63W Medical Power Adapters for Health Care Applications

AHP6301 series



- Wide 80-275VAC Input
- Medical Safety IEC60601-1 3rd Edition; 2MOPP
- Choice of IEC320-C14, C8 or C6 Input Receptacles
- Single Outputs from 12 to 48 VDC
- Efficiency Level V
- Class I or Class II

Model Number	Output Watts	Output Voltage	Output Amps	Efficiency	Total Regulation
*AHP6301(A,B,C)-05	63	12VDC	5.25	84%	±5%
*AHP6301(A,B,C)-06	63	15VDC	4.20	85%	±5%
*AHP6301(A,B,C)-07	63	18VDC	3.50	85%	±5%
*AHP6301(A,B,C)-08	63	24VDC	2.62	85%	±3%
*AHP6301(A,B,C)-09	63	30VDC	2.10	86%	±3%
*AHP6301(A,B,C)-10	63	36VDC	1.75	86%	±3%
*AHP6301(A,B,C)-11	63	48VDC	1.31	86%	±3%

* Note:

The Asterisk * denotes a choice of receiving this product with an IEC-320-C14 3 Pole Input Receptacle (A) or with an IEC-320-C8 2 Pole Input Receptacle (B) or with an IEC-320-C6 3 Pole Input Receptacle (C). See the Mechanical files at the end of this specification for clarity. Simply add the letter “A”, “B” or “C” after “AHP6301 in the model number (i.e. “AHP6301A-05” for C14 or “AHP6301B-05” for C8 or “AHP6301C-05” for C6) when ordering to receive the desired version.

Astrodyne TDI
Now you have power.

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INPUT SPECIFICATIONS

Input Voltage Range	80-275 VAC (100-240 Nominal)	
Frequency Range	47-63 Hz	
Input Current	Low Line (100VAC)	1.62A max.
	High Line (240VAC)	0.72A max.
Inrush Current, typ (Cold Start)	Low Line (100VAC)	37A max.
	High Line (240VAC)	74A max.
Leakage Current (240 Vin)	0.1mA	
No Load Power Consumption	0.5 Watts	

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Charts	
Output Power Range	0 to FL Rating	
Load Regulation	±5%, max. 60%L, changing ±10%	
Line Regulation (FL)	±1%, max. changing line ±10%	
Over Load Protection*	110-150%, Auto-Recovery	
Over Voltage Protection*	112-132%	
Short Circuit Protection	Auto Recovery	
Transient Response	110Vin, FL	4mS
Temperature Coefficient	±0.04%/°C, typ	
Ripple/Noise (Note 1)	100mV Pk-Pk max.	
Hold Up Time (Note 2)	100~240Vin, FL	12mS min.
Start Up Time	100~240Vin, FL	0.3S typ., 2S max.

GENERAL SPECIFICATIONS

Input-Out Isolation	4000 VAC, Limit Current <10mA
Input-GND	2800 VDC
Isolation Resistance	50MΩ
Efficiency	(FL, 230Vin) See Selection Chart
Safety	ANSI/AAMI ES 60601-1:2005
	(UL/cUL 3rd Edition),
	EN 60601-1:2006
	(TUV/T-mark 3rd Edition)
Protection Class	AHP6301A, 6301C: Class I
	AHP6301B: Double Insulated
	Class II

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

PHYSICAL SPECIFICATIONS

Size	5.17" x 2.18" x 1.46"
	(131 x 55.4 x 37mm)
Construction	Desktop Style
Weight	13.4oz (380g)
Flammability Rating	UL94V-1

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10 to +40°C (FL) *
	50% Load @ 70°C
	(See Derate Curve Last Page)
Cooling	Free Air Convection
Storage Temperature	-40 to +85°C, 10~95% RH *
Operating Humidity	0% to 95%, non-cond *
EMC	Compliance to EN55011 (CISPR11),
	EN61000-3-2, -3 Class B
MTBF (MIL-HDBK-217F)	100,000 Hrs
Surge Voltage	2kV
ESD - Air	IEC61000-4-2, 8kV
ESD - Contact	IEC61000-4-2, 6kV
Operating Altitude (Elevation)	3000M
Vibration	5G, 10 ~ 500Hz, 10min./1cycle,
	60min. each along X, Y, Z axes
Drop Test	120cm, 1 ea. on six sides

NOTES

1. Ripple & noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
2. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.

* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranteed nor implied.

