



温州帕萨诺电子科技有限公司
WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

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帕 萨 诺



PERSINO
electrical
technologies



CHARGER
For Electric Vehicles



温州帕萨诺电子科技有限公司
WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.



温州帕萨诺电子科技有限公司是一家高新技术企业，集设计、开发、生产及销售于一体的高新技术企业。公司主要生产电动车充电桩、充电器、电机控制器、转换器等，产品广泛应用于电动汽车、电动叉车、电动高尔夫车、电动观光车、电动搬运车等各类电动车辆。

公司拥有国内外先进的生产和检测设备，雄厚的技术力量和完善的检测手段，产品通过CE、IATF16949国际质量体系认证，产品以优越的品质和合理的价格深受国内外客户的欢迎和信赖，公司本着“严谨、务实、团结、创新”的宗旨，紧随高新技术步伐，不断努力，为广大客户提供更优质的产品和服务，真诚欢迎国内外客户的合作。

Wenzhou Persino Electronic Technologies Co.,Ltd. Is a high-tech enterprise. Persino teams up with design,development,manufacturing and sales, and focus on manufacturing DC chargers, AC EV chargers(AC EV charging pile),motor controllers,DC-DC converter for all kinds of electric vehicles(electric motorcycle,electric tricycle,electric car, electric forklift,electric golfcart,electric sightseeing bus,electric stacker and so on).

Equipped with advanced technologies and machinery,complete test and measurement equipment,we won confidence and trust from the customers all over the word. Our company has certificates with CE,ISO9001,IATF16949.

Persino always bears the vision of "being the number one electronic technology developer,which manufactures green,energy saving and long-lasting products in non-fossil energy driven automotive industry". Our mission is "to make the environment clean.Use green energy and present people the best transportation".Persino is striving to provide superb products and excellent service.We sincerely welcome collaboration from domestic and overseas customers.

300W CHARGER

全密封充电器

CAN/PFC/waterproof IP67
/High efficiency



型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
12V	16V	20A
24V	33V	10A
36V	51V	8A
48V	68V	5A

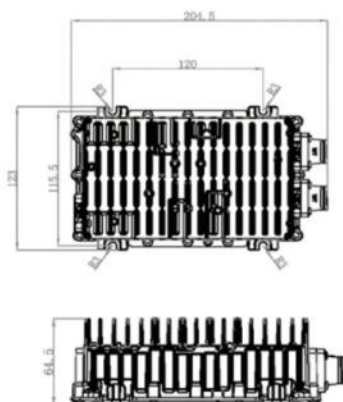
此系列充电器采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.

PERSINO®
帕 萨 诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 85-264VAC;45-65Hz
- 交流输入最大电流 AC Input Maximum Current: 3.3A@100VAC2.; 1.5A@220VAC
- 功率因数 Power factor: ≥0.99
- 整机效率 Overall efficiency : 87.0%
- 噪声 Noise : No noise
- 防护等级 Grade of waterproof : IP67
- 重量 Weight : 1.2Kg
- 工作温度 Operating temperature : -30°C~+65°C
- 存放温度 Storage temperature : -40°C~+95°C
- 可选配CAN总线控制；可外接三色指示灯；充电锁止（充电过程通过继电器可锁止车辆动力系统）。满足各种场合充电需求。

CAN bus control is optional; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). To meet the charging requirements of various occasions.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

480W CHARGER

全密封充电器

CAN/PFC/waterproof IP67
/High efficiency

PERSINO®
帕 萨 诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge

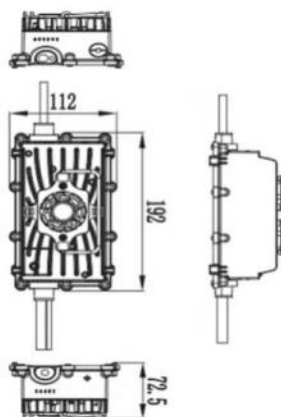


型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
24V	33V	15A
36V	49V	10A
48V	66V	8A
60V	84V	6A
72V	100V	5A

此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 200-240VAC;50-60Hz
- 交流输入最大电流 AC Input Maximum Current:2.5A@200VAC
- 功率因数 Power factor:≥0.99
- 整机效率 Overall efficiency : MAX 90.0%
- 噪声 Noise : ≤45db
- 防护等级 Grade of waterproof : IP65
- 重量 Weight : 1.0Kg
- 工作温度 Operating temperature : -30℃~+65℃
- 存放温度 Storage temperature : -40℃~+95℃
- 可选配CAN总线控制；可外接三色指示灯；充电锁止（充电过程通过继电器可锁止车辆动力系统）。满足各种场合充电需求。

CAN bus control is optional; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). To meet the charging requirements of various occasions.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

750W CHARGER

全密封充电器

CAN/PFC/waterproof IP67
/High efficiency



型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
24V	34V	20A
36V	51V	20A
48V	68V	15A
60V	85V	12A
72V	102V	10A

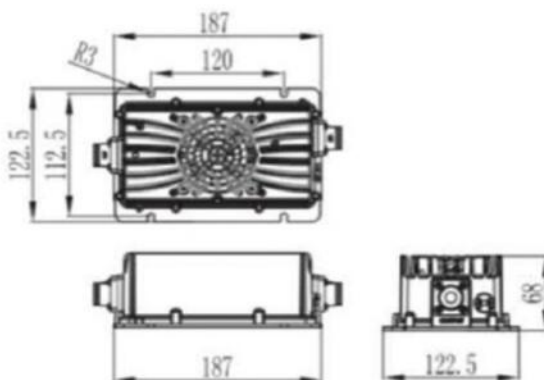
此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.

