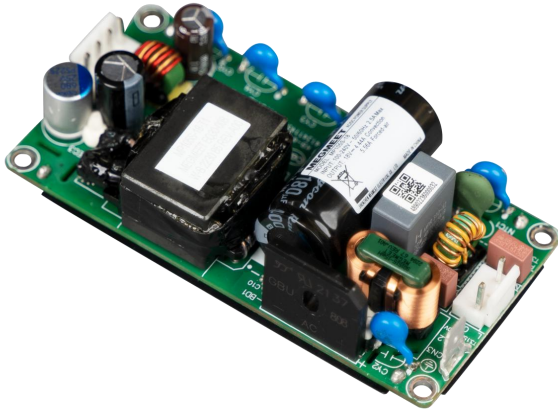


Medical Power Supply

MP105S Series

MEGMEET
www.megmeet.com

80W/100W AC-DC OPEN FRAME



FEATURES

- 80W Convection/100W Forced-cooled Ratings
- Medical 60601-1 Safety Approvals
- Small 2" x 4" x 1" Package
- Class I or Class II Construction Compatible
- High Efficiency up to 92%
- Patient Leakage with Mains on AP (BF type)
- EN55011 / FCC Part 15J Class B Emissions
- 3-Year Warranty



GENERAL DESCRIPTION

The MP105S series is a compact size AC-DC converter that output can reach to 80W as convection (100W with airflow). This series offers low leakage current, high and reliability with Medical and ITE/AV dual certification. Available as Class I & II dual structure, this series is used in medical devices including electrocardiograph, defibrillator, anesthesia machine and etc.

APPLICATIONS



MODELS & RATINGS

MODELS	OUTPUT VOLTAGE	OUTPUT CURRENT		OUTPUT OVER CURRENT	RIPPLE & NOISE	TOTAL REGULATION
		Convection-cooled	Forced-cooled			
MP105S-12	12V	6.7A	7.5A	>8.3A, <12.5A	120mV	±3%
MP105S-15	15V	5.3A	6.7A	>7.4A, <10.0A	150mV	±3%
MP105S-18	18V	4.4A	5.6A	>6.1A, <8.4A	180mV	±3%
MP105S-24	24V	3.3A	4.2A	>4.6A, <6.3A	240mV	±3%

NOTES

1). Derate output power by 2% per VAC for input voltage < 90vac

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MODEL ENCODING

MP105S	-	xx/xxx	-	abcd
OPEN FRAME 100 Watts		OUTPUT VOLTAGE 12: 12V 165: 16.5V		CUSTOMER CODE OR OTHERS

INPUT ELECTRICAL CHARACTERISTICS

Normal Voltage Range	100-240VAC
Input Voltage Range	90~264Vac (Universal)
Input Frequency	47~63Hz
Input Current	2.5A _{RMS} Max
Inrush Current	<120A @ 230 VAC, Cold start
Input Protection	Internal T3.15A/250VFuse (Line&Neutral)

Earth Leakage Current	<150μA @ 264VAC(Class I)
Touch Current	<100μA @ 264VAC
No Load Input Power	<210mW @ 230VAC

OUTPUT ELECTRICAL CHARACTERISTICS

Total Regulation	±3%
Line Regulation	±1%
Load Regulation	±2%
Minimum Load	None
Transient Response	±5%,5%-50% or 50%-100%, SlewRate 0.5A/μS

Ripple & Noise	1% pk-pk typical
Turn-On Delay	2 seconds Max @ 115VAC
Hold-Up Time	>10ms @115VAC, Full Load

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SAFETY & EMC

Safety	IEC60601-1, 3.1ed Edition
	CE Mark (LVD)
	CSA C22.2 No. 60601-1
	ANSI / AAMI ES60601-1
EMC	IEC60601-1-2 4th Edition
Conduction Emission	EN55011, FCC Part J15, Class B
Radiated Emission	EN55011, FCC Part J15, Class B
Voltage Fluctuation & Flicker	EN61000-3-3
Harmonic Distortion	EN61000-3-2 Class A
ESD	EN61000-4-2, 8kV contact, 15kV Air Discharge
EFT	EN61000-4-4, Level 3, Criterion A
SURGE	EN61000-4-5 Installation Class 3, Criterion A
DIP ⁽¹⁾	EN61000-4-11
Conducted Immunity	EN61000-4-6, 3VRMS (6Vrms for ISM band), Criterion A
Radiated Immunity	EN61000-4-3, 10V/m, Criterion A
Magnetic Fields Immunity	EN61000-4-8, 30A/m, Criterion A

PROTECTION

Over shoot	5%
Over-Voltage	115-145% Latching, Recycle input to recovery
Over-Temperature	Hysteretic
Over-Load	Hiccup, Auto-Recovery
Short Circuit	Hiccup, Auto-Recovery

RELIABILITY & ENVIRONMENTAL REQUIREMENTS

Operating Temperature	0°C to +50°C
Derating	2.5%/°C, > 50°C, up to 70°C max
Storage Temperature	-40°C to +80°C
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	5% to 95% (non-condensing)
Operating Altitude	5000m
Storage Altitude	5000m
Shock	294 m/s ² (30G), 10ms, 6 times on each of 3axes
Vibration	10-500 Hz, 19.6 m/s ² (2G), 20 mins on 3 axes

