

AC/DC INDUSTRIAL POWER SUPPLY - 75W



Power Supplies

510xx SERIES

MAIN FEATURES:



- 75W Small Compact Size
- Regulated Output Range: 3.3VDC– 48VDC
- Input Range: 85VAC – 305VAC/47 – 63Hz or 120VDC – 430VDC
- Very Low Standby Power Consumption $\leq 0.2W$
- High Energetic Efficiency: Meets the requirements of Energy Star and the EC Code of Conduct
- Safety : Meets all requirements of IEC/EN61558-2-16, IEC/EN60335-1, IEC/EN62368-1, UL62368-1, CSA C22.2NO.62368-1-14, CE, UKCA mark
- EMC: Conducted and Radiated Emission conform to EN55032, FCC Part 15, CLASS B, EN/IEC61000-3-2 CLASS A EN61000-3-3
- Immunity conforms to EN61000-4-2, EN/IEC61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

DATA SHEET



Part No.	Power Rating Watts	Output Voltage (VDC)	Rated Output Current (A)	Ambient Temp. (°C)	Efficiency Typical	Input Range
51000	45	3.3	13.5	-25°C ~ +70°C	80%@230VAC	85 ~ 305VAC (120-430VDC)
51001	70	5	14.0	-25°C ~ +70°C	85%@230VAC	
51002	72	9	8.0	-25°C ~ +70°C	85%@230VAC	
51003	72	12	6.0	-25°C ~ +70°C	87%@230VAC	
51004	75	15	5.0	-25°C ~ +70°C	87%@230VAC	
51005	75	18	4.2	-25°C ~ +70°C	89%@230VAC	
51006	76.8	24	3.2	-25°C ~ +70°C	91%@230VAC	
51007	75.6	36	2.1	-25°C ~ +70°C	91%@230VAC	
51008	76.8	48	1.6	-25°C ~ +70°C	91%@230VAC	

NOTE : Other output voltage are available upon request.

Please refer to MYRRA's website and catalogue for MYRRA SMPS application notes.

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Model : 75 Watt		Specifications
AC Input Characteristics	Rated Input Voltage	100~277 VAC or 140VDC-390VDC
	Input Voltage Range	85~305VAC or 120VDC-430VDC
	AC Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	1.5A Max
	Input Inrush Current	50A Max @277VAC input, cold start, full load
	Standby Power	0.2W Max (Meets the Requirements of Energy Star and the EC Code Of Conduct)
	Leakage Current	<0.75mA/305VAC
DC Output Characteristics	Output Voltage Accuracy	±2%
	Output Voltage Line Regulation	± 0.5%
	Output Voltage Load Regulation	± 1%
	Ripple & Noise	Max 180mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with a 47µF AL E-Cap and a 0.1µF Ceramic-Cap. An oscilloscope set at 20MHz bandwidth)
	Dynamic Response	The output voltage shall not exceed ± 10% rated output voltage @ 50% ← → 100 % Load change, 1A/µS, 1KHz 50% duty cycle
	Hold Up Time	5mS min@ 100 VAC~277VAC, DC output with full load
	Turn On Delay	3S max @ 85VAC~305VAC input and DC output with full load
	Rise Time	50ms max @ 85VAC~305VAC input and DC output with full load
	Overshoot	The output voltage shall not exceed +10% rated output voltage @ Power on and 85VAC~305VAC input, and DC with full load
	Undershoot	The output voltage shall not exceed -10% rated output voltage @ Power off and 85VAC~305VAC input and DC output with full load

