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SPECIFICATION

FSP075-NZMCH-350

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TABLE OF CONTENTS

目 录

1. GENERAL/产品概述	3
2. ELECTRICAL PERFORMANCE/电气性能	3
2.1. <i>Input Characteristics/输入特性</i>	3
2.1.1. Input Voltage and Frequency/输入电压与频率	3
2.1.2. Input Current /输入电流	3
2.1.3. AC Line Inrush Current (25°C Cold Start)/浪涌电流 (25°C冷启动)	4
2.1.4. Efficiency/效率	4
2.1.5. AC Line Brownout/输入欠压	4
2.2. <i>Output Characteristics/输出特性</i>	4
2.2.1. Static Output Characteristics/静态输出特性	4
2.2.2. Ripple & Noise/纹波与噪声	4
2.2.3. Output Current Precision /输出电流精度	4
2.2.4. Turn-on Delay Time/开机延迟时间	5
2.2.5. Rise Time/上升时间	5
2.2.6. Output Overshoot/Undershoot/输出过冲/欠冲	5
2.3. <i>Protection Circuits/保护电路</i>	5
2.3.1. Over Voltage Protection/过压保护	5
2.3.2. Over Temperature Protection/过温保护	5
2.3.3. Short Circuit Protection/短路保护	5
2.3.4. Open Circuit Protection/开路保护	5
3. Derating Curve/降额曲线	6
4. MECHANICAL/机构特性	6
4.1. <i>Dimension and Outline Drawing/尺寸与外观示意图</i>	6
5. ENVIRONMENTAL/环境适应性要求	6
5.1. <i>Operating Temperature and Relative Humidity/操作温度与湿度要求</i>	7
5.2. <i>Storage Temperature and Relative Humidity/存储温度与湿度要求</i>	7
5.3. <i>Waterproof Grade/防水等级</i>	7
5.4. <i>MTBF/Life Time/平均无故障运行时间/产品寿命</i>	7



5.5.	Burn-in/煲机.....	7
5.6.	Vibration/振动.....	7
6.	REGULATORY/符合标准	7
6.1.	Agency Requirements/安规认证.....	7
6.2.	Electromagnetic Compatibility/电磁兼容.....	8
6.2.1.	EMI/EMC Requirements	8
7.	REVISION LOG/修改记录	9



1. GENERAL/产品概述

This specification describes the performance characteristics of 75W, 350mA constant current output power supply for LED Lighting.

The model features in:

- ultra-high efficiency: 91.5% typical @230Vac, full load
- high power factor: 0.95 typical @ 230Vac, full load
- with Lightning Protection & all-round protections (OVP, OTP , SCP and Open Circuit Protection)
- comply with EN61347-2-13 Safety Regulations

本规格书详细描述了一款 75W, 350mA 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 91.5%
- 高功率因数：230Vac 满载时典型值为 0.95
- 带防雷保护、过压保护、过温保护、短路保护和开路保护
- 符合 EN61347-2-13 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

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 160Vac to 264Vac single phase

输入电压范围：从 160Vac 到 264Vac, 单相输入

Input/输入	Min.	Typ.	Max.
Input Voltage/输入电压	108Vac	120Vac/230Vac	305Vac
Input Frequency/输入频率	47Hz	60Hz/50Hz	63Hz

2.1.2. Input Current /输入电流

0.5A 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。

Power Factor/功率因数

Items	Min./最小	Typ./典型	Test Condition/测试条件
Power Factor/功率因数	0.97	0.99	120Vac, 25°C, Full Load/满载
	0.93	0.95	230Vac, 25°C, Full Load/满载

2.1.4. Efficiency/效率

Items	Min./最小	Typ./典型	Test Condition/测试条件
Low Line Efficiency/低压段效率	86%	88%	120Vac, 25°C, Full Load/满载
High Line Efficiency/高压段效率	88%	91.5%	230Vac, 25°C, Full Load/满载

2.1.5. AC Line Brownout/输入欠压

The power supply shall not damage when the input falls 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/输出电流	332.5mA	350mA	367.5mA
Output Voltage Regulation Band/输出电压调整范围	107V	-	214V
Output Power/输出功率	37.45W	-	74.9W

2.2.2. Ripple & Noise/纹波与噪声

Current Ripple: $\pm 10\%$ 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 $\pm 10\%$ I_o 。

2.2.3. Output Current Precision /输出电流精度

Output current/输出电流：350mA $\pm 5\%$

**2.2.4. Turn-on Delay Time/开机延迟时间**

2.0s max. @ 230Vac, 25°C, 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

10% max. When the power on or off at 25°C /当电源开/关机时 25°C

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 250Vdc. The power supply shall enter auto-recovery mode during OVP, and return to normal operation after the fault condition is removed.

OVP 保护时输出电压不应高于 250Vdc。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 PSU shall enter auto-recovery mode. After the fault condition is removed, the power supply should return to normal operation.