PERSINO®
帕 萨 诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 96-264VAC; 45-65Hz
- 交流输入最大电流 AC Input Maximum Current: 5.0A@100VAC; 4.0A@220VAC
- 功率因数 Power factor: ≥ 0.99
- 整机效率 Overall efficiency: $\geq 94.0\%$
- 噪声 Noise: $\leq 45\text{db}$
- 防护等级 Grade of waterproof: IP67
- 重量 Weight: 1.2Kg
- 工作温度 Operating temperature: $-30^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- 存放温度 Storage temperature: $-40^{\circ}\text{C} \sim +95^{\circ}\text{C}$
- 可选配CAN总线控制；可外接三色指示灯；充电锁止（充电过程通过继电器可锁止车辆动力系统）。满足各种场合充电需求。
CAN bus control is optional; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). To meet the charging requirements of various occasions.

温州帕萨诺电子科技有限公司
WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

全密封充电器

/High efficiency

/support Mode2 & Mode3 charging

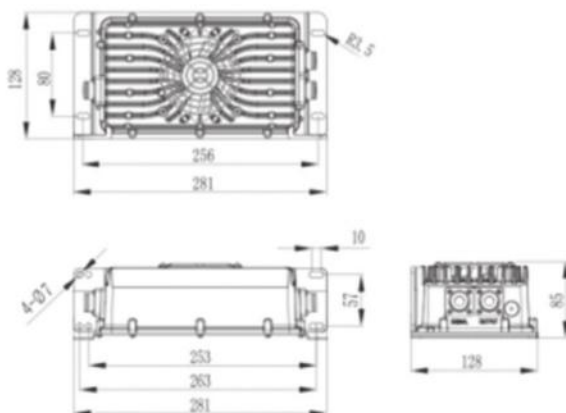


型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
36V	51V	25A
48V	68V	20A
60V	85V	15-20A
72V	102V	12A
72V	95V	15-20A

此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc. ; It can be used for the battery packs of electric motorcycle ,E-tricycle,electric car ,electric sightseeing car, electric patrol car,electric forklift,electric sweeper ,electric boat ,and all kinds of electric vehicles and electric facilities.



保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge

技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 85-265VAC;45-65Hz
- 交流输入最大电流 AC Input Maximum Current:13.5A@100VAC;
- 功率因数 Power factor:≥0.98 6.7A@220VAC
- 最高效率 Maximum efficiency : 93.0% (full load)
- 噪声 Noise : ≤45dB
- 防护等级 Grade of waterproof : IP67
- 重量 Weight : 3kg
- 工作温度 Operating temperature : -30℃~+65℃
- 存放温度 Storage temperature : -40℃~+95℃
- 可选配CAN总线控制；可外接三色指示灯；充电锁止（充电过程通过继电器可锁止车辆动力系统）。满足各种场合充电需求。

CAN bus control is optional; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). To meet the charging requirements of various occasions.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

1.5KW CHARGER

全密封充电器

CAN/PFC/waterproof IP67

/High efficiency

/support Mode2 & Mode3 charging



型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
24V	34V	25A
36V	51V	25A
48V	68V	25A
72V	102V	15A
72V	102V	18A

此系列充电器采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

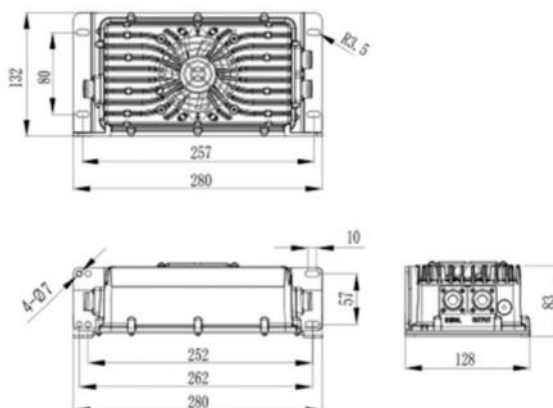
This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.

PERSINO®

帕萨诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 90-264VAC; 45-65Hz
- 交流输入最大电流 AC Input Maximum Current: 7.8A@100VAC; 7.3A@220VAC
- 功率因数 Power factor: ≥ 0.98
- 最高效率 Maximum efficiency: $\geq 93.0\%$ (full load)
- 噪声 Noise: $\leq 45\text{dB}$
- 防护等级 Grade of waterproof: IP67
- 重量 Weight: 3kg
- 工作温度 Operating temperature: $-30^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- 存放温度 Storage temperature: $-40^{\circ}\text{C} \sim +95^{\circ}\text{C}$
- 可选配CAN总线控制；可外接三色指示灯；充电锁止（充电过程通过继电器可锁止车辆动力系统）。满足各种场合充电需求。

CAN bus control is optional; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). To meet the charging requirements of various occasions.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

全密封充电器

CAN/PFC/waterproof IP67

/High efficiency

/support Mode2 & Mode3 charging

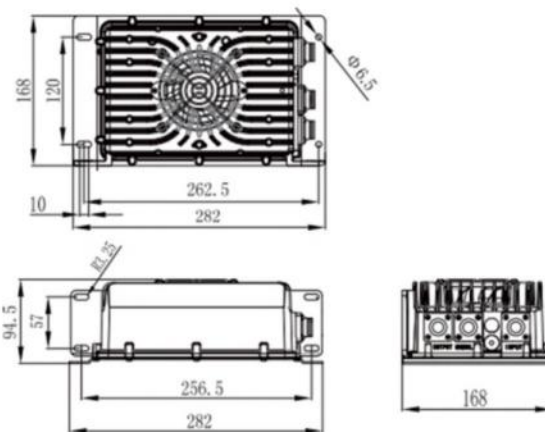


型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
24V	34V	50A
48V	68V	35A
60V	85V	30A
72V	102V	25A
84V	113V	22A
144V	180V	15A
360V	440V	6A

此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc. ; It can be used for the battery packs of electric motorcycle ,E-tricycle,electric car ,electric sightseeing car, electric patrol car,electric forklift,electric sweeper ,electric boat ,and all kinds of electric vehicles and electric facilities.



