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SPECIFICATION

FSP075-NZMCH-700

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1. GENERAL/产品概述

This specification describes the performance characteristics of a 75W, 700mA constant current output power supply for LED lighting.

The model features in:

- ultra-high efficiency: 90.5% typical @230Vac, full load
- high power factor: 0.92 min. @ 230Vac, full load
- with all-round protections (OVP, OTP, SCP, Open Circuit Protection)
- comply with EN61347 Safety Regulations

本规格书详细描述了一款 75W, 700mA 恒流型 LED 照明用驱动电源的具体规格。

该款产品的特性包括：

- 超高效率：230Vac 满载时效率典型值为 90.5%
- 高功率因数：230Vac 满载时大于 0.92
- 带过压保护、过温保护、短路保护和开路保护
- 符合 EN61347 安规标准

SMPS Adaptor (Wall-Mount)/插墙式适配器

SMPS Adaptor (Desktop)/桌面型适配器

Open Frame/开放式结构

SMPS Unit (With Case)/带铝壳型

Others/其他

2. ELECTRICAL PERFORMANCE/电气性能

* Unless noted, the characteristics are specified at 25°C, 230Vac input, and full load output.

如无其它说明，以下数据为环境温度 25°C, 230Vac 输入，满载输出时的规格。

2.1. Input Characteristics/输入特性

2.1.1. Input Voltage and Frequency/输入电压与频率

The range of input voltage is from 108Vac to 305Vac single phase.

输入电压范围：从 108Vac 到 305Vac, 单相输入。

Input/输入	Min.	Typ.	Max.
Input Voltage/输入电压	108Vac	230Vac	305Vac
Input Frequency/输入频率	47Hz	50Hz	63Hz

2.1.2. Input Current /输入电流

0.55 A max. @ 230Vac input & full load/满载。

**2.1.3. AC Line Inrush Current (25°C Cold Start)/浪涌电流 (25°C冷启动)**

No component shall be damaged and the input fuse shall not blow when the power supply is powered on.

开机瞬间任何零件以及保险丝不得烧毁。

2.1.4. Power Factor/功率因数

Items/项目	Min.	Typ.	Test Condition/测试条件
Power Factor/功率因数	0.92	0.95	230Vac, 25°C, Full Load/满载

2.1.5. Efficiency/效率

Items/项目	Min.	Typ.	Test Condition/测试条件
High Line Efficiency/高压段效率	88%	90.5%	230Vac, 25°C, Full Load/满载

2.1.6. AC Line Brownout/输入欠压

The power supply shall not damage when the input is below 108Vac.

在输入交流电压低于 108Vac 情况下，电源不会损坏。

2.2. Output Characteristics/输出特性**2.2.1. Static Output Characteristics/静态输出特性**

Items/项目	Min.	Typ.	Max.
Output Current Regulation Band/输出电流调整范围	665mA	700mA	735mA
Output Voltage/输出电压	54V	-	108V
Output Power/输出功率	35.9W	-	75W
Output Voltage at No Load/空载输出电压	-	-	130V

2.2.2. Ripple & Noise/纹波与噪声

Current Ripple: $\pm 5\%$ I_o max., with typical LED load at 25°C, measured at 20MHz bandwidth.

电流纹波: 25°C, 典型 LED 负载下, 使用 20MHz 带宽测量时, 不超过 $\pm 5\%$ I_o 。

2.2.3. Output Current Precision /输出电流精度

$\pm 5\%$

2.2.4. Turn-on Delay Time/开机延迟时间

2s max. @ 230Vac, 50Hz, full load/满载

2.2.5. Rise Time/上升时间

150ms max. @ 25°C, full Load/满载

2.2.6. Output Overshoot/Undershoot/输出过冲/欠冲

20% max. at power on or power off at 25°C / 25°C 电源开关机时



2.3. Protection Circuits/保护电路

2.3.1. Over Voltage Protection/过压保护

The output voltage that triggers over voltage protection should be no higher than 150Vdc. The power supply shall enter auto-recovery mode during over voltage protection, and return to normal operation after the fault condition is removed.

