

### Features

- For LED Outdoor & Industrial Application
- 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)
- 3 in 1 dimming: 1-10V/PWM/Resistance
- High Reliability & Long Life 50,000hrs
- Constant Current Design/ Low Ripple Current
- All-Round Protections: Short Circuit/ Over Voltage/ Over Temperature
- Safety: Meet IEC61347-2-13, UL8750 & EMI EN55015



FSP320-SZAE(XXX)MG  
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           |                                  | FSP320-SZAE(105)MG [8]  | FSP320-SZAE(140)MG | FSP320-SZAE(210)MG | FSP320-SZAE(280)MG |
|----------------------|----------------------------------|---|--------------------|--------------------|--------------------|
| Output               | Rated Power                      | 320.25W   | 320.6W             | 319.2W             | 319.2W             |
|                      | Output Voltage                   | 152-305V  | 114-229V           | 76-152V            | 57-114V            |
|                      | Rated Current                    | 1.05A   | 1.4A               | 2.1A               | 2.8A               |
|                      | Output Current Accuracy          | ±5%   | ±5%                | ±5%                | ±5%                |
|                      | Output Ripple Current (typ.) [2] | ±5%   | ±5%                | ±5%                | ±5%                |
|                      | Line Regulation                  | ±1%   | ±1%                | ±1%                | ±1%                |
|                      | Turn On Delay Time ; Rise time   | ≤1s max ; ≤300ms max  |                    |                    |                    |
| Input                | Input Voltage/ Frequency [3]     | 90~305Vac/ 47~63Hz (Please refer to Static Curve)   |                    |                    |                    |
|                      | Power Factor (typ.)              | PF ≥ 0.98/120Vac, PF ≥ 0.95/230Vac, PF ≥ 0.92/277Vac at full load   |                    |                    |                    |
|                      | Efficiency (max.)                | 94%   | 94%                | 94%                | 94%                |
|                      | Total Harmonic Distortion [4]    | THD <20% (Output Loading ≥50% at 120-277Vac)  |                    |                    |                    |
|                      | AC Current (typ.)                | ≤3.5A /120Vac ; ≤1.56A /230Vac ; ≤1.45A /277Vac   |                    |                    |                    |
|                      | Inrush Current (typ.)            | ≤80A at 230Vac, 25°C cold start   |                    |                    |                    |
| Environment          | Leakage Current                  | ≤2.5mA/277Vac   |                    |                    |                    |
|                      | 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   |                    |                    |                    |
| 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          | <400V   | <400V              | <200V              | <200V              |
|                      | Short Circuit Protection         | Recovery Type: Recovers automatically after fault condition is removed  |                    |                    |                    |
|                      | Over Temperature Protection      | Recovery Type: Recovers automatically after fault condition is removed  |                    |                    |                    |
| Safety & EMC         | 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 3600Vac, I/P-FG 1500Vac, O/P-FG 1500Vac   |                    |                    |                    |
| Others               | Isolation Resistance             | I/P-O/P: 100M ohm @ 500Vdc/ 25°C  |                    |                    |                    |
|                      | Life Time [5]                    | 50,000 hours at Tcase of ≤ 80°C   |                    |                    |                    |
|                      | MTBF                             | 200,000 hours, MIL-HDBK-217F(25°C)  |                    |                    |                    |
|                      | Dimension (LxWxH)                | 260 x 84 x 42.5 mm  |                    |                    |                    |
| Net Weight / Packing | 1650g; 10 pcs/ box               |   |                    |                    |                    |

### Notes:

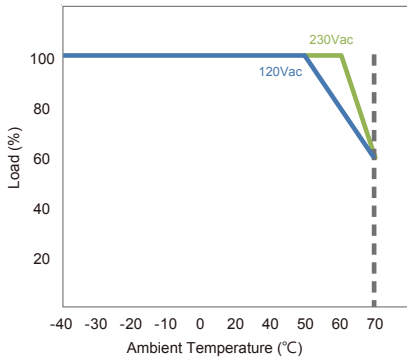
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature.
2. The ripple current must be measured under the condition of AC coupling & 20MHz bandwidth. (Rated input and rated output)
3. Derating may be needed under low input voltages. Please check the static characteristics for more details.
4. Measured at rated output voltage.
5. Measured at 230Vac/50Hz input, rated load.
6. Length of set up time is measured at first cold start. Turning ON/OFF the may lead to increase of the set up time.driver.
7. 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.
8. UL/CE safety pending



