

|             |      |                                              |     |      |
|-------------|------|----------------------------------------------|-----|------|
| SUNCOM 新创电源 | 产品类型 | LED 驱动电源    LED INTEGRATED    SPECIAL DRIVER |     |      |
|             | 产品系列 | HVC-150W-56X系列                               | REV | V3.0 |

广东新创电源科技有限公司

客户承认书

SPECIFICATION FOR APPROVAL

|                   |                |
|-------------------|----------------|
| CUSTOMER/客户名:     |                |
| MODEL NO. /产品型号:  | HVC-150W-56X系列 |
| Rev. /版本号         | V3.0           |
| SAMPLE DATE/送样日期: |                |

客户确认栏

|              |               |                |
|--------------|---------------|----------------|
| TESTED BY 检查 | CHECKED BY 审核 | APPROVED BY 批准 |
|              |               |                |
| 客户备注         |               |                |

Please return to us one copy of “SPECIFICATION FOR APPROVAL” with you approved signature. /客户确认签章后请回传一份承认书给我公司.

新创确认栏

|              |               |                |
|--------------|---------------|----------------|
| TESTED BY 检查 | CHECKED BY 审核 | APPROVED BY 批准 |
|              |               |                |

Guangdong Suncom Power Technology Co., Ltd

广东新创电源科技有限公司

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## ◆ Features 产品特性:

- Input Rated voltage : 100-277Vac 50Hz/60Hz  
输入额定电压范围:100-277Vac 50Hz/60Hz
- Isolation, constant current mode output  
隔离, 恒流模式输出
- Surge Protection: L-N :6KV; L/N- E:10KV  
防雷保护: 火线对零线6KV, 火线/零线对地10KV
- 3 in 1 dimming(dim-to-off)  
三合一调光 (调光可关断, 隔离设计)
- AUX Power:12V/0.25A  
辅组源: 12V/0.25A
- Over temperature drop current  
过温降电流
- Output current is adjustable  
输出电流可调
- THD<10%

## ◆ Applications 产品应用:

Application: Street light、high bay lighting and other lighting lamps  
应用于: 路灯、工矿灯等照明灯具

## ◆ Description 产品描述:

This product is a constant current Power Supply, Specially designed for LED, With low harmonic (< 10%), High power factor. Flicker free, Output current can be flexibly adjusted according to LED lamp voltage. 3 in 1 dimming function.Built-in Surge protection, Output open circuit protection, Short circuit protection, Over temperature drop current protection.Greatly improve the safety and reliability of the product.

本产品为恒流驱动电源, 专为LED设计, 具有低谐波 (<10%)、高功率因数、无频闪, 输出电流可根据LED灯电压灵活调节。三合一调光功能。内置防雷保护, 输出开路、短路保护, 过温降电流保护, 极大的提高了产品的安全可靠。

■ MODEL LIST 型号列表

| Model 型号     | Rated Power<br>额定输出功率 | Input Voltage<br>输入电压 | Output Voltage<br>输出电压范围 | Output Current<br>输出电流 | THD.<br>(Typ) | PF.<br>(Typ) |
|--------------|-----------------------|-----------------------|--------------------------|------------------------|---------------|--------------|
| HVC-150W-56X | 150W                  | 100-277Vac            | 27-56V                   | 1.8A-4.5A              | 6.5%          | 0.97         |

NOTE: All parameters NOT special mentioned are measured at 230Vac input, rated load and 25℃ of ambient temperature ; 如未特殊注明，所有参数均在 230Vac 输入、额定负载、25℃环境温度下测量

■ “X” Means Additional Function 后缀 “X” 功能可选机型表

| “X” | ADJ Current<br>(可调电流：后缀A) | 0-10V/PWM Dim/Resistor<br>(三合一调光：后缀B ) | 0-10V/PWM Dim/Resistor<br>+AUX 12V<br>(三合一调光+辅组源：后缀C) |
|-----|---------------------------|----------------------------------------|-------------------------------------------------------|
| B   |                           | √                                      |                                                       |

