

### Features

- For LED Outdoor & Industrial Application
- Wide Input Range for Worldwide use (up to 305Vac)
- Built-in PFC Function: up to PF 0.99
- IP67 Design for Outdoor Installation
- Suitable to Dry, Damp, Wet Location
- High Surge Protection: 4kV/4kV(IEC61000-4-5)
- 1-10V Dimming Function
- High Reliability & Long Life 50,000hrs
- Constant Current Design/ Low Ripple Current
- Class I Power
- Class 2 power unit / Pass LPS (only FSP80-ZZAE(280)VG)
- Type HL LED Driver for use in Class I Division 2 hazardous location luminaires
- All-Round Protections: Short Circuit / Over Power / Over Voltage / Over Temperature
- Safety: Meet IEC61347-2-13, UL8750 & EMI EN55015
- Pulse level  $\leq 5\%$



SAE-80-700-D

D Type: IP67 rated with 1-10V Dimming Function

Blank Type: IP67 rated and without Dimming Function

R Type: IP65 rated and output current can be adjusted through internal potentiometer

IP67         

### SPECIFICATION

Model Name	SAE-80-700-D	SAE-80-1050-D	SAE-80-1400-D	SAE-80-2100-D	SAE-80-2800-D	
Output	Rated Power	80W	80W	80W	80W	
	Output Voltage	80-115V	50-76V	40-57V	24-40V	20-28V
	Rated Current	700mA	1050mA	1400mA	2100mA	2800mA
	CURRENT ADJ. RANGE	350-700mA				
		Can be adjusted by internal potentiometer for R Type only				
	Output Current Accuracy	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$
	Output Ripple Current[2]	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$
	Line Regulation	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
Turn On Delay Time,Rise time	$\leq 1s$ max ; $\leq 100ms$ max.					
Input	Input Voltage/ Frequency[3]	90~305Vac/ 47~63Hz (Please refer to Static Curve)				
	Power Factor (typ.)	PF $\geq 0.99/120Vac$ , PF $\geq 0.95/230Vac$ , PF $\geq 0.93/277Vac$ at full load				
	Efficiency (max.)	91%	90%	89%	89%	89%
	Total Harmonic Distortion[4]	THD <20% (Output Loading $\geq 50\%$ at 120Vac/230Vac, Output Loading $\geq 75\%$ at 277Vac)				
	AC Current (typ.)	$\leq 0.86A /120Vac$ ; $\leq 0.49A /230Vac$ ; $\leq 0.48A /277Vac$				
	Inrush Current (typ.)	60A at 230Vac, 25°C cold start				
	Leakage Current	$\leq 0.75mA/230Vac$				
Environment	Operating Temperature	-40°C ~ +70°C (Please Refer to "Derating Curve") (-40°C cold start)				
	Operating Humidity	10~95% RH non-condensing				
	Storage Temperature, Humidity	-40°C~+85°C, 10~95%RH				
	Vibration	0.02g <sup>2</sup> /Hz at 5 Hz sloping to 0.04g <sup>2</sup> /Hz at 20 Hz, and maintaining 0.04g <sup>2</sup> /Hz from 20 Hz to 500 Hz at a constant acceleration of 4.43G for 30 minutes per axis for all three axes				
Protection	Over Voltage Protection	<200V	<100V	<100V	<63V	<50V
		Protection Type: Recovers automatically after fault condition is removed				
	Short Circuit Protection	Recovers automatically after fault condition is removed				
	Over Temperature Protection	Shut down and latch off O/P voltage, re-power on to recover				
Safety & EMC	Safety Standards	UL8750, CSA-C22.2 No. 250.13, EN61347-1, EN61347-2-13 Approved.				
	EMC Standard	Compliant with EN55015/CISPR22 CLASS B, Compliant with EN61000-3-2 Class C ( $\geq 60\%$ load), EN61000-3-3				
	Surge Protection	Differential Mode: 4KV; Common Mode: 4KV				
	Withstand Voltage (Hipot)	I/P-O/P 3750Vac, I/P-FG 1800Vac, O/P-FG 1500Vac				
	Isolation Resistance	I/P-O/P, I/P-FG: 100M ohm @ 500Vdc/ 25°C				
Others	Life Time [5]	50,000 hours at Tcase of $\leq 75^\circ C$				
	MTBF	200,000 hours, MIL-HDBK-217F(25°C)				
	Dimension (LxWxH)	194 x 60.5 x 38 mm				
	Net Weight / Packing	820g ; 20 pcs / box				

#### Notes:

1. All data NOT specially mentioned are measured at 230Vac / 50Hz input, full load and 25°C of ambient temperature.
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check the static characteristics for more details.
4. Measured at rated output voltage. Measured at 230Vac/50Hz input, rated load.
5. The input voltage information on the label should be marked  $\pm 10\%$  less than the original input voltage, to conform with safety regulations.
6. 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 luminary manufacturers must re-qualify EMC Directive on the complete installation again.
7. FSP80-ZZAE(070)VG Type TL Pending.