保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge

技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 90-264VAC;45-65Hz
- 交流输入最大电流 AC Input Maximum Current:≤12A@220VAC
- 功率因数 Power factor:≥0.99
- 最高效率 Maximum efficiency: 93.0% (满载时full load)
- 噪声 Noise : ≤55dB
- 防护等级 Grade of waterproof : IP67
- 重量 Weight : 4.5kg
- 工作温度 Operating temperature : -30℃~+65℃
- 存放温度 Storage temperature : -40℃~+95℃
- 可选配CAN总线控制;可选低压辅助12V;可外接三色指示灯;充电锁止 (充电过程通过继电器可锁止车辆动力系统)。可加 CC/CP 或 PP/CP 满足各种场合充电需求。

CAN bus control is optional; Optional low voltage auxiliary 12V; three-color indicator lights can be attached to the outside; charging lock (charging process can be locked by relay vehicle power system). CC/CP or PP/CP can be added to meet the charging requirements of various occasions.

- 可选配国标、欧标充电桩通信协议。

It can be equipped with national standard or European standard charging post communication protocol.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

3.3KW CHARGER

全密封充电器

CAN/PFC/waterproof IP67

/High efficiency

/support Mode2 & Mode3 charging



型号 Model

电池组额定电压 Rated voltage of battery pack	最大输出电压 Max. Output voltage	最大输出电流 Max. Output current
24V	34V	100A
48V	68V	65A
72V	95V	45A
108V	130V	32A
144V	180V	22A
360V	440V	10A

此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

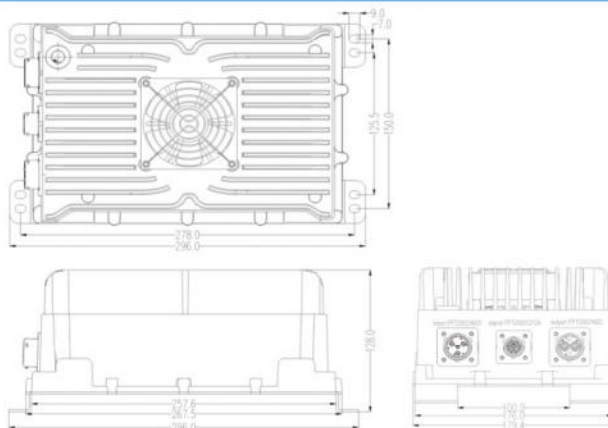
This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.

PERSINO®

帕萨诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: 90-265VAC; 45-65Hz
- 交流输入最大电流 AC Input Maximum Current: ≤16A@220VAC
- 功率因数 Power factor: ≥0.99 (@220Vin, pomax)
- 最高效率 Maximum efficiency: ≥93.0% (满载时 full load)
- 噪声 Noise: ≤55dB
- 防护等级 Grade of waterproof: IP67
- 重量 Weight: 6Kg
- 工作温度 Operating temperature: -40~+85℃
- 存放温度 Storage temperature: -40℃~+95℃
- 可选配CAN总线控制；可选低压辅助12V；充电锁止（充电过程通过继电器可锁止车辆动力系统）。可加CC/CP或PP/CP满足各种场合充电需求。CAN bus control is optional; Optional low voltage auxiliary 12V; charging lock (charging process can be locked by relay vehicle power system). CC/CP or PP/CP can be added to meet the charging requirements of various occasions.
- 可选配国标、欧标充电桩通信协议。It can be equipped with national standard or European standard charging post communication protocol.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

6.6KW

ON BOARD CHARGER

车载充电器 Full sealed charger



CAN/PFC/waterproof IP67
/High efficiency
/support Mode2 & Mode3 charging

型号 Model

额定输出电压 Rated voltage of battery pack	输出电压范围 Range of output voltage	输出电流范围 Range of output current
48V	0~68V	0~80A
60V/72V	0~95V	0~90A
96V	0~130V	0~60A
144V	0~180V	0~40A
360V	0~450V	0~18A
540V	0~700V	0~12A

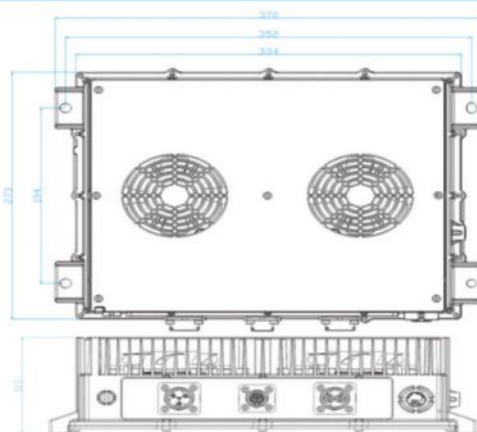
此系列充电机采用密封结构设计；适用于富液铅酸电池、密封（胶体）铅酸电池、锂电池、镍氢电池、镍镉电池等；可用于电动轿车、电摩、观光车、巡警车、叉车、通讯、电力、船舶等电池组循环充电或者浮充电。

This series of charger adopts sealed structure design; suitable for liquid-rich lead-acid batteries, sealed (colloidal) lead-acid batteries, lithium batteries, nickel-metal hydride batteries, nickel-cadmium batteries, etc.; It can be used for the battery packs of electric motorcycle, E-tricycle, electric car, electric sightseeing car, electric patrol car, electric forklift, electric sweeper, electric boat, and all kinds of electric vehicles and electric facilities.

