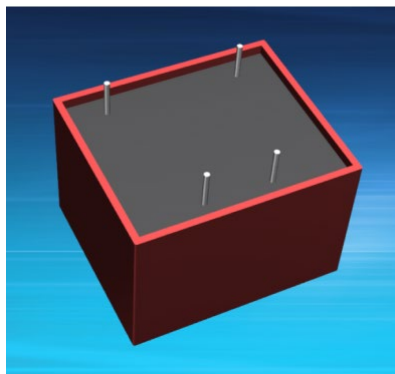


# ONE OUTPUT 10W - REGULATED



Power Supplies

## NEW 10W SERIES



## MAIN FEATURES:

- 10W Small Compact Size - PCB Mount
- Single Output - 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 the Requirements Of Energy Star and EC Code Of Conduct
- Encapsulated Design and Same Footprint as EI48 Transformer: Upgrade Your Application Without Redesign Of PCB
- Safety: Meets All Requirements of IEC/EN61558-2-16, IEC/EN60335, IEC/EN62368, UL/CUL60950, CE, VDE, ENEC Mark
- Materials : Uses UL 94-VO Plastic And Resin
- EMC: Conducted and Radiated Emission conform To EN55032, N55014 and FCC Part 15, CLASS B
- 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



## DATA SHEET

Part No	Power Rating Watts	Output Voltage (VDC)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
47210	10	5	2000	60	>74%@230VAC	85VAC-265VAC (120VDC-370VDC)
47211	10	9	1100	60	>80%@230VAC	
47212	10	12	830	60	>82%@230VAC	
47213	10	15	670	60		
47214	10	18	560	60		
47215	10	24	420	60		
47216	10	3.3	3000	50	>72%@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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Power Supplies

## NEW 10W SERIES

Model : 10 Watt		Specifications
AC Input Characteristics	Rated Input Voltage	100~240 VAC or 140VDC-340VDC
	Input Voltage Range	85~265VAC or 120VDC-370VDC
	Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	0.4A Max@85VAC~265VAC at full load
	Input Inrush Current	40A Max @85VAC~265VAC input, cold start, full load
	Standby Power	0.1W Max(Meet the Requirements Of Energy Star And EC Code Of Conduct)
DC Output Characteristics	Output Voltage Accuracy	± 2% (5V,9V,12V,18V,24V Types) ± 3% (5V Types) ± 4% (3.3V Types)
	Output Voltage Line Regulation	± 0.5% (9V,12V,18V,24V Types) ± 1% (3.3V and 5V Types)
	Output Voltage Load Regulation	± 1% (9V,12V,18V,24V Types) ± 3% (5V Type) ± 4% (3.3V Type)
	Ripple & Noise	Max 150mVp-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 @ 10% ← → 90 % 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

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# ONE OUTPUT 10W - REGULATED



## NEW 10W SERIES

## Power Supplies

	Efficiency	See table (Meets the Requirements Of Energy Star And EC Code Of Conduct)
Protection Characteristics	Over Current Protection	The power supply shall automatic protection. The power supply shall auto-recovery normal operations after the deformations is removed. No excessive heat, odor, or plastic deformation shall occur, no safety hazard
	Output Short Circuit Protection	The power supply shall with stand 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, odor, or plastic deformation shall occur, no safety hazard.
	Over temperature protection	The power supply shall shut down when the junction temperature of PWM controller exceeds the thermal shutdown temperature, typically 140°C $\pm$ 10°C
Environmental	Operation Temperature	-25°C~+Ta (see Table)
	Operation Humidity	10~90% RH (No Condensing) @ full load
	Storage Temperature	-40°C~ +85°C
	Storage Humidity	5%~95%
	Cooling Method	Ordinary or thermostat
Safety & EMC Requirement	Dielectric Strength	Primary to Secondary: 4000VAC 5mA, 3 sec.
	Radiation	Meets EN55032,EN55014, FCC part 15 Class B. under 3dB margin
	Conduction	Meets EN55032,EN55014, FCC part 15 Class B. under 3dB margin
	Harmonic Current Distance	Meets EN61000-3-2:2014, Class A
	Voltage Fluctuation and Flicker	Meets EN61000-3-3:2013
	Electrostatic Discharge	Meets IEC61000-4-2 : 2008, Contact Discharge $\pm$ 4KV, Air Discharges $\pm$ 8KV
	RF Field Strength Susceptibility	Meets IEC61000-4-3:2006+A1:2007+A2:2010
	Electrical Fast Transient	Meets IEC61000-4-4:2012, $\pm$ 1KV

