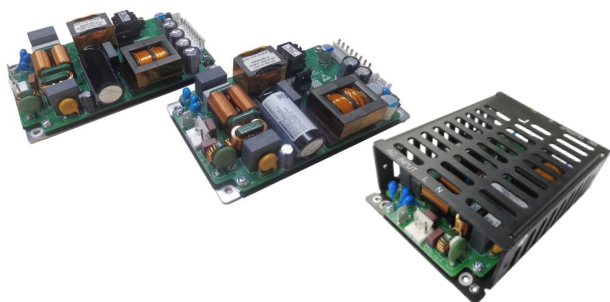


Medical Power Supply

MEGMEET

MP260S Series

260W AC-DC OPEN FRAME



FEATURES

- 165-200W Convection / 225-250W Forced-cooled Ratings
- Medical IEC60601-1 & ITE/AV IEC62368-1 Safety Approvals
- Compact size 3.0 x 5.0 x 1.05"
- Suitable for Class I and Class II installations
- High Efficiency up to 95%
- Suitable for Type BF Medical Equipment



GENERAL DESCRIPTION

The MP260S series is a compact size AC-DC converter with two size options. This 180W (260W with airflow) model meets medical and ITE/AV certified and compatible with Class I & II dual construction. The model has low leakage current and excellent EMI and thermal performance, which makes it perfect for BF medical devices. The series can be used in multiple applications including ventilator, oxygen concentrator, anesthesia, ECMO, surgery and etc.

APPLICATIONS



MODEL ENCODING

MP260S1/S2	—	xx/xxx	—	zzzz	—	abc
OPEN FRAME		OUTPUT VOLTAGE		Product ID Code		Other Code
260 Watts		12: 12V		z1: Fuse type (L / H)		Customer ID,
		125: 12.5V		z2 & z3: Connector code (J6, J8, M6, M8)		or No 5Vsb
		48: 48V		z4: Base mounting type, Metal Base code (F / B)		or Signal option
				Metal Enclosure code (E / U)		or Others

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MODELS & RATINGS

MODELS	OUTPUT VOLTAGE	V1 SINGLE OUTPUT		V1 +V2 COMBINE OUTPUT			
		V1 OUTPUT		V1 OUTPUT		V2 OUTPUT	
		CONVECTION	FORCED AIR	CONVECTION	FORCED AIR	OUTPUT	Voltage Tolerance
MP260S-12	12V	13.75A (165W)	18.75A (225W)	13.75A (165W)	18.75A (225W)	5V / 2A	±5%
MP260S-15	15V	12.00A (180W)	16.00A (240W)	11.00A (165W)	16.00A (240W)	5V / 2A	±5%
MP260S-18	18V	11.10A (200W)	13.88A (250W)	10.00A (180W)	13.88A (250W)	5V / 2A	±5%
MP260S-19	19V	10.52A (200W)	13.15A (250W)	9.47A (180W)	13.15A (250W)	5V / 2A	±5%
MP260S-24	24V	8.33A (200W)	10.41A (250W)	7.50A (180W)	10.41A (250W)	5V / 2A	±5%
MP260S-28	28V	7.14A (200W)	8.92A (250W)	6.42A (180W)	8.92A (250W)	5V / 2A	±5%
MP260S-36	36V	5.55A (200W)	6.94A (250W)	5.00A (180W)	6.94A (250W)	5V / 2A	±5%
MP260S-48	48V	4.16A (200W)	5.20A (250W)	3.75 (180W)	5.20A (250W)	5V / 2A	±5%

INPUT ELECTRICAL CHARACTERISTICS

Normal voltage range	100-240VAC
Input Voltage Range	85~264 VAC (Universal)
Input Frequency	47~63Hz
Input Current	3.5A max. @ 100VAC
Inrush Current	50A Typical @ 230 VAC, Cold start
Input Protection	Internal T6.3A/250Vac Fuse (Line&Neutral)
Power Factor	0.98 min. @100Vac 60Hz Full load 0.92 min. @230Vac 50Hz Full load

