## JIANGHAO GENERATOR

# Genset

Genser	
Model	JHP5-1600GF
Voltage	230/400V
Frequency&Speed	50HZ;1500RPM
Prime Power	1600kW/2000kVA
Standby Power	1800kW/2250kVA

The Perkins® 4000 Series family of 6, 8, 12 and 16 cylinder diesel engines was designed in advance of today's uncompromising demands within the power generation industry and includes superior performance and reliability.

The 4016TAG2A is a turbocharged, air-to-air chargecooled, 16 cylinder vee form diesel engine.

Its premium design and specification features provide economic and durable operation as well as exceptional power to weight ratio, improved serviceability, low gaseous emissions, overall performance and reliability essential to the power generation market. The 4016TAG2A is specially tuned for improved load acceptance response in standby duty.

# Engine: Perkins 4016TAG2A

► Alternator: Stamford/Leroy Somer

## /Hengsheng

➢Controller:DeepSea/SmartGen

# /DEIF/ComAp



Specification				
Number of cylinders	16 60° Vee form			
Bore and stroke	160 x	160 x 190 mm 6.3 x 7.5		7.5 in
Displacement	61.12	23 litres	372	22 in <sup>3</sup>
Aspiration		Turbocharged and ai	r to air charge coole	ed
Cycle	4 stroke			
Combustion system	Direct injection			
Compression ratio	13.6:1			
Rotation	Anti-clockwise, viewed from flywheel end			
Total lubricating capacity	237.2 litres		63 US gal	
Cooling system	Water-cooled			
	Electro unit		Elect	ropaK
Total coolant capacity	95 litres	25 US gal	316 litres	85 US gal



Engine package weights and dimensions				
	Electro unit		ElectropaK	
Length	3302 mm	130 in	4460 mm	176 in
Width	1723 mm	68 in	2775 mm	109 in
Height	2128 mm	84 in	3239 mm	126 in
Weight (dry)	5570 kg	12279 b	8010 kg	17659 lb



C. C. William and M. S. W Hendri and M. S. William and M. S. Wi		Typical generator output (Net)		Engine power			
	Type of operation			Gross		Net	
	operation	kVA	kWe	kWm	hp	kWm	hp
	Baseload power	1634	1307	1413	1894	1362	1826
1500	Prime power	2058	1646	1766	2367	1715	2300
	Standby (maximum)	2263	1811	1937	2596	1886	2529

#### Note: 4016TAG2A is offered for 50Hz operation only.

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.

Ratings conditions: 25°C air inlet temperature, barometer pressure 100 kPa, relative humidity 30%. Please consult your distributor or the factory for ratings in 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: BS 2869 Class A1 + A2 or ASTM D975 No 2D.

#### 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 for a maximum of 500 hours per year. No overload is permitted.

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	
Standby (maximum)	212	
Prime power	209	
Baseload power	205	
75%	203	
50%	202	
25%	212	

#### Fuel system

- · Direct fuel injection system with fuel lift pump
- Digital governing to ISO 8528-5 class G2 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**



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



Dimension:6050\*2300\*2700mm Weight:14000kg



Dimension:12000\*2400\*2900mm Weight:17800kg 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

### Jiangsu Jianghao Generator Co.,Ltd

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