



Features

- . American standard input voltage (108-132Vac)
- . Built-in active PFC function
- . Suitable for dry environment
- . Protections: Short circuit/Over voltage/Over temperature
- . Plastic case
- . Load 10-100% , Dimming range 0-100%
- . Flicker-free
- . 3 years warranty

Description:

SP80 (UL) series is an indoor triac dimming CV LED power supply. Its input voltage is 108-132Vac , with the high efficiency up to 85%, working in the temperature range of - 20 ° C to + 45 ° C under free air convection. It has ultra-high power factor, low THD, lightning protection, full protection function, which not only greatly improves the reliability of the product, but also ensures the life cycle of product. This series is designed for LED lighting, suitable in indoor CV triac dimming lighting use.

Model

Model	Output Voltage	Output Current	Max. Output Power	Output Voltage Tolerance	THD (Typ.)	Power Factor (Typ.)	Efficiency (Typ.)
SP80-12VFT(UL)	12V	0-6.67A	80W	±5%	10%	0.95	84%
SP80-24VFT(UL)	24V	0-3.33A	80W	±5%	10%	0.95	85%

Remark: All parameters NOT specially mentioned are measured at 120VAC input, full load and 25 °C of ambient temperature.

Input

Parameter	Min. value	Typical value	Max. value	Note
Rated Input voltage			120Vac	The derating curve is shown in the figure
Input voltage	108Vac	120Vac	132Vac	
Input frequency	47Hz		63Hz	
Max. Input current			1.2A	108Vac , Full Load
			1A	120Vac , Full Load
Input Inrush current			75A	120Vac/50Hz , Cold Start
PF		0.95		120Vac , Full Load
Total harmonic input		10%	15%	120Vac , Full Load
Leakage current			0.5mA	120Vac/60Hz , Full Load
Stand-by power consumption		1.5W	2W	120Vac/60Hz , No Load

Output

Parameter	SP80-12VFT(UL)	SP80-24VFT(UL)	Note
Output voltage	11.4-12.6VDC	22.8-25.2VDC	The maximum output power $P_o = V_o * I_o = 80W$
Rated output current	6.67A	3.33A	
Output current	0-6.67A	0-3.33A	
Rated output power	80W	80W	
Rated output efficiency	84%	85%	120Vac Full load
Output voltage tolerance	±5%		
Output voltage ripple (PK-PK)	±3%		120Vac Full load (Test under 20M bandwidth)
Rise time	--		120Vac
Startup time	--		120Vac
Line regulation	±1%		Full load
Load regulation	±2%		

Characteristic curve

Fig. 1 Output load-Temperature curve

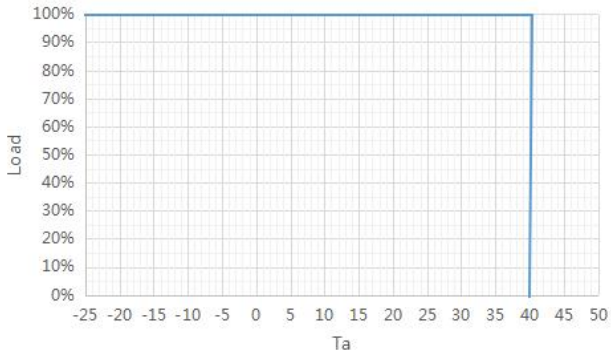


Fig. 2 Static characteristic curve

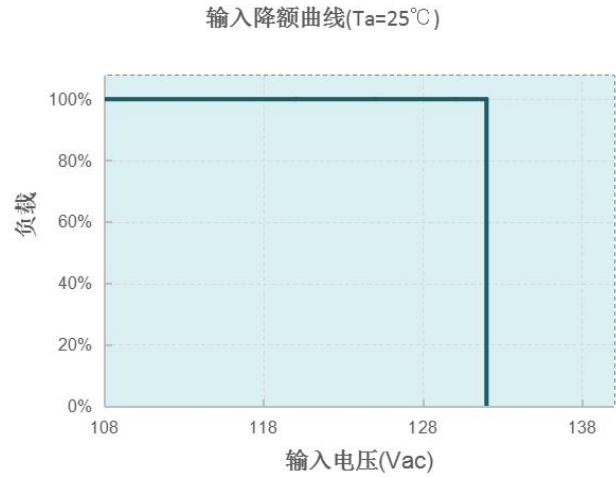


Fig. 4 Power factor characteristic curve

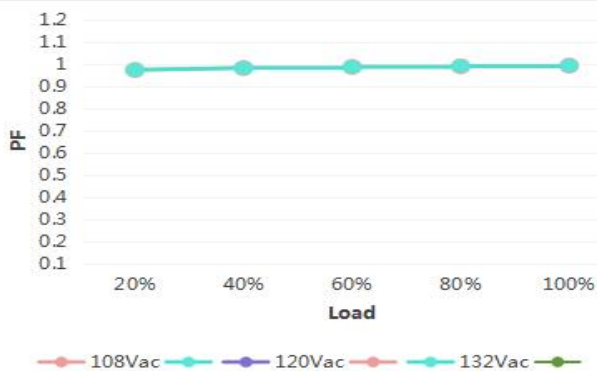


Fig.5 Total harmonic distortion curve (THD)