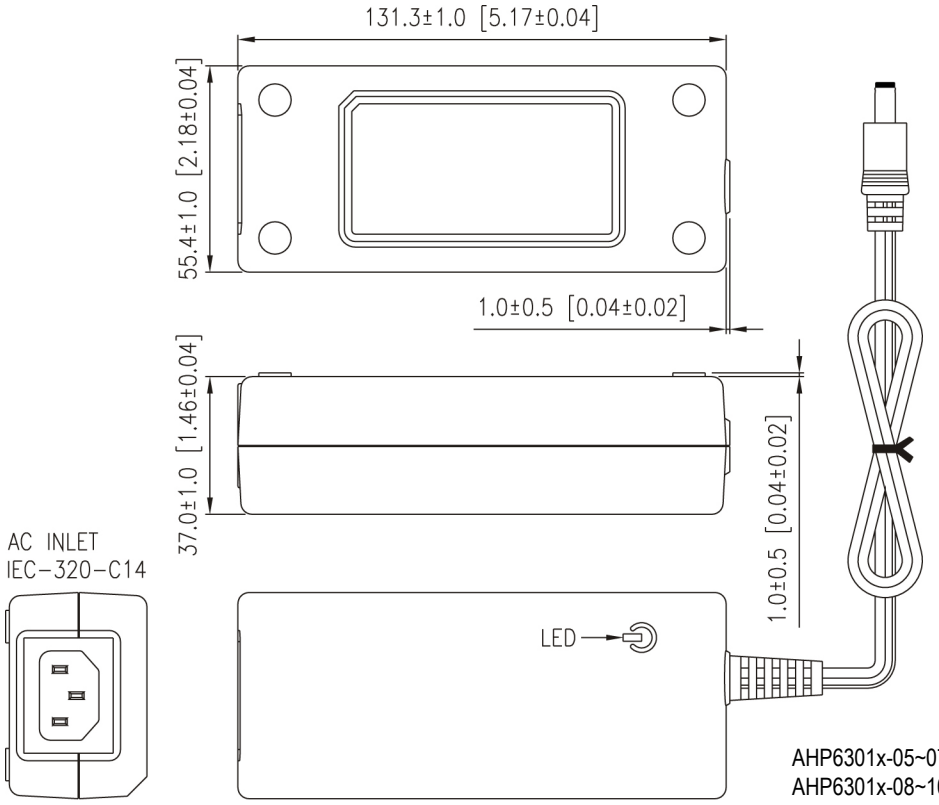
MECHANICAL DIMENSIONS - AHP6301A

Dimensions are In mm [inches].

DC OUTPUT CONNECTIONS

Coaxial Plug: -Vout +Vout

5.5mm outer diameter
2.1mm inner diameter, female
11mm length, center "+"



AHP6301x-05~07 Output Cord Length 48", 16AWG
AHP6301x-08~10 Output Cord Length 72", 18AWG
Modifying the output cable will effect Regulation and Efficiency

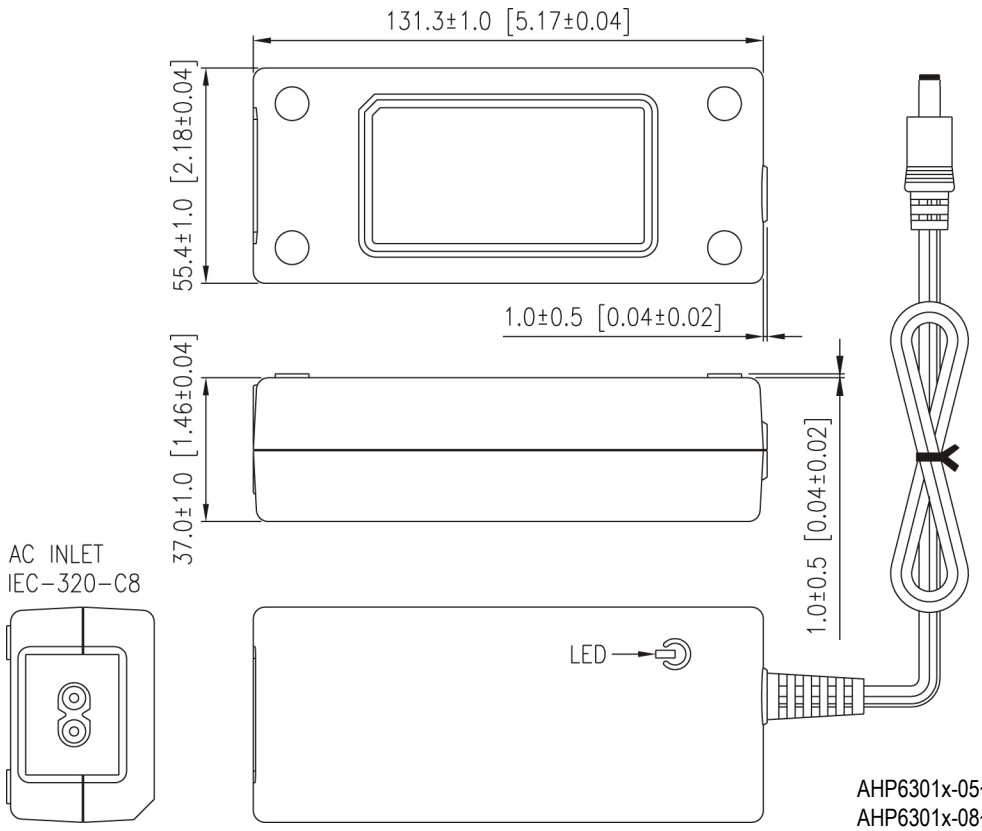
MECHANICAL DIMENSIONS - AHP6301B

Dimensions are In mm [inches].

