

IP20 LED Power Supply

Features



- . Suitable for leading-edge and trailing-edge triac dimmer
- . EU Standard input voltage (220-240VAC)
- . High PF IP20
- . Suitable for dry environment
- . Protections: Short circuit/Overload/Open circuit
- . Adopt plastic case and internal glue potting
- . Built in lightning protection device can meet the requirements of 1KV
- . Compliance to worldwide safety regulations for lighting
- . 3 Years warranty



Description:

SP30 series is an indoor triac dimmable constant voltage LED power supply. Input voltage range is 220-240VAC, working in the temperature range of -20°C~+45°C with natural cooling. This product is not only cost-effective, but also meets the SELV standard of electric shock protection. In order to improve the safety of the product, we add short circuit, overload and open circuit protection. According to new ERP Directive, it meets the low standby power consumption standard. This series of products are designed for LED Lighting and applied for indoor lighting. Suitable for almost all kinds of applications in indoor places where LED Lighting can be installed. Comply with the world lighting equipment safety specifications, at the same time to ensure the safety of users and lighting system in the installation process.

Model

Model	Output voltage	Output current	Max. output power	Power factor (Typ.)	Full load efficiency	Dimming range	Input power
SP30-12VFT-1	12V±5%	0.5-2.5A	30W	> 0.9	≥ 85 %	20%-90%	< 38W
SP30-24VFT-1	24V±5%	0.25-1.25A	30W	> 0.9	≥ 85 %	20%-90%	< 38W

Remark : All parameters NOT specially mentioned are measured at 230VAC input, full load and 25°C of ambient temperature.

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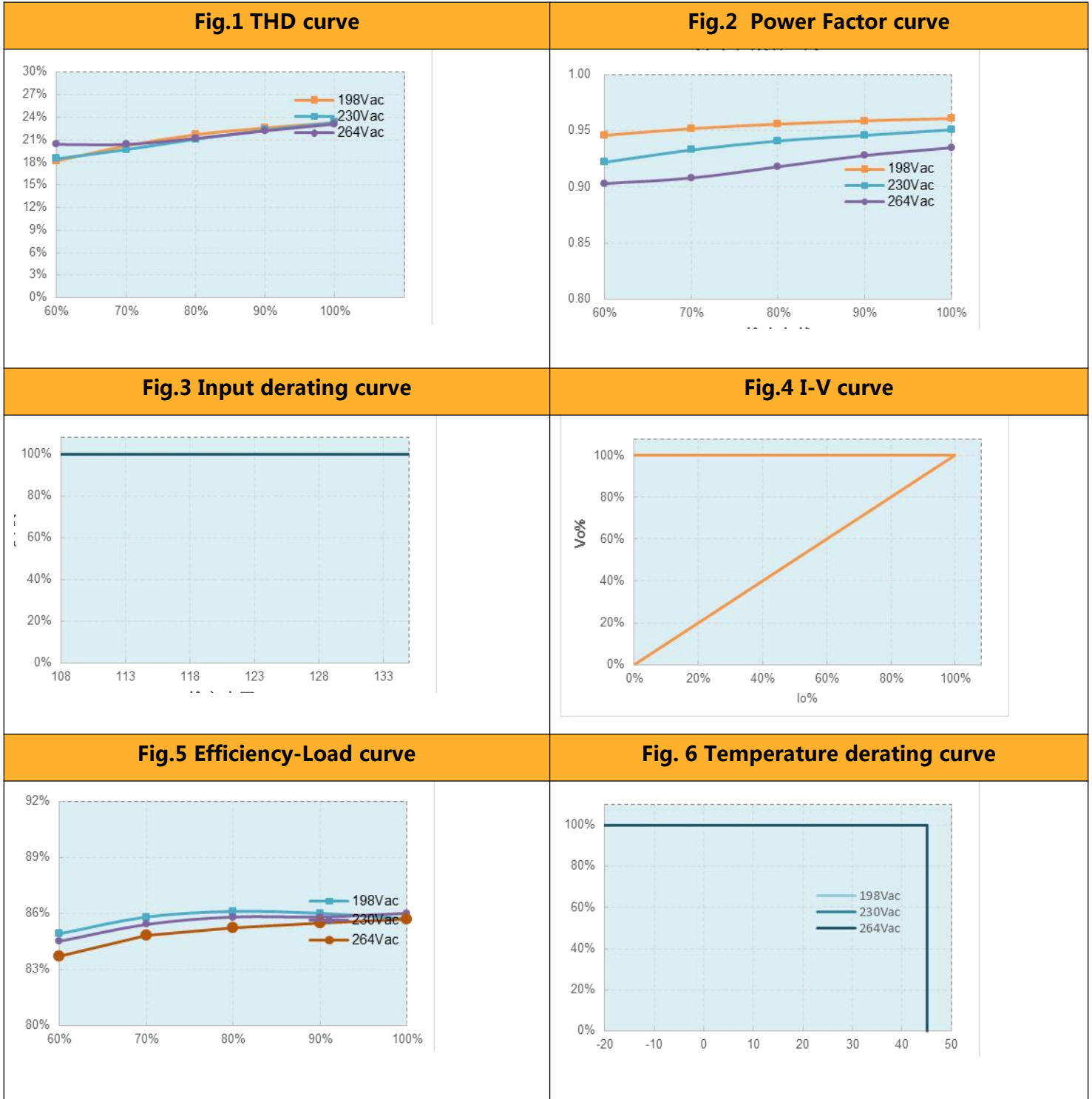
Input

