


Constant Voltage Driver 恒压驱动
Model/型号: KAEH###S0024ER##


| Model 型号 | Rated Input Voltage 输入电压 | Input Power 输入功率 | Input Current 输入电流 | PF 功率因数 | Output Power Range 输出功率范围 | Output Voltage 输出电压 | Output Current 输出电流 | Efficiency 效率 |
|------------------|--------------------------------|------------------------|--------------------------|------------|---------------------------------|---------------------------|---------------------------|------------------|
| KAEH100S0048ER15 | 220-240VAC | ≤115W | ≤0.6A | ≥0.95 | 0-100.8W | 48V | 0-2.1A | 92% |
| KAEH150S0048ER15 | | ≤168W | ≤0.9A | | 0-150W | | 0-3.125A | 92% |
| KAEH250S0048ER16 | | ≤275W | ≤1.5A | | 0-250W | | 0-5.21A | 93% |

* Test result @230V, 50Hz, Full Load. 所有测试参数基于@230V, 50Hz, 满载。

1. Parameters 参数表

| category 类别 | Item 项目 | Technical Norm | |
|---|---------------------------------------|---|---|
| Features 特性 | Output Type 输出类型 | Constant Voltage | |
| | Dimming Type 调光类型 | 3 in 1: 1-10VDC, PWM signal, Resistance | |
| | Output Features 输出特性 | Isolation SELV | |
| | IP Grade IP 防护等级 | IP20 | |
| | Insulation Class 绝缘等级 | Class II | |
| Input 输入 | Rated Input Voltage 额定输入电压 | 220-240VAC | |
| | Range of AC Input Voltage 交流输入电压范围 | 176-264VAC | |
| | Range of DC Input Voltage 直流输入电压范围 | 175-280VDC | |
| | Frequency 频率 | Rate:50/60Hz, Range:47~63Hz | |
| | Power Factor 功率因数 | ≥0.95, 220-240VAC, Rated Load, see graphs | |
| | THD 谐波 | ≤7% 230VAC, Rated load, see graphs | |
| | Standby Power Consumption 待机功耗 | ≤0.5W, @230VAC, Dim to OFF | |
| | Inrush Current 浪涌电流 | Model | I _{peak} (typ.) Duration time |
| | | 100W | <50A 45A 250us |
| | | 150W | <60A 56A 185us |
| 250W | | <80A 76A 310us | |
| Connected quantity of 16A Breaker 16A 断路器连接数量 | 100W | 10pcs, 16A type B / 17pcs 16A type C | |
| | 150W | 8pcs, 16A type B / 13pcs 16A type C | |
| | 250W | 6pcs, 16A type B / 8pcs 16A type C | |
| Output 输出 | Output Voltage 输出电压 | 48VDC±3% | |
| | Output Voltage Ripple | <480mV _{PK-PK} (0.5%) | |





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|---------------------------------------|--------------------------------------|--|-----------------------------|-----------------------------|---|
| | 输出电压纹波 | | | | |
| | Line Regulation 线性调整率 | ±1% | | | |
| | Load Regulation 负载调整率 | ±2% | | | |
| | Overshoot 过冲 | <105%Vo | | | |
| | Start-up Time 启动时间 | ≤0.5S (220-240VAC) | | | |
| | Efficiency 效率 | 100W | ≥90% | 92% typ. | 230VAC, Rated Load, at output terminals, see graphs |
| | 150W | ≥90% | 92% typ. | | |
| | 250W | ≥91% | 93% typ. | | |
| Protection 保护 | Short Circuit Protection 短路保护 | Auto Recovery | | | |
| | Over Current Protection 过流保护 | 120%-180%Io, Auto Recovery | | | |
| | Over Voltage Protection 过压保护 | 110%-150%Vo, Auto Recovery | | | |
| | Over Temperature Protection 过温保护 | 90<Tc<110°C, Auto Recovery | | | |
| | Insulation voltage 绝缘电压 | I/P to O/P, 3KVac/5mA/1min | | | |
| | Insulation resistance 绝缘电阻 | >100M ohm @ 500VDC | | | |
| | Leakage current 漏电流 | I/P to O/P < 250μA | | | |
| Control Method 控制方法 | 1-10V(0-10V)dimming | 0-10Vdc, Port source current 0.1mA typical | | | |
| | PWM dimming PWM 调光 | PWM Signal dimming Duty: 0- 99%,0.25KHz-2KHz, Voltage amplitude:3-10V | | | |
| | Resistance dimming 电阻调光 | 0-100/N Kohm (N=driver quantity for synchronized dimming operation) | | | |
| | Output Dimming range 输出调光范围 | Output duty:1%-100%,1.38KHz, Dim-to-off | | | |
| Environment 环境 | Ta/Operation Temperature 工作环境温度 | -25....+45°C | | | |
| | Ts/Storage Temperature 储存温度 | -30....+85°C | | | |
| | Tc/Enclosure Temperature 外壳温度 | 100W/150W/250W | 90°C | | |
| | Humidity 湿度 | 5%....85%RH | | | |
| | Atmosphere 大气压强 | 86-108KPa | | | |
| Construction 装配 | Connection Method 连接方法 | Terminal | | | |
| | Cable Terminals 电缆接头数量 | Input | 1 terminal block (300V/10A) | | |
| | | Output | 100W/150W | 1 terminal block (300V/10A) | |
| | | | 250W | 2 terminals block(300V/10A) | |
| | Dimming | 1 terminal block(300V/10A) | | | |
| | Installation 安装方式 | Independent | | | |
| | Input Wire Cross Section 输入电缆横截面积 | 0.75mm ² -1.5 mm ² | | | |
| Output Wire Cross Section 输出电缆横截面积 | 100W/150W | 1*0.75mm ² -1.5 mm ² | | | |
| | 250W | 2*0.75mm ² -1.5 mm ² | | | |