■ ELECTRICAL SPECIFICATION 电气规格

◆ 输入性能 Input performance:

| Parameter 参数         | Min.<br>最小值 | Typ.<br>典型值 | Max.<br>最大值 | Notes.<br>备注                                         |
|----------------------|-------------|-------------|-------------|------------------------------------------------------|
| Voltage Range 电压范围   | 90Vac       | 100-277Vac  | 305ac       |                                                      |
| Frequency Range 频率范围 | 47Hz        | 50/60Hz     | 63Hz        |                                                      |
| AC Current 交流电流      | -           | -           | 2A          |                                                      |
| Inrush Current 浪涌电流  | -           | -           | 60A         | At 230Vac input, 25℃ cold start 环境温度 25℃，230Vac 冷机启动 |
| PF. 功率因数             | 0.95        | 0.97        | -           | At 230Vac input, full load 满载，输入 230Vac 下测量          |
| THD. 总谐波失真           | -           | 6.5%        | 10%         |                                                      |

◆ 输出性能：Output performance

| Parameter 参数                                               | Min.<br>最小值 | Typ.<br>典型值 | Max.<br>最大值 | Notes.<br>备注                                             |
|------------------------------------------------------------|-------------|-------------|-------------|----------------------------------------------------------|
| Voltage Range 电压范围                                         | 27VDC       | -           | 56VDC       | -                                                        |
| Current range Regulation<br>电流调节范围(电位器)                    | 1.8A        | -           | 4.5A        | -                                                        |
| Rated Power 额定功率                                           | -           | -           | 150W        | -                                                        |
| Over Voltage 空载电压                                          | 70V         | -           | 80V         | -                                                        |
| Efficiency 效率<br>Measured at full load and<br>230Vac input | ≥91%        | 91.2%       | -           | At 230Vac input, 56V full load<br>输出56VDC满功率，输入230Vac下测量 |
| Current Tolerance 电流精度                                     | -5%         | -           | +5%         | -                                                        |

|      |                                           |     |      |
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|                               |     |       |      |                                                                                      |
|-------------------------------|-----|-------|------|--------------------------------------------------------------------------------------|
| Line Regulation 线性调整率         | -3% | -     | +3%  | -                                                                                    |
| Load Regulation 负载调整率         | -3% | -     | +3%  | -                                                                                    |
| Current Ripple 纹波电流           |     | ±4%   | <±5% | -                                                                                    |
| Turn-on Delay Time 启动时间       | -   | 600mS | <1S  | Measured at full load and 230Vac input                                               |
| Short Circuit Protection 短路保护 | -   | -     | 10W  | Hiccup mode, recovers automatically after fault condition is removed 打嗝模式, 故障排除后自动恢复 |

■ 环境：Environment

| Parameter 参数            | Min. 最小值 | Typ. 典型值 | Max. 最大值 | Notes. 备注 |
|-------------------------|----------|----------|----------|-----------|
| Working TEMP 工作温度       | -40℃     | +25℃     | +60℃     | -         |
| Storage TEMP 储存温度       | -40℃     | +25℃     | +85℃     | -         |
| Working Humidity 工作湿度   | 20% RH   | -        | 90% RH   | -         |
| Storage Humidity 储存湿度   | 10% RH   | -        | 90% RH   | -         |
| Maximum shell TEMP 最大壳温 | -        | -        | +90℃     | -         |

■ 安规和电磁兼容：

|                                           |                                                                        |
|-------------------------------------------|------------------------------------------------------------------------|
| Withstand voltage 耐压                      | I/P - FG:1.75KVAC, I/P-O/P:3.75KVAC, I/P-调光: 3.75KVAC, O/P-调光: 0.5KVAC |
| Isolation Resistance 绝缘阻抗                 | ≥10MΩ at I/P - FG 500VDC Test                                          |
| leakage Current 漏电流                       | <0.75mA/277Vac                                                         |
| Earthing Resistance 接地电阻                  | <0.1Ω / 25A 1 min                                                      |
| Surge 浪涌                                  | 差模 L-N +/- 6KV ( 2 ohm ), 共模 L, N-E +/- 10KV ( 12 ohm )                |
| Conducted electromagnetic interference 传导 | >3dB                                                                   |
| Radiated electromagnetic interference 辐射  | >3dB                                                                   |

