

EPM30

30-WATT MEDICAL/INDUSTRIAL GRADE POWER SUPPLY

The Astrodyne TDI EPM30 series of Switching Power Supplies, available in Open frame or Encapsulated designs, caters to the diverse needs of the medical and industrial sectors. Operating with an input voltage range of 80 to 275 VAC and frequency of 50/60Hz, these power supplies deliver up to 30 Watts of regulated DC power. Compliant with IEC 60601-1 3rd Edition medical safety standard and EN 60601-1-2 4th Edition for electromagnetic compatibility, they are ideal for various medical applications, including residential environments.



HOW TO ORDER

EPM30-033-BP-0F0

FORM FACTOR: BP = OPEN FRAME PCB MOUNT
BC = ENCAPSULATED CHASSIS MOUNT
BE = ENCAPSULATED PCB MOUNT

VOLTAGE: 033 = 3.3 VDC
050 = 05 VDC
090 = 09 VDC
120 = 12 VDC
150 = 15 VDC
180 = 18 VDC
240 = 24 VDC

OUTPUT POWER: 30W

FAMILY: EPM SERIES

FEATURES & BENEFITS

UNIVERSAL AC INPUT

80 to 275 VAC and 50/60Hz

PROTECTIONS

Over Voltage Protection*: 112-132% Vout, hiccup mode
Overload Protection*: 100 to 200% x Rated Power, Auto Recovery
Short Circuit Protection: Auto Recovery

SAFETY APPROVALS

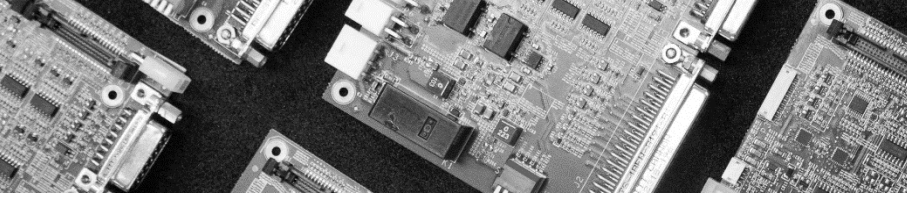
IEC 60601-1 3rd Ed, Amend 1; IEC 62368-1; IEC 60950-1; CSA C22.2; CB Scheme

EMI/EMC

Conducted & Radiated Emission: EN 55011 (CISPR11), Class B
Harmonic Current: EN 61000-3-2
ESD Susceptibility: EN 61000-4-2, Level 4
RF Field Immunity: EN 61000-4-3, Level 3
Conducted Immunity: EN 61000-4-6, Level 3

4000 VAC Isolation, 2 MOPP

Size: 2.42" x 1.6" x 0.93"
61.5 x 40.6 x 23.6 mm
Weight: 55g / 1.94oz



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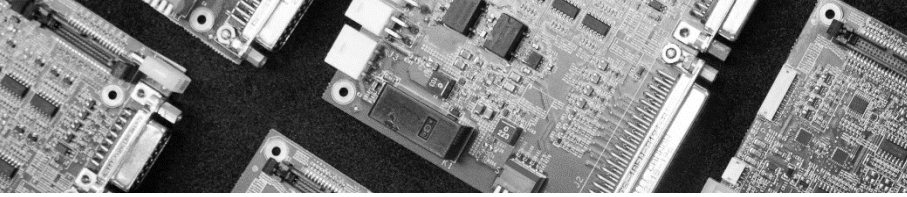
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PARAMETERS

