

Project: _____ Designer: _____ Fixture: _____



LED Driver • Constant Voltage • 60W
MEAN WELL LPV-60 Series



- Features :
 - Constant voltage design
 - Universal AC input / Full range
 - Withstand 300VAC surge input for 5 seconds
 - Protections: Short circuit / Over load / Over voltage
 - Cooling by free air convection
 - Fully encapsulated with IP67 level (Note.8)
 - Fully isolated plastic case
 - Class II power unit, no FG
 - Class 2 power unit
 - Pass LPS
 - Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.7)
 - 100% full load burn-in test
 - Low cost, high reliability
 - 2 years warranty



SPECIFICATION

MODEL		LPV-60-5	LPV-60-12	LPV-60-15	LPV-60-24	LPV-60-36	LPV-60-48
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V	48V
	RATED CURRENT	8A	5A	4A	2.5A	1.67A	1.25A
	CURRENT RANGE	0 ~ 8A	0 ~ 5A	0 ~ 4A	0 ~ 2.5A	0 ~ 1.67A	0 ~ 1.25A
	RATED POWER	40W	60W	60W	60W	60W	60W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±8.0%	±5.0%				
	LINE REGULATION	±1.0%					
	LOAD REGULATION	±6.0%	±2.0%				
	SETUP, RISE TIME Note.6	500ms, 20ms / 230VAC	500ms, 20ms / 115VAC at full load(for 5~36V);	500ms, 30ms / 230VAC	500ms, 30ms / 115VAC at full load(for 48V)		
	HOLD UP TIME (Typ.)	50ms/230VAC	16ms/115VAC at full load				
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC	127 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	76%	83%	83%	86%	86%	86%
	AC CURRENT (Typ.)	1.2A/115VAC	1A/230VAC				
	INRUSH CURRENT(Typ.)	COLD START 60A(twidth=525µs measured at 50% Ipeak) at 230VAC					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	3 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC					
PROTECTION	OVER LOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	41.4 ~ 48.6V	55.2 ~ 64.8V
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC	SAFETY STANDARDS	UL879(except for LPV-60-5), UL1310(except for LPV-60-5), CSA C22.2 No. 207-M89(except for LPV-60-5, LPV-60-48), CAN/CSA C22.2 No. 223-M91(except for LPV-60-5, LPV-60-48), BIS IS15885(for LPV-60-12, LPV-60-24 only), EAC TP TC 004, IP67, IEC60950-1:2005+A2:2013 approved ; design refer to TUV EN60950-1					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH					
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2 Class A, EN61000-3-3, EAC TP TC 020					
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020					
	MTBF	732Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	162.5*42.5*32mm (L*W*H)					
NOTE	PACKING	0.4Kg; 32pcs/13.8Kg/0.63CUFT					
		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage. Please check the static characteristics for more details. 5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. 6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 7. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minute. 8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). 9.Products sourced from the Americas regions may not have the TUV/BIS/CCC logo. Please contact your MEAN WELL sales for more information. 10. For any application note and IP water proof function installation caution, please refer our user manual before using. 11. This product is not intended for LED applications in the EU.(In the EU NPF/LPF/XLG series are recommended.) 12. To fulfill requirements of latest ErP regulation for lighting luminaires, this LED Driver can only be used behind a switch without permanently connected to mains.					



LED Driver • Constant Voltage • 60W
MEAN WELL LPV-60 Series

Mechanical Specification

Case No. 976A Unit:mm

T case: Max. Case Temperature.

