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AMA60D-GY

Desktop Adapter

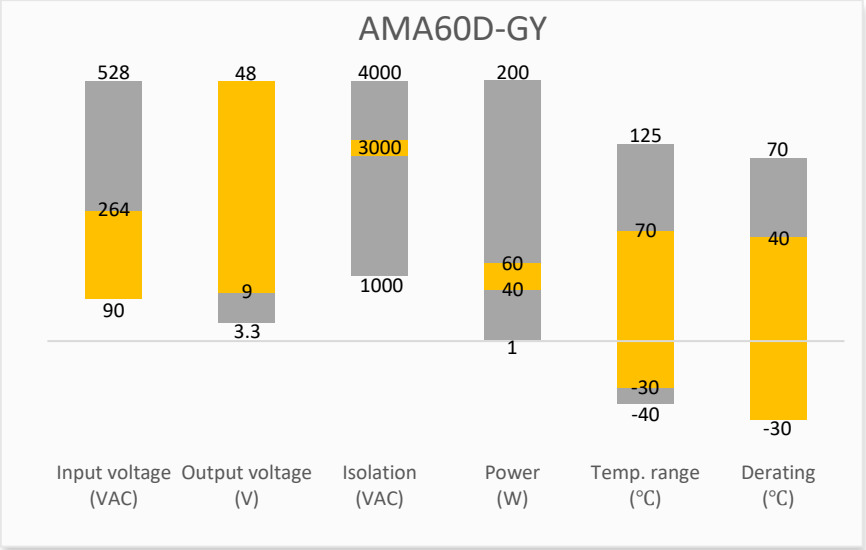
The new AMA60D-GY is a brand-new power supply that features a cost-effective, energy efficient green power supply solution. It accepts a power distribution system with an input voltage range of 90-264VAC and an output voltage range from 9-48VDC, this series can benefit your new equipment system design.
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 354,900h at full load 25°C ambient temperature, output over-load protection (OLP), over-voltage protection (OVP), and output short circuit protection (OSCP) come standard with the series.
The AMA60D-GY is suitable for office facilities, consumer electronic devices, industrial equipment, telecommunication devices and other equipment.

Features

- Wide Input: 90-264VAC
- Operating Temp: -30 °C to +70 °C
- Isolation voltage: 3000VAC
- Over-load, over-voltage, and short circuit protection
- leakage current: <0.75mA
- No load power consumption < 0.21W

RoHS · 3yr Warranty · CE · c UL us LISTED

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

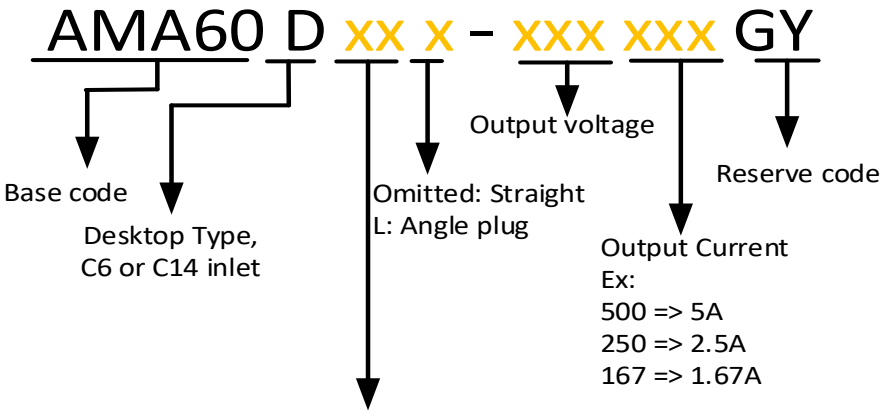
Applications

Portable Equipment

Industrial

Models & Specifications

Model	Input Voltage (VAC/Hz)	Output Voltage (VDC)	Output Current max (A)	Output Power max (W)	Efficiency (%)
AMA60D-090500GY	90~264/50~60	9	5	45	88
AMA60D-120500GY	90~264/50~60	12	5	60	88
AMA60D-150400GY	90~264/50~60	15	4	60	88
AMA60D-240167GY	90~264/50~60	24	1.67	40.08	88
AMA60D-240250GY	90~264/50~60	24	2.5	60	88
AMA60D-360166GY	90~264/50~60	36	1.66	60	90
AMA60D-480100GY	90~264/50~60	48	1	48	90
Please refer to below coding rule for completed part numbers. Eg. AMA60DR5-120500GY 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	5.53 mm	2.03 mm	12.06 mm
	K4	5.53 mm	2.54 mm	12.06 mm
	K5	5.53 mm	2.03 mm	9.52 mm
	K6	5.53 mm	2.54 mm	9.52 mm
Center Pin	C1	5.5 mm	3.4 mm	11.0 mm
	C2	6.5 mm	4.4 mm	11.0 mm
	C3	7.4 mm	5.1 mm	11.0 mm
Min. Pin	M1	2.35 mm	0.7 mm	11.0 mm
	M2	4.0 mm	1.7 mm	11.0 mm
	M3	4.75 mm	1.7 mm	11.0 mm
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	

