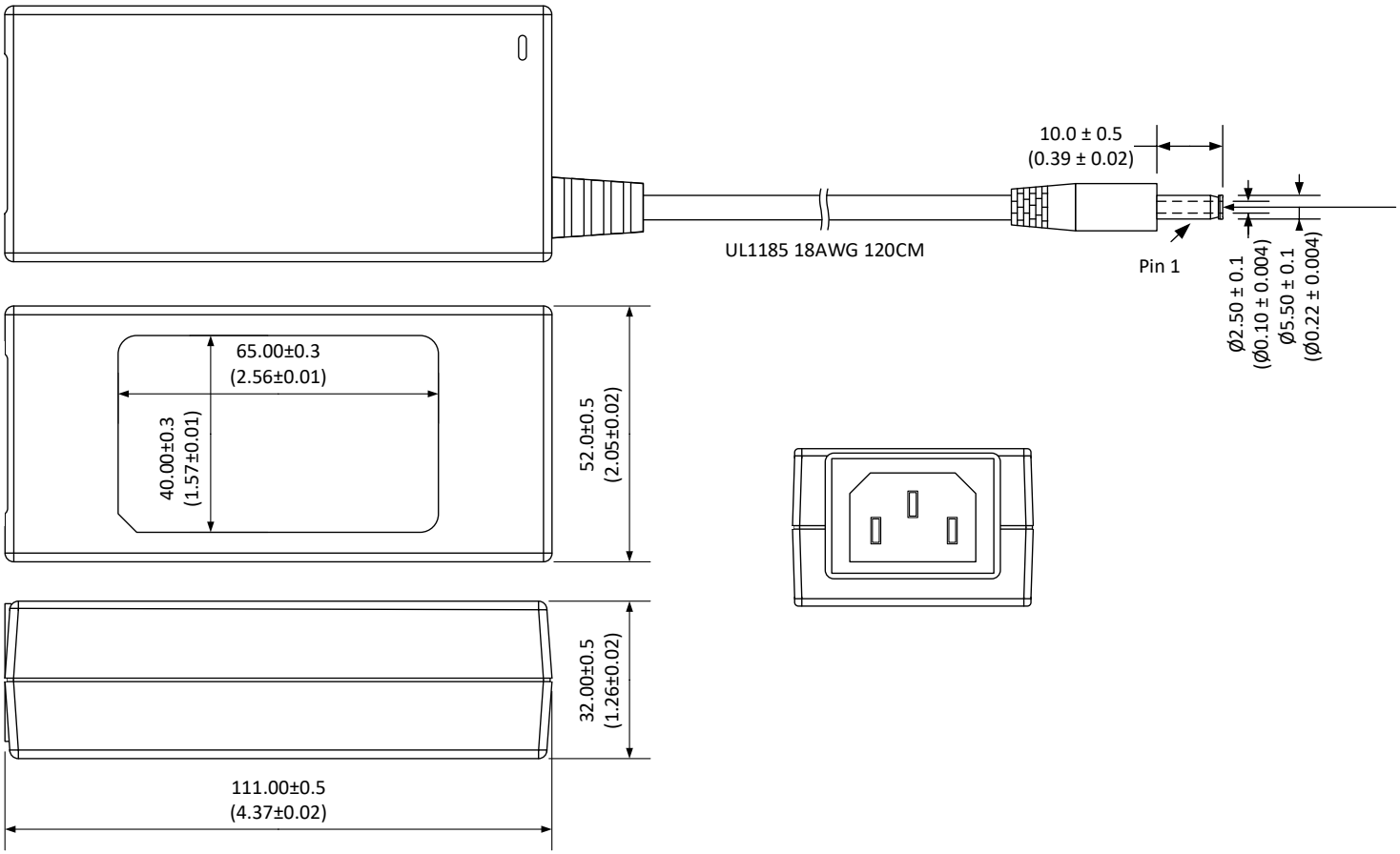
Parameters	Conditions	Minimum	Typical	Maximum	Units
Operating temperature		0		40	°C
Storage temperature		-20		85	°C
Efficiency	At active average mode	87.6			%
Power consumption	Vin at 115 -230VAC, no load			100	mW
Humidity	Non-condensing	10		90	% RH
Altitude		0		2640	m
Vibration	1.0mm, 10 - 55Hz, 15minutes for each axis				
DOE LEVEL	VI				
Short circuit protection	Continuous, auto recovery				
Over current protection	Continuous, auto recovery				
Over voltage protection				20	V
Dimensions (L x W x H)	4.37 x 2.05 x 1.26 inches (111.0 x 52.0 x 32.0mm)				
MTBF	> 100 000 hrs (Bell Core SR332, t=+25°C)/Full Load				
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 approvals	cULus UL62368-1, CE EN62368-1	
Standards	Designed to meet IEC 62368-1	
	EMC - Conducted and radiated emission	FCC, Class B CISPR22, Class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Level 2: Contact ±4KV