当电源进入过热保护状态时，无零件损坏；当温度恢复正常，可以恢复操作。

2.3.3. Short Circuit Protection/短路保护

When output is being shorted, the PSU shall enter auto-recovery mode. After the fault condition is removed, the power supply should return to normal operation.

当输出发生短路时电源不会损坏，当故障排除后，可以恢复操作。

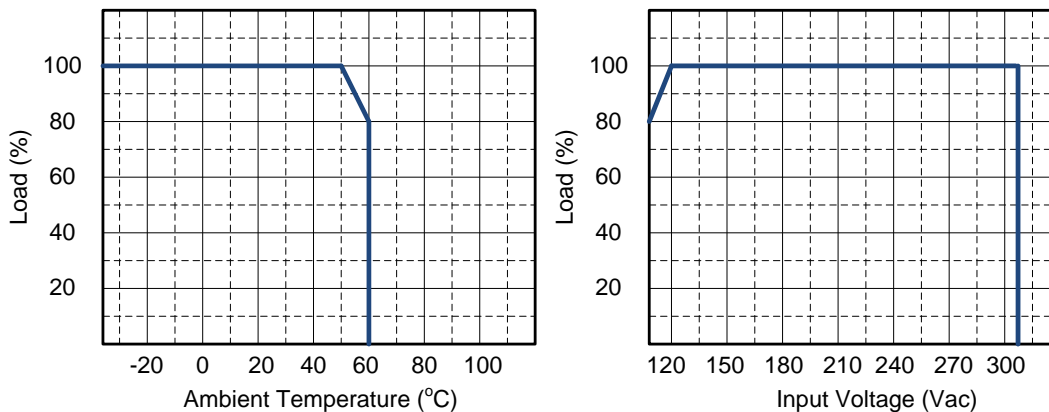
2.3.4. Open Circuit Protection/开路保护

When its output is being opened, the power supply will enter hiccup mode, and shall self-recover when the fault condition is removed.

当输出发生开路时电源不会损坏，当故障排除之后，可以恢复操作。



3. Derating Curve/降额曲线



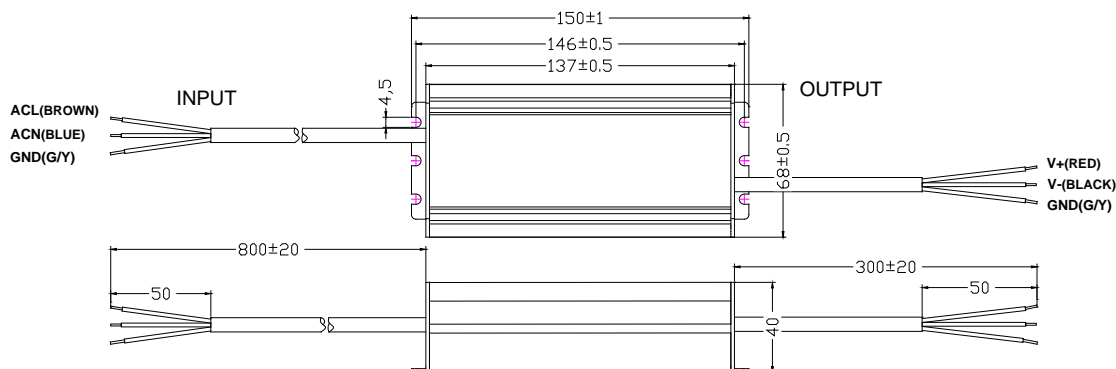
4. MECHANICAL/机构特性

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

The outside dimension is 137x68x40.5mm (LxWxH) without bracket and 150x68x40.5mm with bracket.
不含支架外型尺寸为 137x68x40.5 毫米 (长 X 宽 X 高), 含支架尺寸为 150x68x40.5mm。

Input /输入 : 3-Pin Wire 800mm (L: Brown/棕, N: Blue/蓝, GND: Green & Yellow/绿滚黄)

Output /输出 : 3-Pin Wire 300mm (V+: RED/红, V-: BLACK/黑, GND: Green & Yellow/绿滚黄)



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, Full load and nominal input condition:

平均无故障运行时间：至少200,000小时, 25 °C环境及额定输入与满载条件下

The life time shall be at least 50,000 hours at 50 °C, Full load and nominal input condition:

产品寿命：至少50,000小时, 50 °C环境及额定输入与满载条件下

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 1Hour 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 EN61347-2-13

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

初级侧对二次侧：3750Vac/10mA Max/60 秒(生产时高压测试时间：3 秒)

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

初级侧对地：1875 Vac/10mA Max/60 秒(生产时高压测试时间：3 秒)

D) Secondary to Earth: 1440Vac 10mA MAX/60second (3 seconds for production)

次级侧对地：1440Vac/10mA Max/60 秒(生产时高压测试时间：3 秒)

E) Leakage Current/漏电流

0.75mA max. @264Vac / 50Hz



F) Grounded Resistance/接地电阻

0.1Ω max. at 25A,1Minute/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 add 500Vdc test voltage/在初级与次级间加500Vdc进行测试

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 1KV

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