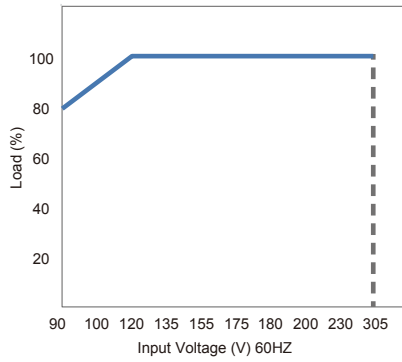
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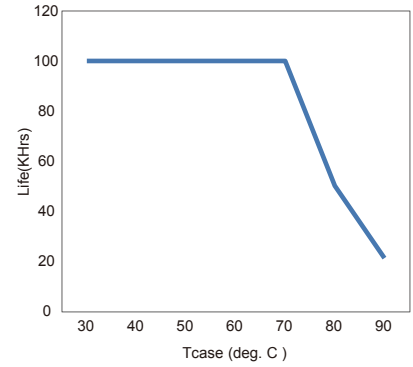
**Derating Curve**



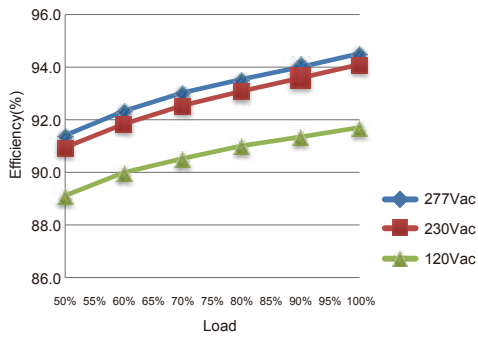
**Static Curve**



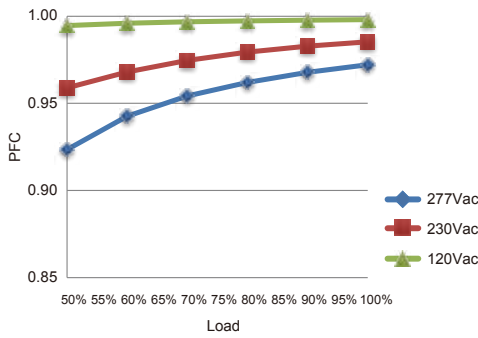
**Life Time**



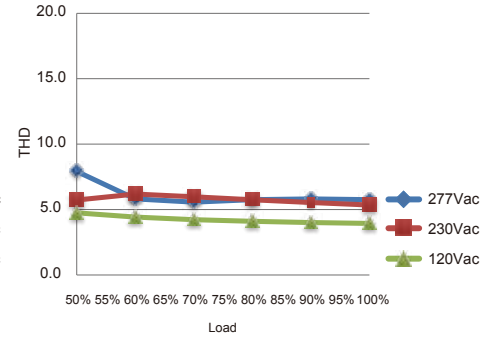
**Efficiency**



**PFC vs Loading**

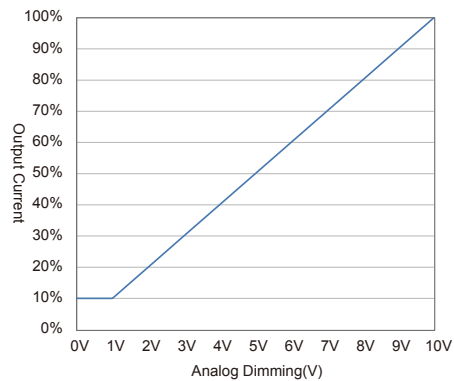
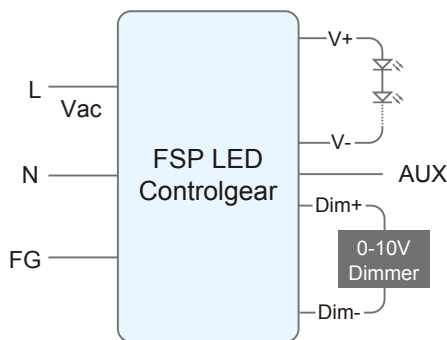


