

Click to
ORDER
samples

AMA120D-Y



Desktop Adaptor

The AMA120D-Y is a small industrial grade desktop adapter offering a commercial input voltage range of 90-264VAC and an output power 120W. This adapter will offer many benefits to powering your system such as low power consumption, high efficiency (complies with DoE level VI), meeting FCC, Class B, CISPR22, Class B.

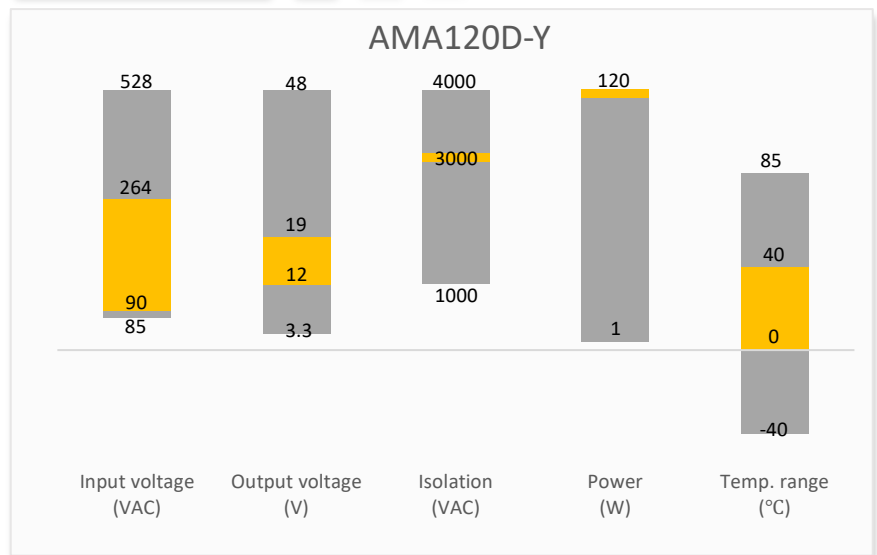
It also features an isolation of 4242VDC (3000VAC equivalent) for improved reliability and system safety and comes standard with output short circuit protection (OSCP) and output over-current protection (OCP).

Features



- Universal Input: 90 - 264VAC/47 - 63Hz
- Operating Temp: 0 °C to +40 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 190mV(p-p), max
- Output short circuit, over-current protection, over-voltage protection
- Regulated Output

Summary



Training



Product Training Video
(click to open)



Press Release

Coming Soon!

Application Notes

Applications



Portable Equipment



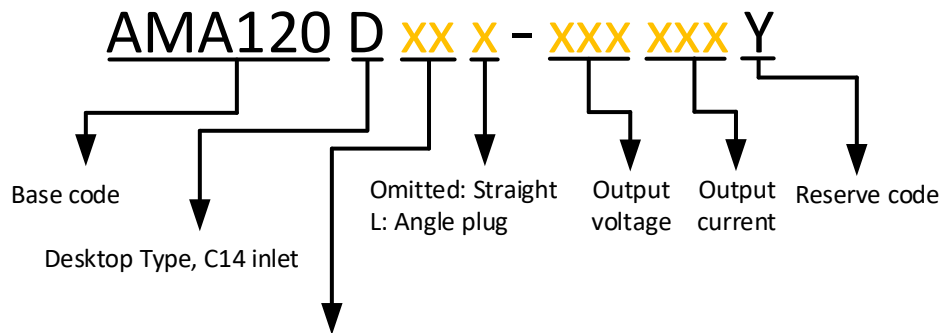
Industrial

Models & Specifications

General Feature

Model	Input Voltage (VAC)	Output Voltage (VDC)	Output Current max (A)	Output Power max (W)	Efficiency (%)
AMA120D-120100Y	90 - 264	12	10	120	88
AMA120D-190063Y	90 - 264	19	6.3	120	88

Please refer to below coding rule for completed part numbers. Eg. AMA120D**R5**-190063Y for industrial grade desktop type 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	U1	Micro 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	Vin at 100 -240VAC			2	A
Leakage Current	240VAC/50Hz			0.25	mA
Power factor	Vin at 115VAC/60Hz	90			%
	Vin at 230VAC/50Hz	85			%

