

# Diesel Powered Generating Sets Power By China SDEC Engine

## MTP-SC137.5S 100KW

1500 RPM 400V 3P 4W/50Hz/0.8F



### Standard Genset Features

#### Single Source Responsibility

Design, manufacture and testing of engine, alternator, control system and complete generating set are all produced by our company

Single bearing alternator, class H/H

Standard voltage 400v volts 50 Hz

Exciter/Voltage reg - Torque Match as standard

Standard Deepsea DSE6120 Auto start with AMF

Steel base frame with A/V mounting.

Engine, Alternator, Chassis & Control Box

3 pole or 4 pole Delixi Circuit Breaker

40° C Degree Radiator

Packing under shrunk plastic film

Operation & Maintenance manual

Standard set of labels

Battery Charger 24V, 5A or 10A

Floating Battery Charger 24V, 5A or 10A

Seaworthy Plastic film packaging

Maintenance-free battery

### Generator Performance

#### Voltage Regulation

Maintains voltage output to within  $\pm 1.0\%$ .

At any power factor between 0.8 and 1.0

At any variations from No load to Full load.

At any variations from Cold to Hot.

At speed droop variations up to 4.5%.

#### Frequency Regulation

Isochronous under varying loads from no

load to 100% full load when electronic

governor is fitted

#### Random Frequency Variation

Will not exceed  $\pm 0.25\%$  of its mean value for

constant loads - no load to full load.

#### Waveform

Total harmonic distortion open circuit voltage

waveform in the order of 1.8%. Three-phase

balanced load in the order of 5.0%.

#### Telephone Influence Factor (TIF)

TIF better than 50.

THF to BS 4999 Part 40 better than 2%.

#### Alternator Temperature Rise

Class H insulation.

#### Radio Interference

In compliance with BS 800 and VDE levels

G and N.

### Generator Set Options

#### Fuel options

Fuel Tank / 10hr operation

#### Exhaust Options

Exhaust Silencer - Industrial In-Line

Exhaust Bellows

Exhaust Silencer - Residential , In-Line

Installation Kit - Industrial Silencer

Installation Kit - Residential Silencer

#### Voltage Connections

208/120V 220/127V 240/138V

380/220V 440/254V 480/277V

#### Miscellaneous Options

3 pole or 4 pole Circuit Breaker

Optional Set mounted starting batteries

Coolant water Heater 24V

Battery Charger 24V, 5A or 10A

Automatic Transfer Switches

Packing - Export Box

### Engine Specification

#### Type

SDEC water cooled Diesel engine,

four cycle, turbocharged

and low temperature aftercooled

#### Construction

Two valves per cylinder, forged steel

crankshaft and connecting rods, cast iron

block.

#### Starting

12/24 volt negative earth. Battery charging

alternator 35 amp on engine. Cranking

current 1800 amps at 0° C.

#### Fuel System

12/24 volt fail safe actuator. Spin-on paper

element fuel filters with fuel pump

injection system with integral electronic

governor. Dual flexible fuel lines and

connectors. Standard fuel water separator.

#### Filters

Air cleaner with dry element.

Spin-on full flow lube oil filter.

#### Cooling

40° C ambient temperature standard

Stone guard. Drain Tap

### Alternator Specification

#### Type

Brushless single bearing, revolving field,

pole, drip proof, screen protected.

Class H Insulation, IP23 Protection

Fully interconnected damper winding.

AC exciter and rotating rectifier unit.

Epoxy coated stator winding.

Rotor and exciter impregnated with tropical

grade insulating oil and acid resisting

polyester resin. Dynamically balanced rotor

BS 5625 grade 2.5.

Sealed for life bearings.

Layer wound mechanically wedged rotor.

#### Exciter

Triple dipped in moisture, oil and acid

resisting polyester varnish and coated with

anti-tracking varnish.

Output windings with 2/3 pitch for improved

harmonics and paralleling ability.

Close coupled engine/alternator for perfect

alignment.

### Quality Standards

To BS4999/5000 pt 99,

VDE 0530, UTE5100,

NEMA MG1-22, CEMA,

IEC 34, CSA A22.2,

AS1359, BS 5514,

ISO 3046 and ISO 8528

ISO9001:2000, ISO14000,

CE Compliance



| Engine Performance Data@1500RPM |                  |
|---------------------------------|------------------|
| Output Power                    | Fuel Consumption |
| %                               | L/h              |
| Standby Power                   |                  |
| 110                             | 31,7             |
| Prime Power                     |                  |
| 100                             | 28,6             |
| 75                              | 21,4             |
| 50                              | 14,4             |
| 25                              | 7,3              |

## Specification

| Model                 | MTP-SC137.5S         | Alternator Manufacture | Mecc alte      |
|-----------------------|----------------------|------------------------|----------------|
| Standby Power         | 137.5kVA/110kW       | Alternator Model       | ECP34 1M4C     |
| Prime Power           | 125kVA/100kW         | Standby Power          | 137.5kVA/110kW |
| Engine Manufacture    | SDEC                 | Prime Power            | 125kVA/100kW   |
| Engine Model          | SC4H180D2            | Windings               | 100% copper    |
| Number of Cylinders   | 4                    | Regulator type         | DSR            |
| Air intake way        | Turbocharged charged | Number of wires        | 12             |
| Bore×stroke           | 105mm X 124mm        | Alternator Insulation  | H              |
| Compression Ratio     | 16:1                 | Protection Class       | IP23           |
| Displacement          | 4.3L                 | Winding pitch          | '2/3           |
| Engine Standby Output | 126KW(50Hz)          | Maximum Overspeed      | 2250           |
| Engine Prime Output   | 114KW                | Altitude               | 0-1000         |
| Speed                 | 1500 rpm             | Code voltage reference | T0405S3        |
| Lubrication Capacity  | 13 liter             | Execution              | Brushless      |

In accordance with ISO 8528, 3046, BS5514

**PRIME POWER**  
 Prime Power is available continuously during the period of power outage in a variable load application. Variable load should not exceed a 10% average of the prime power rating during any 24 hour period.

