AMF36 series

36W EXTERNAL WALL PLUG

AC-DC power supplies

The AMF36 series of wall plug adaptors comply with medical and home-healthcare and ITE approvals along with the latest energy efficiency level VI standards with high active mode efficiency and extremely low no load power consumption.

Available with a range of interchangeable AC connectors these adaptors suit a wide variety of cost sensitive medical applications while maintaining industry leading performance.

Features

- IP22 ingress protection
- IEC/EN60601-1-11 for home healthcare applications
- Energy efficiency level VI & EU2019/1782
- Medical, home healthcare and ITE approvals
- Interchangeable mains connectors
- Input voltages range 80 to 264VAC
- Output voltages from 5V to 48VDC
- Optional white version
- Class II construction
- 3 year warranty

Applications

Healthcare

Home Healthcare

Medical Diagnostics

Technology

Dimensions

90.5 x 58.5 x 33.5mm (3.56” x 2.30” x 1.32”)

Models & ratings

Model number[1,2,5]	Output power	Output voltage	Output current	Total regulation[3]	Efficiency[4]
AMF36US05	25W	5.0VDC	5000mA	5%	85.0%
AMF36US09	36W	9.0VDC	4000mA		88.6%
AMF36US12		12.0VDC	3000mA		88.6%
AMF36US15		15.0VDC	2400mA		88.4%
AMF36US18		19.0VDC	2000mA		89.5%
AMF36US24		24.0VDC	1500mA		88.8%
AMF36US30		30.0VDC	1200mA		89.3%
AMF36US36		36.0VDC	1000mA		89.1%
AMF36US48		48.0VDC	750mA		88.3%

Notes:

1. Model number is for body only. AC input plugs must be ordered separately, see AC input plug section.
2. Other output voltages available, contact sales for details.
3. Total regulation includes initial set accuracy, line and load regulation.
4. Typical average value measured at 25%, 50%, 75% and 100% at 230VAC.
5. For white case version add suffix ‘-W’ e.g. AMF36US12-W. MOQ applies, contact sales for details.

AMF36 series

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage	80		264	VAC	
Input frequency	47		63	Hz	
Input current			1	A	Measured at 80VAC
Inrush current			70	A	240VAC cold start, +25°C
Power factor	EN61000-3-2, class A				
No load input power			75	mW	
Input protection	Internal fuse in line				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	5		48	VDC	See models and ratings table
Minimum load	No minimum load required				
Start up delay			4	s	
Start up rise time			60	ms	
Hold up time	10			ms	Full load and 100VAC
Total regulation			5	%	See models and ratings table
Transient response			4	% deviation	Recovery within <1% within 500μs for a 60% step load change at 0.15A/μs
Ripple and noise			150	mV pk-pk	Measured with 20MHz bandwidth and 10μF electrolytic in parallel with 0.1μF ceramic capacitor
Overvoltage protection	110		200	%	Auto recovery
Over load protection	120		205	%	
Leakage Current			50	μA	At 264VAC, 60Hz, from output to ground
Temperature coefficient			0.05	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency		88		%	Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 230VAC input
Energy efficiency	Level VI				
Isolation	4000			VAC	Input to Output, 2 x MOPP Suitable for BF applications
Switching frequency	24		70	kHz	Variable
Mean time between failure	200			khrs	MIL-HDBK-217F at +25°C GB
Weight		210 (0.46)		g (lb)	Body only

AMF36 series

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	0		+60	°C	Derate from 100% load at +45°C to 50% load at +60°C, agency approval to +45°C max.
Storage temperature	-20		+85	°C	
Operating humidity			90	%RH	Non-condensing
Operating altitude			5000	m	
Vibration	10		300	Hz	2g, 0.3 decades/min, 15 mins for each 3 axes
Cooling	Natural convection				
Shock	1m drop onto concrete on each of 3 sides, non operating				

EMC: Emissions

Phenomenon	Standard	Test level	Notes & conditions
Emissions	EN55011	Level B	Conducted and radiated
Harmonic currents	EN61000-3-2	Class A	
Voltage flicker	EN61000-3-3		

EMC: Immunity

Phenomenon	Standard	Test level	Criteria	Notes & conditions
Medical device EMC	IEC60601-1-2	Ed.4.0 : 2014	as below	
ESD immunity	EN61000-4-2	±8kV contact, ±15kV air	A	
Radiated immunity	EN61000-4-3	10V/m	A	80 to 2700mHz, IEC60601-1-2 Ed. 4.0 at other frequencies
EFT/burst	EN61000-4-4	Level 3	A	
Surge	EN61000-4-5	Level 3	A	
Conducted immunity	EN61000-4-6	6V	A	
Magnetic fields	EN61000-4-8	30A/m	A	
Dips and interruptions	EN60601-1-2	Dip: 30% 25 AC Cycles	A/B	High line/low Line
		Int: 100% 0.5 AC Cycle	A	At 8 angles
		Int: 100% 1 AC Cycle	B	
		Int.: >95% 5000ms	B	

