



60W With PFC LED Power Supply

**GSV60** series



( 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](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

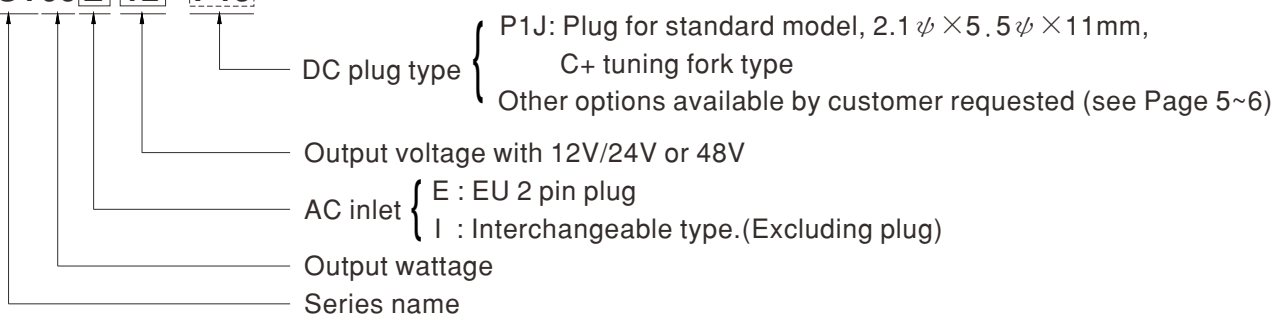
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

### ■ 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

**GSV60E12-P1J**





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## SPECIFICATION

MODEL	GSV60[E] 12-P1J	GSV60[E] 24-P1J	GSV60[E] 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(twidth=200µs measured at 50% I <sub>peak</sub> ) 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
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed		
ENVIRONMENT	WORKING TEMP.	-20 ~ +40°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-30 ~ +80°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (-20 ~ 40°C)		
	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°C / 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°C)		
	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	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; 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.</p> <p>3. Tolerance:includes set up tolerance,line regulation and load regulation with minimum load 1% to maximum load 100% at 230VAC input condition.</p> <p>4. 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>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>			

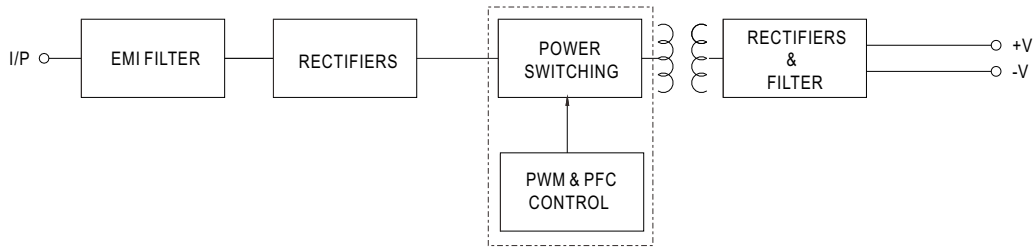


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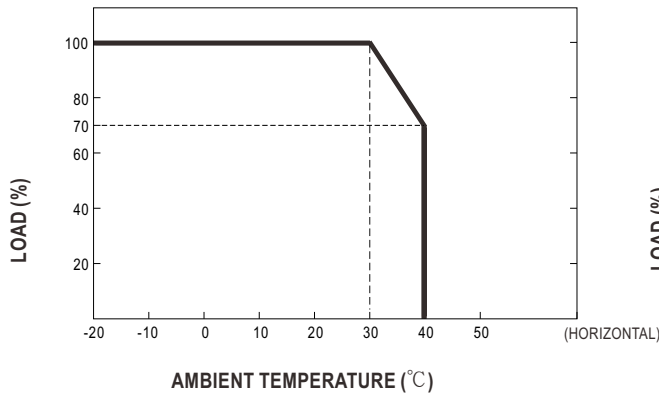
**GSV60** series

