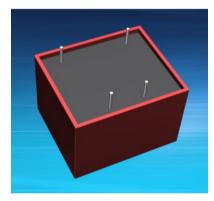
#### **NEW 60W SERIES**



**Power Supplies** 

# Image: Solution of the soluti



## **MAIN FEATURES:**

- 60W 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 < 0.15W
- Better Energetic Efficiency : Meets the Requirements of Energy Star and EC Code Of Conduct
- Encapsulated Design And Same Footprint As El48 Transformer: Upgrade your Application Without Redesign Of PCB
- Safety: Meets All Requirements of IEC/EN61558-2-16, IEC/EN60335, UL/CUL62368, 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



Part No	Power Rating Watts	Output Voltage (VDC)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
47261	60	5	10	50	>80%@230VAC	
47262	60	9	6.6	50	>85%@230VAC	
47263	60	12	5.0	50	>85%@230VAC	85VAC- 265VAC (120VDC- 370VDC)
47264	60	15	4.0	50		
47265	60	18	3.30	50		
47266	60	24	2.50	50		

#### NOTE : Other output voltage are available upon request.

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## **DATA SHEET**



#### **NEW 60W SERIES**

Мс	del:60 Watt	Specifications	
	Rated Input Voltage	100~240 VAC or 140VDC-340VDC	
	Input Voltage Range	85~265VAC or 120VDC-370VDC	
	Input Frequency Range	47Hz~63Hz	
AC Input	Rated AC Input Frequency	50/60Hz	
Characteristics	Input Current	1.5A Max@85VAC~265VAC, at full load	
	Input Inrush Current	50A Max @85VAC~265VAC input, cold start, full load	
	Standby Power	0.15W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)	
	Output Voltage Accuracy	<u>+</u> 3% (5V,9V,12V,18V,24V Types) <u>+</u> 5% (5V Types)	
	Output Voltage Line Regulation	<u>+</u> 3% (9V,12V,18V,24V Types) <u>+</u> 5% (5V Types)	
	Output Voltage Load Regulation	<u>+</u> 3% (9V,12V,18V,24V Types) <u>+</u> 5% (5V Type)	
	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)	
DC Ouput Characteristics	Dynamic Response	The output voltage shall not exceed $\pm$ 10% rated output voltage @ 10% $\leftarrow \rightarrow$ 90 % Load change, 1A/µS, 1KHz 50% duty cycle @ Rated AC input voltage range	
Characteristics	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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**Power Supplies** 

#### **NEW 60W SERIES**

	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.	
	Operation Temperature	-25°C~+Ta (see Table) ; +70°C at 50% full load (Refer to « DERATIN GRAPH »)	
	Operation Humidity	10~90% RH (No Condensing) @ full load	
Environmental	Storage Temperature	-40°C~ +85°C	
	Storage Humidity	5%~95%	
	Cooling Method	Ordinary or thermostat	
	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	
Safety & EMC	Harmonic Current Distance	Meets EN61000-3-2:2014, Class A	
Requirement	Voltage Fluctuation and Flicker	Meets EN61000-3-3:2013	
	Electrostatic Discharge	Meets IEC61000-4-2 : 2008, Contact Discharge <u>+</u> 4KV, Air Discharges <u>+</u> 8KV	
	RF Field Strength Susceptibility	Meets IEC61000-4-3:2006+A1:2007+A2:2010	
	Electrical Fast Transient	Meets IEC61000-4-4:2012, <u>+</u> 4KV	

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#### **NEW 60W SERIES**

	Lightning Surge	Meets IEC61000-4-5:2014, <u>+</u> 2KV	
	Conducted Susceptibility	Meets IEC61000-4-6:2013	
Safety & EMC Requirements	Voltage Dips and interruptions	Meets IEC61000-4-11:2004	
	Safety Standards	Meets all requirements of : UL/CUL62368 IEC/EN62368 IEC/EN60335 IEC/EN61558-2-16	
Reliability Requirement	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, 50deg.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	
Mechanical	Physical size	The units do not including PINs of input and output, and dimension is : (L)94.7*(W)47.5*(H)29.5 <u>+</u> 0.5mm (see appearance drawing)	
	Net Weight	Approximately 245 grams per product unit	
Guarantee	This product is in accordance with the European RoHS & REACH directives		

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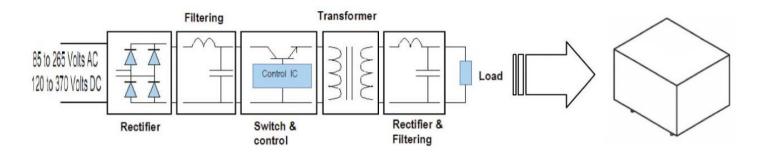
325

265(AC)

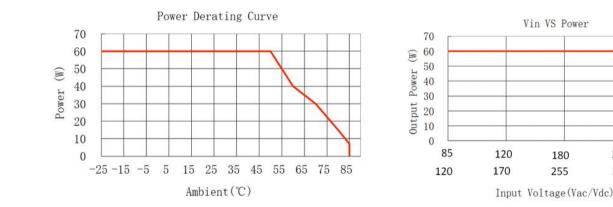
370(DC)

#### **NEW 60W SERIES**

## **SCHEMATIC**



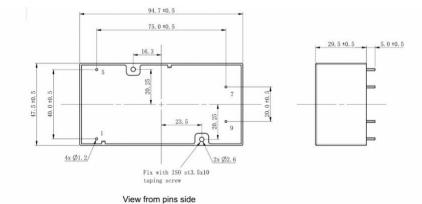
### DERATING GRAPH (TYPICALLY 12V TYPE)



#### DIMENSIONS AND PINOUT 4 PINS

Plastic fixture for screw

- fixing (optional)
- Pins 1-5: AC Input
- Pin 7 : DC Output +V
- Pin 9 : DC Output 0V



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