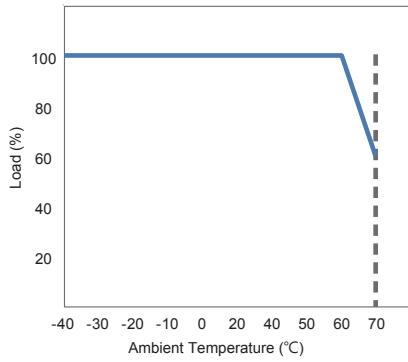
**FSP TECHNOLOGY INC. (Russia Office)**

www.fsp-power.ru / rusupport@fsp-power.ru

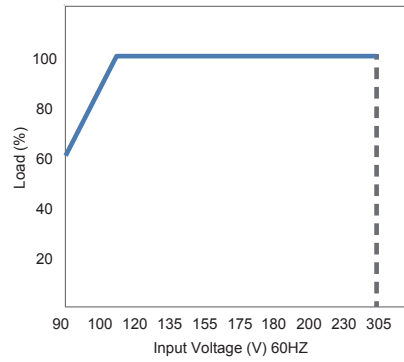
119571 Moscow, Akademika Anokhina str. 5/3 office 69

TEL/ FAX : +7(499)730 44 10

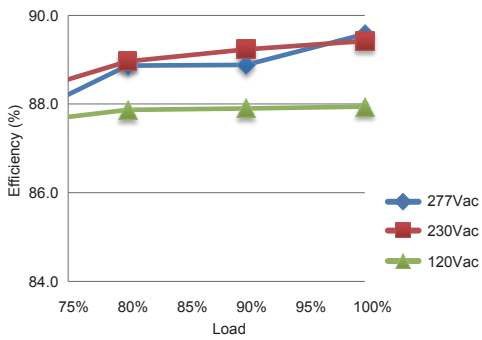
**Derating Curve**



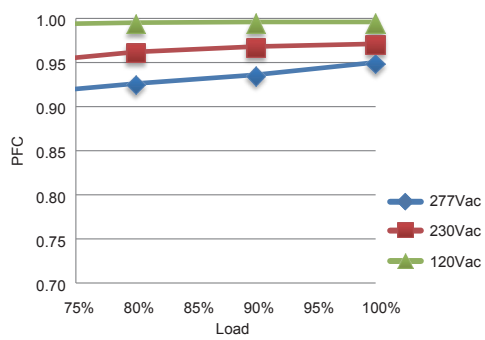
**Static Curve**



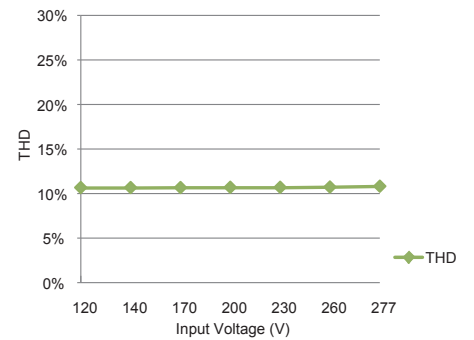
**Efficiency**



**PFC vs Loading**

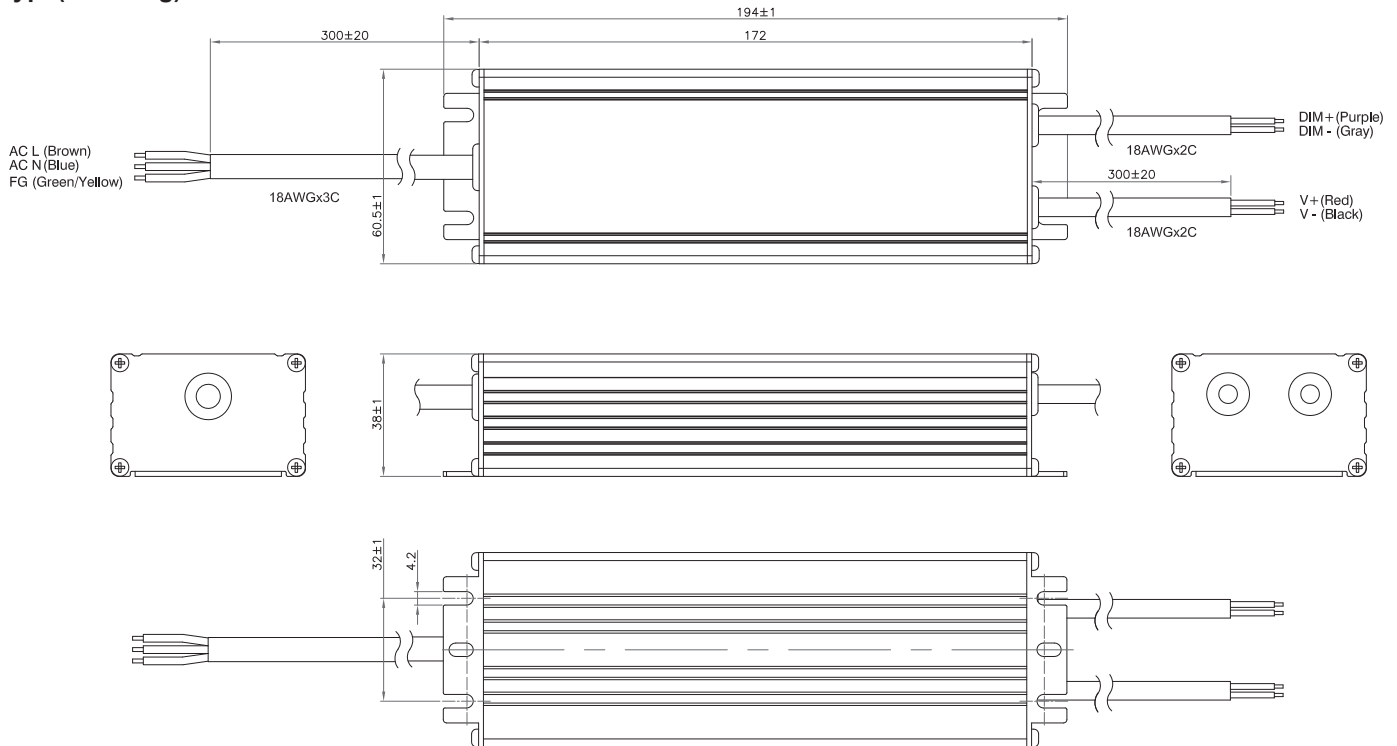


