

### Features

- For LED Retail & Outdoor Application
- Wide Input Range for Worldwide use (up to 305Vac)
- Built-in PFC Function: up to PF 0.99
- IP65 Design for Outdoor Installation
- Suitable to Dry, Damp, Wet Location
- High Surge Protection: 4kV(IEC61000-4-5)
- 1-10V Dimming Function
- High Reliability & Long Life 50,000hrs
- Constant Current Design
- Isolation Class II Design, No F.G.
- Type HL LED Driver for use in Class I Division 2 hazardous location luminaires
- All-Round Protections: Short Circuit/ Over Voltage/ Over Temperature
- Safety: Meet IEC61347-2-13, UL8750 & EMI EN55015



FSP25-FZAP(070) 

VG Type: IP65 rated with 1-10V Dimming Function; Type HL Rated  
G Type: IP65 rated and without Dimming Function; Type HL Rated

**IP65**      us **SELV** **TL HL** **Class 2**

### SPECIFICATION

Model Name		FSP25-FZAP(035)VG	FSP25-FZAP(070)VG	FSP25-FZAP(105)VG	FSP25-FZAP(140)VG	FSP25-FZAP(205)VG
Output	Rated Power	25W	25W	25W	25W	25W
	Output Voltage	44-72V	22-37V	13-24V	8-18V	6-12V
	Rated Current	350mA	700mA	1050mA	1400mA	2050mA
	Output Current Accuracy	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
Turn On Delay Time, Rise time		≤1s max ; ≤400ms max				
Input	Input Voltage/ Frequency[3]	90~305Vac/ 47~63Hz				
	Power Factor (typ.)	PF ≥ 0.99/120Vac, PF ≥ 0.96/230Vac, PF ≥ 0.93/277Vac at full load				
	Efficiency (max.)	88%	88%	87%	86%	84%
	Total Harmonic Distortion[4]	THD < 20% (Output Loading ≥ 50% at 120Vac/230Vac, Output Loading ≥ 75% at 277Vac)				
	AC Current (typ.)	≤ 0.3A /120Vac ; ≤ 0.2A /230Vac ; ≤ 0.2A /277Vac				
	Inrush Current (typ.)	5A at 230Vac, 25°C cold start				
Environment	Leakage Current	≤ 0.25mA/277Vac				
	Operating Temperature	-25°C ~ +70°C (Please Refer to "Derating Curve")				
	Operating Humidity	10~90% RH non-condensing				
	Storage Temperature, Humidity	-35°C~+85°C, 10~95%RH				
Protection	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				
	Over Voltage Protection	<85V	<50V	<35V	<32V	<15V
	Protection Type: Shut down and latch off, re-power on to recover					
	Short Circuit Protection	Shut down and latch off, re-power on to recover				
	Over Temperature Protection	Shut down and latch off, re-power on to recover				
Safety & EMC	Safety Standards	UL8750, Type HL, LVLE, UL1310 Class 2, 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				
	Withstand Voltage (Hipot)	I/P-CASE 3000Vac, O/P-CASE 3000Vac				
	Isolation Resistance	I/P-CASE ,O/P-CASE: 100M ohm @ 500Vdc/ 25°C				
	Type TL	76/56°C	82/62°C	78/56°C	79/61°C	76/60°C
Others	Life Time [5]	50,000 hours at Tcase of ≤ 65°C				
	MTBF	500,000 hours, MIL-HDBK-217F(25°C)				
	Dimension (LxWxH)	78 x 80.3 x 25.4 mm				
	Net Weight / Packing	220g ; 20 pcs / box				

#### Notes:

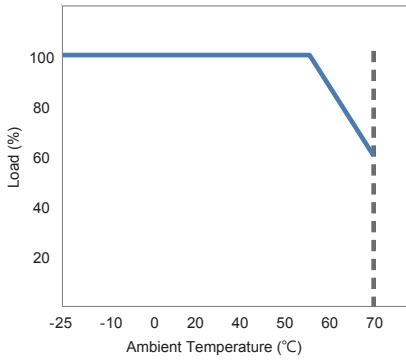
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature.
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check 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.



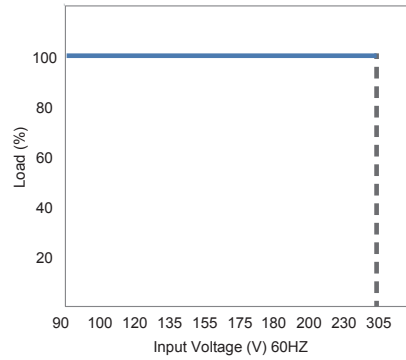
### FSP TECHNOLOGY INC.

www.fsp-group.com / sales@fsp-group.com.tw  
NO.22, Jianguo E. Rd., Taoyuan City, Taiwan, R.O.C.  
TEL : +886-3-375-9888 / FAX : +886-3-375-6966

