AMA24X-MGY

Wall Mount Adapter

The AMA24X-MGY is a brand-new medical grade interchangeable plug wall mount adapter that features a cost-effective, energy efficient green power supply solution. It accepts a power distribution system with an input voltage range of 85-264VAC and an output voltage range from 5-24VDC, this series can benefit your new equipment system design.
This new series offers great operating temperatures, from -20°C to 60°C also features an isolation of 4000VAC 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), and output short circuit protection (OSCP) come standard with the series.
The AMA24X-MGY is suitable for blood pressure and blood glucose meters, portable medical devices and other medical equipment.

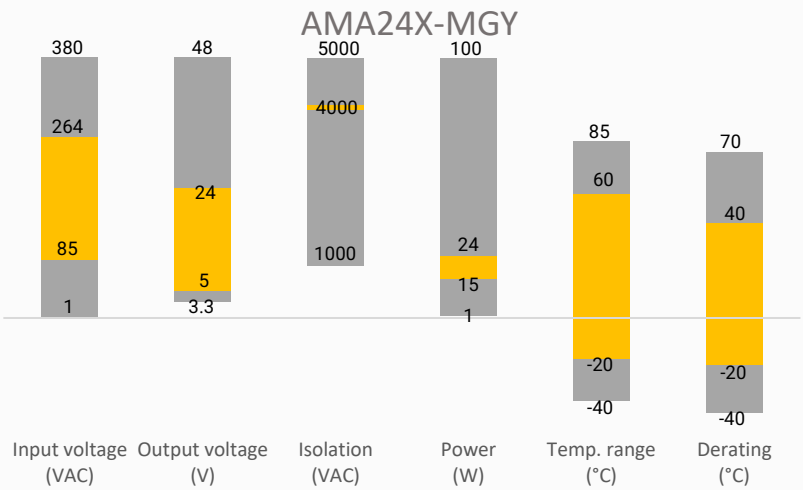
Features

- Wide Input: 85 - 264VAC
- Operating Temp: -20 °C to +60 °C
- Isolation voltage: 4000VAC
- Leakage current: <0.1mA
- Over-load, over-voltage, and short circuit protection
- Life Warranty: 3 years

RoHS

3yr Warranty

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

Industrial

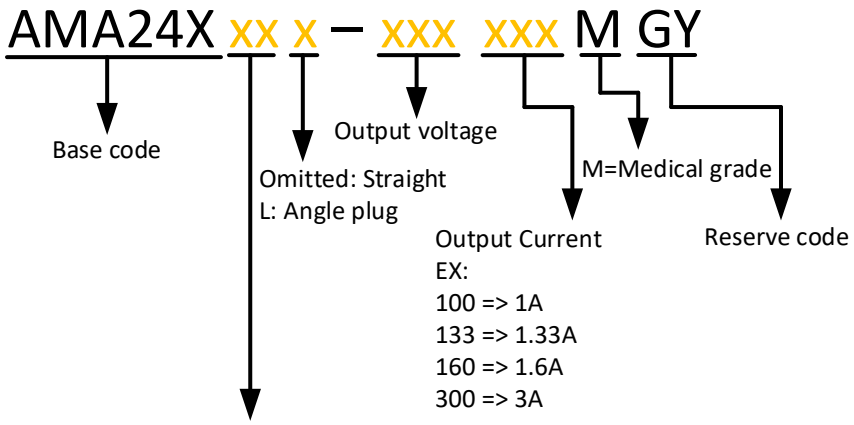
Portable Equipment

Medical

Models & Specifications

Model	Input Voltage (VAC/Hz)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Efficiency (%)
AMA24X-050300MGY	85~264/50~60	15	5	3	81
AMA24X-090250MGY	85~264/50~60	22.5	9	2.5	85
AMA24X-120200MGY	85~264/50~60	24	12	2	86
AMA24X-150160MGY	85~264/50~60	24	15	1.6	86
AMA24X-180133MGY	85~264/50~60	24	18	1.33	87
AMA24X-240100MGY	85~264/50~60	24	24	1	87