过压保护时输出电压不应高于 150Vdc。故障时电源应进入自动恢复保护模式。当故障排除后，电源应能恢复工作。

2.3.2. Over Temperature Protection/过温保护

When the power supply enters overheating protection condition, no components should be damaged. The power supply shall enter auto-recovery mode during over temperature protection, and return to normal operation after the fault condition is removed.

当电源进入过热保护状态时，无零件损坏。故障时电源应进入自动恢复保护模式。当故障排除后，电源应能恢复工作。

2.3.3. Short Circuit Protection/短路保护

When output is being shorted, no components should be damaged. The power supply shall enter auto-recovery mode during short circuit protection, and return to normal operation after the fault condition is removed.

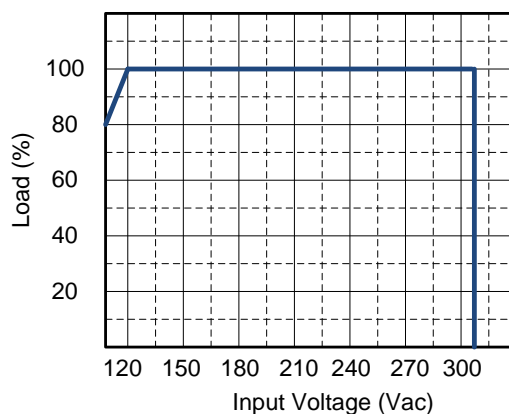
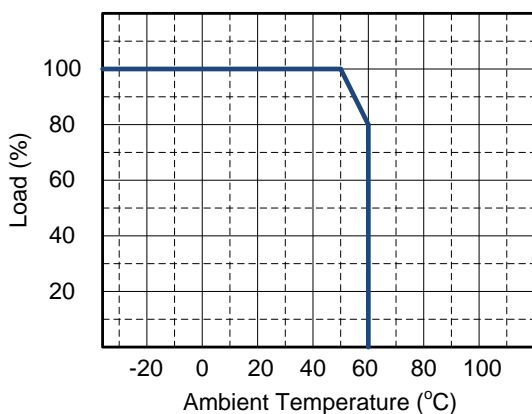
当电源输出发生短路时，无零件损坏。故障时电源应进入自动恢复保护模式。当故障排除后，电源应能恢复工作。

2.3.4. Open Circuit Protection/开路保护

When output is being opened, no components should be damaged. The power supply shall enter auto-recovery mode during open circuit protection, and return to normal operation after the fault condition is removed.

当电源输出发生开路时，无零件损坏。故障时电源应进入自动恢复保护模式。当故障排除后，电源应能恢复工作。

3. Derating Curve/降额曲线





4. MECHANICAL/机构特性

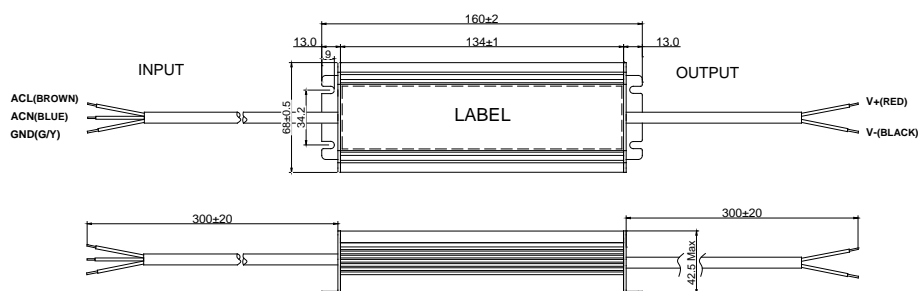
4.1. Dimension and Outline Drawing/尺寸与外观示意图

The outside dimension is 134x68x42.5mm (LxWxH) without bracket and 160x68x42.5mm with bracket.

不含支架外型尺寸为 134x68x42.5 毫米 (长 X 宽 X 高) , 含支架尺寸为 160x68x42.5mm 毫米。

Input /输入 : 3-Pin Wire 300mm (L : Brown/棕 , N: Blue/蓝 , GND: Green & Yellow/绿滚黄)

Output /输出 : 2-Pin Wire 300mm (V+: Red/红 , V-: Black/黑)



5. ENVIRONMENTAL/环境适应性要求

The power supply shall operate normally, and sustain no damage as a result of the environmental conditions listed in this section.

