

SC25G690D2

Used for 500kVA generator



◎ POWER RATING

Engine Speed	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	459	624
	Standby Power	505	687

- 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 SC25G690D2
- 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 13.5°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% 30.5
- 50% 55.7
- 75% 82.6
- 100% 111.0
- 110% 123.8

◎ 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. 0	○ Used fuel	Diesel fuel oil
○ Fly wheel	SAE NO.18		

◎ **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 (engine only)	48 liters (12.7 gal.)
○ Pressure system	Max. 0.5 kg/cm ² (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	14.48 m ³ /s

◎ **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	46.2kcal/sec @1500 rpm
○ Heat rejection to CAC	28.8kcal/sec@1500 rpm
○ Air flow	2×18.8m ³ /min@1500 rpm
○ Exhaust gas flow	2×45.8m ³ /min @1500 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