Please refer to below coding rule for completed part numbers. Eg. AMA24XR5-120200MGY for medical grade 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
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			0.5	A
Inrush Current	115VAC	40		A
	230VAC	60		A
Leakage Current	240VAC	<0.1		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*	5 VDC Output		90	mV p-p
	9 VDC Output		100	mV p-p
	12 VDC Output		120	mV p-p
	15 VDC Output		150	mV p-p
	18 VDC Output		180	mV p-p
	24 VDC Output		240	mV p-p
Start-up time	230VAC input, full load	0.5		s
	115VAC input, full load	1.0		s
Rise time	230VAC input, full load	30		ms
	115VAC input, full load	30		ms
Hold up time	230VAC input, full load	120		ms
	115VAC input, full load	25		ms
* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application note for specific details.				

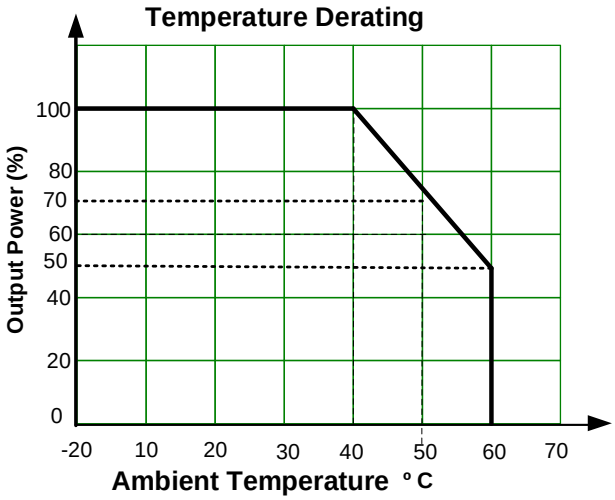
Isolation Specifications				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage		4000		VAC
Insulation resistance	I to O, I/O to PE, 500VDC, 25°C, 70%RH	100		MΩ

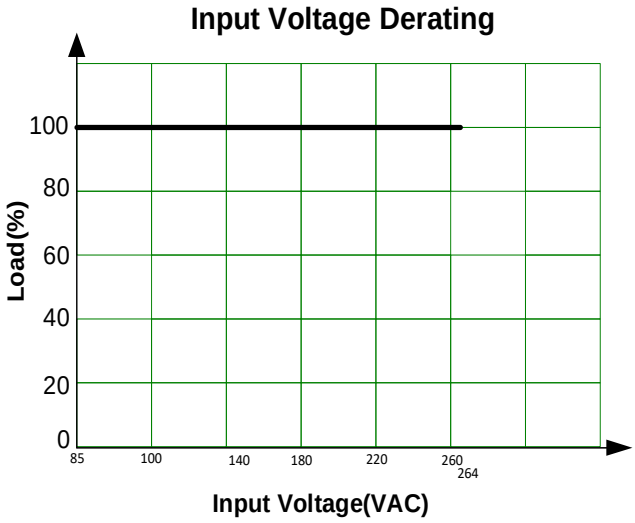
General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Overload protection	Hiccup mode, auto recovery	105	150	% of Iout
Over voltage protection	Shut down o/p voltage, manual recovery	105	130	% of Vout
Short circuit protection	Hiccup, Continuous, auto-recovery			
Operating temperature	20% ~ 95% RH Non-Condensing	-20 to +60		°C
Storage temperature	10 ~ 95% RH	-40 to +85		°C
Power derating	+40 °C to +60°C	2.5		% / °C
Storage Humidity	Non-condensing		10~95	% RH
Weight		187		g
Dimensions (L x W x H)	3.06 x 1.72 x 1.63 inches (77.50 x 43.50 x 41.50 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		
Standards	Designed to meet ANSI/AAMI ES60601-1/EN60601-1	
	EMC - Conducted and radiated emission	BS EN/EN55014-1:2021 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, CNS13438, Class B
	EMC - Immunity	EN/EN 61000-4-2,3,4,5,6,8,11