Output Specification					
Parameters	Conditions	Minimum	Typical	Maximum	Units
Output voltage	12VDC output		12		VDC
	19VDC output		19		
Output current	12VDC output	0		10	A
	19VDC output	0		6.3	
Voltage regulation				±5	%
Line regulation				±1	%
Load regulation				±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			190	mVp-p
Start-up time	Vin at 110VAC			3	S
Hold-up time	Vin at 115VAC/60Hz	10			mS

Ripple and Noise are measured at 20MHz bandwidth by using a 0.1uF (M/C) and 47uF (E/C) parallel capacitor.

Isolation Specifications				
Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec, leakage current < 10mA		4242	VDC
Resistance		100		MΩ

General Specification					
Parameters	Conditions	Minimum	Typical	Maximum	Units
Operating temperature		0		40	°C
Storage temperature		-20		85	°C
Power consumption	Vin at 100 -240VAC, no load			210	mW
Humidity	Non-condensing	10		90	% RH
Altitude	12V output model	0		5000	m
	19V output model	0		2640	
DOE LEVEL		VI			
Over voltage protection	12V output model			20	V
	19V output model			27	
Over current protection	Continuous, auto recovery				
Short circuit protection	Continuous, auto recovery				
Vibration	1.0mm, 10-55Hz, 15 minutes per cycle for each axis (X,Y,Z)				
Dimensions (L x W x H)	6.61 x 2.69 x 1.34 inches (168.00 x 68.30 x 34.00mm)				
Output Cable length	1500mm (59.06 inches)				
MTBF	> 100 000 hrs (Telcordia SR332, t=+25°C)/Full Load				

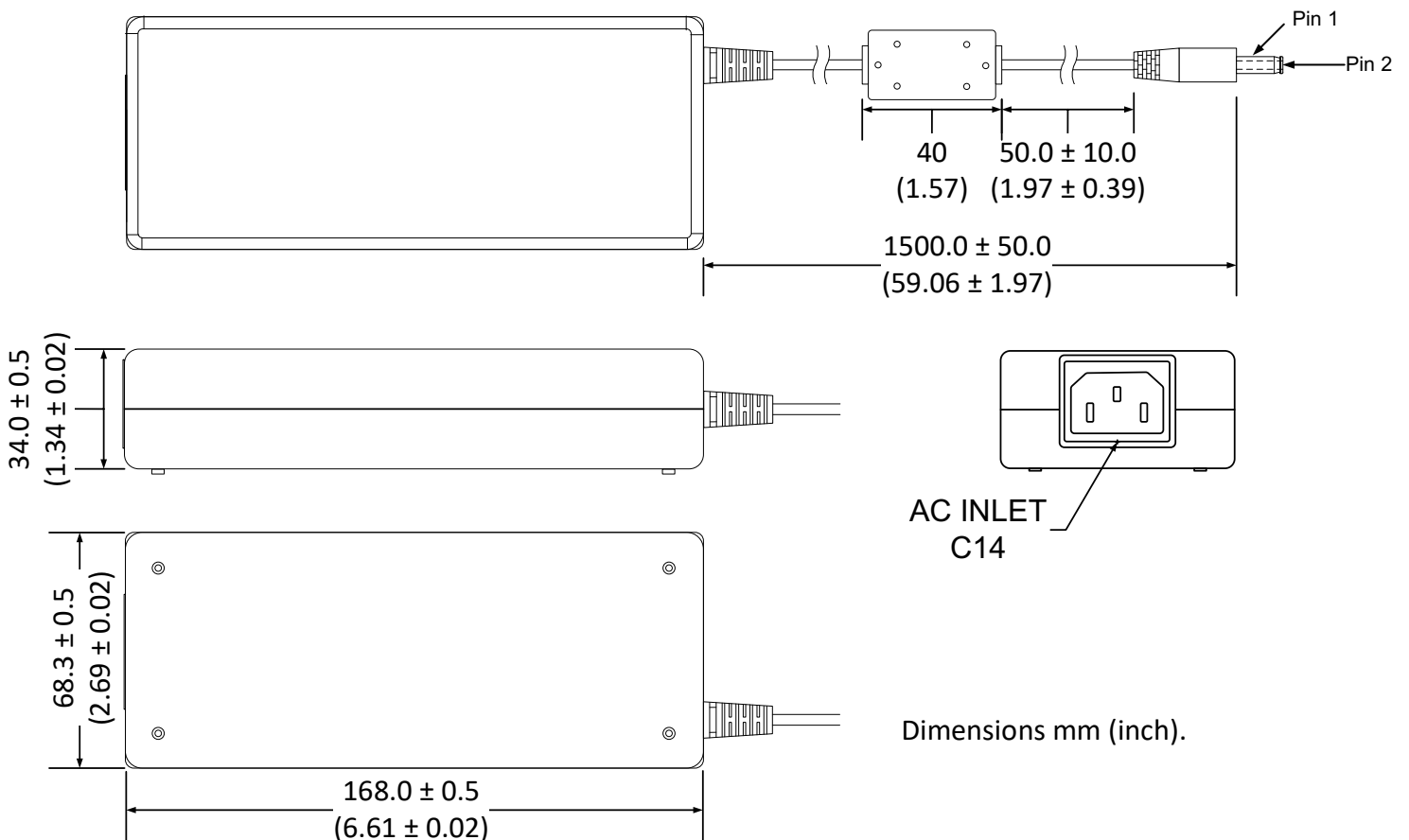
All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Safety Specifications

