



**Model: HC688, 1500rpm / 50Hz**

**Prime Rating: 500kW / 625 kVA**

**Standby Rating: 550kW / 688 kVA**

### Standby or Prime Power Features

- Cummins 4-stroke , water-cooled diesel engine
- Leroy Somer Brush-less synchronous alternators: four-pole construction.
- HT2000 AUTO START/STOP Control System
- 24V starting and control battery
- Full range of accessories and options available
- Operation&Maintenance, and Parts Manual
- Manufactured in an ISO-9001 certified facilities
- Heavy-duty & One year warranty

### General Design

HC688 open type genset contains two parts: genset with steel-fabricated base frame, and control panel.

- Emergency stop button equipped
- Anti-vibration mountings and base frame
- High Temperature, Low Oil pressure, Overspeed Overcurrent, Charge fail protections.
- Lockable maintenance and control panel doors. (Silent type)

### Gen Set Ratings

3 Phase, p.f.0.8

Rated Frequency	Hz		50
Rated Output	kW / kVA		500 / 625
Max. Output	kW / kVA		550 / 688
Max. Current	Amps		992
Rated Voltage	V		400
Phase			3 Phase 4 Wires
Manufacturer			Fujian Huatai Power Supply Co.,Ltd.

**Notes:** Standby ratings do not have an overload capability but can be used for the duration of the utility failure per ISO3046, DIN6271, Prime (unlimited running time) ratings are continuous per DIN6271, ISO3046 with 10% overload capability.

### Engine Technical Data

General		Units	50HZ
	Emission certificates		STAGE 2
	Rated speed	rpm	1500
	Engine Brand - Model		Chongqing Cummins Enging Co.,Ltd - KTAA19-G6A

Engine Basic Data	Engine Max.output	kW/hp	664 / 890
	Engine Base.output	kW/hp	555 / 744
	Number of cylinders		6
	Cylinder arrangement		Inline
	Type of air intake		Turbocharged,Air to Air After-cooled
	Type of cooling		Water-cooled
	Total displacement	liters	18.9
	Bore*Stroke	mm	159 * 159
	Speed control		Electronic
	Speed drop		±5%
Fuel system	Type of fuel		Diesel
	Fuel consumption @ 25% load	Liters/h	35
	Fuel consumption @ 50% load	Liters/h	63.9
	Fuel consumption @ 75% load	Liters/h	95.2
	Fuel consumption @ 100% load	Liters/h	127.1
	Fuel tank capacity	Liters	To be Asked
Oil	Type of oil		SAE 15W40/CF-4
	Total quantity of oil	Liters	50
	Maximum oil consumption	g/kW.h	≤4
Coolant	Type of coolant		Water
	Total quantity of coolant	Liters	116.5
Air system	Air filter type		Dry Element
	Max.intake restriction	kPa	6.23
	Consumption	Liters/s	750
	Intake flow	Liters/s	10800
Exhaust system	Exhaust flow	Liters/s	2054
	Exhaust temperature	°C	584
	Max.back pressure	kPa	10
Electrical system	Voltage of electric system	V	24
	Type of battery		Lead acid type

### AC Alternator Data

Model	LSA 49.1S4A
Brand	Leroy Somer
Prime Power (kW)	500kW
Excitation Type	Brushless self-excitation
Voltage Regulator Type	Automatic Voltage Regulator
AVR Model	R250
Power Factor (Cos Phi)	0.8
Altitude	≤1000m
Overspeed	2250RPM
Number of Pole	4
Exciter type	Shunt
Insulation class	H
Drip proof	IP23
Voltage regulation	±0.5%
Total harmonics (TGH/THC)	at no load < 1.5% - on load < 2%
Wave form: NEMA=TIF	<50
Wave form: I.E.C = THF	<2%
Bearing	Single
Voltage Regulation	± 0.5%
Coupling	Direct