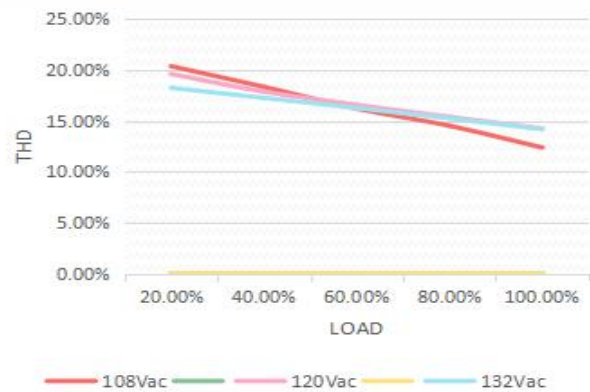


Fig.6 Efficiency-Load curve



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Indoor LED Power Supply

Protection :

Parameter		Conditions	Note
Protection	Over load	1.1-1.6 times of rated output power	auto-recovery after overload removed
	Short circuit		hiccup mode, auto-recovery after short circuit removed
	Over voltage	≤1.5 times of rated output voltage	Remove over voltage, can be restored after restart
	Over temperature	110°C	Remove over temp. can be restored after the temperature returns to normal level

Environment Requirement:

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

Safety&EMC standard :

Certificate		Safety standard	Certification	Note
UL/CUL		UL8750		
Safety test		Qualification	Note	
Dielectric compressive strength	Input to output	1800Vac/5mA Max/60s	Strengthen insulation,no breakdown,no flashover	
Insulation resistance	Input to output	≥100MΩ	Test Voltage : 500Vdc	
Leakage current		≤0.5mA	120Vac	
EMI/EMS item		Standard/Leve I	Data	
Conduction CE		FCC Part 15B		
Radiation RE		FCC Part 15B		

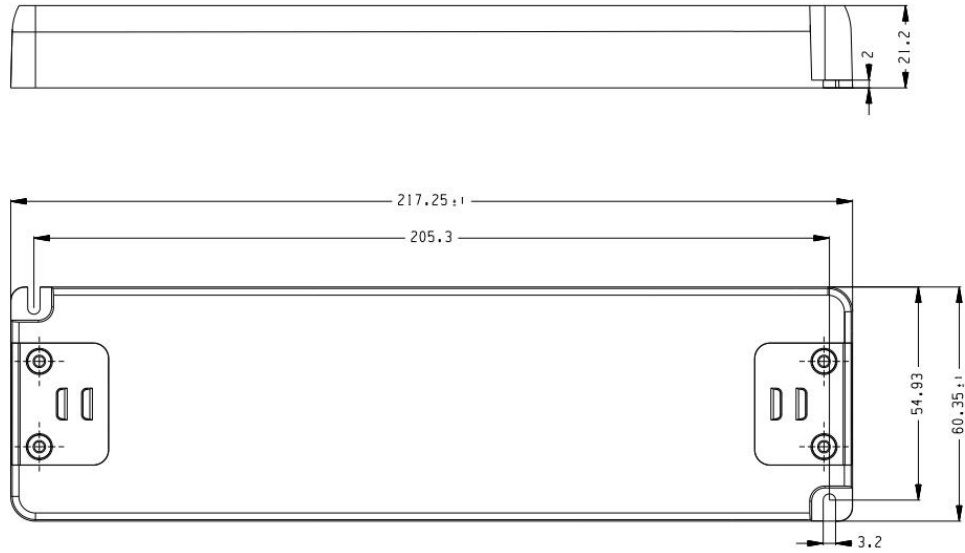
Others :

Parameter	Conditions	Note
Lifetime	30,000 hours	120Vac , full load, Tc 80°C
MTBF	200,000hours	120Vac , full load, Ta 25°C (MIL-HDBK-217F)
TC	90°C	
Warranty	3 years	Tc 80°C
Weight	360±10g	
Dimension	217.25mm *60.35mm *21.2mm	L x W x H

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Mechanical Specification (Units:mm)



Remark :

AC input cable	terminal + SPT-2 18AWG
DC output cable	terminal+ SPT-2 18AWG