

(Wall-Mounted EU type)



(Interchangeable type)

■ Features

- AC 180~264V input
- Class Ⅱ/2 power unit, no FG
- Built-in active PFC function with EN61347-1 regulation
- Constant voltage design
- Protections: Short circuit / Over load / Over voltage
- Cooling by free air convection
- No load power consumption<0.5W
- Various DC plug quick adapter accessory available (Plug kit sold sperately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

■ Applications

- LED strip lighting
- Indoor LED lighting
- LED decorative lighting
- Commercial lighting
- Mirror lighting
- Table light
- Portable lighting

■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

■ Description

GSV60 series is a 60W external wall-mounted LED power supply with PFC function. The design of this product is based on the “plug and play” concept for adaptors. The AC input side exploits the 2-Pole (Class Ⅱ, no FG) standard plug, and the output side is equipped with the highly accepted DC connector (2.1x5.5x11mm) in the market. This product accepts 180~264VAC input and offers constant voltage output with 12V/24V or 48V. The design complies with the lighting requirements of EMI BS EN/EN55015 and the harmonic current demand according to BS EN/EN61000-3-2 Class C. In addition, the no load power consumption is less than 0.5W, making GSV60 conform to the ErP regulation required by European Union for lighting systems as well.

■ Model Encoding

GSV60 E 12 - P1J

- DC plug type: P1J: Plug for standard model, 2.1φ×5.5φ×11mm, C+ tuning fork type; Other options available by customer requested (see Page 5~6)
- Output voltage with 12V/24V or 48V
- AC inlet: E : EU 2 pin plug; I : Interchangeable type.(Excluding plug)
- Output wattage
- Series name

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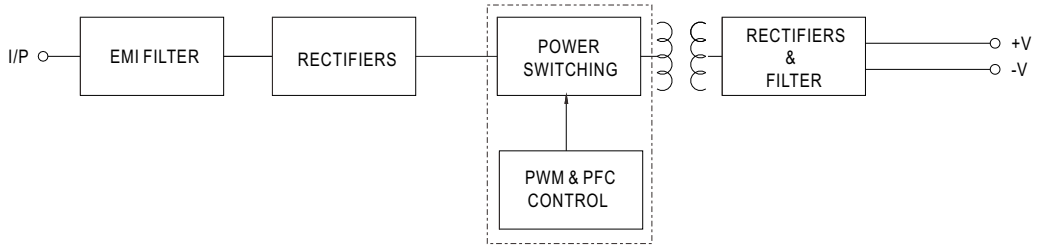
SPECIFICATION

MODEL		GSV60E 12-P1J	GSV60E 24-P1J	GSV60E 48-P1J
OUTPUT	DC VOLTAGE	12V	24V	48V
	OPEN CIRCUIT VOLTAGE	<15V	<28V	<57V
	RATED CURRENT	4.16A	2.5A	1.25A
	RATED POWER	50W	60W	60W
	RIPPLE & NOISE (max.) Note.2	3Vp-p max.	4.5Vp-p max.	6.5Vp-p max.
	VOLTAGE TOLERANCE Note.3	±1.5V	±2.25V	±4.5V
	LINE REGULATION	±2.0%	±2.0%	±2.0%
	NO LOAD CONSUMPTION	0.5W max.		
	SETUP UP TIME	500ms/230VAC at full load		
INPUT	VOLTAGE RANGE	180 ~ 264VAC 255 ~ 373VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.92/230VAC at full load (Please refer to "Power Factor Characteristic" curve)		
	TOTAL HARMONIC DISTORTION	<20%/230VAC @ full load		
	EFFICIENCY (Typ.)	85% min. @ 230VAC	86% min. @ 230VAC	89% min. @ 230VAC
	AC CURRENT (Typ.)	0.5A/230VAC		0.5A/230VAC
	INRUSH CURRENT(max.)	COLD START 20A(t_{width}=200μs measured at 50% I_{peak}) at 230VAC		
	LEAKAGE CURRENT	<0.25mA max. @ 230VAC		
PROTECTION	OVER LOAD	105 ~ 160% rated output power		
		Protection type : Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	15.6V ~ 18V	28V ~ 32.4V	57.6V ~ 72V
		Protection type : Clamp by zener diode, output short		
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed		
ENVIRONMENT	WORKING TEMP.	-20 ~ +40℃ (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-30 ~ +80℃, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/℃ (-20 ~ 40℃)		
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes		
SAFETY & EMC	SAFETY STANDARDS	LVD BS EN/EN61347-1, BS EN/EN61347-2-13 approved		
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH		
	EMC EMISSION	Compliance to BS EN/EN55015, BS EN/EN61000-3-2 Class C (100% load) ; BS EN/EN61000-3-3		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level, criteria A		
OTHERS	MTBF	450K hrs min. MIL-HDBK-217F (25℃)		
	DIMENSION	E : 75.5*32*47.5 mm(L*W*H) ; I: 75.5*39.1*56.2 mm(L*W*H)		
	PACKING	E: 240g ; 60pcs / 15.5kg / CARTON ; I: 200g ; 60pcs / 13.5kg / CARTON		
CONNECTOR	PLUG	See page 5~6 ; Other type available by customer requested		
	CABLE	See page 5~6 ; Other type available by customer requested		
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 104PF/50V ceramic capacitor and 47μf/50V electric capacitor between output terminals. 3. Tolerance:includes set up tolerance,line regulation and load regulation with minimum load 1% to maximum load 100% at 230VAC input condition. 4. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx			