Recommend Mounting Direction

Block Diagram

fosc : 65KHz

Derating Curve

Static Characteristics

Project: _____ Designer: _____ Fixture: _____



LED Driver • Constant Voltage • 100W
MEAN WELL LPV-100 Series



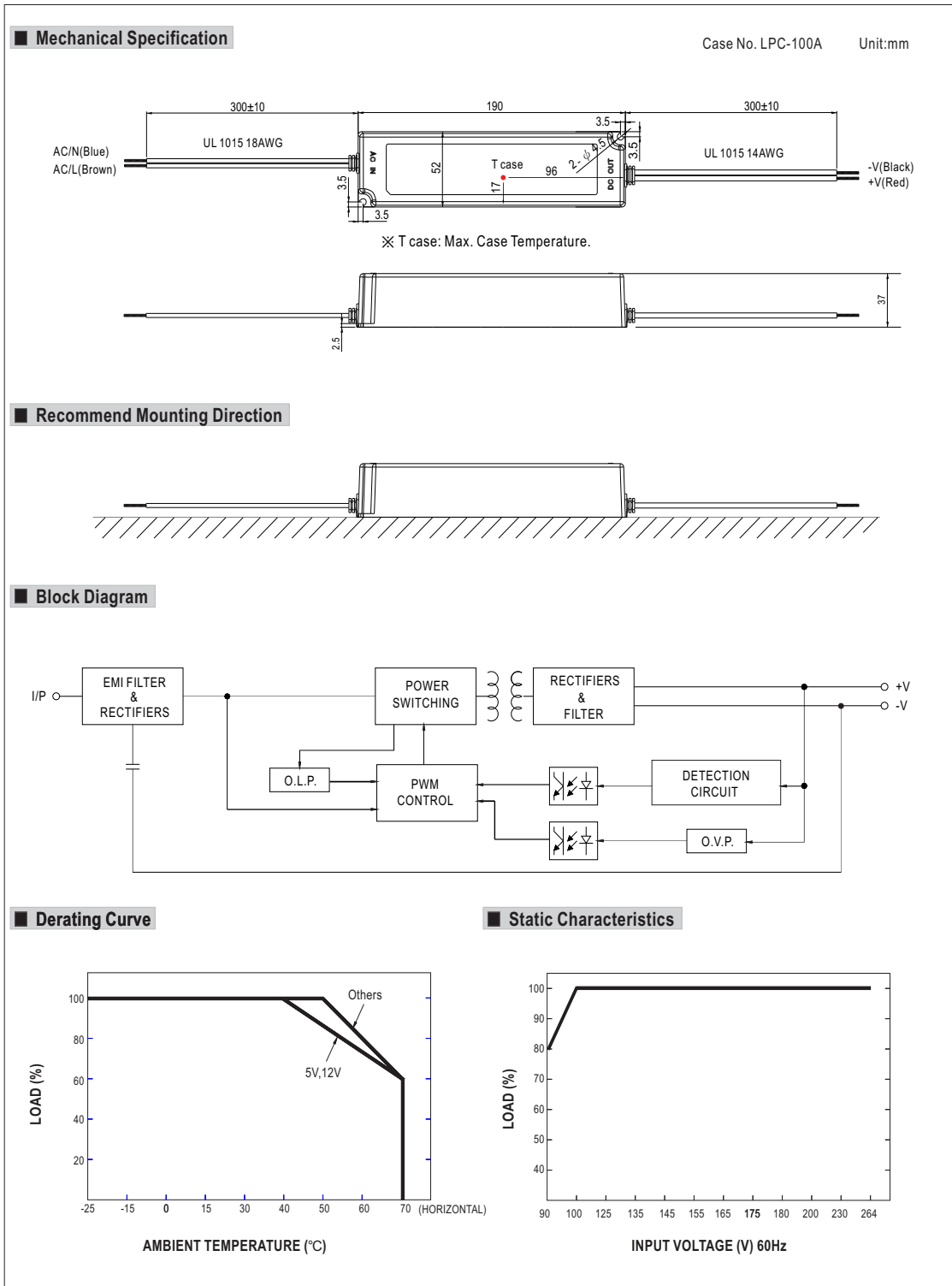
■ Features :

- Constant voltage design
- Universal AC input / Full range
- Fully encapsulated with IP67 level (Note.8)
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note 7.)
- 2 years warranty



SPECIFICATION

MODEL	LPV-100-5	LPV-100-12	LPV-100-15	LPV-100-24	LPV-100-36	LPV-100-48	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V	48V
	RATED CURRENT	12A	8.5A	6.7A	4.2A	2.8A	2.1A
	CURRENT RANGE	0 ~ 12A	0 ~ 8.5A	0 ~ 6.7A	0 ~ 4.2A	0 ~ 2.8A	0 ~ 2.1A
	RATED POWER	60W	102W	100.5W	100.8W	100.8W	100.8W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±8.0%	±5.0%				
	LINE REGULATION	±1.0%					
	LOAD REGULATION	±6.0%	±2.0%				
INPUT	SETUP, RISE TIME Note.6	2000ms, 25ms / 230VAC 2000ms, 25ms / 115VAC					
	HOLD UP TIME (Typ.)	50ms/230VAC 14ms/115VAC at full load					
	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	80%	85%	87%	88%	88%	89%
	AC CURRENT	2.2A/115VAC 1.2A/230VAC					
	INRUSH CURRENT(Typ.)	COLD START 75A(twidth=700µs measured at 50% Ipeak) at 230VAC					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC					
PROTECTION	LEAKAGE CURRENT	0.25mA / 240VAC					
	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	41.4 ~ 48.6V	55.2 ~ 64.8V
	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH					
SAFETY & EMC	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL8750, CSA C22.2 No 250.13-12, UL879, CSA C22.2 No.207-M89, BIS IS15885(for LPV-100-12,LPV-100-24 only), EAC TP TC 004,IP67 approved. Design refer to EN60950-1					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH					
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2 Class A(≤80% load), EN61000-3-3, EAC TP TC 020					
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024, light industry level, criteria A, EAC TP TC 020					
	MTBF	703Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	190*52*37mm (L*W*H)					
NOTE	PACKING	0.63Kg/20pcs/13.6Kg/0.55CUFT					
	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the static characteristics for more details.</p> <p>5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quality EMC Directive on the complete installation again.</p> <p>6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.</p> <p>7. Suitable for indoor use or outdoor use without direct sunlight exposure.</p> <p>8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>9. Products sourced from the Americas regions may not have the TUV/BIS/CCC logo.</p> <p>10. For any application note and IP water proof function installation caution, please refer our user manual before using.</p> <p>11. This product is not intended for LED applications in the EU.(In the EU NPF/LPF/XLG series are recommended.)</p> <p>12. To fulfill requirements of latest ErP regulation for lighting luminaires, this LED Driver can only be used behind a switch without permanently connected to mains.</p>						





