# TECHNIQUE INFORMATION DIESEL GENERATORS GSG STAR DIESEL ENGINE POWERED



| STAR          |     |      |              | GSG - S90            |  |  |  |
|---------------|-----|------|--------------|----------------------|--|--|--|
| Standby Power | kVA | 90,8 | Engine Speed | Power Factor         |  |  |  |
| Standby Fower | kW  | 72,6 | 1500 rpm     | 0,8 Cos Phi          |  |  |  |
| Prime Power   | kVA | 85   | Vol          | Vol <del>t</del> age |  |  |  |
| Prime Power   | KW  | 68   | 400 /        | 400 / 230 V          |  |  |  |

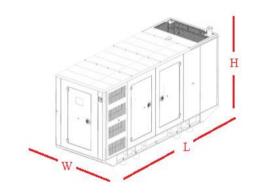
#### **ENGINE**

## **FUEL CONSUMPTION (lt/h)**

| Brand                     |          | SDEC                          |  |  |
|---------------------------|----------|-------------------------------|--|--|
| Power PRP                 | kW       | 78                            |  |  |
| Model                     |          | SC4H115D2                     |  |  |
| N° of Cylinders / Valves  |          | 4/16                          |  |  |
| Engine Type               |          | 4 Stroke                      |  |  |
| Displacement              | /t       | 4,3                           |  |  |
| Aspiration                |          | Turbocharged                  |  |  |
| Bore x Stroke             | mm       | 105x124                       |  |  |
| Compression Ratio         |          | 17,3:1                        |  |  |
| Air Filter                |          | Replaceable Element           |  |  |
|                           |          | Water Cooled (water + %50     |  |  |
| Cooling Method            |          | antifreeze)                   |  |  |
| Total Coolant Capacity    | /t       | 19,3                          |  |  |
| Governor Type             |          | Electronic                    |  |  |
| Electrical System         |          | 24VDC                         |  |  |
| Battery Charger Current   |          | 55A                           |  |  |
| Oil Capacity              | lt .     | 13                            |  |  |
| Exhaust Gas Flow PRP      | [m3/min] | 14,1                          |  |  |
| Exhaust Gas Temp.         | [°C]     | 600                           |  |  |
| Air Flow PRP              | [m3/min] | 6,2                           |  |  |
| Cooling Air Flow PRP      | [m3/min] | 141                           |  |  |
| Starter Power             | (kW)     | 4,5 kW                        |  |  |
| Standard Battery Voltage  | [V]      | 24VDC                         |  |  |
| Standard Battery Capacity |          | 2X60Ah                        |  |  |
| Standard Battery Type     |          | Maintenance-Free Lead<br>Acid |  |  |

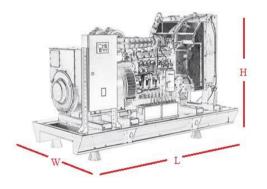
| %110 ESP | 22,1 |
|----------|------|
| %100 PRP | 20,2 |
| %75 PRP  | 15,2 |
| %50 PRP  | 10,3 |
|          |      |

(The specific gravity is 0.84 and the fuel is considered to be BS2869, Class A2.)



### **ALTERNATOR**

| Brand   | NEKRA          |  |  |
|---|----------------|--|--|
| Model   | ARK 224G       |  |  |
| Voltage   | 400/230 VAC    |  |  |
| Number of Phase                                       | 3              |  |  |
| Power Factor  | 0.8            |  |  |
| Number of Poles                                       | 4              |  |  |
| Connection Type                                       | Star           |  |  |
| Bearing   | Single         |  |  |
| Insulation Class                                      | Н              |  |  |
| Protection Class                                      | IP 23          |  |  |
| Winding   | 2/3            |  |  |
| Control System  | Self Excited   |  |  |
| Voltage Regulator                                     | Electronic AVR |  |  |
| Efficiency 4/4 400VAC 50Hz (cosφ=1)                   | 92,5           |  |  |
| Voltage Regulation                                    | +%1            |  |  |
| THD   | <%5            |  |  |
| Appearent Power [kVA] Prime 400VAC 50Hz<br>125ºC/40ºC | 85             |  |  |



| ĺ | OPEN VERSION |            |            |                    | CANOPY VERSION                 |           |            |            |                    |
|---|--------------|------------|------------|--------------------|--------------------------------|-----------|------------|------------|--------------------|
|   | Width(mm)    | Length(mm) | Height(mm) | Dry Weight<br>(kg) | Fuel Tank<br>Capacity<br>(lt.) | Width(mm) | Length(mm) | Height(mm) | Dry Weight<br>(kg) |
|   | 1100         | 2150       | 1320       | 1131               | 174                            | 1100      | 2880       | 1720       | 1502               |





- \* Diesel and gas genset support
- \* 400Hz operaton support
- \* Downloadable languages
- \* Harmonic analysis of V & I
- \* Weekly operaton schedule
- \* Dual mutual standby wth equal agng of gensets
- \* Overload IDMT protecton
- \* Current unbalance protecton
- \* Fuel filling & fuel theft alarms
- \* Battery back-up real tme clock

- \* Idle speed control
- \* Contactor & MCB drve
- \* Fuel filling counters
- \* Fuel consumpton counter
- \* Automatic GSM geo-locaton
- \* Reverse power protecton
- \* Free configuration program
- \* Mobile genset support
- \* 3 level configuration password
- \* Ip65 ratng wth optonal gasket



- \* Full remote communications support (AirGate 2.0, WSV)
- \* Internet access using Ethernet / 4G, Modbus TCP/RTU SNMP v1/v2c
- \* Active SMS and emails
- \* Detailed history log with up to 350 records
- \* Dual Mutual Standby application support
- \* Remote display
- \* User setpoints and protections
- \* 5 languages in the controller & Translator functionality
- \* User Access Management
- \* Cyber security improvement
- \* Alternative configurations
- \* Multi-purpose schedulers
- \* Modbus register mapping possibility

- \* Stand-by and prime-power application in one unit
- \* Backlit symbols
- \* 8 binary outputs, 8 + 1 binary inputs, 4 analog inputs (U/I/R)
- \* +5 V output reference for analog inputs
- \* 2 high-current E-Stop binary outputs
- \* USB Host
- \* Inbuild RS485
- \* 2 slots for extension plug-in modules (Modbus, Internet,
- \* SMS, imputs/outputs)
- \* Extension CAN modules
- \* ECU support (Tier 4 Final, Stage V)
- \* RTC with battery back-up (full calendar)
- \* Power over USB for controller configuration
- \* Zero power mode
- \* True RMS measurement
- \* In-built PLC, complemented with a PLC monitoring tool in InteliConfig
- \* Load shedding, dummy load management

## User buttons

- \* User buttons
- \* Geofencing based on GPS position
- \* Available also in low temperature version (Order code: