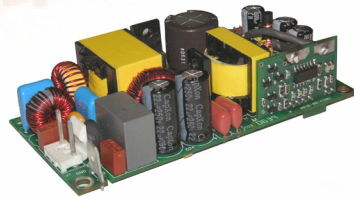




Astrodyne

150W 2" x 4" Medical Grade Open Frame Switching Power Supplies

ASM150 series



- Single Outputs with 12V Auxillary
- Universal 90 to 264VAC Input
- 5VDC to 48VDC Outputs
- 4,000VAC Input to Output Isolation
- Short Circuit Protection
- Full Safety Approvals



Model Number	V1	I1 Air Flow Convection / 200LFM	I2 (12V aux.) Convection / 200LFM
ASM150-5	5VDC	16 / 20A	0.5 / 0.5A
ASM150-12	12VDC	8.3 / 13.3A	0.5 / 0.5A
ASM150-24	24VDC	4.16 / 6.66A	0.5 / 0.5A
ASM150-48	48VDC	2.08 / 3.33A	0.5 / 0.5A

Note: All Products are 0-100% Load Operation

LOAD MATRIX FOR EFFICIENCY MEASUREMENTS

V-out	5.0V	12V	24 V	48 V
10%	2A	1.33A	0.66A	0.33A
20%	4A	2.66A	1.33A	0.66A
50%	10A	6.65A	3.33A	1.66A
100%	20A	13.3A	6.66A	3.33A



(Pending)



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INPUT SPECIFICATIONS

Input Voltage Range (AC / DC)	90-264 / 170-370
Input Current	<2.5A @ 100VAC
Inrush Current	No Damage @ 230VAC Cold Start
Input Frequency	47-63Hz
Power Factor (90VAC)	0.98%
Harmonic Input Current	Meets EN61000-3-2
Input Fuse	3A Internal Line & Neutral
Under Voltage Lockout	80VAC Auto Recover
Leakage Current (120V I/P)	<275uA

OUTPUT SPECIFICATIONS

Setpoint Accuracy	+/-1% Main Output V1
Overshoot during Power-on	Out of regulation 50mS, max.
Voltage Adjust	5% Main Output V1
Load Regulation	+/-1% V1; +/-20% V2
Line Regulation	+/-0.1% 90-264VAC
Cross Regulation	+/-1% V1; +/-15% V2
Transient Response	
(50% Load Change)	10% Recover within 1mS
Start Up (HL; FL)	500mS
Rise / Hold Up Time	20mS / 16mS
Temperature Coefficient	+/-0.25mV/°C
Ripple/Noise: 20Mhz BW, resistive load, with 22uF (tantalum) and 0.47uF (ceramic) parallel capacitors at POL	
	1% of Output (42% 12V aux.)
Over-voltage Protection	130% max.
Over Current Protection	130% max. Auto Recover*
Short Circuit and Over Temp Protection	
	Auto Recovery *

GENERAL SPECIFICATIONS

I/P-O/P Isolation	4000VAC for 1 Minute
I/P-Ground Isolation	1500VAC for 1 Minute
O/P-O/P Isolation	100VDC for 1 Minute
O/P-Ground Isolation	500VAC for 1 Minute

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20 to +50°C FL Derate Linearly to 50% Load at 70°C *
Cooling	200LFM >100W O/P Power
Relative Humidity	8-90% Non Cond (95% Non-Oper.)
Storage Temperature	-40 to +80°C *
Operating Altitude	5000 ft Above Sea Level
	Derate to 40°C ambient @ 10,000 ft
MTBF	Convection Cooled: 150,000Hrs
	Air Flow (200 CFM): 300,000 Hrs
EMC / CE Mark Requirements	EN55024
Voltage Fluctuation	EN61000-3-3
ESD	15KV Air, 8KV Contact
Radiated Field	3V/m, 80-1000MHz 80% Modulation at distance of 3M
EFT	±2kV on AC power port for 1 minute; ±1kV on signal/ctrl lines
Surge	±1kV line to line/±2kV line to earth on AC power port; ±0.5kV for outdoor cables
Conducted RF	3V; 0.15-80MHz 80% Modulation
Voltage Variations	>95% dip, 0.5 period; 30% dip, 25 periods; >95% reduction, 250 periods
Safety Standards (PENDING)	EN60601, IEC60601, UL/cUL60601