LED Power Supply • AC Plug/DC Connector • 60W
MEAN WELL OWA-60U Series



(for 42V, 48V, 54V)



(except for 42V, 48V, 54V)



IP67

(for power body)



■ Features

- Universal AC input / Full range (up to 264VAC)
- High efficiency up to 91%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Class II power unit, no FG
- Class 2 power unit
- Fully isolated plastic case
- Fanless design, cooling by free air convection
- No load power consumption <0.15W
- Comply with EISA 2007 DoE and NRCan
- UL LISTED, suitable for dry and damp locations
- Various DC plug quick adapter accessory available
Plug kit sold separately, please contact TRC Electronics for details.
- 5 years warranty

■ Applications

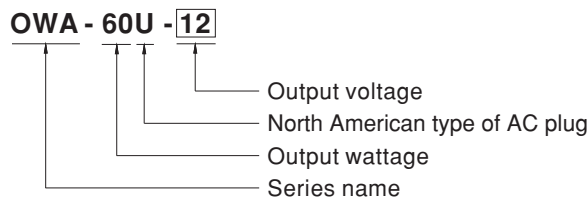
- Indoor LED lighting
- LED decorative lighting
- LED office lighting
- General electronic products in dusty or humid environment

■ Description

OWA-60U is one 60W single-output external LED power supply series. Pairing the North American type of AC plug and the prevailing DC connectors, OWA-60U, working like an adaptor, simplifies the connection with LED lighting fixtures without extra wiring efforts. The entire series is certified with the “UL LISTED” for dry and damp locations.

As a class II (no FG) design, the enclosure of OWA-60U is a 94V-0 flame retardant plastic case. The interior is fully potted with silicone that enhances the heat dissipation. With the working efficiency up to 91%, OWA-60U is cooled by free air convection; the working temperature ranges from -35°C to +70°C.

