

GF1118

LABORATORY PLATFORM EVSE TESTING EQUIPMENT

The GF1118 mobile Laboratory platform EVSE testing equipment for EV integrates the detection platform and the vehicle, ensuring the safety and comfort during driving. The testing platform includes: remote console, AC / DC integrated load unit, EV& Charging Pile AC Test Set, EV& Charging Pile DC Test Set, AC parameter measurement device, power analyzer and safety regulation instrument, etc. Among them, the built-in integrated programmable load unit capacity is up to 120KW (DC) +24KW (AC), which can meet the measurement and detection of off-board charging piles of 240KW and below and the detection of AC charging piles of 24kw and below. In addition, the test vehicle has the function of interoperability and protocol consistency test of charging piles, and adds all the test contents of the latest energy standard on-site test procedures for electric vehicle charging equipment. The installation area of on-board power supply is reserved on the vehicle. The user can select and match the on-board power supply according to the actual needs to meet some special occasions. When there is a lack of electric detection vehicle source on site, it can be used as the equipment emergency power supply.

Applications

1. EV & Charging pile factory;
2. Metrological service center;
3. ISO17025 Electrical laboratory;
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. Integrated design, built-in AC / DC load and related test equipment, out of the pile, i.e. on arrival;
2. With the "characteristic quantity detection" technology, the GB/T 34657.1-2017 interoperability test can be completed without the internal wiring of the charging pile, and the gun can be inserted once, which is safe and fast;
3. Using multi closed-loop zero flux sensor based on fluxgate technology and electronic FPGA technology, DC measurement can achieve accuracy better than 0.05% in a wide range, and accuracy better than 0.01% in full range;
4. Using 512 times oversampling and 24bit ad technology, AC measurement can achieve an accuracy of better than 0.05% in a wide range and an accuracy of better than 0.01% in full range;

5. Complete all verification items of JJG1148 and JJG1149 with one touch (card swiping operation is required, and the typical test time is 5 minutes);
6. More than 200 types of off board charger BMS commissioning experience, supporting national standards GB/T27930-2015, GB/T27930-2011, etc;
7. Multiple protections, using "Kalman prediction algorithm", constantly monitor the operation indicators of various equipment in the system, predict the possible hidden dangers or faults, and ensure the safety and reliability of the system;
8. "Wireless local area interconnection technology" can be used in the cab for remote testing, especially for outdoor harsh environment;
9. Connect to the "network cloud platform", interact with the data of the test center, and return the test information and status in real time;
10. Various power supply schemes, including energy vehicle battery power supply, external power supply and on-site
11. AC charging pile power supply, fully meet the complex on-site conditions.
12. Meet Europe standard IEC61851-1, ISO/IEC 61851-23, ISO/IEC 61851-24, ISO15118-20, DIN 70121, SAE J1772.

Test Item

1. For Charging AC Pile Test Item

Test Type	Functions	Test Type	Functions
Interoperability test inspection items	Connection confirmation test	General inspection(NBT site inspection regulations)	Verification of technical data
	Charging readiness test		Visual inspection
	Start up and charging phase test		Internal inspection
	Normal charge end test		Charging mode and connection mode check
	Charging connection control sequence test		Cable management and storage inspection
	CC interrupt test		Sign check
	CP interrupt test	Safety protection inspection(NBT site inspection regulations)	Insulation resistance test
	CP grounding test		Grounding test
	Continuity loss test of protective grounding conductor		Residual current protection function test
	Output overcurrent test		Direct contact protection test
	Disconnect switch S2 test	Functional inspection(NBT site inspection regulations)	Display function
	CP loop resistance test		Input function
JJG Metrological verification regulation	Visual inspection	Safety requirements inspection(NBT site inspection regulations)	Charging function
	Insulation resistance test		Communication function with operation management system
	Working error	Safety requirements inspection(NBT site inspection regulations)	Emergency stop function test
	Indication error		Locking function test
	Payment amount error	others	Door opening protection test
	Clock indication error	

2.For Charging DC Pile Test Item

Test Type	Functions	Test Type	Functions
Charging DC pile interoperability test function	Connection mode check	General inspection(NBT site inspection regulations)	Verification of technical data
	Interface structure dimension inspection		Visual inspection
	Dimensional inspection of interface space		Internal inspection
	Connection confirmation test		Charging mode and connection mode check
	Self test phase test		Cable management and storage inspection
	Charging readiness test		Sign check
	Charging phase test	Safety protection inspection(NBT site inspection regulations)	Insulation resistance test
	Normal charge end test		Grounding test
	Charging connection control sequence test		Direct contact protection test
	Communication interruption test	Functional inspection(NBT site inspection regulations)	Display function
	Switch S off test		Input function
	Vehicle interface Disconnection Test		Charging function
			Communication function with operation management system
	Insulation fault test	Safety requirements inspection(NBT site inspection regulations)	Emergency stop function test
	PE break test		Locking function test
	Output voltage control error test		Door opening protection test
	Output current control error test	Charging DC pile output performance test(NBT site inspection regulations)	Low voltage auxiliary power supply test
	Output current control time test		Output voltage error test
	Output current stop rate test		Output voltage measurement error test
	Control pilot voltage over limit test		Output current error test
Charging DC pile protocol conformance test items	CHM message test	Charging DC pile output performance test(NBT site inspection regulations)	Output current measurement error test
	CRM message test		Voltage limiting characteristic test
	Charge handshake test		Current limiting characteristic test
	Charge handshake negation test		Visual inspection
	CRM message test	JJG Metrological verification regulation	Insulation resistance test
	CML message test		Working error
	CRO message test		Indication error
	Charging parameter configuration test		Payment amount error
	test	others	Clock indication error
	CRO message test	
	CCS message test		
	CST message test		
	Charging test		
	Charge negation test		
	CST message test		
	CSD message test		
	Charge end test		
	Charge end negative test		