

SGR-175 Generating set Technical Data Sheet



ISO9001:2000



SOYGEN[®]

GENERATOR

STANDART SPECIFICATION

General features:

- Composed of RICARDO diesel engine and Stamford, Sincro or DG series Stamford COPY brushless alternator
- 24V 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
- 340 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, 220/380V (Can Be Made According To Customers' Special Requirements)

| GENSET MODEL | Genset Specification | | | | | Engine Specification | | | | Alternator Model |
|-----------------|----------------------|-----|-----------------------|--------------|-------------|----------------------|-----|------|------|---------------------|
| | KVA | | Cons 100% (L/H) | dB(A) @7m | Tank (L) | Model | Cyl | Gov. | Asp. | |
| | ESP | PRP | | | | | | | | |
| SGR-175 | 175 | 157 | 42,5 | 78 | 340 | R6105IZLD | 4 | E | TCA | SGR-175 |
| | | | | | | | | | | |

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%

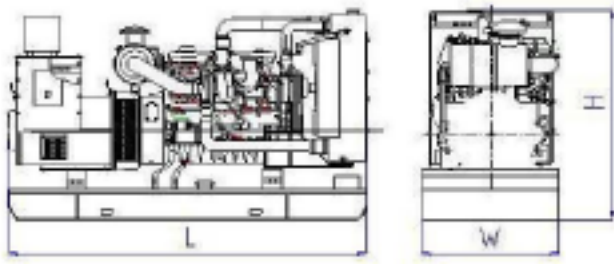
Effect factor of telecom

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

Criterion

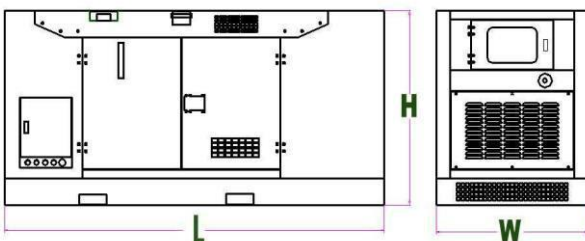
- ISO8528, GB/T2820
- EN12601:2001, EN60034-22:1997, EN60204-1:2006
- ISO9001:2000 Quality Control System

Dimension Weight



Open Type

Overall size (L*W*H)
2200*1100*1700
Weight: 1500kg



Silent Type

Overall size (L*W*H)
2980*1100*1860
Weight: 1825kg

Engine Specification

RICARDO Diesel Engine Technical Data

| | |
|---|---|
| Engine Model | R6105IZLD |
| Number of Cylinders | 6 |
| Cylinder arrangement | Vertical in-line |
| Cycle | Four stroke |
| Aspiration | Turbocharged Air-Air Aftercooled |
| Bore×Stroke (mm×mm) | 105*135 |
| Displacement (Liter) | 7,01 |
| Compression Ratio | 16.5:1 |
| Prime Power/Speed (kW/rpm) | 126/1500RPM |
| Standby Power/Speed (kW/rpm) | 140/1500RPM |
| Speed Governor | Electronic |
| Cooling System | Water-cooled, 50°C radiator is standard |
| Speed Stability (%) | ≤1% |
| Total lubrication system capacity (L) | 18 |
| Coolant capacity (without radiator) (L) | 27 |
| Fuel Consumption at 100% Load (L/H) | 42,5 |
| Starter Motor | DC24V |
| Start type | Electrical |

Alternator Specification

SOYGEN ALTERNATOR (Standard) Technical Data

| | |
|--------------------------|-------------------------|
| Alternator Model | SGR-175 |
| 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

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 diesel 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



(1) DSE7320



(2) GU641B out auto-switching



(3) AMF25



(4) DSE3110