

### 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/6kV(IEC61000-4-5)
- 1-10V / PWM Dimming Function
- High Reliability & Long Life 50,000hrs
- Constant Current Design/ Low Ripple Current
- 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



FSP200-FZAE(070) M G

M Type: IP67 rated with 1-10V, PWM Dimming Function

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

### SPECIFICATION

Model Name	FSP200-FZAE(070)MG	FSP200-FZAE(105)MG	FSP200-FZAE(140)MG	FSP200-FZAE(315)MG	
Output	Rated Power	200W	200W	200W	
	Output Voltage	141-288V	93-192V	71-144V	34-64V
	Rated Current	700mA	1.05A	1.4A	3.15A
	CURRENT ADJ. RANGE	350 ~ 700mA	525 ~ 1050mA	700 ~ 1400mA	1575 ~ 3150mA
		Can be adjusted by internal potentiometer for R Type only			
	Output Current Accuracy	±5%	±5%	±5%	±5%
	Output Ripple Current (typ.) <sup>[2]</sup>	±5%	±5%	±5%	±5%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%
Turn On Delay Time, Rise Time	≤1s max ; ≤300ms max				
Input	Input Voltage/ Frequency <sup>[3]</sup>	90~305Vac/ 47~63Hz (Please refer to Static Curve)			
	Power Factor (typ.)	PF ≥ 0.99/120Vac, PF ≥ 0.97/230Vac, PF ≥ 0.96/277Vac at full load			
	Efficiency (max.)	93.5%	93.5%	93.5%	93.5%
	Total Harmonic Distortion <sup>[4]</sup>	THD < 20% (Output Loading ≥ 50% at 120Vac, Output Loading ≥ 70% at 230Vac, Output Loading ≥ 80% at 277Vac)			
	AC Current (typ.)	≤ 1.95A /120Vac ; ≤ 1.05A /230Vac ; ≤ 0.9A /277Vac			
	Inrush Current (typ.)	≤ 55A at 230Vac, 25°C cold start			
	Leakage Current	≤ 0.75mA/277Vac			
Environment	Operating Temperature	-40°C ~ +70°C (Please Refer to "Derating Curve")			
	Operating Humidity	10~95% RH non-condensing			
	Storage Temperature, Humidity	-40°C ~ +85°C, 5%~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	<350V	<240V	<180V	<85V
	Short Circuit Protection	Protection Type: Recovers automatically after fault condition is removed			
	Over Temperature Protection	Recovers automatically after fault condition is removed			
Safety & EMC	Safety Standards <sup>[7]</sup>	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: 6KV			
	Withstand Voltage (Hipot)	I/P-O/P 3000Vac, I/P-FG 1800Vac, O/P-FG 1800Vac			
	Isolation Resistance	I/P-CASE ,O/P-CASE: 25M ohm @ 500Vdc/ 25°C			
Others	Type TL [7]	87/58°C	88/60°C	-	88/59°C
	Life Time [5]	50,000 hours at Tcase of ≤ 75°C			
	MTBF	≥ 200,000 hours, MIL-HDBK-217F(25°C)			
	Dimension (LxWxH)	228 x 68 x 38.8 mm			
Net Weight / Packing	1100g; 10 pcs/ box				

### Notes:

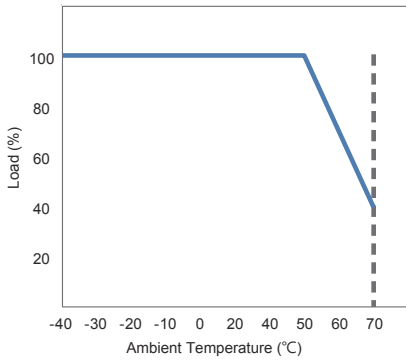
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check 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. FSP200-FZAE(140)MG is under development. Safety, Type TL Pending.



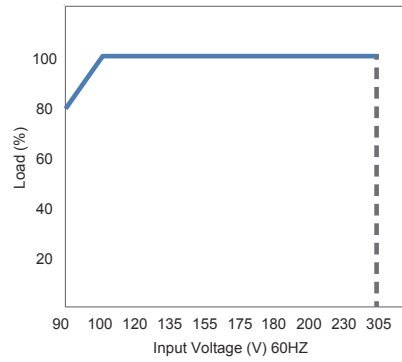
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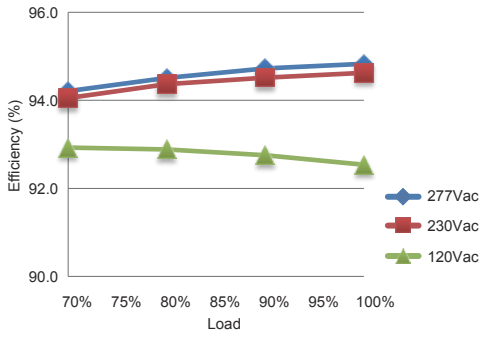
**Derating Curve**



