



# SC27G755D2

## ◎ POWER RATING

Engine Speed rpm	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	505	687
	Standby Power	555	755

- 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	SC27G755D2
○ 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	11.5°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%	37.8
50%	66.3
75%	95.3
100%	126.0
110%	139.0

## ◎ 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 <sup>2</sup> ( 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	15.92 m <sup>3</sup> /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	68 kcal/sec @1,500 rpm
○ Heat rejection to CAC	32 kcal/sec @1,500 rpm
○ Air flow	36 m <sup>3</sup> /min @1,500 rpm
○ Exhaust gas flow	91.8 m <sup>3</sup> /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/cm<sup>2</sup> × 14.2233                kW = 0.2388 kcal/s
- in<sup>3</sup> = lit. × 61.02                        lb/PS.h = g/kW.h × 0.00162
- hp = PS × 0.98635                      cfm = m<sup>3</sup>/min × 35.336
- lb = kg × 2.20462

