

SC25G610D2

Used for 450kVA generator



◎ POWER RATING

Engine Speed	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	405	551
	Standby Power	445	605

- The engine performance is as per GB/T2820.

- Ratings are based on GB/T1147.1.

---Prime power is available for an unlimited number of hours per year in a variable load application. The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

---Standby power is available in the event of a utility power outage or under test conditions for up to 200 hours of operation per year.

The permissible average power output over 24 hours of operation shall not exceed 80% of the standby power rating.

◎ SPECIFICATIONS

- Engine Model SC25G610D2
- Engine Type V-type,4 strokes, water-cooled
Turbo charged
air-to-air intercooled
- Combustion type Direct injection
- Cylinder Type Wet liner
- Number of cylinders 12
- Bore × stroke 135(5.32) × 150(5.9) mm(in.)
- Displacement 25.8(1574) lit.(in3)
- Compression ratio 16 : 1
- Firing order 1-12-5-8-3-10-6-7-2-11-4-9
- Injection timing 14.5°BTDC
- Dry weight Approx. 2080kg (4585 lb)
- Dimension (L×W×H) 1930×1686×1872mm
(76×66.4×75.8 in.)
- Rotation Counter clockwise viewed from
Flywheel

◎ FUEL CONSUMPTION

- Power lit/hr
- 25% 30.9
- 50% 53.6
- 75% 75.8
- 100% 100.4
- 110% 112.7

◎ FUEL SYSTEM

- Injection pump Yijie in-line “P” type
- Governor Electric type
- Feed pump Mechanical type
- Injection nozzle Multi hole type
- Opening pressure 240kg/cm2 (3414 psi)
- Fuel filter Full flow, cartridge type

○ Fly wheel housing SAE NO. 1/2

○ Fly wheel SAE NO.14

◎ MECHANISM

○ Type Over head valve

○ Number of valve Intake 1, exhaust 1 per cylinder

○ Valve lashes at cold
Intake 0.325mm (0.0128 in.)
Exhaust 0.375mm (0.0148 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	20 deg. BTDC	48 deg. ABDC
○ Exhaust valve	48 deg. BBDC	20 deg. ATDC

◎ COOLING SYSTEM

○ Cooling method Fresh water forced circulation

○ Water capacity 48 liters (12.7 gal.)
(engine only)

○ Pressure system Max. 0.5 kg/cm² (7.11 psi)

○ Water pump Centrifugal type driven by belt

○ Water pump Capacity 740 liters (195.36 gal.)/min
at 1,500 rpm (engine)

○ Thermostat Wax–pellet type
Opening temp. 77°C
Full open temp. 90°C

○ Cooling fan Blower type,iron
1100 mm diameter, 6 blades

○ Cooling air flow 12.76 m³ /s

○ Used fuel Diesel fuel oil

◎ LUBRICATION SYSTEM

○ Lub. Method Fully forced pressure feed type

○ Oil pump Gear type driven by crankshaft

○ Oil filter Full flow, cartridge type

○ Oil pan capacity High level 65 liters (17.16 gal.)
Low level 55 liters (14.52 gal.)

○ Angularity limit Front down 25 deg.
Front up 35 deg.
Side to side 35 deg.

○ Lub. Oil Refer to Operation Manual

◎ ENGINEERING DATA

○ Water flow 740 liters/min @1,500 rpm

○ Heat rejection to coolant 79 kcal/sec @1,500 rpm

○ Heat rejection to CAC 38 kcal/sec @1,500 rpm

○ Air flow 32 m³/min @1,500 rpm

○ Exhaust gas flow 86 m³/min @1,500 rpm

○ Exhaust gas temp. 650 °C @1,500 rpm

○ Max. permissible restrictions
Intake system 3 kPa initial
6 kPa final
Exhaust system 6 kPa max.

○ Max. permissible altitude 2,000 m

○ Fan power 20 kW

◎ ELECTRICAL SYSTEM

- Charging generator 28V×55A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×11kW
- Battery Voltage 24V
- Battery Capacity 200 AH

◆ CONVERSION TABLE

- in. = mm × 0.0394 lb/ft = N.m × 0.737
- PS = kW × 1.3596 U.S. gal = lit. × 0.264
- psi = kg/cm² × 14.2233 kW = 0.2388 kcal/s
- in³ = lit. × 61.02 lb/PS.h = g/kW.h × 0.00162
- hp = PS × 0.98635 cfm = m³/min × 35.336
- lb = kg × 2.20462