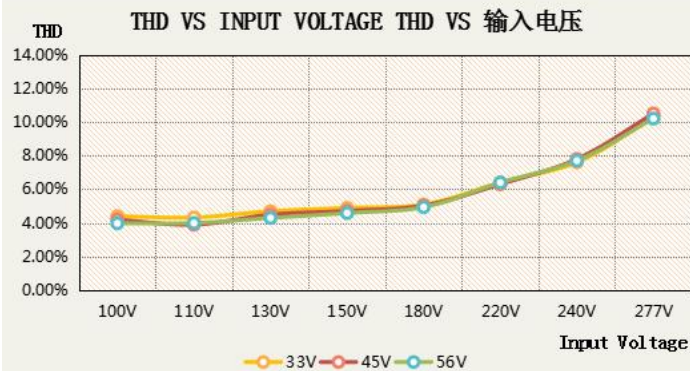
NOTE:

- 1) All parameters NOT specially mentioned are measured at 230Vac (50Hz) input, rated load and 25℃ of ambient temperature.  
如未特别说明，所有规格参数均在 230Vac (50Hz) 输入，额定负载，环境温度 25℃ 的条件下进行测量
- 2) Tolerance : includes set up tolerance, line regulation and load regulation.  
误差：包含设定误差、线性调整率和负载调整率。

