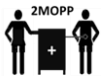




- ✓ IEC 62368 and IEC 60950 I.T.E. Safety
- ✓ 60601-1 3rd Edition Medical Safety
- ✓ IEC 60601-1-2 4th Edition EMC
- ✓ BF Leakage, 2 MOPP
- ✓ EN55032 (CISPR32) Class B Emissions
- ✓ IEC AC Inlet Options Available for Class I and Class II Operation
- ✓ Universal 80-264 VAC Input, 50/60 Hz
- ✓ DoE Efficiency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



## PRODUCT DESCRIPTION

The Astrodyne TDI EDP125 series of External Desktop Power Adapters are designed for medical and industrial applications. These products operate over the input voltage range of 80 to 264 VAC at 50-60Hz frequency and produce up to 125 Watts of regulated DC output power. They are safety certified for use across a wide variety of medical applications, including those within the home. They are compliant with the latest DoE Level VI efficiency; IEC 62368 and IEC 60950 I.T.E. safety; IEC 60601-1-1, 3<sup>rd</sup> Edition, Amendment 1 medical safety; and IEC 60601-1-2, 4<sup>th</sup> Edition, Class B medical EMC standards.



Singel 3 | B-2550 Kontich | Belgium | Tel. +32 (0)3 458 30 33  
 info@alcom.be | www.alcom.be  
 Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands  
 Tel. +31 (0)10 288 25 00 | info@alcom.nl | www.alcom.nl

**PRODUCT MODELS WITH MEDICAL CERTIFICATIONS**

Model	Output Power	Output Voltage	Output Current	Load Regulation	Output Connector	DC Cord Length
<b>Class I Models (with IEC C14 AC Inlet)</b>						
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
<b>Class II Models (with IEC C18 AC Inlet)</b>						
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

**PRODUCT MODELS WITH INDUSTRIAL CERTIFICATIONS**

Model	Output Power	Output Voltage	Output Current	Load Regulation	Output Connector	DC Cord Length
<b>Class I Models (with IEC C14 AC Inlet)</b>						
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
<b>Class II Models (with IEC C18 AC Inlet)</b>						
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
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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

**INPUT SPECIFICATIONS**

Input Voltage Range	80-264 VAC
Input Frequency	47-63 Hz (50/60 Hz Nom.)
Input Current	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%
Over Load 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	1.5% Pk-Pk max
18V ≤ Vout < 36V	1.25% Pk-Pk max
Vout ≥ 36 V	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.

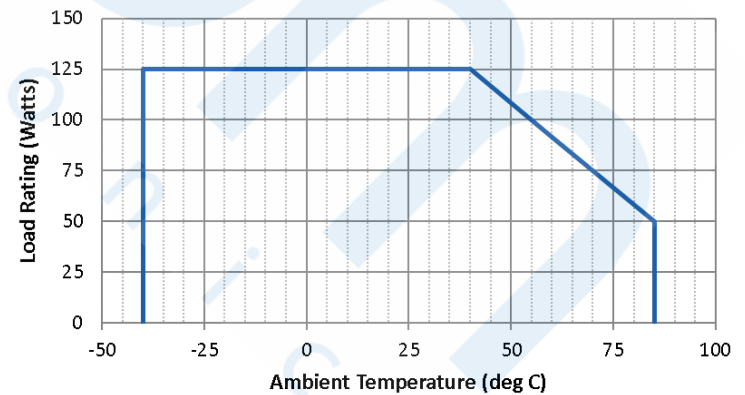
**SAFETY AND COMPLIANCE CERTIFICATIONS**

Safety Approvals	IEC 60601-1 3 <sup>rd</sup> Ed, Amend 1; IEC62368-1; IEC 60950-1; CSA C22.2; CB Scheme
EMC Overall	EN60601-1-2, 4 <sup>th</sup> Ed, Class B
Conducted and Radiated Emissions	EN 55032 (CISPR32), Class B; FCC Part 15, 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 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	3000m