■ Model Encoding

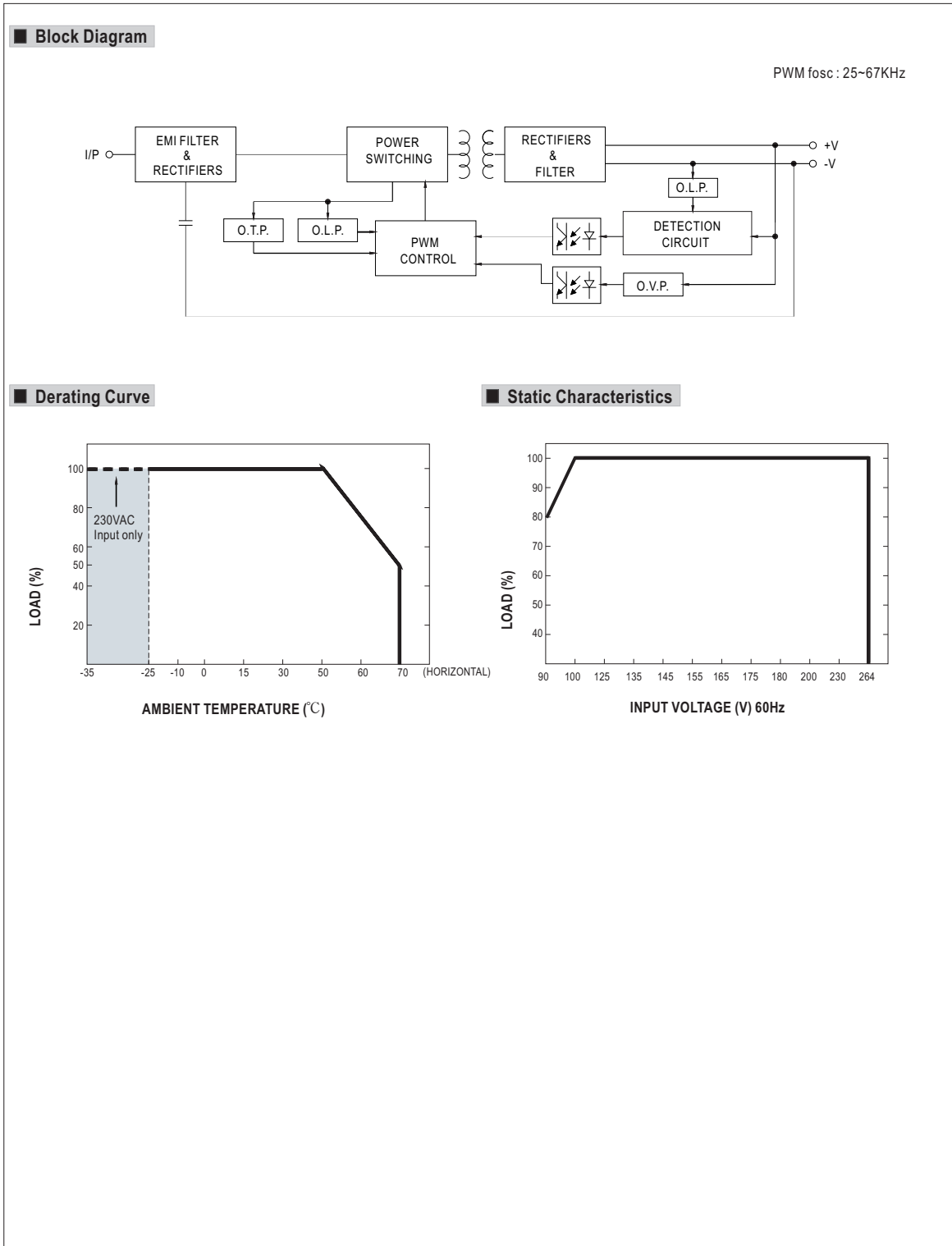




LED Power Supply • AC Plug/DC Connector • 60W
MEAN WELL OWA-60U Series

SPECIFICATION

MODEL		OWA-60U-12	OWA-60U-15	OWA-60U-20	OWA-60U-24	OWA-60U-30	OWA-60U-36	OWA-60U-42	OWA-60U-48	OWA-60U-54	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
	CONSTANT CURRENT REGION	6 ~ 12V	7.5 ~ 15V	10 ~ 20V	12 ~ 24V	15 ~ 30V	18 ~ 36V	21 ~ 42V	24 ~ 48V	27 ~ 54V	
	RATED CURRENT	5A	4A	3A	2.5A	2A	1.67A	1.5A	1.25A	1.12A	
	RATED POWER	60W	60W	60W	60W	60W	60.12W	63W	60W	60.48W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	250mVp-p	250mVp-p	350mVp-p	
	VOLTAGE TOLERANCE Note.3	±4.0%	±4.0%	±4.0%	±3.0%	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LOAD REGULATION	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE TIME Note.4	500ms, 80ms/230VAC 1000ms, 80ms/115VAC at 95% load									
	HOLD UP TIME (Typ.)	10ms at full load 115VAC / 230VAC									
INPUT	VOLTAGE RANGE	90 ~ 264VAC		127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	115VAC	87%	88%	88%	88.5%	88.5%	88.5%	88.5%	88.5%	89%
		230VAC	88%	89%	89%	90%	90%	90%	90%	91%	91%
	AC CURRENT (Typ.)	1.2A / 115VAC		0.7A / 230VAC							
	INRUSH CURRENT (Typ.)	COLD START 35A(twidth=750µs measured at 50% Ipeak) at 115VAC COLD START 65A(twidth=750µs measured at 50% Ipeak) at 230VAC									
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	2 units (circuit breaker of type B) / 4 units (circuit breaker of type C) at 230VAC									
LEAKAGE CURRENT	<0.25mA / 240VAC										
PROTECTION	OVER CURRENT	95 ~ 108% Protection type : Constant current limiting, recovers automatically after fault condition is removed									
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	14 ~ 16V	17.5 ~ 23V	23 ~ 27V	28 ~ 34V	34 ~ 40V	41 ~ 50V	46 ~ 54V	53 ~ 62V	58 ~ 66V	
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-35 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes									
SAFETY & EMC	SAFETY STANDARDS	UL8750 listed; CSA C22.2 No.250.13-12(except for 42V,48V,54V); IP67 approved for power body									
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to FCC Part15									
OTHERS	MTBF	292.8K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	130*53*35mm									
	PACKING	0.41Kg; 16pcs/9.5Kg/0.85CUFT									
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.										

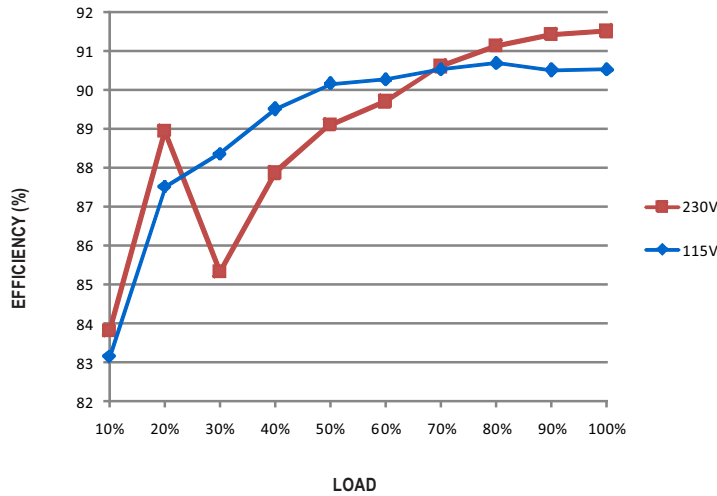




LED Power Supply • AC Plug/DC Connector • 60W
MEAN WELL OWA-60U Series

EFFICIENCY vs LOAD (48V Model)

OWA-60U series possess superior working efficiency that up to 91% can be reached in field applications.

