

Engine: MITSUBISHI Alternator: STAMFORD

Control System: P CM control system





| ISO 8528 | This generator set | nas been designed to meet | ISO 8528 regulation. |
|----------|--------------------|---------------------------|----------------------|
|----------|--------------------|---------------------------|----------------------|

SZUTEST This generator set is manufactured in facilities certified to ISO 9001.

This generator set is available with CE certification.

2000/14/EC Enclosed product is tested EU noise legislation 2000/14/EC

### Rated Power, 3 Phase, 50 Hz, PF 0,8

|         | Continuous Rating (CRP) | Continuous Rating (CRP) |         |
|---------|-------------------------|-------------------------|---------|
| Voltage | kVA                     | kW                      | Amp     |
| 400/230 | 1800                    | 1440.00                 | 2598.00 |

Continuous Rating (CRP):

Applicable for supplying power to varying electrical load for unlimited hours. CRP is in accordance with ISO 8528. No overload capability.

- With Remote Radiator

### Optional Equipments

### **ENGINE**

- Low Coolant level alarm
- Oil heater

### VISE ACCESSORIES

- Manual oil drain pump
- Electrical oil drain pump
- Enclosure: weater protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers
- Tool kit for maintenance
- 1.500/3.000/10.000 hours maintenance kit
- Four Pole Contactor

### **ALTERNATOR**

- Anti-Condensation heater
- Over sized alternator
- Single Phase (4 lead)
- Main line circuit breaker

#### **CONTROL SYSTEM**

- Automatic synchronising and power control system (multi gen-set Parallel)
- Paralel system with mains.
- Remote annunciator panel
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charging ammeter



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### Natural Gas Powered Engine Specification

| Manufacturer                              |                 | Mitsubishi                          |
|---|-----------------|-------------------------------------|
| Model                                     |                 | GS16R2 - PTK                        |
| Aspiration and Cooling                    |                 | Turbo Charged and Intake Air Cooler |
| Maximum Continuous Power                  | 1500 d/dk       | 1562.5kW                            |
| Total Displacement and Number of Cylinder | L               | 79.9 - 16V                          |
| Bore and Stroke                           | Bore and Stroke | 170 x 220                           |
| Compression Ratio                         |                 | 00:0                                |
| Rated Speed                               | rpm             | 1500                                |
| Governor                                  |                 | Electronic                          |
| Fuel Consumption                          | m³/h            | 351.5 ±5% (methane number above 80) |
| Gas Pressure                              | bar             | 3.5 - 6.0                           |
| Oil Capacity                              | L               | 460                                 |
| Water Capacity                            | L               | 245 engine jacket and intercooler   |
| Lube oil Consumption                      | g / kWh         | 0,34 (At 100% Load)                 |
| Exhaust Backpressure                      | mbar            | 45                                  |
| Exhaust Gas Flow                          | kg/h            | 6340                                |
| Exhaust Gas Tempratures                   | ° C             | 417                                 |
| NOx Emission                              |                 | 320ppm                              |

### Alternator Specification

| Manufacturer      |    | STAMFORD  |
|-------------------|----|---|
| Model             |    |   |
| Power             | kW | 1520  |
| Design            |    | Brushless, 4-pole                               |
| Cos fi            |    | 0.8   |
| Phase             |    | 3   |
| Voltage           | V  | 400/230   |
| Current A         |    | 2742  |
| Insulation Class  |    | Н   |
| Stator            |    | 2 / 3 steps                                     |
| Excitation System |    | Brushless excitation system with static exciter |

## Diemensions and Weight

| Open Type  | Dry Weight | Lenght | Width | Height |
|------------|------------|--------|-------|--------|
|            | kg.        | mm.    | mm.   | mm.    |
| AMG 1500   | 16000      | 5727   | 2173  | 2472   |
| Sound      | Dry Weight | Lenght | Width | Height |
| Attenuated | kg.        | mm.    | mm.   | mm.    |
| Type       |            |        |       |        |
| SCH 40     | 22030      | 12200  | 2440  | 2800   |



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### COMAP CONTROL MODULE



GeCon controllers provide comprehensive generator protection and control for single or multiple gen-sets based on field proven InteliGenNT and InteliSysNT platforms. With GeCon software installed the primary function of the controller is to manage and protect the generator in preference to the engine, which is not a direct concern, and as such, can be used in applications where engine management or protection is not required or in cases where the generator is powered by another source such as a turbine controlled by an external PLC.

