

Power Supplies

Encapsulated Solutions

1W ~ 60W





LED Driver Solutions

IP65 + 3 In 1 dimming

Industrial Power Supplies

60W ~ 100W





Customs Solutions

100W~500W







www.myrra.com www.myrra-powersupplies.com Contact us: contact@myrra.com

Myrra company Profile

Myrra Power Supplies, Transformers, Inductors and Chokes are World renowned for their reliability and performance.

This is the result of constant technological development and continuous production process improvements, which has made Myrra Group a leading Company in both design (R&D) and manufacturing.

With their own range of products, including encapsulated Power Supplies, Transformers (50/60Hz), HF Transformers and Value-Added Services, Myrra has become a reliable and renowned Global Supplier.

Since incorporation in 1949, Myrra has become one of the largest European sources for their products in the electrical market, and is striving to grow their position in a continuously evolving market.

As a Company certified by VDE, UL, CSA, ISO9001 and with a clear policy for conservation of the environment (RoHs, REACH, ISO14001), Myrra is an ideal partner for your future requirements. Custom Solutions and Design on Request available from all Standard Series



Power Supplies

"We at Myrra, Design and Manufacture all our Power Products, ensuring our Customers experience consistent Quality and Reliability"

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LED Dri	iver Solutions

28 LED Driver 48W ~ 65W

Industrial Power Supplies

30 Single Output 60W ~ 100W

Customs Solutions

Open Frame Type AC/DC Power Supplies 100W ~ 500W

Grow Lights - LED Driver 100W ~ 200W

Industrial DIN RAIL AC/DC Power Supplies 100W ~ 200W

Support and Service

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Indicates that this family is recommended for new design in projects



1 W to 3 W

2W to 5W

5W to 10W







2.5W to 5W

20W to 60W



LED Driver



Industrial Power Supplies





Customs Solutions

100W to 500W
Open Frame AC/DC Power Supplies
Grow Lights-LED Driver
Industrial DIN-RAIL AC/DC Power Supplies



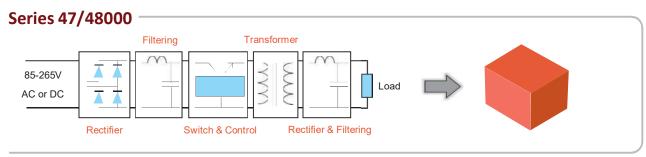




ENCAPSULATED POWER SUPPLIES 1W to 60W









MYRRA encapsulated Switched Mode Power Supplies is based on Flyback topology.

They constitute an interesting alternative to the traditional supply in the most common applications of power from 1W to 60W.

ENERGY SAVING due to high efficiency and low standby power.

Application for our Power Supplies:

- Alternative to the linear transformers in all AC/DC applications of power up to 60W
- Alternative to DC/DC converters for application in D.C. current (Telecom supplies, electric substations etc.)
- Industrial, medical, domestic and consumer electronics applications
- S t a n d b y devices and others DC or AC auxiliary supplies

With the same footprint as an EE20-El30-El38-El48 transformer, they will replace:

- 50 Hz Transformer
- Fuse
- Output Rectifier
- Filtering Capacitor
- Linear Regulator/DC to DC Circuit
- Heatsink

MAIN FEATURES

- Wide input voltage range
- Increased power: 3 x compared to standard EE20-EI30-EI38-EI48 transformers
- Better energetic efficiency: 70% typical compared to 40% for the conventional supply
- Very low Standby Power consumption: meets requirements of Energy Star or EC Code of Conduct
- Same footprint as EE20-EI30-EI38-EI48 transformer: (1W~10W)
 Upgrade your application without redesign of PCB

SAFETY STANDARDS

Meets all requirements of:

- IEC/EN62368-1
- IEC/EN60950-1
- IEC/EN60335-1
- IEC/EN61558-2-16
- IEC/EN61558-1
- UL62368-1
- CSA 22.2 N°62368-1
- UL60950-1
- CSA 22.2 N°60950-1
- UL 94-V0

EMC STANDARDS

Conducted and radiated emissions conform to

- EN 55014-1,EN55032,FCC Part15 Class B
- ■IEC/EN 61000-3-x

Immunity conform to

- EN 55014-2
- EN 61000-4-x

ONE OUTPUT 1W to 3W - Small Compact Size





MAIN FEATURES

- Small Compact Size PCB Mount
- Single Output
- Output Range: 3.3VDC 24VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Low Standby Power Consumption < 0.15W
- Better Energetic Efficiency : Meet Requirements
 Of Energy Star And EC Code Of Conduct
- Encapsulated Design And Same Footprint As EE20 Transformer: Upgrade Your Application Without Redesign Of PCB

- Safety: IEC/EN61558-2-16,IEC/EN60950-1,
 IEC/EN60335-1, IEC/EN62368-1,UL62368-1,UL60950-1, CAN/CSA22.2No.60950-1-07,
 CSA22.2No.62368-1-14
- Materials : Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emissions Conform To EN55014, EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To: EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

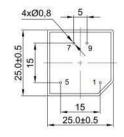
Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)	
	1		300		80	60	
48021	2.5	3.3	750	± 6	60	63	
	2.75		830		50	03	
	1		200		80	60	
48022	2.5	5	500		60	65	
	3		600		50	00	
	1		110		80	67	
48023	2.5	9	280		70	70	
	3		330		60		
	1		84		80	67	
48024	2.5	12	210	± 5	210	70	72
	3		250		60	12	
	1		67		80	67	
48025	2.5	15	170		70	72	
	3		200		60	12	
	1		56		80	67	
48026	48026 2.5	18	140		70	72	
	3		170		60	12	
	1		42		80	70	
48027	2.5	24	105		70	74	
	3		125		60	14	

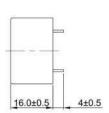
DIMENSIONS and PINOUT

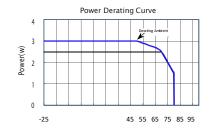
4 pin

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

Pin9 : DCOutput OV



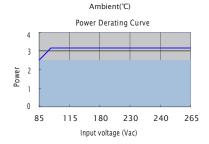


















1	Model: 1 to 3 Watt	Specification
	Rated AC input Voltage	100~240Vac or 140VDC-340VDC
	AC Input Voltage Range	85~265Vac or 120VDC-370VDC
AC Input	AC Input Frequency Range	47Hz~63Hz
Characteristics	Rated AC Input Frequency	50/60Hz
	Input Current	0.15A Max@85Vac~265Vac, at full load
	Standby Power	0.15W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)
	Output Voltage Accuracy	3.3V type: ±6 % ,Other types(5V,9V,12V,15V,18V and 24V): ±5 %
	Output Voltage Line Regulation	3.3V type: ±5 %, Other types(5V,9V,12V,15V,18V and 24V): ±3 %
	Output Voltage Load Regulation	3.3V type: ± 6 % ,Other types(5V,9V,12V,15V,18V and 24V): ± 5 %
	Ripple & Noise	Max 200mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with a 47uF Al E-Cap and a 0.1uF Ceramic-Cap. An oscilloscope set at 20MHz bandwidth)
	Dynamic Response	The output voltage shall not exceed $\pm 10\%$ rated output voltage @ $50\% \leftarrow \rightarrow 100\%$ Load change, 1A/uS, 1KHz 50% duty cycle
DC Output Characteristics	Hold Up Time	5mS min@ 100Vac ~240Vac, DC output with full load
Characteristics	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 Requirements Of Energy Star And EC Code Of Conduct)
	Over Current Protection	The power supply shall automatic protect. The power supply shall auto-recover normal operation after the deformation is removed. No excessive heat, odour, or plastic deformation shall occur with 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, or plastic deformation shall occur with 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 $\pm 10^{\circ}\text{C}$
(Operation Temperature	-25°C ~+ (see table)
	Operation Humidity	10~90% RH(No Condensing) @ DC output with full load
Environmental	Storage Temperature	-10°C to +35°C
	Storage Humidity	<75%RH
	Cooling Method	Ordinary or thermostat
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 secs.
	Radiation	Meeting EN55032,EN55014,FCC part 15, Class B
	Conduction	Meeting EN55032,EN55014, FCC part 15,Class B
	Harmonic Current Disturbance	Meeting IEC/EN61000-3-2:2019, Class A
	Voltage Fluctuation And Flicker	Meeting EN61000-3-3:2013
	3	Meeting EN61000-4-2:2009 Contact Discharge ±4KV,Air Discharge ±8KV
	Electrostatic Discharge	
Safety & EMC Requirement	RF Field Strength Susceptibility	Meeting IEC/EN61000-4-3:2019
Requirement	Electrical Fast Transient	Meeting EN61000-4-4:2012, ±1KV
	Lightning Surge	Meeting EN61000-4-5:2014, ±1KV (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	Meeting EN61000-4-6: 2014
	• • •	
	Voltage Dips And Interruptions	Meeting EN61000-4-11: 2004
	Safety Standards	Meet all requirements of: UL60950-1, UL62368-1, CAN/CSA22.2No.60950-1-07, CSA22.2No.62368-1-14, IEC/EN60950-1, IEC/EN60335-1,IEC/EN61558-2-16, IEC/EN62368-1, CE, VDE, ENEC Marks, UL certificate NO.E345767 VDE certificate NO. 40046353
	MTBF	>200K Hours @230VAC input at max operation temperature;
Reliability	MIDI	>550K Hours @230VAC input at 25deg.C
Requirement		Calculated in accordance with MIL-HDBK-217-F2
	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 16 grams per product unit	
Guarantee	This product meets RoHS standard	