## Control Panel

### HT2000 Control System

Automatic Start Control Panel

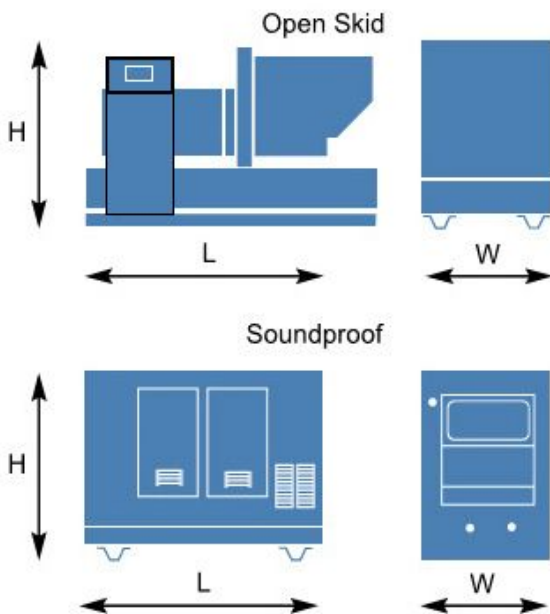
HT2000 control system integrating digital, intelligent and network techniques is used for automatic control of diesel generator set. It can carry out functions including automatic start/stop, data measure and alarming.

The controller uses LCD display, optional Chinese and English display interface with operation easy and reliable.

HT2000 control system uses micro-processing technique which can carry out precision measure, constant value adjustment timing and threshold setting and etc. of multi-parameters. It can be widely used in all types of generator automatic control for compact structure, advanced circuits, simple connections and high reliability.

- High Temperature,low oil pressure,overspeed, overcurrent,over/under voltage, over/under frequency protection.
- 3 phase generator voltage and current measurement
- 3 phase busbar voltage measurement
- 3 phase power measurement
- 3 analog inputs
- Event and performance log
- 2 languages (user changeable)

### Dimension & Weight



Open Type (Standard Configuration)  
Overall Size: 4450×1650×2150 mm(L\*W\*H)  
Weight:4700Kgs

Soundproof Type  
Overall Size: 5600\*2100\*2500 mm(L\*W\*H)  
Weight:6300Kgs

### Standard Equipments

#### Engine

- Air Cleaner(Dry-cartridge type)
- Fuel Pump
- Fuel Filter
- Thermostat and Housing
- Dry Exhaust Manifold
- Blower Fan & Fan Drive
- Radiator - Unit Mounted
- Electric Starting Motor
- Housing & Flywheel
- Charging Alternator
- Battery Rack & Cables
- First filling of oil and filters
- First filling of coolant

#### Electrical System

- Battery (for 50HZ is supplied as standard)
- Battery rack and cables
- Engine driven battery charger
- Battery disconnect switch

#### Canopy(for silent units)

- Heavy duty lockable handles in each door
- Large doors for easy access for service and monitoring
- Coolant refilling specific hatch
- Sound foam
- Modular bolted assembly after painting.
- Powder coating paint for outdoor usage.

### **Alternator**

Self-ventilated and drip-proof construction  
Synchronous, Brush-less, Self Exciting, Self Regulating  
Direct Coupled With Flex Disk  
12 Leads winding  
Class H Insulation  
Drip-Proof Construction

### **Exhaust**

Built-in Industrial Muffler for Open generators  
Built-in Residential Muffler for Silent generators  
Rain Cap

### **Handling**

Fork lift facilities  
Lifting and holding down points

### **Base Frame**

Heavy duty quality steel fabricated welded base plate  
Heavy duty anti-vibration mountings  
Stub-up area

Weatherproof sealed joints.

Cut using high precision numeric control technology.

Bent using high precision numeric control technology.

Glazed acoustic sealed control panel door.

Fuel filter outside enclosure.

In base oil and coolant drains.

### **Control Panel**

HT2000 Control System

Automatic Start Control Panel

\* Compact gen-set controller for gensets operating for automatic start/stop, data measure and alarming.

\* Battery Charger(to be supplied by mains into the 208-240V range)

\* On/Off button

\* Emergency stop button

### **Packing**

Plastic wrap protection package

Alternator, Engine and Generating set operator's manual are supplied together with electrical drawings.



## **Fujian HuaTai Power Supply Co.,Ltd.**

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