■ **Block Diagram**

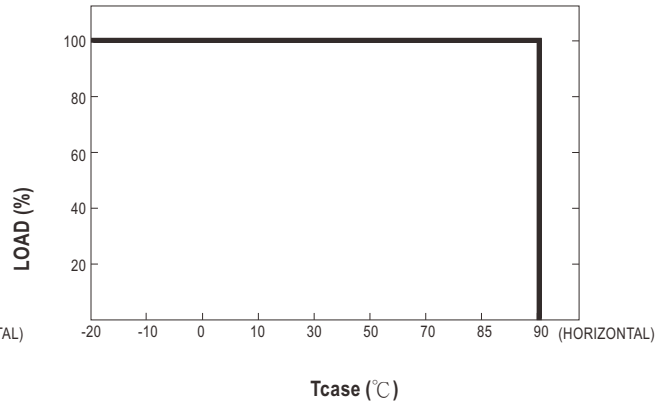
fosc : 100KHz



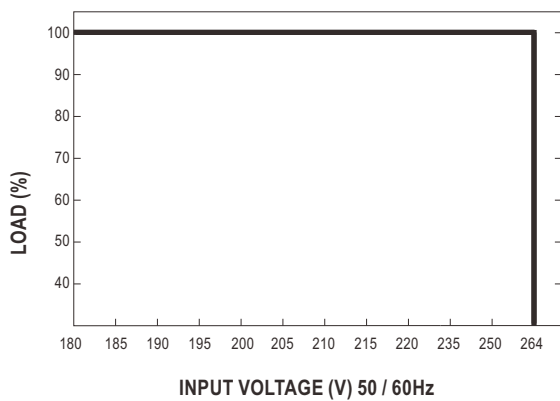
■ **Derating Curve**



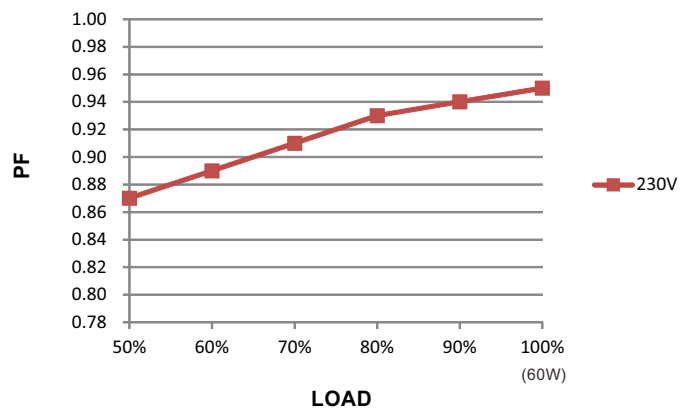
■ **OUTPUT LOAD vs TEMPERATURE**



■ **Static Characteristics**

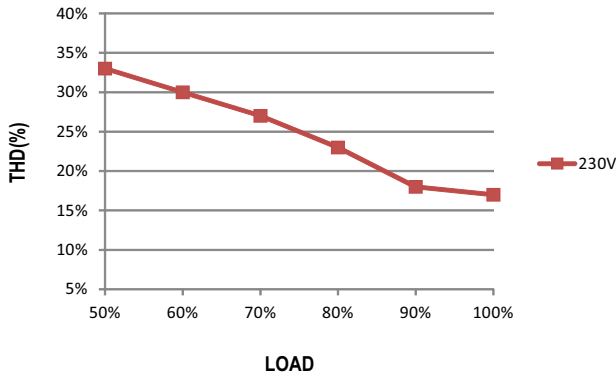


■ **Power Factor Characteristic(24V)**



**TOTAL HARMONIC DISTORTION (THD)**

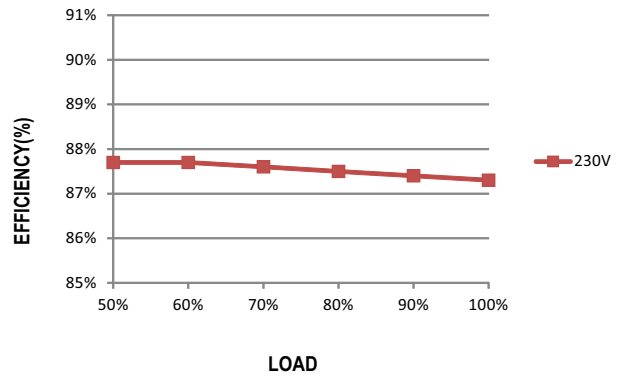