A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation.

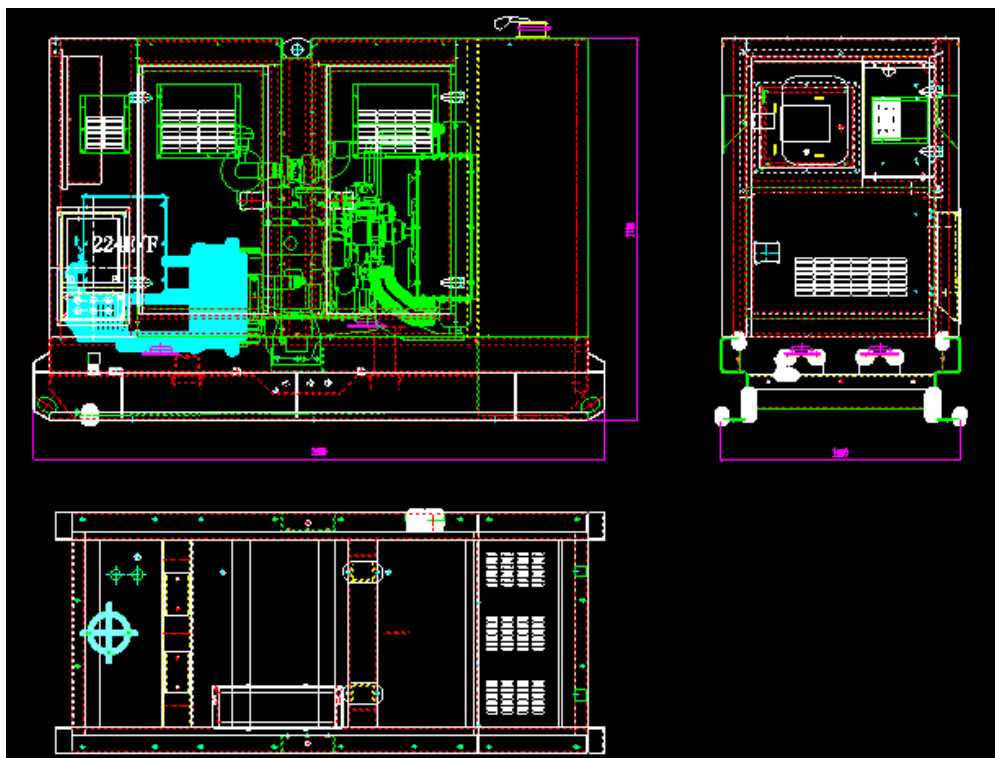
**STANDBY POWER**

The Standby Power is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is

available at this rating.

## Canopy diagram

Dimension:  
 3100\*1130\*1550mm



### Robust Corrosion Resistant Construction

- Δ Black finish stainless steel lock and hinges
- Δ body made from steel components treated with polyester powder coating

### Excellent Access for Maintenance

- Δ radiator fill access plate
- Δ lube oil and cooling water drains pipes to

### Security and Safety

- Δ control panel viewing window in a lockable access door
- Δ emergency stop push button (red) mounted on enclosure interior
- Δ cooling fan and battery charging alternator fully guarded
- Δ exhaust silencing system totally enclosed for

exterior of the enclosure  
 Δ adding cooling water from top of canopy  
 Δ LED light will be lighting automatically when open the door

operator safely  
 Δ Control panel and cable design in different directions, all the connection wiring in control panel are more neater and firmer.

**Note:**

Rating Definitions (Operation at Altitude ≤1000m, Ambient temperature ≤ 40°C) Continuous Power. These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power.

**Control Panel – UK DEEPSEA6120**

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The base mounted control panel in a vibration isolated sheet steel enclosure. The control panel is equipped as follows:

- a) Instruments: V, A (3 phase), Hz, kW, kVAR, kWh.
- b) Controls: Push buttons and LEDs for simple control.
- c) Control module: Standard collocation is DSE6120 Auto start with AMF.

**KEY FEATURES:**

- Δ Back-lit text LCD display
- Δ Front panel editing
- Δ LED and LCD alarm indication
- Δ Power Save mode
- Δ CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- Δ PC and front panel configuration
- Δ 6 Digital inputs, 3 Analogue inputs
- Δ 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Δ Configurable timers and alarms
- Δ Alternative configuration
- Δ Event Log (10)
- Δ Remote Start input
- Δ 3 Phase generator monitoring
- Δ Current Monitoring and protection
- Δ 3 Phase Mains (Utility) monitoring (USE6120 only)
- Δ Test button (DSE6120 only)
- Δ Battery voltage monitoring
- Δ Engine pre-heat, Hours counter
- Δ Comprehensive shutdown or warning on fault condition

**KEY BENEFITS:**

- Δ Automatically transfers between generator and power (DSE6120 only)
- Δ Hours counter provides accurate information for monitoring and maintenance periods
- Δ User-friendly set-up and button layout
- Δ Multiple engine parameters are monitored simultaneously
- Δ Module can be configured to suit individual applications
- Δ Compatible with a wide range of CAN engines
- Δ Tier 4 engine support
- Δ IP65 rating (with optional gasket) offers increased resistance to water ingress
- Δ Licence-free PC software



We reserve the right to modify the characteristics of its product at any time in order to incorporate the latest technological developments. The information contained in this document may therefore be changed without notice. For more technical data

See your distributor for more information.