EPM15 SERIES

INPUT SPECIFICATIONS	
Input Voltage Range	100-250VAC rated 80-275VAC tested
Input Frequency	47-63 Hz (50/60 Hz nom.)
Input Current (rated)	0.8A max at 100VAC 0.4A max at 240VAC
Leakage Current	100uA max at 275VAC 50Hz
MAIN OUTPUT SPECIFICATIONS	
Output Voltage	See selection chart
Output Power	30W max
No Load Power	100mW max
Load Regulation	±3% max
Line Regulation	±0.5% max
Efficiency	> 87.5% typ
Over Voltage Protection*	112-132% Vout, hiccup mode
Overload Protection*	100 to 200% x Rated Power, Auto Recovery
Short Circuit Protection	Auto Recovery
Temperature Coefficient	±0.04%/°C
Hold-up Time, full load	80ms typ, 230VAC 15ms typ, 115VAC
Ripple/Noise	100mV Pk-Pk max
ISOLATION SPECIFICATIONS	
Input to Output	4000 VAC, 2 MOPP
Isolation Resistance	50 MW
MECHANICAL SPECIFICATIONS **	
Size	2.42" x 1.6" x 0.93" 61.5 x 40.6 x 23.6 mm
Weight	55g / 1.94oz
Package Types	Open Frame, Encapsulated, Chassis

- ✓ ** Mechanical specifications are for the Open Frame package type. Refer to Outline Drawings for other package types.
- ✓ All Specifications are typical at nominal input, full load, 25°C unless specified otherwise.



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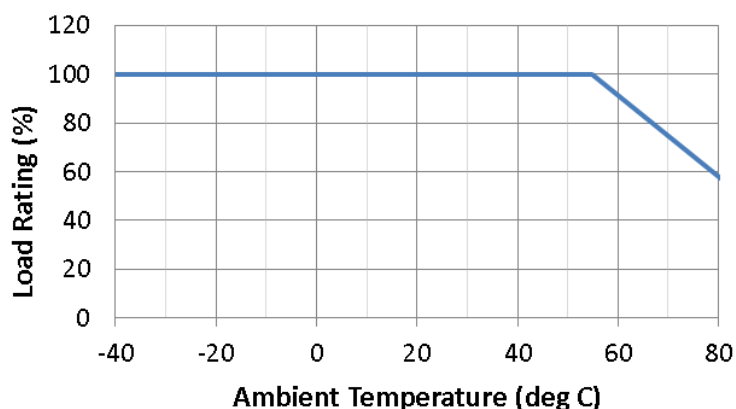
PARAMETERS

EPM15 SERIES

SAFETY AND COMPLIANCE CERTIFICATIONS	
Safety Approvals	IEC 60601-1 3 rd Ed, Amend 1; IEC 62368-1; IEC 60950-1; CSA C22.2; CB Scheme
EMC Overall	EN60601-1-2, 4 th Ed, Class B
Conducted and Radiated Emissions	EN 55011 (CISPR11), Class B
Harmonic Current	EN 61000-3-2
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
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-40 to +55°C at Full Load, +55 to +85°C with Derating See derating charts
Cooling	Free Air Convection
Storage Temperature*	-40 to +85°C
Operating Humidity*	0% to 95%, non-condensing
Operating Altitude	3000m max

* 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.

