YC6T660-D31

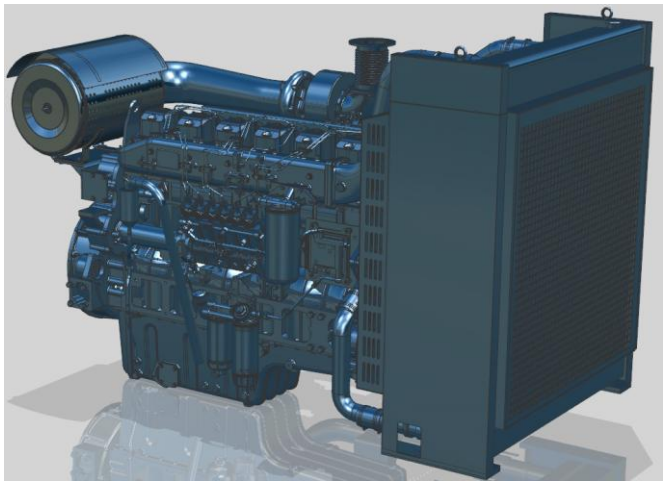
Version No.: 2017V01 Implemented on: 2017-10-01

Prime power: 441 kW @ 1500 r/min

Standby power:485 kW @ 1500 r/min

Emission regulations to be observed:

GB 20891-2014 Stage Ⅲ



Introduction

The YC6T660-D31 series engine is a product independently developed by Yuchai by referring to the advanced technology for large engines both at home and abroad. The configurations, such as four valves, turbocharged & intercooled are adopted for it; and it is optimized and verified through the advanced combustion development technology of Yuchai, and is characterized by energy-saving and high efficiency and reliability, strong loading capability and good maintainability.

Product Features

- Four-valve structure, turbocharged & intercooled, electronic unit pump technologies are adopted for realizing sufficient air intake, full combustion and low fuel consumption, fast and high-quality loading.
- The cylinder body is of mesh reinforcement structure, the cylinder cover is of double-layer water flow design, and the crankshaft connecting rod is made from high strength alloy, making the engine highly reliable.
- Gear-reduction starter is adopted, making the engine start quickly.
- It is characterized by good universality of parts, high serialization degree, structure of one head for one cylinder, and low comprehensive maintenance cost.
- Support dual energy start.

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. We have 108 service agents abroad, over 3,000 service stations, over 5,000 parts selling networks and over 100 electronic control service engineers assigned out to provide satisfactory services to the users.
- 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	500	400	441	600	424	577
	Standby	550	440	485	660	466	634

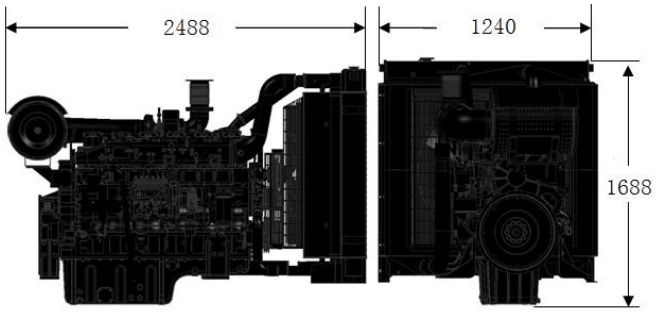
✧ Notes:

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.
2. 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.
3. The engine power data stated in the table is the measured performance under the condition stated in ISO 8528-1 and ISO 3046.
4. The power output of the generator unit is calculated according to the efficiency of the AC generator. Thus, it is for reference only.
5. The kVA and kW values are converted as per standard power factor 0.8.
6. The information mentioned above is the latest one, however, the relevant information may be altered after publication.

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Engine load	1500 r/min	
	g/（kW·h）	L/h
Standby power	217.9	126.5
Prime power	215.5	113.8
75% prime power	218.4	86.5
50% prime power	226.3	59.7

Remarks: the diesel oil density is 0.835kg/L.



Technical Data

Type	Vertical, in-line, water-cooled, four-stroke
Induction system	Turbocharged & air air intercooled
Type of combustion chamber	Direct-injection reentrant ω combustion chamber
Cylinder quantity - Bore x stroke.	6-145×165mm
Number of valve per cylinder.	4
Displacement	16.35L
Compression ratio	15:1
Cylinder type	Wet-type cylinder sleeve
Working sequence	.1−5−3−6−2−4
Fuel supply system	Electronic unit pump
Lubrication mode	Combination of pressure and splashing
Starting mode	Electronic
Engine oil capacity	52L
Engine oil and fuel consumption ratio	≤0.15g/（kW·h）
Rotation	Anticlockwise (facing the power delivery end)
Minimum no-load speed.	(650～700)r/min
Speed-regulation grade	ISO 8528 G3
Speed recovery time	≤3s
Noise *Lp*	≤119 dB(A)
Total dry weight	
Engine	1980kg
Radiator	269kg

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

Engine Arrangement

- **Air Intake System**
  Air filter
- **Cooling system**
  Radiator components (optional)
- **Electrical device**
  24 V starter
  Inlet pre-heater (optional)
- **Fuel system**
  Electronic unit pump
  Fuel Filter
- **Lubrication system**
  Engine oil filter
- **Flywheel and flywheel housing**
  SAE 14 flywheel
  SAE1 # 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.