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage range		90-264		VAC
Frequency		50 - 60		Hz
Input Current	Vin at 115VAC	1.5		A
	Vin at 230VAC	0.8		A
Inrush Current	Vin at 115VAC	40		A
	Vin at 230VAC	60		A
Leakage Current	230VAC	<0.75		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*	AMA60D-090500GY		100	mV p-p
	AMA60D-120500GY		150	mV p-p
	AMA60D-150400GY		150	mV p-p
	AMA60D-240167GY		240	mV p-p
	AMA60D-240250GY		200	mV p-p
	AMA60D-360166GY		300	mV p-p
	AMA60D-480100GY		400	mV p-p
Start-up time	230VAC input, full load	0.8		s
	115VAC input, full load	2.0		s
Rise time	230VAC at full load	30		ms
	115VAC at full load	30		ms
Hold up time	230VAC at full load	80		ms
	115VAC at full load	15		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	Maximum	Units
Tested I/O voltage	60 Sec	3000		VAC
Resistance I/O	500VDC, 25°C, 70%RH	100		MΩ

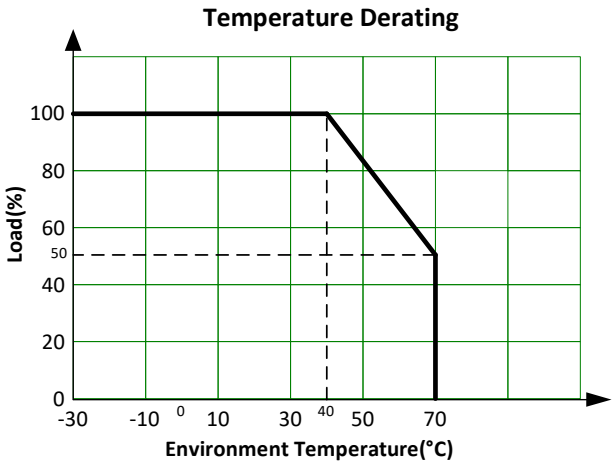
General Specifications

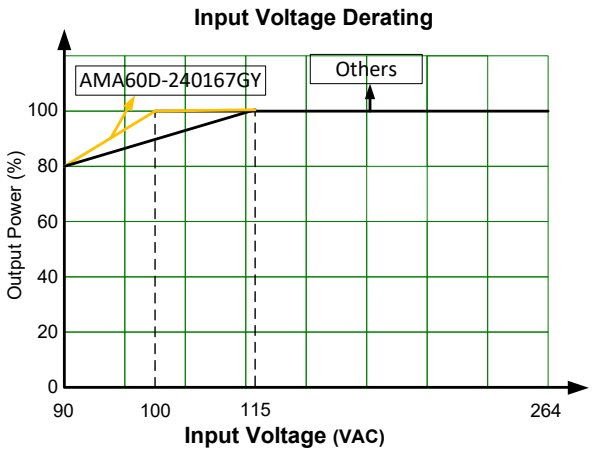
Parameters	Conditions	Typical	Maximum	Units
Overload protection	Hiccup mode, auto- recovery	105	150	% of Iout
Over voltage protection	Shut down o/p voltage, manual recovery	120	180	% of Vout
Short circuit protection	Shut down o/p voltage, manual recovery			

No-load power consumption			0.21	W
Operating temperature	20% ~ 95% RH Non-Condensing	-30 to +70		°C
Storage temperature	10 ~ 95% RH	-40 to +85		°C
Temperature coefficient	0~40°C	±0.03		%/°C
Power derating	+40 °C to +70°C	1.67		% / °C
	90VAC - 100VAC, AMA60D-240167GY	2		% / VAC
	90VAC - 115VAC, others	0.8		% / VAC
Weight		310		g
Vibration	10 ~ 500Hz, 5G 12min / 1cycle, 72min. each along X, Y, Z axes			
Dimensions (L x W x H)	4.59 x 2.13 x 1.36 inches (116.50 x 54.20 x 34.60 mm)			
MTBF	> 354 900 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	BS EN/EN62368-1 , UL62368-1 (**Without 48V model**)	
Standards	Information technology Equipment	Designed to meet CCC GB4943.1, PSE J62368-1, AS/NZS 60950.1, BIS IS13252(**Without 36V model**), KC K60950-1, EAC TP TC 004 48V model does not meet any standards.
	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	Harmonic current	EN61000-3-2, Class B
	Voltage flicker	EN61000-3-3, Class B
	Electrostatic Discharge Immunity	EN61000-4-2 Air ±8KV, Criteria A
	RF, Electromagnetic Field Immunity	EN61000-4-3 Criteria A
	Electrical Fast Transient/Burst Immunity	EN61000-4-4 Criteria A
	Surge Immunity	EN61000-4-5 L-N ±2KV, Criteria A
	RF, Conducted Disturbance Immunity	EN61000-4-6 Criteria A
	Power Frequency Magnetic Field Immunity	EN61000-4-8 Criteria A
	Voltage dips, Short Interruptions Immunity	EN61000-4-11 >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods

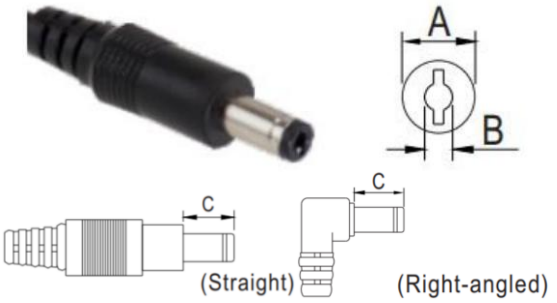
Derating





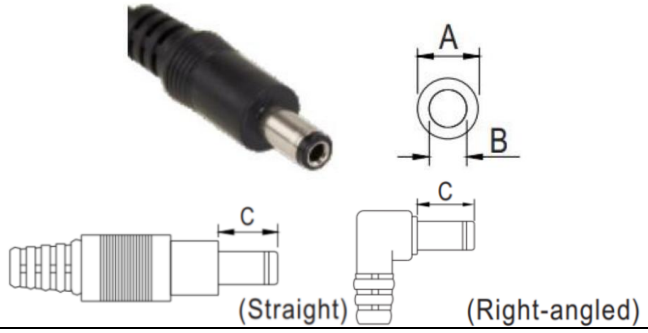
DC output plug

Tuning Fork Style (Straight or Right-angled)



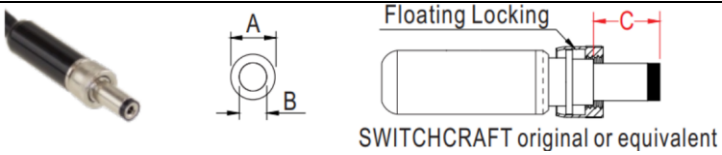
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
R4	5.5	2.1	9.5
R5	5.5	2.5	9.5
R6	5.5	2.1	11.0
R7	5.5	2.5	11.0

Barrel Style (Straight or Right-angled)



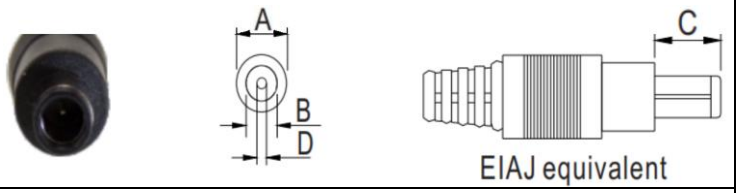
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
B4	5.5	2.1	9.5
B5	5.5	2.5	9.5
B6	5.5	2.1	11.0
B7	5.5	2.5	11.0

Lock Style



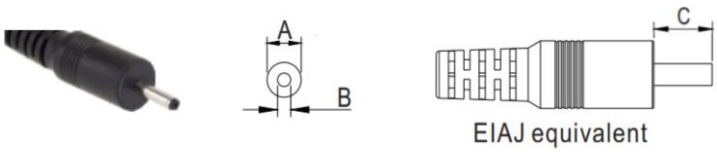
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
K3	5.53	2.03	12.06
K4	5.53	2.54	12.06
K5	5.53	2.03	9.52
K6	5.53	2.54	9.52

Center Pin Style



Type Number and Dimensions (mm)				
Code No.	A Outer Diameter	B Inner Diameter	C Length	D Center Pin
C1	5.5	3.4	11.0	1.0
C2	6.5	4.4	11.0	1.4
C3	7.4	5.1	11.0	0.6

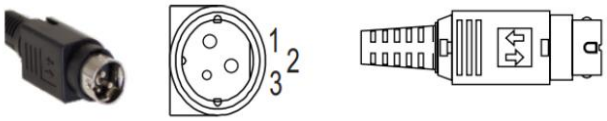
Min. Pin Style



Type No.	A Outer Diameter	B Inner Diameter	C Length
M1	2.35	0.7	11.0
M2	4.0	1.7	11.0
M3	4.75	1.7	11.0