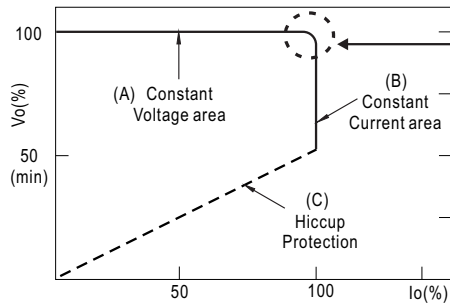


DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method, "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV)" or "constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A)) and CC mode (direct drive, at area (B)).



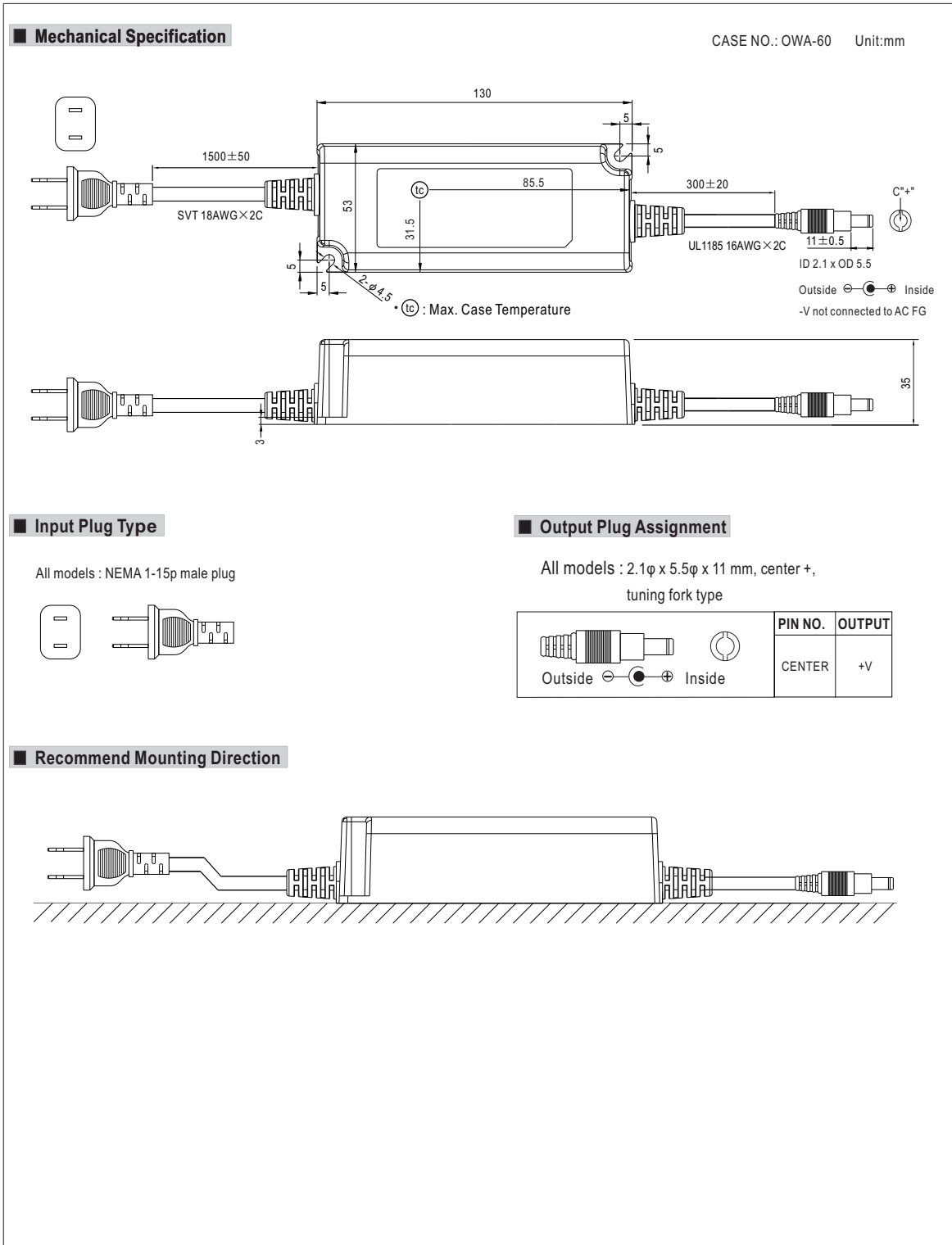
Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact TRC Electronics for details.



