

ASM1200

1200W HIGH POWER DENSITY MEDICAL GRADE POWER SUPPLY

The Astrodyne TDI ASM1200 power supply series offers an advanced high-power density solution specifically tailored for demanding medical applications. The ASM1200 is meticulously engineered and equipped with Class I input protection, 2-MOPP isolation, and BF leakage current specifications, all of which are critical for ensuring the utmost patient safety and adherence to stringent medical standards. These power supplies can operate efficiently within an expansive input voltage range of 80 to 264 VAC at a frequency of 50-60Hz. They deliver up to 1000 Watts of regulated DC output power, all within 1U height requirements, allowing for seamless integration into compact medical equipment and systems.



**Pending Approval*

HOW TO ORDER

ASM1200-150-BE-S00

BE= BF LEAKAGE / ENCLOSED

VOLTAGE = 150 = 15VDC
180 = 18VDC
240 = 24VDC
280 = 28VDC
360 = 36VDC
480 = 48VDC
560 = 56VDC

OUTPUT POWER: 1200W
FAMILY: ASM SERIES

FEATURES

UNIVERSAL AC INPUT

80VAC-264VAC 50/60Hz input nominal

DC INPUT RANGE

120-370 VDC

OPERATING TEMPERATURE

-40 to +55°C at full load, up to +70°C at reduced load
See the derating chart for detail

SAFETY APPROVALS

Medical IEC 60601-1 3rd Edition Safety
EN 60601-1-2 4th Edition EMC
EMI: EN 55011 (CISPR11) Class B Emissions

BF Leakage Rating (<100uA) input to output.

60uA typ at 264VAC

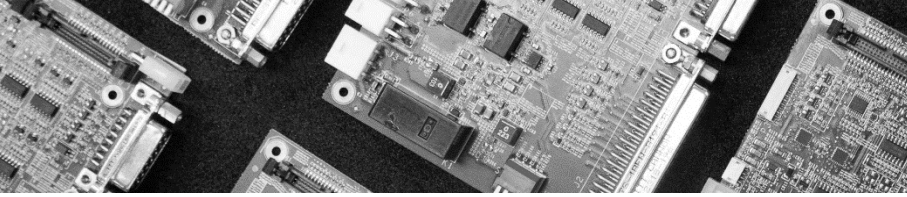
5V auxiliary outputs

Remote output enable and power good signal

Remote sense input

High efficiency, up to 90%

Variable speed fans for low load noise reduction



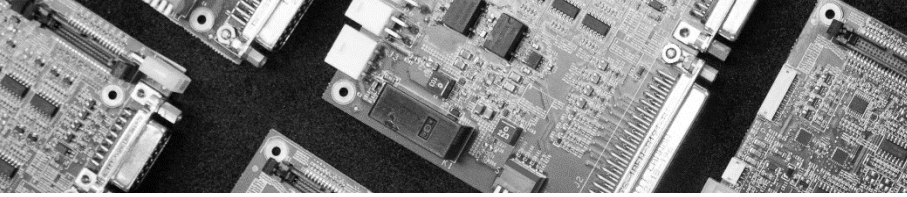
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PARAMETERS

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AC Input Voltage Range	Full load rated for 90VAC-264VAC 50/60Hz input nominal (with de-rated operation in the range of 80VAC-90VAC)
Input Frequency	47-63 Hz (50/60 Hz nominal)
DC Input Voltage Range	120-370 VDC
Input Current	11.0A max at 100VAC- 240VAC
Earth Leakage Current	100uA at 90VAC
Touch Leakage Current	60uA typ at 264VAC
Output Voltage	15, 18, 24, 28, 36, 48, 56VDC
Output Power	1200W max – see derating
Minimum Load	No minimum load required
Set Point Accuracy	±1% max
Load Regulation	Load regulation of ±1% max, across 90-264VAC input.
Line Regulation	Line regulation of ±0.25% max , across 90-264VAC input.
Efficiency	90%
Hold-up Time	15ms @ 115VAC with full load.
Ripple and Noise	200mV max., measured a 20MHz BW, with 47uF aluminum and 0.1uF ceramic capacitors at output
Input to Output Isolation	Input to Output: 4,000 VAC, 2 MOPP
Input to Earth (Class I)	Input to Earth: 2,000 VAC, 1 MOPP
Output to Earth (Class I)	Output to Earth 1,500 VAC, 1 MOPP
Over Current *	105 to 135% Rated Current
Short Circuit *	Hiccup Mode, Automatic recovery
Over Voltage *	130% Vo max, Latching; Recycle Input to Reset
Over Temperature *	Automatic recovery
<i>All specifications are typical at nominal input, full load, 25°C unless specified otherwise.</i>	