## THD VS INPUT VOLTAGE

### THD VS 输入电压

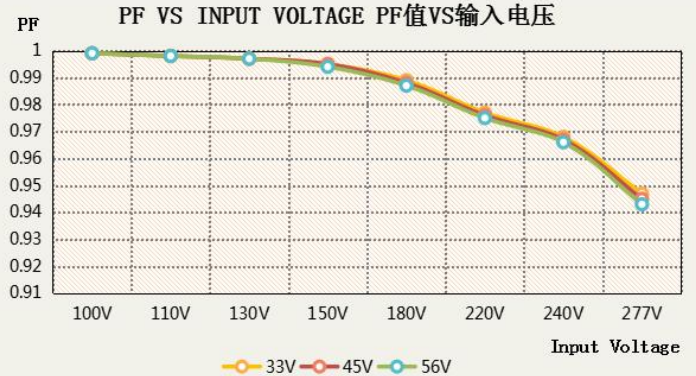
#### HVC-150W-56X



## PF VS INPUT VOLTAGE

### PF 值 VS 输入电压

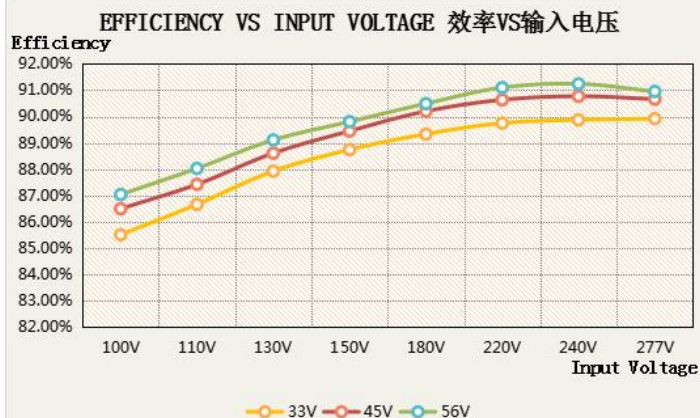
#### HVC-150W-56X



## EFFICIENCY VS INPUT VOLTAGE

### 效率 VS 输入电压

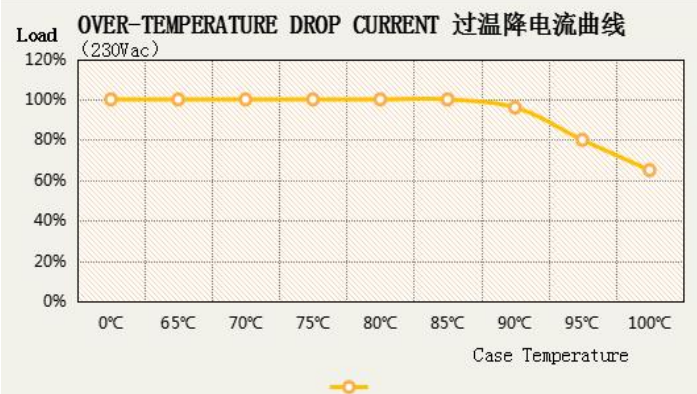
#### HVC-150W-56X



## OVER-TEMPERATURE DROP CURRENT

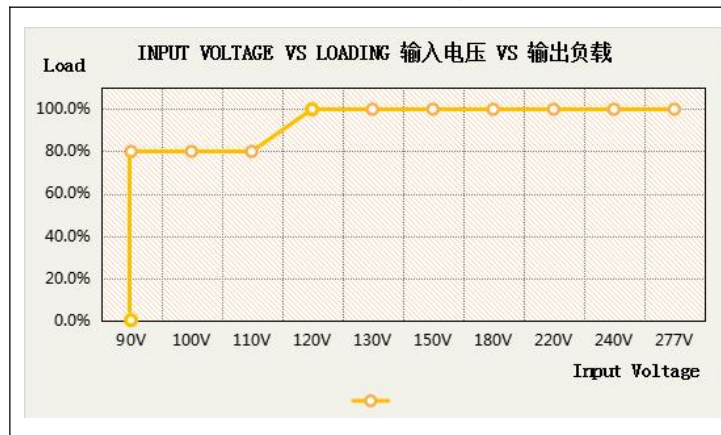
### 过温降电流曲线

#### HVC-150W-56X



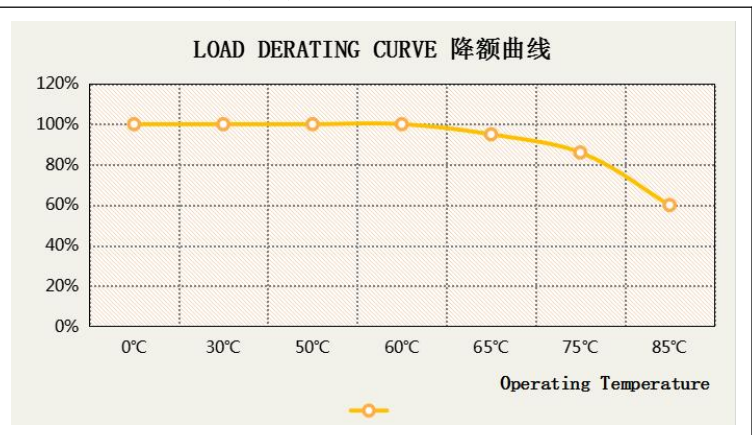