LED Power Supply • AC Plug/DC Connector • 60W
MEAN WELL OWA-60U Series





LED Power Supply • AC Plug/DC Connector • 90W
MEAN WELL OWA-90U Series



Features

- Universal AC input / Full range
- Built-in active PFC function
- Class 2 power unit (except OWA-90U-12/15)
- High efficiency up to 91%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Class II power unit, no FG
- Fanless design, cooling by free air convection
- No load power consumption <0.15W
- Energy efficiency Level VI
- Comply with EISA 2007 DoE and NRCan
- UL LISTED, suitable for dry and damp locations
- [Various DC plug quick adapter accessory available](#)
Plug kit sold separately, please contact TRC Electronics for details.
- 5 years warranty

Applications

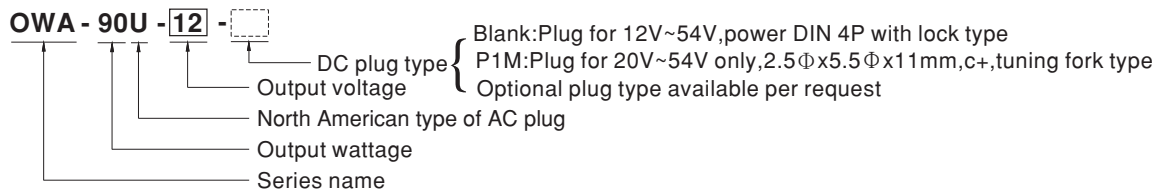
- LED lighting fixture
- LED decorative lighting
- LED office lighting
- General electronic products in dry or damp environment

Description

OWA-90U is one 90W single-output external LED power supply series. Pairing the North American type of AC plug and the prevailing DC connectors, OWA-90U, working like an adaptor, simplifies the connection with LED lighting fixtures without extra wiring efforts. The entire series is certified with the “UL LISTED” for dry and damp locations.

As a class II (without earth pin) design, the enclosure of OWA-90U is a 94V-0 flame retardant plastic case. The interior is fully potted with silicone that enhances the heat dissipation. With the working efficiency up to 91%, OWA-90U is cooled by free air convection; the working temperature ranges from -40°C to +70°C.

Model Encoding





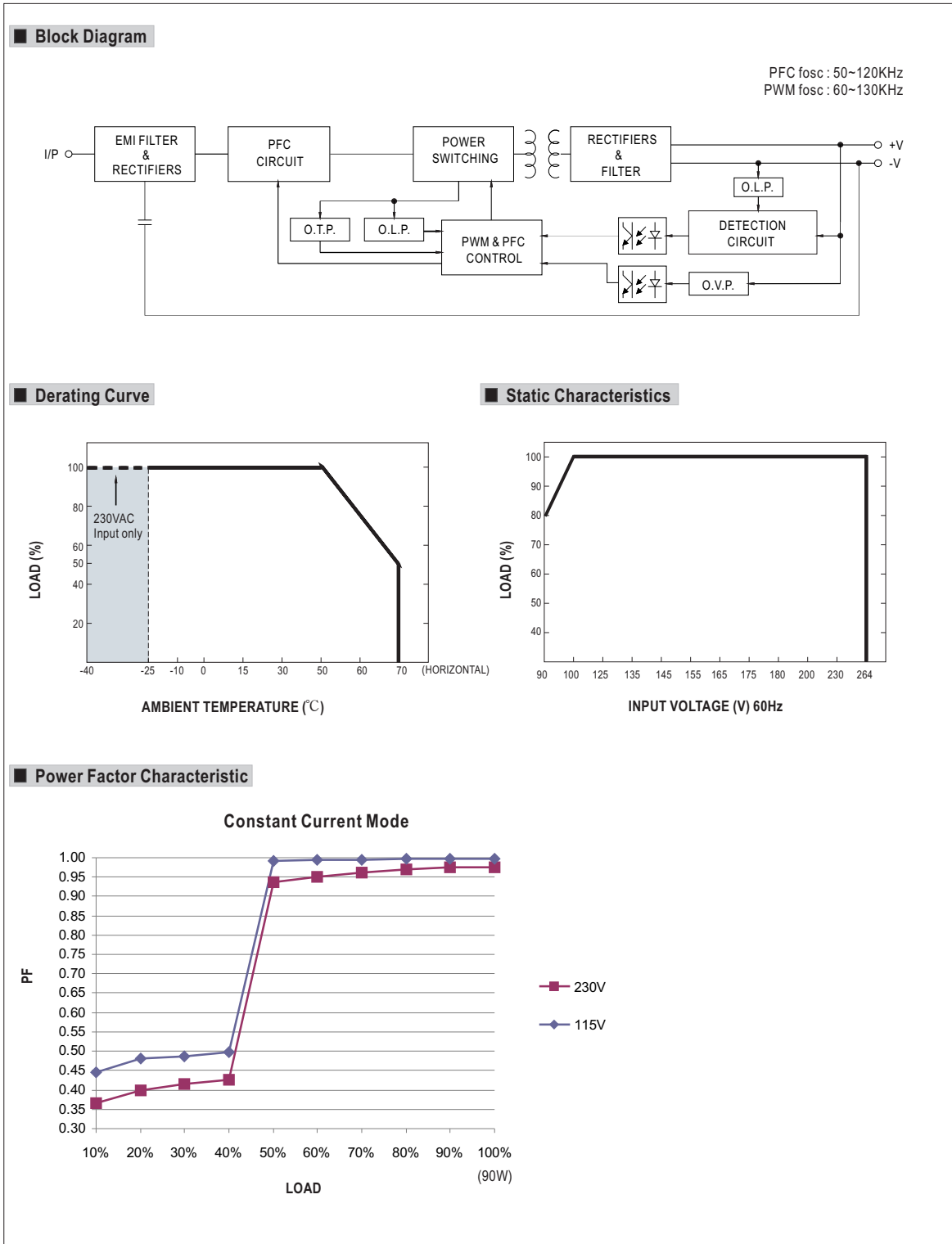
LED Power Supply • AC Plug/DC Connector • 90W
MEAN WELL OWA-90U Series

