Astrodyne

60W Ultraminiature Medical Open Frame Switching Power Supplies

ASM60 series



2"W x 4"L x 1.2"H

- Up to 60W Output Power
- Universal 90-264VAC Input
- Single and Dual Outputs from 5VDC to 48VDC
- High Efficiency up to 86%
- 4000V Isolation
- 1U Compatible Height

Model Number	Output Voltage	Max. O/P Amps	Min. O/P Amps	Efficiency @ 230VAC	R&N P-P	Current Limit
SINGLE OUTPUT						
ASM60-5(A)*	5VDC	9	0	73%	100mV	112%
ASM60-9(A)*	9VDC	6.66	0	82%	100mV	135%
ASM60-12(A)*	12VDC	5	0	84%	150mV	162%
ASM60-15(A)*	15VDC	4	0	84%	150mV	162%
ASM60-24(A)*	24VDC	2.5	0	86%	150mV	162%
ASM60-36(A)*	36VDC	1.66	0	85%	100mV	125%
ASM60-48(A)*	48VDC	1.25	0	86%	400mV	162%
DUAL OUTPUT	**(V1/V2)**	**(I1/I2)**				
ASM60D-1	5/12VDC	5/3	1/0.60	81%	100/120mV	150%
ASM60D-2	5/15VDC	5/2.4	1/0.48	82%	100/150mV	150%
ASM60D-3	5/24VDC	5/1.5	1/0.30	82%	100/240mV	150%
ASM60D-5	5/48VDC	5/0.73	1/0.15	82%	100/400mV	150%

*Note: The Single Outputs can be ordered with Molex 09-50-30x1 I/O connectors.. Simply add the suffix "A" to the end of the Model Number. For example, ASM60-5A

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INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Frequency Range	47-63 Hz
Inrush Current, typ:	30A @ 100VAC Input *
	60A @ 200VAC Input *
Leakage Current	<0.1mA

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Load Regulation (0%-FL)	
Single O/P:	± 1%
Dual O/P (V1/V2):	± 3/5% max
Line Regulation (LL-HL)	
Single O/P:	± 1% max
Dual O/P (V1/V2):	± 1/2% max
Cross Regulation (Dual Outputs)	
(100-20% L w. other O/P at 60%)	± 3/5% max
Preset Accuracy	1%
DC Voltage Adjust (typ)	± 6% of FS (Primary)
Temperature Coefficient	± 0.05%/°C
Ripple/Noise, 20Mhz BW	See Selection Chart
Over Voltage Protection	Clamp, 118-130%
Current Limit, Self Recovering	See Selection Chart *
Short Circuit Protection	Continuous, self-recovering *
Hold Up Time (115V / 60Hz)	10 mS, min.

GENERAL SPECIFICATIONS

Input-Out Isolation	4000VAC
Efficiency	See Selection Chart
Switching Frequency	65Khz, (fixed, typical)
Safety	UL, TUV, CB

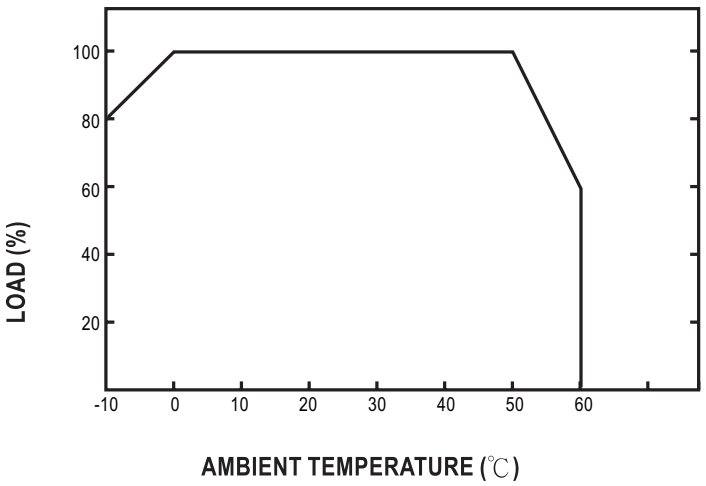
PHYSICAL SPECIFICATIONS

Size	2" x 4" x 1.2"
	50.8 x 101.6 x 30.48mm
Construction	Open Frame
Weight	7oz (198g)

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10 to +50°C(FL) , See Derate
Storage Temperature	-25 to +85°C *
Relative Humidity	0 to + 95%, non-cond *
EMC	EN 60601-1-2:2001
MTBF	185,000 Hrs
	Mil Std 217, 25°C

OUTPUT DERATING CURVE



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

* 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 warranteed nor implied.