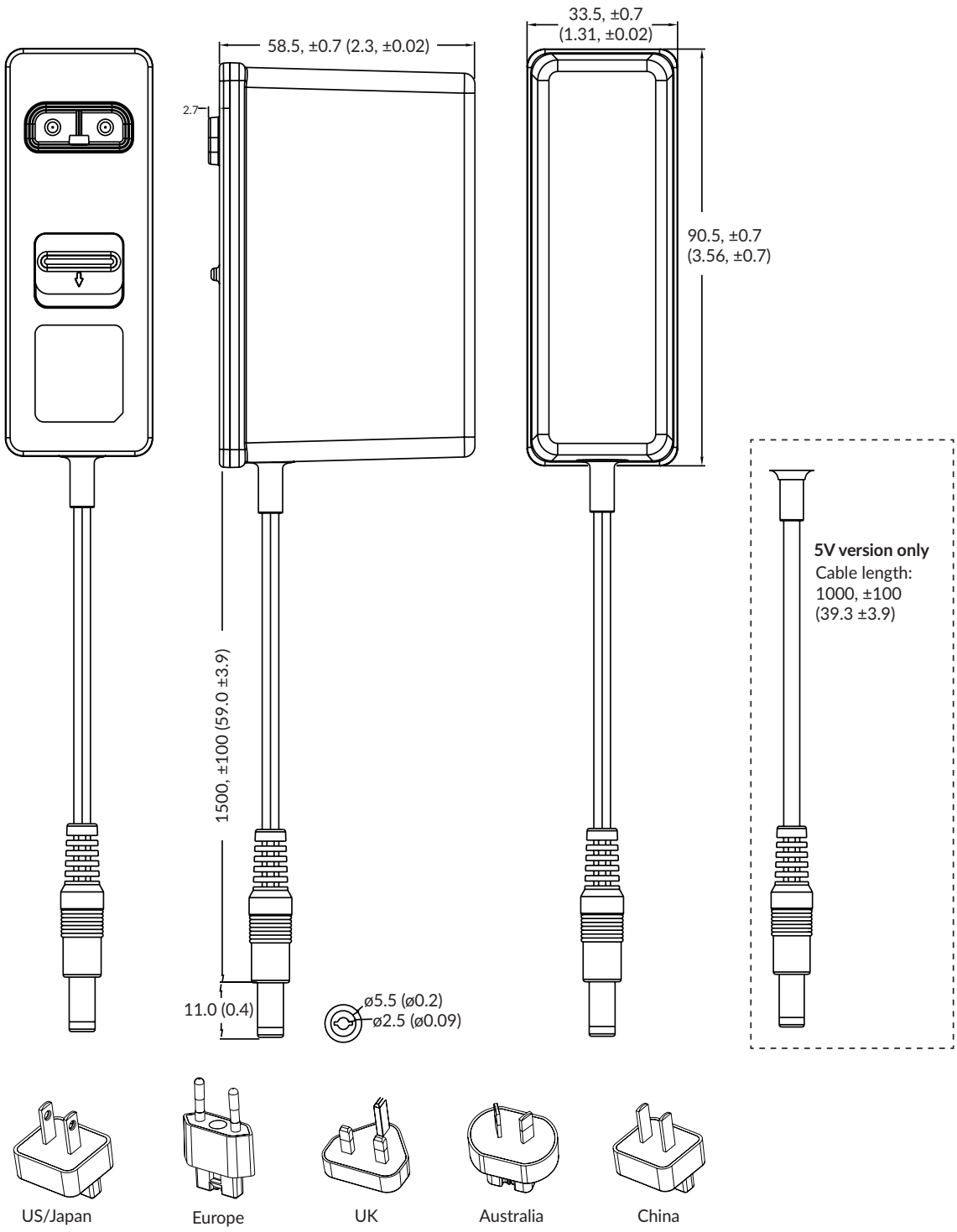
Safety approvals

Certification	Safety Standard	Notes & Conditions
UL	UL 62368-1	Information Technology
	ANSI/AAMI ES60601-1	Medical, 2 x MOPP
EN	EN62368-1	Information Technology
	EN60601-1, EN60601-1-11	Medical, 2 x MOPP
CB	IEC62368-1	Information Technology
	IEC60601-1, IEC60601-1-11	Medical, 2 x MOPP
CCC	China Compulsory Certification, GB4943, GB17625.1, GB4943.1, GB/T9254	Information Technology
CSA	CAN/CSA C22.2 No. 62368-1-14	Information Technology
	CSA C22.2 No. 60601	Medical, 2 x MOPP
AU/NZ	AS/NZS 62368.1	Information Technology
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