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PARAMETERS

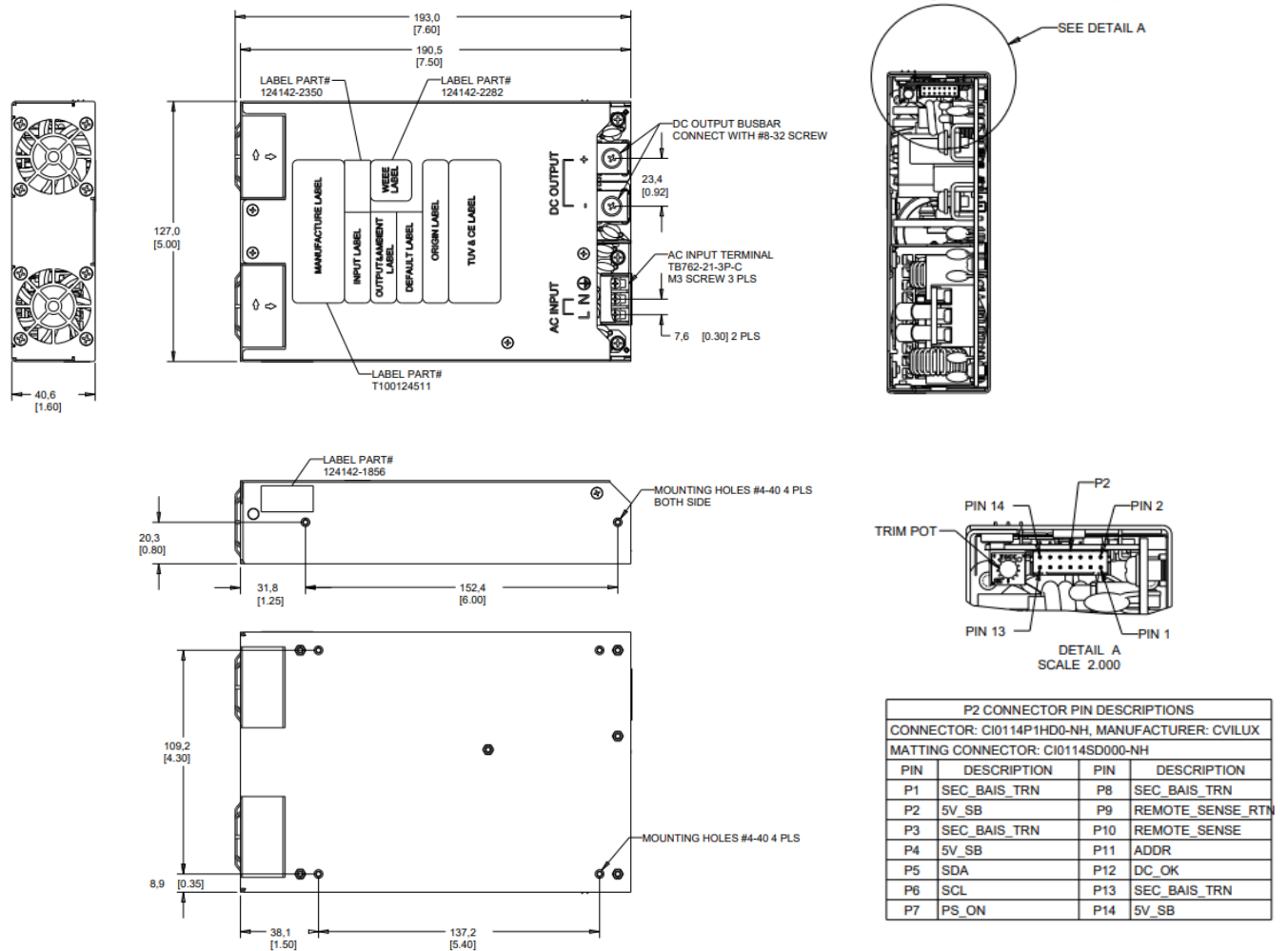
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Safety Approvals	Certification for Medical: IEC 60601-1-1 3rd Edition
Means of Protection	Primary to Secondary -> 4,000VAC 2 MOPP Primary to Ground -> 2,000VAC 1 MOPP Secondary to Ground -> 1,500VAC 1 MOPP
EMC Immunity: ESD	EN61000-4-2 Level 4, 15kV Air/8kV Contact
EMC Immunity: RF Field Susceptibility	EN61000-4-3 Level 3, 10V/m (80MHz-2.7GHz) Table 9, 9-28V/m(385MHz-5.78GHz)
EMC Immunity: EFT Bursts	EN61000-4-4 Level 3, 2kV Power, 1kV Signal
EMC Immunity: Surge Susceptibility	EN61000-4-5 Level 3 2kV Line/PE, 1kV Line/Line
EMC Immunity: Conducted Susceptibility	EN61000-4-6 Level 3, 10V/m
EMC Immunity: Magnetic Field Immunity	EN61000-4-8 Level 4, 30A/m
EMC Immunity: Voltage Dip Interruption	EN61000-4-11 100% dip 1 period, 30% dip 25 periods 100% interruption 250 periods
EMC Emissions: Conducted Emissions	EN55032 (CISPR32) Class B EN55011 (CISPR11) Class B
EMC Emissions: Radiated Emissions	EN55032 (CISPR32) Class B EN55011 (CISPR11) Class B
EMC Emissions: Harmonic Current	EN61000-3-2 Class B
EMC Emissions: Voltage Flicker	EN61000-3-3 – PASS
Operating Temperature	-40 to +55°C at full load, up to +70°C at reduced load
Cooling	Two variable speed fans
Storage Temperature*	-40 to +85°C
Operating Humidity*	0% to 95%, non-condensing
Operating Altitude	Operate up to 5km altitude
Size **	7.5" L x 5" W x 1.6" H 190.5 x 127 x 40.64 mm
Connectors	Terminal block connection for input AC and bus bar connections for output DC

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ENCLOSED MODELS (INTEGRATED FAN)



MODEL

OUTPUT VOLTAGE

OUTPUT CURRENT

5V AUX. CURRENT

EFFICIENCY (TYP) 230 /115 VAC

ASM1200-150-BE-000	15 VDC	80A	2A	90% / 88%
ASM1200-180-BE-000	18 VDC	66.7A	2A	90% / 88%
ASM1200-240-BE-000	24 VDC	50A	2A	92% / 88%
ASM1200-280-BE-000	28 VDC	42.9A	2A	92% / 88%
ASM1200-360-BE-000	36 VDC	33.3A	2A	92% / 88%
ASM1200-480-BE-000	48 VDC	25A	2A	92% / 88%
ASM1200-560-BE-000	56 VDC	21.4A	2A	92% / 88%