Efficiency	92%/94% typical@115/230 VAC, Full Load
Earth Leakage Current(NC)	<250μA @ 264VAC(Class I)
Earth Leakage Current (SFC)	<500μA @ 264VAC(Class I)
Touch Current (NC)	<100μA @ 264VAC
Touch Current (SFC)	<250μA @ 264VAC(Class I& Class II)
Patient Leakage Current	<100μA @ 264VAC
No Load Input Power	<0.5W @ 230VAC

OUTPUT ELECTRICAL CHARACTERISTICS

Total Voltage Tolerance(V1)	±3%
Set up Tolerance(V1)	±1.5%, 50% load, 115/230 VAC
Line Regulation(V1)	±0.5%
Load Regulation(V1)	±1%
Minimum Load	None

Ripple & Noise	V1: 1%, V2: 1% for S1, 2% for S2
Turn-On Delay	2 seconds Max @ 100VAC
Hold-Up Time	>20ms @ 165W-200W
Over shoot	5%
Transient Response	±5%, 5%-50% or 50%-100%, 1A/μS

NOTES

1). Total voltage tolerance(V1): includes set up tolerance , line regulation and load regulation.

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

3). Ripple & Noise test : use a 0.1uF ceramic capacitor in parallel with a 10 uF electrolytic capacitor at a distance of 15cm from the output connector terminals, the bandwidth is set to 20MHz.

4). Forced air requires 10 CFM.

Medical Power Supply

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MP260S Series

260W AC-DC OPEN FRAME

SAFETY & EMC

EMC	IEC60601-1-2	
EMI	Conducted Emission	CISPR 11 Class B
	Radiated Emission	CISPR 11 Class B
	Harmonic Current	IEC 61000-3-2 Class A
	Voltage Flicker	IEC 61000-3-3 Class A
EMS	ESD	IEC 61000-4-2, Criterion A 8kV contact, 15kV Air Discharge
	Radiated Immunity	IEC 61000-4-3, 10V/m, 80% Am at 1kHz Criterion A
	EFT/Burst	IEC 61000-4-4, 2kV, Criterion A
	Surge	IEC 61000-4-5 Installation Class 3, Criterion A
	Conducted Immunity	IEC 61000-4-6, 10V, Criterion A
	Magnetic Field	IEC 61000-4-8, 30A/m, Criterion A
	Dips & Interruption ⁽¹⁾	IEC 61000-4-11
CB	IEC 60601-1, IEC 62368-1	
cTUVus	ANSI/AAMI ES 60601-1	
	CSA C22.2 No.60601-1	
CE, UKCA	EMC	EN 55032
		EN IEC 61000-3-2
		EN 61000-3-3
		EN 55035
	LVD	EN 62368-1, BS EN 62368-1

RELIABILITY & ENVIRONMENTAL REQUIREMENTS

Operating Temperature	0 ~ +70°C
Derating	2.5%/°C, > 50°C, up to 70°C max
Storage Temperature	-40°C to +85°C
Operating 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

⁽¹⁾ Power supply DIP voltage sag requirements table:

Drop	Time	Criterion	Rated output power
0%Ut	0.5cycle	A	
0%Ut	1cycle	A	
70%Ut	25/30 cycles	A	
0%Ut	300cycles	B	
40%Ut	5/6 cycles	A	150W Output power

PROTECTION

Over-Voltage	110-140%, Latch off, Recycle input to recovery
Over-Temperature	Auto Recovery with hysteric
Over-Load	Hiccup, Auto-Recovery
Short Circuit	Hiccup, Auto-Recovery
Over Current Protection	Hiccup, Auto-Recovery
Input Brown Out	AC On Voltage ≤80Vac
	AC Off Voltage ≥55Vac
	Minimum Hysteresis 5Vac