PERSINO®
帕 萨 诺

保护功能 Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge



技术参数 Technical parameter

- 交流输入电压范围 AC input voltage range: AC90-265VAC 45-65Hz or 380V
- 交流输入最大电流 AC Input Maximum Current: ≤16A@220VAC
- 功率因数 Power factor: ≥0.99 (@220Vin, pomax)
- 最高效率 Maximum efficiency: ≥93.0% (满载时full load)
- 噪声 Noise: ≤55dB
- 防护等级 Grade of waterproof: IP67
- 重量 Weight: 14.5 kg
- 工作温度 Operating temperature: -40~+85 °C
- 存放温度 Storage temperature: -40°C~+95°C
- 可选配CAN总线控制；可选低压辅助12V；充电锁止（充电过程通过继电器可锁止车辆动力系统）。可加CC/CP 或 PP/CP 满足各种场合充电需求。CAN bus control is optional; Optional low voltage auxiliary 12V; charging lock (charging process can be locked by relay vehicle power system). CC/CP or PP/CP can be added to meet the charging requirements of various occasions.
- 可选配国标、欧标充电桩通信协议。It can be equipped with national standard or European standard charging post communication protocol.

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

11KW

ON BOARD CHARGER

车载充电器 Full sealed charger

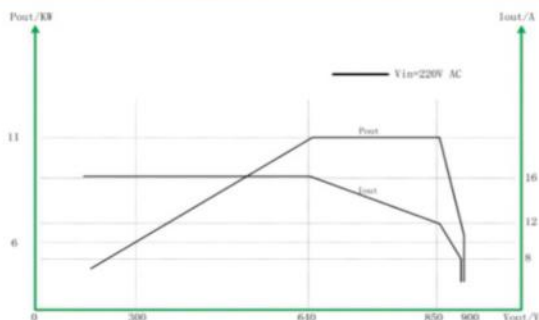


CAN/PFC/waterproof IP67
/High efficiency
/support Mode3 charging

型号 Model

额定输出电压 Rated voltage of battery pack	输出电压范围 Range of output voltage	输出电流范围 Range of output current
144V	0~180V	0~88A
360V	0~450V	0~36A
540V	0~700V	0~24A
700V	400~850V	0~18A

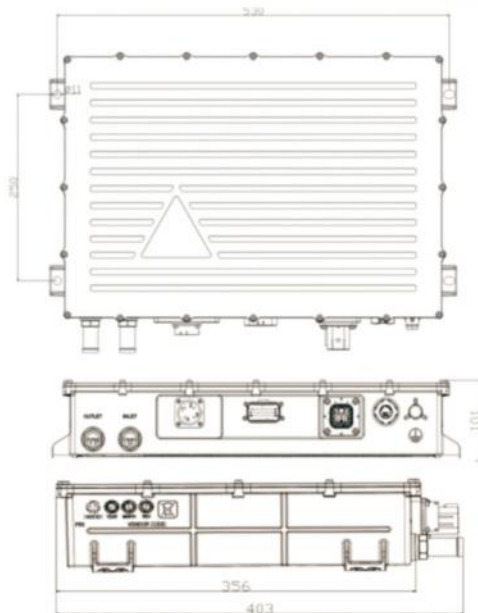
Input / output characteristic curve : output 400-850V



PCHG-AS11000系列车载充电器为大功率充电应用而设计，它可以在公共汽车，商业卡车上使用，并可以承受恶劣的环境(振动，热冲击和极端温度范围)。PCHG-AS11000系列是水冷外壳的设计，防护等级达到IP67。PCHG-AS11000系列可与内部独立的控制单元进行编程，这使其灵活地实现客户的个性化需求。处理器驱动的充电算法在效率上提供了最佳的结果，使电池充电器和高压电池拥有更长的使用寿命。

The PCHG-AS11000 series OBC has been designed for larger power charger application, It can use in bus, commercial truck, and can withstand harsh environments(vibration, thermal shock and extreme temperature ranges.The PCHG-AS11000 series is design as liquid cooling with IP67 enclosure . The PCHG-AS11000 series is programmable with the independent control unit inside, this make it flexible to achieve the individual needs of customers.The processor-driven charging algorithms provides optimal results in efficiency and it contributes to a longer life of the battery charger and the HV battery.

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Protection function	
Under voltage protection	
Short circuit protection	
Over temperature protection	
Reverse connect protection	
Equilibrium potential and ground protection	
Power-off protection	

AC input		Unit
Input voltage	220V or 380V	V
Input frequency range	47-63	Hz
AC current THD	<5	%
Power factor	>0.99	
Efficiency	>94 @ from 50% to Max load	%
Max. input current (eff)	64	A
Max input power	13	kVA
INRUSH current	<40 @ 240 Vac	A

DC output		Unit
Out rated voltage	144V/360V/540V/700V	Vdc
Charging voltage accuracy	≤1	%
Charging current accuracy	≤5	%
Charging current ripple amplitude	≤1	%
Max. output power	19.2	kW
Output response time	≤2	S
Pre-charging	internal	

Environment Requirement		Unit
Ambient temperature range in operation	-40 ~ 85	°C
Ambient temperature range for storage	-40 ~ 95	°C
Ambient temperature range for extreme storage (less than 12 hours at a time)	- 40 to + 125	°C
Humidity	5-95	%
IP protection	IP67	
The cooling function	Liquid cooling	