Myrra reserve the right to change specifications in this document without notice

ONE OUTPUT 2W to 5W (49XXXC)





MAIN FEATURES

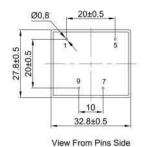
- 2.5 To 5W Small Compact Size PCB Mount
- Single Output Secondary Side Regulated
- Output Range: 3.3VDC 30VDC
- Input Range: 85VAC 265VAC/47 63Hz
 Or 120VDC -370VDC
- Very Low Standby Power Consumption < 0.1W
- Better Energetic Efficiency: Meet Requirements Of Energy Star And EC Code Of Conduct
- Encapsulated Design And Same FootprintAs El30 Transformer: Upgrade Your Application Without Redesign Of PCB

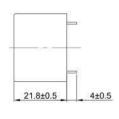
- Safety: Meets All Requirements of IEC/EN61558-2-16, IEC/EN60335-1, IEC/EN62368-1, UL62368-1, CSA C22.2NO.62368-1-14
- Materials : Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

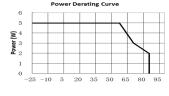
Part Number	Output Power (W)	Output voltage (Vdc)	Output current (mA)	Output Voltage Accuracy (%)	Ambient Temp.	Min. Part Efficiency(%)
49033C	2.0		610		80	
	2.75	3.3	830		70	71
	5.0		1500		50	
49050C	2.0	5.0	400		85	70
	3.0	5.0	600		70	
	5.0		1000		60	72
49090C	2.0	9.0	220		85	73
	3.0	9.0	330		70	
	5.0		560		60	75
49120C	2.0	12	170		85	74
	3.0	12	250		70	76
	5.0		420		60	
49150C	2.0	15	130	± 2	85	74
	3.0	15	200		70	
	5.0		330		60	77
49180C	2.0	18	110		85	76
	3.0	18	170		70	
	5.0		280		60	78
49240C	2.0	24	84		85	76
	3.0	24	125		70	
	5.0		210		60	80
	2.0		67		85	76
49300C	3.0	30	100		70	
	5.0		167		60	80

DIMENSIONS and PINOUT

4pins pins 1 & 5: AC or DC Input pin 7: DC output +V pin 9: DC output OV



















Mod	del: 2.5 To 5 Watt	Specification
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC
AC Input	AC Input Frequency Range	47Hz~63Hz
Characteristics	Rated AC Input Frequency	50/60Hz
	Input Current	0.2A Max@85Vac~265Vac@DC output with full load
	Standby Power	0.1W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)
	Output Voltage Accuracy	± 2%
	Output Voltage Line Regulation	± 0.5%
DC Output	OutputVoltage Load Regulation	± 2%
Characteristics	Ripple & Noise	Max 180mVp-p@ Rated AC input (The measuring will beterminated with a 47uF ALE-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)
	Efficiency	See Table (Meet Requirements Of Energy Star And EC Code Of Conduct)
	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.
Protection Characteristics	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 norma operation after the short is removed. No excessive heat, odour, or plastic deformation shall occur with no safety hazard during the fault.
	Over Temperature Protection	The power supply shall shut down when the junction temperature of PWM controller exceeds the thermal shutdown temperature, typically 140°C $\pm 10^\circ C$
	Operation Temperature	-25°C ~+85°C (see table)
Environmental	Operation Humidity	10∼90% RH(No Condensing) @ DC output with full load
	Storage Temperature	-10°C to +35°C
	Storage Humidity	<75%RH
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.
	Radiation	Meets EN55032,FCC part 15, Class B. under 3dB margin
Safety & EMC	Conduction	Meets EN55032,FCC part 15,Class B. under 3dB margin
Requirement	Safety Standards	Meet all requirements of: Meet all requirements of: UL62368-1, CSA22.2No.62368-1-14, IEC/EN60335-1,IEC/EN61558-2-16, IEC/EN62368-1 CE, VDE, UKCA, ENEC Mark UL certificate NO.E345767 VDE certificate NO. 40053361
Reliability Requirement	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 2~5 hours under 230 VAC input and DC full load at an ambient temperature of 30~45 degrees C
Net Weight	About 30 grams per product uni	t
Guarantee	This product is in accordance wi	th the European RoHS & REACH directives

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ONE OUTPUT 2.5W to 5W



MAIN FEATURES

- 2.5 To 5W Small Compact Size PCB Mount
- Single Output
- 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 El30 Transformer: Upgrade Your Application Without Redesign Of PCB

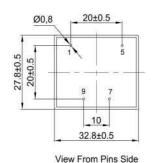
- Safety:Meets All Requirements of: IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1,IEC/EN62368-1, UL60950-1, CSA22.2No.60950-1,CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC Conducted And Radiated Emissions Conform To EN55014, EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To: EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11

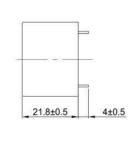
Part Number	Output Power (W)	Output voltage (Vdc)	Output current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)
47121	2.5	3.3	750			65
47122	2.75	5	550			68
47123		9	270		70	72
47124	2.5	12	210	± 2		74
47125		15	170			75
47126		24	110			77
47151	4.5	3.3	1350			65
47152	4.5	5	900			68
47153		9	550			72
47154	5	12	420		50	75
47155	5	15	320			76
47156		24	220			
47157	4.5	3.8	1180			66

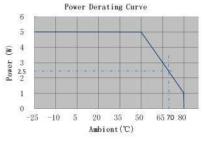
Special Version: 4712xSLI and 4715xSLI = 19.2mm case height (x=1, 2, 3, 4, 5, 6 or 7)

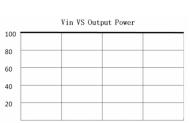
DIMENSIONS and PINOUT 4 pins

pins 1 & 5: AC or DC Input pin 7 : DC output +V pin 9 : DC output OV









180

230

265



Vac 85

110

Load (%)







		Power Supplies		
Mo	del: 2.5 To 5 Watt	Specification		
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC		
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC		
AC Input	AC Input Frequency Range	47Hz~63Hz		
Characteristics	Rated AC Input Frequency	50/60Hz		
	Input Current	0.2A Max@85Vac~265Vac@ DC output at full load		
	Standby Power	0.3W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)		
	Output Voltage Accuracy	± 2%		
	Output Voltage Line Regulation	± 0.5%		
DC Output Characteristics	Output Voltage Load Regulation	± 2%		
	Ripple & Noise	Max200mVp-p@Rated AC input(The measuring will be terminated with a 47uF ALE-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)		
	Efficiency	See Table (Meet Requirements Of Energy Star And EC Code Of Conduct)		
Protection	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, odour, or plastic deformation shall occur, no safety hazard		
Characteristics	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, 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		
	Operation Temperature	-25°C ~+ (see table)		
Environmental	Operation Humidity	10~90% RH(No Condensing) @ DC output with full load		
	Storage Temperature	-10°C to +35°C		
	Storage Humidity	<75%RH		
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.		
	Radiation	Meet EN55032,EN55014 , Class B. under 3dB margin		
Safety & EMC	Conduction	Meet EN55032,EN55014, Class B. under 3dB margin		
Requirement	Safety Standards	Meet all requirements of UL60950-1, CSA22.2No.60950-1-07, JEC/EN60950-1, IEC/EN60335-1, IEC/EN61558-2-16, IEC/EN62368-1, CE, VDE, And ENEC Mark VDE Approval No. 40034334 UL Approval No.E345767		
Reliability Requirement	МТВГ	>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 unit shall be burned in for 2^{\sim} 5 hours under 230Vac input and DC with full load at an ambient temperature of $30^{\sim}45$ degrees C		
Net Weight	About 30 grams per product unit	<u> </u>		
Guarantee	This product meet to RoHS stand	dard		
	L			

Myrra reserve the right to change specifications in this document without notice

ONE OUTPUT 2.4W to 5W



MAIN FEATURES

- 2.4To 5W Small Compact Size PC B Mount
- Single Output
- Output Range : 5.5VDC 24VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Lo w Standby Power Consumption < 0.3W
- Better Energetic Efficiency : Meet Requirements Of Energy Star
- Encapsulated Design And Same Footprint As El30 Transformer: Upgrade Your Application Without Redesign Of PCB