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Power Supplies

## NEW 10W SERIES

<b>Safety &amp; EMC Requirements</b>	Lightning Surge	Meets IEC61000-4-5:2014,+2KV
	Conducted Susceptibility	Meets IEC61000-4-6:2013
	Voltage Dips and interruptions	Meets IEC61000-4-11:2004
	Safety Standards	Meets all requirements of : UL/CUL60950 IEC/EN62368 IEC/EN60335 IEC/EN61558-2-16 CE,VDE, And ENEC Mark VDE Approval No. 4001563 UL Approval No. E345767
<b>Reliability Requirement</b>	MTBF	Calculated by MIL-HDBK-217-F2 5V,9V,12V,15V,24V Types :200K Hours Min. @230VAC input, 60deg. C 3.3V Type : 200K Hours Min. @230VAC input, 50 deg.C
	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
<b>Mechanical</b>	Physical size	The units do not including PINs of input and output, and dimension is : (L)48.0*(W)40.0*(H)26.0±0.5mm (see appearance drawing)
	Net Weight	Approximately 80.2 grams per product unit
<b>Guarantee</b>	This product is in accordance with the European RoHS & REACH directives	

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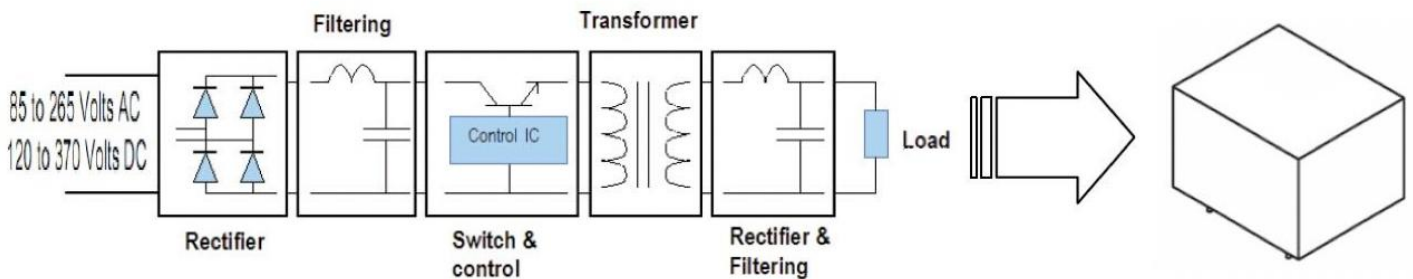
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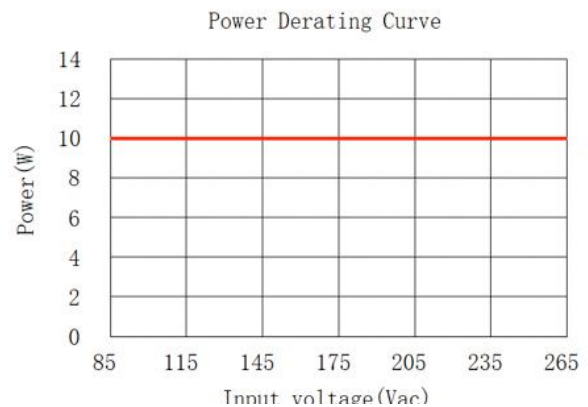
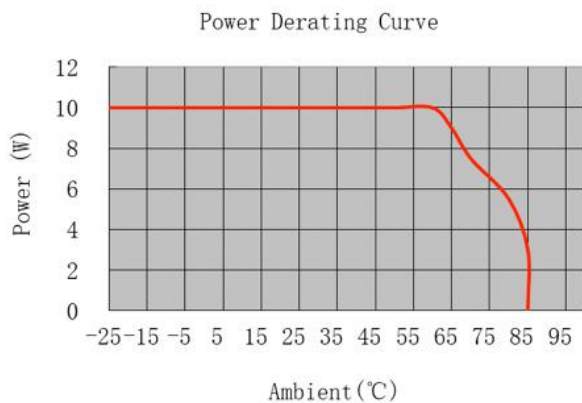


Power Supplies

## SCHEMATIC

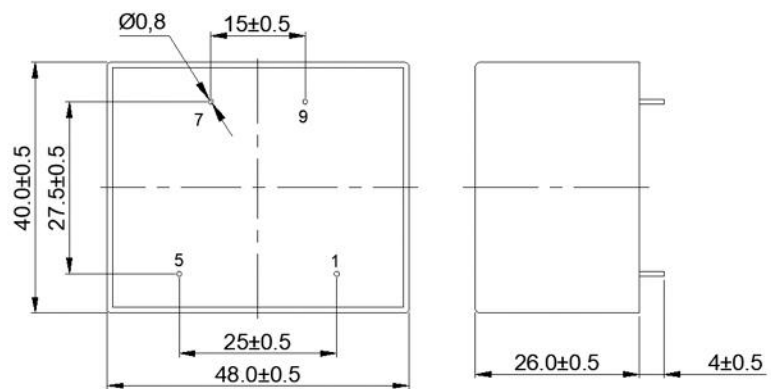


## DERATING GRAPH (TYPICALLY 12V TYPE)



## DIMENSIONS AND PINOUT 4 PINS

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



View From Pins Side

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