

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: 6kV/6kV(IEC61000-4-5)
- High Reliability & Long Life 50,000hrs
- 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



FSP120-FZAE1(500) **MG**
 R Type: IP67 rated with Io & Vo fix
 M Type: IP67 rated with 1-10V, PWM Dimming Function

SPECIFICATION

| Model Name | FSP120-FZAE1(230)RG54 | FSP120-FZAE1(250)RG48 | FSP120-FZAE1(340)RG36 | FSP120-FZAE1(500)RG24 | |
|------------------------------|---------------------------------|---|-----------------------|-----------------------|----------|
| Output | Rated Power | 120W | 120W | 120W | 120W |
| | Output Voltage | 54V | 48V | 36V | 24V |
| | Rated Current | 0~2.3A | 0~2.55A | 0~3.4A | 0~5A |
| | Output Voltage Accuracy | ±5% | ±5% | ±5% | ±5% |
| | Output Ripple & Noise (typ.)[2] | 540mVp-p | 480mVp-p | 360mVp-p | 240mVp-p |
| | Load Regulation | ±5% | ±5% | ±5% | ±5% |
| | Line Regulation | ±5% | ±5% | ±5% | ±5% |
| Turn On Delay Time,Rise time | ≤1s max ;≤300ms max | | | | |
| Input | Input Voltage/ Frequency[3] | 90~305Vac/ 47~63Hz (Please refer to Stactic Curve) | | | |
| | Power Factor (typ.) | PF ≥ 0.99/120Vac, PF ≥ 0.96/230Vac, PF ≥ 0.95/277Vac at full load | | | |
| | Efficiency (max.) | 93.5% | 93.5% | 93.5% | 93% |
| | Total Harmonic Distortion[4] | THD <20% (Output Loading ≥ 50% at 120Vac, Output Loading ≥ 50% at 230Vac, Output Loading ≥ 75% at 277Vac) | | | |
| | AC Current (typ.) | ≤ 1.5A /100Vac ; ≤ 0.7A /230Vac ; ≤ 0.7A /277Vac | | | |
| | Inrush Current (typ.) | ≤ 60A at 230Vac, 25°C cold start | | | |
| Environment | Leakage Current | ≤ 0.75mA/277Vac | | | |
| | Operating Temperature | -40°C ~ +70°C (Please Refer to "Derating Curve") | | | |
| | Operating Humidity | 20~95% RH non-condensing | | | |
| | Storage Temperature, Humidity | -40°C~+80°C, 10%~95%RH | | | |
| Protection | Vibration | 0.02g ² /Hz at 5 Hz sloping to 0.04g ² /Hz at 20 Hz, and maintaining 0.04g ² /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 | <80V | <63V | <63V | <35V |
| | Over Current Protection | <150% Protection Type: Recovers automatically after fault condition is removed | | | |
| | Short Circuit Protection | Recovers automatically after fault condition is removed | | | |
| | Over Temperature Protection | Recovers automatically after fault condition is removed | | | |
| Safety & EMC | 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: 6KV; Common Mode: 6KV | | | |
| | Withstand Voltage (Hipot) | I/P-O/P 3000Vac, I/P-FG 1500Vac, O/P-FG 500Vac | | | |
| | Isolation Resistance | I/P-CASE, O/P-CASE: 25M ohm @ 500Vdc/ 25°C | | | |
| Others | Life Time [5] | 50,000 hours at Tcase of ≤ 75°C | | | |
| | MTBF | 200,000 hours, MIL-HDBK-217F(25°C) | | | |
| | Dimension (LxWxH) | 220 x 68 x 38.8 mm | | | |
| | Net Weight / Packing | 1100g; 10 pcs/ box | | | |

Notes:

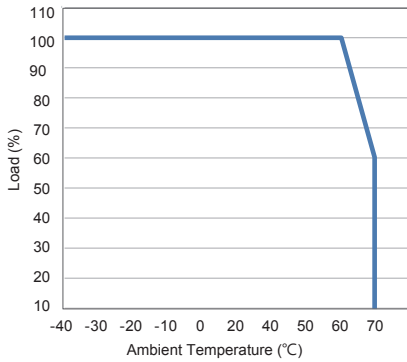
1. All data NOT specially mentioned are measured at 230Vac/ 50Hz input, full load and 25°C of ambient temperature
2. The ripple voltage must be measured under the condition of AC coupling & 20MHz bandwidth and terminated each output with a 47uF capacitor in parallel with a 0.1uF capacitor. (Rated input 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."



