

FCTS-M Series Fuel Cell Engine Test System



- . Gas tightness test
- . Starting performance test
- . Steady state performance test

Summary

Fuel Cell Engine Test System (FCTS-M) is designed to provide a stable test platform for fuel cell engine. With system software independently developed by Kewell, the performance, stability, and safety of fuel cell engine can be tested. A great match for Incoming Quality Control (IQC) and Outgoing Quality Control (OQC) of fuel cell engine.

Functions

- Gas tightness test
- Starting performance test

- Steady state performance test
- Steady state indicators test
- Aging test
- Insulation test
- Starting characteristic test (hot/cold conditions)
- Rated power test
- Peak power test
- Other customized test items

Advantages

- Complete safety control & monitoring:
- Hydrogen concentration detector; Insulation impedance detection; Safety relief valve; Safe PLC
- Three-level protection
- Selected components
- Debugging mode fit for R&D testing; Work step import triggers quick testing
- Versatile test curves; Automatic data saving
- Compatible with international standards; Flexible setting of protection parameters
- Dual operation mode: Manual/Auto; Self-inspection before testing

Models & Specifications

Models		FCTS-M-50	FCTS-M-100	FCTS-M-150	FCTS-M-200	FCTS-M-250	FCTS-M-300
Rated power		50kW	100kW	150kW	200kW	250kW	300kW
Gas System	Hydrogen flow range	20-1000 NLPM	40-2000 NLPM	60-3000 NLPM	80-4000 NLPM	100-5000 NLPM	120-6000 NLPM
	Hydrogen flow resolution	±1%FS					
	Nitrogen purging	Yes					
	Exhaust gas mode	Mixing (water/gas separation) (Can be independently exhausted according to demand.)					
Cooling System	Internal circulation cooling	Cooling water circulation					
	Coolant	Deionized water					
	Temperature control precision	±1°C (steady state); ±1.5°C (dynamic state)					
	Cooling method	Secondary cooling water					
	Conductivity monitoring	Precision≤1.5%FS					
	Water purging	Yes					
Protection System	Hydrogen leakage alarm	Editable					
	Insulation detection	Editable					
	Emergency stop	Emergency stop button; Indicator lights of running status*3					

KDLF	Rated power	80kW		150kW	200kW	300kW	400kW	400kW
	Type	Energy Recycling electronic load (Energy recovery is available in full power range.) Complete grid protection (overvoltage/undervoltage/overcurrent)						
	Current response time	≤10ms						
	Voltage range	24~800Vdc						
	Current range	0~600A		0~800A	0~1000A			
General Specifications	Control system	PLC						
	Human-computer interface	LCD						
	External communication	CAN						
	Internal communication	LAN						
	Power supply	AC 380V three-phase five-wire						
	Low-voltage power supply	±24V (standard) Other power supplies (optional)						
	Ambient temperature	0~40℃						
	Dimensions (width*depth*height) (mm)	1600*1000*1900			2200*1800*2400		2600*2000*2400	