



### **HK-H-1.8KW Series Car charger specifications**

#### 1. Outline

HK-H series 1.8KW Charger is designed for electric vehicle battery and battery management interface. The product not only has high efficiency, small volume, high stability, long life, etc., higher degree of protection, high reliability, Protection of functional features, is the ideal power source for electric vehicle charging. Charger built—in thermal sensing device having thermal overload protection, automatic recovery. Fully sealed encapsulation process, up to IP67 protection class, you can ensure that in any complex environment without causing malfunction.

Charger connected to the DC output side of the battery positive and negative AC input socket connected to the vehicle charging port, charging through the outlet port for the charger connected to the mains power supply, battery pack to achieve the complementary functions.

### 2. Product Model

H4825/S H4825/U	48V	25A	18V~66 V	HK-H-H66-25
H7223/S		12-2-12		urran in a caranta a
H7223/U	72V	V 23A	25~99V	HK-H-H99-23
H8420/S	941/	20.4	30~116	HK-H-H116-20
H8420/U	84V 20A	V	HK-H-H116-20	
H9616/S	96V	16A	34~132	HK-H-H132-16
H9616/U	30V	1024	V	1110-11-1132-10

#### 3. Features

- 1. Up to 95% efficiency
- 2. Strong protection
- Extended temperature operating temperature range
- 4、100% full load burn-in test
- 5. The high degree of protection up to IP67
- 6. Automotive-grade seismic rating
- 7. While charging the battery intelligent temperature compensation, maximizing battery life
- 8. The input voltage range AC85-AC280, for worldwide voltage range.





## 4. Reliability

Index	Data Definition	Explanation
MTBF	150,000 H	Reliability launched by the device failure rate

### 5. Product work environment

No.	Items	Technical Specifications
1	Operating temperature	-40℃ — +60℃
2	Storage temperature	-40°C — +90°C
3	Relative humidity	5% — 95%
4	Cooling	Air-cooled
5	Altitude	3000m

### 6. Electrical Characteristics

### 6.1 Input characteristics

Current and output voltage of each power input

Input voltage	Input current I <sub>N</sub>	Maximum output power
110V	I <sub>N</sub> ≤7A	800W
220V	I <sub>N</sub> ≤9A	1800W

### 6.2 Output characteristics

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test	Ratings	tolerance scope
Output voltage accuracy	1%	1
Output current accuracy	3%	1
The output voltage ripple factor	1.5%	
Maximum DC output power	1600W	1
Maximum efficiency	≥95%	1
Power Factor	0.99	1

#### 6.3 Protection Features

- a) Output overvoltage protection;
  - b) Output overcurrent protection;
  - c) Output short circuit protection;
- d) d) Input undervoltage protection
  - e) e) Charger over-temperature protection;
  - ${\rm f)} \hspace{0.5cm} \hbox{ Battery over-temperature protection}.$





- **6.4** Standby power charger standby power consumption of less than 5W
- 6.5 Starting current charger starting current is less than 5A
- **6.6 Input Frequency** (Frequency of input voltage fluctuation range)

Minimum	Typical case	Maximum
40Hz	50Hz/60Hz	70Hz

### 7. Safety features

#### 7.1 Pressure resistance (Table 8 electrical test)

Ground Terminals (housing) Dielectric strength and are electrically connected to each other without a circuit between them. It should be able to withstand the test voltage in the table below 9. Test voltage ( $50\sim60$ ) HzAC voltage between test terminals should not be corona, ionization, arcing or breakdown.

Input the housing	1500V AC	1min	Leakage current ≤10mA
Input to output	1500V AC	1min	Leakage current ≤10mA
Output of the housing	500V AC	1min	Leakage current ≤10mA

#### 7.2 Insulation resistance

Charging machine charging circuit and ground insulation resistance (housing) between the ambient temperature (23±2)  $^{\circ}$ C And a relative humidity 80%  $\sim$ 90% when, not less than 20M $\Omega_{\circ}$ 

#### 7.3 Contact current

When a human or animal contacts with one or more devices or device accessible parts, the current flowing through their bodies should be less than GB/T13870.1-2008 The contact current perception threshold requirement, the current value of the charger contact Table 9.

Contact current category	Alternating current mA	DC current mA
Limit	≤0.75	≤2

1.1.1 Grounding resistance of less than  $0.1\Omega$ . Required grounding conductor yellow / green and white color line

### 8. Audio Noise (Table 10 Noise)

Noise	Noise
≤65dB	distance 1.5m,A weight

#### 9. EMC characteristics

Electromagnetic compatibility charger to meet the GB / T 18487.3-2001 electromagnetic environment in 11.3 test requirements.

## 10. Lightning Level

Lightning indicators	standard test
TBD	/



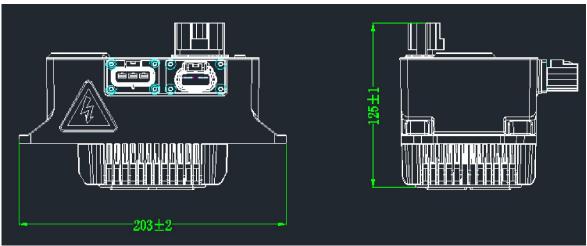


11. Cooling

Cooling fan

## 12. Product dimensions

External dimensions and installation dimensions:



# 13. Weight: <2kg

