SC27G900D2

Used for 700kVA generator

◎ POWER RATING

Engine Speed	Type of	Engine Power	
rpm	Operation	kW	Ps
1500	Prime Power	602	819
	Standby Power	662	900

-. 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

O Engine Model	SC27G900D2
O Engine Type	V-type,4 strokes, water-cooled Turbo charged air-to-air intercooled
O Combustion type	Direct injection
O Cylinder Type	Wet liner
O Number of cylinders	12
O Bore × stroke	135(5.32) × 155(6.1) mm(in.)
O Displacement	26.6(1623) lit.(in3)
O Compression ratio	16 : 1
O Firing order	1-12-5-8-3-10-6-7-2-11-4-9
O Injection timing	13±0.5°BTDC
O Dry weight	Approx. 2080kg (4586 lb)
O Dimension (L×W×H)	1930×1686×1872mm (76×66.4×73.8 in.)
O Rotation	Counter clockwise viewed from Flywheel

◎ FUEL CONSUMPTION

O Power	lit/hr
25%	39.9
50%	73.1
75%	108.4
100%	145.6
110%	162.4

◎ FUEL SYSTEM

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

○ Fly wheel housing	SAE NO.0
○ 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	48L (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
	1220 mm diameter, 6 blades
○ Cooling air flow	18.024 m^3 /s

○ Used fuel	Diesel fuel oil

◎ LUBRICATION SYSTEM

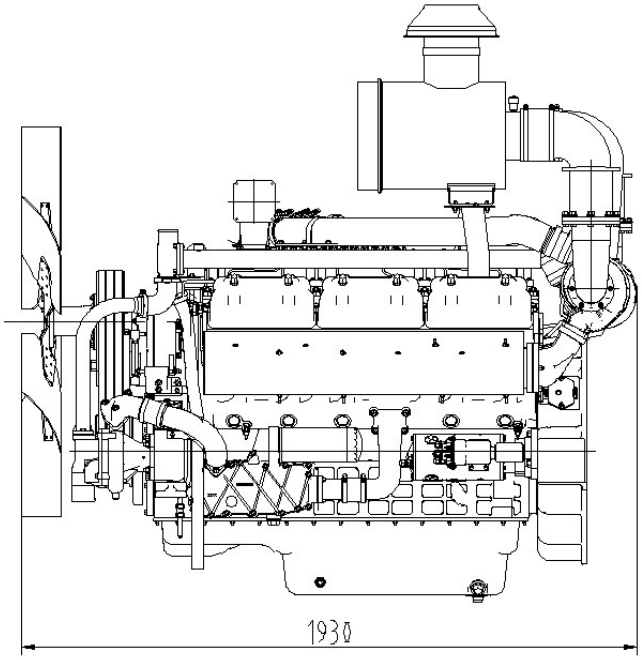
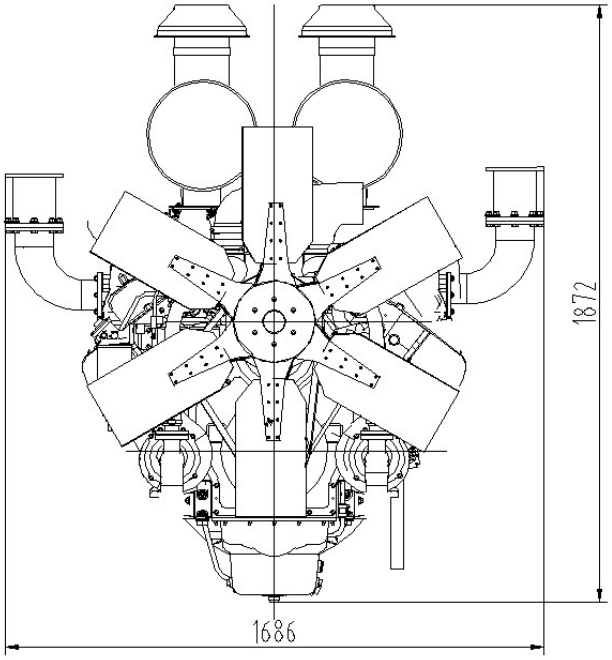
○ Lub. Method	Fully forced pressure feed type
○ Oil pump	Gear type driven by crankshaft
○ Oil filter	Full flow, cartridge type
○ Oil pan capacity	High level 65 liters (17.16 gal.) Low level 55 liters (14.52 gal.)
○ Angularity limit	Front down 25 deg. Front up 35 deg.
	Side to side 35 deg.
○ Lub. Oil	Refer to Operation Manual

◎ ENGINEERING DATA

○ Water flow	740 liters/min @1,500 rpm
○ Heat rejection to coolant	60.5kcal/sec /1500 rpm
○ Heat rejection to CAC	37.8kcal/sec /1500 rpm
○ Air flow	2×25.5m3/min /1500 rpm
○ Exhaust gas flow	2×62.2m3/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	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
in^3 = lit. × 61.02	lb/PS.h = g/kW.h × 0.00162
hp = PS × 0.98635	cfm = m3/min × 35.336
lb = kg × 2.20462