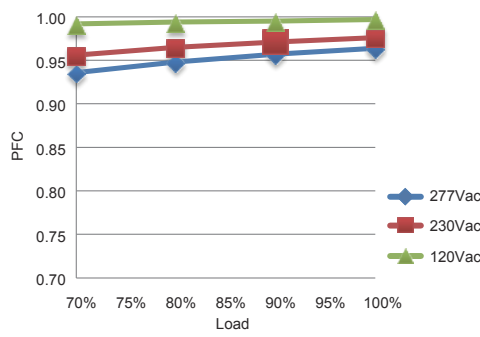
**Static Curve**



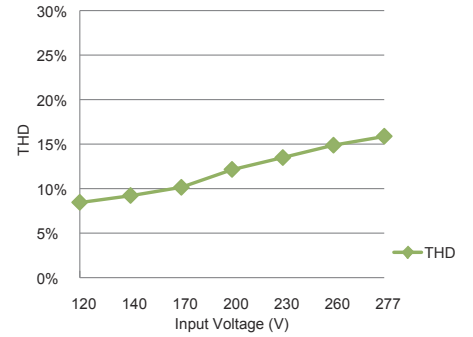
**Efficiency**



**PFC vs Loading**

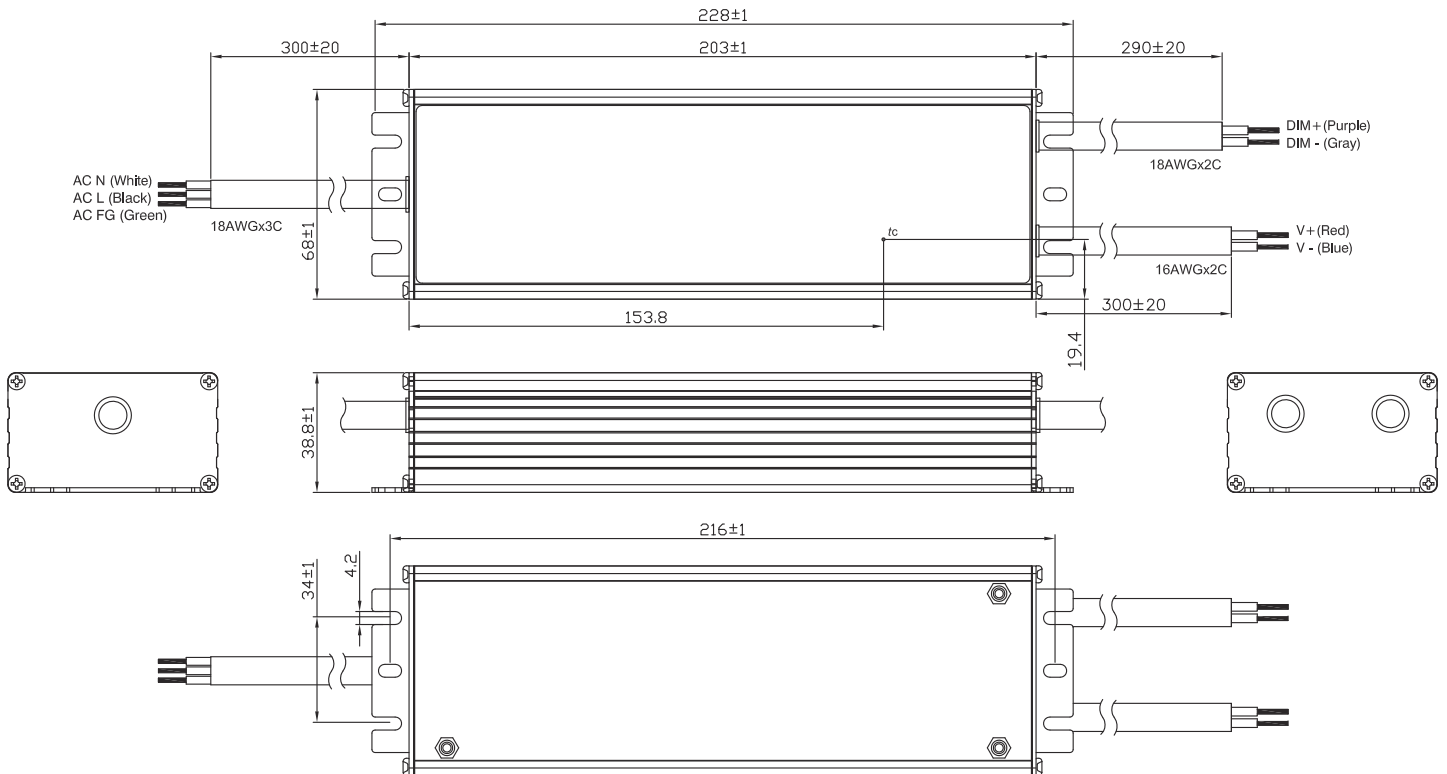


