

MODEL	HQC400GF	
Prime Power(50Hz)	400KW	500KVA
Standby Power(50Hz)	440KW	550KVA

**Standard Features**

General Features:

- ◆ Engine (DCEC Cummins QSZ13-G3)
- ◆ Radiator 40°C 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
- ◆ Batteries, rack and cable
- ◆ Ripple flex exhaust pipe, exhaust siphon, flange, muffler
- ◆ User manual



**Generator Ratings**

Voltage(V)		Hz	Phase	P.F (cos φ)	Prime Amps (A)	Prime Ratings (KW/KVA)	
440	254	50	3	0.8	656.10	400	500
415	240	50	3	0.8	695.62	400	500
400	230	50	3	0.8	721.71	400	500
380	220	50	3	0.8	759.69	400	500

●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**

Huaquan 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: ①12 months, counted on the day Huaquan sold to the first buyer; ② One year after installation; ③ 1000 running hours (accumulated); subject to the earlier one. Service and parts are available from Huaquan Power or distributors in your location.

**Engine Data**

Manufacturer / Model: DCEC Cummins QSZ13-G3 , 4-cycle  
Air Intake System: Turbocharged, Air/Air Cooling  
Fuel System: HPCR(High Pressure Common Rail)  
Cylinder Arrangement: 6 in line  
Displacement: 13.0L  
Bore and Stroke: 130\*163 (mm)  
Compression Ratio: 17:1  
Rated RPM: 1500rpm  
Max. Standby Power: 470KW/629HP  
Governor Type: Electronic Speed Control System

**Exhaust system**

Exhaust Gas Flow: 1085m<sup>3</sup>/min  
Exhaust Temperature: 547°C  
Max Back Pressure: 10.1kPa

**Air Intake System**

Max Intake Restriction:6.2kPa  
Burning Capacity: 480m<sup>3</sup>/min  
Air Flow: 2470m<sup>3</sup>/min

**Fuel System**

100%( Prime Power) Load: 193g/Kw.h  
75%( Prime Power) Load: 189g/Kw.h  
50%( Prime Power) Load: 187 g/Kw.h  
110%( Prime Power) Load: 105.5L/h

**Oil System**

Total Oil Capacity: 45.42L  
Oil Consumption: ≤4g/kwh  
Oil Pressure at Rated RPM: 207-276kPa

**Cooling System**

Total Coolant Capacity: 41L  
Thermostat: 82-94°C  
Max Water Temperature: 102°C

**Alternator Specification**

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

#### Alternator Data

Manufacturer: STAMFORD/MARATHON/ LEROY-SOMER/HUAQUAN

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 :  $\leq 1000\text{m}$

Exciter type: Brushless, self-exciting

Insulation class: H

Telephone influence factor(TIF):  $\leq 50$

THF:  $\leq 2\%$

Alternator Capacity: 500 KVA

Alternator Efficiencies: 85%

Air Cooling Flow:  $0.09\text{m}^3/\text{s}$

#### Generating Set Data

Voltage Regulation:  $\geq \pm 5\%$

Voltage Regulation, Stead State:  $\leq \pm 1\%$

Sudden Voltage Warp:  $\leq +25\%$

Sudden Voltage Warp:  $\leq -20\%$

Voltage Stable Time:  $\leq 6\text{S}$

Voltage unbalance:  $\leq 1\%$

Frequency Regulation, Stead State:  $\leq 5\%$

Frequency Waving:  $\leq 1.5\%$

Sudden Frequency Warp:  $\leq +12\%$

Transient frequency deviation:  $\leq -10\%$

Frequency Recovery Time:  $\leq 5\text{S}$

#### Standard Features

◆ Standard Auto Control System

◆ Starting batteries

◆ Exhaust System

◆ MCCB

◆ Battery switch

◆ Shock pad

◆ Special tool

◆ Oil Drain Valve

◆ Documents

#### Options

Engine: ◇ Engine Heater

◇ Battery Charger

◇ Air preheater

Alternator: ◇ Alternator Heater

◇ PMG

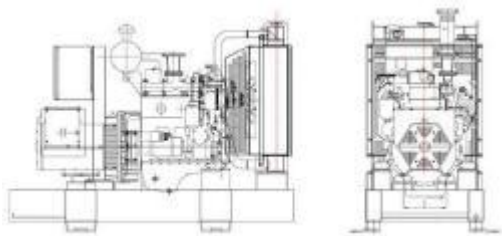
Electrical System: ◇ Remote Control Panel

◇ Automatic Transfer Switch

◇ Paralleling System

- Type:           ◇ Rainproof Type                           ◇ Soundproof Type                           ◇ Trailer Type  
 Other:           ◇ Spare Parts                                       ◇ Daily Fuel Tank

## Dimension & Weight



- Open Type**  
 Overall Size: 3420(mm)×1280 (mm) ×1900 (mm)  
 Weight: 3720kg
- Soundproof Type**  
 Overall Size: 4300 (mm) ×2100 (mm) ×2320 (mm)  
 Weight: 5420kg
- Trailer Type**  
 Overall Size: 5440 (mm) ×2540 (mm) ×3100 (mm)  
 Weight: 7150kg

## Standard Control Panel



Huaquan Power 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 Smartgen LCD display, optional Chinese and English/ Russian/ Spanish 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.

## Typical Projects

