



- ✓ Safety: Medical IEC 60601 3<sup>rd</sup> Ed, Amend 1
- ✓ EMC: Medical IEC 60601-1-2, 4<sup>th</sup> Ed
- ✓ BF Leakage, 2 MOPP
- ✓ IEC AC Inlet Options Available for Class I and Class II Operation
- ✓ Universal 90-264 VAC Input, 50/60 Hz
- ✓ DoE Efficiency Level VI, RoHS



**PRODUCT DESCRIPTION**

The Astrodyne TDI EDP65 is a series of external desktop power supplies designed for industrial and medical applications. These products operate over the input voltage range of 90 to 264 VAC at 50-60Hz frequency and produce up to 65 Watts of regulated DC output power. They are compliant with the latest DoE Level VI efficiency; IEC 60601-1-1, 3<sup>rd</sup> Edition, Amendment 1 safety; and IEC 60601-1-2, 4<sup>th</sup> Edition, Class B EMC standards.

**PRODUCT MODELS**

Model	Output Power	Output Voltage	Output Current	Load Regulation
<b>Class I Models</b> (with IEC C14 AC Inlet and 2.5mm Straight Coax DC Plug)				
EDP65-12-MB1-100	65W	12VDC	5.4A	±5%
EDP65-15-MB1-100	65W	15VDC	4.3A	±5%
EDP65-18-MB1-100	65W	18VDC	3.6A	±5%
EDP65-19-MB1-100	65W	19 VDC	3.4A	±5%
EDP65-24-MB1-100	65W	24VDC	2.7A	±5%
EDP65-30-MB1-100	65W	30VDC	2.1A	±3%
EDP65-36-MB1-100	65W	36VDC	1.8A	±3%
EDP65-48-MB1-100	65W	48VDC	1.3A	±3%
EDP65-54-MB1-100	65W	54VDC	1.2A	±3%

Model	Output Power	Output Voltage	Output Current	Load Regulation
<b>Class II Models</b> (with IEC C18 AC Inlet and 2.5mm Straight Coax DC Plug)				
EDP65-12-MB2-100	65W	12VDC	5.4A	±5%
EDP65-15-MB2-100	65W	15VDC	4.3A	±5%
EDP65-18-MB2-100	65W	18VDC	3.6A	±5%
EDP65-19-MB2-100	65W	19 VDC	3.4A	±5%
EDP65-24-MB2-100	65W	24VDC	2.7A	±5%
EDP65-30-MB2-100	65W	30VDC	2.1A	±3%
EDP65-36-MB2-100	65W	36VDC	1.8A	±3%
EDP65-48-MB2-100	65W	48VDC	1.3A	±3%
EDP65-54-MB2-100	65W	54VDC	1.2A	±3%

## INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Input Frequency	47-63 Hz (50/60 Hz Nom.)
Input Current	1.62A max at 100VAC 0.72A max at 240VAC
Earth Leakage Current	100uA max at 240VAC

## MAIN OUTPUT SPECIFICATIONS

Output Voltage	See Selection Chart
Output Power	65W
No Load Power	210mW max
Load Regulation	±5% max
Line Regulation	±1% max
Over Load Protection*	110-150%, Auto Recovery
Efficiency	89% typ
Over Voltage*	112-132%
Short Circuit	Auto Recovery
Transient Response	110Vin, FL 4 ms
Temperature Coeff.	±0.04%/°C
Ripple/Noise	100mV Pk-Pk max (< 48V) 150mV Pk-Pk max (>= 48V)

## ISOLATION SPECIFICATIONS

Input to Output	4000VAC
Input to GND (Class I)	1500VAC
Isolation Resistance	50MΩ

## MECHANICAL SPECIFICATIONS

Size **	5.34" x 2.59" x 1.46" 135.6 x 65.8 x 37.1 mm
Weight	12.75oz / 361g
Case Type	Desktop

\*\* Case size only

All Specifications are typical at nominal input, full load, 25°C unless specified otherwise.

