

## General Description

<b>Max Power<sup>1</sup></b> 13,5 kW ( 16,9 kVA )	<b>Prime Power<sup>2</sup></b> 12,3 kW ( 15 kVA )	<b>Frequency</b> 50 Hz
<b>Voltage</b> 400 V / 230 V 230 V	<b>Current intensity</b> 22 Amps. 38,1 Amps.	<b>Fase</b> 3 phas. (Delta) / 3 phas.+ 3 phas.

## Dimensions and Weights

	Length	Width	Height	Weights
<b>With canopy</b>	0 mm ( 0 in )	0 mm ( 0 in )	0 mm ( 0 in )	0 Kg ( 0 Lbs )
<b>Without canopy</b>	1139 mm ( 44,84 in )	560 mm ( 22,05 in )	619 mm ( 24,37 in )	307 Kg ( 677 Lbs )

## Engine

<b>Engine base</b>	Mitsubishi	<b>Bore</b>	78 mm ( 3,07 in )
<b>Solé Diesel engine model</b>	MINI -33	<b>Stroke</b>	92 mm ( 3,62 in )
<b>Type</b>	4 Type	<b>Compression ratio</b>	22:1
<b>RPM Engine</b>	1500	<b>Combustion system</b>	Indirect mechanical injection
<b>Number of cylinders</b>	4	<b>Aspiration</b>	Naturally aspirated
<b>Displacement</b>	1758 cc	<b>Flywheel housing size</b>	SAE 5
<b>Oil type</b>	SAE 15W40	<b>Coolant capacity</b>	8 L ( 2,11 Gal )
<b>Oil capacity</b>	5,5 L ( 1,45 Gal )	<b>Flywheel size</b>	SAE 7 1/2
<b>Output power</b>	15 kW ( 20,12 HP )	<b>Coolant flow rate</b>	0,75 L/Min.( 0,2 Gal/Min. )
<b>Raw water flow rate</b>	1 L/Min.( 0,26 Gal/Min. )	<b>Engine combustion air requirements</b>	1,2 m <sup>3</sup> /min
<b>Requirements</b>	3,3 m <sup>3</sup> /min.		

Rating conditions according to ISO 3046 (100 kPa barometric pressure, 30 % relative humidity and 25 °C (77° F))

\* 1 Maximum Output Power: maximum power supplied by the genset at full load.

\* 2 Prime Power: Rated Power according to ISO 3046 and ISO 8528-1. 10 % overload capacity one hour in twelve hours.

## Fuel system

### Typical Fuel Consumption

25 %	1,6 L/Hs. ( 0,42 Gal/Hs. )
50 %	2,1 L/Hs. ( 0,55 Gal/Hs. )
75 %	2,7 L/Hs. ( 0,71 Gal/Hs. )
100 %	3,4 L/Hs. ( 0,9 Gal/Hs. )

<b>Fuel Type</b>	Diesel
<b>Fuel Quality</b>	Diesel ASTM
<b>Type of Injection Pump</b>	In line(Bosch)
<b>Pump Regulator Type</b>	Centrifugal

## Engine electrical

<b>Battery voltage</b>	12 V	<b>Fuel shutoff solenoid</b>	ETR
<b>Starter motor</b>	2 kW	<b>Alternator</b>	50 A

## Installation details

<b>Ø int. Exhaust Hose (mm)</b>	60 mm ( 2,36 in )	<b>Maximum recommended fuel lift</b>	0,3 m ( 0,98 ft )
<b>Ø int. Raw Water Hose (mm)</b>	22 mm ( 0,87 in )	<b>Maximum recommended raw water lift</b>	1,5 m ( 59,06 in )
<b>Ø int. Fuel supply hose (mm)</b>	8 mm ( 0,31 in )	<b>Raw water maximum temperature</b>	32 ° C ( 89,6 ° F )
<b>Ø int. Fuel return hose (mm)</b>	6 mm ( 0,24 in )	<b>Maximum installation angle (°)***</b>	25 °
<b>Min. Battery capacity (Ah)</b>	12 V 80 Amps/h		

