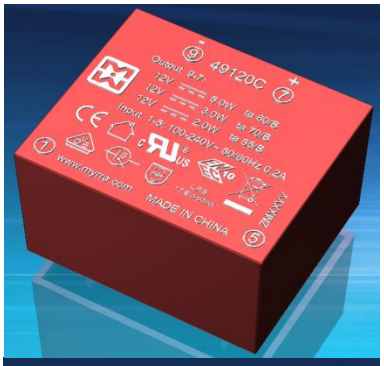
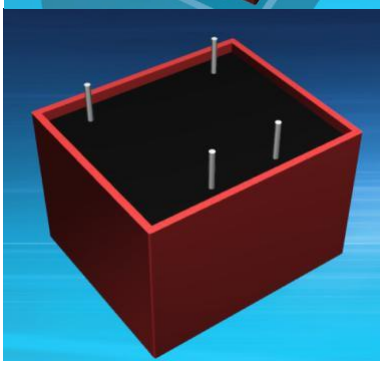
AC/DC CONVERTER - 5W REGULATED

High Accuracy Family

myrra Power Supplies

NEW 5W SERIES





DATA SHEET

MAIN FEATURES:

- 2W to 5W Small Compact Size - PCB Mount
- Single Output - Secondary Side Regulated
- Output Range : 3.3VDC - 24VDC
- Input Range : 85VAC - 265VAC/47 - 63Hz Or 120VDC -370VDC
- Very Low Standby Power Consumption ≤ 0.1W
- High Energetic Efficiency : Meets Requirements Of Energy Star and EC Code Of Conduct
- Encapsulated Design and same Footprint as an EI30 Transformer: Upgrade Your Application without redesigning the PCB
- Safety: Meets All Requirements of IEC/EN61558-2-16, IEC/EN60335, IEC/EN62368, UL/CUL62368
- Materials: Uses UL 94-VO Plastic And Resin
- EMC : Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B without any additional components
- Immunity Conform To EN61000-3-2 CLASS A, EN61000-3-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-11

Part No	Power Rating Watts	Output Voltage (VDC)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
49033C	5.0	3.3	1500	50	>71%@230VAC	85VAC-265VAC (120VDC- 370VDC)
	2.75		830	70		
	2.0		610	80		
49050C	5.0	5.0	1000	60	>72%@230VAC	
	3.0		600	70		
	2.0		400	85	>70%@230VAC	
49090C	5.0	9.0	560	60	>75%@230VAC	
	3.0		330	70		
	2.0		220	85	>73%@230VAC	
49120C	5.0	12	420	60	>76%@230VAC	
	3.0		250	70		
	2.0		170	85	>74%@230VAC	

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Part No	Power Rating Watts	Output Voltage (VDC)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
49150C	5.0	15	330	60	>77%@230VAC	85V85VAC-265VAC (120VDC- 370VDC)
	3.0		200	70		
	2.0		130	85	>74%@230VAC	
49180C	5.0	18	280	60	>78%@230VAC	
	3.0		170	70		
	2.0		110	85	>76%@230VAC	
49240C	5.0	24	210	60	>80%@230VAC	
	3.0		125	70		
	2.0		84	85	>76%@230VAC	

NOTE : Other output voltage are available upon request.

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Model : 5 Watt		Specifications
AC Input Characteristics	Rated AC Input Voltage	100~240 VAC or 140VDC-340VDC
	AC Input Voltage Range	85~265VAC or 120VDC-370VDC
	AC Input Frequency	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	0.2A Max@85VAC~265VAC, at full load
	Standby Power	O.1W Max (Meets the requirements of Energy Star and the EC Code Of Conduct)
DC Output Characteristics	Output Voltage Accuracy	± 2%
	Output Voltage Line Regulation	± 0.5%
	Output Voltage Load Regulation	± 2%
	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~240VAC, DC output with full load
	Turn On Delay	3S max @ 85VAC~265VAC input and DC output with full load
	Rise Time	50ms max @ 85VAC~265VAC input and DC output with full load
	Overshoot	The output voltage shall not exceed +10% rated output voltage @ Power on and 85VAC~265VAC input, and DC with full load
	Undershoot	The output voltage shall not exceed -10% rated output voltage @ Power off and 85VAC~265VAC input and DC output with full load
	Efficiency	See table (Meets the requirements of Energy Star and the EC Code of Conduct)