POWER OK TIMING

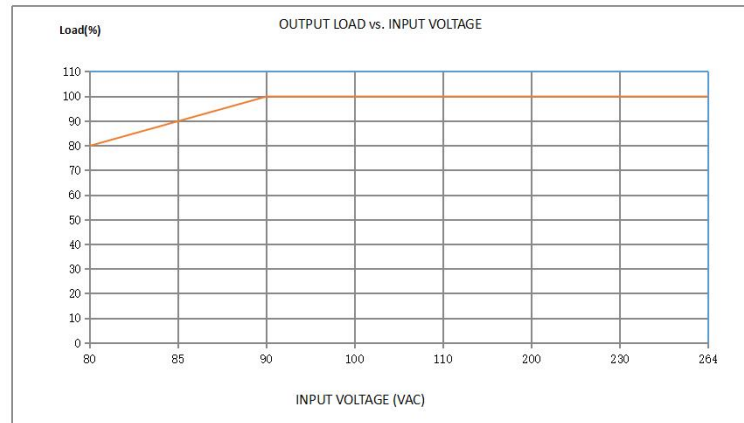
Power OK Delay Time	700ms Max
Power Fail Warning Time	3ms Min

DIMENSION & PACKING

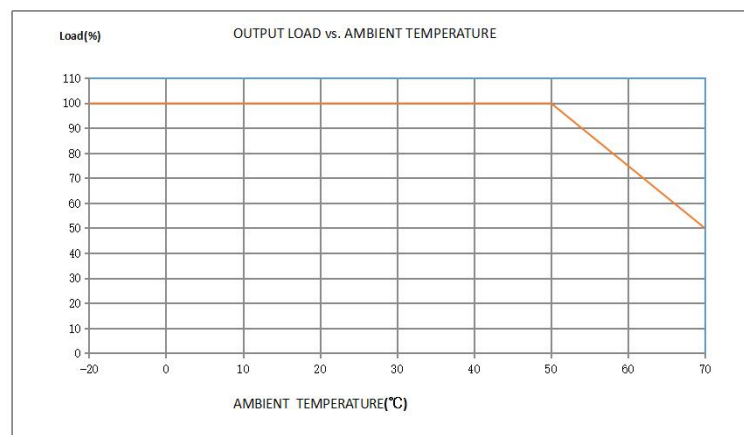
Isolation	4000 VAC – Input to Output; 2xMOPP
	3000 VAC – Input to Ground; 1xMOPP
	1500 VAC – Output to Ground; 1xMOPP
MTBF	800K Hours, Telecordia SR-332 @ 35 °C
Weight	TBD
Dimensions	76.2x127x26.5 mm
	3.0 x 5.0 x 1.05 " inch

DERATING CURVE

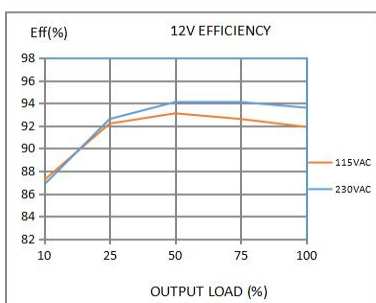
OUTPUT POWER VS INPUT VOLTAGE



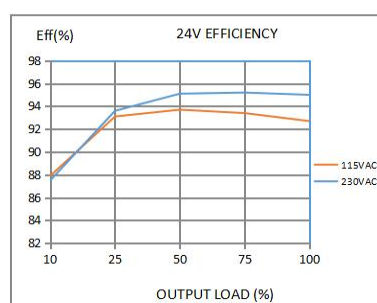
OUTPUT POWER VS AMBIENT TEMPERATURE



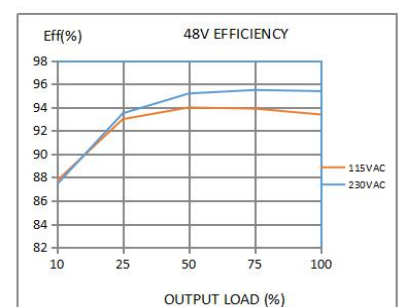
EFFICIENCY (V1 SINGLE OUTPUT)