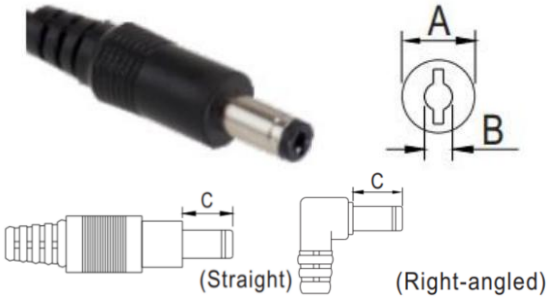
Derating





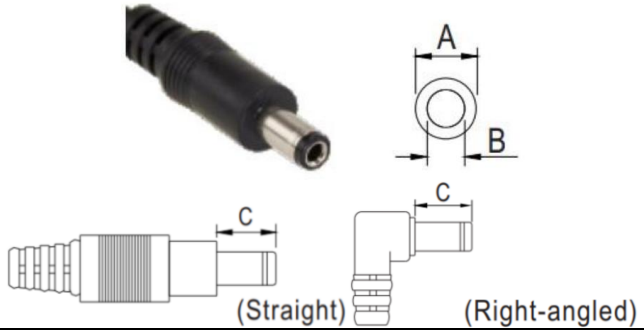
DC output plug

Tuning Fork Style (Straight or Right-angled)



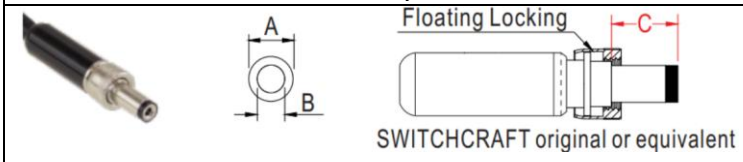
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
R4	5.5	2.1	9.5
R5	5.5	2.5	9.5
R6	5.5	2.1	11.0
R7	5.5	2.5	11.0

Barrel Style (Straight or Right-angled)



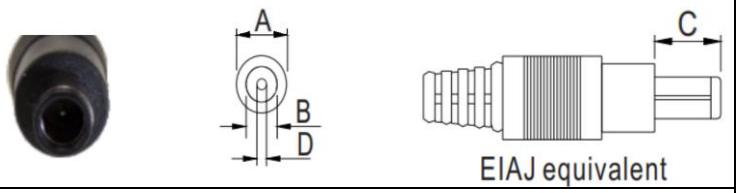
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
B4	5.5	2.1	9.5
B5	5.5	2.5	9.5
B6	5.5	2.1	11.0
B7	5.5	2.5	11.0

Lock Style



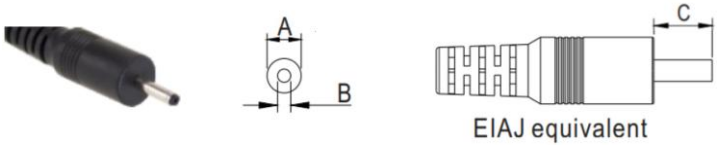
Type Number and Dimensions (mm)			
Code No.	A Outer Diameter	B Inner Diameter	C Length
K3	5.53	2.03	12.06
K4	5.53	2.54	12.06
K5	5.53	2.03	9.52
K6	5.53	2.54	9.52

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

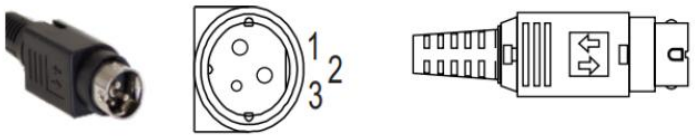
Min. Pin Style



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

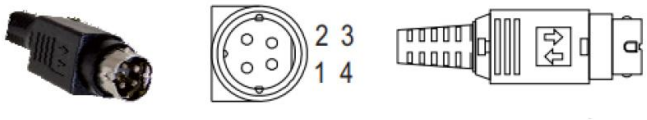
Optional Connector

3 Pin with Lock (male)



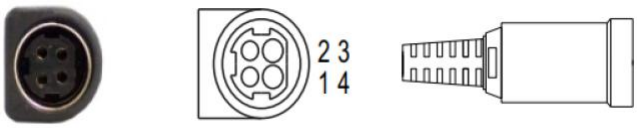
Pin Out Configurations	
Pin No.	Description
1	+Vout
2	-Vout
3	+Vout

