# SGR-300 Generating set Technical Data Sheet


ISO9001:2000

SOYGEN

GENERATOR

# STANDARD SPECIFICATION

## General features:

- Composed of SDEC diesel engine and Stamford, Sincro or
- Stamford copy
- DG series Stamford COPY brushless alternator
- 24V DC start motor and storage battery
- Brushless, Self-excited, IP23, insulation class H alternator
- 50℃ radiator as standard
- Key start panel control system as standard, digital auto-start panel is optional
- 500 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 pr essure, battery charging fail, emergency stop)

## Genset Main Technical Data

3P4W, 50Hz, 230/400V and 480V (Can Be Made According To Customers' Special Requirements)

| GENSET MODEL | Genset Specification | | | | | Engine Specification | | | | Alternator Model |
|---|---|---|---|---|---|---|---|---|---|---|
| | KVA | | Cons | | | Model | Cyl. | Gov. | Asp. | |
| | ESP | PRP | 100% (L/H) | dB(A) @7m | Tank (L) | | | | | |
| SGR-300 | 300 | 270 | 62.5 | 78 | 500 | SC9H272E | 6 | E | TCA | SGR300 |
| | | | | | | | | | | |

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 ±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%

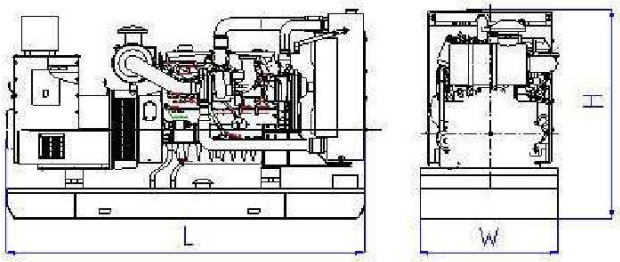
### Effect factor of telecom

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

## Criterion

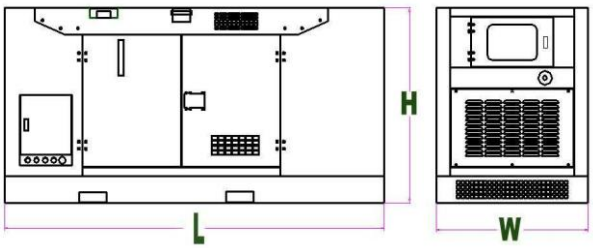
- ISO8528, GB/T2820
- EN12601:2001, EN60034-22:1997, EN60204-1:2006
- ISO9001:2000 Quality Control System

## Dimension and Weight




### Open Type

Overall size (L*W*H)
2800*1125*1800
Weight: 2500kg




### Silent Type

Overall size (L*W*H)
3200*1300*1950
Weight: 2950kg

## ENGINE SPECIFICATION

RICARDO Diesel Engine
Technical Data

| | |
|---|---|
| Engine Model | SC9H272E |
| Number of Cylinders | 6 |
| Cylinder arrangement | Vertical in-line |
| Cycle | Four stroke |
| Aspiration | Turbocharged Air-Air Aftercooled |
| Bore×Stroke (mm×mm) | 135*150 |
| Displacement (Liter) | 12.90 |
| Compression Ratio | 16:1 |
| Prime Power/Speed (kW/rpm) | 240/1500RPM |
| Standby Power/Speed (kW/rpm) | 263/1500RPM |
| Speed Governor | Electronic |
| Cooling System | Water-cooled, 50℃ radiator is standard |
| Speed Stability (%) | ≤1% |
| Total lubrication system capacity (L) | 50 |
| Coolant capacity (without radiator) (L) | 30 |
| Fuel Consumption at 100% Load (L/H) | 62,5 |
| Starter Motor | DC24V |
| Start type | Electrical |

## Alternator SPECIFICATION

Stamford Copy Alternator (Standard)
Technical Data

| | |
|---|---|
| Alternator Model | SGR-300 |
| 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: DATAKOM D300 AMF Digital Controller
   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
* 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 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


(1) DSE7320


(2) GU641B


(3) AMF25


(4) DSE3110