电源在本节所描述的环境下可以正常工作并不会损坏。

5.1. Operating Temperature and Relative Humidity/操作温度与湿度要求

-35 °C to +60 °C (+50 °C to +60 °C with power derating/降额使用)

10% RH to 100% RH

5.2. Storage Temperature and Relative Humidity/存储温度与湿度要求

-40 °C to +85 °C

10% RH to 100% RH

5.3. Waterproof Grade/防水等级

IP67

**5.4. MTBF/Life Time/平均无故障运行时间/产品寿命**

The MTBF shall be at least 200,000 hours at 25°C, 230Vac input, and full load output.

平均无故障运行时间：至少200,000小时, 25 °C环境, 230Vac输入与满载条件下。

The life time shall be at least 50,000 hours at 50 °C, 230Vac input, and full load output.

产品寿命：至少50,000小时, 50 °C环境, 230Vac输入与满载条件下。

5.5. Burn-in/煲机

The power supply samples shall go a minimum of 4 Hours burn-in test at 40 °C ± 5 °C under full load condition.

电源样品至少要在40 °C ± 5 °C的环境及满载条件下煲机4小时。

5.6. Vibration/振动

10 to 300Hz sweep at a constant acceleration of 1.0G (Breadth: 3.5mm) for 1 hour for each of the perpendicular axes X, Y, Z.

扫描频率: 10 to 300Hz, 加速度: 1.0G(位移: 3.5mm), X, Y, Z三垂直坐标轴向各振动1小时。

6. REGULATORY/符合标准**6.1. Agency Requirements/安规认证**

A) Meet CE EN61347-1, EN61347-2-13,

B) Primary to Secondary: 3750Vac 10mA max./60 seconds (3 seconds for production)

一次侧对二次侧：3750Vac 10mA max./60 秒(生产时高压测试时间：3 秒)

C) Primary to Earth: 1875Vac 10mA max./60 seconds (3 seconds for production)

一次侧对地：1875Vac 10mA max./60 秒(生产时高压测试时间：3 秒)

D) Secondary to Earth: 1220Vac 10mA max./60 seconds (3 seconds for production)

二次侧对地：1220Vac 10mA max./60 秒(生产时高压测试时间：3 秒)

E) Leakage Current/漏电流

0.75mA max. @ 277Vac / 50Hz

F) Grounded Resistance/接地电阻

0.1Ω max. @ 25A, 1 minute/在通过 25A 电流 1 分钟后, 一次侧地对外壳的最大电阻值为 0.1 欧姆

G) Insulation Resistance/绝缘阻抗

100MΩ min. @ primary to secondary with 500Vdc test voltage/在一次侧与二次侧间加500Vdc测试

6.2. Electromagnetic Compatibility/电磁兼容**6.2.1. EMI/EMC Requirements**

A) EMI:

Comply with EN55015 Class B.



B) IMMUNITY:

EN61000-3-2: Harmonic Current Emission.

EN61000-3-3: Voltage Fluctuations and Flicker.

EN61000-4-2: ESD 8kV Air Discharge, 4kV Contact Discharge, Criteria A.

EN61000-4-3: Radio-Frequency Electromagnetic Field Susceptibility Test-Rs Level 3, Criteria A.

EN61000-4-4: Electrical Fast Transient/Burst-EFT 4KV, Criteria A.

EN61000-4-5: Surge Immunity Test, AC Power Line: Line to Line 3kV; Line to Earth 6kV, Criteria B.

EN61000-4-6: Conducted Radio Frequency Disturbance Test-CS Level 3, Criteria A.

EN61000-4-8: Power Frequency Magnetic Field Test 3A/m, Criteria A.

EN61000-4-11: Voltage Dips, Criteria B.

EN61547: Electromagnetic Immunity Requirements Applies to Lighting Equipments.

