

### 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



FSP80-ZZAE(070)  V Type  R Type

V 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	FSP80-ZZAE(070)VG	FSP80-ZZAE(105)VG	FSP80-ZZAE(140)VG	FSP80-ZZAE(210)VG	FSP80-ZZAE(280)VG	
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	525-1050mA	700-1400mA	1050-2100mA	1400-2800mA
		Can be adjusted by internal potentiometer for R Type only				
	Output Current Accuracy	±5%	±5%	±5%	±5%	±5%
	Output Ripple Current[2]	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±1%	±1%	±1%	±1%	±1%
Turn On Delay Time,Rise time	≤1s max ; ≤100ms max.					
Input	Input Voltage/ Frequency[3]	90~305Vac/ 47~63Hz (Please refer to Static Curve)				
	Power Factor (typ.)	PF ≥ 0.99/120Vac, PF ≥ 0.95/230Vac, PF ≥ 0.93/277Vac at full load				
	Efficiency (max.)	91%	90%	89%	89%	89%
	Total Harmonic Distortion[4]	THD < 20% (Output Loading ≥ 50% at 120Vac/230Vac, Output Loading ≥ 75% at 277Vac)				
	AC Current (typ.)	≤ 0.86A /120Vac ; ≤ 0.49A /230Vac ; ≤ 0.48A /277Vac				
	Inrush Current (typ.)	60A at 230Vac, 25°C cold start				
	Leakage Current	≤ 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
	Short Circuit Protection	Protection Type: Recovers automatically after fault condition is removed				
	Over Temperature Protection	Recovers automatically after fault condition is removed				
Safety & EMC	Over Temperature Protection	Shut down and latch off O/P voltage, re-power on to recover				
	Safety Standards	UL8750, Type HL, 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 (≥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				
Others	Isolation Resistance	I/P-O/P, I/P-FG: 100M ohm @ 500Vdc/ 25°C				
	Type TL [7]	-	88/52°C	88/64°C	90/59°C	89/58°C
	Life Time [5]	50,000 hours at Tcase of ≤ 75°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				

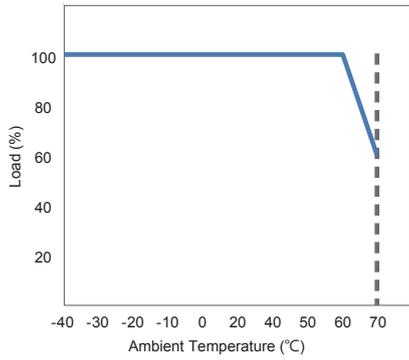
### Notes:

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.
5. Measured at 230Vac/50Hz input, rated load.
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 equipment manufacturers must re-qualify EMC Directive on the complete installation again.
7. FSP80-ZZAE(070)VG Type TL Pending.

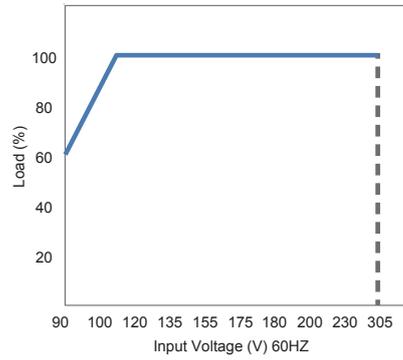
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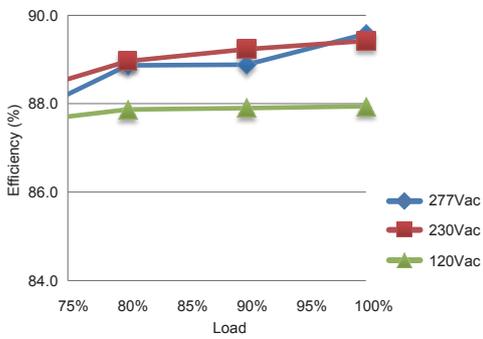
**Derating Curve**