AMF36 series

Mechanical details

AMF36USXX



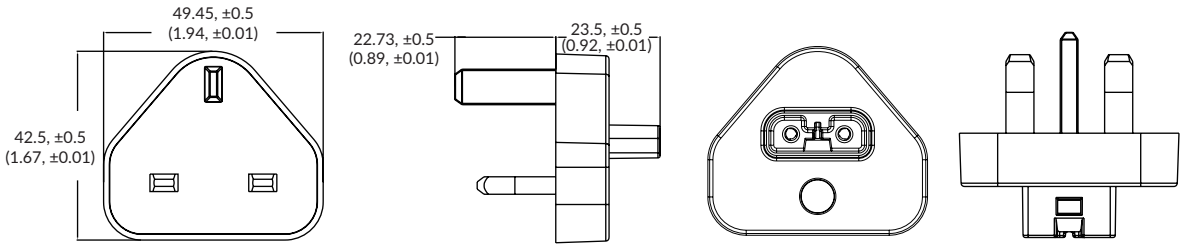
Notes:

1. All dimensions shown in mm (inches). Tolerance: ±0.7 (±0.02)
2. Weight: 210g (0.46lb) approx.
3. Output plug barrel jack connector, ø5.5 x ø2.5 x 11.0mm, centre positive.
4. Output lead: UL1185, 16AWG, 1000mm for 5V version, UL2468, 18AWG, 1500mm for 9V to 48V versions.

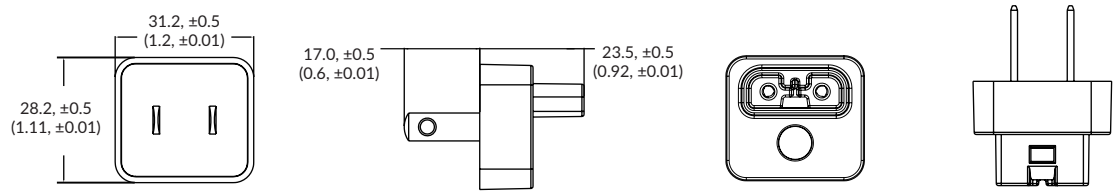
Mechanical details

AC Input Plugs

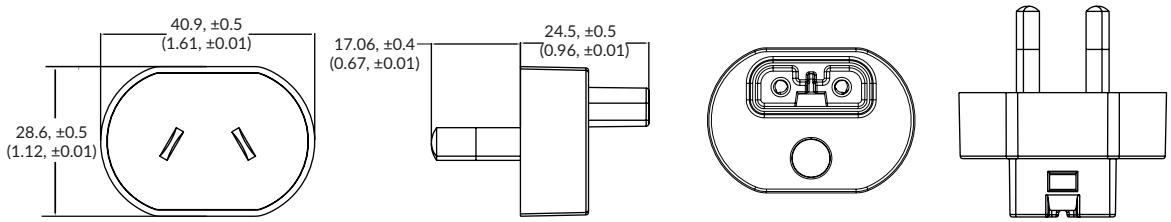
Black UK Plug: AMF PLUG UK
White UK Plug: AMF PLUG UK W



Black USA Plug: AMF PLUG US
White USA Plug: AMF PLUG US W



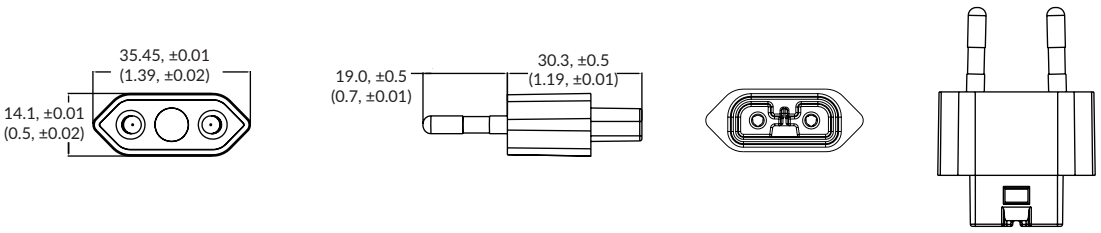
Black Australian Plug: AMF PLUG AU
White Australian Plug: AMF PLUG AU W



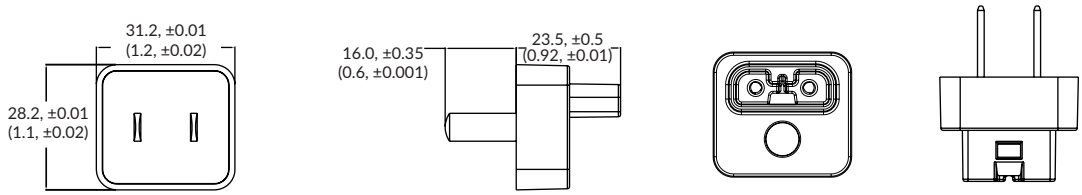
Mechanical details

AC Input Plugs

Black European Plug: AMF PLUG EU
White European Plug: AMF PLUG EU W



Black China Plug: AMF PLUG CN
White China Plug: AMF PLUG CN W



Specifications subject to change without notice.