**THD vs loading**



**0-10V Dimming Curve**

\*Direct connecting to LEDs is suggested

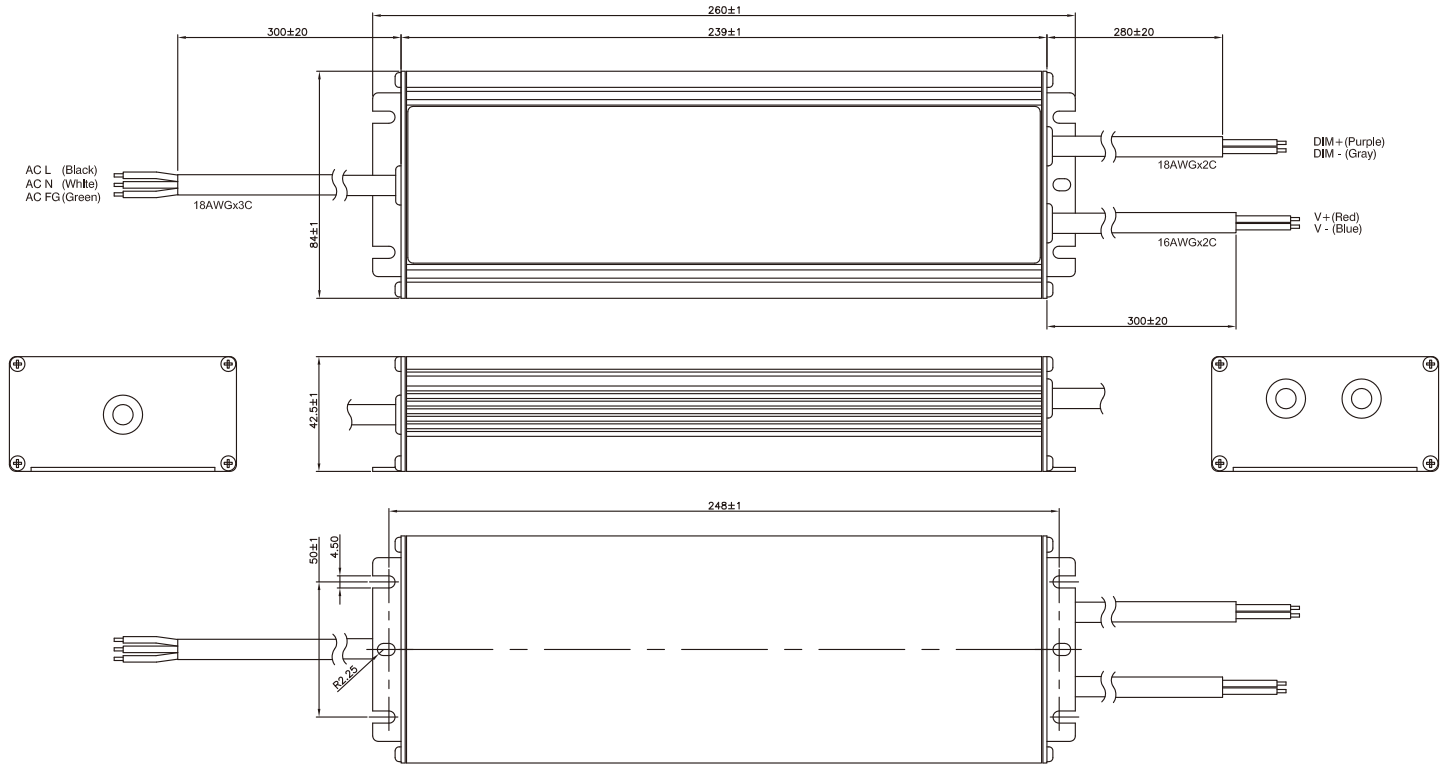


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