Two versions of the GeCon software are available (land-based or marine applications) allowing customers to select a tailored solution for their application. There is also the option to modify certain parameters for critical applications. A built-in synchronizer and digital isochronous load sharer allows for a total integrated solution for gen-sets in standby, island parallel or mains parallel. The GeCon allows parallel operation of up to 32 gen-sets in one group with power management and load sharing. For critical applications, it is possible to arrange the controllers so a 'hot-standby' controller takes over the generator protection and control in case of failure of the main controller. A powerful graphic display with userfriendly controls allows any user, whatever

their ability to find the information

they need.



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### **Benefits**

- -Excellent configurability enables users to customise to the needs of their application
- -Option to read information from ECU
- -Power management over various engines from different producers
- -Configurable protections
- -Optional set the frequency by step 0,1 Hz
- -Choice of communication options ensures easy remote supervising and servicing
- -Optional redundant 'hot standby' controller guarantees uninterrupted generator control in case of failure of the primary controller
- -Built-in PLC functions remove the need for an external PLC controller
- -Perfect price/performance ratio
- -Gen-set performance log for easy problem tracing
- -Blackout start of engines1)
- -Running of SPI and SPtM applications without dongle2

### Generator Monitoring and Control

-Independent engine controller

(e.g. InteliDrive DCU) is required

- -Generator measurement: U, I, Hz, kW, kVAr, kVA, PF, kWh, kVAhr
- -Bus/Mains measurement: U, I, Hz, kW, kVAr, kVA, PF
- -Auto and Test operational modes
- -Automatic Load sharing and Power management in MINT applications3)
- -Automatic synchronizing and Voltage control in Auto mode
- -Power management: kW, kVA or % load based in Auto mode
- -Baseload, Import/Export, Peak shaving
- -All binary/analog inputs are configurable for various protection types

### **Generator Protections**

- 3 phase generator over/under voltage
- 3 phase generator over/under frequency
- -Generator overload, Short current and IDMT overcurrent
- -Voltage and current unbalance4), Bus voltage unbalance4), Reverse power4), Earth fault current protection4), ROCOF4)
- -Additional 160 user configurable generator and bus/mains protections

### Electronic Charge Equipment

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#### SCH 40



### Introduction

Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet event the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our sound insulated containers provide ease of access for servicing and general maintenance permitting on-site. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

### Standard Specifications

Robustly constructed walk in enclosure designed provide the necessary weather protection,

sound attenuation and ventilaton for the generator and switchgear.

Ribbed aluminium sheet internal floor

Ceilling mounted fluorescent light fittings

RAL 9010 white painted finish

Corner fittings to ISO 1161, providing four point lifting capability for full wet weight

Personel access doors and internal panic relase button on one of door.

Exhaust silencer is horizontally mounted on top of enclosure roof and available dependant on size of generators and options selected

Protective grille for fan, rotating parts and hot parts

Removable enclosure roof

Steel ladder for roof

Fuel tank complete with retention bund, contents gauge, vent and manual fuel fill point

Power cable outlet on lower section

Aksa makes its generating sets' noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been aproved by the notified body Szutest

| Canopy Model |     | SCH 40 |
|--------------|-----|--------|
| Width        | mm. | 12200  |
| Lenght       | mm. | 2440   |
| Height       | mm. | 2800   |