DIMENSION & PACKING

Efficiency	88%/91%min@ 115/230 VAC, @80W
Isolation	4000 VAC – Input to Output; 2xMOPP 1500 VAC – Input to Ground; 1xMOPP 1500 VAC – Output to Ground; 1xMOPP
MTBF	500K Hours, Telecordia SR-332 @ 35 °C
Weight	150g ref
Dimensions	50.8x101.6x25.4mm
	2×4x1" inch

(1) Power supply DIP voltage sag requirements table:

Drop	Time	Criterion
0%Ut	0.5cycle	A
0%Ut	1cycle	B
70%Ut	25/30 cycles	B
0%Ut	300cycles	C

Medical Power Supply

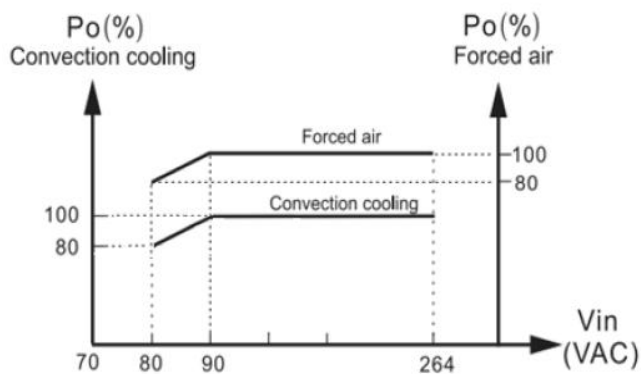
MP105S Series

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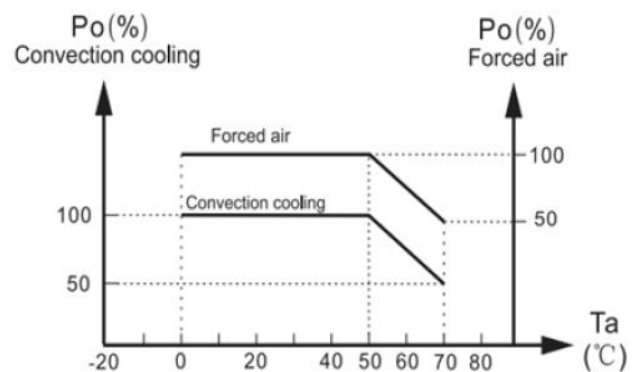
80W/100W AC-DC OPEN FRAME

DERATING CURVE

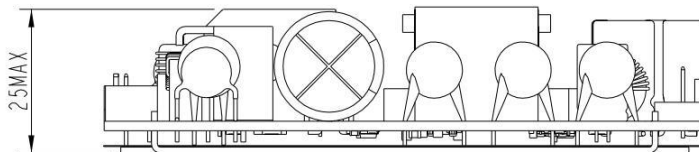
OUTPUT POWER VS INPUT VOLTAGE



OUTPUT POWER VS AMBIENT TEMPERATURE

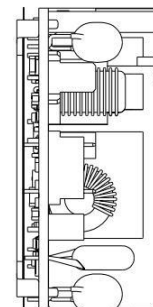
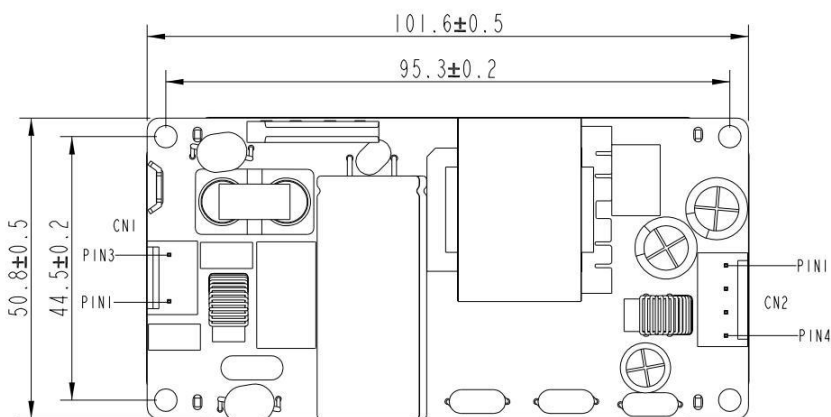


MECHANICAL AND CONNECTOR INFORMATION



AC INPUT: CN1 JST P/N: B2P3-VH(LF)(SN) Notes With: JST-VHR-3N	
Pin1	Neutral
PIN3	Line

DC OUTPUT: CN2 JST P/N: B4P-VH(LF)(SN) Notes With: JST-VHR-4N	
Pin1, 2	+V
Pin3, 4	RTN



Note: CN1&CN2 can be used equivalent connectors

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GLOBAL OPERATION AND SERVICE



MANUFACTURER

CHINA

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THAILAND

MEGMEET (THAILAND) CO., LTD
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Pluakdaeng, Rayong 21140, Thailand

TECHNICAL SUPPORT

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SHENZHEN MEGMEET ELECTRICAL CO., LTD
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Shenzhen, Guangdong, China

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