



深圳市华浩德电子有限公司

Shenzhen Fahold Electronics CO.,LTD.

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Product Name:

产品名称

HR47W-02 Series 无频闪线条灯、三防灯驱动电源

HR47W-02-A1100 Input:120-277

CE ☒

FCC ☒

UL ☒

HR47W-02-B1100 Input:120-347

CE ☒

FCC ☒

UL ☒

Product Model:

产品型号

HR47W-02-E1100 Input:120-277(拔码)

CE ☒

FCC ☒

UL ☒

HR47W-02-F1100 Input:120-347(拔码)

CE ☒

FCC ☒

UL ☒

Customer/客户:

Products code

产品代码:

Sample NO.

样品编码:

Customer ID

客户代码:

Customer Model No.

客户型号:

Fahold Model No.

我司型号:HR47W-02

Version.

版本: 02

IGNATURE AND SEAL BY US /我司签字盖章

日期:

2019/11/25

Prepared By 编制

Checked By 审核

覃小玲

薄文钊

Approved By 批准

Please confirm and send it back with signature within 7 days. Otherwise we will assume your acceptance. And if any quality dissent, will execute according to this product specification.

请确认后七日内回签，如不回签则视贵公司默认接受，在发生品质异常时按此份产品规格书执行。

CUSTOMER APPROVED SIGNATURE /客户承认盖章

日期:

ENG./工程

QA/品管

OTHER/其他

Comments 建议:

ECN History ECN 变更

[illegible]



Feature特征: Constant current design. 恒流设计

- ◆ 3 in 1 dimming mode: 0-10V, PWM, RX. 三合一调光
调光模式: 0-10v, PWM, RX
- ◆ Smoothly dimming (0-100%), can dim to off.
从 0%-100% 平滑调光, 且调光输出可关断
- ◆ TUV CE UL FCC Certified
- ◆ PROTECTION: Short Circuit, Open Circuit
保护: 短路保护, 开路保护
- ◆ Isolated dimming mode 输出调光隔离
- ◆ SELV safe output design SELV. 安全输出设计
- ◆ Auxiliary output 12V; 可带 12V 辅助源。
- ◆ 可提供 12V/50mA 辅助电源

Application应用

- ◆ Lines lamp、Three prevent lamp. 线条灯、三防灯

■ Introduction 介绍

The document detail the electrical, mechanical and environmental specifications of a 45W constant current LED driver with 0-10V Dimming. This LED drive power supply is suitable only for LED load.

此份资料详细描述了一款 45W 系列带 0-10V 无频闪调光 LED 恒压驱动电源的电器性能, 环境要求等。此款电源只适用于 LED 负载。

■ Model and Key parameters 型号和关键参数

Model 型号	Output Power(W) 输出功率	Output Voltage (Vdc) 输出电压	Output current (mA) 输出电流	AC277V or AC347 Efficiency(Typ.) 效率	AC120V Efficiency(Typ.) 效率
HR47W-02-A1100	45	27-54	500-1100	87%	86%
HR47W-02-B1100	45	27-54	500-1100	85.5%	85.5%
HR47W-02-E1100	45	27-54	500-1100	87%	86%
HR47W-02-F1100	45	27-54	500-1100	85.5%	85.5%

Note:

Model: HR47W-02-YXXXX Suffix "Y" can be A, B, C, D, E or F, A represent the input voltage is 120-277 and provided with 0-10V dimming function; B represent the input voltage is 120-347 and provided with 0-10V dimming, function; C represent the input voltage is 120-347; D represent the input voltage is 120-277; E represent the input voltage is 120-277, provided with 0-10V dimming function and dip switch; F represent the input voltage is 120-347, provided with 0-10V dimming function and dip switch. XXXX is 4 digit number which represents the output current in milliamper, in a step of 1 mA, for example, "1050" means 1050 mA.

型号: HR47W-02-YXXXX, Y 为系列代码, 可变为 A, B, C, D, E, F。XXXX 代表输出电流变量。A:代表输入 120-277V 和 0-10V 调光; B 代表输入 120-347V 和 0-10V 调光; C:代表输入 120-277V 不调光; D 代表输入 120-347V 不调光; E:代表输入 120-277V 和 0-10V 调光加拔码; F:代表输入 120-347V 和 0-10V 调光加拔码。

■ Technical data 技术参数

Input characteristics 输入特性	
Input Voltage 输入电压	120-277Vac or 120-347
Input Frequency 输入频率	47-63Hz
Input Current (Typ.) 浪涌电流 (典型值)	60Amax. @ 120-347Vac, 100% load
Inrush Current 输入电流	600mA. @ 120Vac, 25℃
Power factor (Typ.) 功率因数 (典型值)	PF>0.9@120VAC/230VAC/277VAC/347VAC, 100% load
THD 总谐波失真	THD<20% @120VAC/230VAC/277VAC/347VAC, 100% load
Output characteristics 输出特性	
Voltage accuracy 电压精度	5%
No load Voltage 空载功耗	2Wmax
Efficiency 效率	85.5%@ 120-277Vac &120-347Vac 100% load, see efficiency vs. load curve for the details
Ripple and Noise 纹波与噪声	500mVp-p
Line Regulation 线性调整率	5%lo
Load Regulation 负载调整率	5%lo
Turn On Delay Time 开机延时	Under normal conditions, the maximum delay time is 1 second
Protection functions 保护功能	
Open circuit 开路保护	When the LED disconnection the product is protected such as hiccup or when it is at the highest point of output voltage, the power supply shall be self-recovery when the fault condition is removed.当 LED 开路时, 产品进入保护状态, 如打嗝或钳在某输出最高电压状态, 产品不会损伤, 当故障排除或重新开机时, 电源恢复工作正常。
Short Circuit 短路保护	The input power shall decrease when the output rail short, the power supply shall be self-recovery when the fault condition is removed.当输出短路时输入功率会相应减小, 短路情况解除后, 电源自动恢复正常。
Environmental conditions 环境条件	

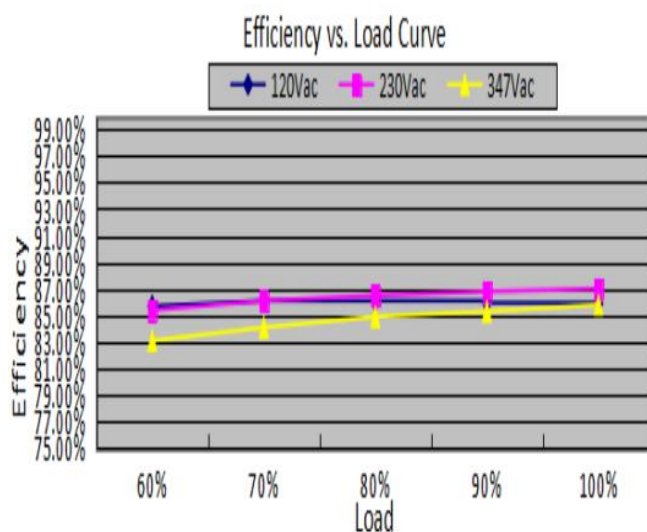
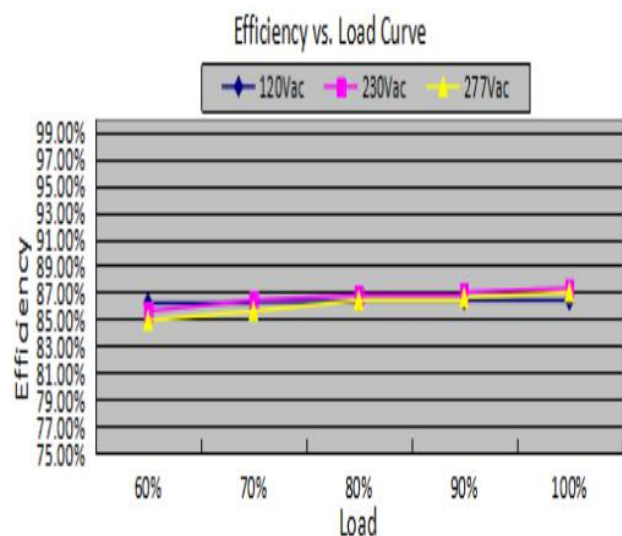
Operating Temperature 工作温度	-20℃ to +50℃
Operating Relative Humidity 湿度	10% to 90% RH, non-condensing
Storage Temperature 储存温度	-30℃ to +70℃
Storage Relative Humidity 储存湿度	10% to 90%RH, non-condensing (Sea level to 2,000 m)
Vibration 振动	10 to 500HZ Sweep at constant acceleration of 1.0G (depth: 3.5mm)for 1 Hour for each of the perpendicular axes X, Y, Z.
Degrees of Protection 防水等级	IP20
Safety compliance 安全标准	
Safety Standard 安规标准	GB19510.1,GB19510.14;EN61347-1,EN61347-2-13;UL8750, CSA C22.2No.250.13-12.
Dielectric Strength 介电强度	初级-次级: P-S:3750VAC/5mA/60S 初级-地: P-E:1500VAC/5mA/60S 次级-地: P-E:500VAC/5mA/60S