12V Efficiency



24V Efficiency



48V Efficiency

Medical Power Supply

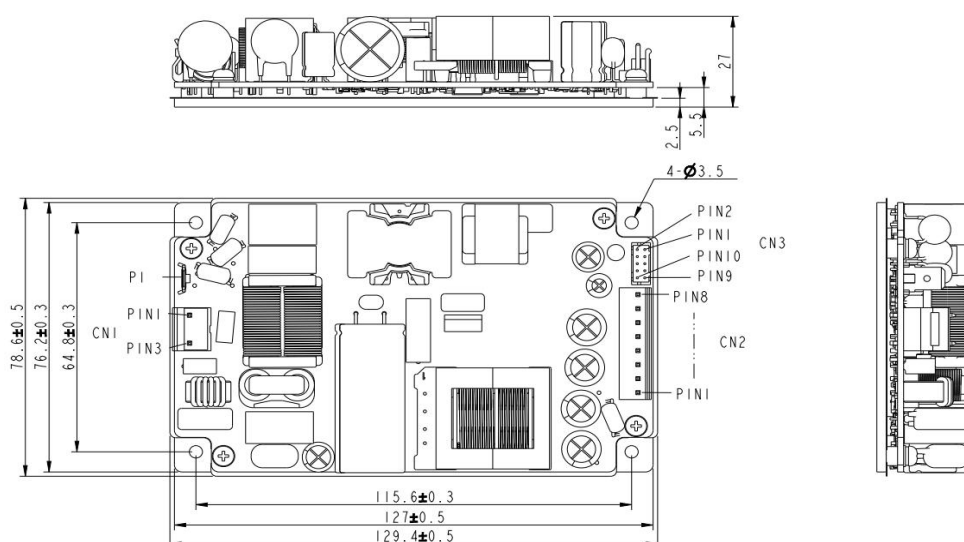
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260W AC-DC OPEN FRAME

MECHANICAL AND CONNECTOR INFORMATION

MP260S1



PE Connector PI
0.25" Faston Gnd Tab

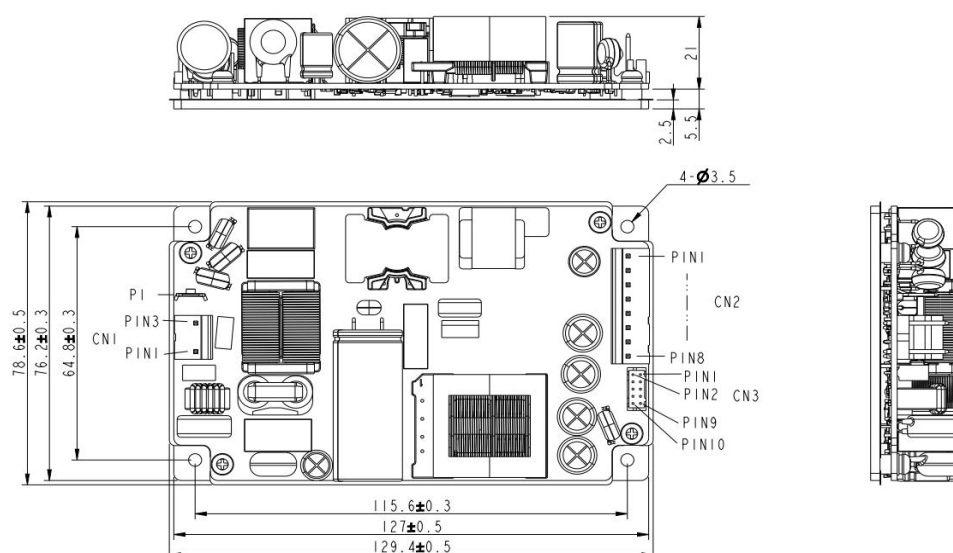
Input Connector CNI JST B2P3-VH or Equivalent	
Pin	Function
1	Line
3	Neutral

DC Output Connector CN2 for 12V,15V:JST B8P-VH or Equivalent	
Pin	Function
1,2,3,4	+Vout
5,6,7,8	RTN

Signal Connector CN3 JST PN S10B-PHDS	
Pin	Function
1	+Sense
2	-Sense
3	N/C
4	Inhibit Lo
5	Inhibit Hi
6	Power OK(AC-OK)
7	+5VSB
8	+5VSB
9	-5VSB
10	-5VSB