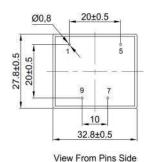
- Safety: Meets All Requirements of:IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1, UL60950-1, IEC/EN62368-1, CSA22.2No.60950-1-07,CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC Conducted And Radiated Emissions Conform To EN55014, EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components
- Immunity Conform To: EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-11

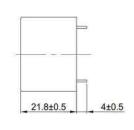
Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Ambient (°C)	Min. Part Efficiency(%)		
47114	2.4	12	200			74		
47132	2.5	5	500		70	68		
47133		9	360			70	70	73
47134	3.2	12	270			75		
47135	5.2	18	180			78		
47136		24	130	± 5		80		
47162		5	900				68	
47163		9	560			73		
47164	5	12	420		50	75		
47165		18	280			78		
47166		24	210			80		

DIMENSIONS and PINOUT

4 pins

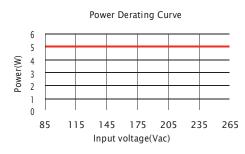
pins 1 & 5: AC or DC Input pin 7: DC output +V pin 9: DC output OV







Ambient(°C)











Mod	del: 2.5 To 5 Watt	Specification
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC
AC Input Characteristics	AC Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	0.2A Max@85Vac~265Vac@DC output with full load
	Standby Power	0.3W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)
	Output Voltage Accuracy	±5%
	Output Voltage Line Regulation	± 2%
DC Output	Output Voltage Load Regulation	± 5%
Characteristics	Ripple & Noise	Max200mVp-p@Rated AC input(The measuring will beterminated with a 47uF ALE-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)
	Efficiency	See Table (Meet Requirements Of Energy Star And EC Code Of Conduct)
	Over Current Protection	The power supply shall automatic protection. The power supply shall autorecovery normal operation after the deformation is removed. No excessive heat, odour, or plastic deformation shall occur, no safety hazard
Protection Characteristics	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, or plastic deformationshall 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
	Operation Temperature	-25°C ~+ (see table)
Environmental	Operation Humidity	10∼ 90% RH(No Condensing) @ DC output with full load
	Storage Temperature	-10°C to +35°C
	Storage Humidity	<75%RH
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.
	Radiation	Meet EN55032,EN55014 , Class B. under 3dB margin
Safety & EMC	Conduction	Meet EN55032,EN55014, Class B. under 3dB margin
Requirement	Safety Standards	Meet all requirements of UL60950-1,CSA22.2No.60950-1-07,IEC/EN60950-1,IEC/EN60335- 1,IEC/EN61558-2-16,IEC/EN62368-1 CE,VDE, And ENEC Mark
		VDE Approval No. 40034334 UL Approval No.E345767
Reliability Requirement	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 unit shall be burned in for 2~5 hours under 230 Vac 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 standa	ard

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TWO OUTPUTS - COMMON 3W to 5W





MAIN FEATURES

- 3W To 5W Small Compact Size PCB Mount
- Two Common Output
- Output Voltage Accuracy:
 See Table For 15 to 100% Rated Load Of Each Output (includes line and load variations)
- Input Range : 85VAC 265VAC/47 63Hz Or 120VDC 370VDC
- Very Low Standby Power Consumption < 0.2W
- Better Energetic Efficiency : Meet Requirements Of Energy Star

- Encapsulated Design And Same Footprint As El30Transformer: Upgrade Your Application Without Redesign Of PCB
- Safety:Meets All Requirements of:IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1, UL60950-1, IEC/EN62368-1, CSA22.2No.60950-1-07, CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)
47243	4.7	(+)10.5	380	± 2		72
		(+) 7.0	100	± 5	50	
47244	5	(+) 15	300	± 2	00	73
77277	3	(+) 7.0	70	± 5		7.0
47245	3.2	(+) 12	130	± 3	70	
47245	3.2	(+) 5.5	300	± 5	70	65
47246		(+) 5.0	400 (600max)	± 3		05
47246		(+) 12	170	± 5	60	
47247	4	(+) 15	130	± 3	00	70
47247		(+) 15	130	± 3		73

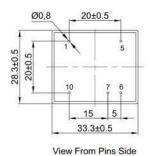
Notes: The dual DC Voltage Outputs share a Common OV reference.

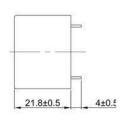
Power deration must be considered at higher Operating Ambient Temperatures.

DIMENSIONS and PINOUT

5 pins

pins 1 & 5: AC or DC Input pin 6: Common output 0V pin 7: DC output I pin 10: DC output II















Model: Two	Common Outputs 3 TO 5W	Specification		
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC		
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC		
AC Input	AC Input Frequency Range	47Hz~63Hz		
Characteristics	Rated AC Input Frequency	50/60Hz		
	Input Current	0.2A Max@85Vac~265Vac@DC output with full load		
	Standby Power	0.2W Max (Meet Requirements Of Energy Star And EC Code Of Conduct)		
DC Output	Output Voltage Accuracy	See Table		
Characteristics	Cross-Load Regulation	Refer to P/N specification		
	Efficiency	See Table(Meet Requirements Of Energy Star And EC Code Of Conduct)		
	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, odour, or plastic deformation shall occur, no safety hazard		
Protection Characteristics	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, or plastic deformation shall occur, no safety hazard		
	Over Temperature Protection	The power supply shall shut down when the junction temperature of PWMcontroller exceeds the thermal shutdown temperature, typically 140°C±10°C.		
	Operation Temperature	-25°C ~ +Ta (see table)		
	Operation Humidity	10~90% RH(No Condensing) @DC output with full load		
Environmental	Storage Temperature	-10°C to +35°C		
	Storage Humidity	<75%RH		
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.		
	Radiation	Meet EN55032,EN55014, Class B. under 3dB margin		
	Conduction	Meet EN55032,EN55014,Class B. under 3dB margin		
Safety & EMC Requirement	Safety Standards	Meet all requirements of UL60950-1,CSA22.2No.60950-1-07,IEC/EN60950-1, IEC/EN60335-1,IEC/EN61558-2-16,IEC/EN62368-1 CE,VDE, And ENEC Mark VDE Approval No. 40034334 UL Approval No.E345767		
Reliability Requirement	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 unit shall be burned in for 2^{\sim} 5 hours under 230 Vac input and DC with full load at an ambient temperature of $30^{\sim}45$ degrees C		
Net Weight	About 30 grams per product unit			
Guarantee	This product meet to RoHS standard			

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TWO OUTPUTS - ISOLATED 3.5W to 4W



MAIN FEATURES

- Small Compact Size P C B Mount
- Two Isolated Output
- Output Voltage Accuracy: See Table For 15 to 100% Rated Load Of Each Output(includes line and load variations)
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Low Standby Power Consumption < 0.2W
- Better Energetic Efficiency : Meet Requirements Of Energy Star

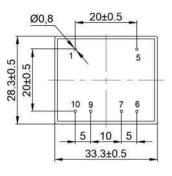
- Encapsulated Design And Same Footprint As El30Transformer: Upgrade Your Application Without Redesign Of PCB
- Safety: Meets All Requirements of: IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1, UL60950-1, IEC/EN62368-1, CSA22.2No.60950-1-07, CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

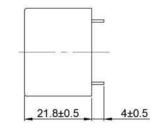
Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)
47252	3.5	5	350 (600 max)	± 3		60
47202	0.0	5	350	± 5		00
47254		12	165 (300max)	± 2		72
201		12	165	± 5		12
47255		15	135 (200 max)	± 2	60	73
47200	4	15	135	± 5	00	73
47257		5	400 (600 max)	± 2		68
47237		12	170	± 5		00
47258		18	150 (200 max)	± 4		72
47 230		8	150	± 5		12

DIMENSIONS and PINOUT

6 pins

pins 1 & 5: AC or DC Input pin 6: DC output 1 0V pin 7: DC output 1 +V pin 9: DC output 2 0V pin 10: DC output 2 +V