Insulation Resistance 绝缘电阻	I/P-O/P:>50M Ohms / 500VDC / 25℃ / 70% RH.
Leakage Current 泄漏电流	The leakage current shall be less than 0.25mA for Class 2 at maximum input voltage
EMI	GB17743, GB17625.1; EN55015, EN61000-3-2, EN61000-3-3.
EMS	EN 61000-4-2, 3,4,5,6,8,11, EN 61547.
ESD 静电放电(静电) 免疫	静电放电/免疫 Severity Level 等级 Level3/3 级 空气放电: ±8KV Severity Level 等级 Level2/2 级 接触放电: ±4KV 性能标准: B
RF 射频场强度	射频电磁场药敏试验, 80-1000MHZ; Severity Level 等级 Level2/2 级, 3V/M; Performance Criterion 性能标准: A
EFT 电快速瞬变脉冲	Severity Level 等级: Level2/2 级 line to line 1.0kv 性能标准: B
Surge Immunity 浪涌雷击	Severity Level 等级: Level2/2 级, 差模 1.0kv Severity Level 等级: Level3/3 级, 共模 2.0kv Performance Criterion 性能标准: B
Reliability 可靠性	
Life Time 寿命	≥5Years H@230Vac, 100% load. See lifetime vs. Tc curve for the details
MTBF 平均无故障时间	≥ 200,000H@ 25℃, 230Vac, 80% load. (MIL-HDBK-217F)
Warranty 质保	5 years
Others 其它	
Dimensions 尺寸	278*30*20mm (L*W*H)
Weight 重量	约 190g
Remark 备注	
1. The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% output load.此参数所得包括功率因数, 总谐波失真, 效率等所有测试均在 25℃ 50%湿度 输入电压 230V 以及 90%输出负载的环境下测试。 2.Io is rate output current.	

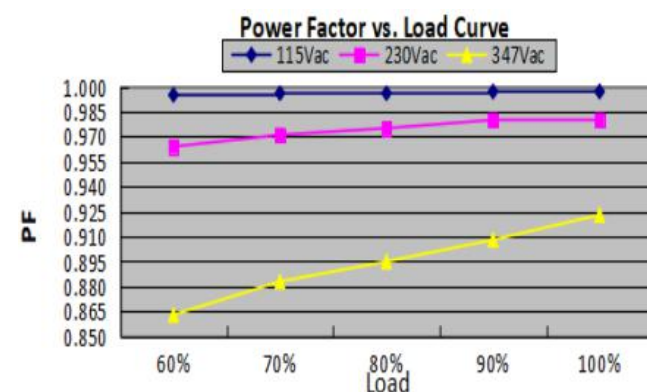
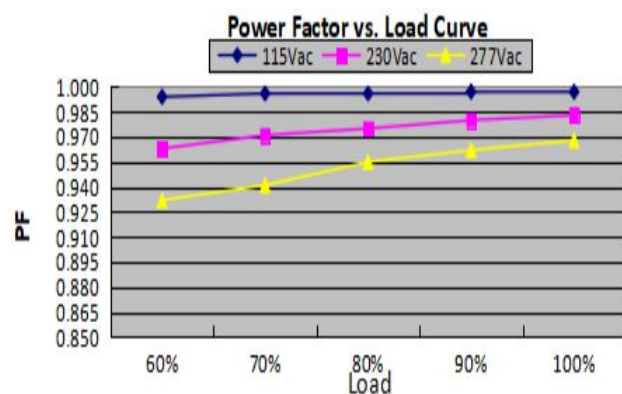
■ Dimmable feature 调光描述

Function			0-10V			PWM			RX			
Yes Or No			√			√			√			
0-10V	0	1	2	3	4	5	6	7	8	9	10	open
I _r	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	open
PWM	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	open
I _r	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98.5%
Note:												
1. I _r is the output current percentages.I _r 为输出电流百分比												
2. I _r above is typical values.以上 I _r 均为典型值												