Parameter	Min value	Typical value	Max value	Note
Rated input voltage	220		240	
Input voltage	198Vac		264Vac	
Input Frequency		50Hz		
Max.Input current			0.2A	230Vac/50Hz , Full Load
Input inrush current			75A	230Vac/60Hz , Cold Start
Leakage current			0.7mA	230Vac/50Hz , Full Load
Stand-by power consumption		0.36W	0.5W	230Vac/50Hz , Full Load

Output

Parameter	SP30-12VFT-1	SP30-24VFT-1	Note
Rated output voltage	12.0VDC	24.0VDC	
Rated output current	2.5A	1.25A	
Output current	0.5-2.5A	0.25-1.25A	
Rated output power	30W	30W	
Full load efficiency	≥ 85%	≥ 85%	230Vac
Output voltage tolerance	±5%		
Output voltage ripple (PK-PK)	<20%		Full load (Test under 20M bandwidth)
Line regulation	±3%		
Load regulation	±5%		

Characteristic curve



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Protection

Parameter		Conditions	Note
Protection	Over Load	Ta , 0.94-1.06 times of input voltage and 1.2 times of rated output power	Auto-recovery when overload removed
	Short circuit	Hiccup mode	Hiccup mode, auto-recovery when short circuit removed
	Over voltage	Ta ,0.94-1.06 times of input voltage,output voltage is 1.5 times of rated one.	Auto-recovery when over voltage removed
	Open circuit	Ta,Rated input voltage, Output without load	Hiccup mode

Environment Requirement

Parameter	Min.	Typ.	Max.	Note
Working temp.	-20°C	25°C	+45°C	
Storage temp.	-40°C	25°C	+85°C	
Working humidity	10%RH		90%RH	
Storage humidity	5%RH		95%RH	
IP grade			IP20	
Cooling mode	Natural cooling			

Safety&EMC Standard

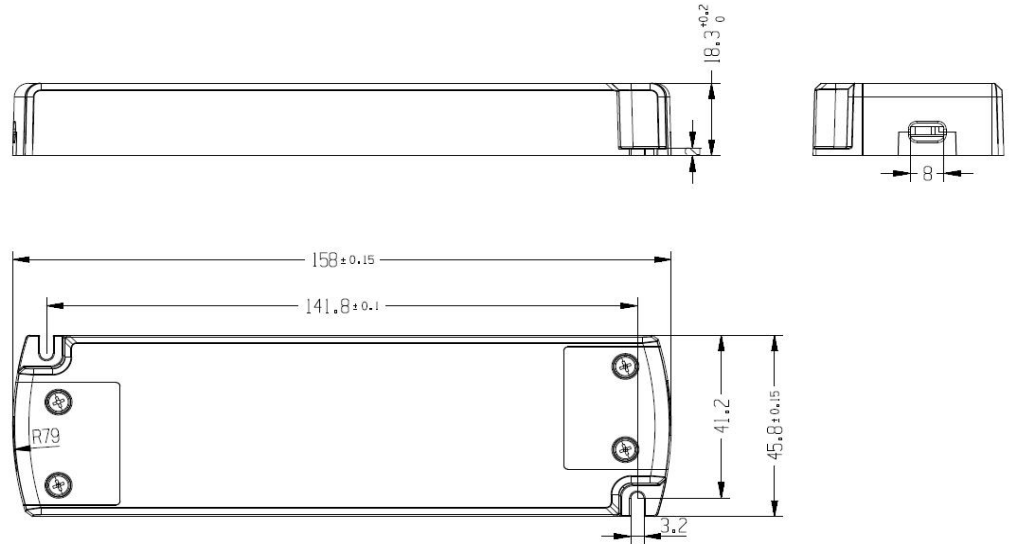
Certificate		Safety standards	Certification	Note
UL/CUL		---		
TUV		EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015		
SAA		AS/NZS 61347.2.13		
CCC		---		
CE		EN 61347-2-13:2014 +A1 EN61347-1:2015		
Safety test		Technical indexes	Note	
Dielectric compressive strength	Input to Output	3750Vac/5mA Max/60s	Strengthen insulation,no breakdown,no flashover	
	Primary to ground	---	Basic insulation,no breakdown,no flashover	
	Secondary to ground	---	Functional insulation,no breakdown,no flashover	
Insulation resistance	Input to Output	≥10MΩ	Test voltage : 500Vdc	
Grounding resistance		---	25A/1min	
Leakage current		≤0.75mA	264Vac	
EMI/EMS item		Standards	Basis	
Conduction CE		EN55015		
Radiation RE		EN55015		
Harmonics		EN IEC 61000-3-2	Class C	

Others

Parameters	Condition	Note
Lifetime	30,000 hours	230Vac , Full load , TC. 75°C
TC	85°C	
Warranty	3 years	---
Weight	520g	
Dimensions	158mm *45.8mm *18.3mm	L x W x H

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Mechanical Specification (Unit:mm)



Remark :

AC Input cable	Terminal + H03VVH2-F 2*0.75mm ²
DC Output cable	Terminal + H03VVH2-F 2*0.75mm ²