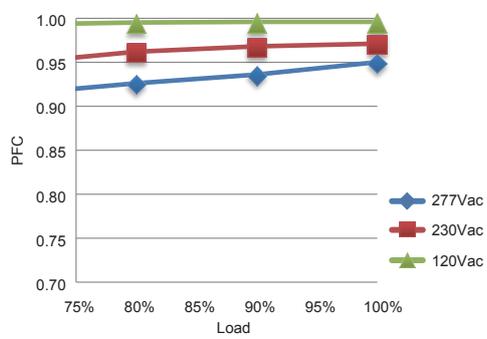
**Static Curve**



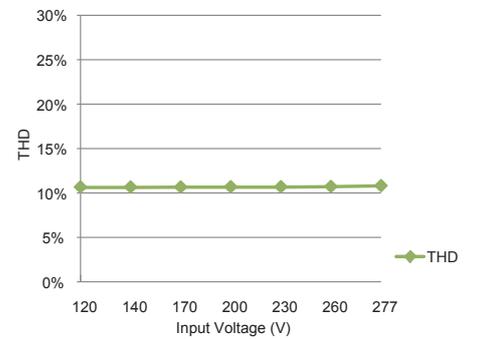
**Efficiency**



**PFC vs Loading**

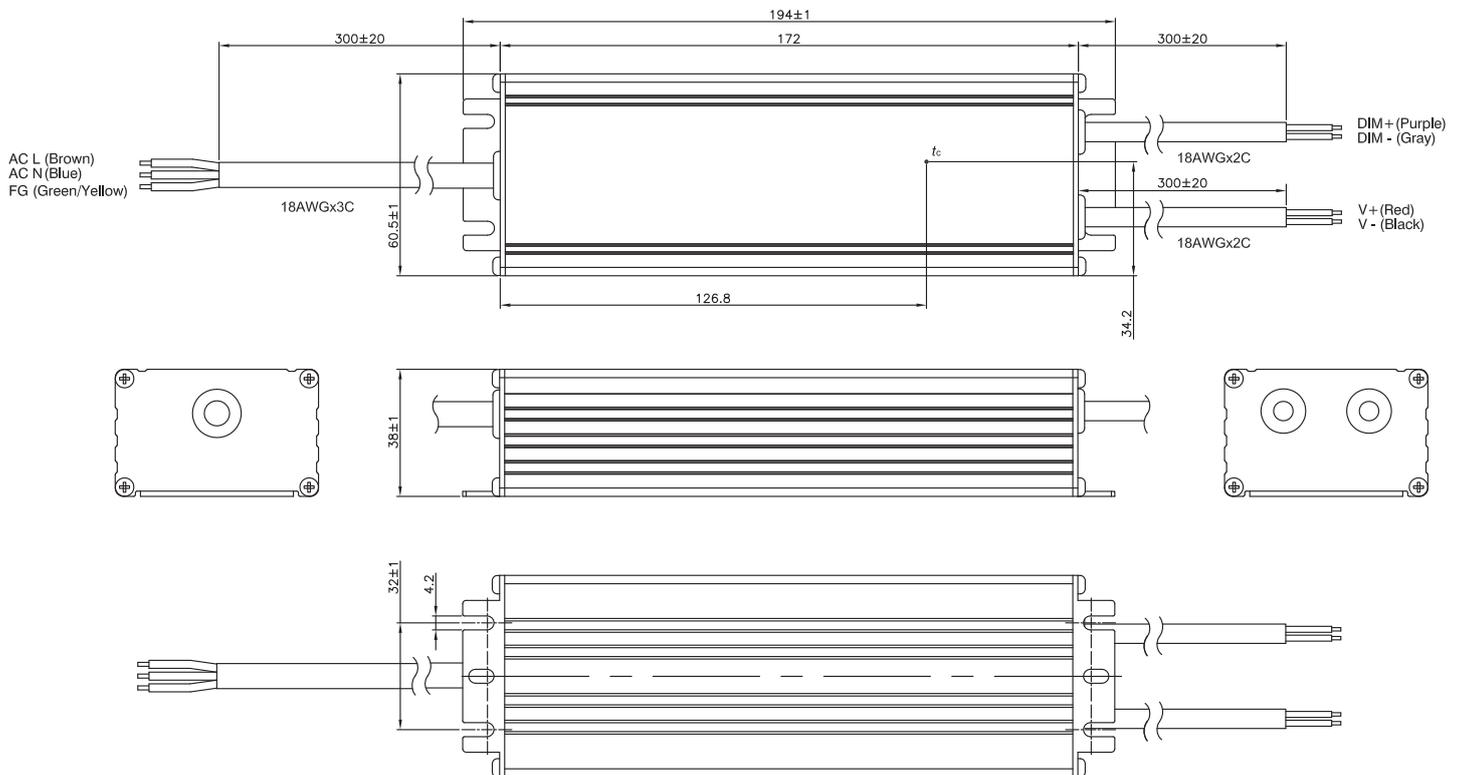


