



Genset

Model	JHY-180GF
Voltage	277/480V
Frequency&Speed	60HZ 1800RPM
Prime Power	183kW/228kVA
Standby Power	201kW/251kVA

- Engine: Yuchai YC6A305-D32
- 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	17.5:1
Bore	108 mm
Stroke	132 mm
Displacement	7.255L
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)	725 kg
Wet weight (without radiator)	750 kg

Overall dimensions

Length (from front end of radiator to rear end of air filter)	1740 mm
Width	960 mm
Height (with radiator and mounting support)	1160 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	589 mm
Height relative to the center of the crankshaft	215mm

Fuel consumption

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

Load condition	1800 r/min	
	g/(kW·h)	L/h
Standby	223.4	59.7
Prime	222.1	54.0
75% prime	232.7	42.4
50% prime	238.3	28.9

Centerline deviation relative to the crankshaft center gravity

-29.4 mm

Moments of rotation inertia

Engine	1.9 kg·m ²
Flywheel	1.5 kg·m ²

Performance rating

Speed droop	≤0.5 %
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.

Electric system

Type	Negative ground
Charger	
Voltage	28V/14V
Output current	35A/65A
Starter	
Type	Electric start, 1
Voltage	24V/12V
Power	6 kW/5.5kW
Number of teeth of flywheel	110
Number of teeth of starter	11

Cooling system

Total coolant capacity.....	54.66 L
Engine coolant capacity.....	20.66 L
Radiator coolant capacity.....	.30 L
Pipeline coolant capacity.....	.4 L
Engine max. outlet coolant temperature.....	97°C
Pressure difference between inlet and outlet of water pump (max. hydrostatic head).....	48 kPa

Thermostat operation temperature

Initial open.....	(70±2) °C
full open.....	< 80 °C

Max. coolant temperature rise:

-Standby power.....	8°C
-Prime power.....	7°C

Radiator

Cooling area.....	71.3m ²
Dry weight.....	100kg
Core material.....	Aluminum
Number of lines.....	.88
Density of core.....	13 cooling fins/inch
Width of core.....	892 mm
Height of core.....	820 mm
Min. pressure of pressure cap.....	(50±5)kPa
Coolant resistance limit.....	.25 kPa

Intercooler

Cooling area.....	40.4 m ²
Core material.....	Aluminum
Number of lines.....	.38
Density of core.....	11 cooling fins/inch
Width of core.....	.880 mm
Height of core.....	.800 mm
Air resistance limit.....	.15 kPa

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

Intake system

Air filter

Max. intake resistance:	
-Clean air filter.....	3.0 kPa
-Dirty air filter.....	3.5 kPa

-Air filter type..... Dry-type, filter cartridge of paper

Inclination

Transverse inclination/longitudinal inclination (volume of engine oil sump: 20 L) 10°/ 10°

Fuel system

Injection system..... High pressure common rail

Injector

Type.....	Electronically controlled, with multiple jets
Injector opening pressure.....	Electronically controlled

Fuel pump

Drive mode.....	Gear driven
Fuel delivery pump flow @1800 rpm.....	5 L/min
Max. fuel inlet temperature limit.....	70 °C
Allowed fuel inlet pressure of front end of fuel delivery pump (absolute pressure).....	(35~100) kPa
Maximum fuel return pressure of fuel pump	20 kPa

Fuel filter

Pre- filter

Rated flow.....	7 L/min
Max. original resistance	≤ 10 kPa

Water separation efficiency at the rated flow..... ≥ 95 %

Filter efficiency:

For particles of 25 µm.....	99 %
For particles of 10 µm.....	.85 %

Fine- filter

Rated flow.....	7 L/min
Max. original resistance	≤ 7 kPa

- ❖ NEMA MG1.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.



Dimension:2600*1200*1460mm

Weight:1900kg



Dimension:3600*1600*1900mm

Weight:3700kg

Fuel Tank Capacity:550L

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.

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

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