PowerSources
Produktion u. Vertrieb von Stromversorgungen

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Industrial Diesel Genset R 12

POWER RATING	3000 rpm/50 Hz
Prime	10.24kVA, 8.19kW
Standby	11.11kVA, 8.89kW

Generator set consisting of engine and alternator mounted on a tubular steel profile frame, using anti-vibration pads. The alternator is coupled directly to the engine crankshaft via a conical coupling system to obtain a rigid union.

ENGINE

type ..... 4-stroke diesel
..... direct injection.
Manufacturer ..... Ruggerini
Model ..... MD 190
No. of cylinders 2
Engine capacity ..... 851 cc
Bore ..... 85 mm
Stroke ..... 75 mm
Compression ratio 19:1
Aspiration ..... Atmospheric
Engine speed ..... 3000 rpm
Prime power DIN NB 6271 ..... 15.5 HP
Fuel consumption 100% load ..... 2.5 ltr/h
Fuel tank capacity ..... 4 litres
Approximate runtime w/o refill ..... 1.43 hours
Noise level ..... 85 dB (A) at 4 m

Cooling system

Cooled by air forcing fan on flywheel.
Cooling air flow 750 m3/h

Lubrication system

Forced lubrication via gear type pump. Oil filter.
Oil sump capacity ..... 1.8 litres
Consumption ..... 0.025 kg/h

Air intake system

Naturally aspirated via oil soaked air filter.
Combustion air flow 75 m3/h

Injection system

Direct injection with centrifugal governor. Fuel filter.

Electric system

12 V electric starting system. Axial starter motor. 46 Ah battery. Battery charging alternator. Oil pressure sensor.

Protection system

Warning lamp for low oil pressure. Optionally, alarm system with automatic engine shutdown for low oil pressure.

Exhaust system

Exhaust silencer.

ALTERNATOR

Three phase, sefl-regulating and self-exciting. Self ventilating. IP21 protection. Voltage is maintained within +/- 5%. Manufactured to standards UNEL 05515-71 and IEC 34-5.

Manufacturer ..... Sincro
Model ..... GS 140 ST2A
Power rating ..... 13.5 kVA
Voltage(*) ..... 220/380 V Three phase
Frequency ..... 50 Hz
Speed ..... 3000 rpm
Regulation ..... Compound
Nominal current ..... 20.5 A
Aux. single phase output ..... 5000 W

(*) Other voltages: PLEASE CONSULT.

VERSIONS

The ***R 12*** may be supplied in the following versions:

STATIONARY, MOBILE WITHOUT CANOPY, MOBILE WITH CANOPY AND AUTOMATIC.

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STATIONARY

Mounted on tubular frame with anti-vibration pads.

Control panel

Control panel features:

- Thermo-magnetic circuit breaker.
- Voltmeter.
- Hours run meter.
- On light
- Oil pressure indicator lamp.
- Ignition key.
- 1 three phase and 1 single phase socket (mounted on alternator cover).

Includes battery. Shutdown using manual choke.

MOBILE WITHOUT CANOPY

In this version, the set is supplied on a tubular frame with wheels and handles.

Control panel: same configuration as stationary version

MOBILE WITH CANOPY

Set on baseframe mounted on independent trailer. Incorporates metal canopy housing the control panel which is operated manually using an ignition key.

Metal canopy

Ideal for outdoor use, it is painted with a phosphate primer and a long lasting top coat.

Trailer

Made up of: wheels with tyres, DIN towing eye, rubber axle suspension, and support leg. Jockey wheel on request.

As an option, A TRAILER ADAPTED FOR ROAD TRANSPORTATION may be supplied

Control panel

Metal cabinet, with IP 54 protection, mounted on the baseframe with anti-vibration pads, with:

- Thermo-magnetic circuit breaker.
- 1 ammeter
- Voltmeter.
- Hours run meter.
- Three phase output socket.
- Single phase socket.
- On light
- Battery charge indicator lamp.
- Oil pressure indicator lamp.
- Ignition key.

Shutdown using manual choke.

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AUTOMATIC

On tubular frame with automatic panel for start-up on mains failure.

ELECTRICAL PANEL

Mounted in metal cabinet with IP 54 protection and supplied loose for wall mounting. Includes monitoring and control, measuring and handling and transfer systems.

Monitoring and control system

- Automatically monitors the mains, and if the mains fails connects the consumers to the generator set via contactors which are mechanically and electronically activated. When the mains is restored, the load is reconnected to the mains, the set idles and then stops.
- No. of start-up attempts: 3
- Selector switch for Disonnect, Automatic Service, Manual Service and Test.
- The generator set may be set to run manually or automatically. When running manually, start-up, shutdown and changeover are performed using a selector switch.
- Three phase voltage monitor with adjustable values.

Measuring and handling equipment

Consists of the following items:

- 1 Ammeter
- 1 Voltmeter
- 1 Mains-generator set voltmeter selector switch.
- 1 Frequency meter
- 1 Battery voltmeter.
- Off button.
- Battery maintenance system.
- Battery indicator light.
- Battery charge light.
- Large emergency stop push button.
- Audible and visual alarm for low fuel level. (Shown as “ALARMS NO STOP”).
- Alarm system disconnecting generator, shutdown, audible alarm and visual signal for:
  - Start-up failure
  - Low oil pressure
  - High water/engine body temperature
  - Overload
  - Protective fuse
  - Thermo-magnetic circuit breaker.

Transfer system

Made up of two mechanically and electrically interlocking contactors.

WORKING VOLTAGE: 380/220 V