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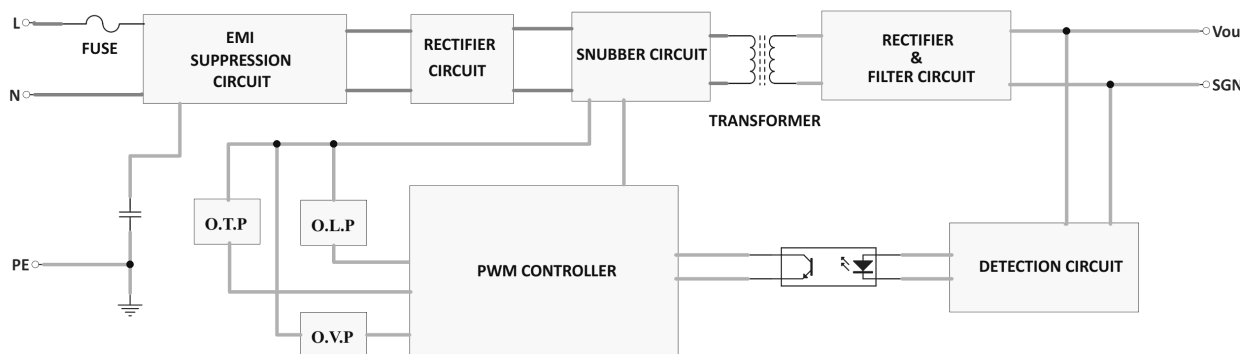
Protection Characteristics	Efficiency	See table (Meets the requirements of Energy Star and the EC Code of Conduct)
	Over Current Protection	The power supply shall automatic protection. The power supply shall auto-recovery normal operations after the deformation is removed. No excessive heat, odour, no safety hazard
	Output Short Circuit Protection	The power supply shall withstand a continuous output short without damage in 24 hours; The short may be applied before power on, or after power on; The power supply shall resume normal operation after the short is removed, no excessive heat, odour ,no safetyhazard.
Environmental	Operation Temperature	-25°C~+70°C (Refer to« DERATING GRAPH »)
	Operation Humidity	10~90% RH (No Condensing) @ full load
	Storage Temperature	-40°C~ +85°C (Recommended +5°C~ +35°C)
	Storage Humidity	5%~95% (Recommended <75%RH)
	Cooling Method	Ordinary or thermostat
	Dielectric Strength	Input to Output : 3750VAC 5mA, 3 sec. Input to GND: 2000VAC 10mA, 3 sec. Output to GND: 1250VAC 10mA, 3 sec
	Insulation Resistance	100MΩ max @500Vdc
	Radiation	Meets EN55032, FCC part 15 Class B. under 3dB margin
	Conduction	Meets EN55032, FCC part 15 Class B. under 3dB margin
	Harmonic Current Distance	Meeting EN/IEC61000-3-2:2019, Class A
	Voltage Fluctuation and Flicker	Meets EN61000-3-3:2013+A2:2021
	Electrostatic Discharge	Meets EN61000-4-2 : 2009, Contact Discharge ± 6KV, Air Discharges ± 8KV
	RF Field Strength Susceptibility	Meets EN/IEC61000-4-3:2019, 10V/m
	Electrical Fast Transient	Meets EN61000-4-4:2025, ± 4KV

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Safety & EMC Requirements	Lightning Surge	Meets EN61000-4-5:2014+A1:2017, $\pm 6\text{KV}$ common mode, $\pm 4\text{KV}$ diff.mode
	Conducted Susceptibility	Meets EN61000-4-6:2023, 10Vr.m.s
	Power Frequency Magnetic Field Susceptibility Test	Meeting EN61000-4-8:2010, 30A/m
	Voltage Dips and interruptions	Meets EN61000-4-11:2020, 0%,70%
	Safety Standards	Meets all requirements of : UL62368-1, CSA C22.2 NO.62368-1-14 IEC/EC62368-1 IEC/EN60335-1 IEC/EN61558-2-16 CE,UKCA
Reliability Requirement	MTBF	>200K Hours @230VAC input at 50deg.C operation temperature; >450K Hours @230VAC input at 25deg.C <i>Calculated in accordance with MIL-HDBK-217-F2</i>
	Burn-in-Test	The unit shall be burned in 2~5hours under 230VAC input and DC with full load at and ambient temperature of 30~45 degrees C
Mechanical	Physical size	The units dimension is : (L)104*(W)82.5*(H)30mm ($\pm 1\text{mm}$) (see appearance drawing)
	Net Weight	Approximately 190 grams per product unit
Guarantee	This product is in accordance with the European RoHS & REACH directives	

