

# Medical Grade 40 Watt Enclosed Switching Power Supplies

MMK40S series



■ Universal 90-264VAC Input



- Compact Footprint
- High Efficiency
- Regulated Outputs
- 4000V Isolation
- Built in EMI Filter

2.5"W x 4.75"L x 1.5"H









Model Number	Output Voltage	Output Amps (max)	Ripple/Noise pp,typ
MMK40S-5	5 VDC	8	50mv
MMK40S-12	12 VDC	3.5	120mv
MMK40S-15	15 VDC	2.8	150mv
MK40S-24	24 VDC	1.8	120mv



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#### **INPUT SPECIFICATIONS**

Input Voltage Range	90-264 VAC
Frequency Range	47-63 Hz
Inrush Current, typ:	20A @ 115VAC Input *
	40A @ 230VAC Input *

#### **OUTPUT SPECIFICATIONS**

Voltage and Current	See Selection Chart
Load Regulation	5V: ± 2% of FS, typ
(0% to 100% Load)	All Others: ± 0.5%, typ
Line Regulation	± 0.5, typ
Preset Accuracy	1%, typ
DC Voltage Adjust (typ)	± 6% of FS
Temperature Coefficient	± 0.03%/°C
Ripple/Noise	See Selection Chart
Over Voltage Protection	Clamp *
Short Circuit Protection	Indefinite
Hold Up Time	16mS, 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: 2500VAC
	O/P-Ground: 1000VAC
Efficiency	82%, typ 5V:76%
Switching Frequency	100Khz, (fixed, typical)
Safety Approvals	UL60601-1, EN60601-1, IEC60601-1

#### **ENVIRONMENTAL SPECIFICATIONS**

Oper. Temperature	0 to +60°C (See Derate)
Over Temp Protection	Latching, recoverable after
	cooling and re-power
Storage Temperature	-25 to +85 C *
Relative Humidity	10% to +95%, non-cond *
EMI (Designed to Meet)	EN55011, Class B
	IEC801-2,3,4
MTBF	100 kHrs
	Mil Std 217, 25°C

#### PHYSICAL SPECIFICATIONS

Size	4.75" x 2.5" x 1.5"
Construction	Enclosed
Weight	9.6 oz, (272g)

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

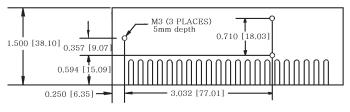
Astrodyne products are not authorized or warranteed for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

<sup>\*</sup> 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.

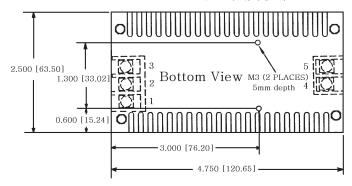


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#### **MECHANICAL DIMENSIONS**



DIMENSIONS ARE IN INCHES (mm) TOLERANCES .XXX +/- .010 (.254)



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

