

EDP65

65W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

The Astrodyne TDI EDP65 is a range of external desktop power supplies specifically designed to meet the power needs of industrial and medical applications. These power supplies can efficiently operate within an input voltage range of 90 to 264 VAC, with a frequency of 50-60Hz, and can deliver a maximum of 65 Watts of regulated DC output power. Additionally, they comply with the latest DoE Level VI efficiency, IEC 60601-1-1, 3rd Edition, Amendment 1 safety, and IEC 60601-1-2, 4th Edition, Class B EMC standards, ensuring reliable performance and safety.



HOW TO ORDER

EDP65-12-MB1-100

CONNECTOR: 100 = 2.5MM STRAIGHT COAX DC PLUG

IEC INLET: B1 = CLASS I C14 AC
B2 = CLASS II C18 AC

M: MEDICAL

VOLTAGE: 120 = 12VDC
150 = 15VDC
180 = 18VDC
190 = 19VDC
240 = 24VDC
300 = 30VDC
360 = 36VDC
480 = 48VDC
540 = 54VDC

OUTPUT POWER: 65W

FAMILY: EDP SERIES

FEATURES & BENEFITS

UNIVERSAL AC INPUT

90-264VAC, 47/63Hz

PROTECTIONS

Over Voltage Protection: 112-132%
Overload Protection: 110-150%, Auto Recovery
Short Circuit Protection: Auto Recovery

SAFETY APPROVALS

IEC 60601-1 3rd Edition, Amend 1:
UL/cUL, UL-EU, CB/CE, CSA C22.2
EN60601-1-2, 4th Ed, Class B
EN 55011 (CISPR11), Class B;
FCC Part 15, Class B;
ICES-003 Issue 6, Class B

EMI/EMC

EN60601-1-2, 4th Edition, Class B

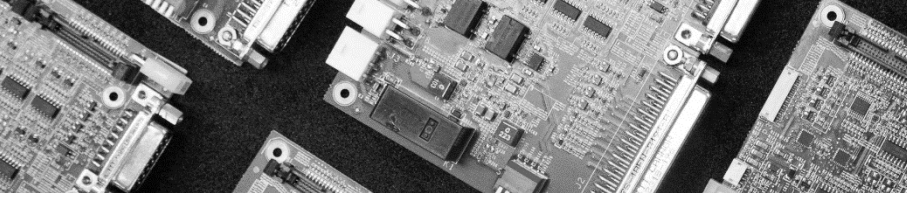
High Efficiency: 89% typ

4000VAC Isolation

Size: 5.34"x2.59"x1.46"

135.6x65.8x37.1mm

Weight: 12.34oz/350g



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PARAMETERS

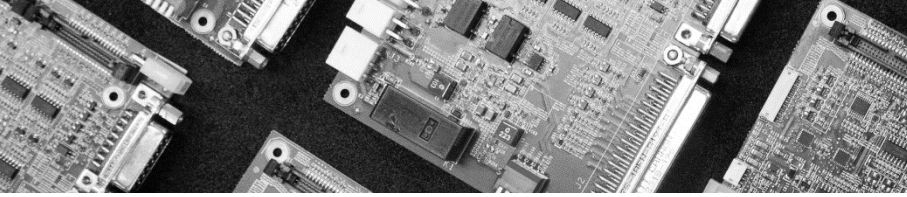
EDP65 SERIES

INPUT SPECIFICATIONS	
Input Voltage Range	90-264 VAC
Frequency Range	47-63 (50/60 Hz Nom.)
Input Current, Typ:	1.62A max at 100VAC 0.72A max at 240VAC
Earth Leakage	100uA max at 240VAC
MAIN OUTPUT SPECIFICATIONS	
Output Voltage	See Selection Chart
Output Power	65W
Load Regulation	±5% Max
Line Regulation	±1% Max
Overload 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 1)	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	12.34oz / 350g
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.

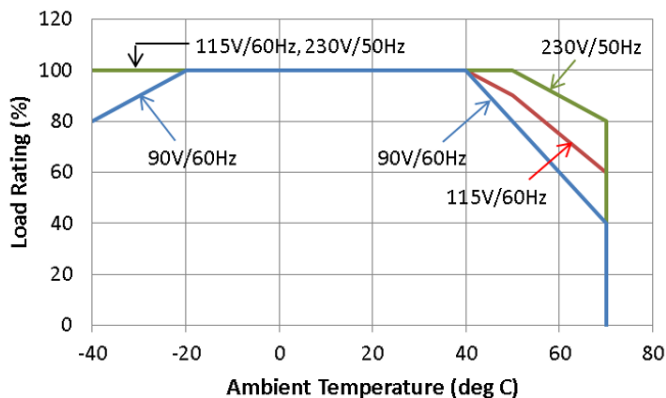


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SAFETY AND COMPLIANCE CERTIFICATIONS	
Safety Approvals	IEC 60601-1 3rd Ed, Amend 1: UL/cUL, UL-EU, CB/CE, CSA C22.2
EMC Overall	EN60601-1-2, 4th Ed, Class B
Conducted and Radiated Emissions	EN 55011 (CISPR11), Class B; FCC Part 15, Class B; ICES-003 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