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Protection Characteristics	Over Current Protection	The power supply shall automatically protect against over current. The power supply shall auto-recover normal operation after the fault condition is removed. No excessive heat, odour, or plastic deformation shall occur with no safety hazard during the fault
	Output Short Circuit Protection	The power supply shall withstand a continuous output short without damage; 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, or plastic deformation shall occur with no safety hazard during the fault.
Environmental	Operation Temperature	-25°C ~+85°C (see page 1 table)
	Operation Humidity	10~ 90% RH(No Condensing) @ full load
	Storage Temperature	-10'C to +35'C
	Storage Humidity	< 75%RH
	Cooling Method	Ordinary or thermostat
Safety & EMC Requirement	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 secs.
	Radiation	Meets EN55032,FCC part 15, Class B. under 3dB margin
	Conduction	Meets EN55032,FCC part 15,Class B. under 3dB margin
	Harmonic Current Disturbance	Meets EN61000-3-2:2014, Class A
	Voltage fluctuation and Flicker	Meets EN61000-3-3:2013

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Power Supplies

Safety & EMC Requirement	Electrostatic Discharge	Meets IEC61000-4-2:2008 Contact Discharge ± 4KV, Air Discharge ±8KV
	RF Field Strength Susceptibility	Meets IEC61000-4-:2006+A1:2007+A2:2010
	Electrical fast Transient	Meets IEC61000-4-5:2014,+1KV (line to line) *Note: surge level can be extended to 6KV with an external circuit – please refer to Myrra's website and catalogue for MYRRA SMPS application notes*
	Conducted Susceptibility	Meets IEC61000-4-6:2013
	Voltage Dips And Interruptions	Meets IEC61000-4-11:2004
	Safety Standards	Meets all requirements of UL/CUL62368 IEC/EN60335 IEC/EN61558-2-16 IEC/EN62368
Reliability Requirements	MTBF	>550K Hours @ 230VAC input at 24deg.C and DC output with 5W load. >200K Hours @ 230VAC input at max operation temperature and DC output with 5W load *Calculated in accordance with MIL-HDBK-217-F2*
	Burn-in-Test	The power supply is subject to a burn in test for 2~5hours under 230VAC input and DC full load at an ambient temperature of 30~45 degrees C
Net Weight		Approximately 30 grams per product unit
Guarantee	This product is in accordance with the European RoHS & REACH directives	