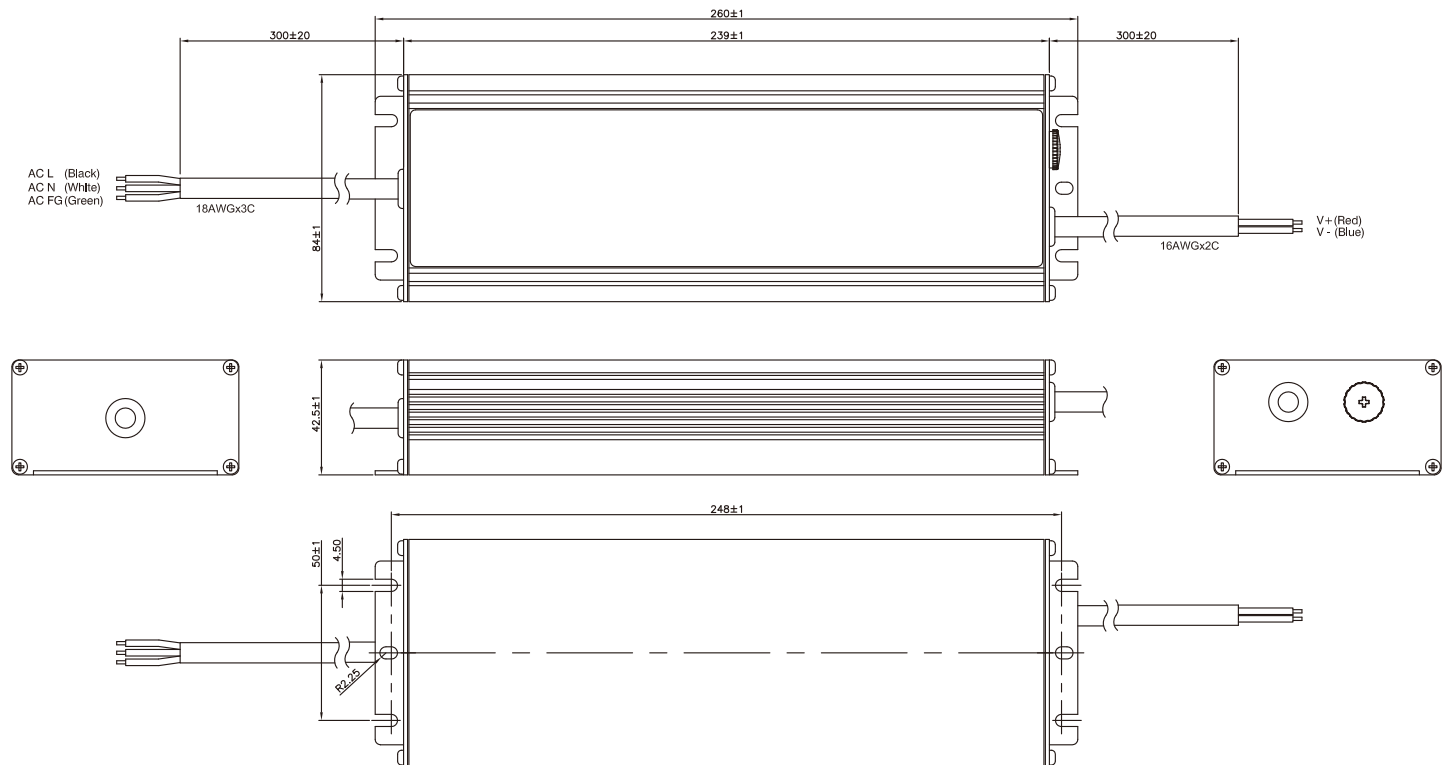
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## MG Type: FSP320-SZAE(XXX)MG

Unit: mm



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