## INPUT VOLTAGE VS LOADING

### 输入电压 VS 输出负载



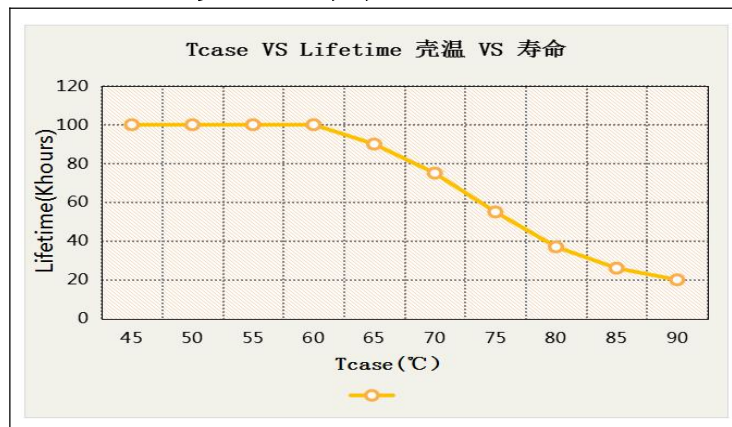
## LOAD DERATING CURVE

### 降额曲线



## TCASE VS LIFETIME

### 壳温VS寿命



## THE DIMMING CURVE 调光曲线

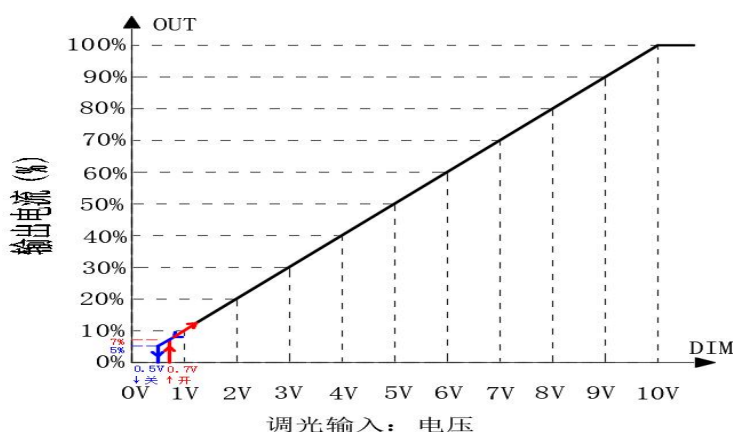
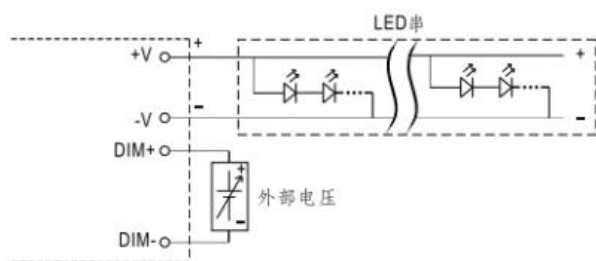
三合一调光功能（B型/C型）：

- 在DIM+（兰色线）和DIM-（白色线）间连接一个100K电阻或0-10V直流电压或PWM信号，即可调整输出恒电流的数值
- 调光端口输出电流：100uA（典型值）
- 辅助源功能（C型）：12V辅组电源输出，输出最大电流250mA

### 三合一调光曲线

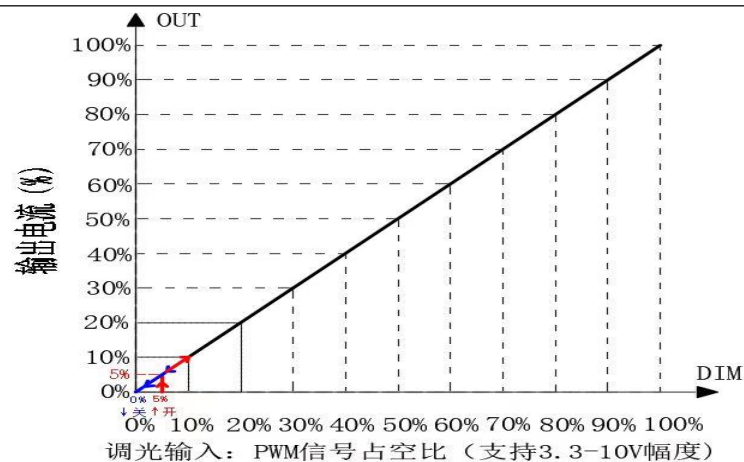
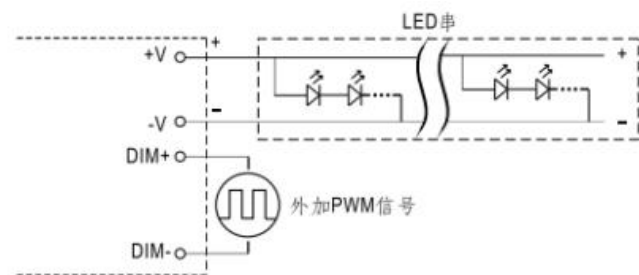
#### 0-10V调光