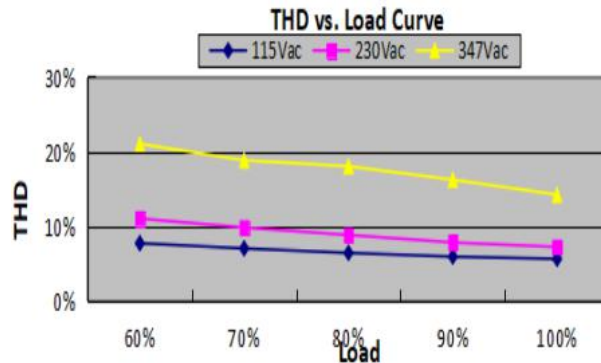
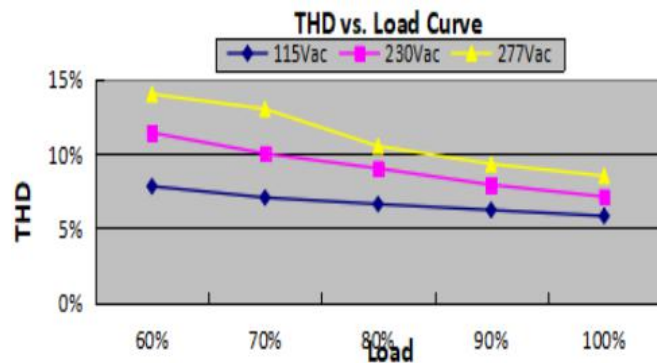
Efficiency vs. Load 效率负载