※ 24V Model, T<sub>case</sub> at 70°C



**EFFICIENCY vs LOAD**

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

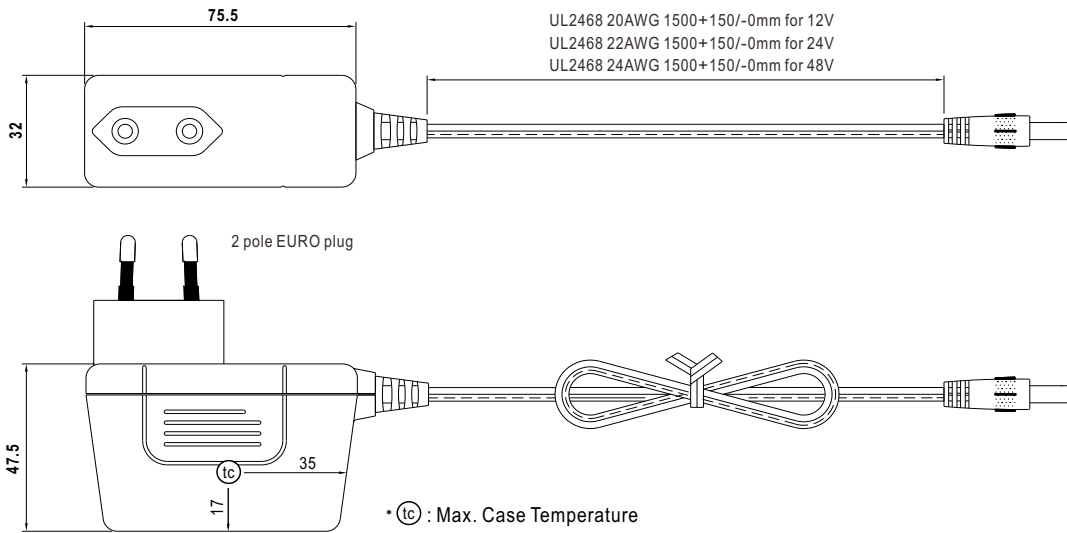
※ 24V Model, T<sub>case</sub> at 70°C



**Mechanical Specification**

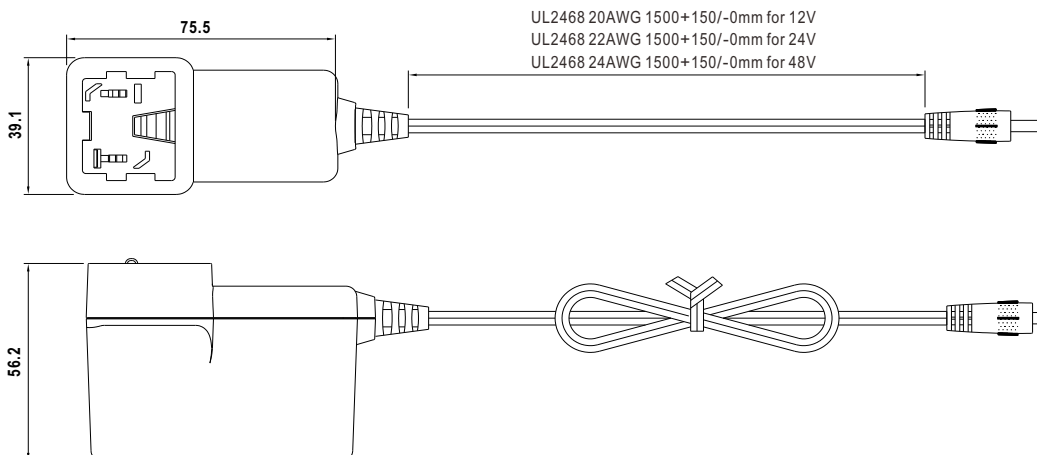
※ Standard

Unit:mm



※ 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](https://www.meanwell.com/upload/pdf/DC_plug.pdf)

Example quick adapter accessory:



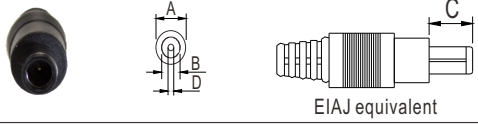
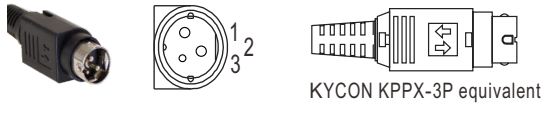
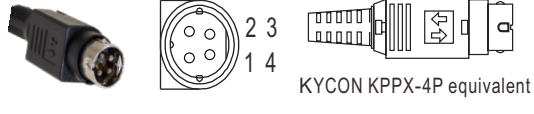
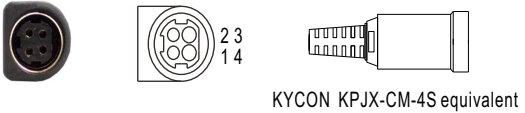
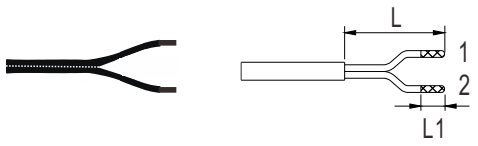
◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style		Type No.	A	B	C	Quick Adapter Accessory
			OD	ID	L	
	 (Straight)	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	
	 (Right-angled)	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	B	C	Quick Adapter Accessory
			OD	ID	L	
	 (Straight)	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	
	 (Right-angled)	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	B	C	Quick Adapter Accessory
			OD	ID	L	
	Floating Locking  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	



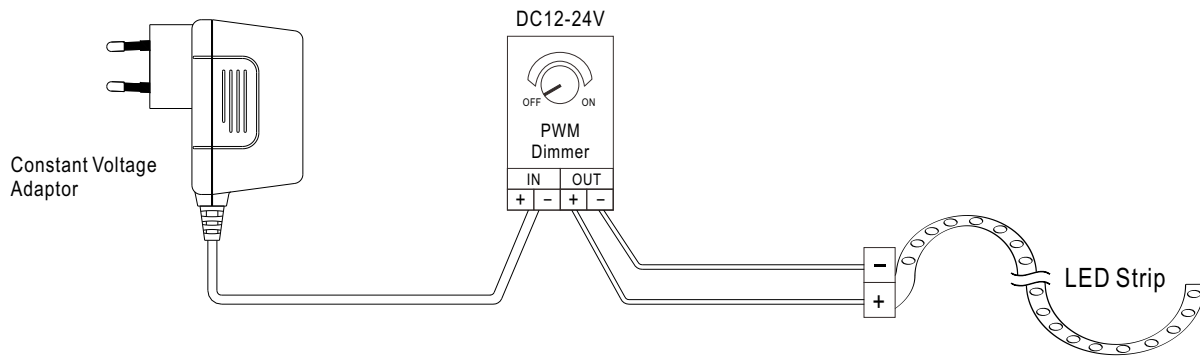
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Center Pin Style	Type No.	A	B	C	D	Quick Adapter Accessory	
		OD	ID	L	Center Pin		
 <p>EIAJ equivalent</p>	P4A	5.5	3.4	11.0	1.0	Available (Current rating: 7.5A max.)	
	P4B	6.5	4.4	11.0	1.4		
	P4C	7.4	5.1	11.0	0.6		
Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)			
 <p>KYCON KPPX-3P equivalent</p>	R6B	PIN No.	Output				
		1	+Vo				
		2	-Vo				
<th>Min. DIN 4 Pin with Lock (male)</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th colspan="3" rowspan="4">Available (Current rating: 7.5A max.)</th>	Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	 <p>KYCON KPPX-4P equivalent</p>	R7B	PIN No.	Output			
			1	+Vo			
			2	-Vo			
3			-Vo				
<th>Min. DIN 4 Pin with Lock (female)</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th colspan="3" rowspan="4">None</th>	Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		None		
	 <p>KYCON KPJX-CM-4S equivalent</p>	R7BF	PIN No.	Output			
			1	+Vo			
			2	-Vo			
3			-Vo				
<th>Stripped and tinned leads</th> <th>Type No.</th> <th colspan="2">Pin Assignment</th> <th colspan="3" rowspan="2">None</th>	Stripped and tinned leads	Type No.	Pin Assignment		None		
	 <p>Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 10 mm)</p>	by customer	PIN No.	Output			
1 (Ribbed)			+Vo				
2 (Letter)	-Vo						

■ **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](https://www.meanwell.com/Upload/PDF/LED_EN.pdf) for details.
- Please refer to : <http://www.meanwell.com/manual.html>