



## Genset

Model	JHY-250GF
Voltage	277/480V
Frequency&Speed	60HZ 1800RPM
Prime Power	253kW/316kVA
Standby Power	278kW/348kVA

- Engine: Yuchai YC6MK420L-D21
- Alternator: Stamford/Leroy Somer /Hengsheng
- Controller: DeepSea/SmartGen /DEIF/ComAp

## General Engine Data

### Main technical parameters

Number of cylinders	6
Configuration	Vertical, in-line
Aspiration	Turbocharged, air-air intercooled
Combustion system	Direct injection
Compression ratio	16.8:1
Bore	123 mm
Stroke	145 mm
Displacement	10.34 L
Rotation	Counterclockwise (viewed from the flywheel end)
Firing order (viewed from the belt pulley end)	1-5-3-6-2-4
Dry weight (without radiator)	1030 kg
Wet weight (without radiator)	1080 kg

Centerline deviation relative to the crankshaft center gravity ..... -2 mm

### Moments of rotation inertia

Engine	3.02 kg·m <sup>2</sup>
Flywheel	2.35 kg·m <sup>2</sup>

### Performance rating

Speed droop	≤3 %
Steady state speed band	≤0.5 %

### Test conditions

Ambient temperature	25 °C
Atmospheric pressure	100 kPa
Relative humidity	30 %
Max. operating intake resistance	≤5 kPa
Exhaust backpressure limit	≤10 kPa
Fuel temperature (fuel inlet pump)	38±2 °C

Attention: Unless otherwise explicitly specified, all parameter data are measured under standard test condition as above. If the engine is operated under other test conditions rather than the test condition above, it shall be adjusted properly according to the actual environment. Contact the Yuchai Technical Service Department for details.

### Overall dimensions

Length (from front end of radiator to rear end of air filter)	2088 mm
Width	1130 mm
Height (with radiator and mounting support)	1392 mm

### Centre of gravity (dry engine, with the center of the rear end face of the flywheel shell as the origin)

From the rear end face of the flywheel	567 mm
Height relative to the center of the crankshaft	181 mm

### Fuel consumption

Note: The density of diesel is 0.835 kg/L.

Load condition	1800 r/min	
	g/(kW·h)	L/h
Standby	205.2	75.9
Prime	204.5	68.8
75% prime	207.2	52.3
50% prime	213.9	36.1

### Electric system

Type	Negative ground
Charger	
Voltage	28V
Output current	55A
Starter	
Type	Electric start, 1
Voltage	24V
Power	9kW
Number of teeth of flywheel	119
Number of teeth of starter	11

### Cooling system

Total coolant capacity.....	.65 L
Engine coolant capacity.....	.21 L
Radiator coolant capacity.....	.40 L
Pipeline coolant capacity.....	.4 L
Engine max. outlet coolant temperature.....	99 °C
Thermostat operation temperature	
Initial open.....	(80±2) °C
full open.....	< 90 °C
Max. coolant temperature rise:	
-Standby power.....	8.5 °C
-Prime power.....	8 °C

### Radiator

Cooling area.....	114.4 m <sup>2</sup>
Dry weight.....	155 kg
Core material.....	Aluminum
Width of core.....	1050 mm
Height of core.....	1060 mm
Thickness of core.....	.96 mm
Min. pressure of pressure cap.....	(50±5) kPa
Coolant resistance limit.....	.30 kPa

### Intercooler

Cooling area.....	53.2 m <sup>2</sup>
Core material.....	Aluminum
Width of core.....	1050 mm
Height of core.....	1060 mm
Thickness of core.....	.63 mm
Air resistance limit.....	.10 kPa

### Coolant pump

Rotation speed.....	2950 r/min
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### Intake system

#### Air filter

Max. intake resistance:	
-Clean air filter.....	3.5 kPa
-Dirty air filter.....	5 kPa
-Warning of intake resistance.....	6.2 kPa
-Air filter type.....	Dry-type, filter cartridge of paper

### Inclination

Transverse inclination/longitudinal inclination (volume of engine oil sump: 28 L).....	20°/15°
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### Fuel system

Injection system.....	Mechanical pump+electronic governor
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#### Injector

Type.....	P-type, with multiple jets
Injector opening pressure.....	(26~27) MPa

#### Fuel pump

Drive mode.....	Gear driven
Fuel delivery pump flow @1,800 rpm.....	4.9 L/min
Max. fuel inlet temperature limit.....	70 °C
Allowed fuel inlet pressure of front end of fuel delivery pump (absolute pressure).....	(-100~150) kPa
Maximum fuel return pressure of fuel pump.....	20 kPa

#### Fuel filter

Pre- filter.....	
Rated flow.....	7 L/min
Max. original resistance.....	12 kPa
Water separation efficiency at the rated flow.....	≥ 95 %
Filter efficiency:	
For particles of ≥ 30 µm.....	≥ 96 %
For particles of (25~30) µm.....	≥ 85 %

### Alternator

Pole No.	4-Pole
Exciter Type	Single bearing, Brushless, Self-excited
Power factor	0.8
Voltage adjust range	≤ 5%
Insulation Grade	H
Protection Grade	IP23/22
Phase / wire	3 phase 4 wires

- ❖ NEMAMG1.JIANGHAO, and ANSI standards compliance for temperature rise and motor starting.
- ❖ Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- ❖ Sustained short-circuit current enabling down stream circuit breakers to trip without collapsing the generator field.
- ❖ Self-ventilated and dripproof construction.
- ❖ Superior voltage waveform from two-thirds Pitch windings and skewed stator.
- ❖ Digital solid-state.volts-per-hertz voltage Regulator with +1% no-load to full-load regulation.

## Control Panel



**The control module gives digital readouts of:**

Generator voltage;  
Output frequency;  
Engine speed;  
Battery voltage;  
Engine hours run.

The **control panel** is an Digital Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the module will display warnings, shutdown and engine status information on the back-lit LCD screen and illuminated LEDs.

### The control module has indicators for failure

**information:**

Over speed/Low speed,  
Emergency stop  
Low oil pressure;  
High water temperature  
Failure to start  
Battery charger failure

### Automatic shutdown occurs under:

Low engine oil pressure;  
High engine water temperature;  
Over speed/Low speed;  
Failure to start after three attempts.



Dimension:3200\*1150\*1750mm

Weight:3000kg

## Electrical system

- Maintenance-free and anti-explosion battery
- Standard breaker
- ABB breaker (optional)
- ATS (optional)
- Battery charger (optional)
- GMS monitoring (optional)

## Packing

- Wrapping film packaging
- Tray packaging
- plywood box packaging



Dimension:4300\*2000\*2250mm

Weight:5200kg

Fuel Tank Capacity:850L

**Jiangsu Jianghao Generator Co.,Ltd**

**Address:** No.1 Xixu Road, Medical High-tech Zone,  
Taizhou city, Jiangsu, China

**Contact Person:** Anthony Feng

**Email:** [jhf.sale@jhgenerator.com](mailto:jhf.sale@jhgenerator.com)

**WhatsApp:** +86 18652649673