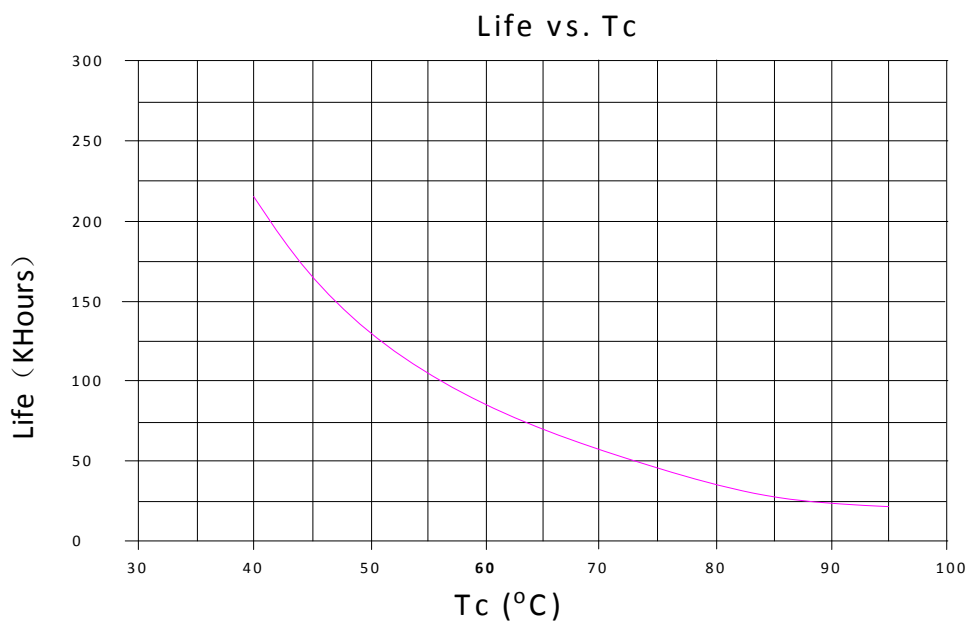
Power Factor 功率因素



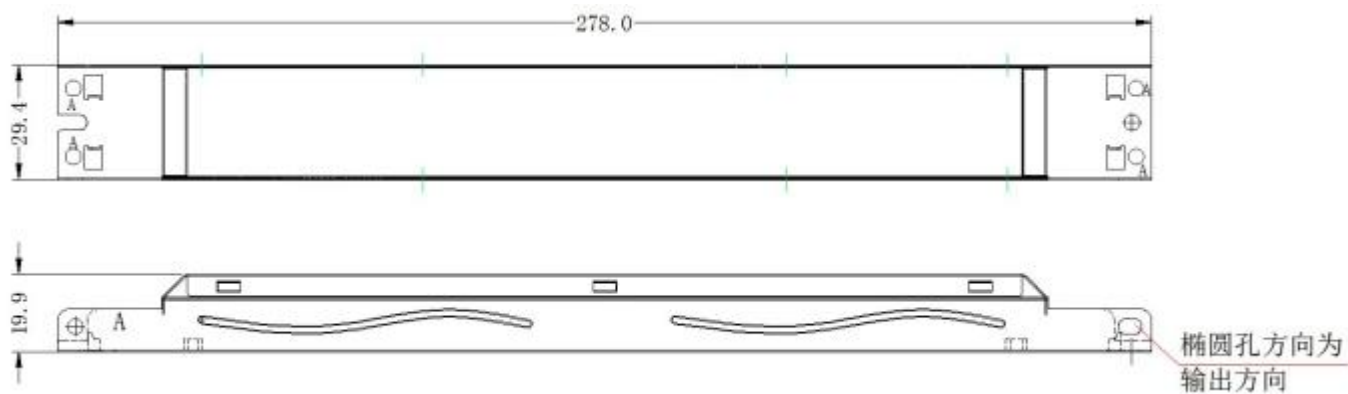
THD vs. Load THD 和负载



Life vs. Tc 寿命和温度



Dimensional Drawing (unit: mm) 尺寸图



■ LABEL 标签

HR47W-02A

Fahold DIMMABLE LED DRIVER Model: HR47W-02-A1100 $t_c: 90^{\circ}\text{C}$									
Input ○ ACN ○ ACL ○ NC ○ GND	Input Voltage	Input Current	PF	Output Voltage	Vmax	Output Current			$t_a(^{\circ}\text{C})$
	120-277V~ 50/60Hz	0.6A	20.9	27-54V	63V	□ 700mA □ 850mA □ 1000mA	□ 750mA □ 900mA □ 1050mA	□ 800mA □ 950mA □ 1100mA	-20~50^{\circ}\text{C}
Shenzhen Fahold Electronics Co., Ltd. MADE IN CHINA									

Short circuit protection
For LED modules use only
SELV

Wire preparation push in
IN: 22-16AWG
OUT: 22-16AWG
7-8mm

Output
○ DIM+
○ DIM-
○ LED+
○ LED-

HR47W-02B

Fahold DIMMABLE LED DRIVER Model: HR47W-02-B1100 $t_c: 90^{\circ}\text{C}$									
Input ○ ACN ○ ACL ○ NC ○ GND	Input Voltage	Input Current	PF	Output Voltage	Vmax	Output Current			$t_a(^{\circ}\text{C})$
	120-347V~ 50/60Hz	0.6A	20.9	27-54V	63V	□ 700mA □ 850mA □ 1000mA	□ 750mA □ 900mA □ 1050mA	□ 800mA □ 950mA □ 1100mA	-20~50^{\circ}\text{C}
Shenzhen Fahold Electronics Co., Ltd. MADE IN CHINA									

Short circuit protection
For LED modules use only
SELV

Wire preparation push in
IN: 22-16AWG
OUT: 22-16AWG
7-8mm

Output
○ DIM+
○ DIM-
○ LED+
○ LED-

HR47W-02E

Fahold DIMMABLE LED DRIVER Model: HR47W-02-E1100 $t_c: 90^{\circ}\text{C}$									
Input ○ ACN ○ ACL ○ NC ○ GND	Input Voltage	Input Current	PF	Output Voltage	Vmax	Output Current			$t_a(^{\circ}\text{C})$
	120-277V~ 50/60Hz	0.6A	20.9	27-54V	63V	600mA 820mA 1100mA	○ ○ ●	○ ● ●	-20~50^{\circ}\text{C}
Shenzhen Fahold Electronics Co., Ltd. MADE IN CHINA									