TEMPERATURE DERATING

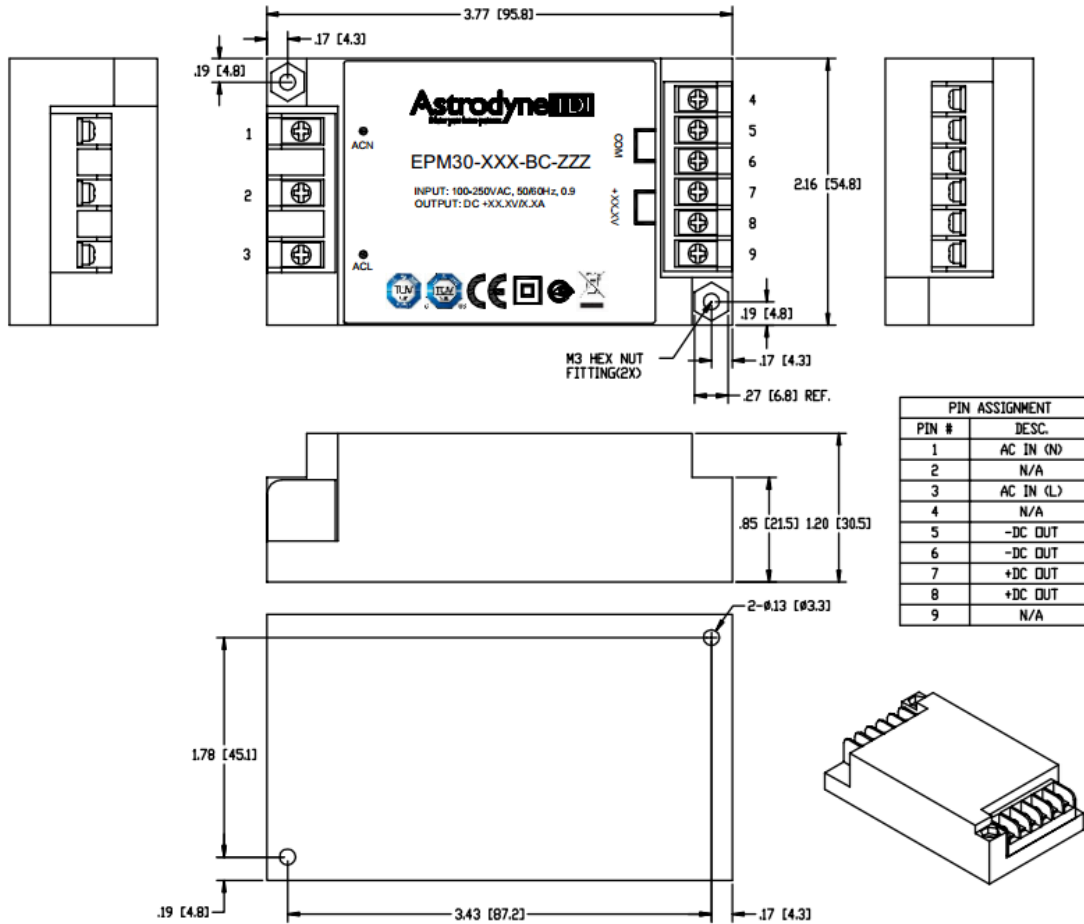


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MECHANICAL DIMENSIONS

Encapsulated Chassis Mount – EPM30-xxx-BC-zzz



MODEL

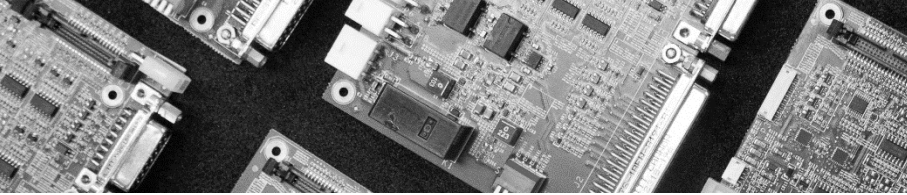
OUTPUT POWER

OUTPUT VOLTAGE

OUTPUT CURRENT

Encapsulated Chassis Mount Models

EPM30-033-BC-0F0	20W	3.3VDC	6.0A
EPM30-050-BC-0F0	30W	5VDC	6.0A
EPM30-090-BC-0F0	30W	9VDC	3.3A
EPM30-120-BC-0F0	30W	12VDC	2.5A
EPM30-150-BC-0F0	30W	15VDC	2.0A
EPM30-180-BC-0F0	30W	18VDC	1.67A
EPM30-240-BC-0F0	30W	24VDC	1.25A

