

## MAIN FEATURES:

- 2.5 To 5W 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 < 0.2W
- Better Energetic Efficiency : Meet Requirements Of Energy Star And EC Code Of Conduct
- Encapsulated Design And Same Footprint As EI30 Transformer: Upgrade Your Application Without Redesign Of PCB
- Safety : Meets All Requirements of: IEC/EN61558-2-16  
IEC/EN60950, IEC/EN60335, UL/CUL60950, CE, VDE, ENEC Mark
- Materials : Uses UL 94-V0 Plastic And Resin
- EMC : Conducted And Radiated Emissions Conform To  
EN55014 , EN55032, 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

Reference	Output voltage (DC Volts)	Output current (DC mA)	Output Power (W)	Efficiency (%)	Ta (°C)
47121	3.3	750	2.5	65	+70
47122	5	550	2.75	68	+70
47123	9	270	2.5	72	+70
47124	12	210	2.5	74	+70
47124 SLI	12	210	2.5	74	+70
47125	15	170	2.5	75	+70
47126	24	110	2.5	77	+70
47151	3.3	1350	4.5	65	+50
47152	5	900	4.5	68	+50
47153	9	550	5	72	+50
47154	12	420	5	75	+50
47155	15	320	5	76	+50
47156	24	210	5	79	+50
47157	3.8	1180	4.5	66	+50

Note: Other Output Voltages Are Available Upon Request.

## ONE OUTPUT 2.5 TO 5W – Regulated



47000 SERIES

Model: 2.5 To 5 Watt		Specification
AC Input Characteristics	Rated input Voltage	100~240Vac Or 140VDC-340VDC
	Input Voltage Range	85~265Vac Or 120VDC-370VDC
	AC Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	0.2A Max@85Vac~265Vac, at full load
	Standby Power	0.2W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)
DC Output Characteristics	Output Voltage Accuracy	$\pm 2\%$
	Output Voltage Line Regulation	$\pm 0.5\%$
	Output Voltage Load Regulation	$\pm 2\%$
	Ripple & Noise	Max 200mVp-p@ Rated AC input(The measuring will be terminated with a 47uF AL E-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)
	Dynamic Response	The output voltage shall not exceed $\pm 10\%$ rated output voltage @ 10% $\leftarrow$ $\rightarrow$ 90% Load change, 1A/uS , 1KHz 50% duty cycle
	Overshoot	The output voltage shall not exceed +15% rated output voltage @ Power on and 85Vac~265Vac input, and DC with full load
	Undershoot	The output voltage shall not exceed -15% rated output voltage @ Power off and 85Vac~265Vac input and DC output with full load
	Hold Up Time	5mS Min@ 100Vac ~240Vac, DC output with full load
	Turn On Delay	2S max @ 85Vac~265Vac input and DC output with full load

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	Rise Time	50ms Max @ 85Vac~265Vac input and DC output with full load
	Efficiency	See Table(Meet 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 operation after the deformation is removed. No excessive heat, odor, or plastic deformation shall occur, 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, 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±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%
Safety & EMC Requirement	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec .
	Radiation	Meeting EN55032,EN55014 , Class B. under 3dB margin
	Conduction	Meeting EN55032,EN55014, Class B. under 3dB margin
	Power Clamp Radiation	Meeting EN55014-1:2006+A1:2009+A2:2011
	Lightning Surge	Meeting IEC61000-4-5:2014,±1KV (surge level can be extended to 6KV with an external circuit - please refer to MYRRA's

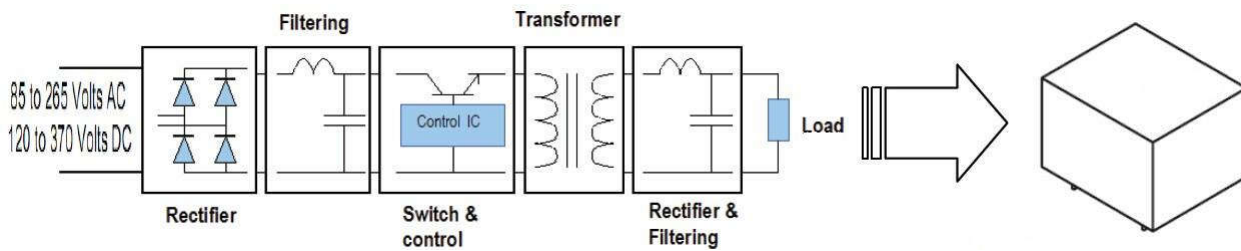
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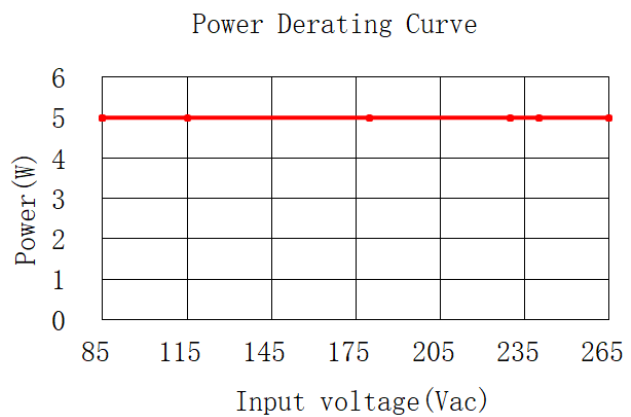
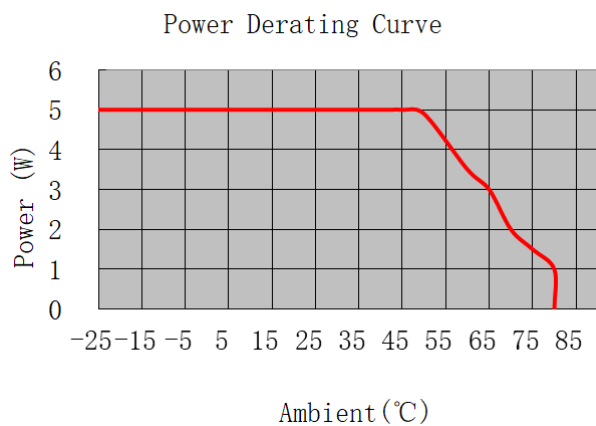
**47000 SERIES**

		website and catalogue for MYRRA SMPS application notes).
	Electric Fast Transient	Meeting IEC61000-4-4:2012, $\pm 1\text{KV}$
	Harmonic Current Disturbance	Meeting EN61000-3-2:2014, Class A
	Safety Standards	Meet all requirements of UL/CUL60950 IEC/EN60950 IEC/EN60335 IEC/EN61558-2-16 CE,VDE,And ENEC Mark VDE Approval No. 40034334 UL Approval No. E345767
Reliability Requirement	MTBF	Calculated by MIL-HDBK-217-F2 550K Hours Min. @230VAC input, 25deg.C
	Burn-In Test	The unit shall be burned in for 2~ 5hours under 230Vac input and DC with full load at an ambient temperature of 30~45 degrees C
Net Weight	About 30 grams per product unit	
Guarantee	This product meet to RoHS standard	

## SCHEMATIC



## DERATING GRAPH (Typically:47154)



## DIMENSIONS And PINOUT

### 4 PINS

**PRI:**

**Pins 1 – 5: AC Or DC Input**

**SEC:**

**Pin 7 : DC Output +V**

**Pin 9 : DC Output 0V**