DC Output Connector CN2 for 24V to 48V:JST B6P-VH or Equivalent	
Pin	Function
1,2,3	+Vout
4,5,6	RTN

MP260S2



PE Connector PI
0.25" Faston Gnd Tab

Input Connector CNI Molex 09-65-2038 or Equivalent	
Pin	Function
1	Line
3	Neutral

DC Output Connector CN2 for 12V,15V:Molex 09-65-2088 or Equivalent	
Pin	Function
1,2,3,4	+Vout
5,6,7,8	RTN

Signal Connector CN3 JST PN S10B-PHDS	
Pin	Function
1	+5VSB
2	-5VSB
3	-5VSB
4	Power OK
5	Inhibit Hi
6	Inhibit Lo
7	+Sense
8	-Sense
9	+Vout
10	-Vout

DC Output Connector CN2 for 24V to 48V:Molex 09-65-2068 or Equivalent	
Pin	Function
1,2,3	+Vout
4,5,6	RTN

Medical Power Supply

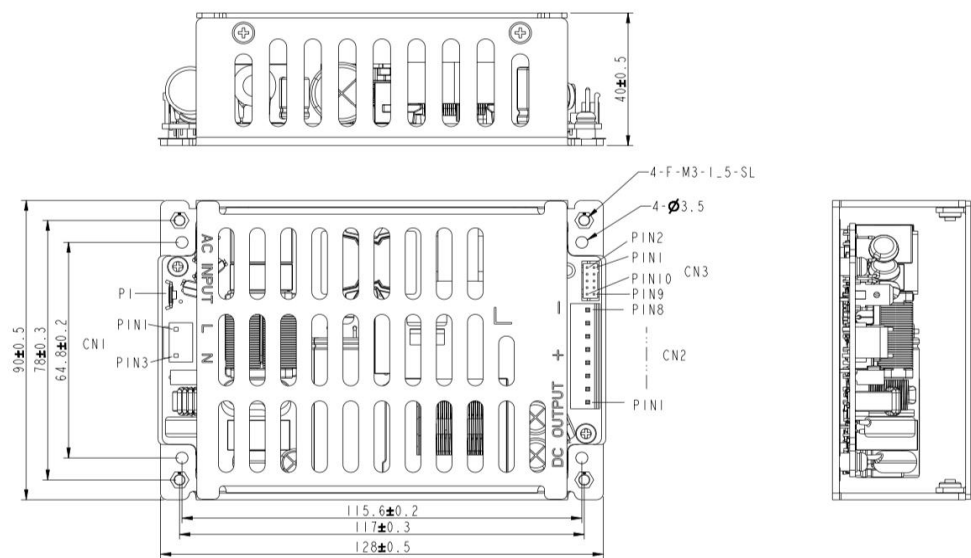
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MP260S Series

260W AC-DC OPEN FRAME

MECHANICAL AND CONNECTOR INFORMATION

Metal Enclosure



Signal Connector CN3 JST PN S10B-PHDSS	
Pin	Function
1	+Sense
2	-Sense
3	N/C
4	Inhibit Lo
5	Inhibit Hi
6	Power OK (AC-OK)
7	+5VSB
8	+5VSB
9	-5VSB
10	-5VSB

PE Connector PI 0.25" Faston Gnd Tab	
---	--

DC Output Connector CN2 for 24V to 48V: JST B6P-VH or Equivalent	
Pin	Function
1, 2, 3	+Vout
4, 5, 6	RTN

Input Connector CNI JST B2P3-VH or Equivalent	
Pin	Function
1	Line
3	Neutral

DC Output Connector CN2 for 12V, 15V: JST B8P-VH or Equivalent	
Pin	Function
1, 2, 3, 4	+Vout
5, 6, 7, 8	RTN