22KW

ON BOARD CHARGER

车载充电器 Full sealed charger

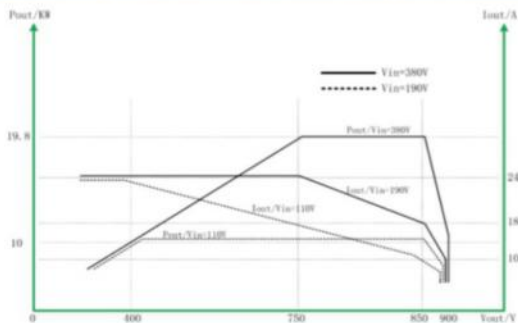


CAN/PFC/waterproof IP67
/High efficiency
/support Mode3 charging

型号 Model

额定输出电压 Rated voltage of battery pack	输出电压范围 Range of output voltage	输出电流范围 Range of output current
144V	0~180V	0~132A
360V	0~450V	0~54A
540V	0~700V	0~36A
700V	400~850V	0~32A

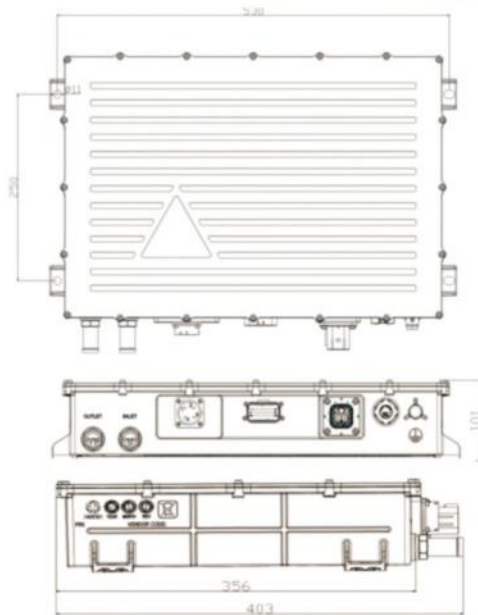
Input / output characteristic curve : output 400-850V



PCHG-AS22000系列车载充电器为大功率充电应用而设计，它可以在公共汽车，商业卡车上使用，并可以承受恶劣的环境(振动，热冲击和极端温度范围)。PCHG-AS22000系列是水冷外壳的设计，防护等级达到IP67。PCHG-AS22000系列可与内部独立的控制单元进行编程，这使其灵活地实现客户的个性化需求。处理器驱动的充电算法在效率上提供了最佳的结果，使电池充电器和高压电池拥有更长的使用寿命。

The PCHG-AS22000 series OBC has been designed for larger power charger application, It can use in bus, commercial truck, and can withstand harsh environments(vibration, thermal shock and extreme temperature ranges).The PCHG-AS22000 series is design as liquid cooling with IP67 enclosure . The PCHG-AS22000 series is programmable with the independent control unit inside, this make it flexible to achieve the individual needs of customers.The processor-driven charging algorithms provides optimal results in efficiency and it contributes to a longer life of the battery charger and the HV battery.

PERSINO®
帕萨诺



Protection function	
Under voltage protection	
Short circuit protection	
Over temperature protection	
Reverse connect protection	
Equilibrium potential and ground protection	
Power-off protection	

AC input		Unit
Input voltage range	3 Phase	V
Input frequency range	47-63	Hz
AC current THD	<5	%
Power factor	>0.99	
Efficiency	>94 @ from 50% to Max load	%
Max. input current (eff)	32	A
Max input power	22	kVA
INRUSH current	<40 @ 380 Vac	A

DC output		Unit
Out rated voltage	144V/360V/540V/700V	Vdc
Charging voltage accuracy	≤1	%
Charging current accuracy	≤5	%
Charging current ripple amplitude	≤1	%
Max. output power	11	kW
Output response time	≤5	S
Pre-charging	internal	

Environment Requirement		Unit
Ambient temperature range in operation	-40 ~ 85	°C
Ambient temperature range for storage	-40 ~ 95	°C
Ambient temperature range for extreme storage (less than 12 hours at a time)	- 40 to + 125	°C
Humidity	5-95	%
IP protection	IP67	
The cooling function	Liquid cooling	

Intelligent Charger

智能充电器



序 号 NO.	类 型 TYPE	型 号 SPECIFICATION	电池类型 BATTERY TYPE
1	数字全智能 Digital full intelligence	5A	铅酸电池/锂电池 lead-acid battery /lithium battery
2		6A	
3		8A	
4		10A	
5		15A	
6		20A	

产品特性 Product features

- 采用最新全数字电源管理芯片。全智能数字控制,优于传统模拟方案
Adopt the latest full digital power management chip. Fully intelligent digital control, superior to traditional analog scheme
- 新分流式充电,安全不伤电池
New shunt charging, safety does not hurt the battery
- 智能充电管理,高精度数字PID环路控制
Intelligent charge management, high precision digital PID loop control
- 安全省电,省电30%,效能高达92%
Safe power saving, 30% power saving, efficiency up to 92%
- 功能:可预充/过流过压保护/防反接/充满关机/防过充/故障与电池脱离
Function: pre-charge/over current and over voltage protection/anti-reverse connection/full charge shutdown/over-charge protection/fault and battery disconnection

