## JIANGHAO GENERATOR

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# Genset

Model	JHPE-400GF
Voltage	277/480V
Frequency&Speed	60HZ;1800RPM
Prime Power	400kW/500kVA
Standby Power	440kW/550kVA

# Engine: Perkins 2506D-E15TAG1

Alternator:Stamford/Leroy Somer

## /Hengsheng

➢Controller:DeepSea/SmartGen

# /DEIF/ComAp

The 2500 Series engine has been developed using the latest engineering techniques and builds on the strengths of the already very successful 2000 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 2506D-E15TAG1 is a turbocharged and air-to-air charge-cooled, 6 cylinder diesel engine. Its premium features provide economic and durable standby duty, exceptional power-to-weight ratio resulting in exceptional fuel consumption and low gaseous emissions and advanced overall performance and reliability making this the prime choice for today's power generation industry.



Specification		
Number of cylinders	6 vertica	l <mark>in-line</mark>
Bore and stroke	137 x 171 mm	5.4 x 6.7 in
Displacement	15.2 litres	927.5 in <sup>3</sup>
Aspiration	Turbocharged and air-	-to-air charge cooled
Cyde	4 str	oke
Combustion system	Direct injection	
Compression ratio	16:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	62 litres	16.4 US gal
Cooling system	Water-o	cooled
Total coolant capacity	58 litres	15.3 US gal



Engine package weights and dimensions				
Length	2657 mm	104.6 in		
Width	1120 mm	44 in		
Height	1718 mm	67.6 in		
Weight (dry)	1633 kg	3600 lb		



	Type of operation	Typical generator output (Net)		Engine power			
Speed rpm				Gross		Net	
rpm		kVA	kWe	kWm	hp	kWm	hp
1000	Prime power	500	400	458	615	435	583
1800	Standby power	563	450	514	689	490	657

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1. Derating may be required for conditions outside these; consult Perkins Engines Company Limited.

Generator powers are typical and are based on an average alternator efficiency and a power factor (cos. 0) of 0.8. Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2. Lubricating oil: 15W40 to API Cl4.

#### Rating definitions

Prime power: Power available at variable load with a load factor not exceeding 80% of the prime power rating. Overload of 10% is permitted for 1 hour in every 12 hours' operation. Standby power: Power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run continuously. Load factor may be up to 100% of standby power. No overload is permitted.

Percent of prime power	Fuel consumption at 1800 rpm g/kWh	Fuel consumption at 1800 rpm I/hr
Standby power	222	126
Prime power	225	113
75%	245	93
50%	267	67

#### Lubrication system

- · Wet sump with filler and dipstick
- · Full-flow replaceable 'Ecoplus' filter
- Oil cooler integral with filter header

#### Cooling system

- Gear-driven circulating pump
- Mounted belt-driven fan
- Radiator supplied loose incorporating air-to-air charge cooler
- System designed for ambients up to 50°C

#### Electrical equipment

- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

#### Flywheel and housing

- High inertia flywheel to SAE J620 size 14
- SAE ½ flywheel housing

#### Mountings

Front engine mounting bracket

#### Optional equipment

- 110 volt/240 volt immersion heater
- Additional speed sensor
- Temperature and pressure sensors for gauges
- Air filter rain hood
- · Twin starters/facility for second starter
- Tool kit

### Alternator

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



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



Dimension:3700\*1200\*2000mm Weight:3400kg



Dimension:4700\*2100\*2400mm Weight:6300kg Fuel Tank Capacity:1000L

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

### Jiangsu Jianghao Generator Co.,Ltd

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