

MODEL	KH-P 16 GF	
Prime Power (50Hz)	16 KW	20 KVA
Standby Power (50Hz)	17.6 KW	22.00 KVA

### Standard Features

#### General Features:

- ◆ Engine (Perkins 404A-22G1)
- ◆ Radiator 50OC max, fans are driven by belt, with safety guard
- ◆ 24V charge alternator
- ◆ Alternator: single bearing alternator IP23, insulation class H/H
- ◆ Absorber
- ◆ Dry type air filter, fuel filter, oil filter
- ◆ Main line circuit breaker
- ◆ Standard control panel
- ◆ 12V batteries, rack and cable
- ◆ Ripple flex exhaust pipe, exhaust siphon, flange,muffler
- ◆ User manual



### Generator Ratings

Voltage(V)		Hz	Phase	P.F (cos $\phi$ )	Prime Amps (A)	Prime Ratings (KW/KVA)	
440	254	50	3	0.8	26.24	16	20
415	240	50	3	0.8	27.82	16	20
400	230	50	3	0.8	28.87	16	20
380	220	50	3	0.8	30.39	16	20

Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-97 (eqv ISO8528) ; A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

### Standard Features

Kaihua Power provides a full line of brand new and high quality products. Each and every unit is strictly factory tested. Warranty is according to our standard conditions: a, 12 months, counted on the day KAIHUA sold to the first buyer; b, One year after installation; c, 1000 running hours (accumulated); subject to the earlier one. Service and parts are available from kaihua Power or distributors in your location.

### ENGINE DATA

Manufacturer / Model:	Perkins 404A-22G1, 4-cycle
Air Intake System:	Air natural cooled
Fuel System:	Direct Injection
Cylinder Arrangement:	4 in line
Displacement:	2.216L
Bore and Stroke:	84*100 (mm)
Compression Ratio:	23.3:1
Rated RPM:	1500rpm
Max. Standby Power:	20.6KW
Governor Type:	Mechanical

### Exhaust system

Exhaust Gas Flow:	3.94m <sup>3</sup> /min
Exhaust Temperature:	505°C
Max Back Pressure:	10.2kPa

### Air Intake System

Consumption:	1.45m <sup>3</sup> /min
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### Fuel System

100%( Prime Power) Load:	5.4L/h
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### Oil System

Total Oil Capacity:	10.6L
Oil Pressure at Rated RPM:	352-448kPa

### Cooling System

Total Coolant Capacity:	7L
Thermostat:	82-95°C
Max Water Temperature:	112°C

## ALTERNATOR SPECIFICATION

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34-1, CSA22.2 and AS1359 standards.

## Alternator Data

Manufacturer:	STAMFORD/MARATHON/KAIHUA
Number of Phase:	3
Connecting Type:	3 phase and 4 wires,"Y" type connecting
Number of bearing	1
Power factor	0.8
Protection grade	IP23 option,upon request
Altitude	≤1000m
Exciter type	Brushless,self-exciting
Insulation class	H
Telephone influence factor(TIF)	≤50
THF	≤2%
Alternator Capacity:	20 KVA
Alternator Efficiencies	85%
Air Cooling Flow:	0.09m <sup>3</sup> /s

## GENERATING SET DATA

Voltage Regulation:	≥±5%
Voltage Regulation, Stead State:	≤±1%
Sudden Voltage Warp:	≤+25%
Sudden Voltage Warp:	≤-20%
Voltage Stable Time:	≤6S
Voltage unbalance:	≤1%
Frequency Regulation, Stead State:	≤5%
Frequency Waving:	≤1.5%
Sudden Frequency Warp:	≤+12%
Transient frequency deviation:	≤-10%
Frequency Recovery Time:	≤5S

**Standard Features**

- ◆Standard Auto Control System
- ◆MCCB
- ◆Special tool
- ◆Starting batteries
- ◆ Battery switch
- ◆Oil Drain Valve
- ◆Exhaust System
- ◆Shock pad
- ◆Documents

**Options**

**ENGINE**

- ◇Engine Heater
- ◇Battery Charger
- ◇Air preheater

**ALTERNATOR**

- ◇Alternator Heater
- ◇PMG

**ELECTRICAL SYSTEM**

- ◇Remote Control Panel
- ◇Automatic Transfer Switch
- ◇Paralleling System

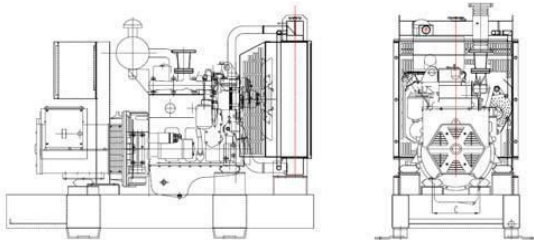
**TYPE**

- ◇Rainproof Type
- ◇Soundproof Type
- ◇Trailer Type

**OTHER**

- ◇Spare Parts
- ◇Daily Fuel Tank

**Dimension & Weight**



Open Type		
Overall Size:	1350×530×1000	(mm)
Weight:	456	KG
Soundproof Type		
Overall Size:	1910× 880×1450	(mm)
Weight:	1050	KG

**Standard Control Panel**



KAIHUA uses micro processing technique integrating digital,intelligent and network techniques which can carry out functions including auto start/stop, data measure, alarming. The controller uses LCD display, optional Chinese and English display interface with operation easy and reliable. It can be widely used in all types of generator automatic control system for compact structure, advanced circuits, simple connections and high reliability

**Auto Module Control Panel**



Auto Module Control Panel is the configuration for nobody on duty controlling generators. This kind of panel adopts auto module control system,with large LCD display to show the menu.  
 Features: MRS10-can receive remote output signal from ATS and realize auto start and stop of generators.MRS16-can realize all functions of MRS10, add RS232 interface which can communicate with PC to realize remote operation.AMF25-Auto Mains Failure controller, can realize all functions of MRS16, furthermore can detect ATS and control directly

Typical Projects



20 units perkins gensets exported to Tanzania



500KW perkins gensets exported to Iran



1250KW perkins gensets exported to Pakistan

Test Center