DC-DC Converter 转换器



型号 Model

功率

Power: 0.8KW/1KW/1.2KW/2.4KW/3.6KW

额定直流输入电压Rated

DC Input Voltage: 48V/72V/144V/360V/540V

额定直流输出电压

Rated DC Output Voltage: 12V/24V

保护功能 Protection function

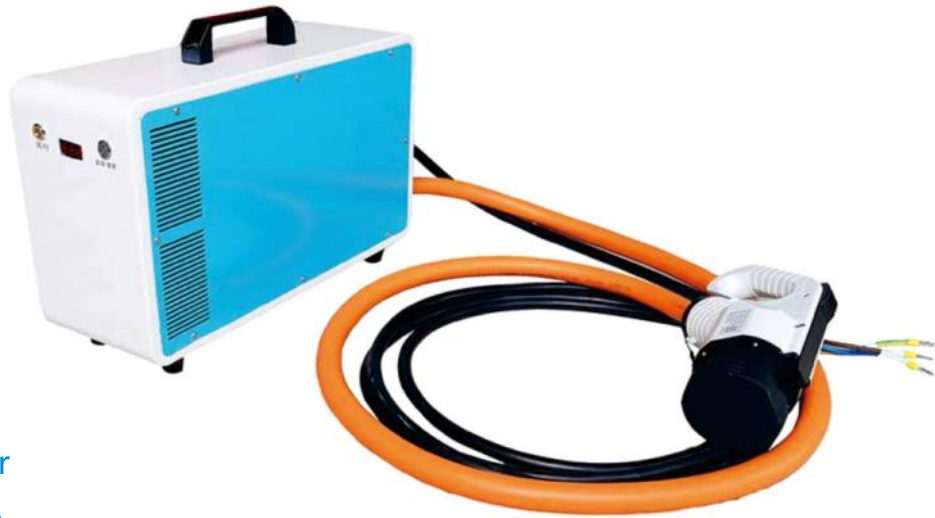
- 过压保护 Over voltage protection
- 欠压保护 Under voltage protection
- 短路保护 Short circuit protection
- 过温保护 Over temperature protection
- 反接保护 Reverse connect protection
- 电位均衡和接地保护
Equilibrium protection and ground protection
- 断电保护 Power-off protection

技术参数 Technical parameter

- 效率 Efficiency: $\geq 92\%$
- 稳压精度 Voltage regulation accuracy: $\pm 1\text{mv}$
- 工作噪音 Working noise: $\leq 50\text{dB}$
- 工作环境温度 Working temperature: $-40\sim 60^{\circ}\text{C}$
- 存储温度 Storage temperature: $-40\sim 85^{\circ}\text{C}$
- 湿度 Humidity: 5%-95%
- IP等级 Level of IP: IP66
- 冷却功能 The cooling function: 风冷 air-cooling
- CAN通讯可选 CAN communication available

DC Fast Charging Station

直流快充桩
7KW



* 半小时充满

Full charge within half hour

(专为电动摩托车快充设计)

(Special design for E-Motorcycle fast charging)

产品特性 Product features

- 输入电压范围
Input voltage range : 323-456VAC,380VAC(TYPE)
- 输入电流
Input current:20A
- 输出功率
Output power: 7KW
- 输出电压范围
Output voltage range : 42V-92V
- 输出电流
Output Current :0-100A
- 效率
Efficiency : 95%
- 辅助电源
Auxiliary power supply : 12V/24V
- 工作温度范围
Operating temperature :-40°C- +85°C
- 存储温度范围
Storage temperature: -40°C- +85°C
- 防护等级
Grade of protection: Ip43
- 重量
Weight: 25KG

DC FAST CHARGER 直流快充桩

7KW/11KW/22KW
(more models can be customized)



保护功能 / Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge

The fee settlement and deduction is available

技术参数 / Technical parameter

- 输入电压 Input voltage: 220VAC/380VAC
- 输出功率 Output power: 7KW/11KW/22KW
- 直流输出电压范围 DC output voltage range: 0-36V/0-68V/0-105V
0-130V/0-180V/0-450V/0-700V/0-850V
- 效率 Efficiency: ≥93%
- 工作温度 Operating temperature: -30 °C ~ 50 °C
- 工作湿度 working humidity: 0-95% HR
- 启动方式 start way: 即插即充/刷卡启动
plug and charge / card swiping start/ 4G APP start
- 安装方式 Installation method: 立柱式/壁挂式
colun mounted / wall mounted
- 冷却方式 cooling way: 空气风冷
air cooling
- 保护功能 protection function: 过载保护、过压保护、欠压保护、短路保护
过温保护、急停
protection of overload/overvoltage
undervoltage/short circuit/overtemperature
emergency stop

MOBILE CHARGER 移动充电机

7KW/11KW/22KW
(more models can be customized)



保护功能 / Protection function

- 输出过流保护 Output over current protection
- 输出过压保护 Output over voltage protection
- 输出短路保护 Output short-circuit protection
- 输出空载保护 Output no-load protection
- 输出反接保护 Output reversal connect protection
- 输入过压保护 Input over voltage protection
- 输入欠压保护 Input undervoltage protection
- 充电机过温保护 Over temperature Protection of Charger
- CAN通讯故障保护 CAN Communication Fault Protection
- 充满自动关机 Auto power off while full charge

技术参数 / Technical parameter

- 输入电压 Input voltage: 220VAC/380VAC
- 输出功率 Output power: 7KW/11KW/22KW
- 直流输出电压范围 DC output voltage range: 0-36V/0-68V/0-105V
0-130V/0-180V/0-450V/0-700V/0-850V
- 效率 Efficiency: ≥93%
- 工作温度 Operating temperature: -30 °C ~ 50 °C
- 工作湿度 working humidity: 0-95% HR
- 启动方式 start way: 即插即充
plug and charge
- 安装方式 Installation method: 立柱式/壁挂式
colun mounted / wall mounted
- 冷却方式 cooling way: 空气风冷
air cooling
- 保护功能 protection function: 过载保护、过压保护、欠压保护、短路保护
过温保护、急停
protection of overload/overvoltage
undervoltage/short circuit/overtemperature
emergency stop

温州帕萨诺电子科技有限公司

WENZHOU PERSINO ELECTRONIC TECHNOLOGIES CO.,LTD.