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|-----------------|---------------------------------------|---|-----------------------|---|
| | Dimming Wire Cross Section 调光导线截面积 | 1*0.5mm ² -1.5mm ² | | |
| | Output Cable Length 输出电缆长度 | Max. 3M | | |
| | Cable diameters range 电缆直径范围 | Input | 2.2-4mm or 9.5-10.5mm | |
| | | Output & Dimming | 2.2-4mm | |
| | Dimension 尺寸 | 100W/150W | 350*30*18mm (L*W*H) | |
| 250W | | 400*40*22mm (L*W*H) | | |
| Standards 标准 | Certification 证书 | CE,CB, ENEC, SAA, CCC | | |
| | Safety Standards 安全标准 | EN61347-1:2015,EN61347-2-13:2014/A1:2017,EN62493:2015, AS61347.2.13:2018,AS/NZS 61347.1:2016 Inc A1 | | |
| | EMC Standards EMC 电磁兼容标准 | EN55015:2013/A1:2015,EN61000-3-2:2014, EN61000-3-3:2013,EN61547:2009 | | |
| | Performance 性能 | EN62384 | | |
| | Surge 雷击浪涌 | L-N:2KV | | |
| Others 其它 | RoHS 环保 | 2011/65/EU | | |
| | MTBF 平均无故障时间 | ≥250KHours,Ta=25℃(MIL-HDBK-217F) | | |
| | Audible Noise 噪声 | <25dB @ 10cm distance, 20dB background | | |
| | Life Time 寿命 | 100W | ≥100K Hrs | @230VAC , full load, End of Life: Failure Rate<10% |
| | | 150W | ≥55K Hrs | |
| 250W | | ≥63K Hrs | | |
| Warranty 质保 | 5years | | | |

Remark:

- All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ ambient temperature.所有参数无特别说明，均在输入电压 230VAC/50Hz 和 25℃ 的环境温度下测得。
- LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.LED 电源作为整灯中的一个零部件与终端设备结合使用，因 EMC 性能受 LED 灯具以及走线的影响，终端设备制造商需对整套装置重新进行 EMC 确认。
- Output ripple should be measured at the output end which has with 0.1uF/50V ceramic capacitance and 47uF/50V Aluminum capacitance connected in parallel. Measured using oscilloscope with bandwidth limited to 20MHz.输出电压纹波测试时，应该在输出端并联 0.1uF/50V 的陶瓷电容和 47uF/50V 的铝电解电容，示波器使用 20MHz 带宽。