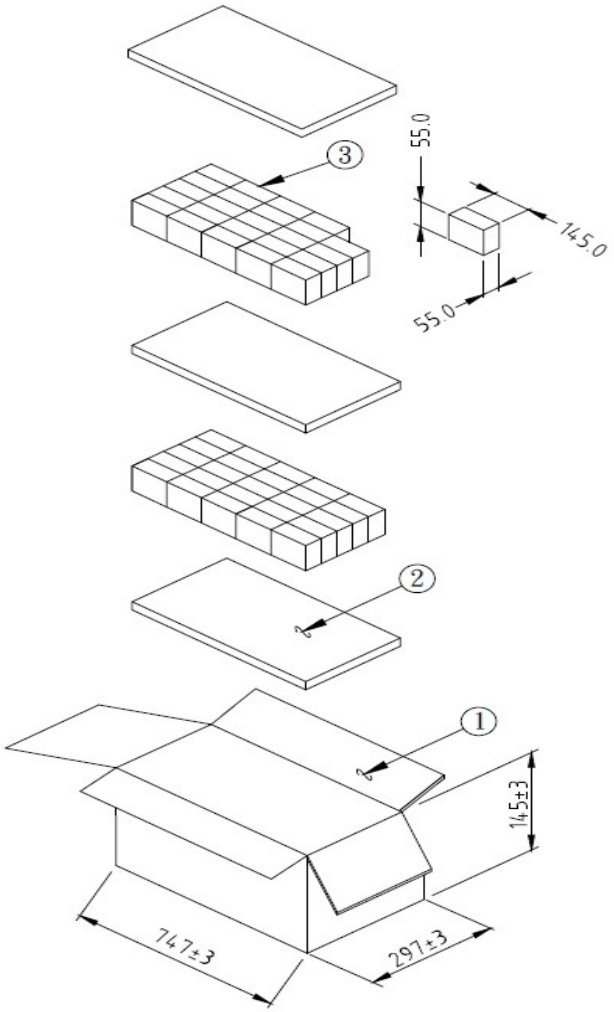
		Level 3: Air ±8KV
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 Level 2: Field strength 3V/m
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 Level 2: ±1KV
	Surge Immunity	IEC 61000-4-5 Level 3: L-L ±1KV, L-G & N-G ±2KV
	CS, Conducted Disturbance Immunity	IEC 61000-4-6 Level 2: 3V/M
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 0% 250cycle, 40% 5cycle, 70% 0.5cycle

Dimensions



Pin Output Specifications	
Pin	Output Level
1	RTN(-)
2	+Vout

Packing



Packing information:

- CARTON : L*W*H=(747*297*145) +/-3mm K=K
- CLAPBOARD : (730*280) +/-3mm A=A 3PCS
- WHITE BOX : 145*55*55 C9
- Q'TY : 25*2=50PCS
- NET WEIGHT : (g)(ref)
- UNIT : mm

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.** Adaptors are intended for industrial use only.