DC FAST CHARGING STATION 直流充电桩

60KW/80KW/90KW/100KW/120KW
150KW/160KW/180KW/200KW/240KW



输入INPUT	电压范围Voltage range	AC380V±20%
	工作频率Working frequency	45-65HZ
	功率因数The power factor	≥0.99
	输入电缆长度Input cable length	无 Non
输出OUTPUT	功率Power	60KW/80KW/90KW/100KW/120KW/150KW/160KW/180KW/200KW/240KW
	辅助电源Auxiliary power supply	GB/T:12V/24V CCS1 CCS2 CHAdeMO:12V
	电压范围Voltage range	200-750VDC/200-1000VDC
	充电模式Charger mode	单枪全功率充电/双枪AB轮流充电 Single plug Full power charge/Dual plugs AB charging in turn
	充电插头Charger plug	单插/双插 Single plug/Dual plugs
工作环境 The work environment	电缆Cable	默认5米（可选） Default 5 meters (optional)
	温度范围Temperature range	-20~50°C; 25°C (type)
	湿度范围Humidity range	5~90RH%; （不冷凝non-condensation）
	工作高度Operation altitude	<2000M
尺寸和保护 Dimensions and protection	工作环境Operation environment	室内Indoor/室外outdoor
	机器尺寸Machine size(mm)	750x 530 x 1609mm （不包枪头、把手和铸件） Excluding head, handle and casters)
	包装尺寸Packing size(mm)	1100 x 900 x 2000mm
	包装重量Packed weight	About 380KG
启动模式Starting mode	环境保护Environment protection	IP54
	即插即用/刷卡启动/输入密码开始/VIN代码 Plug and play/Swipe start/Input password start/VIN code	
	保护功能Protection function	串联器；输入过压/欠压；输出过压；过温； 过流；短路；漏电；闪电；电池反向；绝缘监测 Scram；Input over/under voltage；Output overvoltage；Overtemperature； Overcurrent；Short circuit；Leakage；Lightning；Battery reverse；Insulation monitoring
	人机交互Human-computer interaction	7寸彩色触摸屏7 inch color touch screen
屏幕语言Screen language	默认英语，其他语言可定制 Default English, other languages can be customized	
充电模式Charging mode	Plug and play（即插即充）、OCPP 1.6	
联网模式Networking mode	4G/WIFI/以太网Ethernet	
安装方式Installation mode	落地安装Floor-mounted	
充电器标准Charger standard	GB/T：GB/T 18487、GB/T 20234、GB/T 27930	
	CCS：EN61851、EN62196、ISO15118、DIN70121	
	CHAdeMO：CHAdeMO	

锂电便携式交流充电桩

(LCD Type带屏款)

PORTABLE AC EV CHARGER



产品参数 Description

工作电压 Working voltage	100V-240V
输出功率 Output power	3.5KW/7KW
最大输出电流 Max.output current	16A/3.5KW ,32A/7KW
频率 Frequency	50HZ
工作温度 Working temperature	-25℃~50℃
工作湿度 Working humidity	0-95% HR
冷却方式 The cooling way	空气冷却 air cooling
LCD显示屏 LCD display parameters	charging vltage ,charge current , charged power , charging time , temperature
安全保护 Safety protection	过压保护 over voltage protection
	欠压保护 under voltage protection
	过流保护 over current protection
	漏电保护 leakage protection
	过温保护 over-temperature protection
最高海拔 Maxiumum altitude	< 2000m
防护等级 IP code	IP65
插拔次数 Insertion/extraction times	> 10000times 次
冷却方式 Cooling way	空气冷却 air cooling
线缆类型 Cable type	TPU
线缆长度 Cable length	总长5M,可定制 5M total , can be customized
安装方式 AInstallation method	便携式 portable

型号Model

功率 Power	工作电压 Working Voltag	输出电流 Output Current
3.5KW	100V-240V	8A,10A,13A,16A ajustable
7KW	100V-240V	8A,10A,13A,16A, 32A ajustable

备注REMARK: the ajustable current can be customized .可调节电流可以按照客户需求定制

产品特性 Product features

模式二便携式充电桩有很多的功能，比如即插即充、简单的操作，功率可选（3.5KW可以实现8A/10A/13A/16A可选，7KW可以实现8A，10A，13A，16A，32A电流可选）

*Model 2 portable AC EV charger has many functions , such as plug and charge, simple operation,power switching function (8A/10A/13A/16A for 3.5KW , 8A, 10A, 13A, 16A, 32A for 7KW).

本便携式充电桩具有功率大、效率高、节能的特点，没有污染，并且方便携带和存储，它自带LCD屏幕，可以触屏操作，新颖的设计，小巧、轻便、容易移动。

*this protable EV charger has the characteristics of large power, high efficiency and energy saving, no pollution and easy storage . it has its own display screen , which can be operated by touch botton . Noveldesign ,small size ,light weight,easy to move

充电盒控制面板有PCB环境温度检测、输入插头温度检测和双温度检测保护

*the control panel of the charging box is protected by PCB amibient temperature detection, input plug temperature detection and double temperature detection

锂电便携式交流充电桩

(LED light type 指示灯款)

PORTABLE AC EV CHARGER



产品参数 Description

工作电压 Working voltage	100V-240V
输出功率 Output power	3.5KW/7KW
最大输出电流 Max.output current	16A/3.5KW ,32A/7KW
频率 Frequency	50HZ
工作温度 Working temperature	-25°C~50°C
工作湿度 Working humidity	0-95% HR
冷却方式 The cooling way	空气冷却 air cooling
LCD显示屏 LCD display parameters	待机, 充电, 报错 power , charging ,fault
安全保护 Safety protection	过压保护 over voltage protection
	欠压保护 under voltage protection
	过流保护 over current protection
	漏电保护 leakage protection
	过温保护 over-temperature protection
最高海拔 Maxiumum altitude	< 2000m
防护等级 IP code	IP65
插拔次数 Insertion/extraction times	> 10000times 次
冷却方式 Cooling way	空气冷却 air cooling
线缆类型 Cable type	TPU
线缆长度 Cable length	总长5M,可定制 5M total , can be customized
安装方式 AInstallation method	便携式 portable

型号Model

功率 Power	工作电压 Working Voltag	输出电流 Output Current
3.5KW	100V-240V	16A
7KW	100V-240V	32A

产品特性 Product features

模式二便携式充电桩有很多的功能, 比如即插即充、简单的操作.
*Model 2 portable AC EV charger has many functions , such as plug and charge, simple operation.