DC OUTPUT CONNECTIONS

Coaxial Plug: -Vout +Vout

5.5mm outer diameter
2.1mm inner diameter, female
11mm length, center "+"



AHP6301x-05~07 Output Cord Length 48", 16AWG
AHP6301x-08~10 Output Cord Length 72", 18AWG
Modifying the output cable will effect Regulation and Efficiency

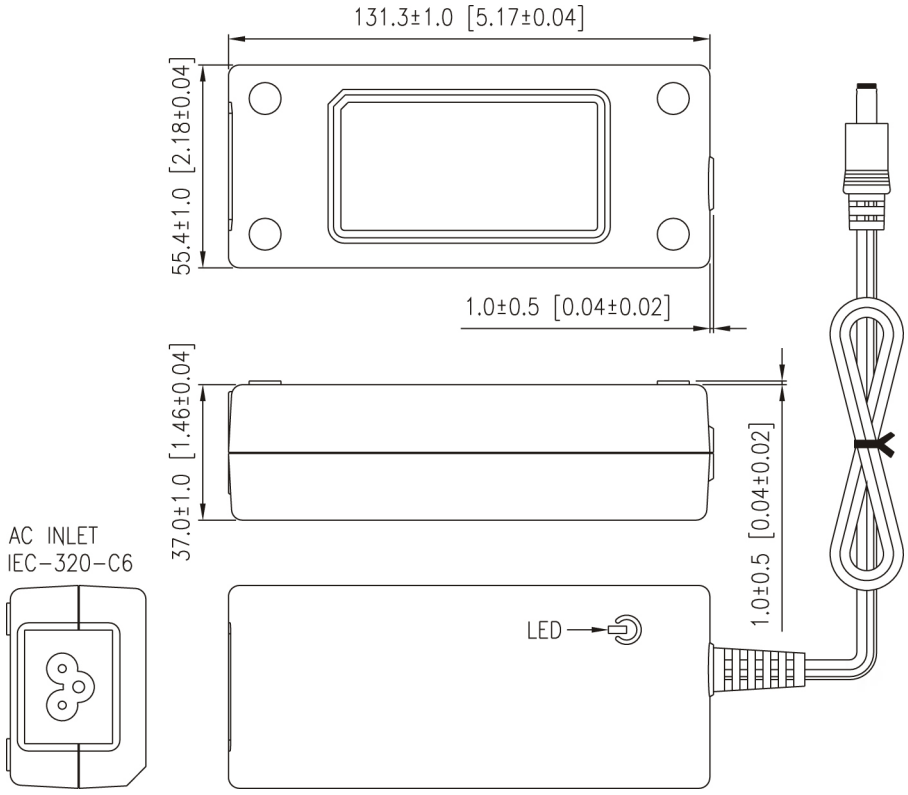
MECHANICAL DIMENSIONS - AHP6301C

Dimensions are In mm [inches].

DC OUTPUT CONNECTIONS

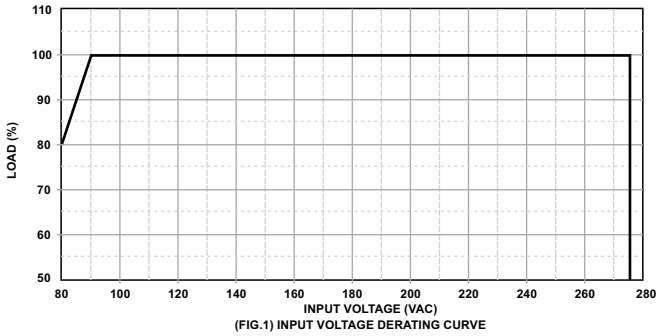
Coaxial Plug: -Vout +Vout

5.5mm outer diameter
2.1mm inner diameter, female
11mm length, center "+"

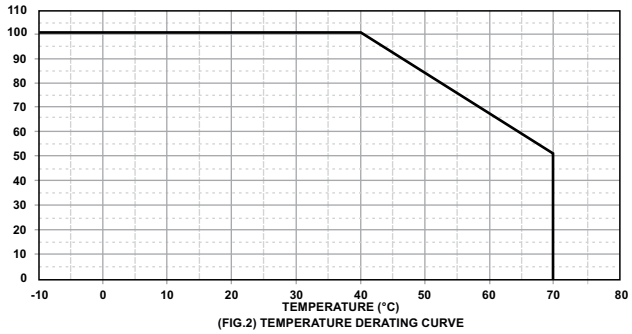


AHP6301x-05~07 Output Cord Length 48", 16AWG
AHP6301x-08~10 Output Cord Length 72", 18AWG
Modifying the output cable will effect Regulation and Efficiency

DERATE CURVES



(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE