

EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

The AstrodyneTDI series of External Desktop Power Adapters are specifically designed for medical and industrial applications. These products boast an input voltage range of 80 to 264 VAC at a frequency of 50-60Hz and can deliver up to 125 Watts of regular DC output power. They are certified for safe use across a wide variety of medical applications, including those within the home. These adapters are compliant with the latest DoE Level VI efficiency, IEC 62368 and IEC 60950 I.T.E safety; IEC 60601-1-1, 3rd Edition, Amendment 1 medical safety; and IEC 60601-1-2, 4th Edition, Class B medical EMC standards.

HOW TO ORDER

EDP125-120-MB1-400

- CONNECTOR: 400 = 4-Pin Mini-DIN /0.8m DC Cord
100 = 2.5mm Straight Plug /0.8M DC Cord
110 = 2.5mm Straight Plug /1.2M DC Cord
- IEC INLET: B1 = CLASS I C14 AC
B2 =CLASS II C18 AC
- M: MEDICAL
BLANK: INDUSTRIAL
- VOLTAGE: 120 = 12VDC
150 = 15VDC
180 = 18VDC
190 = 19VDC
240 = 24VDC
280 = 28VDC
300 = 30VDC
360 = 36VDC
480 = 48VDC
540 = 54VDC
- OUTPUT POWER: 125W
- FAMILY: EDP SERIES



FEATURES & BENEFITS

UNIVERSAL AC INPUT

80-264VAC, 47/63Hz

PROTECTIONS

Over Voltage Protection: 112-132%
Overload Protection: 110-200%, Auto Recovery
Short Circuit Protection: Auto Recovery

SAFETY APPROVALS

IEC 62368 and IEC 60950 I.T.E. Safety
60601-1 3rd Edition Medical Safety
IEC 60601-1-2 4th Edition EMC
BF Leakage, 2 MOPP
EN55032 (CISPR32) Class B Emissions
IEC AC Inlet Options Available for Class I
Universal 80-264 VAC Input, 50/60 Hz
DoE Efficiency Level VI, RoHs

EMI/EMC

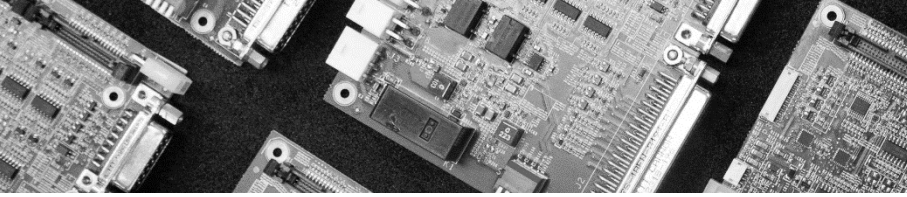
EN60601-1-2, 4th Ed, Class B

High Efficiency: 90% typ (DoE Level VI)

4000VAC Isolation

Size: 6"x2.48"x1.58"

Weight: 16.75oz/475g



EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

PARAMETERS

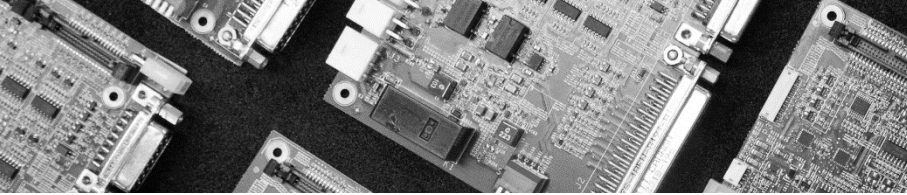
EDP125 SERIES

INPUT SPECIFICATIONS	
Input Voltage Range	80-264 VAC
Frequency Range	47-63 (50/60 Hz Nom.)
Inrush Current, Typ:	1.8A max at 100VAC 0.8A max at 240VAC
Input To Output Leakage	75uA typ at 264VAC (BF Rating)
Earth Leakage	300uA max at 240VAC
MAIN OUTPUT SPECIFICATIONS	
Output Voltage	See Selection Chart
Output Power	125W
Efficiency	90% typ (DoE Level VI)
No Load Power	210mW max (DoE Level VI)
Load Regulation	±3% max
Line Regulation	±1% max
Over Voltage*	112-132%
Overload Protection*	110-200%, Auto Recovery
Short Circuit*	Auto Recovery
Hold Up Time*	16ms min
Temperature Coeff.	±0.04%/°C typ
Ripple/Noise VOUT<18 V 18V≤ VOUT < 36V VOUT ≥ 36 V	1.5% Pk-Pk max 1.25% Pk-Pk max 1% Pk-Pk max
ISOLATION SPECIFICATIONS	
Input To Output	4000VAC
Input To Gnd (Class I)	1500VAC
Isolation Resistance	50MΩ
MECHANICAL SPECIFICATIONS	
Size **	6" x 2.48" x 1.58"
Weight	16.75oz / 475g
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 warrantied nor implied.



EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

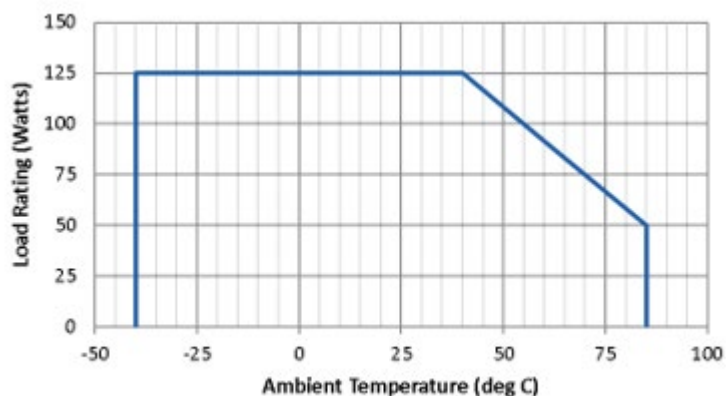
SAFETY AND COMPLIANCE CERTIFICATIONS

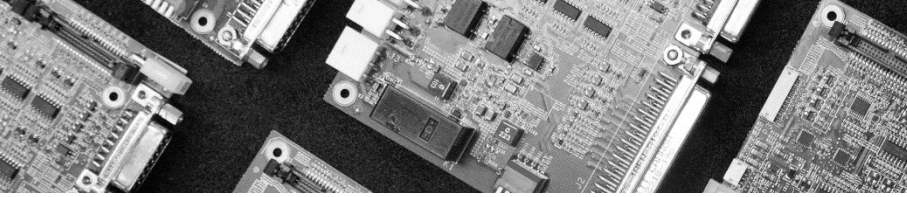
Safety Approvals	IEC 60601-1 3 rd Ed, Amend 1; IEC62368-1; IEC 60950-1; CSA C22.2; CB Scheme
EMC Overall	EN60601-1-2, 4 th Ed, Class B
Conducted And Radiated Emissions	EN 55032 (CISPR32), Class B; FCC Part 15, Class B
Harmonics Current	EN 61000-3-2, Class B
Voltage Fluctuation	EN 61000-3-3
ESD Immunity	EN 61000-4-2, Level 4
RF Field Immunity	EN 61000-4-3, Level 3
EFT Burst Immunity	EN 61000-4-4, Level 3
Surge Immunity	EN 61000-4-5, Level 3
Conducted Immunity	EN 61000-4-6, Level 3
Magnet Field Immunity	EN 61000-4-8, Level 4
Voltage Dips And Interruptions	EN 61000-4-11
Case Flammability Rating	UL 94 V-0

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 to +40°C at Full Load, up to +85°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	300m

TEMPERATURE DERATING





EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

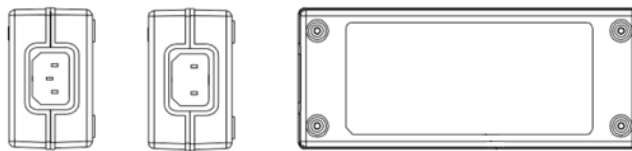
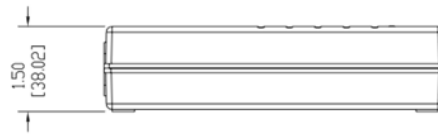
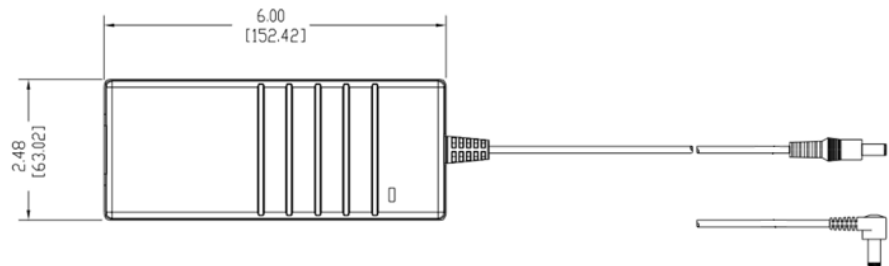
MECHANICAL DIMENSIONS