##### 用外加0-10VDC电压



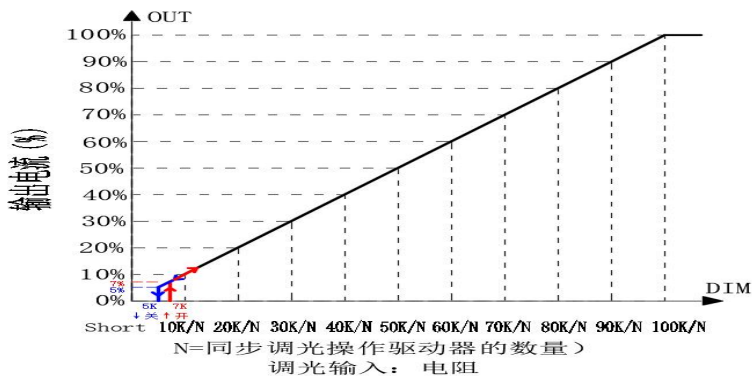
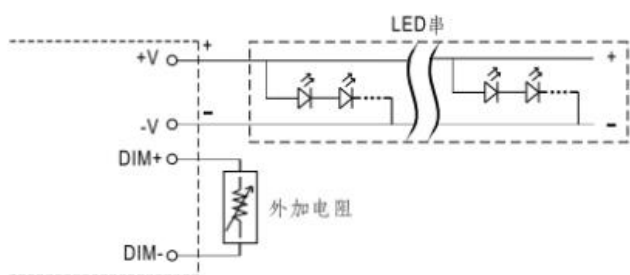
#### PWM调光（PWM频率 1KHZ）

##### 用外加 PWM信号（频率0.5K-5K）



#### 电阻调光（100K）

##### 用外加电阻（0-100K）



|      |                                        |     |      |
|------|----------------------------------------|-----|------|
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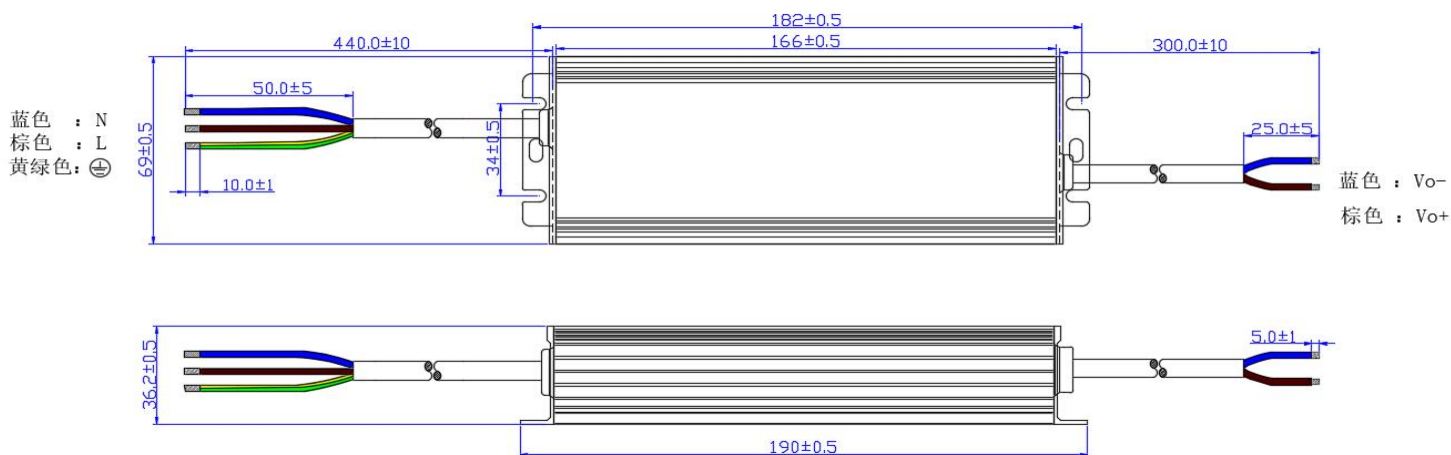
**MECHANICAL SPECIFICATION & PACKING 机械尺寸图 & 包装:**

|                           |                       |
|---------------------------|-----------------------|
| Bare plate dimension 裸板尺寸 | 155*54*32mm (L*W*H)   |
| final dimension 成品尺寸      | 190*69*36.2mm (L*W*H) |
| Product Weight 产品重量       | 750g                  |

