

Quartz Diesel Q6105AZLD

Four-stroke, inline diesel engine with water cooling and direct fuel injection. Engine ratings, fuel consumption and system capacities are listed in the technical tables.

Introduction to Model Naming

Q 6 100 Z D 1 - 2

⑦ ⑥ ⑤ ④ ③ ② ①

- ①: distinguish symbol, expressed with number sequence
- ②: version symbol, expressed with number sequence
- ③: application feature symbol, expressed with alphabet
no alphabet: for common usage; T: for tractor; G: for engineering machinery; Q: for vehicle; D: for generating set; C: for marine usage; P: for power take-off unit
- ④: construction feature symbol, expressed with alphabet; no alphabet: for natural aspirated model; Z: for turbocharged model.
- ⑤: cylinder bore (mm)
- ⑥: cylinder number
- ⑦: series identifier for Quartz Diesel.

General Data

1. Intake and Exhaust System

- Intake pipe - Aluminum single block type
- Exhaust pipe - A single block cast one
- Air filter - Single stage paper filter element style
- Double stages paper filter element style
- Silencer
- Turbocharger

2. Fuel System

- Fuel delivery pump
- Fuel filter - Brand: BALDWIN
- Model: Filter1-BF9853
Filter2-BF9821
- High pressure pump – type A
- Governor - Mechanics/Electronics
- Injector - Spring low installed and low inertia types
- J series and S series injector

3. Lubrication System

The engine is lubricated by pressure oil combined with splash oil.

- Oil pump - gear type oil pump
- Overload overflow valve
- Oil filter - JX0811A, J1012B type for engine
lubricating oil
- JO506 type for turbocharger lubricating oil
- Oil cooler - pipe & shell type oil cooler

4. Cooling System

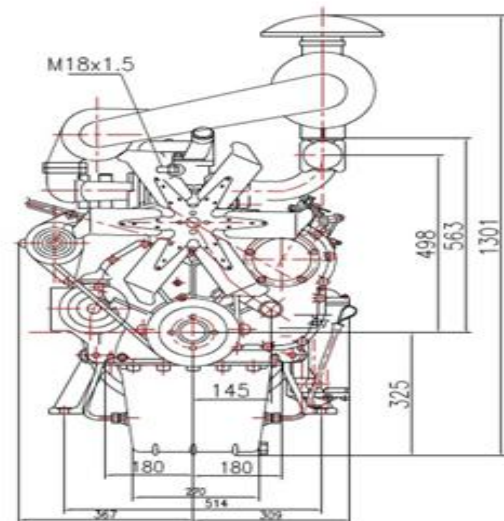
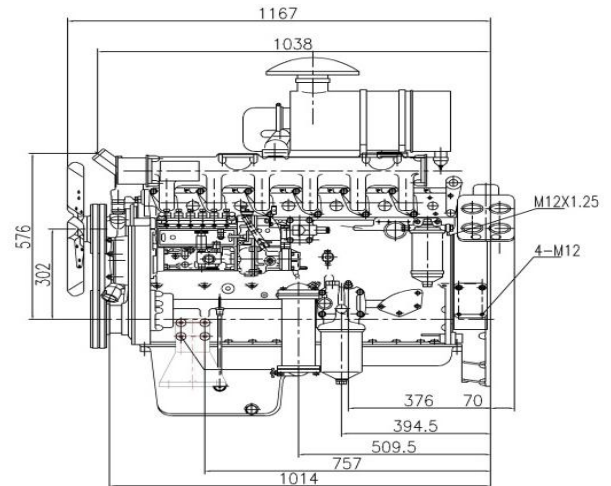
- Forced water cooling
- Radiator
- Water pump fan
- Thermostat
- Oil cooler

5. Electrical System

Two types electrical system: 12 V and 24 V, all are single wire system with negative pole grounded.

- Battery – should be installed near the starting motor to avoid voltage drop
- Silicon rectified dynamo
- Voltage regulator – keep the voltage at the range of 13.5 – 14.5 V or 27 – 29 V.
- Starting Motor – full closed direct current series excitation motor

General Dimensions



Technical Data

General

Power, Standby 1500 rpm 135 kWm
 Power, Prime 1500 rpm 121 kWm
 Cylinder Volume 6.75 liter
 Number of Cylinders and Type 6 order
 Cylinder Sequence 1-5-3-6-2-4
 Aspiration and Cooling Turbocharged /Aftercooler
 Engine RPM 1500rpm
 Bore and Stroke 105x130 mm x mm

Intake and exhaust system

Intake Air Capacity 10.5 m³/min
 Exhausted Gas Capacity 27 m³/min

Fuel system

Fuel Tank Capacity 250 liter
 Governor Type Mechanics/Electronics

Q6105AZLD (1500 rev/min) Fuel Consumption		
Power Rating	g/kWh	Litres/hr
At 100% of Prime Power Rating	218	27.7
At 75% of Prime Power Rating	216	23.1
At 50% of Prime Power Rating	219	13.9
At 25% of Prime Power Rating	223	7

Lubrication System

Oil Capacity 18 liter

Cooling System

Water Capacity
 (Radiator and Engine) 75 liter

Weight

Weight 620 kg

Performance Graph