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

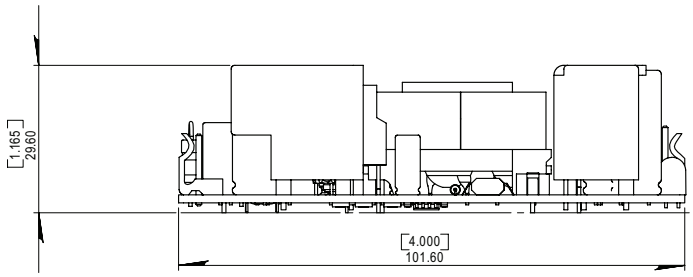
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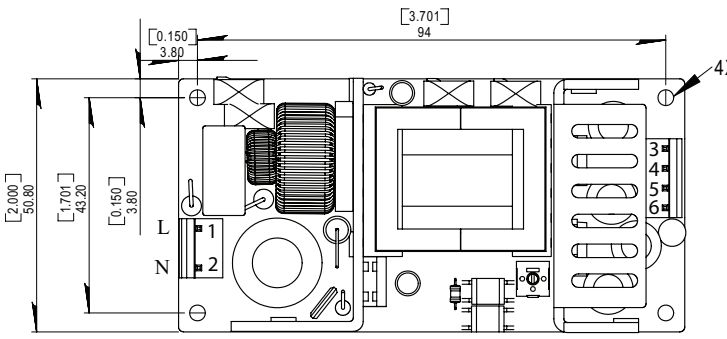
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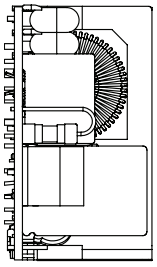
MECHANICAL DIMENSIONS WITH JST CONNECTORS - STANDARD



Input Connector: JST B3P-VH
Input Mating Connector: JST VHR-3N or Molex 51144 Series
Output Connector: JST B4P-VH
Output Mating Connector: JST VHR-4N or Molex 53520 & 53521 Series
Use with JST # SVH-21T-P1.1 or Molex # 50539-8100 Crimp Terminals



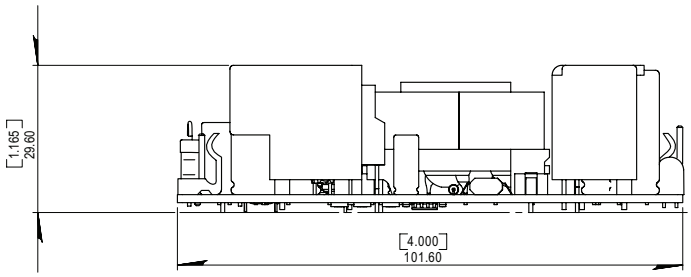
All 4 corner holes need to be bonded accordingly to the end product PE (Protective Earth) path.



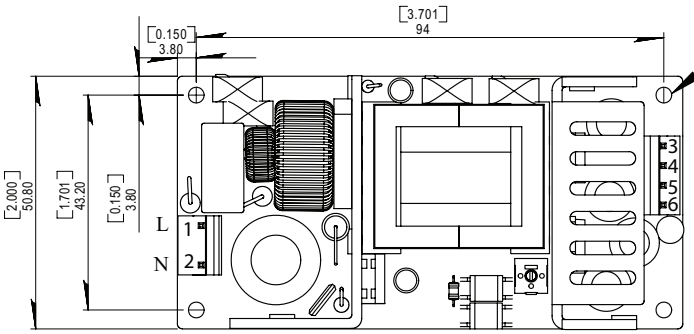
Pin #	Single Outputs	Dual Outputs
1	AC Line	AC Line
2	AC Neutral	AC Neutral
3	+ Output	+ Output 2
4	GND	GND
5	GND	GND
6	+ Output	+ Output 1

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MECHANICAL DIMENSIONS WITH MOLEX CONNECTORS ("A" VERSIONS SINGLE OUTPUTS ONLY)

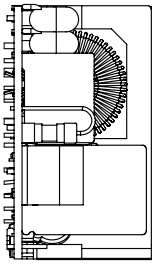


Input Connector: Molex 09-50-3031
Input Mating Connector: JST VHR-3N or Molex 51144 Series
Output Connector: Molex 09-50-3041
Output Mating Connector: JST VHR-4N or Molex 53520 & 53521 Series
Use with JST # SVH-21T-P1.1 or Molex # 50539-8100 Crimp Terminals



All 4 corner holes need to be bonded accordingly to the end product PE (Protective Earth) path.

4X Ø3.17(Ø0.125)



Pin #	Single Outputs
1	AC Line
2	AC Neutral
3	+ Output
4	+ Output
5	GND
6	GND

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