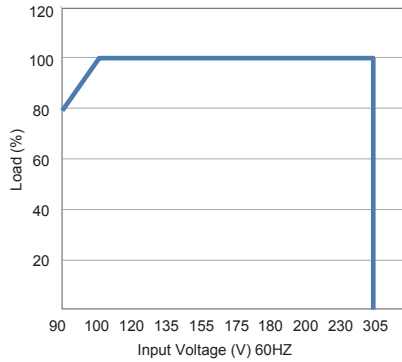
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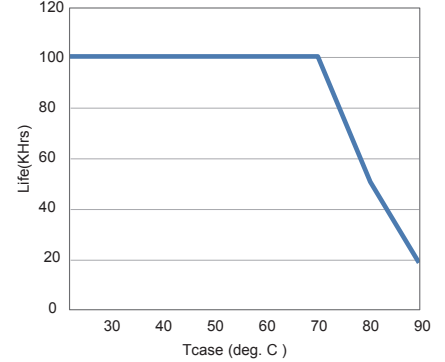
Derating Curve



Static Curve

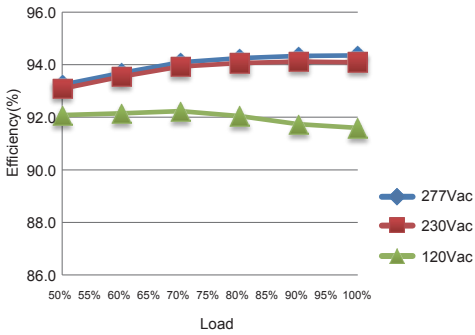


Life Time



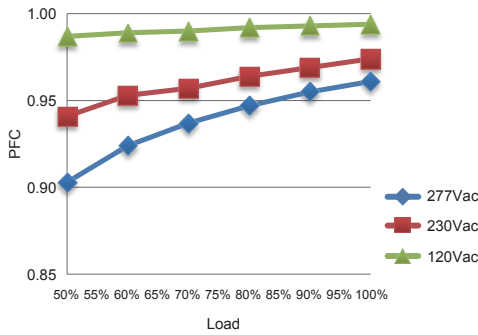
Efficiency

*48V/2.5A Model