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

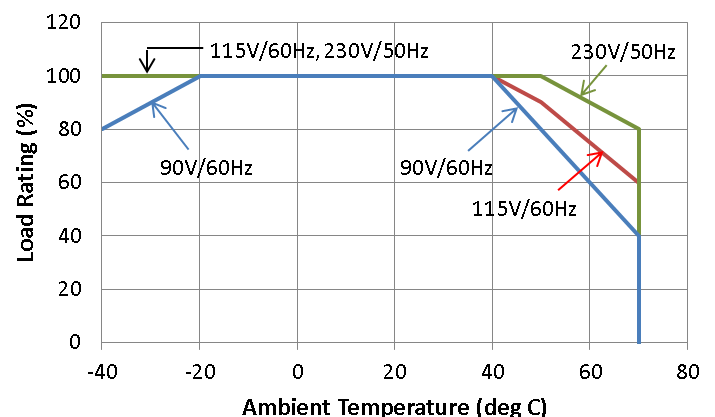
## SAFETY AND COMPLIANCE CERTIFICATIONS

Safety Approvals	IEC 60601-1 3 <sup>rd</sup> Ed, Amend 1: UL/cUL, UL-EU, CB/CE, CSA C22.2
EMC Overall	EN60601-1-2, 4 <sup>th</sup> Ed, Class B
Conducted and Radiated Emissions	EN 55011 (CISPR11), Class B; FCC Part 15, Class B; ICES-003 Issue 6, Class B
Harmonic Current	EN 61000-3-2, Class B
Voltage Fluctuations	EN 61000-3-3
ESD Immunity	EN 61000-4-2, Level 4
RF Field Immunity	EN 61000-4-3, Level 2
EFT Burst Immunity	EN 61000-4-4, Level 3
Surge Immunity	EN 61000-4-5, Level 2
Conducted Immunity	EN 61000-4-6, Level 2
Magnet Field Immunity	EN 61000-4-8, Level 4
Voltage Dips and Interruptions	EN 61000-4-11
Case Flammability Rating	UL 94 V-1

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 to +40°C at Full Load, -40 to +70°C at Reduced Load See derating chart
Cooling	Free Air Convection
Storage Temperature*	-40 to +85°C
Operating Humidity*	0% to 95%, non-condensing
Operating Altitude	3000m
Vibration	5G, 10 ~500Hz, 10min./1 cycle
Drop Test	120cm, 1 ea. on six sides

## TEMPERATURE DERATING

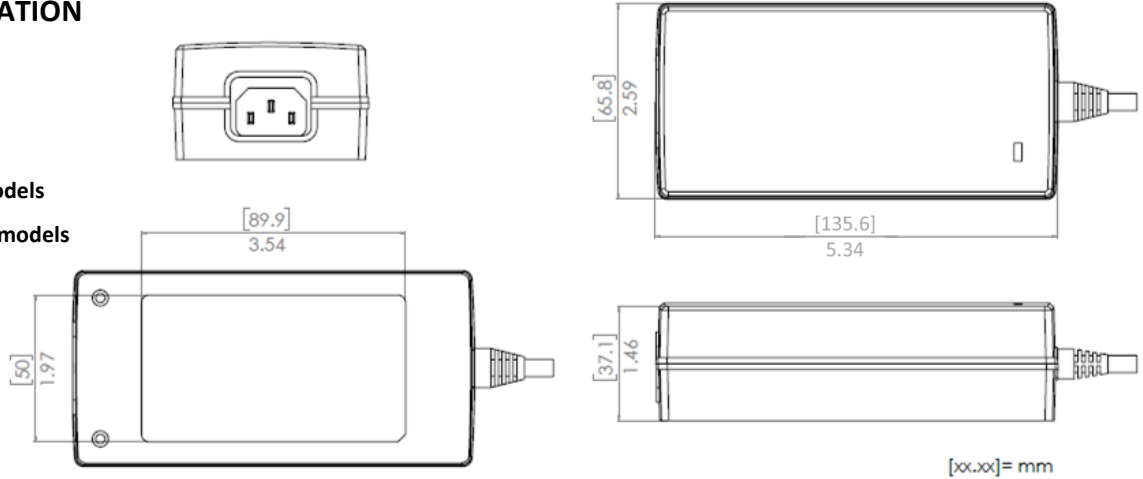


**MECHANICAL INFORMATION**

DC Cord Length, as measured from the enclosure to the tip of the DC connector:

32 ± 1 in. for 12V and 15V models

48 ± 1 in. for 18V and higher models



**AC INLET OPTIONS**

**DC OUTPUT CONNECTOR OPTIONS**

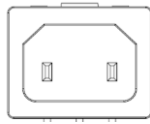
**Standard Options**

**IEC C14**



Three pin  
Grounded  
C13 plug mate

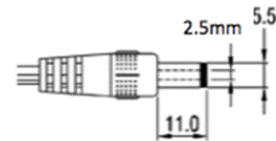
**IEC C18**



Two pin  
Ungrounded  
C17 plug mate

*AC Input Power Cords not included, available for sale separately.*

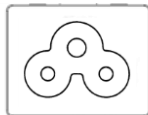
**2.5mm Straight Coax**



5.5mm outer diameter  
2.5mm inner diameter  
11mm length

**Additional Options**  
(contact Sales)

**IEC C6**



Three pin  
Grounded  
C5 plug mate

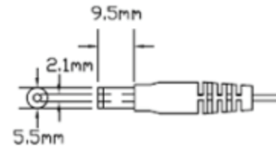
**IEC C8**



Two pin  
Ungrounded  
C7 plug mate

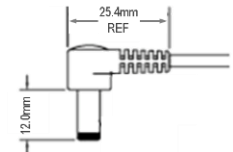
*AC Input Power Cords not included, available for sale separately.*

**2.1mm Straight Coax**



5.5mm outer diameter  
2.1mm inner diameter  
9.5mm length

**2.5mm Right Angle Coax**



5.5mm outer diameter  
2.5mm inner diameter  
12mm length

Additional DC Outlet Connector and cord options are available upon request.