Parameters

EMC - Radiated & Conducted emission	FCC, Class B CISPR22, Class B
Electrostatic Discharge Immunity	IEC 61000-4-2 Level 2: Contact $\pm 4\text{KV}$ Level 3: Air $\pm 8\text{KV}$
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: $\pm 1\text{KV}$
Surge Immunity	IEC 61000-4-5 Level 3: L-L $\pm 1\text{KV}$, L-G & N-G $\pm 2\text{KV}$
RF, Conducted Disturbance Immunity	IEC 61000-4-6 Level 2: 3V/M
MF	IEC 61000-4-8 Level 1: Magnetic strength 1A/M(r.m.s)
Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 0% 250 cycle, 40% 5 cycle, 70% 0.5 cycle

Dimensions

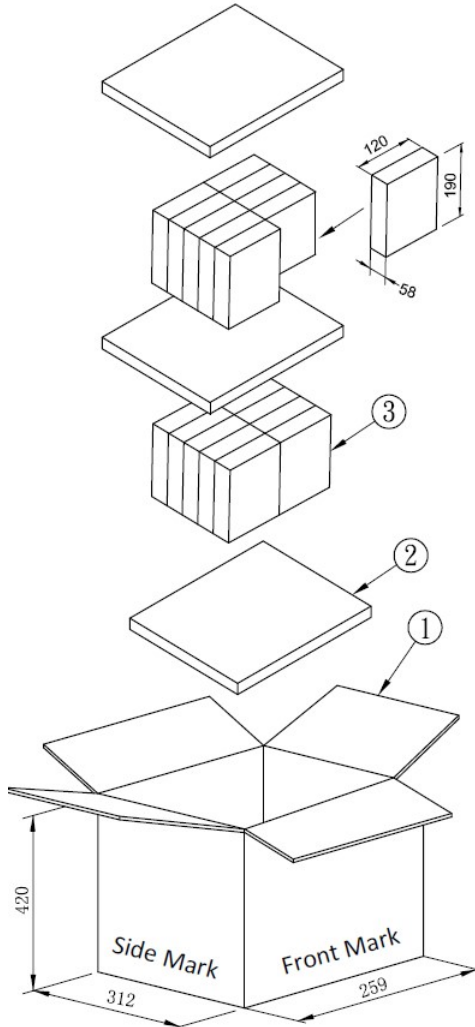


Pin Output Specifications

Pin	Output Level
1	RTN(-)
2	+Vout

Packing

For US and European Plug:



Packing information:

- CARTON : L*W*H=(312*259*420) +/-5mm K=K
- CLAPBOARD : (290*240) +/-3mm A=A 3PCS
- WHITE BOX : 190*120*58 C9
- Q'TY : 10*2=20PCS
- 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.