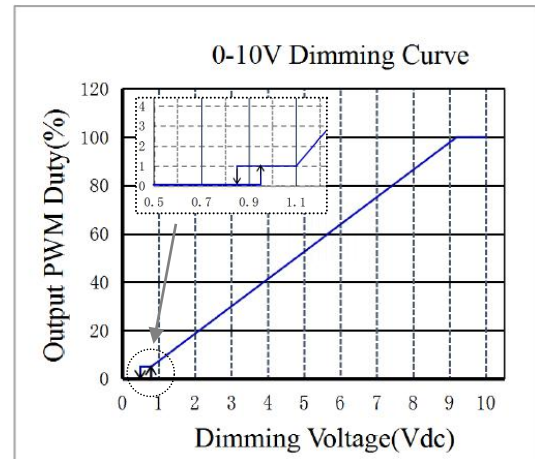
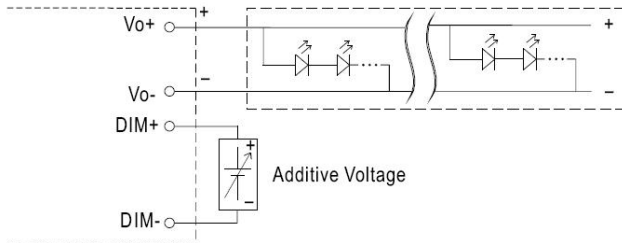
2. 3 in 1 Dimming Function 调光功能

Output power can be adjusted by applying one of the three methodologies between DIM+ and DIM-:

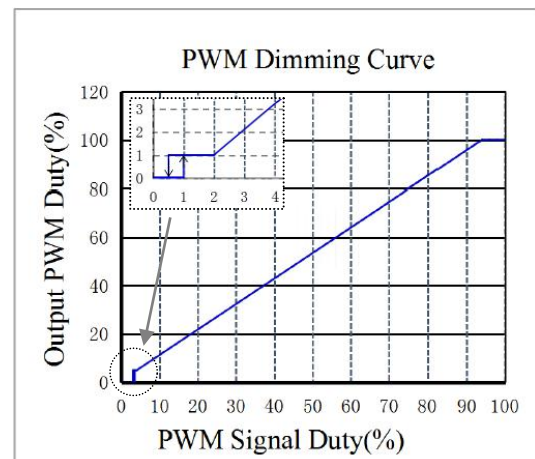
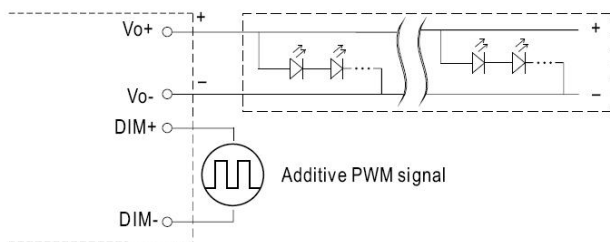
输出功率可以通过在 DIM+和 DIM- 之间应用三种方法中的一种来调整

0-10VDC, or PWM signal or resistance.

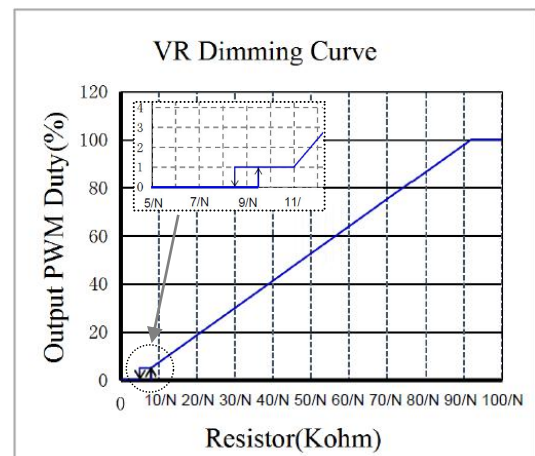
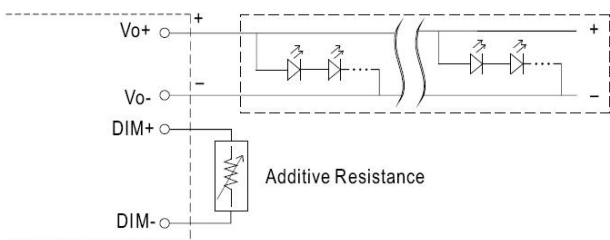
Applying additive 0 ~ 10VDC



Applying additive PWM signal (Duty: 0- 99%,frequency range 0.25KHz ~ 2KHz,Voltage amplitude:3-10V)



