

### Features

- For LED Outdoor & Industrial Application
- 4 Channels Output
- With 24V/200mA Auxiliary Output
- Wide Input Range for Worldwide use (up to 305Vac)
- Built-in PFC Function: up to PF 0.98
- IP67 Design for Outdoor Installation
- Suitable to Dry, Damp, Wet Location
- High Surge Protection: 6kV/6kV(IEC61000-4-5)
- 1-10V Dimming Function
- High Reliability & Long Life 50,000hrs
- Built-in 3 in 1 dimming function (1-10VDC, PWM signal or resistance)
- Constant Current Design
- 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



### SPECIFICATION

Model Name	FSP160-4SZAE(140)MG	
Output	Rated Power	160W (40W *4 channels)
	Output Voltage	14-29V
	Rated Current	1400mA
	Auxiliary DC Output	24V/200mA
	Output Current Accuracy	±5%
	Line Regulation	±0.5%
	Turn On Delay Time,Rise time	≤2s max ;≤300ms max
Input	Input Voltage/ Frequency[3]	108~305Vac/ 47~63Hz (Please refer to Static Curve)
	Power Factor (typ.)	PF ≥0.98/230Vac at full load
	Efficiency (max.)	90%
	Total Harmonic Distortion[4]	THD <20% (Output Loading ≥80% at 230Vac)
	AC Current (typ.)	≤1.8A /120Vac ; ≤0.9A /230Vac ; ≤0.8A /277Vac
	Inrush Current (typ.)	120Vac / 60Hz at full load ≤ 20A ; 230Vac / 60Hz at full load ≤ 20A ; 277Vac / 60Hz at full load ≤ 45A
Environment	Leakage Current	≤1mA/230Vac
	Operating Temperature	-20°C ~ +70°C (Please refer to Static Curve)
	Operating Humidity	20~85% RH non-condensing
	Storage Temperature, Humidity	-40°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	<50V Protection Type: Shut down and latch off, re-power on to recover
	Short Circuit Protection	Recovers automatically after fault condition is removed. Shut down and latch off, re-power on to recover
Safety & EMC	Over Temperature Protection	Shut down and latch off, re-power on to recover
	Safety Standards	Design Refer to EN61347-1, EN61347-2-13, UL8750
	EMC Standard	Compliant with EN55015/CISPR22 CLASS B, Compliant with EN61000-3-2 Class C (≥80% load), EN61000-3-3
	Surge Protection	Differential Mode: 6KV; Common Mode: 6KV
	Withstand Voltage (Hipot)	I/P-O/P 3000Vac, I/P-CASE 1500Vac
Others	Isolation Resistance	I/P-O/P: 100M ohm @ 500Vdc/ 25°C
	Life Time [5]	50,000 hours at Tcase of ≤ 60°C
	MTBF	250,000 hours, MIL-HDBK-217F(25°C@80%Load,230Vac)
	Dimension (LxWxH)	216 x 84 x 42.5 mm

#### Notes:

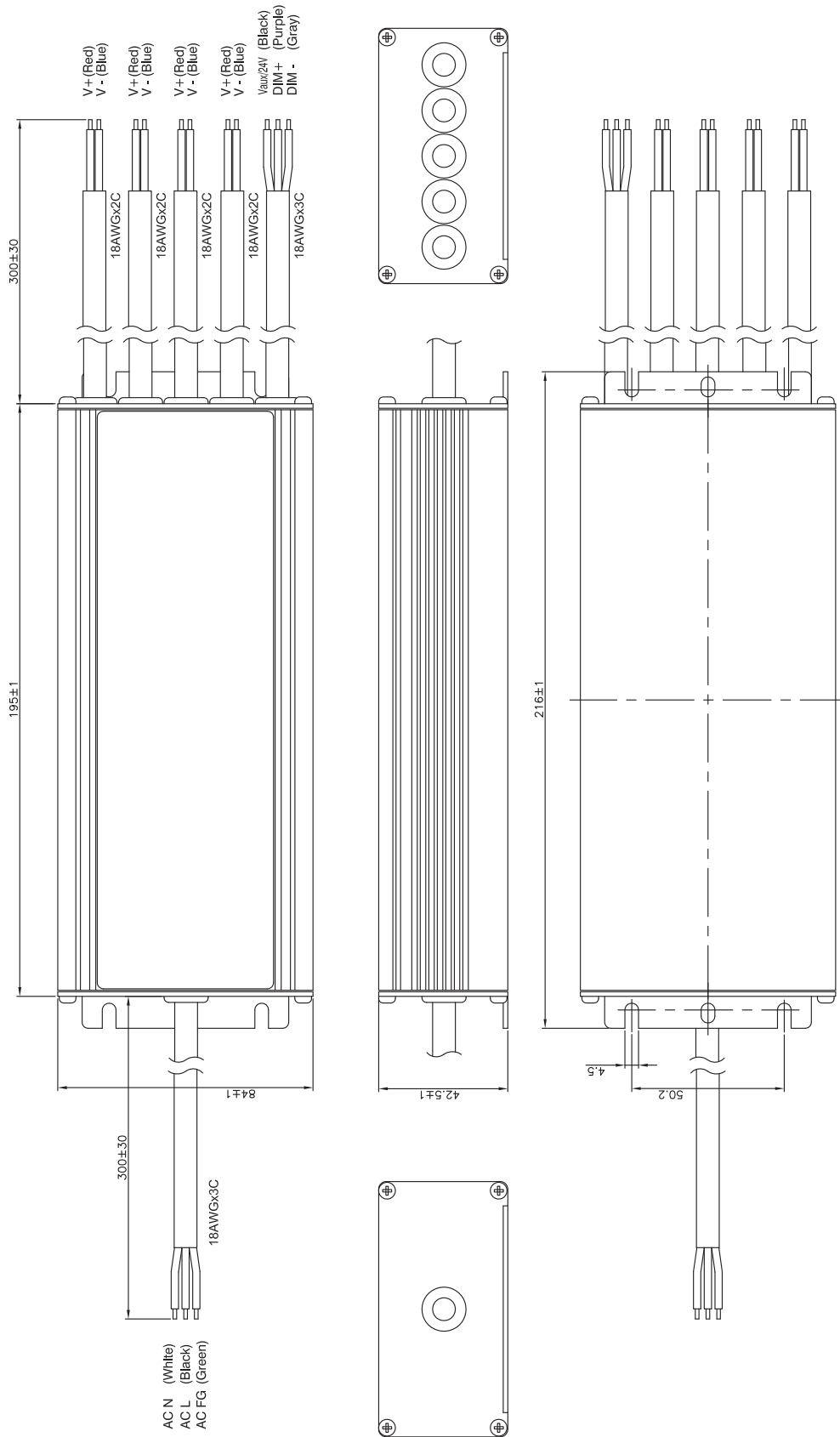
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature.
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check the static characteristics for more details.
4. Measured at rated output voltage.
5. Measured at 230Vac/50Hz input, 80% 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.



