

**GKSD-138**

# SDEC 125KVA

125kVA Prime / 138kVA Standby

Comprehensive Specification Sheet  
Electrical and Mechanical Data



3ph

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125kVA Prime / 138kVA Standby / Three Phase

## FEATURES & BENEFITS

- 138kVA standby power at 230/400v @ 50Hz 1500rpm
- High-quality and reliable four-cylinder 4.3l turbocharged and intercooled SDEC diesel engine
- Ideal for home and business applications
- Silent canopy which can stand outside with lockable doors
- Automatic changeover (ATS), maintenance free batteries and trickle charger included
- H-specification insulation, brushless alternator with AVR provides stable output
- High-temperature and oil pressure sensor to protect against engine damage
- Easy to use digital controller with auto/manual start options
- All sets undergo a comprehensive testing/pre-delivery inspection prior to delivery
- Peace of mind of earlier of one year/1000 hour warranty



## CANOPY

- Ventilation parts are designed with modular principles
- Weather resistant and lined with sound reducing foam
- All metal canopy parts are painted with powder paint
- Panel window
- Lockable doors on each side
- Easy maintenance and operation
- Easy lifting and moving
- Thermally insulated engine exhaust system
- Exterior emergency stop push button
- Sound attenuated

## CHASSIS

- The complete generator set is mounted as a whole on a heavy duty fabricated, steel base frame
- Steel chassis and anti-vibration pads
- Base frame design incorporates an integral fuel tank
- The generator can be lifted or carefully pushed/pulled by the base frame
- Dial type fuel gauge on the fuel tank

## CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

### AUTO MAINS FAILURE CONTROL PANEL

- Controller with Smartgen automatic transfer switch
- Smartgen HGM6120N electronic controller
- Emergency stop push button
- Static battery charger
- Four-pole electrically and mechanically interlocked ATS

### SMARTGEN HGM6120N FEATURES

- This module is used to monitor a mains supply and automatically start a standby generating set
- Shutdown alarms
- STOP/RESET-MANUAL-AUTO-TEST-START

### METERING VIA LCD DISPLAY

- Mains volts (L-L/L-N)
- Generator amps (L1, L2, L3)
- Generator frequency; generator (cos)
- Engine hours run; plant battery (volts)
- Engine oil pressure (psi and bar)
- Engine speed (rpm)

### GENERATING SET CONTROL MODULE

## Overview

|                    |        |
|--------------------|--------|
| Standby power      | 125kVA |
| Prime power        | 138kVA |
| Phase              | Three  |
| Dry weight         | 1680kg |
| Length             | 2500mm |
| Width              | 1110mm |
| Height             | 1820mm |
| Fuel tank capacity | 330L   |

- Engine temperature (degrees C)

### AUTOMATIC SHUTDOWN AND FAULT CONDITIONS

- Under/over speed; fail to start
- High engine temperature; fail to stop
- Low oil pressure; charge fail
- Under/over generator volts
- Under/over generator frequency
- Emergency stop/start failure
- Under/over mains voltage
- Charge failure

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## TECHNICAL SPECIFICATIONS

\*All ratings are quoted at maximum ratings at sea level and derating will be applicable for altitude and power factor.

### Engine

|                                 |                                                              |
|---------------------------------|--------------------------------------------------------------|
| Engine make                     | SDEC                                                         |
| Engine model                    | 4HTAA4.3-G22                                                 |
| Displacement                    | 4.3l                                                         |
| Cylinder bore/Stroke            | 105mm x 124mm                                                |
| Fuel system                     | In-line fuel injection pump                                  |
| Governor                        | Electronic                                                   |
| Cylinders                       | Four cylinders<br>water cooled                               |
| Engine output power (1500rpm)   | 120kW                                                        |
| Turbocharged/normally aspirated | Turbocharged and intercooled                                 |
| Cycle                           | Four stroke                                                  |
| Combustion system               | Direct injection                                             |
| Compression ratio               | 16.0:1                                                       |
| Fuel tank capacity              | 330l                                                         |
| Fuel consumption 100%           | 28.6 l/h                                                     |
| Fuel consumption 75%            | 21.4 l/h                                                     |
| Fuel consumption 50%            | 14.4 l/h                                                     |
| Fuel consumption 25%            | 7.3 l/h                                                      |
| Oil type                        | 15W-40                                                       |
| Engine oil capacity             | 13l                                                          |
| Cooling method                  | Water-cooled radiator/fan                                    |
| Coolant capacity                | 19l                                                          |
| Starter                         | 24v DC<br>charge alternator                                  |
| Engine speed                    | 1500rpm                                                      |
| Filters                         | Replaceable fuel filter/oil<br>filter/dry element air filter |
| Battery                         | Maintenance-free battery<br>including rack and cables        |
| Silencer                        | Exhaust silencer                                             |

### Alternator

|                         |                                              |
|-------------------------|----------------------------------------------|
| Alternator make         | StromerPower                                 |
| Standby power output    | 138kVA                                       |
| Prime power output      | 125kVA                                       |
| Insulation class        | Class-H with circuit breaker<br>protection   |
| Type                    | Brushless                                    |
| Phase and connection    | Three phase/four wire                        |
| AVR                     | Included                                     |
| AVR model               | SX460                                        |
| Voltage regulation      | ± 1%                                         |
| Voltage                 | 230/400v                                     |
| Rated frequency         | 50Hz                                         |
| Voltage regulate change | ≤ ±10% UN                                    |
| Phase change rate       | ± 1%                                         |
| Power factor            | 0.8φ                                         |
| Protection class        | IP23 standard/screen<br>protected/drip-proof |
| Stator                  | 2/3 pitch                                    |
| Rotor                   | Single bearing                               |
| Excitation              | Self-exciting                                |
| Regulation              | Self-regulating                              |

### General

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| Structure type                         | Silent weather resistant<br>enclosure |
| Dimensions<br>Length x Width x Height  | 2500mm x 1100mm<br>x 1820mm           |
| Dry weight                             | 1680kg                                |
| ATS unit included                      | Included                              |
| Four-way protection<br>system included | Included                              |