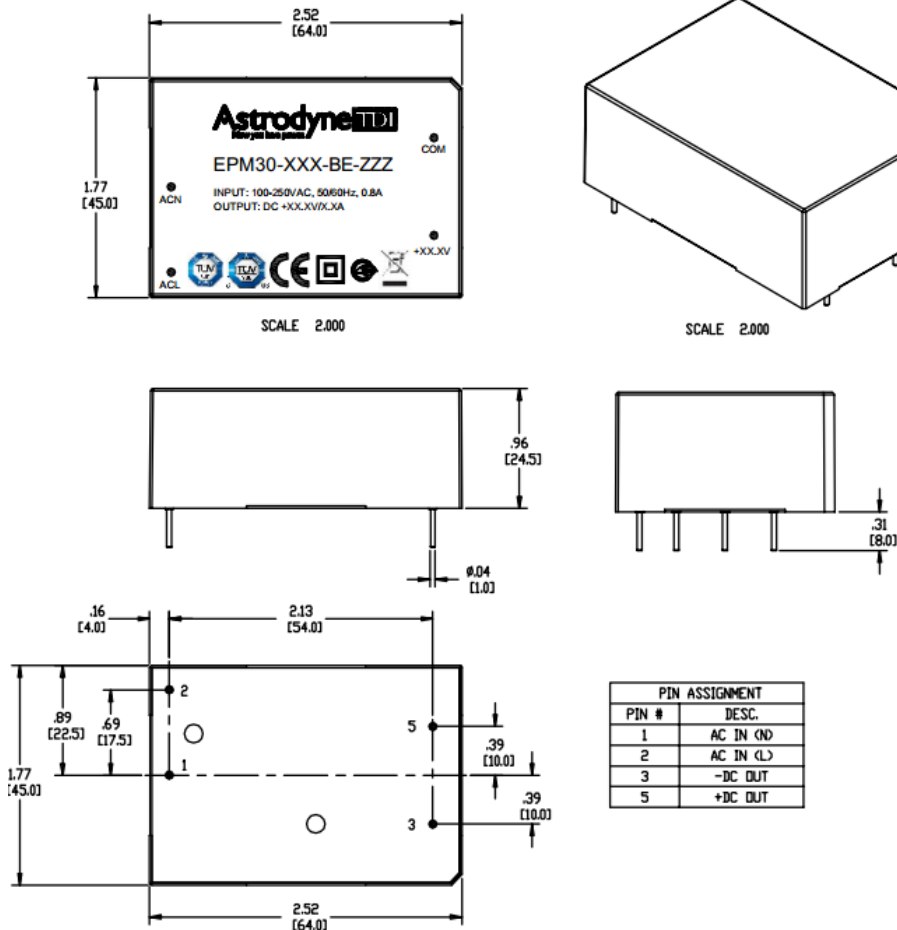


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MECHANICAL DIMENSIONS

Encapsulated PCB Mount – EPM30-xxx-BE-zzz



MODEL

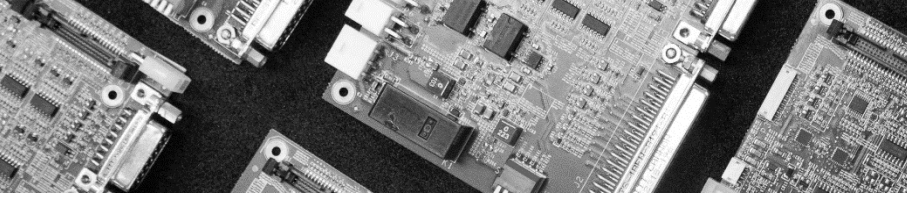
OUTPUT POWER

OUTPUT VOLTAGE

OUTPUT CURRENT

Encapsulated PCB Mount Models

EPM30-033-BE-0F0	20W	3.3VDC	6.0A
EPM30-050-BE-0F0	30W	5VDC	6.0A
EPM30-090-BE-0F0	30W	9VDC	3.3A
EPM30-120-BE-0F0	30W	12VDC	2.5A
EPM30-150-BE-0F0	30W	15VDC	2.0A
EPM30-180-BE-0F0	30W	18VDC	1.67A
EPM30-240-BE-0F0	30W	24VDC	1.25A