Short circuit protection
For LED modules use only
SELV

Wire preparation push in
IN: 22-16AWG
OUT: 22-16AWG
7-8mm

Output
○ DIM+
○ DIM-
○ LED+
○ LED-

HR47W-02F

Fahold DIMMABLE LED DRIVER Model: HR47W-02-F1100 $t_c: 90^{\circ}\text{C}$									
Input ○ ACN ○ ACL ○ NC ○ GND	Input Voltage	Input Current	PF	Output Voltage	Vmax	Output Current			$t_a(^{\circ}\text{C})$
	120-347V~ 50/60Hz	0.6A	20.9	27-54V	63V	600mA 820mA 1100mA	○ ○ ●	○ ● ●	-20~50^{\circ}\text{C}
Shenzhen Fahold Electronics Co., Ltd. MADE IN CHINA									

Short circuit protection
For LED modules use only
SELV

Wire preparation push in
IN: 22-16AWG
OUT: 22-16AWG
7-8mm

Output
○ DIM+
○ DIM-
○ LED+
○ LED-

备注：标签根据订单电流勾选

包装，运输，贮存 Package, Transportation & Storage

1. 包装 Package

a. 包装箱的外形尺寸为（单位：mm）：长 X 宽 X 高=390*360*165mm；

package box outside dimension: L×W×H =,390*360*165mm (unit: mm)；

b. 每箱产品的包装数量为 台；

product number in each box: PCS；

c. 整箱毛重 KG

whole box gross weight: kg；

2. 运输 Transportation

适用于车，船，飞机运输，运输中应遮蓬，防晒，文明装卸。

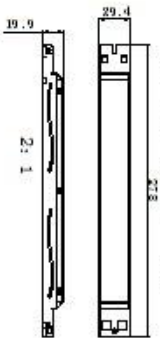
Packaging is designed suitable for transportation by truck, ship, and plane. The products should be shielded from sunshine, and loaded and unloaded carefully.

3. 贮存 Storage

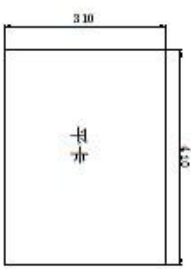
产品贮存应符合 GB3873-83 的规定。

贮存期限超过一年的产品要重新检验，合格后方可使用。

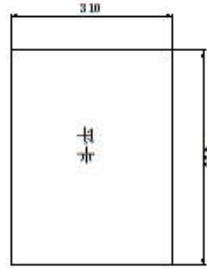
1. 将电源装入珍珠棉



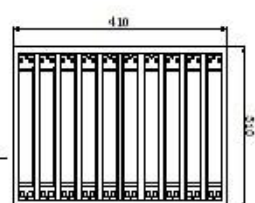
2. 先将平卡放入纸箱中，再放置珍珠棉



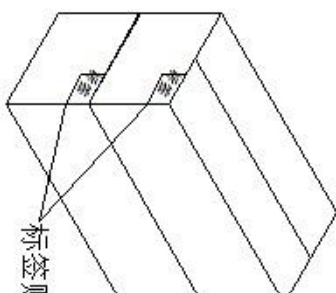
3. 将平卡放在最后一层珍珠棉上，封箱即可



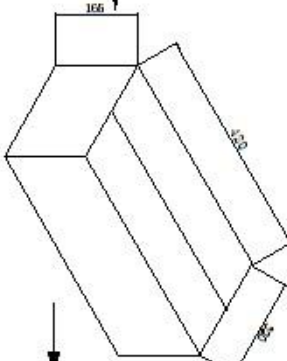
产品单重: 0.218kg



一层装10PCS，一箱装5层



一箱装50PCS
毛重11.9kg



深圳市华浩德电子有限公司

SHEZHENSHI FAHOLD ELECTRONICS CO., LTD

绘制

审核

批准

蓝佳佳

物料名称

日期

物料号

HR45W/HR50W/HS45W通用

2019.01.09

图号

HBG00013

单位

版本: 00

修改: 00次

1页

物料名称	规格	材质	用量	备注
纸箱	420*320*165	K-E	1PCS	具体型号看BOM
平卡	410*310	A44	2PCS	依BOM的使用
珍珠棉	410*310*30		5PCS	2.0C.0000000001
护角条	1800*50*50		4PCS	用于子外壳,或保护边角
透明胶	11-60mm		2.0C.0000000001	用于包裹胶条

* 此包装规范适用于HR45W/HR50W/HS45W系列产品

同时也适用于以下产品HE032A/HE040A/HE037B

按此包装规范装箱后，如有箱体未满载状态，可适当增加珍珠棉等填充物，以免造成箱体因负载而破损。

版本

更新内容

日期

绘制

00

新发行

2019.01.12

蓝佳佳