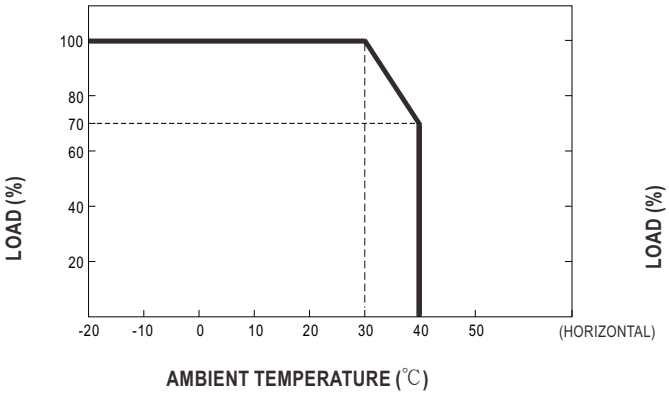
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■ Block Diagram

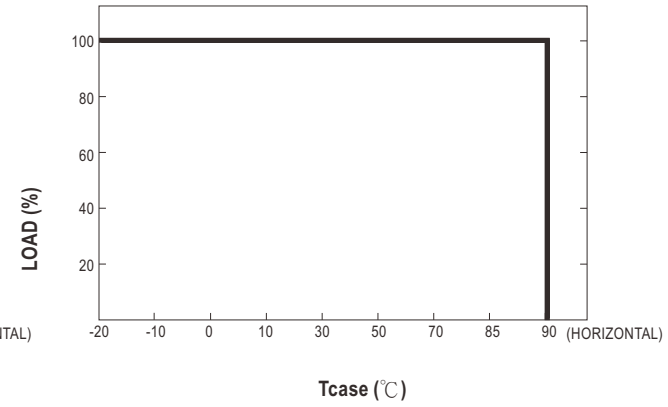
fosc : 100KHz



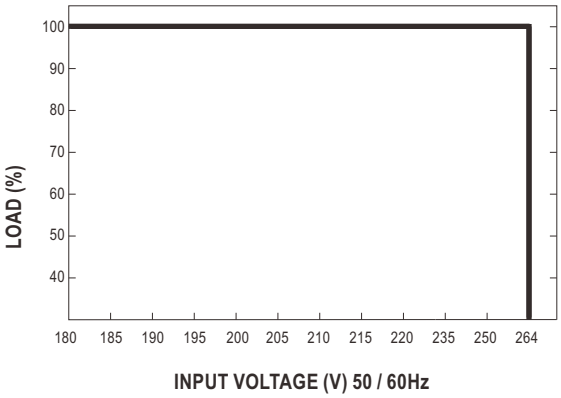
■ Derating Curve



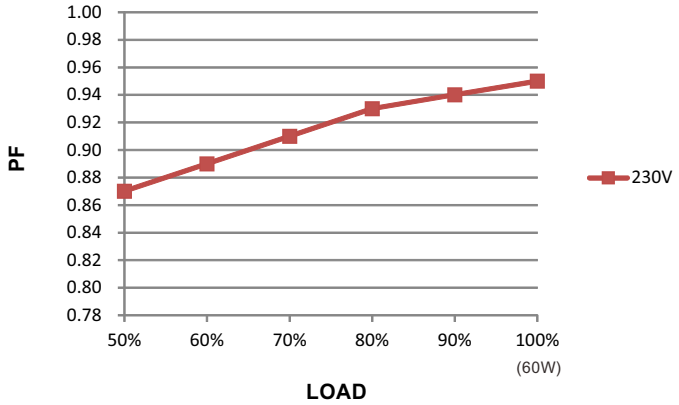
■ OUTPUT LOAD vs TEMPERATURE



■ Static Characteristics



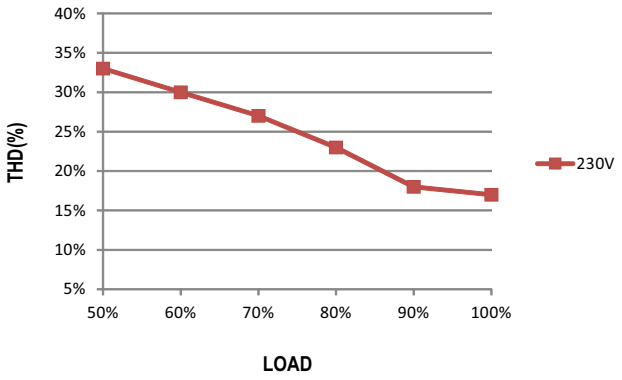
■ Power Factor Characteristic(24V)



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■ TOTAL HARMONIC DISTORTION (THD)

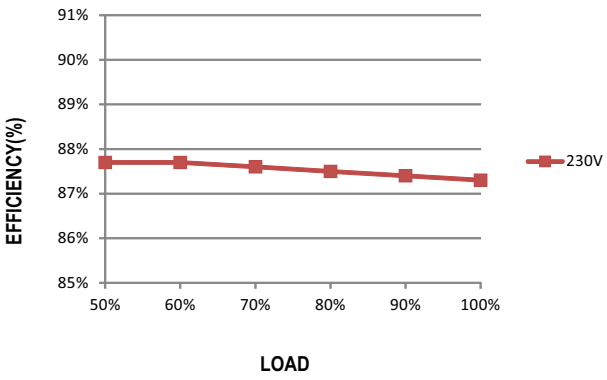
※ 24V Model, Tcase at 70℃



■ EFFICIENCY vs LOAD

GSV60 series possess superior working efficiency that up to 90% can be reached in field applications.

