

30W Wall Mount External Power Adapter for Medical and Industrial Applications **EWS30**



- ✓ Safety: Medical IEC 60601 3rd Ed, Amend 1
- ✓ EMC: Medical IEC 60601-1-2, 4th Ed
- ✓ BF Leakage, 2 MOPP
- ✓ Class II Operation
- ✓ Interchangeable AC Plug Options
- ✓ Universal 90-264 VAC Input, 50/60 Hz
- ✓ DoE Efficiency Level VI, RoHS



PRODUCT DESCRIPTION

The Astrodyne TDI EWS30 series are external wall mount 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 30 Watts of regulated DC output power. They are compliant with the latest Efficiency Level VI requirements and certifications for UL 60601 3rd Edition Amendment 1. These adapters also have interchangeable AC plug options for world-wide applications.

STANDARD PRODUCT MODELS

Model	Output Power	Output Voltage	Output Current	Load Regulation
EWS30-05-MB2-10N	30W	5VDC	6.0A (Note 1)	±5%
EWS30-07-MB2-10N	30W	7VDC	4.3A	±5%
EWS30-09-MB2-10N	30W	9VDC	3.3A	±4%
EWS30-12-MB2-10N	30W	12 VDC	2.5A	±3%
EWS30-15-MB2-10N	30W	15VDC	2.0A	±3%
EWS30-18-MB2-10N	30W	18VDC	1.67A	±3%
EWS30-24-MB2-10N	30W	24VDC	1.25A	±3%
EWS30-30-MB2-10N	30W	30VDC	1.0A	±3%
EWS30-36-MB2-10N	30W	36VDC	0.83A	±3%
EWS30-48-MB2-10N	30W	48VDC	0.63A (Note 2)	±3%

Notes:

1. The 5V model meets Level VI efficiency up to a maximum output current of 5 Amps, and Level V from 5 to 6 Amps.
2. The 48V model meets Level V efficiency.

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INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Input Frequency	47-63 Hz (50/60 Hz nom.)
Input Current	0.80A max at 100VAC 0.35A max at 240VAC
Earth Leakage Current	100uA max at 240VAC

MAIN OUTPUT SPECIFICATIONS

Output Voltage	See Selection Chart
Output Power	30W
No Load Power	100mW max
Load Regulation	±5% max
Line Regulation	±1% max
Transient Response	4ms at 110VAC
Temperature Coeff.	±0.04%/°C
Ripple/Noise	100mV Pk-Pk max (5 - 12V) 150mV Pk-Pk max (15 - 24V) 250mV Pk-PK max (30 - 48V)

ISOLATION SPECIFICATIONS

Input to Output	4000VAC
Isolation Resistance	50MΩ

PROTECTION

Over Load Protection*	110-160%, Auto Recovery
Over Voltage*	112-132%

MECHANICAL SPECIFICATIONS

Size **	3.7" x 1.84" x 1.63" 94.0 x 46.7 x 41.4 mm
Weight	6.5oz / 184g
Case Type	Wall Mount

** Case size only

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

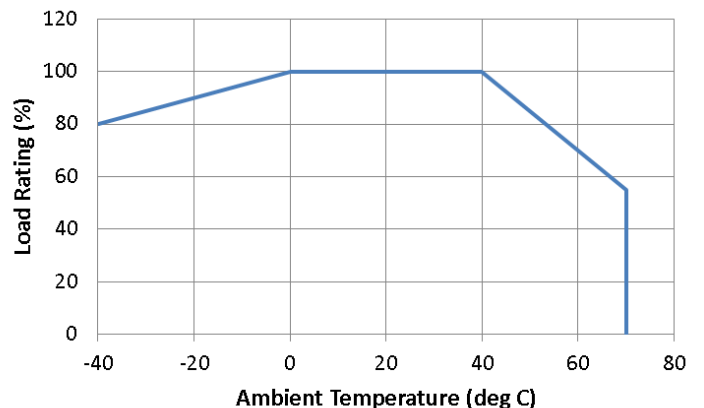
*These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Operation under conditions other than the standard operating conditions is neither warranted nor implied.

SAFETY AND COMPLIANCE CERTIFICATIONS

Safety Approvals	IEC 60601-1 3 rd Ed, Amend 1: cTUVus, TUV, CB, CE, CSA C22.2
EMC Overall	EN60601-1-2, 4 th 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 A
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 2
Magnet Field Immunity	EN 61000-4-8, Level 4
Voltage Dips and Interruptions	EN 61000-4-11

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-0 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

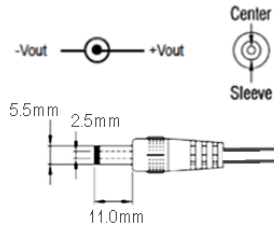


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MECHANICAL OUTLINE (standard options shown)

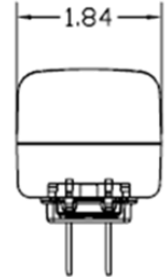
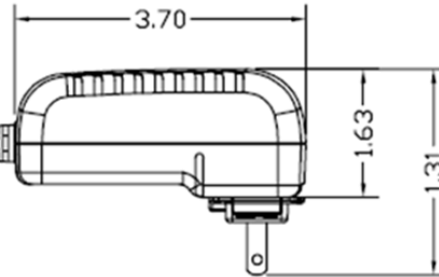
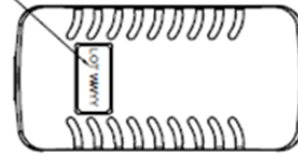
LOT NO.: LOTWYY
(WW means week, YY means year.)

- 5.5 mm outer diameter
- 2.5 mm inner diameter
- 11 mm length
- Center positive

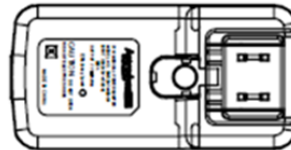
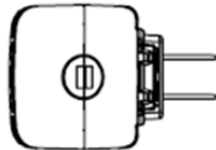


DC output cord length, as measured from the enclosure to the tip of the DC connector:

- 32 ± 1 in. for 5V and 7V models
- 48 ± 1 in. for 9V and higher models



Dimensions are in inches, unless otherwise stated.



AC PLUG OPTIONS

N = EWS-NA-01 IEC Type A (N. America, Japan, China)
(standard)

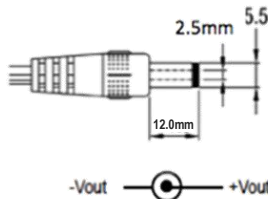
E = EWS-EU-01 IEC Type C (European Union, S. Korea, India)

U = EWS-UK-01 IEC Type G (United Kingdom, Hong Kong)

A = EWS-AUS-01 IEC Type I (Australia)

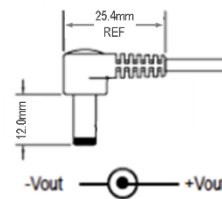
DC OUTPUT CONNECTOR OPTIONS

2.5mm Straight Coax (standard)



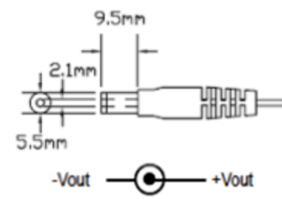
5.5mm outer diameter
2.5mm inner diameter
12mm length

2.5mm Right Angle Coax



5.5mm outer diameter
2.5mm inner diameter
12mm length

2.1mm Straight Coax



5.5mm outer diameter
2.1mm inner diameter
9.5mm length

Additional DC Output Connector options are available upon request.