**TEMPERATURE DERATING**



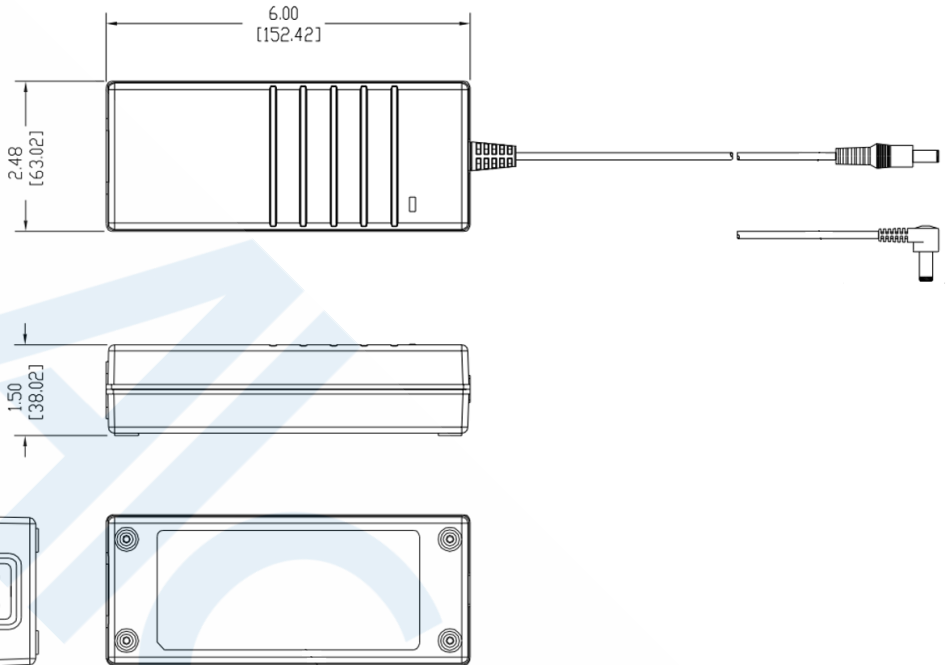
**MECHANICAL INFORMATION**

**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



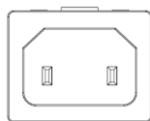
**AC INLET OPTIONS**

**DC OUTPUT CONNECTOR OPTIONS**

**Standard Options**

**IEC C14**

**IEC C18**

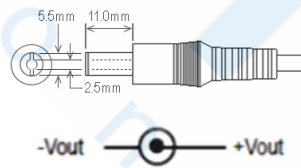


Three pin  
Grounded  
C13 plug mate

Two pin  
Ungrounded  
C17 plug mate

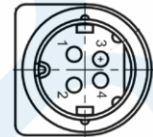
*AC Input Power Cords not included, available for sale separately.*

**2.5mm Straight Plug**  
(15V output and higher)



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: -Vout

**AC INLET OPTIONS**

**DC OUTPUT CONNECTOR OPTIONS**

**Additional Options**  
(contact Sales)

**IEC C6**



Three pin  
Grounded  
C5 plug mate

**IEC C8**

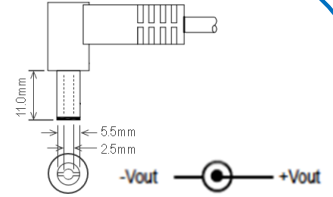


Two pin  
Ungrounded  
C7 plug mate

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

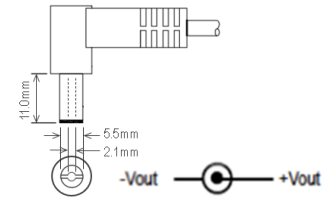
**2.5mm Right Angle Plug**

2.5mm inner diameter  
5.5mm outer diameter  
11mm length



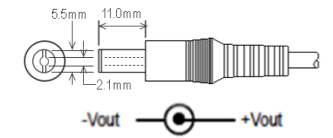
**2.1mm Right Angle Plug**

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.



Singel 3 | B-2550 Kontich | Belgium | Tel. +32 (0)3 458 30 33  
info@alcom.be | www.alcom.be  
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands  
Tel. +31 (0)10 288 25 00 | info@alcom.nl | www.alcom.nl