



Medical Grade 300 Watt Enclosed Switching Power Supplies

# MMK320S series



4"W x 7"L x 2"H

- Universal 88-264VAC Auto Range Input
- Compact Footprint
- High Efficiency
- Regulated Outputs
- 4000V Isolation
- Built in EMI Filter



<u>Model Number</u>	<u>Output Voltage</u>	<u>Output Amps (max)</u>	<u>Ripple/Noise pp.typ</u>
MMK320S-5	5 VDC	50	150mv
MMK320S-12	12 VDC	25	100mv
MMK320S-15	15 VDC	20	100mv
MMK320S-24	24 VDC	12.5	100mv



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### INPUT SPECIFICATIONS

Input Voltage Range	88-132/176-264 VAC
	Auto Voltage Select
Frequency Range	47-63 Hz
Inrush Current, typ:	20A/100VAC, 40A/200VAC *

### OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Load Regulation	(0% to 100% Load)
	± 1%, typ
Line Regulation	± 1%, typ
Voltage Tolerance	± 1%
DC Voltage Adjust (typ)	± 6%, typ
Temperature Coefficient	± 0.03%/°C
Ripple/Noise	150mV pk-pk, typ
Over Voltage Protection	Latching, Re-power *
Over Current Protection	110-135%, typ.
Short Circuit Protection	Indefinite
Hold Up Time	20mS, Nom I/P, FL
Turn On Time	≤ 1.0 sec, typ
Rise Time	≤ 20 msec, typ
Over/Under Shoot	< 10% of FS
Leakage Current	≤ 0.3 mA @ 240VAC, 50 Hz

### GENERAL SPECIFICATIONS

Isolation	I/P-O/P: 4000VAC
	I/P-Ground: 1500VAC
	O/P-Ground: 500VAC
Efficiency	80%, typ
Switching Frequency	110Khz, (fixed, typical)
Safety	UL60601-1, EN60601-1, IEC60601-1
MTBF	100,000 Hours

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 warranted nor implied.

### ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10 to +60°C (See Derate)
Over Temp Protection	Latching, recoverable after cooling, and re-power
Storage Temperature	-25 to +70°C *
Relative Humidity	10% to 90%, non-cond *
EMI (Designed to Meet)	EN55011, Class B

### PHYSICAL SPECIFICATIONS

Size	7" x 4" x 2"
Construction	Enclosed
Weight	1.95 lb, (880g)

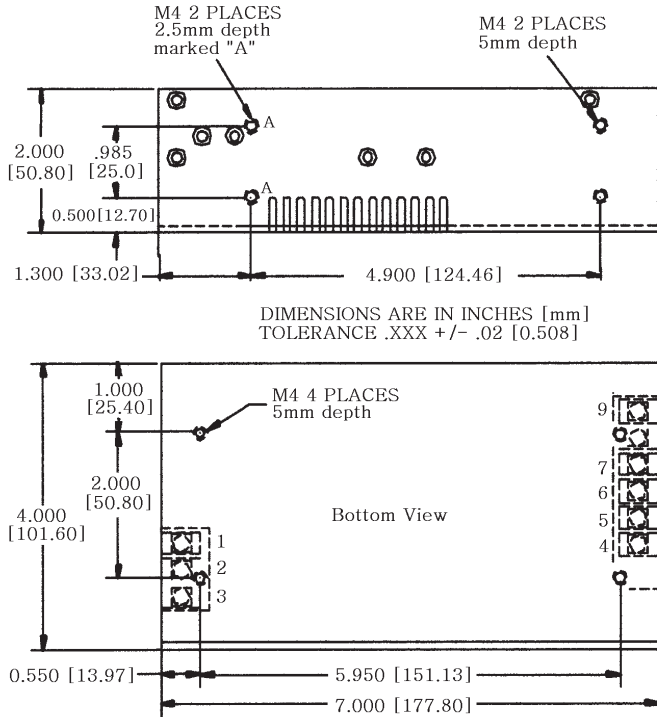
**Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.**



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**MECHANICAL DIMENSIONS**



Pin #	Outputs
1	GND
2	ACN
3	ACL
4	- Output
5	- Output
6	- Output
7	+ Output
8	+ Output
9	+ Output

**PLEASE NOTE:**  
To improve specifications and safety isolation, connection designations may have changed from prior revisions. Please verify connections per product labels on input and output connections prior to applying power to the unit

**OUTPUT DERATING CURVE**