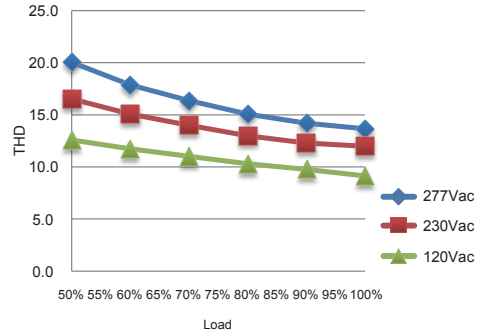
PFC vs Loading

*48V/2.5A Model



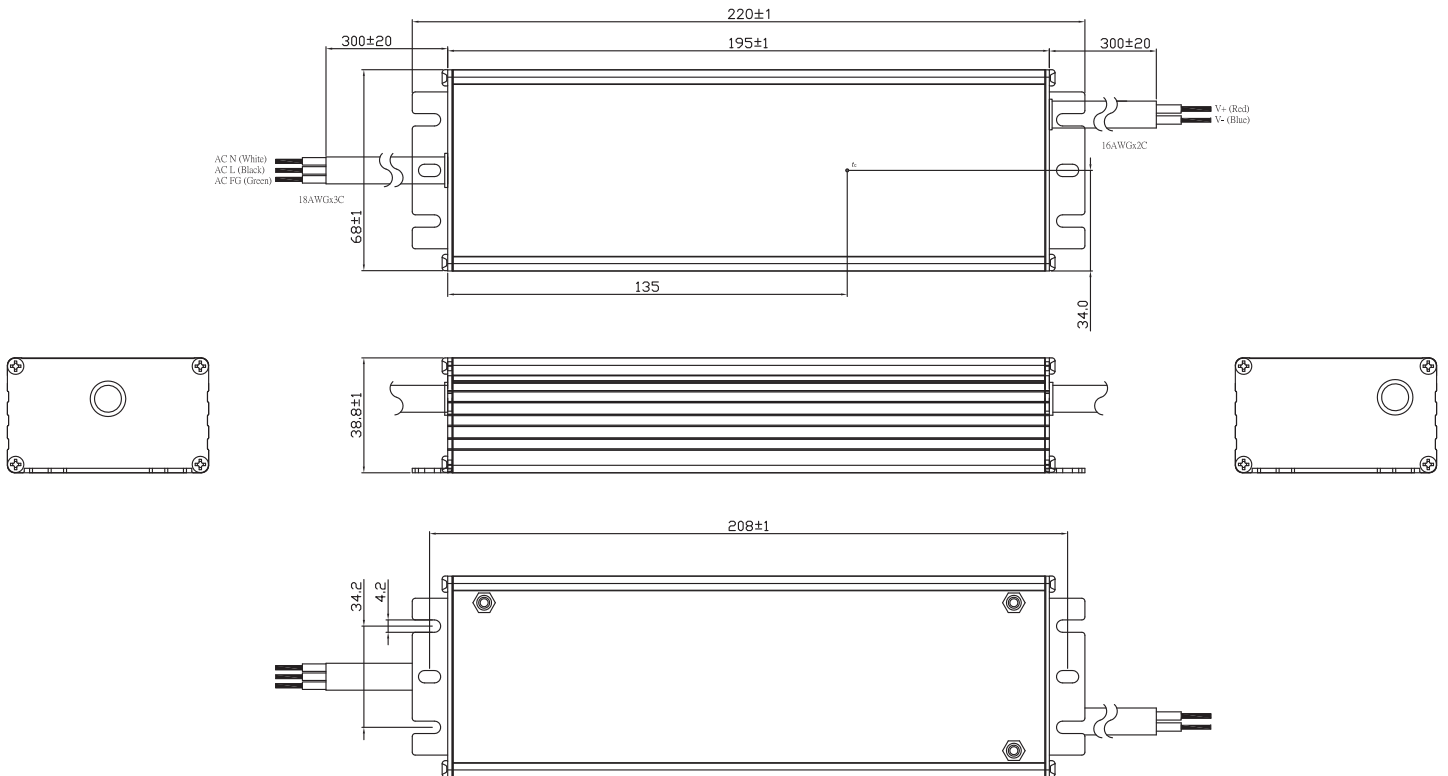
THD vs loading

*48V/2.5A Model



RG Type: FSP120-FZAE1(XXX)RG

Unit: mm

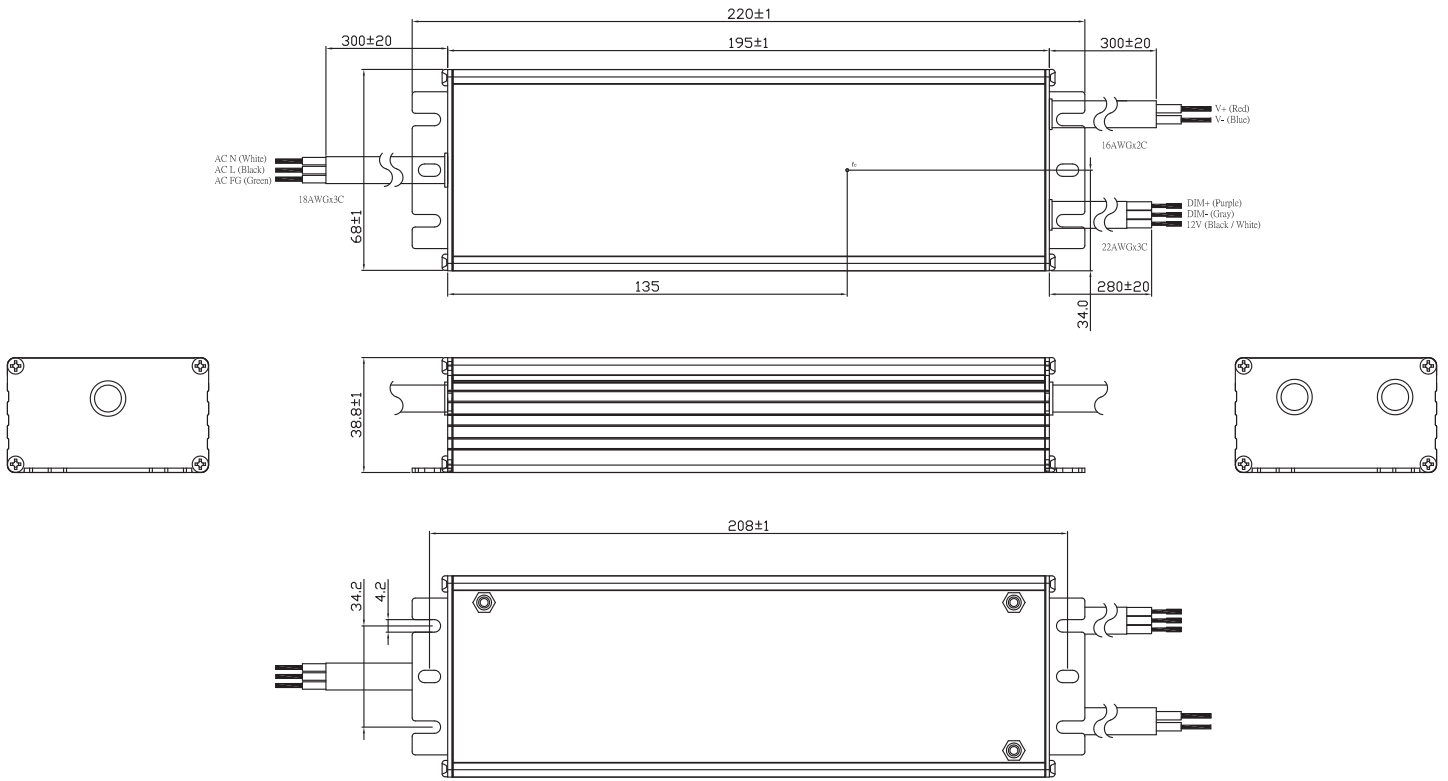


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