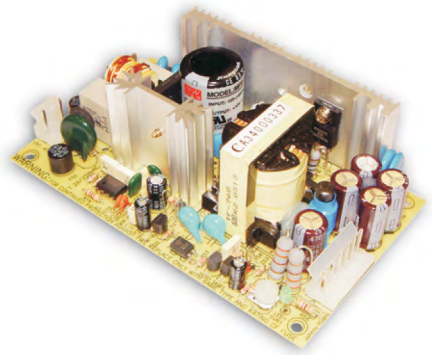
Astrodyne TDI
Now you have power.

65W Single Output for Medical Type

MPS65 series



- Universal AC input
- Low leakage current ≤ 0.3mA
- Protections: Short circuit / Overload / Over voltage
- Fixed switching frequency at 45KHz
- Cooling by free air convection

Model Number	Output Volts	Output Amps	OVP	Volt Tolerance	DC Volt Adjust	Efficiency
SINGLE OUTPUT						
MPS65-3.3	3.3 Volts(DC)	12 Amps	3.8~4.46Volts(DC)	±3.0%	2.97~3.63Volts(DC)	66%
MPS65-5	5.0 Volts(DC)	12 Amps	5.75~6.75Volts(DC)	±3.0%	4.5~5.5Volts(DC)	74%
MPS65-7.5	7.5 Volts(DC)	8.0 Amps	8.63~10.1Volts(DC)	±3.0%	6.75~8.25Volts(DC)	76%
MPS65-12	12 Volts(DC)	5.2 Amps	13.8~16.2Volts(DC)	±2.0%	10.8~13.2Volts(DC)	77%
MPS65-13.5	13.5 Volts(DC)	4.7 Amps	15.5~18.2Volts(DC)	±2.0%	12.2~14.85Volts(DC)	78%
MPS65-15	15 Volts(DC)	4.2 Amps	17.25~20.25Volts(DC)	±2.0%	13.5~16.5Volts(DC)	79%
MPS65-24	24 Volts(DC)	2.7 Amps	27.6~32.4Volts(DC)	±2.0%	21.6~26.4Volts(DC)	80%
MPS65-27	27 Volts(DC)	2.4 Amps	31~36.45Volts(DC)	±2.0%	24.3~29.7Volts(DC)	80%
MPS65-48	48 Volts(DC)	1.35 Amps	55.2~64.8Volts(DC)	±2.0%	43.2~52.8Volts(DC)	80%

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INPUT SPECIFICATIONS

Input Voltage Range	90-264VAC / 127-370 Volts(DC)
Frequency Range	47-440 Hz
Inrush Current, typ: (cold start)	15Amps @ 115VAC Input
	30 Amps @ 230VAC
Input Current	1.6 Amps max @ 115VAC
	0.9 Amps max @ 230VAC
Leakage current	< 0.3mA / 264 VAC

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±1.0%
Load Regulation	±3.0%: 3.3~7.5Volts(DC)
	±2.0%: 12~48Volts(DC)
Voltage Tolerance (Note 2)	See Selection Chart
Ripple/Noise (Note 1)	80mVpk-pk: 3.3Volts(DC):
	100mVpk-pk: 5~48Volts(DC)
Hold Up Time @ FL	50mS @ 230VAC
	16mS @ 115VAC
Setup, Rise Time @ FL	800mS, 30mS/230VAC
	800mS. 30mS/115VAC
Over Voltage Protection	See Selection Chart
	Hiccup mode, auto recover
Over Current Protection	73~105W rated output power
	Hiccup mode, auto recover
DC Volt Adjust	See Selection Chart

GENERAL SPECIFICATIONS

Safety	UL2601-1
	TUV EN60601-1
	IEC60601-1 approved
Insulation Resistance	≥ 100MΩ
EMI	Compliance to EN55011(CISPR11)
	Class B
Harmonic Current	Compliance to EN61000-3-2,-3
Efficiency	See Selection Chart
Isolation	
	4000VAC Input - Output
	1500VAC Input - Ground
	500VAC Output - Ground
EMS	Compliance to
	EN61000-4-2,3,4,5,6,8,11;
	ENV50204, EN55024, EN60601-1-2,
	medical level, criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10°C to +60°C (See Derate Curve)
Storage Temperature	-20°C to +85°C, 10~95% RH
Relative Humidity	20 to +90% RH non cond
Temperature Coefficient	0.04% / °C (0-50°C) on +5V output
MTBF	359.7KHrs min,MIL-UDBK-217F(-25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for
	60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size		
	Millimeters	127 x 76 x 42
	Inches	5" x 2.99" x 1.65"
Weight		8.11 oz (230g)

NOTE

1. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.
3. Mounting holes M1 and M2 should be grounded for EMI purposes.