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

All specifications are typical at nominal input, full load, and 25DegC unless otherwise noted

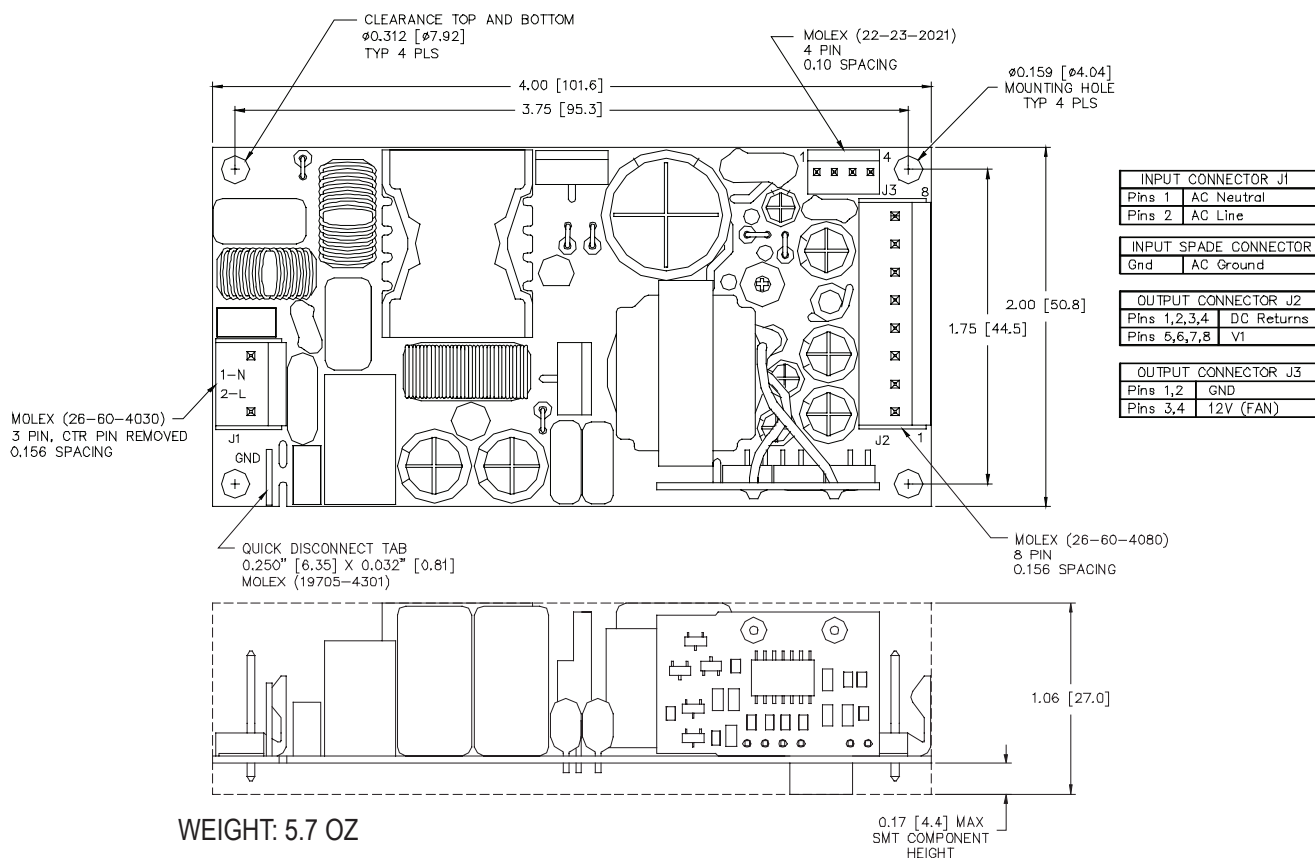
Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.



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MECHANICAL DIMENSIONS





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DERATE CURVE

