



SC27G830D2

◎ POWER RATING

Engine Speed rpm	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	565	755
	Standby Power	610	830

- 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	SC27G830D2
○ 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) × 155(6.1) mm(in.)
○ Displacement	26.6(1623) 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%	42.2
50%	74.1
75%	106.7
100%	141
110%	152.7

◎ 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.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	48 liters (12.7 gal.) (engine only)
○ 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 1220 mm diameter, 6 blades
○ Cooling air flow	17.50 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	74 kcal/sec @1,500 rpm
○ Heat rejection to CAC	35 kcal/sec @1,500 rpm
○ Air flow	39 m ³ /min @1,500 rpm
○ Exhaust gas flow	99.5 m ³ /min @1,500 rpm
○ Exhaust gas temp.	600 °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	25 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