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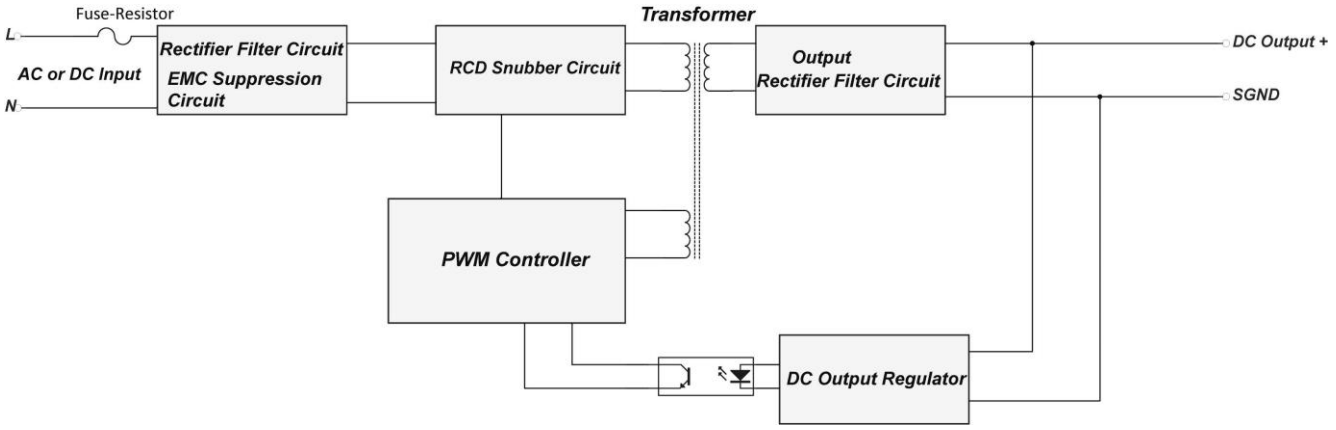
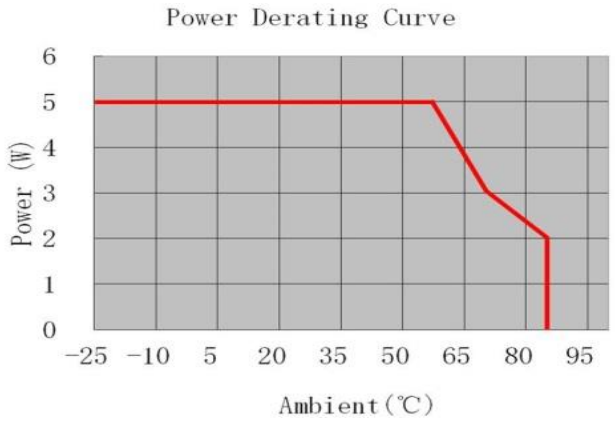
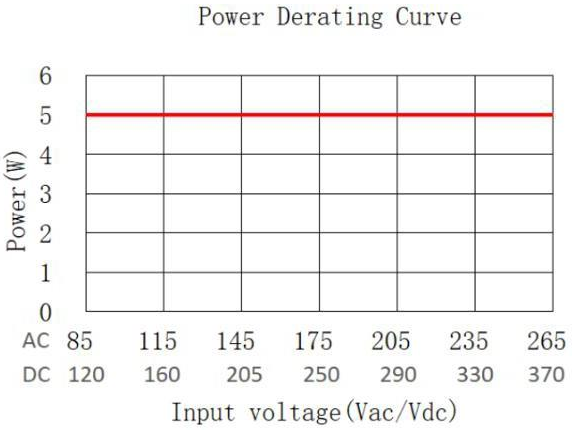
SCHEMATIC



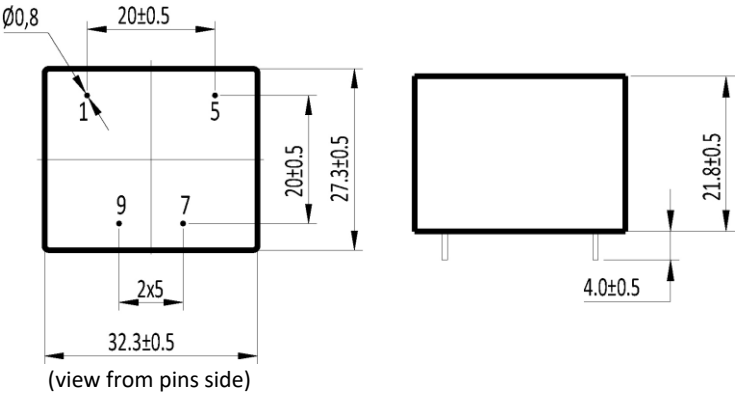
DERATING GRAPH (TYPICALLY 12V TYPE)





DIMENSIONS AND PINOUT
4 PINS

- PRI:
- Pins 1-5: AC or DC Input
- SEC:
- Pin 7: DC Output +V
- Pin 9: DC Output 0V



(view from pins side)

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