

SGR-22 Generating set Technical Data Sheet



ISO9001:2000



**SOYGEN
GENERATOR**

STANDARD SPECIFICATION

General features:

- Composed of SOYGEN diesel engine and Stamford, Sincro or DG series Stamford COPY brushless alternator
- 12V DC start motor and storage battery
- Brushless, Self-excited, IP23, insulation class H alternator
- 50°C radiator as standard
- Key start panel control system as standard, digital auto-start panel is optional
- 130 Lt fuel tank in base frame
- Optional open type or silent type
- All generator sets are gone through rigorous testing before being released to the market place, including 50% load, 75% load, 100% load , 110% load and all protection function (overspeed stop, high water temperature, low oil pressure, battery charging fail, emergency stop)

Genset Main Technical Data

3P4W, 50Hz, 220/380V (Can Be Made According To Customers' Special Requirements)

GENSET MODEL	Genset Specification					Engine Specification				Alternator Model
	KVA		Cons	dB(A) @7m	Tank (L)	Model	Cyl .	Gov.	Asp.	
	ESP	PRP								
SGR-22	22	20	4	60	110	RD 485	4	E	TCA	SGR22

1) Available in various voltages

2) To show SOYGEN Generating Sets Model

3) ESP=Standby power standby duty, operation under variable load, without overload.

PRP=Prime power continuous duty operation, under variable load, 10% overload permissible 1/12hr.

4) E=Electronic speed governor;

M=Mechanical speed governor

5) Asp=Aspiration; NA=Naturally

Asp; TC=Turbocharged;

TW=Turbocharged after cooled;

TCA= Turboc harged air-air after cooled

6) Technical data is subject to work test conditions

Reliable Performance

Voltage regulation

Voltage regulation maintained within $\pm 0.5\%$ as follow:

- Power factor Between 0.8~1.0 lag
- From no load to full load, any steady load
- Speed droop variation under 4.5%

Frequency/Speed undulation

- Change load from 0-100%, Frequency/Speed Droop Ratio within 5%.
- Load from 25-100%, any steady load Frequency/Speed undulation within 0.25%

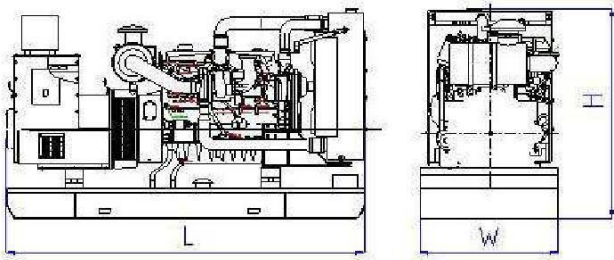
Effect factor of telecom

- TIF(MA MG1-22) better than 50
- THF(BS EN60034) better than 2%

Criterion

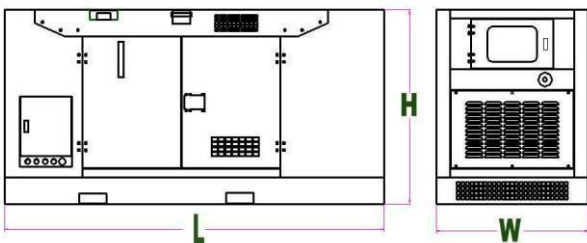
- ISO8528, GB/T2820
- EN12601:2001, EN60034-22:1997, EN60204-1:2006
- ISO9001:2000 Quality Control System

Dimension and Weight



Open Type

Overall size (L*W*H)
1500*800*1400
Weight: 400kg



Silent Type

Overall size (L*W*H)
2100*800*1500
Weight: 550kg

ENGINE SPECIFICATION

Diesel Engine

Technical Data

Engine Model	SOYGEN R485
Number of Cylinders	4
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Turbocharged Air-Air Aftercooled
Bore×Stroke (mm×mm)	84 x 90
Displacement (Liter)	1.496
Compression Ratio	22.5:1
Prime Power/Speed (kW/rpm)	16/1500RPM
Standby Power/Speed (kW/rpm)	17/1500RPM
Speed Governor	Electronic
Cooling System	Water-cooled, 50℃ radiator is standard
Speed Stability (%)	≤1%
Total lubrication system capacity (L)	6
Coolant capacity (without radiator) (L)	6
Fuel Consumption at 100% Load (L/H)	4
Starter Motor	DC12V
Start type	Electrical

Alternator SPECIFICATION

SOYGEN Alternator (Standard)

Technical Data

Alternator Model	SGR22
Exciter type	Brushless, Self-excited
Power factor	0.8
Voltage Adjust range	≥5%
Voltage Regulation NL-FL	≤±0.5%
Insulation Grade	H
Protection Grade	IP23

Control System

- 1. Standard: Deepsea DSE7320 AMF Digital Controller
 - 2. DATAKOM DKG309
- Providing the standard functions as follows:
(Also can be made according to the customers' special requirements)
- * Automatic Start/Stop
 - * Settings can be adjustable via key buttons on front panel
 - * 3 start attempts failure and Automatic Crank Disconnect
 - * Parameters display (V/A/Hz/Hour)
 - * Engine monitoring and protection
 - * Charge alter nator exciting and Charge alternator fail alarm
 - * Running hour counting (1) DSE7320 * Emergency stop pushbutton
- * Alarm System: Over speed, High Engine Temperature Low Oil Pressure, Charge Fail
- * Protection System: Over speed, High Engine Temperature, Low Oil Pressure , Emergency Stop. And the other protection function pre-setting



Digital Auto-start Generator controller integrating digital, intelligent and network techniques is used for automatic control system of diese l generator. It can carry out functions including automatic start/stop, data

measure and alarming. Optionally assembled with the ATS, it can carry (2) GU641B out auto-switching between the outer power and generating set power.

(AMF)

- 2. Option: Harsen GU641B AMF Digital Auto Start
- 3. Option: ComAp AMF25 Digital Auto Start
- 4. Option: Deepsea DSE3110 Digital Auto Start



(3) AMF-25



(4) DSE3110