Model : Two	Common Outputs 3 TO 5W	Specification
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC
AC Input	AC Input Frequency Range	47Hz~63Hz
Characteristics	Rated AC Input Frequency	50/60Hz
	Input Current	0.2A Max@85Vac~265Vac@ DC output with full load
	Standby Power	0.2W Max (Meet Requirements Of Energy Star And EC Code Of Conduct)
DC Output	Output Voltage Accuracy	See Table
Characteristics	Cross-Load Regulation	Refer to P/N specification
	Efficiency	See Table(Meet Requirements Of Energy Star And EC Code Of Conduct)
	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, odour, or plastic deformation shall occur, no safety hazard
Protection Characteristics	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, or plastic deformation shall occur, no safety hazard
	Over Temperature Protection	The power supply shall shut down when the junction temperature of PWMcontroller exceeds the thermal shutdown temperature, typically140°C±10°C.
	Operation Temperature	-25°C ∼ +Ta (see table)
	Operation Humidity	10~90% RH(No Condensing) @ DC output with full load
Environmental	Storage Temperature	-10°C to +35°C
	Storage Humidity	< 75%RH
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.
	Radiation	Meet EN55032,EN55014, Class B. under 3dB margin
	Conduction	Meet EN55032,EN55014,Class B. under 3dB margin
Safety & EMC Requirement	Safety Standards	Meet all requirements of UL60950-1, CSA22.2No.60950-1-07, IEC/EN60950-1, IEC/EN60335-1,IEC/EN61558-2-16,IEC/EN62368-1 CE,VDE, And ENEC Mark VDE Approval No. 40034334 UL Approval No.E345767
Reliability Requirement	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
nequirement	Burn-In Test	The unit shall be burned in for 2^{-5} hours under 230 Vac 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 standa	ard

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ONE OUTPUT 7.5W



MAIN FEATURES

- 7.5W Small Compact Size PC B Mount
- Single Output
- Output Range: 3.3VDC 24VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Lo w Standby Power Consumption < 0.15W
- Better Energetic Efficiency : Meet Requirements Of Energy Star
- Encapsulated Design And Same Footprint As El38 Transformer: Upgrade Your Application Without Redesign Of PCB

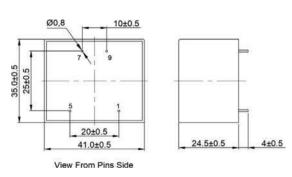
- Safety: Meets All Requirements of: IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1, UL60950-1, IEC/EN62368-1, CAN/CSA22.2No.60950-1-07, CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)
47206		3.3	2270	± 3	50	74
47200		5	1500	±2	70	77
47201		9	830			80
47202	7.5	12	625			82
47203		15	500			
47204		18	420			02
47205		24	310			

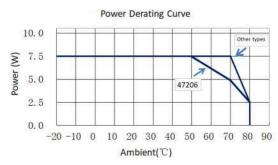
DIMENSIONS and PINOUT

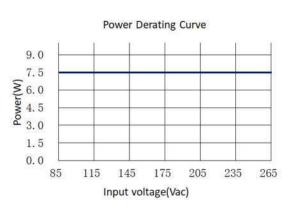
4 pins

pins 1 & 5: AC or DC Input pin 7: DC output +V pin 9: DC output OV















N	lodel: 7.5 Watt	Specification			
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC			
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC			
AC Input	AC Input Frequency Range	47Hz~63Hz			
Characteristics	Rated AC Input Frequency	50/60Hz			
	Input Current	0.3A Max@85Vac~265Vac@DC with full load			
	Standby Power	0.15W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)			
	Output Voltage Accuracy	± 2% (5V,9V,12V,15V,18V,24V Types) - ± 3%(3.3V Type)			
DC Output Characteristics	Output Voltage Line Regulation	±0.5%			
	Output Voltage Load Regulation	±1%(5V,9V,12V,15V,18V,24V Types) ±3%(3.3V Type)			
	Ripple & Noise	Max 180 mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with a 47 uF AL E-Cap and a 0.1 uF Cer-Cap. An oscilloscope set at 20 MHz bandwidth)			
	Efficiency	Meet Requirements Of Energy Star And EC Code Of Conduct			
	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, odour, or plastic deformation shall occur, no safety hazard			
Protection Characteristics	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, or plastic deformation shall occur, no safety hazard			
	Operation Temperature	-20°C ~ +Ta (see table)			
	Operation Humidity	10~90% RH(No Condensing) @ full load			
Environmental	Storage Temperature	-10°C to +35°C			
	Storage Humidity	<75%RH			
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.			
	Radiation	Meet EN55032,EN55014,FCC part 15, Class B. under 3dB margin			
	Conduction	Meet EN55032,EN55014, FCC part 15,Class B. under 3dB margin			
Safety & EMC Requirement	Safety Standards	Meet all requirements of UL60950-1,CAN/CSA22.2No.60950-1-07,IEC/EN60950-1,IEC/EN60335-1,IEC/EN61558-2- 16,IEC/EN62368-1 CE,VDE, And ENEC Mark VDE Approval No. 40041563 UL Approval No.E345767			
Reliability Requirement	МТВГ	>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 unit shall be burned in for 2~5 hours under 230 Vac input and DC with full load at an ambient temperature of 30~45 degrees C			
Net Weight	About 56 grams per product unit				
Guarantee	This product meet to RoHS standard				

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ONE OUTPUT 5W to 10W (49XXXE)





MAIN FEATURES

- 5 To 10W Small Compact Size PCB Mount
- Single Output Secondary Side Regulated
- Output Range: 3.3VDC 30VDC
- Input Range: 85VAC 265VAC/47 63Hz
 Or 120VDC -370VDC
- Very Low Standby Power Consumption < 0.1W
- Better Energetic Efficiency: Meet Requirements
 Of Energy Star And EC Code Of Conduct

Encapsulated Design And Same Footprint As El38 Transformer: Upgrade Your Application Without Redesign Of PCB

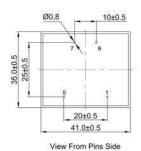
- Safety: Meets All Requirements of IEC/EN61558-2-16, IEC/EN60335-1, IEC/EN62368-1, UL62368-1, CSA C22.2NO.62368-1-14,CE,VDE,ENEC,UKCA Mark.
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

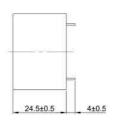
Part Number	Output Power (W)	Output voltage (Vdc)	Output current (mA)	Output Voltage Accuracy (%)	Ambient Temp.	Min. Part Efficiency
49033E	10		2700		60	
	7.5	3.3	2270		70	68%
	5.0		1500		80	
49050E	10		2000		60	73%
	7.5	5.0	1500		70	7370
	5.0		1000		80	70%
49090E	10		1100		60	
	7.5	9.0	830		75	79%
	5.0		550	550 830 625 420 ± 2 670 500	80	74%
49120E	10		830		60	
	7.5	12	625		75	80%
	5.0		420		80	75%
49150E	10		670		60	
	7.5	15	500		75	81%
	5.0		330		80	76%
49180E	10		560		60	
	7.5	18	420		75	81%
	5.0		280		80	76%
49240E	10		420		60	81%
	7.5	24	310		75	0170
	5.0		210		80	76%
49300E	10		333		60	
	7.5	30	250		75	81%
	5.0		167		80	76%

DIMENSIONS and PINOUT

4pins

pins 1 & 5: AC or DC Input pin 7: DC output +V pin 9: DC output OV



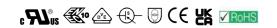














Mod	del: 5W To 10Watt	Specification				
	Rated AC input Voltage	100~240Vac Or 140VDC-340VDC				
	AC Input Voltage Range	85~265Vac Or 120VDC-370VDC				
AC Input	AC Input Frequency Range	47Hz~63Hz				
Characteristics	Rated AC Input Frequency	50/60Hz				
	Input Current	0.35A Max@85Vac~265Vac@DC output with full load				
	Standby Power	0.1W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)				
	Output Voltage Accuracy	± 2%				
	Output Voltage Line Regulation	± 0.5%				
DC Output	Output Voltage Load Regulation	± 2%				
Characteristics	Ripple & Noise	Max 180 mVp-p@Rated AC input (The measuring will be terminated with a 47 uF ALE-Cap and a 0.1 uF Cer-Cap. An oscilloscope set at 20 MHz bandwidth)				
	Efficiency	See Table (Meet Requirements Of Energy Star And EC Code Of Conduct)				
Protection	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, or plastic deformations shall occur with no safety hazard				
Characteristics	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, 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				
	Operation Temperature	-25°C ~+80°C (Refer to "Derating Graph")				
Environmental	Operation Humidity	10^\sim 90% RH(No Condensing) @ DC output with full load				
	Storage Temperature	-10°C to +35°C				
	Storage Humidity	< 75%RH				
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec.				
	Radiation	Meets EN55032,FCC part 15, Class B. under 3dB margin				
Safety & EMC	Conduction	Meets EN55032,FCC part 15,Class B. under 3dB margin				
Requirement	Safety Standards	Meet all requirements of : UL62368-1, CSA C22.2NO.62368-1-14, IEC/EN60335-1, IEC/EN61558-2-16, IEC/EN62368-1, CE, VDE, UKCA, ENEC Mark UL certificate NO.E345767 VDE certificate NO.40056578				
Reliability Requirement	MTBF	>200K Hours @230VAC input at max operation temperature; >550K Hours @230VAC input at 25deg.C Calculated in accordance with MIL-HDBK-217-F2				
	Burn-In Test	The power supply is subject to a burn in test for 2~5 hours under 230 VAC input and DC full load at an ambient temperature of 30~45 degrees C				
Net Weight	About 56 grams per product unit					
Guarantee	This product is in accordance wi	th the European RoHS & REACH directives				