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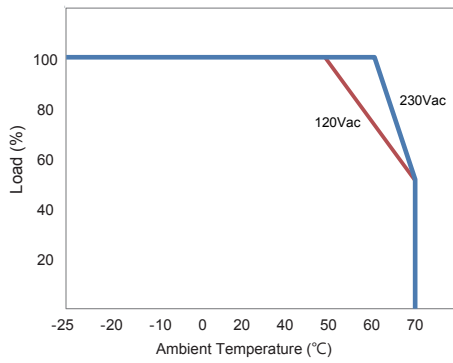
Unit: mm



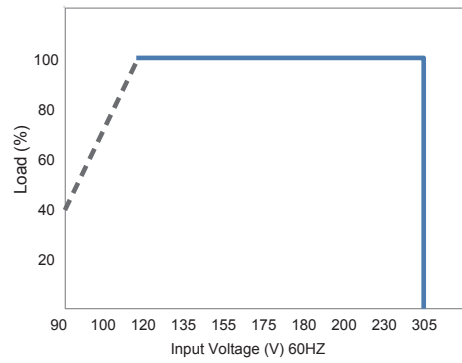
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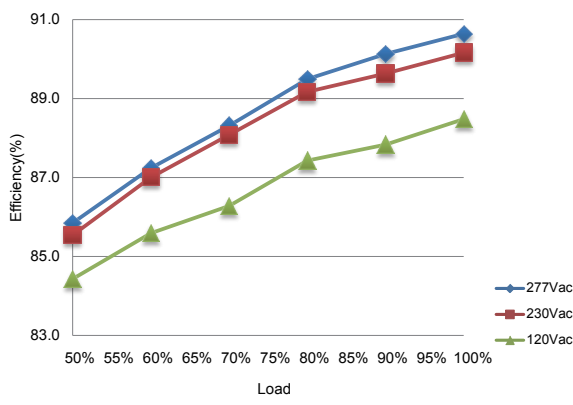
**Derating Curve**



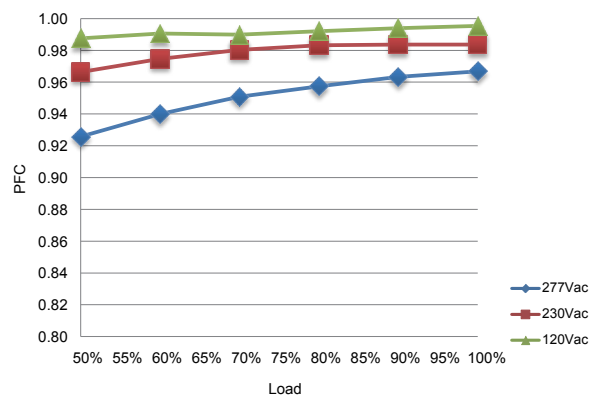
**Static Curve**



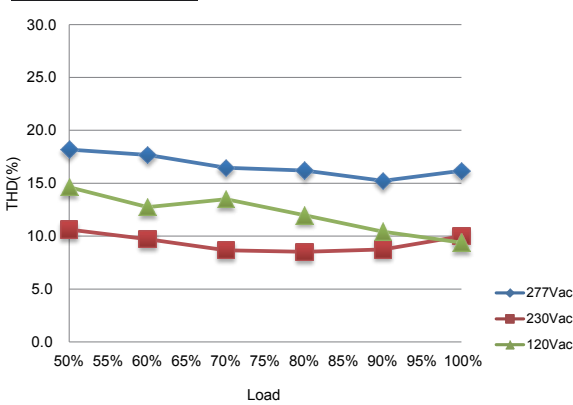
**Efficiency vs Load**



**PF vs Load**



**THD vs Load**



**Life Time vs Tcase**