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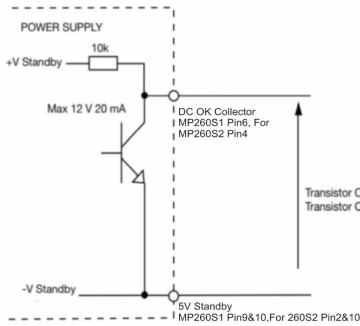
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MP260S Series

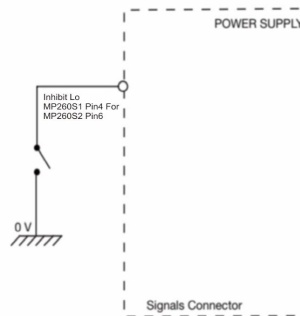
260W AC-DC OPEN FRAME

Signals and Remote On/Off

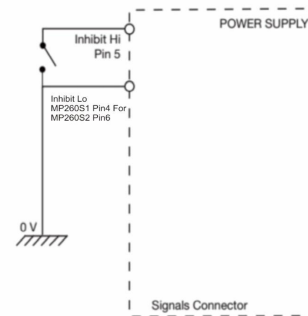
Power OK (AC-OK)



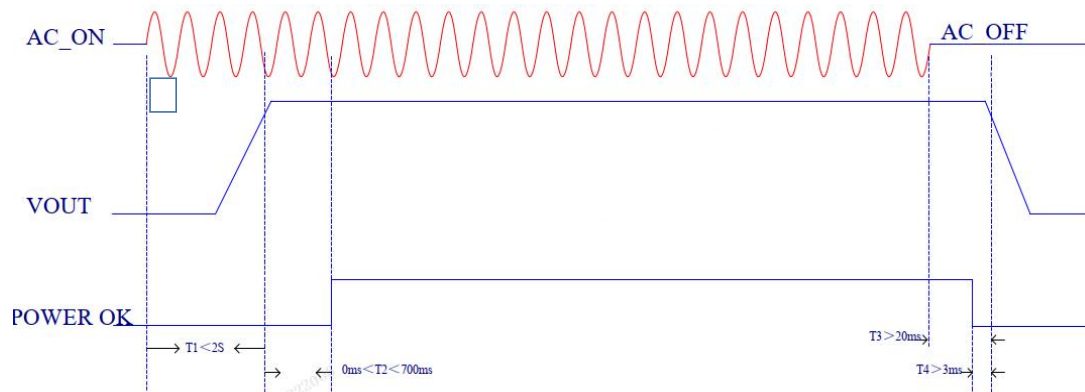
Remote On/Off (Inhibit)



Remote On/Off (Enable)

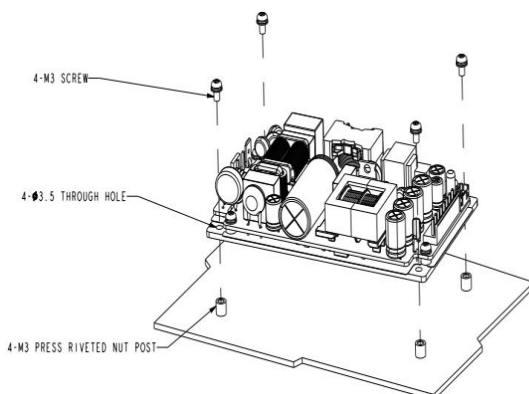


Timing Sequence Graph

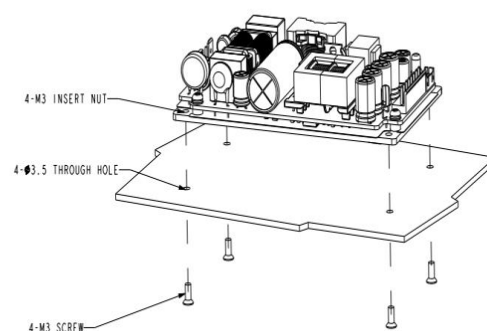


MOUNTING METAL BASE OPTION

F: Front Mounted Metal Base



B: Back Mounted Metal Base



Medical Power Supply

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MP260S Series

260W AC-DC OPEN FRAME

GLOBAL OPERATION AND SERVICE



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