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ONE OUTPUT 10W



MAIN FEATURES

- 10W Small Compact Size PCB Mount
- Single Output
- Output Range: 3.3VDC 24VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Low Standby Power Consumption < 0.10W
- Better Energetic Efficiency : Meet Requirements Of Energy Star
- Encapsulated Design And Same Footprint As El48 Transformer: Upgrade Your Application Without Redesign Of PCB

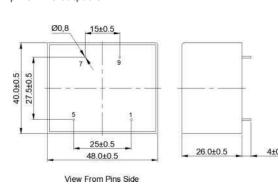
- Safety: Meets All Requirements of: IEC/EN61558-2-16, IEC/EN60950-1, IEC/EN60335-1, UL60950-1, IEC/EN62368-1,CAN/CSA22.2No.60950-1-07, CE, VDE, ENEC Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To: EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

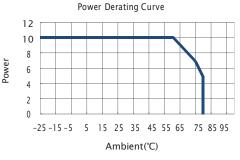
Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency(%)
47210		5	2000	± 3		74
47211		9	1100		60	80
47212		12	830			
47213	10	15	670	± 2	00	82
47214		18	560			02
47215		24	420			
47216		3.3	3000	± 4	50	72

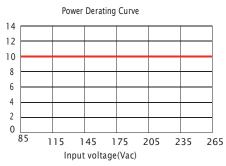
DIMENSIONS and PINOUT

4 pins

pins 1 & 5: AC or DC Input pin 7 : DC output +V pin 9 : DC output OV









Power(W)







Mod	del: 10 Watt	Specification			
	Rated input Voltage	100~240Vac Or 140VDC-340VDC			
	Input Voltage Range	85~265Vac Or 120VDC-370VDC			
AC Input	AC Input Frequency Range	47Hz~63Hz			
Characteristics	Rated AC Input Frequency	50/60Hz			
	Input Current	0.4A Max@85Vac~265Vac@ DC output with full load			
	Standby Power	0.1W Max(Meet Requirements Of Energy Star And EC Code Of Conduct)			
	Output Voltage Accuracy	± 2% (9V,12V,15V,18V,24V Types), ± 3% (5V Type), ± 4%(3.3V Type)			
	Output Voltage Line Regulation	± 0.5%(9V,12V,15V,18V,24V Types), ± 1%(3.3V and 5V Types)			
	Output Voltage Load	± 1%(9V,12V,15V,18V,24V Types)			
DC Output Characteristics	Regulation	± 3% (5V Type), ± 4%(3.3V Type)			
Characteristics	Ripple & Noise	Max180mVp-p@RatedACinput (Themeasuringwillbeterminatedwitha47uFALE-Capanda 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)			
	Efficiency	Meets Requirements Of Energy Star And 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, or plastic			
Protection		deformation shall occur with no safety hazard			
Characteristics	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, or plastic deformation shall occur, no safety hazard			
	Operation Temperature	-25°C ~ +Ta (see table)			
	Operation Humidity	10~ 90% RH(No Condensing) @ DC output with full load			
Environmental	Storage Temperature	-10'C to +35'C			
	Storage Humidity	< 75%RH			
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec .			
	Radiation	Meeting EN55032,EN55014,FCC part 15, Class B.			
	Conduction	Meeting EN55032,EN55014, FCC part 15,Class B.			
Safety & EMC Requirement	Safety Standards	Meet all requirements of : UL60950-1, CAN/CSA22.2No.60950-1-07, IEC/EN60335-1,IEC/EN61558-2-16, IEC/EN62368- CE, VDE, ENEC Mark UL certificate NO.E345767 VDE certificate No.40044416			
Reliability Requirement	MTBF	>200K Hours @230VAC input at max operation temperature; >550K Hours @230VAC input at 25deg.C Calculated in accordance with MIL-HDBK-217-F2			
	Burn-In Test	The unit shall be burned in for 2^{\sim} 5hours under 230Vac input and DC with full load at an ambient temperature of 30 $^{\sim}$ 45 degrees C			
Net Weight	About 80 grams per product	unit.			
Guarantee	This product meet to RoHS s	tandard			

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ONE OUTPUT 20W (49XXXG) 🗐

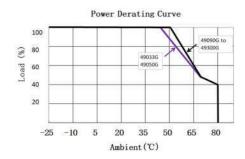


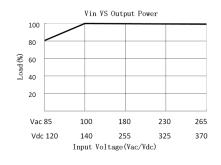
MAIN FEATURES

- 20W Small Compact Size PCB Mount
- Single Output
- Output Range: 3.3VDC 30VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Low Standby Power Consumption = 0.15W
- High Energetic Efficiency: Meet Requirements Of Energy Star And EC Code Of Conduct
- Encapsulated Design PCB Total Power Solution

- Safety: Meets with IEC/EN61558-2-16,
 IEC/EN60335-1, UL62368-1, IEC/EN62368-1, CSA C22.2NO.62368-1-14,CE,UKCA Mark
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5, EN61000-4-6, EN61000-4-8,EN61000-4-11

Part Number	Output Power (W)	Output voltage (Vdc)	Output current (mA)	Output Voltage Accuracy (%)	Ambient Temp. (°C)	Min. Part Efficiency (%)
49033G	13.5	3.3	4100	±3		75
49050G	19	5	3800			78
49090G		9	2200			81
49120G		12	1667 (1800 max)			82
49150G		15	1333 (1400 max)	±2	-25°C ~ +80°C	
49180G	20	18	1111 (1140 max)	- -		83
49240G		24	833 (900 max)			
49300G		30	667(720 max)			

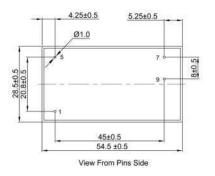




DIMENSIONS and PINOUT

pin 1: AC(L) or DC(L) Input pin 5 : AC(N) or DC(-) Input pin 7 : DC output 0V

pin 7 : DC output 0\ pin 9 : DC output +V















Mod	el: 20 Watt	Specification
	Rated input Voltage	100~240Vac Or 140VDC-340VDC
	Input Voltage Range	85~265Vac Or 120VDC-370VDC
AC Input	AC Input Frequency	47Hz~63Hz
Characteristics	Rated AC Input Frequency	50/60Hz
	Input Current	0.5A Max@85Vac~265Vac@DC output with full laod
	Standby Power	0.15W Max (Meets requirements Of Energy Star And EC Code Of Conduct)
		± 2% (9V, 12V, 15V, 18V, 24V Types)
	Output Voltage Accuracy	± 3% (3.3V Type, 5V Type)
	Output Voltage Line	± 1%
	Regulation	
DC Output	Output Voltage Load	± 2% (9V, 12V, 15V, 18V, 24V Types)
Characteristics	Regulation	± 3% (3.3V Type, 5V Type)
		Max 180mVp-p @Rated AC input (The measuring will be terminated with a 47uF AL
	Ripple & Noise	E-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)
	Efficiency	Meets requirements Of Energy Star And EC Code Of Conduct
	·	The power supply shall automatic protection. The power supply shall auto-recovery normal
	Over Current Protection	
		operations after the deformation is removed. No excessive heat, odour, or plastic deformation
Protection		shall occur with no safety hazard The power supply shall withstand a continuous output short without damage in 24 hours;
Characteristics	Output Short Circuit	The short may be applied before power on, or after power on; The power supply shall
	Protection	resume normal operation after the short is removed, no excessive heat, odour, or plastic
	Trocession	deformation shall occur, no safety hazard
	Operation Temperature	-25°C ~+80°C (Refer to "Derating Graph")
	Operation Humidity	10~ 90% RH (No Condensing) @ DC output with full load
Environmental	Storage Temperature	-10°C~ +35°C
	Storage Humidity	<pre></pre> <pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><p< td=""></p<></pre>
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec .
Safety & EMC	Radiation	Meeting EN55032, EN55014, FCC part 15, Class B.
Requirement	Conduction	Meeting EN55032, EN55014, FCC part 15, Class B. Meet all requirements of :
	Safety Standards	UL62368-1, CSA C22.2NO.62368-1-14, IEC/EN60335-1,IEC/EN61558-2-16, IEC/EN62368-1,
		CE,UKCA, Mark UL certificate NO.E345767
		VDE certificate NO. 400xxxx
Reliability	MTBF	>200K Hours @230VAC input at max operation temperature; >550K Hours @230VAC input at 25deg.C
Requirement		Calculated in accordance with MIL-HDBK-217-F2
	Burn-In Test	The unit shall be burned in for 2~ 5hours under 230Vac input and DC with full load at an
	Dain in rest	ambient temperature of 30~45 degrees C
	Physical Size	The units do not including PINs of input and output , and dimension is :
Mechanical	i ilyaicai aize	(L)54.5*(W)28.5*(H)24.5±0.5mm (see appearance drawing)
	Net Weight	Approximately 65 grams per product unit.
Guarantee	This product meets RoHS st	andard & REACH directives

