GF1115P

PROGRAMMABLE AC LOAD UNIT

GF1115P three phase programmable AC load unit is mainly used as the load for on-site verification of electric vehicle AC charging pile. The on-site detection process of AC charging pile can be realized by cooperating with our GF1115 AC charging pile on-site test set. The whole detection process meets the requirements of relevant national detection standards and measurement standards JJG 1148-2018 verification regulation of electric vehicle AC charging pile. The internal motherboard of the resistance load box adopts the processor chip of armcortex-m4 core architecture, which automates the workflow of the whole resistance load box, reduces manual participation and saves operation time. The internal structure adopts multi-channel high-power resistance parallel connection, which is connected through high-quality relay control. Multiple gear switching can be realized through the control relay. The whole process is fully automated without manual participation. Forced air cooling is adopted, and the circuit structure is simple without too much maintenance, saving the heat dissipation cost. Internal temperature detection is set to monitor the working temperature in the box in real time, ensuring the safety and reliability of the load in use. Two national standard AC charging gun sockets are installed on the box to facilitate user cascade and increase load power.

Applications

1. Electrical laboratory;
2. EV & Charging pile factory;
3. Metrological service center;
4. Laboratories of power utilities;
5. Third party testing organization;
6. National Metrology and testing department;
7. Electricity power bureau & power company;
8. Charging pile operation and maintenance organization;

Features

1. The load box has the function of automatic resistance shift;
2. Under the rated voltage, the minimum current step is 4.5mA, the minimum power step is 1W, and all have 8192 gears;
3. Realize the power verification points required in JJG 1148-2018 verification regulation for AC charging piles of electric vehicles;
4. Support a variety of working modes, constant current mode, constant voltage mode, constant resistance mode, constant power mode;

5. Forced air cooling;
6. Remote control via CAN bus or serial port;
7. With insulation grounding protection inspection function;
8. The equipment can be powered supply by mains AC supply or charging pile;
9. It has the functions of emergency stop protection, overcurrent, overvoltage and short circuit protection;
10. The box body is equipped with 2 metering sockets meeting the safety requirements, and the loads are controlled through CAN bus;
11. With advanced control algorithm and DSP digital control implementation, it is suitable for various load regulation requirements with high precision, high speed and high stability;
12. The equipment is equipped with voltage and current calibration and correction function, which can calibrate and correct the measured value of the instrument at any time, so as to ensure the measurement accuracy of the instrument used for a long time;
13. Built in temperature sensor, when the temperature in the box is too high, it will actively disconnect the load for high temperature protection, and send out an alarm at the same time. In addition, it can try to monitor the temperature in the box through the communication port;

Parameters

Electrical parameters	
Power supply	One Phase AC 220V±10%, frequency 50/60Hz;
Load operating voltage	
Input voltage	0-264V AC
Rated working current of load	
Each unit current input	0-40A; three phase
Multi unit current input	0-80A; three phase
Load power range	
Each unit power input	0-24KW; three phase
Multi unit power input	0-48KW; three phase
Load gear	
Gear number	8192 pcs
Min current step	0.01A(@220V)
Min power step	2W(@220V)
Constant current mode	
Range	1-40A
Resolution	0.1A(@220V)
Accuracy	±(0.1%+0.5% FS)

Electrical parameters - continued	
Constant power mode	
Range	24KW
Resolution	1VA(@220V)
Accuracy	±(0.2%+0.5% FS)
Constant resistance mode	
Range	5-5000Ω
Resolution	1Ω
Accuracy	0.1%+0.0008 FS)
Standard	
Standard	IEC 62053-21,22, 23; IEC 60736; ANSI C12.20-2002; JJG 597-2005; JJG596-2012; JJG 1085-2013; JJG 1148-2018; GB/T 34657.1-2017; JJF 68-2019; DL/T 826-2002; DL/T
Safety	
Isolation protection	IEC 61010-1:2001
Measurement Category	300 V CAT III, 600 V CAT II
Degree of protection	IP42
Declaration of conformity	CE & CNAS certified
Mechanical parameters	
Dimensions (W×H×D) (mm)	485×485×355
Weight (kg)	24
Environmental conditions	
Ambient temperature	-20°C to +50°C
Storage temperature	-30°C to +65°C
Relative humidity	10%-85%