**THD vs Input Voltage**



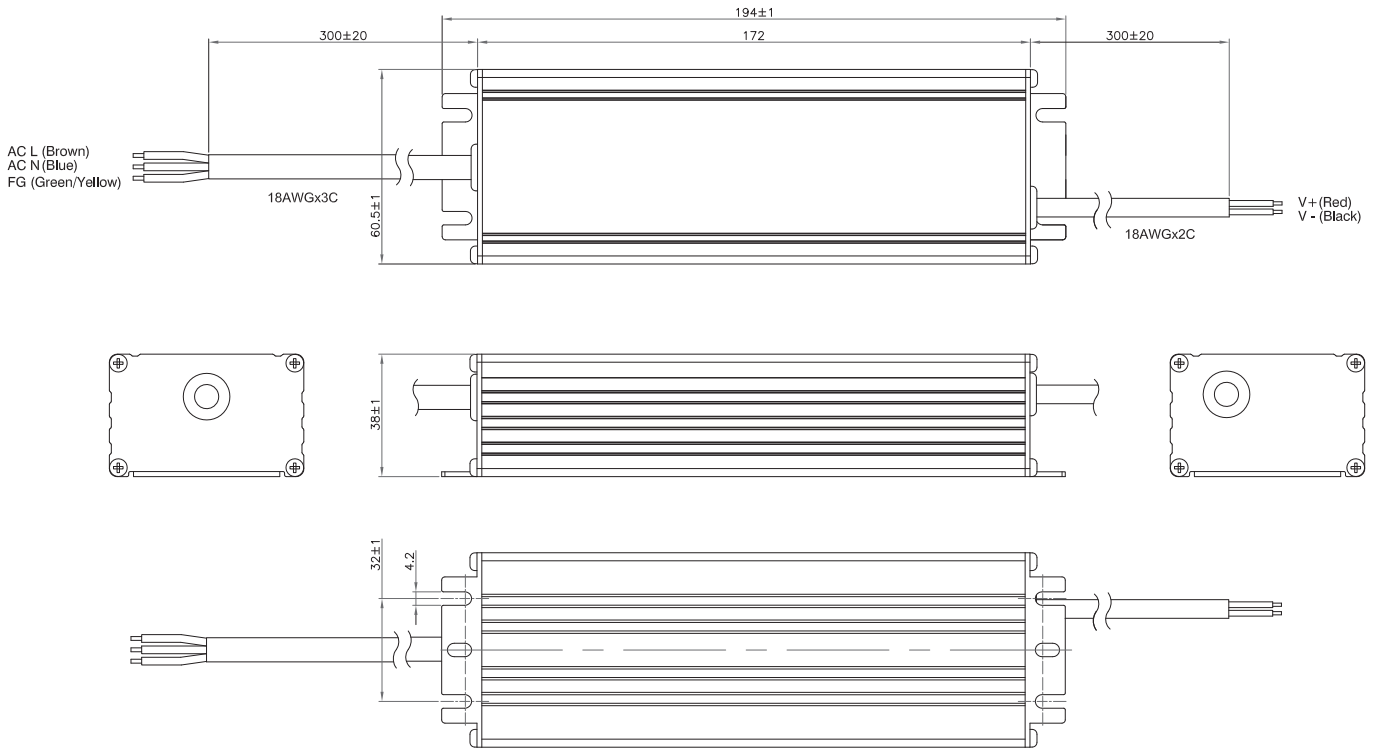
**D Type(Dimming): SAE-80-XXX-D**

Unit: mm

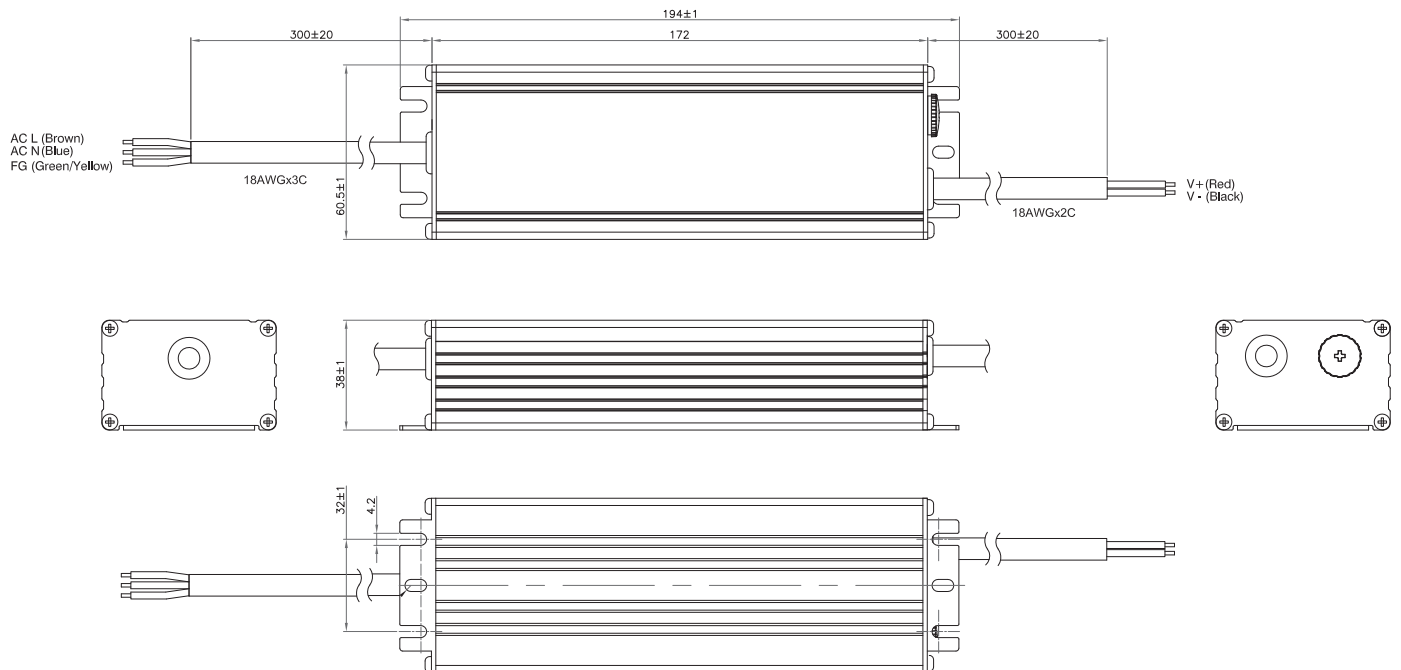


## Blank Type(Non-dimming): SAE-80-XXX

Unit: mm



## R Type(with VR): SAE-80-XXX-R



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