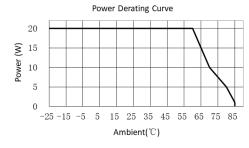
ONE OUTPUT 20W

MAIN FEATURES

- 20W Small Compact Size PCB Mount
- Single Output
- Output Range: 3.3VDC 24VDC
- Input Range: 85VAC 265VAC/47 63HzOr 120VDC - 370VDC
- Very Low Standby Power Consumption = 0.1W
- Better Energetic Efficiency: Meet Requirements
 Of Energy Star And EC Code Of Conduct
- Encapsulated Design PCB Total Power Solution

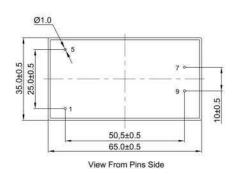
- Safety: Complies with IEC/EN61558-2-16, IEC/EN62368-1, IEC/EN60335-1, UL62368-1, CSA C22.2NO.62368-1-14, CE,UKCA.
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3,EN61000-4-4, EN61000-4-5, EN61000-4-6,EN61000-4-8,EN61000-4-11

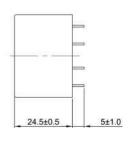
Part Number	Output Power (W)	Output voltage (Vdc)	Output current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency (%)
47220	15	3.3	4500	± 4	50	82
47221		5	4000	± 4		
47222		9	2200			
47223	20	12	1700			
47224	20	15	1400	± 3	60	85
47225		18	1100			
47226		24	840			

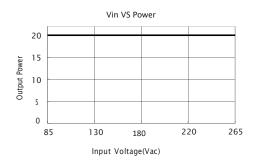


DIMENSIONS and PINOUT

4 pins pins 1 & 5: AC or DC Input pin 7 : DC output +V pin 9 : DC output OV









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Mod	el: 20 Watt	Specification			
	Rated input Voltage	100~240Vac Or 140VDC-340VDC			
	Input Voltage Range	85~265Vac Or 120VDC-370VDC			
AC Input	AC Input Frequency	47Hz~63Hz			
Characteristics	Rated AC Input Frequency	50/60Hz			
	Input Current	0.6A Max@85Vac~265Vac@DC output with full load			
	Standby Power	0.15W Max (Meets requirements Of Energy Star And EC Code Of Conduct)			
	0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	± 3% (9V, 12V, 15V, 18V, 24V Types)			
	Output Voltage Accuracy	± 4% (3.3V Type, 5V Type)			
	Output Voltage Line	± 2% (9V, 12V, 15V, 18V, 24VTypes)			
DC Outrast	Regulation	± 3% (3.3V and 5V Types)			
DC Output	Output Voltage Load	± 3% (9V, 12V, 15V, 18V, 24V Types)			
Characteristics	Regulation	± 4% (3.3V Type, 5V Type)			
	Bissis C. Nation	Max 180mVp-p @Rated AC input (The measuring will be terminated with a 47uF AL			
	Ripple & Noise	E-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)			
	Efficiency	Meets requirements Of Energy Star And EC Code Of Conduct			
		The power supply shall automatically protect. The power supply shall auto-recover n			
	Over Current Protection	operation after the deformation is removed. No excessive heat, odour, or plastic			
		deformation shall occur, no safety hazard			
Protection		The power supply shall withstand a continuous output short without damage in 24 hours;			
Characteristics	Output Short Circuit	The short may be applied before power on, or after power on; The power supply shall			
	Protection	resume normal operation after the short is removed, no excessive heat, odour, or plastic			
		deformation shall occur, no safety hazard			
	Operation Temperature	-25°C ~+50°C (operation temp. can be extended more than +50°C ,Refer to "Derating Graph")			
Environmental	Operation Humidity	10~ 90% RH (No Condensing) @ DC output with full load			
Environmental	Storage Temperature	-10°C~ +35°C			
	Storage Humidity	<75%RH			
	Dielectric Strength	Primary to Secondary: 4000Vac 5mA, 3 sec .			
Cafaba & FNAC	Radiation	Meeting EN55032, FCC part 15, Class B			
Safety & EMC	Conduction	Meeting EN55032, FCC part 15, Class B			
Requirement	Safety Standards	Meet all requirements of : UL62368-1, CSA C22.2NO.62368-1-14, IEC/EN60335-1, IEC/EN61558-2-16, IEC/EN62368-1			
Reliability	MTBF	>200K Hours @230VAC input at max operation temperature; >550K Hours @230VAC input at 25deg.C			
Requirement		Calculated in accordance with MIL-HDBK-217-F2			
	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			
	Physical Size	The units do not including PINs of input and output, and dimension is:			
Mechanical		(L)65*(W)35*(H)24.5± 0.5mm (see appearance drawing)			
_	Net Weight	Approximately 92 grams per product unit.			
Guarantee	This product meets RoHS st	andard			

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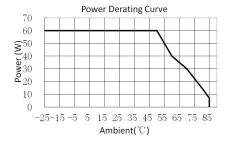
ONE OUTPUT 60W

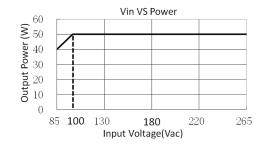
MAIN FEATURES

- Small Compact Size PCB Mount
- Single Output
- Output Range: 5VDC 24VDC
- Input Range: 85VAC 265VAC/47 63Hz Or 120VDC - 370VDC
- Very Low Standby Power Consumption = 0.1W
- Better Energetic Efficiency: Meet Requirements Of Energy Star And EC Code Of Conduct
- Encapsulated Design
 PCB Total Power Solution

- Safety: Complies with IEC/EN61558-2-16, IEC/ EN62368-1, IEC/EN60335-1, UL62368-1, CSA C22.2NO.62368-1-14, CE,UKCA.
- Materials: Uses UL 94-V0 Plastic And Resin
- EMC: Conducted And Radiated Emission conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS A, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5,EN61000-4-6, EN61000-4-8 EN61000-4-11

Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Output Voltage Accuracy (%)	Max.Operating Ambient (°C)	Min. Part Efficiency (%)
47261	50	5	10000	± 5		82
47262		9	6600			
47263		12	5000		50	
47264	60	15	4000	± 3	30	85
47265		18	3300			
47266		24	2500			

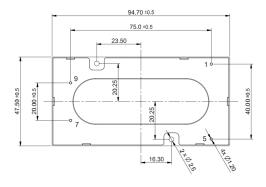


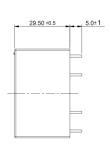


DIMENSIONS and PINOUT

4 pins pins 1 & 5: AC or DC Input pin 7: DC output +V pin 9: DC output OV







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Model: 60 Watt		Specification				
	Rated input Voltage	100~240Vac Or 140VDC-340VDC				
	Input Voltage Range	85~265Vac Or 120VDC-370VDC				
AC Input	AC Input Frequency Range	47Hz~63Hz				
Characteristics	Rated AC Input Frequency	50/60Hz				
	Input Current	1.5A Max@85Vac~265Vac@DC output with full load				
	Standby Power	0.15W Max (Meet Requirements Of Energy Star And EC Code Of Conduct)				
	Outrot Valtage Agents	± 3% (9V, 12V, 15V, 18V, 24V Types)				
	Output Voltage Accuracy	± 5% (5V Type)				
	Output Voltage Line	± 3% (9V, 12V, 15V, 18V, 24V Types)				
DC Output	Regulation	± 5% (5V Types)				
DC Output	Output Voltage Load	± 3%(9V,12V,15V,18V,24V Types)				
Characteristics	Regulation	± 5% (5V Type)				
	Ripple & Noise	Max 200mVp-p @Rated AC input (The measuring will be terminated with a				
	Rippie & Noise	47uF AL E-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth)				
	Efficiency	See table (Meet Requirements Of Energy Star And EC Code Of Conduct)				
	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, odour, or plastic				
Protection		deformation shall occur, no safety hazard				
Characteristics		The power supply shall withstand a continuous output short without damage in 24				
Characteristics	Output Short Circuit	hours; The short may be applied before power on, or after power on; The power supply				
	Protection	shall resume normal operation after the short is removed, no excessive heat, odour,				
		or plastic deformation shall occur, no safety hazard				
	Operation Temperature	$-25^{\circ}\text{C} \sim +50^{\circ}\text{C}$ (operation temp. can be extended more than +50°C ,Refer to "Derating Graph")				
Environmental	Operation Humidity	10~ 90% RH (No Condensing) @ DC output with full load				
Environmental	Storage Temperature	-10°C~ +35°C				
	Storage Humidity	<75%RH				
	Dielectric Strength	Primary to Secondary : 4000Vac 5mA, 3 sec.				
Safety & EMC	Radiation	Meeting EN55032, FCC part 15, Class B				
Requirement	Conduction	Meeting EN55032, FCC part 15, Class B				
Requirement	Safety Standards	Meet all requirements of: UL62368-1, CSA C22.2NO.62368-1-14, IEC/EN60335-1, IEC/EN61558-2-16, IEC/EN62368-1				
Reliability	MTBF	>200K Hours @230VAC input at max operation temperature;				
Requirement		>550K Hours @230VAC input at 25deg.C Calculated in accordance with MIL-HDBK-217-F2				
quii ciriciit		The unit shall be burned in for 2~ 5hours under 230Vac input and DC with full load at				
	Burn-In Test	an ambient temperature of 30~45 degrees C				
	Net Weight	Approximately 245 grams per product unit.				
Guarantee	This product meet to RoHS	l .				