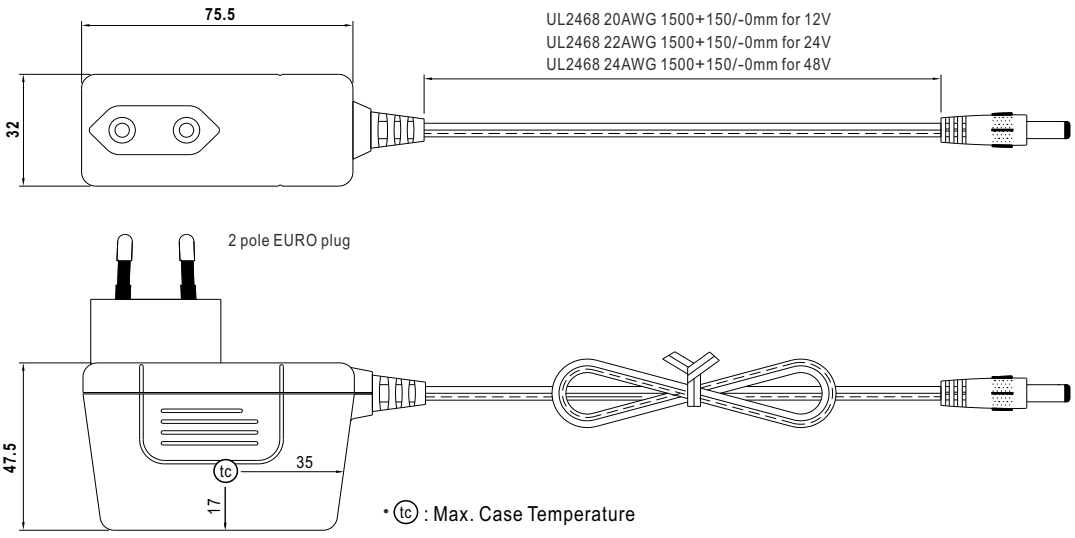
※ 24V Model, Tcase at 70℃



■ Mechanical Specification

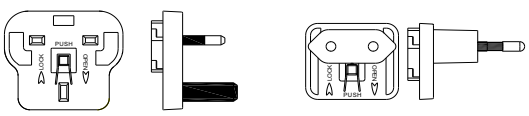
Unit:mm

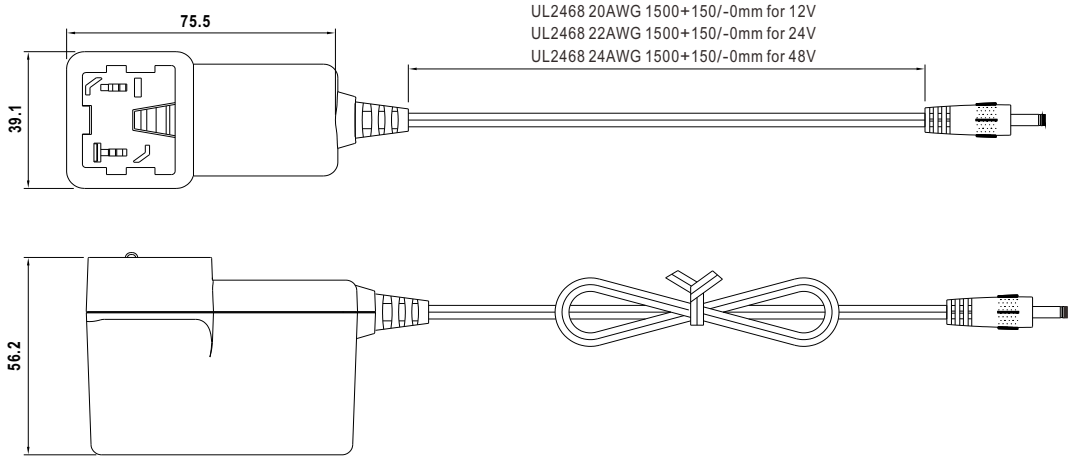
※Standard



• tc : Max. Case Temperature

※Interchangeable AC plug Specifically for GSV30I/60I (order separately)

TYPE		
	U.K type	European type
ORDER NO.	AC plug-UK2	AC plug-EU2
By optional (For AC interchangeable plug same as GEM06~60I accessory)		

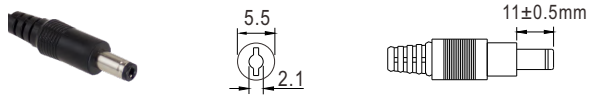


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■ DC output plug

◎ Standard plug: P1J

Unit:mm

P1J	Pin Assignment
	 Outside  Inside

◎ DC plug changeable through:

(1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)

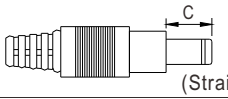
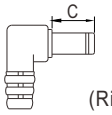
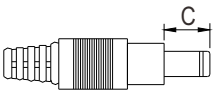
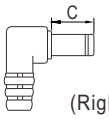
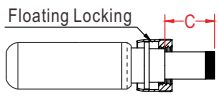
(2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

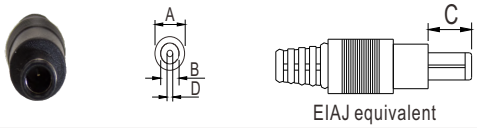
Example quick adapter accessory:

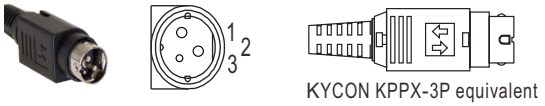


◎ Optional DC plug: (Available in customized cable or quick adapter)