EDP65

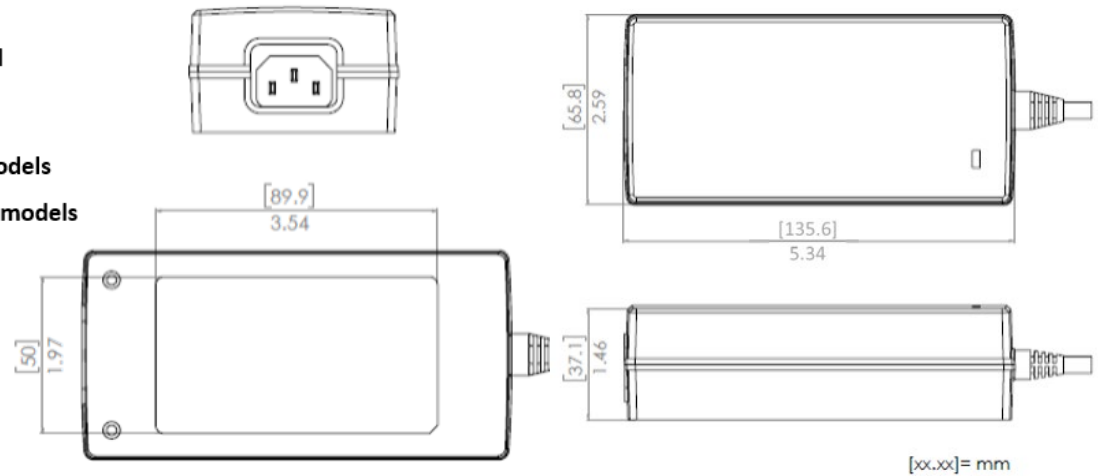
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MECHANICAL DIMENSIONS

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

Standard Options

IEC C14



Three pin
Grounded
C13 plug mate

IEC C18

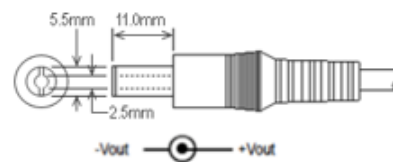


Two pin
Ungrounded
C17 plug mate

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

DC OUTPUT CONNECTOR OPTIONS

2.5mm Straight Plug



2.5mm inner diameter
5.5mm outer diameter
11mm length

Additional Options (contact Sales)

IEC C6



Three pin
Grounded
C5 plug mate

IEC C8

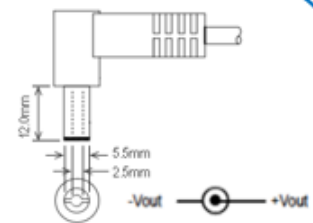


Two pin
Ungrounded
C7 plug mate

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

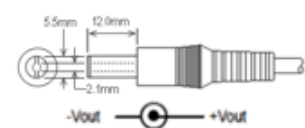
2.5mm Right Angle Plug

2.5mm inner diameter
5.5mm outer diameter
12mm length

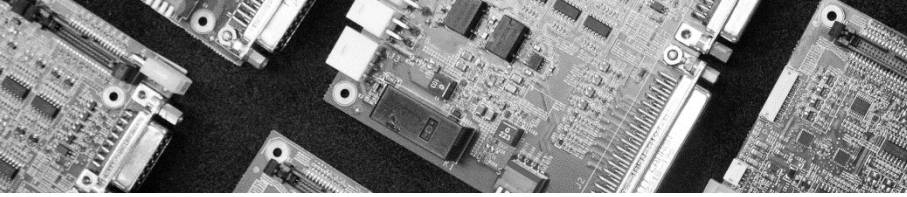


2.1mm Straight Plug

2.1mm inner diameter
5.5mm outer diameter
12mm length



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



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PRODUCT MODELS WITH MEDICAL CERTIFICATIONS

MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	LOAD REGULATION
Class I Models (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	29VDC	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
Class II Models (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	29VDC	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%