Optional Connector

3 Pin with Lock (male)

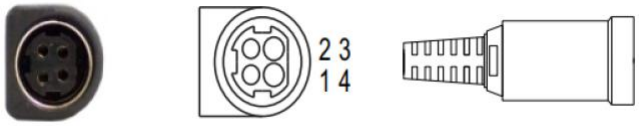


Pin Out Configurations	
Pin No.	Description
1	+Vout
2	-Vout
3	+Vout

4 Pin with Lock (male)

Pin Out Configurations	
Pin No.	Description
1	+Vout
2	-Vout
3	-Vout
4	+Vout

4 Pin with Lock (female)



Pin Out Configurations	
Pin No.	Description
1	+Vout
2	-Vout
3	-Vout
4	+Vout

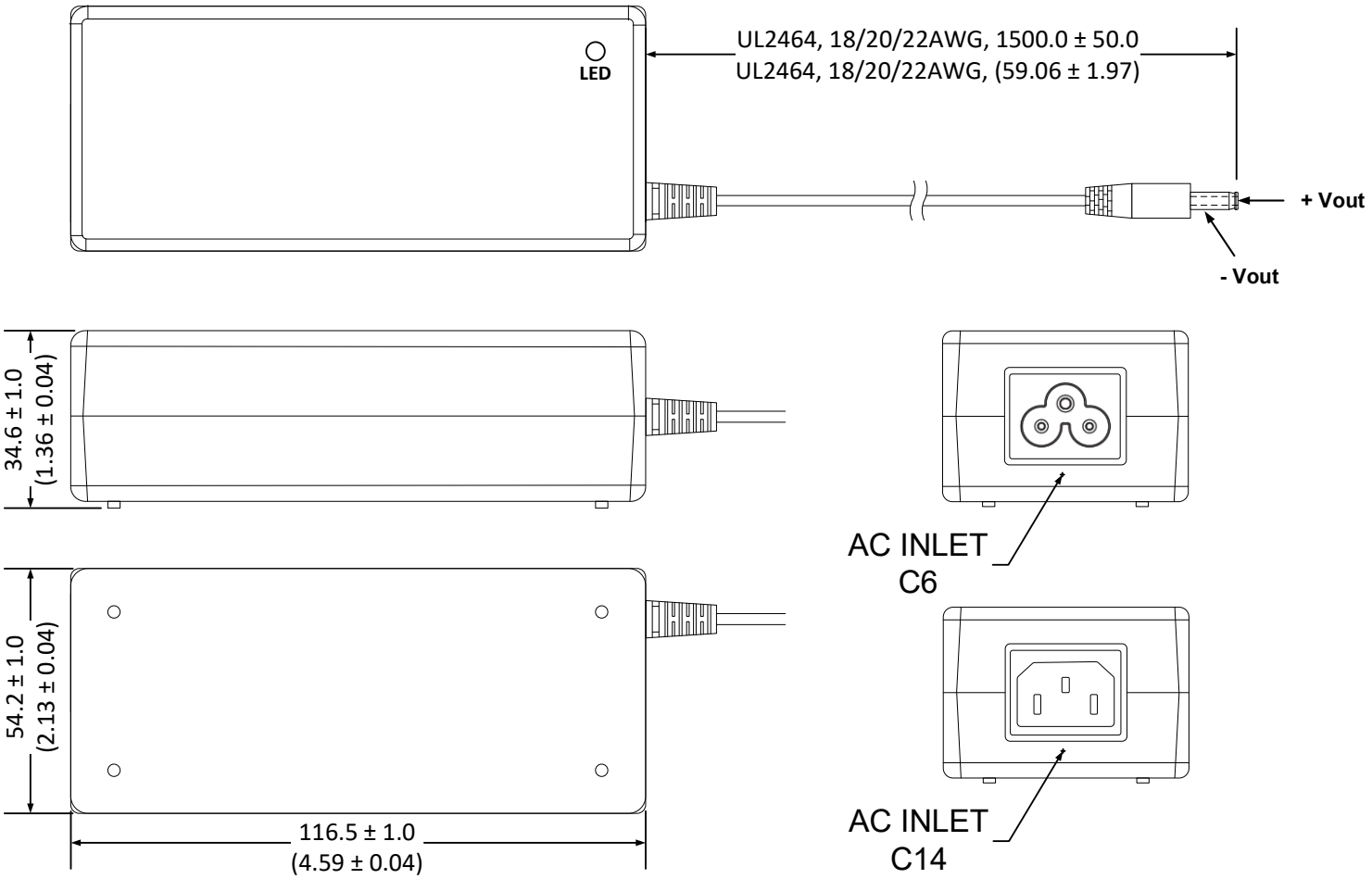
5 Pin (male)

Pin Out Configurations	
Pin No.	Description
1	-Vout
2	-Vout
3	+Vout
4	-Vout
5	+Vout

Wire with Stripped Ends

Wire Out Configurations	
Wire No.	Description
1	+Vout
2	-Vout

Dimensions



Dimensions mm (inch).

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.