SCHEMATIC



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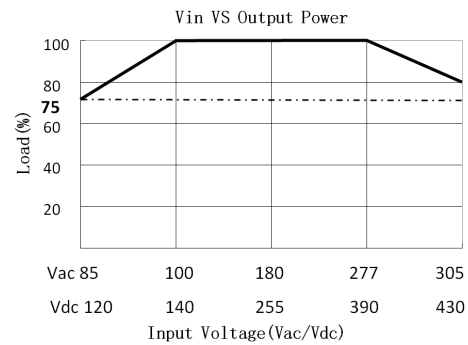
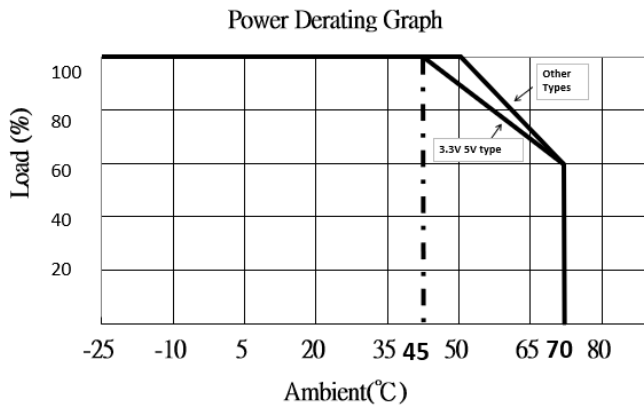
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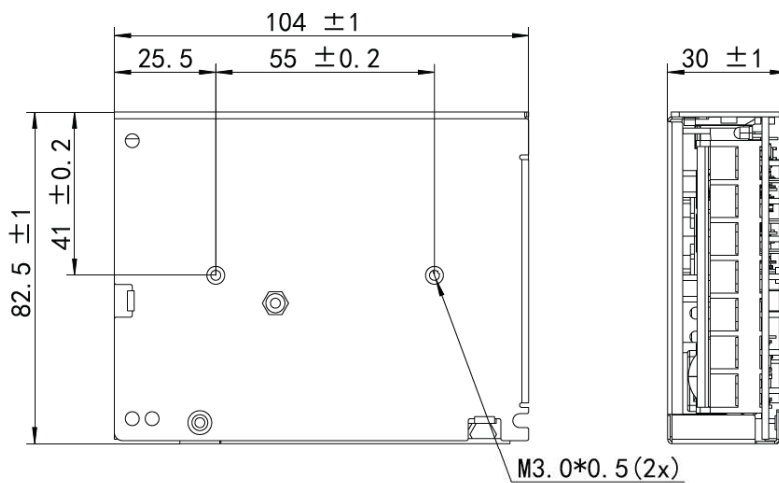


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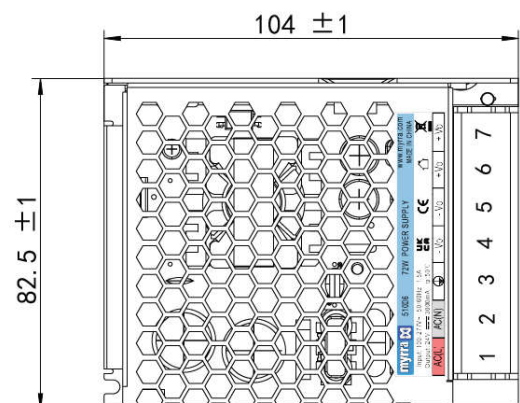
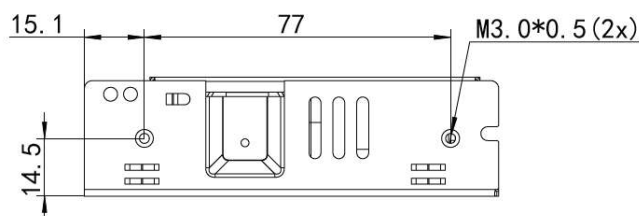
DERATING GRAPH



DIMENSIONS



Terminal Pin NO. Function			
Pin	Function	Pin	Function
1	AC(L)	4	DC Output -V
2	AC(N)	5	DC Output -V
3	⊥	6	DC Output +V
		7	DC Output +V



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