



3.5"W x 6"L x 1.75"H

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



Model Number	Output Voltage	Output Amps (max)	Ripple/Noise pp,typ
MMK150S-5	5 VDC	30	100mv
MMK150S-12	12 VDC	12.5	100mv
MMK150S-15	15 VDC	10	100mv
MMK150S-24	24 VDC	6	100mv





Medical Grade 150 Watt Enclosed Switching Power Supplies

**MMK150S** series

### 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
Line/Load Regulation (10%-FL)	± 0.5%, typ
Voltage Tolerance	± 1%, typ
DC Voltage Adjust (typ)	± 6%, typ
Temperature Coefficient	± 0.03%/°C
Ripple/Noise	100mV, typ
Over Voltage Protection	130%, Latching, Re-power *
Short Circuit Protection	160%, Indefinite
Hold Up Time	20mS, typ (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: 500 VAC
Efficiency	78%, typ
Switching Frequency	100Khz, (fixed, typical)
Safety	UL60601-1, EN60601-1, IEC60601-1

### ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	0 to +60°C
	(See Derate Curve)
Storage Temperature	-25 to +85°C *
Relative Humidity	10% to 90%, non-cond *
EMI (Designed to Meet)	EN55011, Class B
MTBF	100,000 Hrs
	Mil Std 217, 25°C

### PHYSICAL SPECIFICATIONS

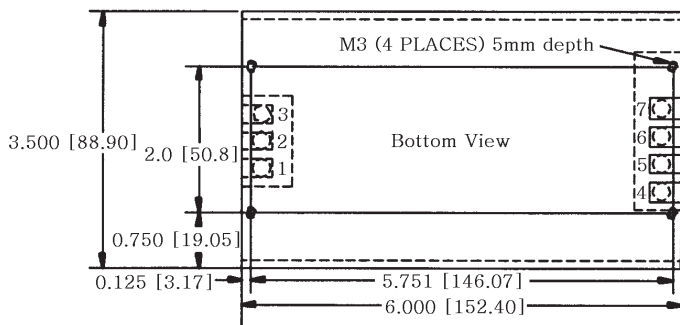
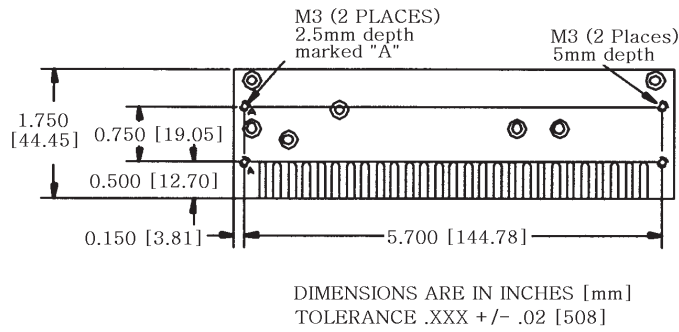
Size	6" x 3.5" x 1.75"
Construction	Enclosed
Weight	1.37 lb, (630g)

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.

**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.**

### MECHANICAL DIMENSIONS



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

(Forced air cooling direction: Straight down from top of unit)

- 1 — 22CFM Forced Air - All Outputs (Recommended)
- 2 — 12/15/24VDC Outputs, Convection Cooled
- 3 — 5VDC Output, Convection Cooled