**THD vs Input Voltage**



**V Type: (FSP80-ZZAE(XXX)VG)**

Unit: mm

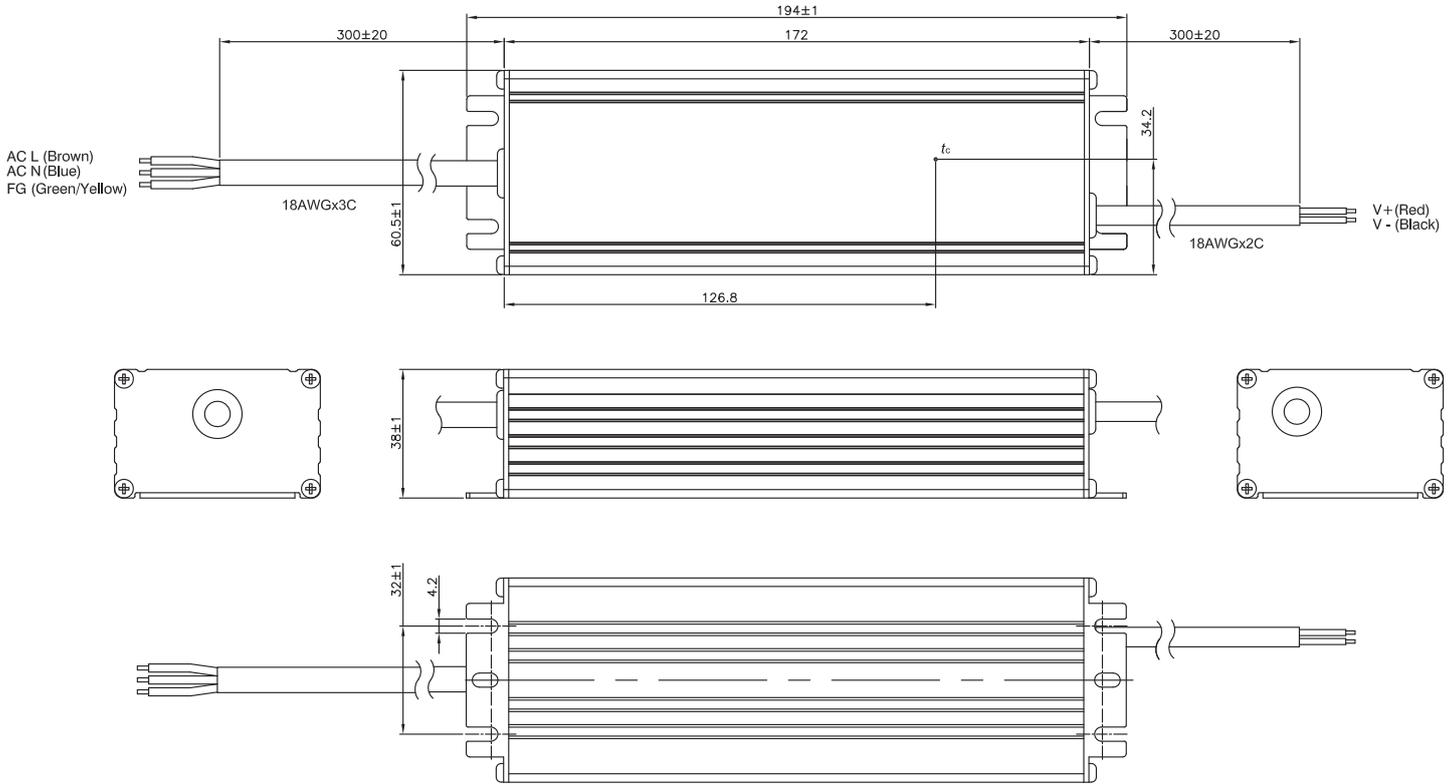


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