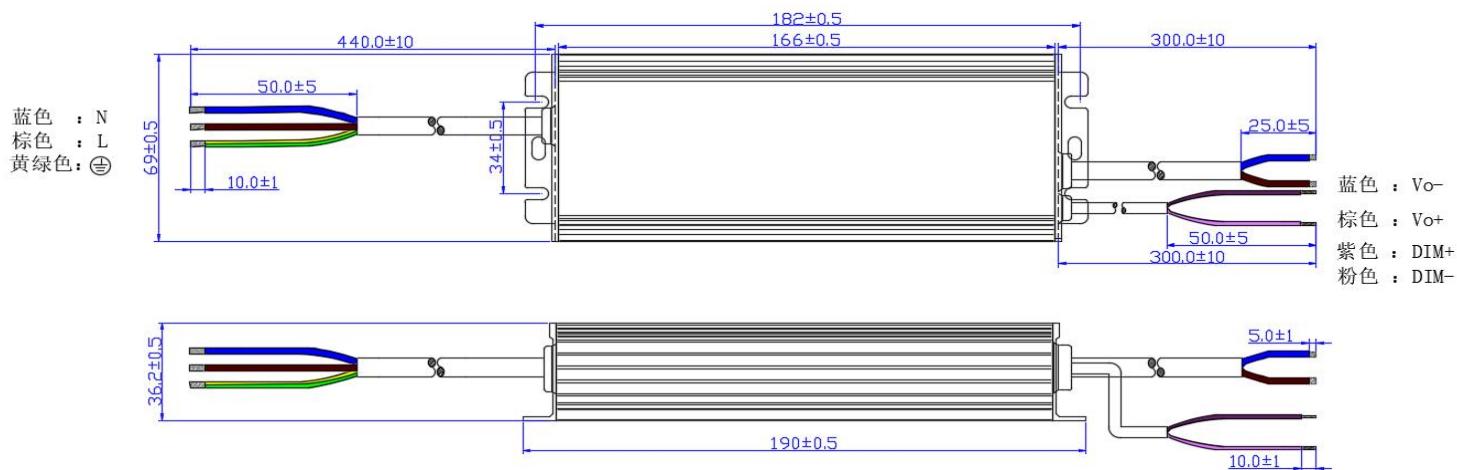
Case No. 机壳型号: 150W

Unit 单位:mm

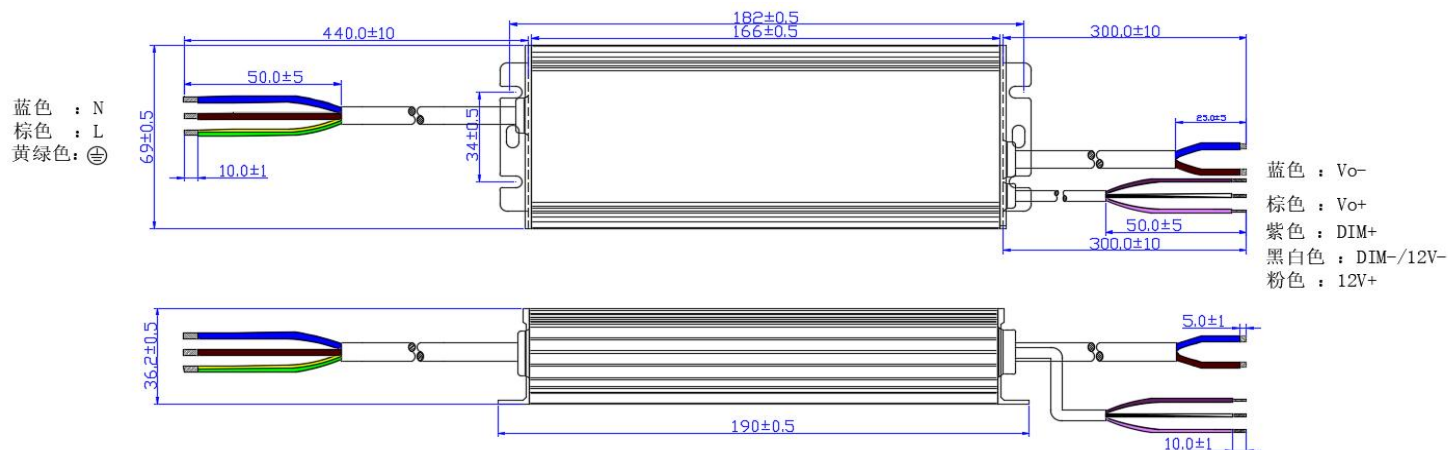
HVC-150W-56A



HVC-150W-56B



HVC-150W-56C



|                       |      |                                              |     |      |
|-----------------------|------|----------------------------------------------|-----|------|
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|                       | 产品系列 | HVC-150W-56X系列                               | REV | V3.0 |