Applying additive resistance

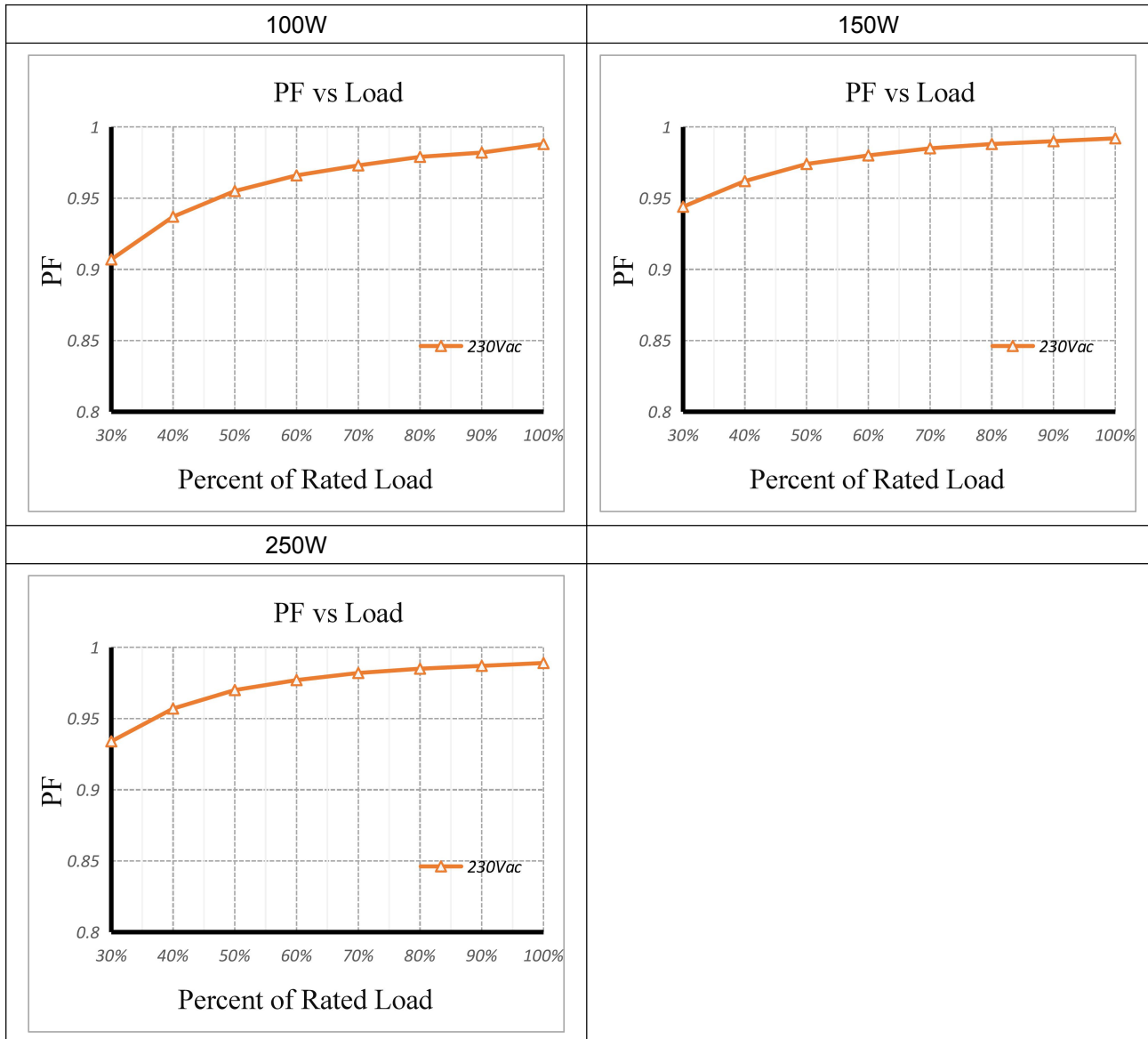


(N=driver quantity for synchronized dimming operation)