Case Outline
dimensions in inches [mm]

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

31.5 ± 1 in. for 12V and 15V models

48 ± 1 in. for 18V and higher models



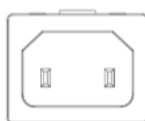
AC INLET OPTIONS

IEC C14



Three pin
Grounded
C13 plug mate

IEC C18



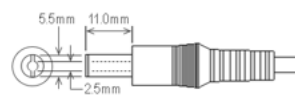
Two pin
Ungrounded
C17 plug mate

**Standard
Options**

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

DC OUTPUT CONNECTOR OPTIONS

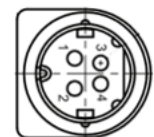
2.5mm Straight Plug (15V output and higher)



-Vout +Vout

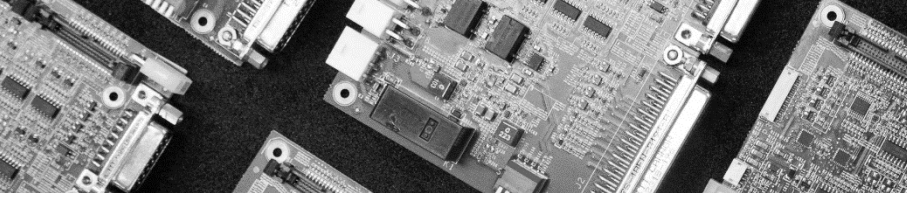
2.5mm inner diameter
5.5mm outer diameter
11mm length

4-Pin Mini DIN (below 15V output)



(Kycon KPPX-4P equiv.)

Pin 1: +Vout
Pin 2: -Vout
Pin 3: +Vout
Pin 4: -Vout
Shell: N/C



EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

MECHANICAL DIMENSIONS

AC INLET OPTIONS

**Additional
Options**
(contact Sales)

IEC C6



Three pin
Grounded
C5 plug mate

IEC C8



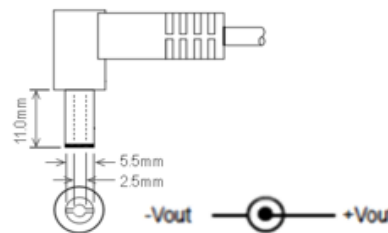
Two pin
Ungrounded
C7 plug mate

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

DC OUTPUT CONNECTOR OPTIONS

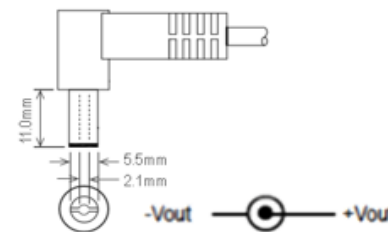
2.5mm Right Angle Plug

2.5mm inner diameter
5.5mm outer diameter
11mm length



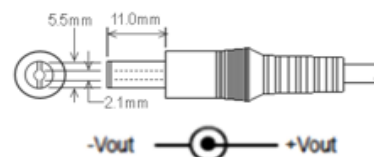
2.1mm Right Angle Plug

2.1mm inner diameter
5.5mm outer diameter
11mm length

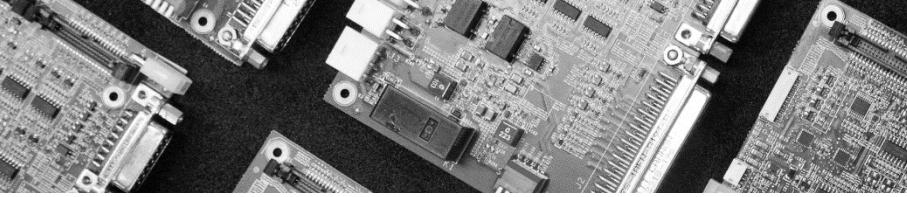


2.1mm Straight Plug

2.1mm inner diameter
5.5mm outer diameter
11mm length



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



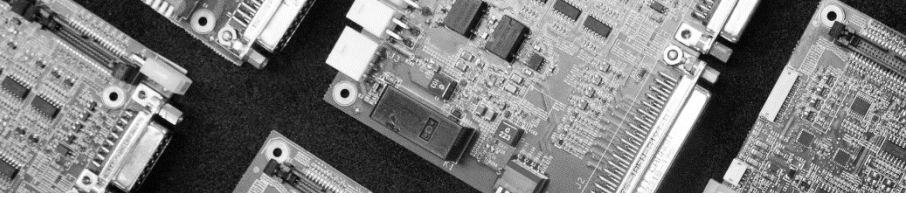
EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