**THD vs Input Voltage**



**MG Type: (FSP200-FZAE(XXX)MG)**

Unit: mm

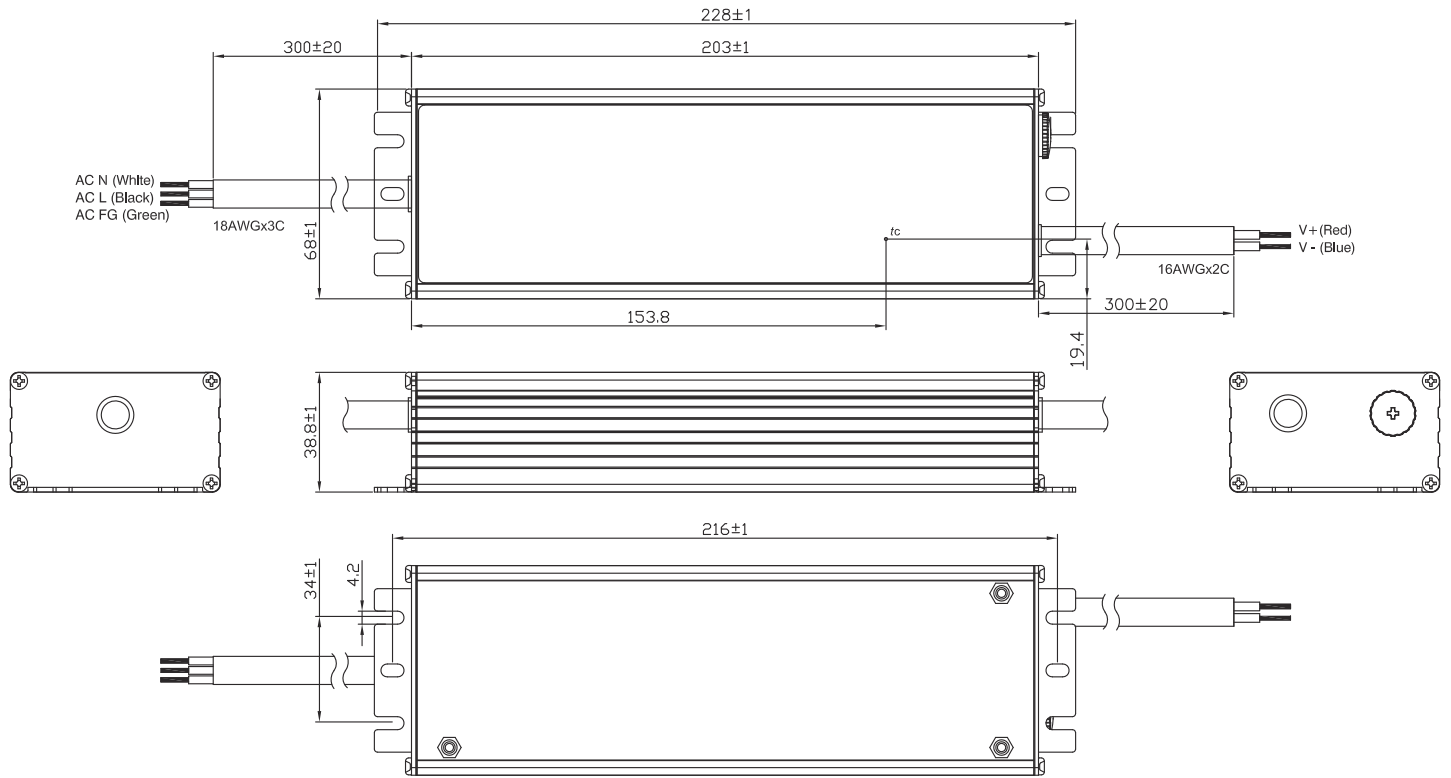


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