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

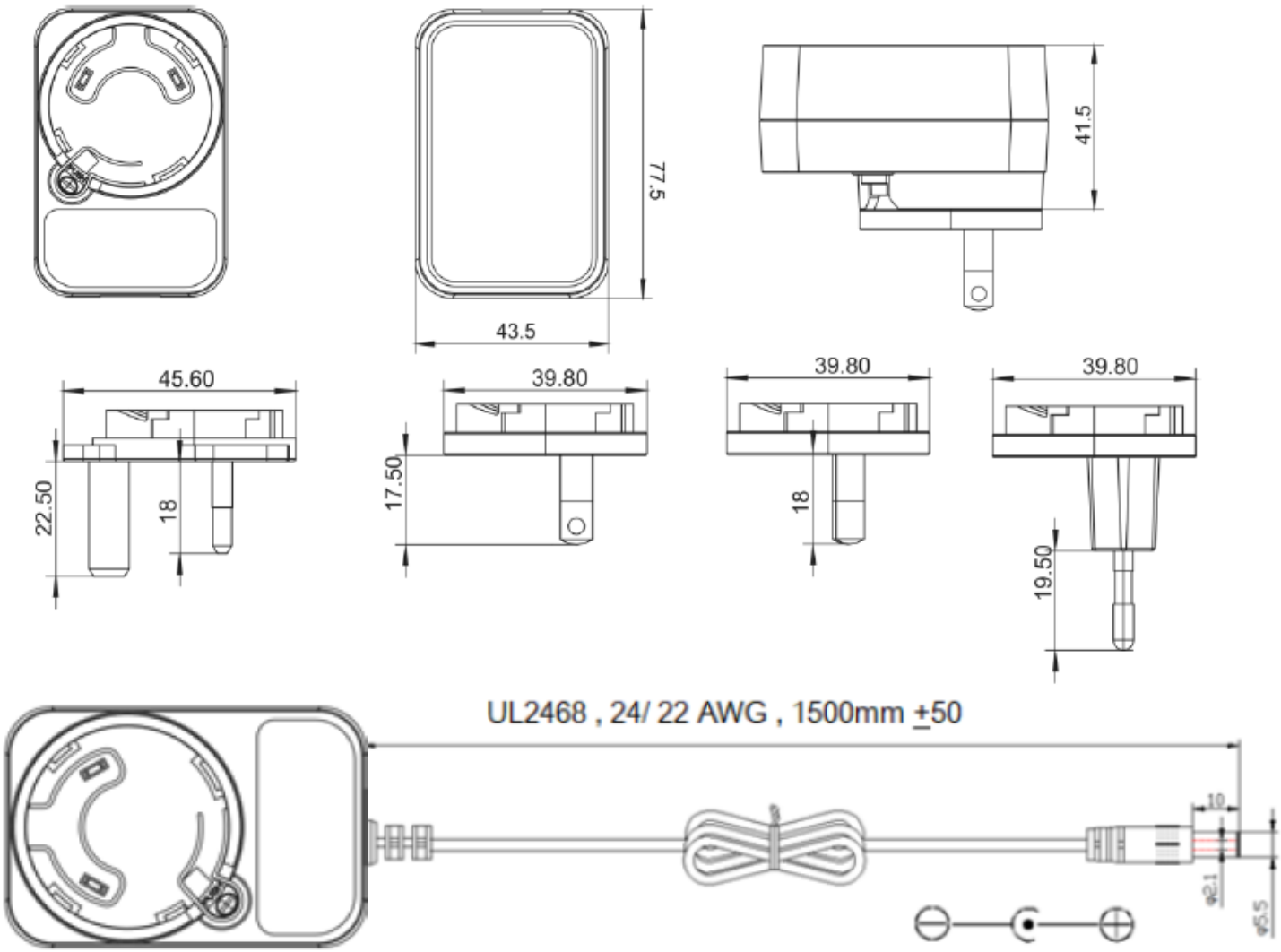
5 Pin (male)

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



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