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65W LED Driver



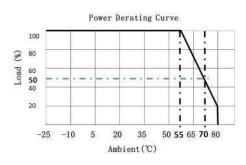
MAIN FEATURES

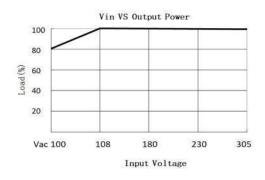
- 65W Small Compact Size- Metal housing design
- Constant Current Mode Output
- Built-in active PFC Function:>0.95
- Output Range: 12VDC 48VDC
- Input Range: 100VAC 305VAC/47- 63Hz
- Very Low Standby Power Consumption<0.5W
- IP65 Rating For Indoor Or Outdoor Installations
- 3 In 1 Dimming(1V to 10Vdc or 10V PWM Signal or resistance)

- Safety: Complies with IEC/EN61347-1, IEC/ EN61347-2-13, UL8750 CALSS 2, CSA C22.2NO.250.13-12,CE,UKCA,IP65
- Materials: Uses UL 94-V0 Resin
- EMC: Conducted And Radiated Emission conform To EN55015,FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS C, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5,EN61000-4-6, EN61000-4-8 EN61000-4-11

Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (mA)	Input Range	Max.Operating Ambient (°C)	Min. Part Efficiency (%)
49180K		12 ~18	3600			>88%
49240K	65	15 ~24	2700			>88%
49360K		21.5 ~36	1800	100Vac – 305Vac	-25°C ~ +70°C	>89%
49420K		25 ~42	1550			>90%
49480K		32 ~48	1350			290 70

DERATING GRAPH

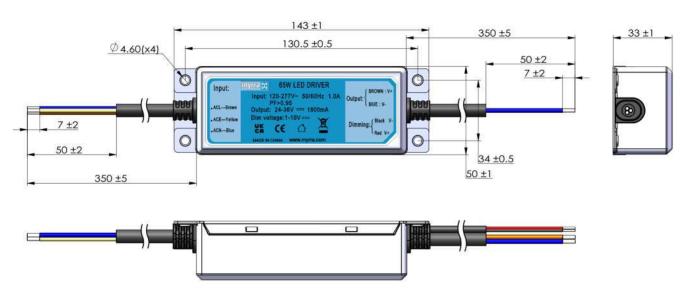






DIMMING GRAPH

DIMENSIONS









Model: 65 Watt		Specification			
	Rated input Voltage	120~277Vac			
	Input Voltage Range	100~305Vac			
	AC Input Frequency Range	47Hz~63Hz			
AC Input	Rated AC Input Frequency	50/60Hz			
Characteristics	Input Current	1.0A Max@108Vac~305Vac@DC output with full load			
	Standby Power	0.5W Max (Meet Requirements Of Energy Star And EC Code Of Conduct)			
	Total Harmonic Distortion	≤20% @output load≥75%			
	Leakage Current	<0.75mA@277Vac			
	Max.No.of PSU on 16A circuit breaker	26 units(circuit breaker of type B)/26 units(circuit breaker of type C)at 230VAC.			
	Output Voltage Range	See table			
	Output Voltage Line Regulation	± 5%			
	Output Voltage Load	±5%			
DC Output Characteristics	Regulation				
	Ripple & Noise	Max 10%Ip-p@ 120Vac ~277Vac (The measuring will be terminated with a 47uF AL E-Cap and a 0.1uF Cer-Cap. An oscilloscope set at 20MHz bandwidth).			
	Efficiency	See table (Meet Requirements Of Energy Star And EC Code Of Conduct)			
	Over Voltage Protection(LED Open)	The LED driver shall automatic protection(hiccup mode). The LED driver shall auto-recove normal operation after the deformation is removed. No excessive heat, odour, or plastic deformation shall occur, no safety hazard.			
		The power supply shall withstand a continuous output short without damage in			
Protection	Output Short Circuit	hours ; The short may be applied before power on, or after power on; The power sup			
Characteristics	Protection	shall resume normal operation after the short is removed, no excessive heat, odour,			
		or plastic deformation shall occur, no safety hazard			
	Over Temperature Protection	Hiccup mode, recovers automatically after fault condition is removed.			
	Operation Temperature	-25°C~+70′C (Refer to "Derating Graph")			
	Operation Humidity	10~ 90% RH (No Condensing) @ DC output with full load			
Environmental	Storage Temperature	-10°C~ +35°C			
	Storage Humidity	<75%RH			
Safety & EMC	Dielectric Strength	Input to Output 3kVAC,5mA,1 min(3.75kVAC,3s @at the mass production stage) Input to Ground 1.5kVAC, 5mA,1 min			
	Radiation	Output to Ground 500VAC ,5mA,1 min Meeting EN55015, FCC part 15, Class B			
Requirement					
	Conduction	Meeting EN55015, FCC part 15, Class B Meet all requirements of:			
	Safety Standards	IP65; UL8750 CLASS2; CSA C22.2NO.250.13-12;IEC/EN61347-1;IEC/EN61347-2-13;			
Reliability	MTBF	CE, UKCA Mark >200K Hours @230VAC input at max operation temperature; >550K Hours @230VAC input at 25deg.C			
Requirement		Calculated in accordance with MIL-HDBK-217-F2			
	Burn-In Test	The unit shall be burned in for 2 $^{\sim}$ 5hours under 230Vac input and DC with full load at an ambient temperature of 30 $^{\sim}$ 45 degrees C			
	Net Weight	Approximately 450 grams per product unit.			
Guarantee	This product meet to RoHS sta				

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100W Industrial Power Supply

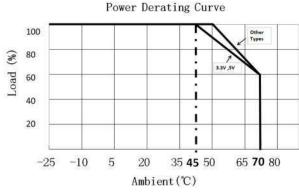


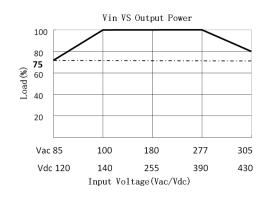
MAIN FEATURES

- 100W Small Compact Size
- Built-in active PFC Function:>0.92
- Output Range: 3.3VDC 48VDC
- Input Range: 85VAC 305VAC/47- 63Hz
- Very Low Standby Power Consumption<0.3W
- Safety: Complies with IEC/EN62368-1, IEC/ EN60335-1, IEC/EN61558-2-16, UL62368-1, CSA C22.2NO.62368-1-14, CE, UKCA
- EMC: Conducted And Radiated Emission conform To EN55032,FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS C, EN61000-3-3 without any additional components.
- Immunity Conform To:EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4,EN61000-4-5,EN61000-4-6, EN61000-4-8 EN61000-4-11

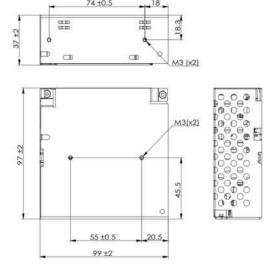
Part Number	Output Power (W)	Output Voltage (Vdc)	Output Current (A)	Input Range	Operating Ambient (°C)	Min. Part Efficiency (%)
49033N	60	3.3	18	-85Vac – 305Vac (120Vdc – 430Vdc) -25°C ~ +70°C		>75%
49050N	90	5.0	18			>87%
49120N	102	12	8.5			>90%
49150N	105	15			>90%	
49240N	108	24	4.5		>90%	
49360N	108	36	2.8		>90%	
49480N	110	48	2.3			>90%

