YC6MK420-D30

Version No.: 2017V02 Implemented on: 2017-09-01

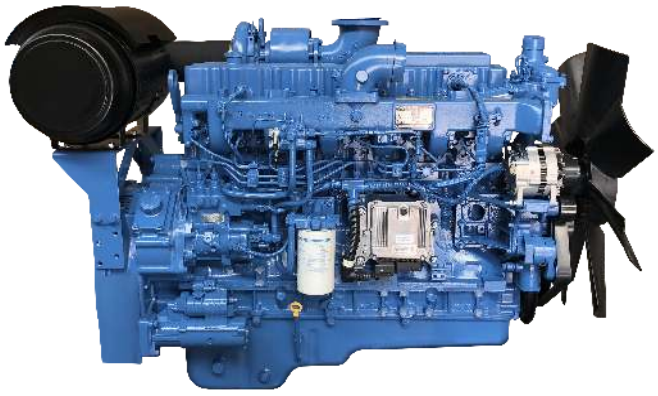
Prime power:281kW @ 1500 r/min

Standby power:309 kW @ 1500 r/min

Emission regulations to be observed:

GB 20891-2014 Stage Ⅲ

ECE R96 Stage ⅢA



(Image shown may not reflect actual engine)

Introduction

After more than 10 years of market test, YC6MK series engines are widely applied in heavy buses, heavy trucks, engineering machineries, ships and generator units. After being updated to the electronically-controlled high-pressure common rail configuration, the engine meets the non-road stage III emission standards, and it has sufficient margin, stronger power, lower fuel consumption and better transient loading capacity.

Product Features

- Integral crankcase and integral cylinder head are adopted, which ensure good reliability. Wet cylinder liner is adopted, which ensures the wear resistant and easy maintenance.
- High-strength alloy crankshaft is adopted, which ensures good wear resistance, and long service life.
- The internal cooling oil passage technology is adopted for piston, which ensures high temperature resistance and good reliability.
- Advanced and mature electronically-control high pressure common rail fuel system and secondary injection technology are adopted, ensuring better dynamic performance and lower fuel consumption.
- G3 performance requirements for generator set are met.

Product service

- Service: Yuchai has built the largest service network in the industry with the minimum service radius, the most extensive “three guarantees” and the shortest response time. 49 global offices are set up, including 14 overseas offices in Europe, Africa and South America etc. Besides, 108 overseas service agents, more than 3,000 service stations and 5,000 sales networks of fittings are established, providing the users with satisfying and considerate services.
- 24h global service hotline: +86 95098.

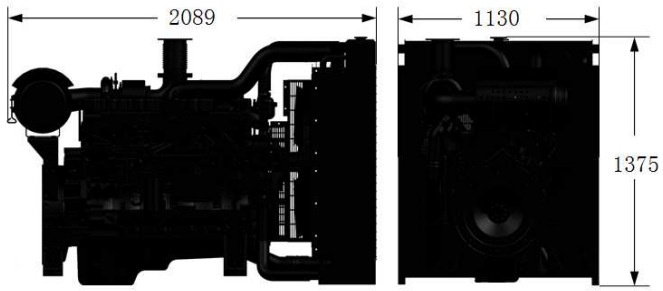
Engine speed	Application	Standard generator unit output		Engine power			
				Total power		Net power	
r/min		kVA	kW	kW	Ps	kW	Ps
1500	Prime	312.5	250	281	382	266	362
	Standby	344	275	309	420	294	400

✧ **Notes:**

1. Prime Power: which corresponds to the basic power (PRP) described in ISO 8528. Implement the maintenance according to the Yuchai's requirement, maximum power of variable load continuous output unlimited time. The average output power shall not exceed 70% of the prime power in every 24 hours of operation.
   Standby Power: In correspondence with the emergency standby power (ESP) stated in ISO 8528. Implement the maintenance according to the Yuchai's requirement, maximum power at a variable load in the event of a main power network failure up to a maximum of 200 hours per year. The average output power shall not exceed 70% of the standby power in every 24 hours of operation.
2. The engine power data stated in the table is the measured performance under the condition stated in ISO 8528-1 and ISO 3046.
3. The power output of the generator unit is calculated according to the efficiency of the AC generator. Thus, it is for reference only.
4. The kVA and kW values are converted as per standard power factor 0.8.
5. The information mentioned above is the latest one, however, the relevant information may be altered after publication.

Engine load	1500 r/min	
	g/（kW·h）	L/h
Standby power	202.3	74.9
Prime power	203.1	68.3
75% prime power	221.0	55.8
50% prime power	226.9	38.2

Remarks: the diesel oil density is 0.835g/cm^3.



Technical Data

Type	Vertical, in-line, water-cooled, four-stroke
Induction system	Turbocharged & Intercooled
Type of combustion chamber	Direct-injection reentrant ω combustion chamber
Cylinder quantity - Bore x stroke.	6-123×145mm
Number of valve per cylinder.	4
Displacement	10.34L
Compression ratio	16.8:1
Cylinder type	Wet-type cylinder sleeve
Working sequence	1-5-3-6-2-4
Fuel supply system	Electronically-control high pressure common rail
Lubrication mode	Combination of pressure and splashing
Starting mode	Electronic
Engine oil capacity	30L (dry-type engine)
Engine oil and fuel consumption ratio	≤0.1%
Rotation	Anticlockwise (facing the power delivery end)
Minimum no-load speed.	650～700 r/min
Speed-regulation grade	ISO 8528 G3
Noise *Lp*	≤96dB(A)
Total dry weight	
Engine	1030 kg
Radiator	155 kg

The final weight and sizes of the engine varies according to the specific arrangement.

Engine Arrangement

- **Air Intake System**
  Air filter
- **Cooling system**
  Radiator (optional)
- **Electrical device**
  24V/12V electrical system
  Inlet preheater (optional)
- **Fuel system**
  Electronically-control high pressure common rail system
  Fuel Filter(two-stage diesel filter)
- **Lubrication system**
  Engine oil filter
- **Flywheel and flywheel housing**
  SAE 14″ flywheel
  SAE 1# flywheel housing
- **Documents**
  Operation Instruction
  Installation Guide
  Parts catalog

Fuel grade: Summer: 0# and 10# ordinary diesel oil of GB 252-2015 premium grade or first grade.Winter: 0#, -10#, -20#, and -35# ordinary diesel oil of GB 252-2015 premium grade or first grade.

Oil brand: 15W-40 in summer; 10W-30 or other environmentally suitable diesel engine oils with the quality grade not lower than Grade CH-4 as provided in GB 11122-2006 in winter.