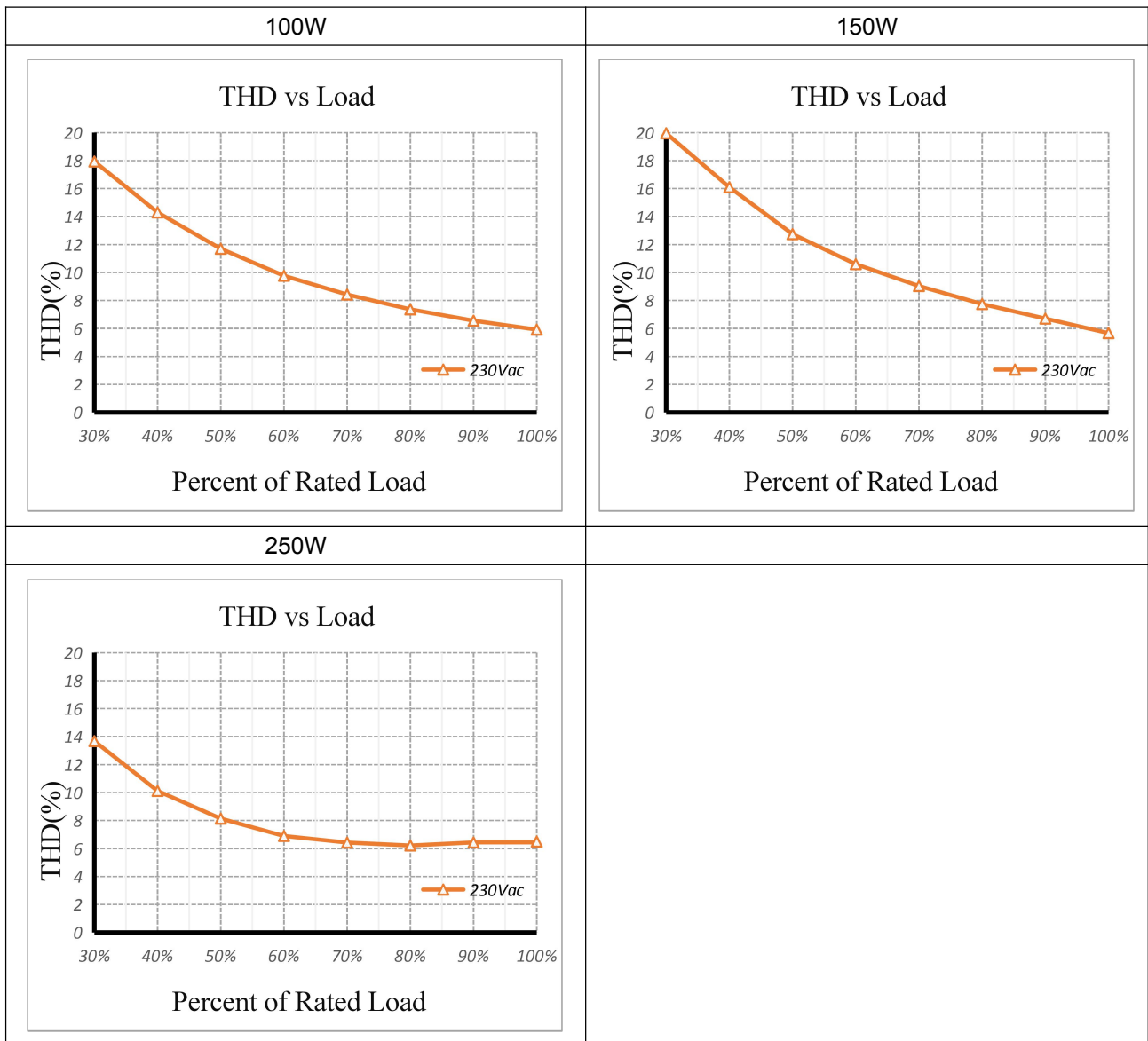


3. Graph 图表

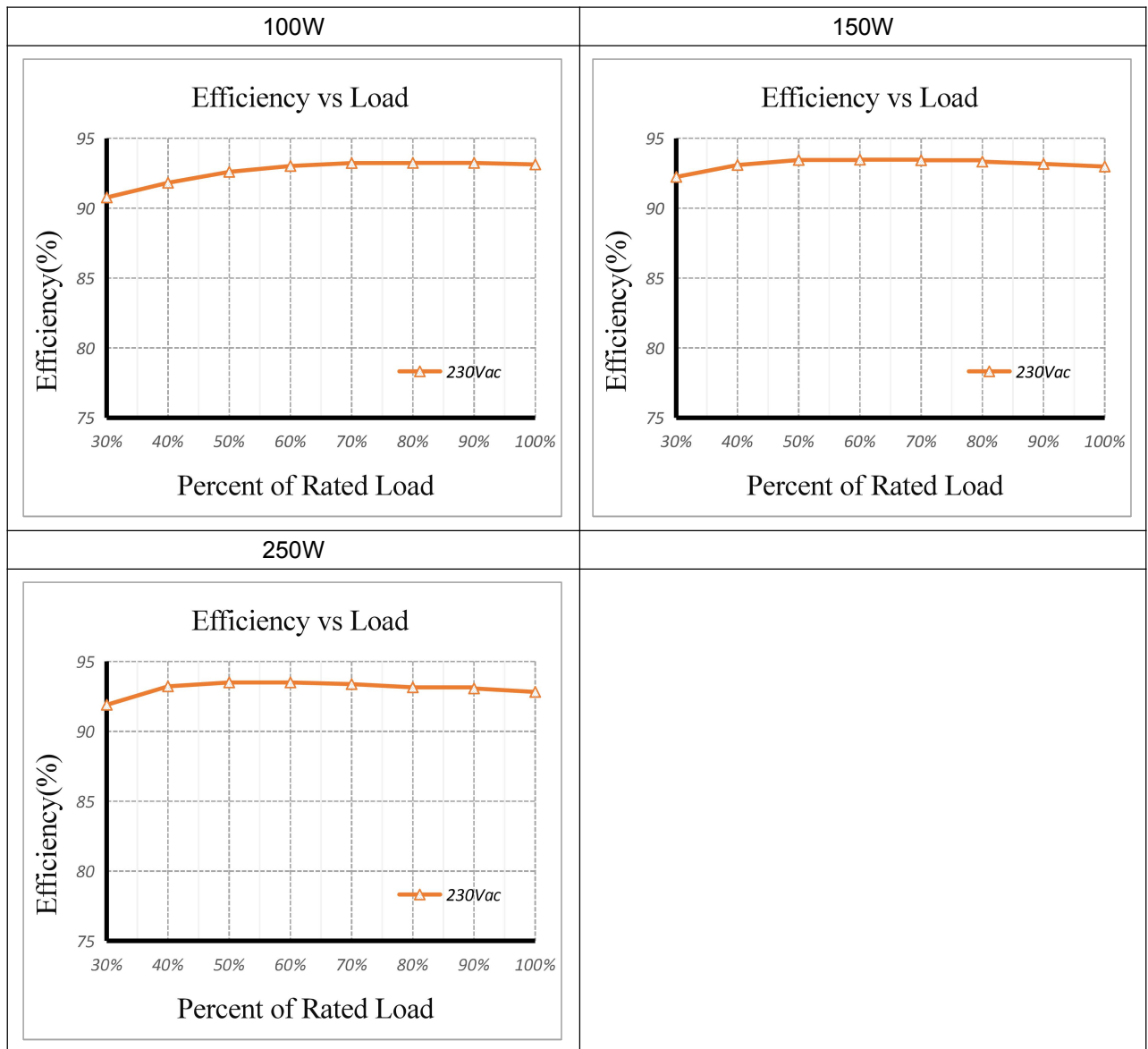
PF VS LOAD Curve



THD VS LOAD Curve 谐波VS负载曲线



Efficiency VS LOAD Curve 效率与负荷曲线



6. Packing information 包装信息

| Packing way 包装方式 | Model 型号 | Carton L*W*H(mm) 纸箱尺寸 | Pcs/Carton 数量/箱 | Net weight/ Pcs(kg) 净重/台 | Net weight/ Carton(kg) 净重/箱 | Gross weight / Carton(kg) 毛重/箱 |
|---|------------------|-----------------------------|--------------------|--------------------------------|-----------------------------------|--------------------------------------|
| With white box and manual 白盒包装 | KAEH100S0048ER15 | 450*240*200 | 35 | 0.21 | 7.35 | 7.87 |
| | KAEH150S0048ER15 | | 35 | 0.309 | 10.82 | 11.34 |
| | KAEH250S0048ER16 | | 30 | 0.535 | 16.05 | 16.57 |
| Without white box and manual 工业包装 | KAEH100S0048ER15 | | 70 | 0.184 | 12.88 | 13.48 |
| | KAEH150S0048ER15 | | 70 | 0.281 | 19.67 | 20.27 |
| | KAEH250S0048ER16 | | 40 | 0.502 | 20.08 | 20.68 |

7. REVISION HISTORY 修订历史

| DATE | REV. | REMARK |
|------------|-------|------------------|
| 2020-05-15 | V0.01 | Initial release. |
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