本便携式充电桩具有功率大、效率高、节能的特点, 没有污染, 并且方便携带和存储, 它自带指示灯, 指示灯代表不同的工作状态, 、新颖的设计, 小巧轻便、容易移动.
*this protable EV charger has the characteristics of large power, high efficiency and energy saving, no pollution and easy storage . it has led light indication to show its status . novel design,small size , light weighteasy to move.

充电盒控制面板有PCB环境温度检测、输入插头温度检测和双温度检测保护
*the control panel of the charging box is protected by PCB amibient temperature detection, input plug temperature detection and double temperature detection

交流充电桩 (模式三) AC EV CHARGER (MODE 3) 7kw



产品参数 Description

工作电压 working voltage	AC230V
额定功率 rated power	7KW
频率 frequency	50HZ
防护等级 IP degree	IP65
工作温度 working temperature	-30°C~50°C
工作湿度 working humidity	0-95% HR
冷却方式 cooling way	空气冷却 air cooling
显示屏参数 display parameters	充电电压, 充电电流, 充电量, 故障码 charge voltage, charge current, charge quantity, fault code
启动方式 start way	即插即充/刷卡启动/蓝牙启动 plug and charge/card swiping start/ bluetooth start
机身尺寸 fuselage size	239*151.5*96MM
安装方式 installation method	立柱式或壁挂式 column mounted(floor mounted) or wall mounted install optional
最高海拔 maxiumum altitude	< 2000m
防护等级 IP code	IP54
冷却方式 cooling way	空气冷却 air cooling



产品特性 Product features

- 1.具有刷卡启动和远程启停/启动功能, 并配备可充值IC卡
it has card swiping start and remote stop/start , and is equipped with rechargeable IC card .
- 2.预约充电功能, 可根据用户需求预约定时充电, 充电满后自动结束
reservation charging function, which can be charged regularly according to user needs, and it will automatically end when fully charged
- 3.配有3.0英寸显示屏, 实时显示充电信息, 估计充电时间
Equipped with 3.0 inches display screen, real-time display of charging information estimation fill time
- 4.智能芯片可自动修复常见充电错误, 保证产品稳定运行
The smart chip can automatically repair common charging errors and ensure the stable operation of the product .
- 5.具有过载保护、过压保护、欠压保护、短路保护、过温保护、急停等功能
with overload protection, overvoltage protection, undervoltage protection, short circuit protection, overtemperature protection, emergency stop and other functions
- 6.蓝牙、wifi、4G、以太网等多种连接方式
Bluetooth ,wifi,4G,Ethernet and other connection modes .
- 7.OCPP1.6.共享充电, 可多人使用
OCPP1.6.shared charging ,which can be used by more than one person.

AC EV CHARGER (MODE 3)

交流充电桩 (模式三)

11KW/22KW/44KW



产品参数 Description

工作电压 working voltage	AC400V(L1+L2+L3+N+PE)
额定功率 rated power	11KW/22KW/44KW
频率 frequency	50HZ
防护等级 IP degree	IP65
工作温度 working temperature	-30°C~50°C
工作湿度 working humidity	0-95% HR
冷却方式 cooling way	空气冷却 air cooling
显示屏参数 display parameters	充电电压, 充电电流, 充电量, 故障码 charge voltage, charge current, charge quantity, fault code
启动方式 start way	即插即充/刷卡启动/蓝牙启动 plug and charge/card swiping start/ bluetooth start
机身尺寸 fuselage size	355*250*93MM
安装方式 installation method	立柱式或壁挂式 column mounted(floor mounted) or wall mounted install optional
最高海拔 maxiumum altitude	< 2000m
防护等级 IP code	IP65
冷却方式 cooling way	空气冷却 air cooling

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产品特性 Product features

1. 具有刷卡启动和远程启停/启动功能, 并配备可充值IC卡
it has card swiping start and remote stop/start ,
and is equipped with rechargeable IC card .
2. 预约充电功能, 可根据用户需求预约定时充电, 充电满后自动结束
reservation charging function,
which can be charged regularly according to user needs,
and it will automatically end when fully charged
3. 配有4.3英寸显示屏, 实时显示充电信息, 估计充电时间
Equipped with 4.3 inches display screen,
real-time display of charging information estimation fill time
4. 智能芯片可自动修复常见充电错误, 保证产品稳定运行
The smart chip can automatically repair common charging errors
and ensure the stable operation of the product .
5. 具有过载保护、过压保护、欠压保护、短路保护、过温保护、急停等功能
with overload protection,
overvoltage protection, undervoltage protection,
short circuit protection, overtemperature protection,
emergency stop and other functions
6. 蓝牙、wifi、4G、以太网等多种连接方式
Bluetooth ,wifi, 4G, Ethernet and other connection modes .
7. OCPP1.6. 共享充电, 可多人使用
OCPP1.6. shared charging ,which can be used by more than one person.

PERSINO

Customer first!

Quality foremost!