



SC13G355D2

Used for 280kVA generator

◎ POWER RATING

Engine Speed rpm	Type of Operation	Engine Power	
		kW	Ps
1500	Prime Power	236	321
	Standby Power	260	355

- 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 SC13G355D2
- Engine Type In-line,4 strokes, water-cooled
Turbo charged
air-to-air intercooled
- Combustion type Direct injection
- Cylinder Type Wet liner
- Number of cylinders 6
- Bore × stroke 135(5.32) × 150(5.9) mm(in.)
- Displacement 12,88(786) lit.(in3)
- Compression ratio 15.55: 1
- Firing order 1-5-3-6-2-4
- Injection timing 14.5°BTDC
- Dry weight Approx.1296kg (2857.2 lb)
- Dimension 1704×1063×1540 mm
(L×W×H) (67.1×41.9×60.7 in.)
- Rotation Counter clockwise viewed from
Flywheel

◎ FUEL CONSUMPTION

- Power lit/hr
- 25% 17.0
- 50% 30.6
- 75% 44.8
- 100% 58.6
- 110% 64.7

◎ 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	○ Used fuel	Diesel fuel oil
○ 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 (engine only)	25.5 liters (6.73 gal.)
○ Pressure system	Max. 0.5 kg/cm ² (7.11 psi)
○ Water pump	Centrifugal type driven by belt
○ Water pump Capacity	450 liters (118.8 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 920 mm diameter, 6 blades
○ Cooling air flow	7.46 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 41 liters (10.82 gal.) Low level 33 liters (8.71 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	450 liters/min @1,500 rpm
○ Heat rejection to coolant	28.5 kcal/sec @1,500 rpm
○ Heat rejection to CAC	16.9kcal/sec @1,500 rpm
○ Air flow	16.3 m ³ /min @1,500 rpm
○ Exhaust gas flow	39.6m 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	10 kW

◎ ELECTRICAL SYSTEM

- Charging generator 28V×55A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×7.5kW
- Battery Voltage 24V
- Battery Capacity 180 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

