

MMK320S

MEDICAL GRADE 300 WATT ENCLOSED SWITCHING POWER SUPPLIES

The MMK320S series is a 300-watt medical-grade enclosed switching power supply with an auto-ranging input of 100-264 VAC, making it suitable for a wide range of global applications. This series boasts a compact design, enabling it to fit into confined spaces, and offers high efficiency, ensuring minimal energy loss and reduced heat generation. The regulated outputs available in this series include 5, 12, 15, and 24-volt DC, providing versatility for various medical devices and equipment. All MMK320S series power supplies are equipped with built-in EMI filters, which help to reduce electromagnetic interference, ensuring the smooth operation of sensitive medical equipment.



FEATURES

UNIVERSAL INPUT VOLTAGE

Nominal: 110-120 / 200-240 VAC
Maximum: 100-132 / 176-264 VAC

OUTPUT RANGE

300 Watts Output

OPERATING TEMPERATURE

-10 to +60°C (See Derate)

SAFETY APPROVALS

UL/cUL: ANSI/AAMI ES60601-1 3rd ed.
CSA C22.2 No. 60601-1 3rd ed.
UL-EU: EN60601-1 3rd ed.
CB: IEC60601-1 3rd ed.
CE: EN60601-1-2

EFFICIENCY

85%, typ (78% 5Vout)

ISOLATION

5656 VDC

EMI (Designed to Meet)

EN55011, Class B

CONSTRUCTION

Enclosed

HOW TO ORDER

MMK320S-5

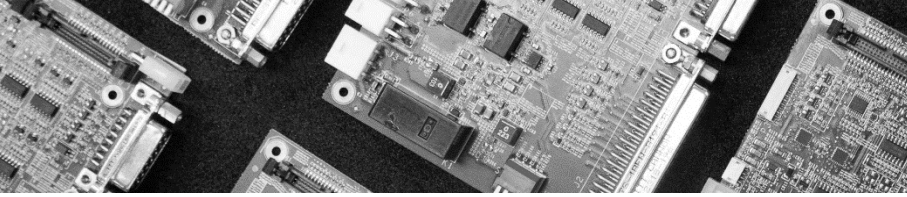
OUTPUT VOLTAGE

5 = 5 VDC
12 = 12 VDC
15 = 15 VDC
24 = 24 VDC

S = SINGLE OUTPUT
D = DOUBLE OUTPUT

OUTPUT POWER: 300 W

FAMILY: MMK SERIES



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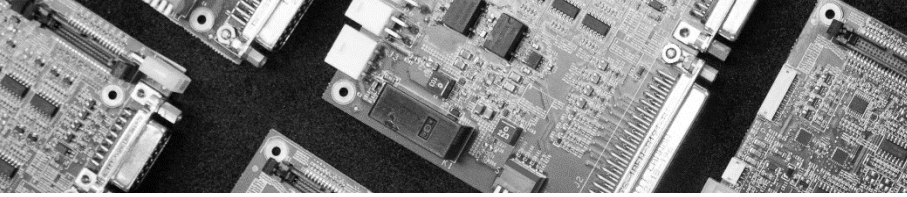
PARAMETERS

MMK320S

Input Voltage	Nominal: 110-120 / 200-240 VAC Maximum: 100-132 / 176-264 VAC Auto Voltage Select
Frequency Range	47-63 Hz
Inrush Current, typ:	20A/100VAC, 40A/200VAC *
Leakage Current	<500UA @ 264VAC, 50Hz
Voltage and Current	See Selection Chart
Load Regulation	(20% to 100% Load) ± 0.5%, nom (±1% for 5Vout)
Line Regulation	± 0.5%, nom (±1% for 5Vout)
Voltage Tolerance	± 1%
DC Voltage Adjust (typ)	± 6%, typ
Temperature Coefficient	+/-0.03%/°C
Ripple/Noise	See Selection Chart
Over Voltage Protection	130% max. auto-recovery *
Over Current Protection	160% max., Auto-recovery *
Short Circuit Protection	Auto-recovery
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
Isolation	I/P-O/P: 5656VDC I/P-Ground: 2121VDC O/P-Ground: 707VDC
Efficiency	85%, typ (78% 5Vout)
Switching Frequency	110Khz, (fixed, typical)
Safety	UL/cUL: ANSI/AAMI ES60601-1 3rd ed. CSA C22.2 No. 60601-1 3rd ed. UL-EU: EN60601-1 3rd ed. CB: IEC60601-1 3rd ed. CE: EN60601-1-2
MTBF	100,000 Hrs
Oper. Temperature	-10 to +60°C (See Derate)
Storage Temperature	-25 to +70°C *
Relative Humidity	10% to +90%, non-cond *
EMI (Designed to Meet)	EN55011, Class B
Size	4" x 7" x 2"
Construction	Enclosed
Weight	1.95 lb, (880g)