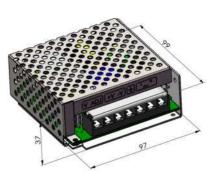
DERATING GRAPH





DIMENSIONS









Model: 100 Watt		Specification				
	Rated input Voltage	100~277Vac				
	Input Voltage Range	85~305Vac				
	AC Input Frequency Range	47Hz~63Hz				
AC Input	Rated AC Input Frequency	50/60Hz				
Characteristics	Input Current	2.0A Max@85Vac~305Vac@DC output with full load				
	Standby Power	0.3W Max (Meet Requirements Of Energy Star And EC Code Of Conduct)				
	Leakage Current	<0.75mA@305Vac				
	Output Voltage Range - ADJ	Refer to P/N specification				
	Output Voltage Accuracy					
	Output Voltage Line	± 2%				
	Regulation	± 0.5%				
DC Output	Output Voltage Load	± 1%				
Characteristics	Regulation	± 1/0				
	Ripple & Noise	Max 180mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with				
	Dynamic Response	47μF AL E-Cap and a 0.1 μF Ceramic-Cap. An oscilloscope set at 20MHz bandwidth) The output voltage shall not exceed \pm 10% rated output voltage @ 50% <> 100 % Load change, 1A/μS, 1KHz 50% duty cycle.				
	Efficiency	See table (Meet Requirements Of Energy Star And 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, or plastic deformation shall occur with no safety hazard				
		The power supply shall withstand a continuous output short without damage in				
	Output Short Circuit	hours ; The short may be applied before power on, or after power on; The power sup				
Protection	Protection	shall resume normal operation after the short is removed, no excessive heat, odour,				
Characteristics		or plastic deformation shall occur, no safety hazard				
	Over Temperature Protection	Hiccup mode, recovers automatically after fault condition is removed.				
	Operation Temperature	-25°C ~ + 70'C (Refer to "Derating Graph")				
	Operation Humidity	10~ 90% RH (No Condensing) @ DC output with full load				
Environmental	Storage Temperature	-10°C~ +35°C				
	Storage Humidity	<75%RH				
	Dielectric Strength	Input to Output 4kVAC,5mA,1 min				
	Diciccine strength	Input to Ground 2kVAC,10mA,1 min				
Safety & EMC	D. Patrice	Output to Ground 1.25kVAC ,10mA,1 min				
Requirement	Radiation	Meeting EN55032, FCC part 15, Class B				
	Conduction	Meeting EN55032, FCC part 15, Class B				
	Safety Standards	Meet all requirements of : UL62368-1,CSA C22.2 NO.62368-1-14, IEC/EN62368-1,IEC/EN60335-1,IEC/EN61558-2-16				
		CE, UKCA Mark				
Reliability	MTBF	>200K Hours @230VAC input at max operation temperature;				
Requirement		>550K Hours @230VAC input at 25deg.C Calculated in accordance with MIL-HDBK-217-F2				
nequirement		The unit shall be burned in for 2~ 5hours under 230Vac input and DC with full load at				
	Burn-In Test	an ambient temperature of 30~45 degrees C				
		Approximately 260 grams per product unit.				
	Net Weight					

Customs Solutions

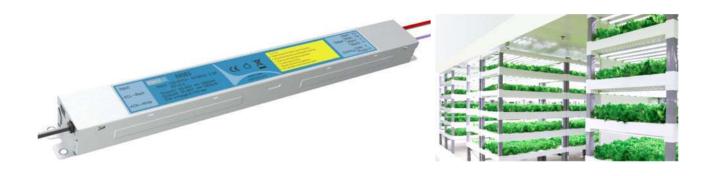
Open Frame type AC/DC Power Supplies 100W to 500W

Efficiency up to 90% Built-in Active PFC Function



Grow Lights - LED Driver 100W ~ 200W

Efficiency up to 89% IP65 Rating, Isolated 3 In 1 dimming: 0 ~ 10Vdc,PWM,Resistor Built-in Active PFC Function



Industrial DIN RAIL AC/DC Power Supplies 100W ~ 200W

Efficiency up to 90% Built-in Active PFC Function





Application notes for 47000/48000/49000 Series

1 - Storage Guide:

Encapsulated type product:

Storage temperature: -10 $^{\circ}$ C to +35 $^{\circ}$ C, Storage humidity: <75%RH

Non-encapsulated type product:

Storage temperature: $+5^{\circ}$ C to $+35^{\circ}$ C, Storage humidity: <75%RH

2 - Shelf life Guide:

Encapsulated type product:

To ensure best power supply reliability and life, the customer shall limit the power supply shelf life to no longer than 6 months after delivery. The maximum recommended period before the power supply shall be powered is 18 months from the power supply date code.

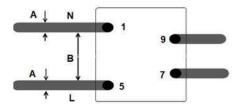
Non-encapsulated type product:

To ensure best power supply reliability and life, the customer shall limit the power supply shelf life to no longer than 6 months after delivery. The maximum recommended period before the power supply shall be powered is 12 months from the power supply date code.

3 - General Storage Conditions:

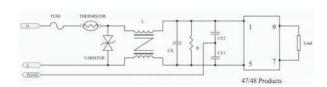
MYRRA power supplies should be stored in their original packaging before use. In the warehouse, there should not be harmful gas, inflammable, explosive products, corrosive chemical products, strong mechanical vibration, shock and strong magnetic field effects. The package box should be stored above ground by at least 20cm height, and 50cm away from any wall, thermal source, and vent.

4- Safety and recommend wiring: linewidth A≥2mm, B≥5mm.



5- Recommended circuit for applications requiring higher EMC performance :

The 47/48 series are already certified as compliant to EN55022 and EN55014 CLASS B for emc. For this compliance no additional external components are required. Should a more stringent emc performance be required the circuit below can be proposed

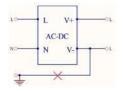


Fuse: recommended parameters: 5A to 10A/250Vac, Time-lag type.

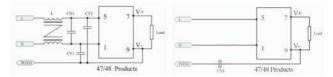
THERMISTOR: recommended parameters: 2A, 5Ω ,1.8W to 5A D10,2.5Ω,2.4W. **Varistor**: recommended parameters: 14D471,300Vac, maximum energy 118 Joule. Lis a common mode inductor: recommended parameters: 10mH to 30mH CX is a X2 capacitor: recommended parameters: 0.1uF to 0.22uF/275Vac CY1 and CY2 are Y capacitors: recommended parameters: 1000pF to 2200pF/400V R is a resistor: recommended parameters: $1.0M\Omega$ to 3.0 M Ω .

6 – Application of the connection to ground:

This application is not supported for by Myrra SMPS products



The following proposed circuit may assist:



L: is a common mode inductor, the recommended parameters: 10mH to 30mH

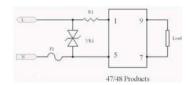
CX1 : is an X2 capacitor, the recommended parameters : 0.1uF to 0.22uF/275Vac

CY1 and CY2 are Y capacitors, the recommended parameters: 1000pF to 2200pF/400V



7 - High surge circuit:

The 47 / 48 Series is tested and certified for a surge level in accordance with IEC61000-4-5 as standard without requiring any additional external components. To extend the surge level to 6KV the external circuit below can be proposed.



VR1 is a varistor, the recommended parameters: 14D471, 300Vac, maximum energy 118 Joule. R1 is a wire-wound resistor, the recommended parameters: 10R/1W to 10R/3W, resistance wire Φ 0.1 to 0.23mm. F1 is a fuse, the recommended parameters: 6.3A to 10A/250Vac, Time-lag type.

The information contained in this document is subject to change without notice.

Modified and Custom Solutions

TECHNICAL SERVICES:

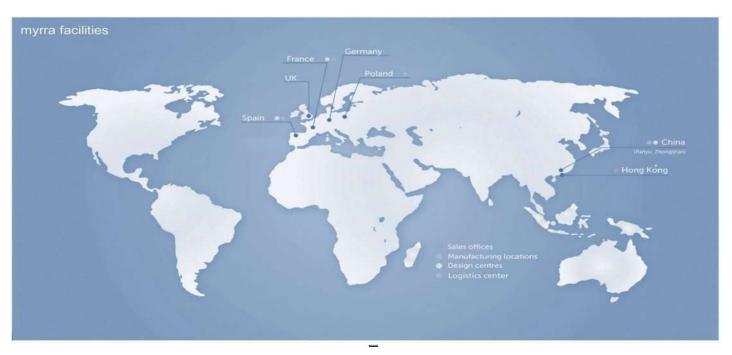
- Alternative DC Output Voltages
- · Single, Dual or Triple Output Voltages
- Addition of Signal Pins for AC OK, Remote on/off, sense etc.
- Alternative Power Rating
- Revised 'Hold-up' timing to suit System needs
- · Customer specific product 'Branding/Labelling'
- Specific Power Supply Manufacturing Functional Test Profile
- Integrating the Power Supply on the System PCB
- Alternative Power Supply Housing
- Revised DC Output Filtering

CUSTOMER SERVICES:

- Existing Designs for Modified Standards
- Flexible Manufacturing Batch Sizes
- European Stock-holding locations
- European Engineering and Logistics Support
- Country Specific Distribution Partners
- Manufacturing dynamics for Volume Fluctuations
- Myrra Quality Controlled Design and Manufacturing
- Fast Sample Service

Contact us for your Power Needs

contact@myrra.com



Website



For more information & documents about our PWS range, check our website Myrra-Powersupplies.com

- Datasheets & Drawing for each products
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