

## JIANGHAO GENERATOR

Genset	
Model	JHV2-440GF
Voltage	400/480V
Frequency&Speed	50/60HZ
Prime Power	404kW/505kVA
Standby Power	445kW/556kVA

# **General Engine Data**

No.of Cylinders:	6
Bore:	144mm
Storke:	165mm

#### Advantades: Durability & low noise

Designed for easiest, fastest and most economical installation. Well-balanced to produce smooth and vibration-free operation with low noise level. To maintain a controlled working temperature in cylinders and combustion chambers, the engine is equipped with piston cooling. The engine is also fitted with replaceable cylinder liners and valve seats/guides to ensure maximum durability and service life of the engine.

#### Low exhaust emission

The state of the art, high-tech injection and charging system with low internal losses contributes to excellent combustion and low fuel consumption. The Volvo engine complies with EU Stage II exhaust emission regulations.

#### Easy service & maintenance

Easily accessible service and maintenance points contribute to the ease of service of the engine.

- Electronic govering EMS 2.4
- CAN bus communication
- Compact design for the power class
- High power to weight ratio
- Emission compliant acc. to EU Stage
- Noise optimized engine design
- RoHS2 Compliant

### Dual speed

- Engine: Volvo TAD1641GE-B
- Alternator:Stamford/Leroy Somer /Hengsheng
- Controller:DeepSea/SmartGen

# /DEIF/ComAp

Displacement:	16.12L
Lube oil:	48L
Consumption:	199g/kw.h

### Technical description: Engine and block

- ✓ Optimized cast iron cylinder block with optimum distribution of forces
- ✓ Piston cooling for low piston temperature and reduced ring temperature
- $\checkmark$  Drop forged steel connecting rods
- ✓ Crankshaft hardened bearing surfaces and fillets for moderate load on main and big-end bearings
- ✓ Keystone top compression rings for long service life
- $\checkmark$  Replaceable valve guides and valve seats
- ✓ Lift eyelets
- ✓ Flywheel housing with connection acc. to SAE1/SAE2
- ✓ Flywheel for flexplate
- ✓ Fixed integrated radiator front engine suspension
- ✓ Transport brackets, rear

## Lubrication system

- ✓ Full flow cartrigde insert filter
- ✓ Rotary displacement oil pump driven by the crankshaft
- ✓ Deep front oil sump
- $\checkmark$  Oil dipstick, short in front
- ✓ Integrated full flow oil cooler, side-mounted



#### Fuel system

- ✓ Common rail
- ✓ Gear driven fuel feed pump
- ✓ Electronic governor
- ✓ Fuel prefilter with water separator
- ✓ Fine fuel filter of cartridge insert type

#### Intake and exhaust system

- ✓ Connection flange for exhaust line
- $\checkmark$  Turbo charger, centre low with exhaust flange
- ✓ Two-stage air filter, with cyclon
- ✓ Heater flange in charge air inlet (with relay)

#### **Cooling system**

- ✓ Belt driven, maintenance-free coolant pump with high degree of efficiency
- ✓ Efficient cooling with accurate coolant control through a water distribution duct in the cylinder block
- $\checkmark$  Reliable thermostat with minimum pressure drop
- ✓ Pusher fan
- ✓ Visco fan or fixed fan

### Electrical system

- ✓ Engine Management System 2 (EMS 2.4), an electronically controlled processing system which optimizes engine performance. It also includes advanced facilities for diagnostics and fault tracing
- $\checkmark$ The instruments and controls connect to the engine via the CAN SAE J1939 interface, either through the Control Interface Module (CIM). The CIM converts the digital CAN bus signal to an anolog signal, making it possible to connect a variety of instruments. The CIM control is а panel with display, monitoring, enginecontrol, alarm, parameter setting and diagnostic functions. The CIM also presents error codes in clear text.
- ✓ Sensors for oil pressure, boost pressure, boost temp, exhaust temp, coolant temp, water in fuel, fuel pressure and two speedsensors.

## Alternator

Pole No.	4-Pole
Exciter Type	Single bearing, Brushless, Self-excited
Power factor	0.8
Voltage adjust range	≦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.
- $\diamond$  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.
- $\diamond$  Self-ventilated and dripproof construction.

 $\diamond$  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;

- output noquonoy
- Engine speed;
- Battery voltage;
- Engine hours run.



Dimension:3260\*1150\*2100mm Weight:3500kg



Dimension:4300\*2000\*2250mm Weight:5700kg Fuel Tank Capacity:850L 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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