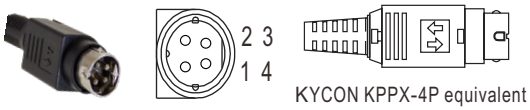
Tuning Fork Style	Type No.	A OD	B ID	C L	Quick Adapter Accessory
  (Straight)  (Right-angled)	P1I	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
	P1L	5.5	2.5	9.5	
	P1M	5.5	2.5	11.0	
	P1IR	5.5	2.1	9.5	
	P1JR	5.5	2.1	11.0	
	P1LR	5.5	2.5	9.5	
	P1MR	5.5	2.5	11.0	
Barrel Style	**Type No.**	**A** **OD**	**B** **ID**	**C** **L**	
  (Straight)  (Right-angled)	P2I	5.5	2.1	9.5	None
	P2J	5.5	2.1	11.0	
	P2L	5.5	2.5	9.5	
	P2M	5.5	2.5	11.0	
	P2IR	5.5	2.1	9.5	
	P2JR	5.5	2.1	11.0	
	P2LR	5.5	2.5	9.5	
	P2MR	5.5	2.5	11.0	
Lock Style	**Type No.**	**A** **OD**	**B** **ID**	**C** **L**	
  SWITCHCRAFT original or equivalent	P2S(S761K)	5.53	2.03	12.06	None
	P2K(761K)	5.53	2.54	12.06	
	P2C(S760K)	5.53	2.03	9.52	
	P2D(760K)	5.53	2.54	9.52	

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Center Pin Style	Type No.	A OD	B ID	C L	D Center Pin	Quick Adapter Accessory
 EIAJ equivalent	P4A	5.5	3.4	11.0	1.0	Available (Current rating: 7.5A max.)
	P4B	6.5	4.4	11.0	1.4	
	P4C	7.4	5.1	11.0	0.6	

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-3P equivalent	R6B	1	+Vo
		2	-Vo
		3	+Vo

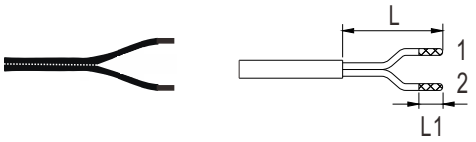
Available (Current rating: 7.5A max.)

Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-4P equivalent	R7B	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

Available (Current rating: 7.5A max.)

Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

None

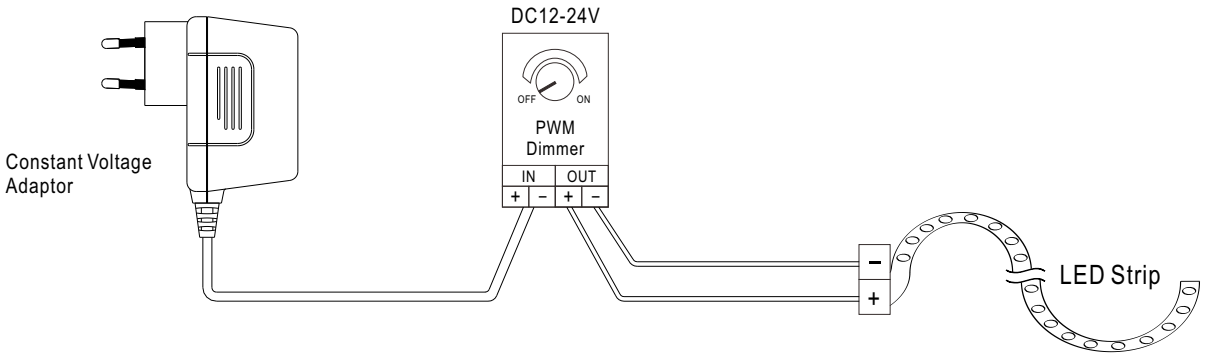
Stripped and tinned leads	Type No.	Pin Assignment	
		PIN No.	Output
 Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 10 mm)	by customer	1 (Ribbed)	+Vo
		2 (Letter)	-Vo

None

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■ Installation Manual

◎Connection



◎Cautions

- Before commencing any installation or maintenance work, please disconnect the power supply from the utility. Ensure that it cannot be re-connected inadvertently!
- Mounting orientations other than standard orientation or operate under high ambient temperature may increase the internal component temperature and will require a de-rating in output current.
- Current rating of an approved primary /secondary cable should be greater than or equal to that of the unit. Please refer to its specification.
- For dimmable LED power supplies, make sure that your dimming controller is capable of driving these units.
- Tc max. is identified on the product label. Please make sure that temperature of Tc point will not exceed limit.
- 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.
- For more information about installation, please refer to https://www.meanwell.com/Upload/PDF/LED_EN.pdf for details.
- Please refer to : http://www.meanwell.com/manual.html

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