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

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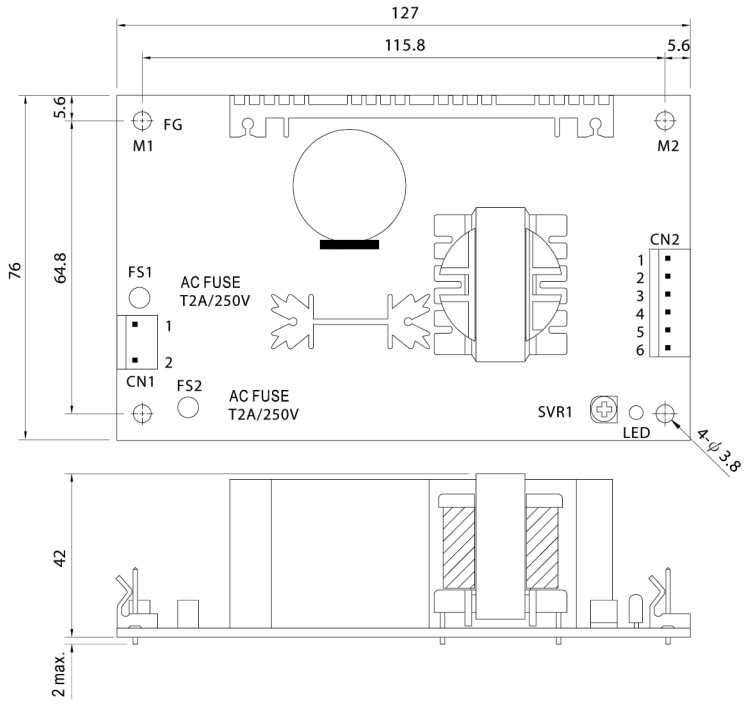
■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 5277-02 or equivalent

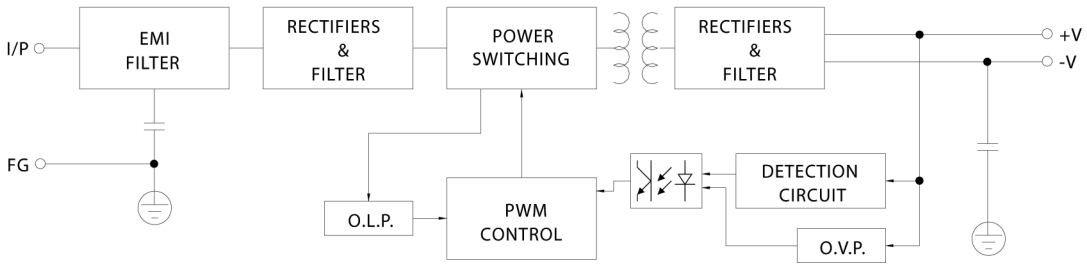
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/N		

DC Output Connector (CN2) : Molex 5273-06 or equivalent

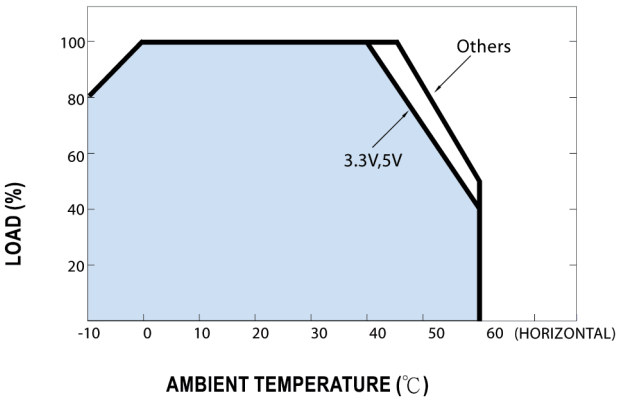
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6	-V		

■ Block Diagram

fosc : 45KHz



■ Derating Curve



■ Static Characteristics