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

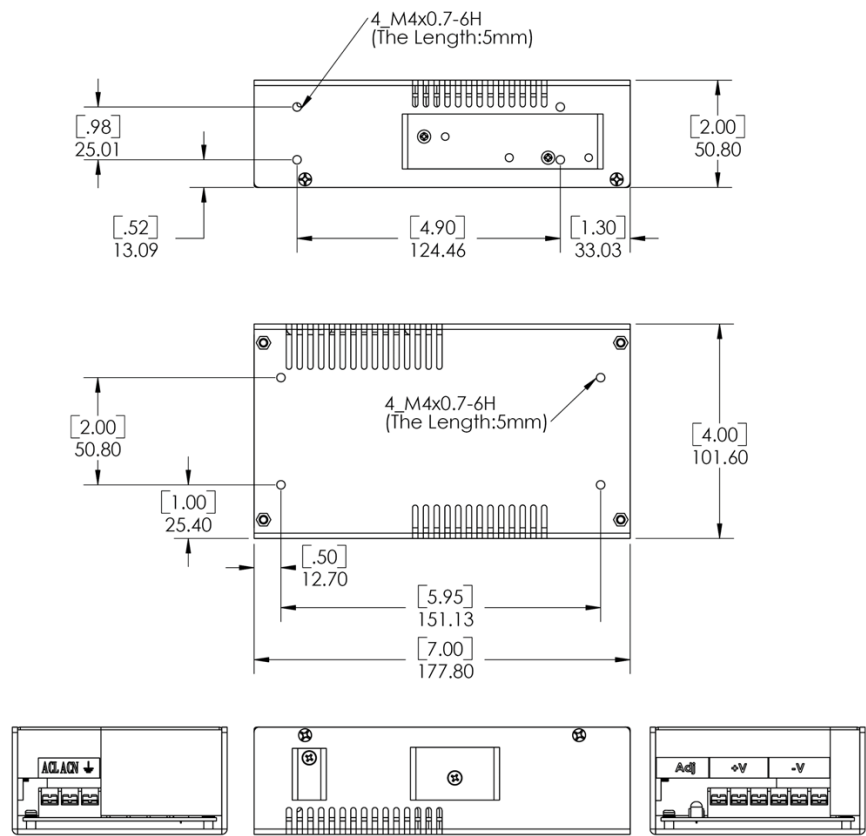
* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long-term reliability. Proper operation under conditions other than standard conditions is neither warranted nor implied.



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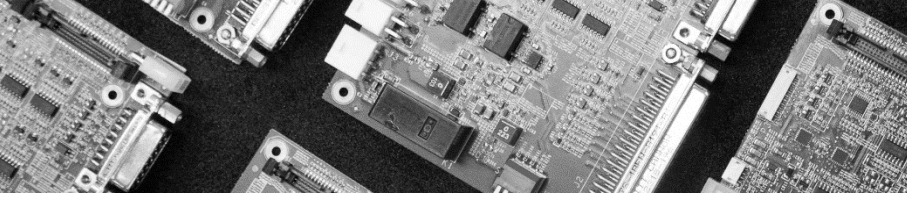
MECHANICAL DIMENSION



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 before applying power to the unit

Note: For our M4 x 0.7 aluminum threaded holes:
Recommended torque: 4.5 in-lbs, 5 in-lbs maximum (5 kgf-cm/5.5 kgf-cm max)

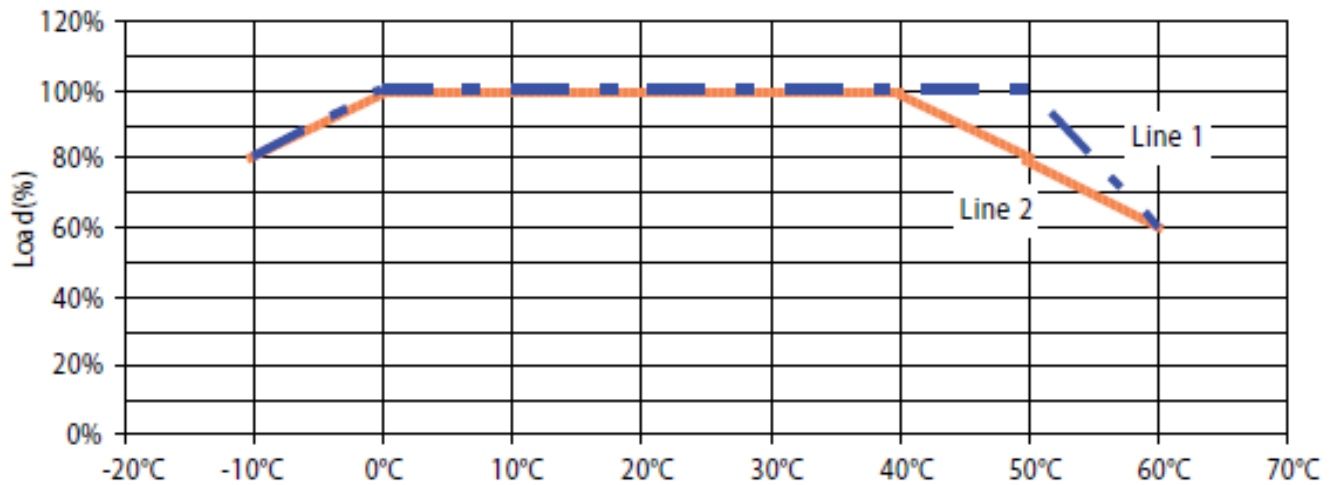
MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT AMPS (MAX)	RIPPLE/NOISE PP,TYP
MMK320S-5	5 VDC	50	150 mv
MMK320S-12	12 VDC	25	100 mv
MMK320S-15	15 VDC	20	100 mv
MMK320S-24	24 VDC	12.5	100 mv



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OUTPUT DERATING CURVE



- 1. Line 1 : 15V, 24V
- 2. Line 2 : 5V, 12V