SPECIFICATION

MODEL		OWA-90U-12	OWA-90U-15	OWA-90U-20	OWA-90U-24	OWA-90U-30	OWA-90U-36	OWA-90U-42	OWA-90U-48	OWA-90U-54	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
	CONSTANT CURRENT REGION	7.2 ~ 12V	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V	
	RATED CURRENT	7.5A	6A	4.5A	3.75A	3A	2.5A	2.15A	1.88A	1.67A	
	RATED POWER	90W	90W	90W	90W	90W	90W	90.3W	90.24W	90.18W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	250mVp-p	250mVp-p	350mVp-p	
	VOLTAGE TOLERANCE Note.3	±4.0%	±4.0%	±4.0%	±3.0%	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	SETUP, RISE TIME Note.4	500ms, 80ms at 95% load 115VAC / 230VAC									
	HOLD UP TIME (Typ.)	16ms at full load 115VAC / 230VAC									
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.96/230VAC at full load									
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading ≥ 60% at 115VAC/230VAC									
	EFFICIENCY (Typ.)	115VAC	88%	89%	89%	89%	89%	89.5%	89.5%	89.5%	89.5%
		230VAC	89%	90%	90%	90%	90%	91%	91%	91%	91%
	AC CURRENT (Typ.)	0.95A / 115VAC 0.5A / 230VAC									
	INRUSH CURRENT (Typ.)	COLD START 30A (twidth=550µs measured at 50% Ipeak) at 115VAC COLD START 60A (twidth=550µs measured at 50% Ipeak) at 230VAC									
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER	3 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC									
	LEAKAGE CURRENT	<0.125mA / 120VAC <0.25mA / 240VAC									
PROTECTION	OVER CURRENT	95 ~ 108% Protection type : Constant current limiting, recovers automatically after fault condition is removed									
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	15 ~ 17V	17.5 ~ 21V	23 ~ 27V	28 ~ 34V	34 ~ 40V	41 ~ 46V	46 ~ 54V	54 ~ 60V	59 ~ 66V	
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes									
SAFETY & EMC	SAFETY STANDARDS	UI8750 listed, CSA C22.2 No. 250.13-12(except for 42V, 48V, 54V); IP67(for main body) approved									
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to FCC Part15									
OTHERS	MTBF	292.8K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	171*63*37.5mm									
	PACKING	0.83Kg; 16pcs/14.3Kg/1.01CUFT									
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).										



LED Power Supply • AC Plug/DC Connector • 90W
MEAN WELL OWA-90U Series

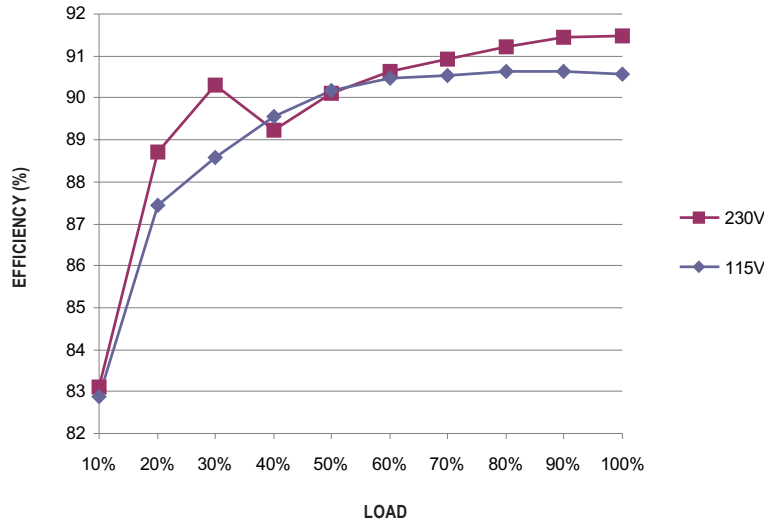




LED Power Supply • AC Plug/DC Connector • 90W
MEAN WELL OWA-90U Series

EFFICIENCY vs LOAD (48V Model)

OWA-90U series possess superior working efficiency that up to 91% can be reached in field applications.