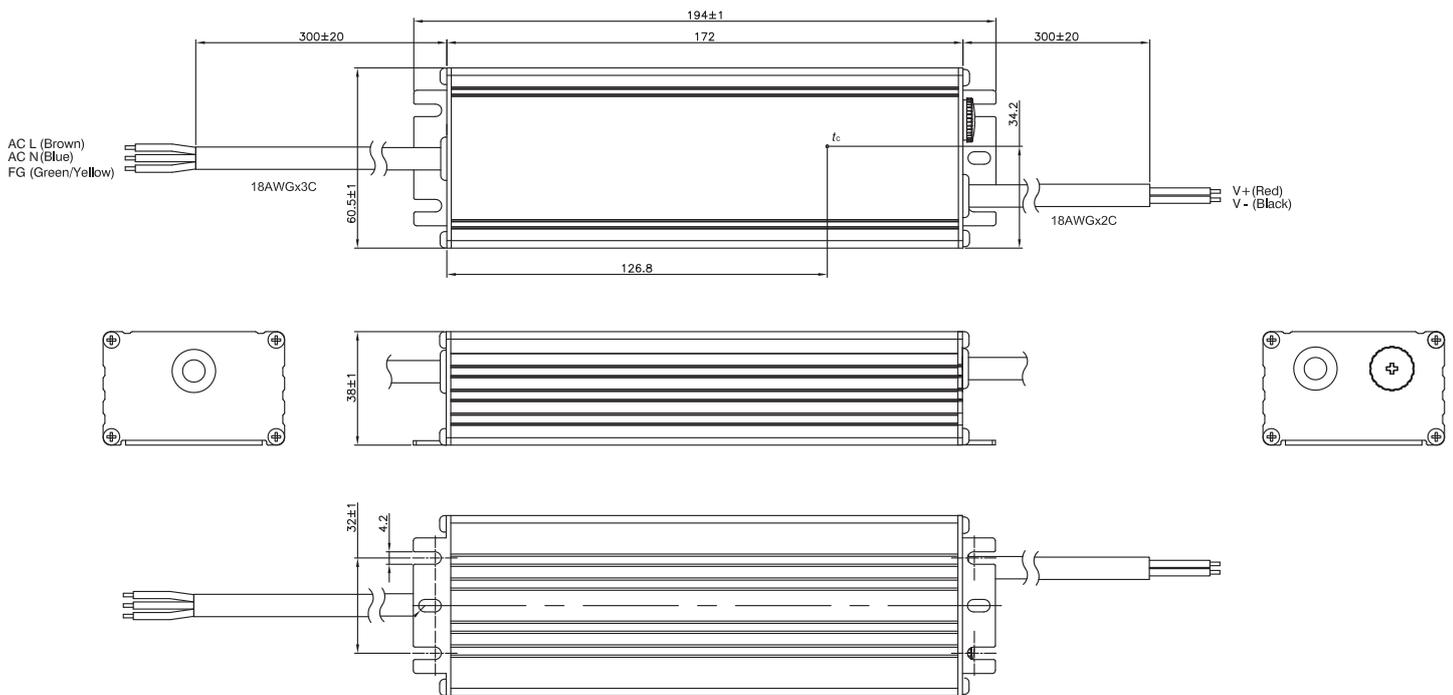
### Blank Type: (FSP80-ZZAE(XXX)G)

Unit: mm



### R Type: (FSP80-ZZAE(XXX)RG)

Unit: mm



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