PRODUCT MODELS WITH MEDICAL CERTIFICATIONS

MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	LOAD REGULATION	OUTPUT CONNECTOR	DC CORD LENGTH
Class I Models (with IEC C14 AC Inlet)						
EDP125-120-MB1-400	125W	12VDC	10.4A	±3%	4-Pin Mini DIN	0.8m
EDP125-150-MB1-100	125W	15VDC	8.3A	±3%	2.5mm Straight Plug	0.8m
EDP125-180-MB1-110	125W	18VDC	6.9A	±3%	2.5mm Straight Plug	1.2m
EDP125-190-MB1-110	125W	19VDC	6.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-240-MB1-110	125W	24VDC	5.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-280-MB1-110	125W	28VDC	4.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-300-MB1-110	125W	30VDC	4.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-360-MB1-110	125W	36VDC	3.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-480-MB1-110	125W	48VDC	2.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-540-MB1-110	125W	54VDC	2.3A	±3%	2.5mm Straight Plug	1.2m

MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	LOAD REGULATION	OUTPUT CONNECTOR	DC CORD LENGTH
Class II Models (with IEC C18 AC Inlet)						
EDP125-120-MB2-400	125W	12VDC	10.4A	±3%	4-Pin Mini DIN	0.8m
EDP125-150-MB2-100	125W	15VDC	8.3A	±3%	2.5mm Straight Plug	0.8m
EDP125-180-MB2-110	125W	18VDC	6.9A	±3%	2.5mm Straight Plug	1.2m
EDP125-190-MB2-110	125W	19VDC	6.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-240-MB2-110	125W	24VDC	5.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-280-MB2-110	125W	28VDC	4.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-300-MB2-110	125W	30VDC	4.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-360-MB2-110	125W	36VDC	3.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-480-MB2-110	125W	48VDC	2.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-540-MB2-110	125W	54VDC	2.3A	±3%	2.5mm Straight Plug	1.2m



EDP125

125W DESKTOP EXTERNAL POWER ADAPTER FOR MEDICAL AND INDUSTRIAL APPLICATIONS

PRODUCT MODELS WITH INDUSTRIAL CERTIFICATIONS

MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	LOAD REGULATION	OUTPUT CONNECTOR	DC CORD LENGTH
Class I Models (with IEC C14 AC Inlet)						
EDP125-120-B1-400	125W	12VDC	10.4A	±3%	4-Pin Mini DIN	0.8m
EDP125-150-B1-100	125W	15VDC	8.3A	±3%	2.5mm Straight Plug	0.8m
EDP125-180-B1-110	125W	18VDC	6.9A	±3%	2.5mm Straight Plug	1.2m
EDP125-190-B1-110	125W	19VDC	6.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-240-B1-110	125W	24VDC	5.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-280-B1-110	125W	28VDC	4.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-300-B1-110	125W	30VDC	4.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-360-B1-110	125W	36VDC	3.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-480-B1-110	125W	48VDC	2.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-540-B1-110	125W	54VDC	2.3A	±3%	2.5mm Straight Plug	1.2m

CLASS II MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT	LOAD REGULATION	OUTPUT CONNECTOR	DC CORD LENGTH
Class II Models (with IEC C18 AC Inlet)						
EDP125-120-B2-400	125W	12VDC	10.4A	±3%	4-Pin Mini DIN	0.8m
EDP125-150-B2-100	125W	15VDC	8.3A	±3%	2.5mm Straight Plug	0.8m
EDP125-180-B2-110	125W	18VDC	6.9A	±3%	2.5mm Straight Plug	1.2m
EDP125-190-B2-110	125W	19VDC	6.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-240-B2-110	125W	24VDC	5.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-280-B2-110	125W	28VDC	4.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-300-B2-110	125W	30VDC	4.2A	±3%	2.5mm Straight Plug	1.2m
EDP125-360-B2-110	125W	36VDC	3.5A	±3%	2.5mm Straight Plug	1.2m
EDP125-480-B2-110	125W	48VDC	2.6A	±3%	2.5mm Straight Plug	1.2m
EDP125-540-B2-110	125W	54VDC	2.3A	±3%	2.5mm Straight Plug	1.2m