JIANGHAO GENERATOR

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Genset

Model	JHP-1000GF
Voltage	277/480V
Frequency&Speed	60HZ;1800RPM
Prime Power	1000kW/1250kVA
Standby Power	1100kW/1375kVA

The 4012-46TWG engine has been developed using the latest engineering techniques and builds on the strengths of the already very successful 4012 Series family and addresses today's uncompromising demands within the power generation industry.

Developed from a proven heavy-duty industrial base these products offer superior performance and reliability.

The 4012-46TWG2A is a turbocharged and air-to-water charge-cooled, 12 cylinder diesel engine which offers a choice of temperate or tropical cooling. Its premium features provide exceptional power-to-weight ratio resulting in exceptional fuel consumption.

The overall performance and reliability characteristics makes this one of the prime choices for today's power generation industry.

Engine: Perkins 4012-46TWG2A

► Alternator: Stamford/Leroy Somer

/Hengsheng

➢Controller:DeepSea/SmartGen

/DEIF/ComAp



Specification					
Number of cylinders	12 60º Vee form				
Bore and stroke	160 x	160 x 190 mm		7.5 in	
Displacement	45.842 litres		279)7 in³	
Aspiration	Ti	Turbocharged and air to water charge cooled			
Cycle	4 stroke				
Combustion system	Direct injection				
Compression ratio	13:1				
Rotation	Anti-clockwise, viewed from flywheel end			d	
Total lubricating capacity	177 litres		46.7 US gal		
Cooling system	Water-cooled Temperate		cooled		
			Tropical		
Total coolant capacity	196 litres	51.7 US gal	201 litres	53 US gal	



	Engine pa	ackage weights and di	mensions	
	Temperate		Trop	vical
Length	3714 mm	146 in	3714 mm	146 in
Width	1780 mm	70 in	1978 mm	79 in
Height	2255 mm	89 in	2255 mm	89 in
Weight (dry)	5220 kg	11508 lb	5283 kg	11647 lb



Speed Type of rpm operation	Typical generator output (Net)		Engine power				
			Gross		Net		
	operation	kVA	kWe	kWm	hp	kWm	hp
	Baseload Power	989	791	891	1194	833	1117
1800	Prime Power	1250	1000	1113	1492	1055	1414
	Standby (maximum)	1375	1100	1224	1641	1166	1563

The above ratings represent the engine performance capabilities guaranteed within plus or minus 3% at the reference conditions equivalent to those specified in ISO 8528/1, ISO 3046/1, BS 5514/1.

Rating conditions: 25°C air inlet temperature, barometric pressure 100 kPa, relative humidity 30%. Please consult your distributor or the factory for ratings in other ambient conditions. Note: For full ratings please refer to Perkins Engines Company Limited. All electrical ratings are based on an average alternator efficiency and a power factor of 0.8. Fuel specification: BS2869: Class A2.

Rating definitions

Baseload power: Power available for continuous full load operation. No overload is permitted. Prime power: Power available for variable load with an average load factor not exceeding 80% of the prime power rating in any 24 hour period. Overload of 10% permitted for 1 hour in every 12 hours operation. Standby (maximum): Power available at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.

Percent of prime power	Fuel consumption at 1800 rpm g/kWh	Fuel consumption at 1800 rpm I/hr
Standby (maximum)	220	298
Prime power	217	266
Continuous baseload	216	209

Fuel system

- Direct fuel injection system with fuel lift pump
- Governing to ISO 8528-5 class G3 with isochronous capability
- Full-flow spin-on filters

Lubrication system

- · Wet full aluminium sump with filler and dipstick
- Full flow spin-on oil filters

Cooling system

- Two twin thermostats
- System designed for ambient temperatures of up to 50°C

Alternator

Pole No.	4-Pole			
Exciter Type	Single bearing, Brushless,			
	Self-excited			
Power factor	0.8			
Voltage adjust	\leq 5%			
range				
Insulation Grade	Н			
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

Engine hours run.



The control module gives digital readouts of: Generator voltage; Output frequency; Engine speed; Battery voltage;



Dimension:4880*2100*2500mm Weight:10000kg



Dimension:6000*2400*2900mm Weight:12300kg Fuel Tank Capacity:1000-3000L

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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