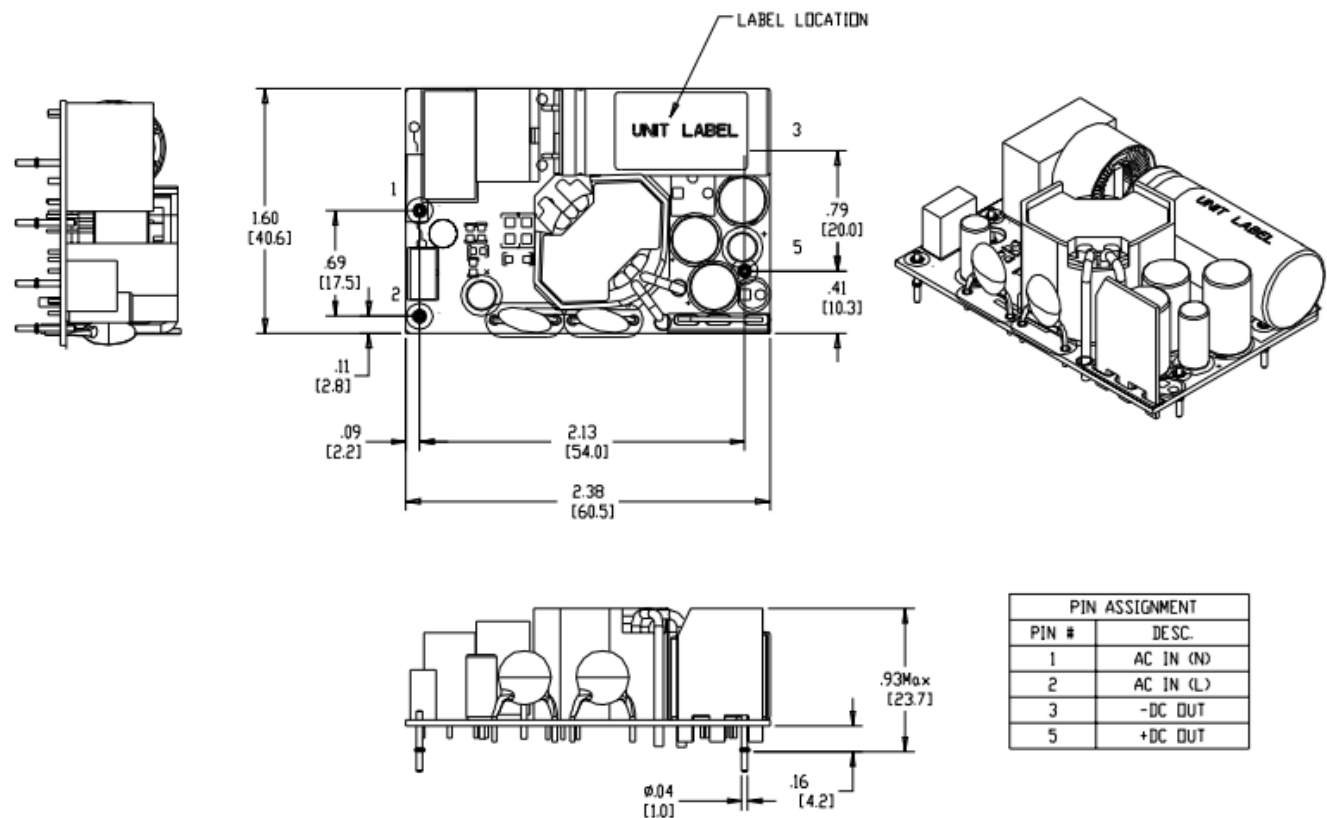


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MECHANICAL DIMENSIONS

Open Frame PCB Mount – EPM30-xxx-BP-zzz



MODEL	OUTPUT POWER	OUTPUT VOLTAGE	OUTPUT CURRENT
Open Frame PCB Mount Models			
EPM30-033-BP-0F0	20W	3.3VDC	6.0A
EPM30-050-BP-0F0	30W	5VDC	6.0A
EPM30-090-BP-0F0	30W	9VDC	3.3A
EPM30-120-BP-0F0	30W	12VDC	2.5A
EPM30-150-BP-0F0	30W	15VDC	2.0A
EPM30-180-BP-0F0	30W	18VDC	1.67A
EPM30-240-BP-0F0	30W	24VDC	1.25A