■ Nameplate 铭牌

尺寸：162\*48mm 样式：贴纸

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HVC-150W-56A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HVC-150W-56B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <div><div><div>SUNCOMHVC-150W-56A(型号)LED控制装置</div><div><div>INPUT 输入端</div><div><div><div><div>○ ACL-(BN绿)BK-黑</div><div>○ ACN-(BU蓝)WH-白</div><div><div><div><div>⊕</div><div>(GN绿/YL黄)</div></div></div></div></div></div><div><div>Vin(输入):100-240V~2A 50/60Hz</div><div>Vin(输入):277V~0.7A 50/60Hz</div><div><div><div>η:≥91%</div><div>PF:≥0.95</div><div>•tc</div></div></div></div><div><div>Vout(输出):27-56V≐1800-4500mA</div><div>Max.(最大电压):Uout 80V≐</div><div>Rated Power(额定功率):150W</div></div><div><div>*277 for North American only.<br/>Suitable for dry,Damp and wet locations<br/>No. 1-02, Yongyi Road Three, Yongxing Industry Zone, Henglan Town,<br/>Zhongshan City, 528478 Guangdong, China</div><div><div>tc:90°C</div><div>ta:50°C@Vin100-200V~<br/>ta:60°C@Vin200-277V~</div></div></div><div><div>OUTPUT 输出端</div><div><div>(BN绿)RD-红 Vo+○</div><div>(BU蓝)BK-黑 Vo-○</div><div>(VT紫)DIM+○</div><div>(PK粉)DIM-○</div></div></div><div><div>广东新创电源科技有限公司</div><div>GUANGDONG SUNCOM POWER TECHNOLOGY CO.,LTD</div><div>CECB</div><div><div><div><div></div><div></div><div></div><div></div></div></div><div>IP67</div></div></div></div></div></div></div> | <div><div><div>SUNCOMHVC-150W-56B(型号)LED控制装置</div><div><div>INPUT 输入端</div><div><div><div><div>○ ACL-(BN绿)BK-黑</div><div>○ ACN-(BU蓝)WH-白</div><div><div><div><div>⊕</div><div>(GN绿/YL黄)</div></div></div></div></div></div><div><div>Vin(输入):100-240V~2A 50/60Hz</div><div>Vin(输入):277V~0.7A 50/60Hz</div><div><div><div>η:≥91%</div><div>PF:≥0.95</div><div>•tc</div></div></div></div><div><div>Vout(输出):27-56V≐1800-4500mA</div><div>Max.(最大电压):Uout 80V≐</div><div>Rated Power(额定功率):150W</div></div><div><div>*277 for North American only.<br/>Suitable for dry,Damp and wet locations<br/>No. 1-02, Yongyi Road Three, Yongxing Industry Zone, Henglan Town,<br/>Zhongshan City, 528478 Guangdong, China</div><div><div>tc:90°C</div><div>ta:50°C@Vin100-200V~<br/>ta:60°C@Vin200-277V~</div></div></div><div><div>OUTPUT 输出端</div><div><div>(BN绿)RD-红 Vo+○</div><div>(BU蓝)BK-黑 Vo-○</div><div>(VT紫)DIM+○</div><div>(PK粉)DIM-○</div></div></div><div><div>广东新创电源科技有限公司</div><div>GUANGDONG SUNCOM POWER TECHNOLOGY CO.,LTD</div><div>CECB</div><div><div><div><div></div><div></div><div></div><div></div></div></div><div>IP67</div></div></div></div></div></div></div> |
| HVC-150W-56C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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