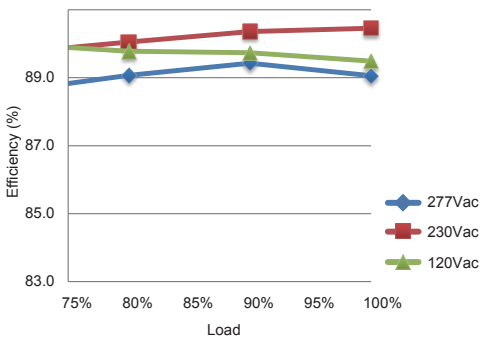
**Derating Curve**



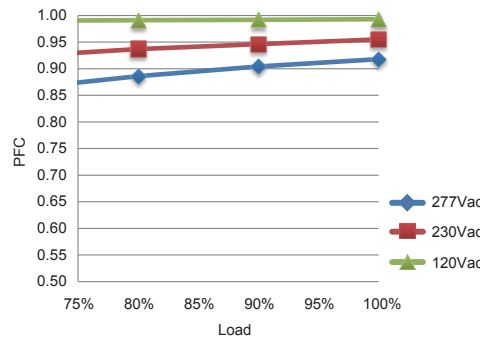
**Static Curve**



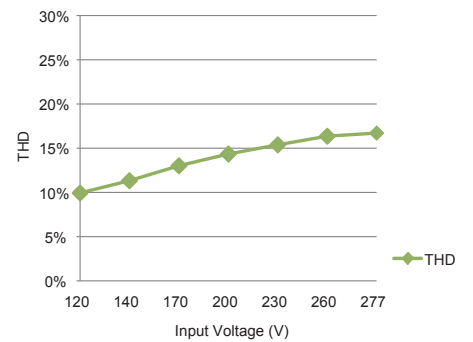
**Efficiency**



**PFC vs Loading**



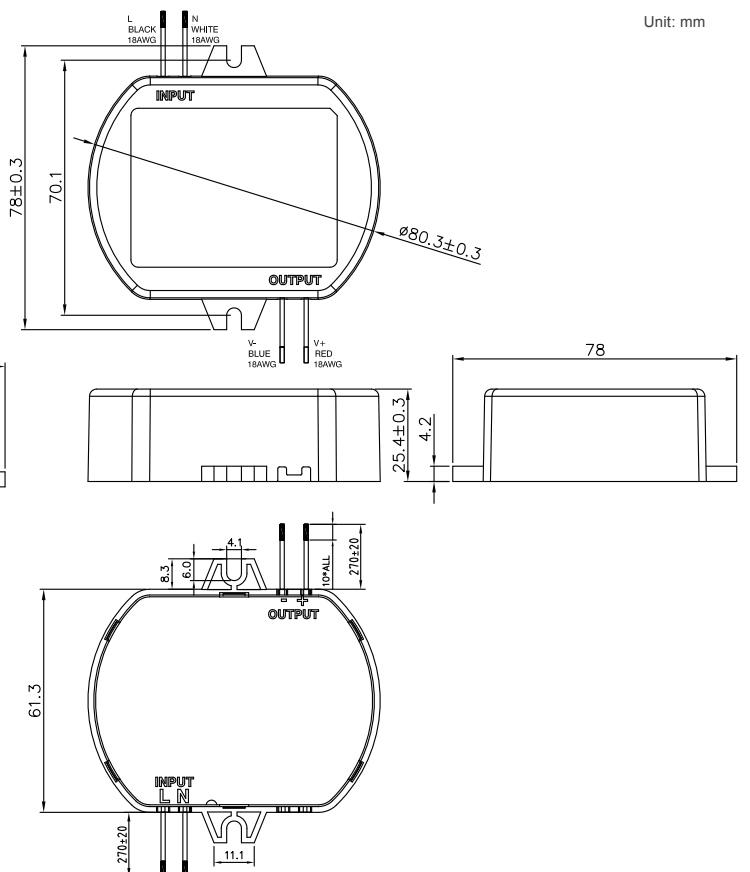
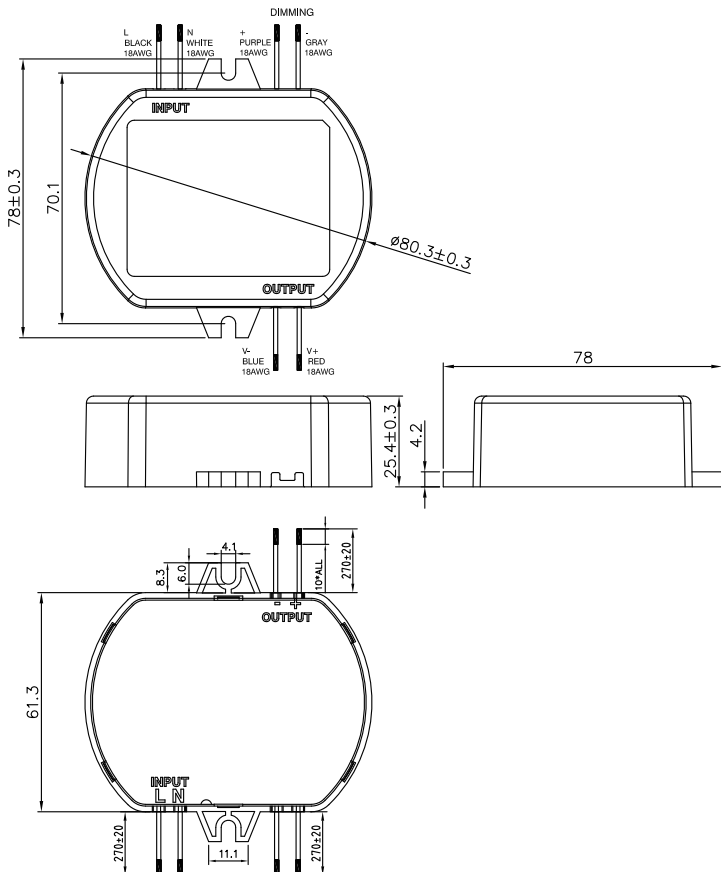
**THD vs Input Voltage**



**VG Type:**  
(FSP25-FZAP(XXX)VG)

**G Type:**  
(FSP25-FZAP(XXX)G)

Unit: mm



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