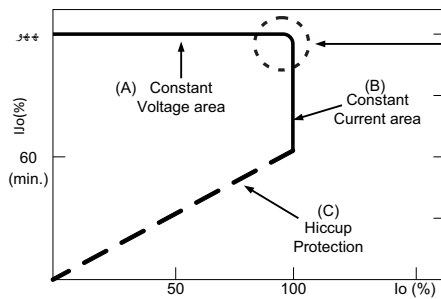


DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method, "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV)" or "constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B)).



Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.
 Should there be any compatibility issues, please contact TRC Electronics for details.



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■ Mechanical Specification Case No. PWM-90P Unit:mm

Blank Type:(OWA-90U-_)

P1M Type:(OWA-90U-_-P1M)

■ Input Plug Type **■ Output Plug Assignment**

All models : NEMA 1-15p male plug

Plug for all standard models(12V~54V) : Plug for 20V~54V only :

power DIN 4 pins with lock type,
 KYCON KPPX-4P, or equivalent

PIN NO.	OUTPUT
1,4	+V
2,3	-V

PIN NO.	OUTPUT
CENTER	+V



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■ Recommend Mounting Direction



XFL Driver Compatibility Matrix									
Driver Manufacturer		Meanwell	Meanwell	Meanwell	Meanwell	Meanwell	Meanwell	Meanwell	Meanwell
Driver Part Number		XLD-ND-MD-OWA-90U-24-P1M	XLD-ND-MW-OWA-60U-24-P1M	XLD-D010-PWM-60-24	PWM-60-24-DA ³	XLD-D010-MW-PWM-90-24	PWM-90-24-DA ³	XLD-ND-MW-LPV-60-24	XLD-ND-MW-LPV-100-24
Input	Voltage Range	90-264VAC	90-264VAC	90-305VAC	90-305VAC	90-305VAC	90-305VAC	90-264VAC	90-264VAC
Output	Rated Current (A)	2.5	3.75A	2.5	2.5	3.75	3.75	2.5	4.2
	Rated Power (W)	90	60	60	60	90	90	60	100.8
Dimmable		No	No	Yes [PWM Freq. 1.47 kHz]				No	No
Dimming Options	1-10V Signal Input (Analog)			✓		✓			
	10V PWM Input (Digital)			✓		✓			
	DALI (DT6)				✓		✓		
Lighting Safety		UL8750	UL8750	UL8750	UL8750	UL8750	UL8750	UL8750	UL8750
IP rating		IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Static White	XFL-SWxx95-2401	27.4	18.3	18.3	18.3	27.4	27.4	18.3	30.7
	XFL-SWxx95-2403	9.1	6.1	6.1	6.1	9.1	9.1	6.1	10.2
	XFL-SWxx95-2404	6.2	4.2	4.2	4.2	6.2	6.2	4.2	7.0
	XFL-SWxx95-2405	5.5	3.7	3.7	3.7	5.5	5.5	3.7	6.4
	XFL-SWxx95-2406	4.6	3.0	3.0	3.0	4.6	4.6	3.0	5.1
High Density	XFL-HDxx95-2403	9.1	6.1	6.1	6.1	9.1	9.1	6.1	10.2
	XFL-HDxx95-2404	6.2	4.2	4.2	4.2	6.2	6.2	4.2	7.0
	XFL-HDxx95-2405	5.5	3.7	3.7	3.7	5.5	5.5	3.7	6.1
	XFL-HDxx95-2407	4.2	2.8	2.8	2.8	4.2	4.2	2.8	4.7
Full Spectrum	XFL-FSxx95-2403	9.1	6.1	6.1	6.1	9.1	9.1	6.1	10.2
	XFL-FSxx95-2404	6.2	4.2	4.2	4.2	6.2	6.2	4.2	7.0
	XFL-FSxx95-2405	5.5	3.7	3.7	3.7	5.5	5.5	3.7	6.1
	XFL-FSxx95-2406	4.6	3.0	3.0	3.0	4.6	4.6	3.0	5.1
Side Emmiting	XFL-SExx95-2403	9.1	6.1	6.1	6.1	9.1	9.1	6.1	10.2
Ultra Slim	XFL-USxx95-2403	7.4	4.9	4.9	4.9	7.4	7.4	4.9	8.3
Warm Dim	XFL-DWT3D5-2403	N/A	N/A	5.7	5.7	8.6	8.6	N/A	N/A
Tunable White	XFL-TWTx95-2409	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	XFL-TWTx95-2414	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	XFL-TWTx95-2417	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	XFL-TWTx95-2419	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1. Data listed herein is for reference only and does not imply warranty to the led strip or power supply. Xicato recommends consulting with power supply manufacturers to determine compatibility. Data above only suggests initial electrical compatibility and does not guarantee performance over life. Xicato recommends independently verifying all relevant performance parameters.
 2. Maximum strip length values do not account for voltage drop within the LED strip itself or voltage drop from wiring between the strip and the power supply. Maximum strip length value does not guarantee uniformity in lumen output or color across entirety of LED strip.