## Alternator Details

<b>Brand</b>	Meccalte	<b>Cos φ</b>	0,8
<b>Model</b>	SK160CA	<b>Tropical Version</b>	
<b>Regulator type</b>	DSR	<b>Excitation system</b>	brushless
<b># of poles</b>	4	<b>Voltage regulation Accuracy**</b>	
<b>Insulation Type*</b>	H	<b>Standards</b>	
<b>IP protection*</b>	23	<b>Frequency Regulation</b>	síncrono

## Optional Equipment

- Siphon break kit - mandatory if generator is below waterline
- Engine electrical system at 24V
- Service/Cruise Kits: fuel and oil filters, raw water pump, impeller, alternator belt,...
- Dry Exhaust system
- Exhaust System
- Water Filters
- Welcome Kit
- Keel Cooling conversion for dry and wet exhaust
- Double walled pipes and alarm kit
- Low coolant level shut down switch
- Fuel filter/water separator
- Gas/Water Separator
- Fuel Hose
- Exhaust Hose
- Raw water hose
- Sea cök

For other requirements please contact the Sales Dept.

\* Other protections available

\*\* With load from 0 to 100%, speed variation from -2% up to +5%, power factor 0,8 linear and balanced load.

\*\*\* In all directions



Welcome Kit



## General Description

- Graphic LCD with light, 128 x 64 pixels display
- 29 LED indicators
- Genset Measures (see Display Information)
- Configuration protected by password
- Running hour indication
- Multilanguage
- Genset protections (see Alarm Management)
- Preheating function
- D+ pre-excitation Terminal
- CAN bus information output with SAE J1939 protocol
- Dos temporizadores multiuso
- Dimensions 180 x 120 x 55 mm
- Weight 450g

## Alarm Management

### Shut Downs (SD)

- High coolant temperature
- Low oil pressure
- Overspeed
- Overload\*
- Short circuit\*
- Overcurrent\*
- Over/Under voltage
- Over/Under frequency
- Emergency stop

### Warnings (WRN)

- High coolant temperature
- Low oil pressure
- Over/Under voltage
- Maintenance request

### Sensor Fails (FLS)

## Function Description

- OFF Mode
- MAN Mode (manual start/stop engine)
- AUT Mode (auto start/stop engine)



IP 65 Box Kit

\*The specified function needs the current transformers (Optional Equipment) for showing the information in SCO 10 panel display

## Power Supply

- Voltage supply 12/24V DC with fuse protection
- Consumption 80/51mA

## Operating Conditions

- Operating temperature -20+70°C
- Humidity 95% Without condensation
- Front Panel Protection IP65

## Standard Conformity

- Low Voltage Directive EN 61010-1:95 +A1:124 EN 61010-1:95 +A1:97
- Electromagnetic EN 50081-1:94, EN 50081-2:123 EN 50081-1:94, EN 50081-2:96
- Compatibility EN 50082-1:99, EN 50082-2:124 EN 50082-1:99, EN 50082-2:97

## Display Information

### Measurement

- L1-L3 Voltage (V), Frequency (Hz), Oil Pressure, (bar), Coolant Temperature (°C), Battery, Voltage (V), rpm, Active Power\* (kW), Apparent, Voltage (V), rpm, Active Power\* (kW), Apparent, Power\* (kVA), Current\* (A), PF\*.

### History log

## Optional Equipment

### SCO 10 Double panel

- SCO 10 Double panel allows the same operation and functionality as Main SCO 10. They are connected by RS485 port with a communication wire, available in 12/24/36 m.

### IP65 Box Kit

- Electrical Box for SCO 10 panel with an IP65 protection code. In addition, it includes an emergency stop button and an on/off panel power switch.

### Binary Input/Output extension module

### IG-IB Internet communication bridge

- For Ethernet/Internet communications

### Current transformers

- Current (A), Active Power (kW), Apparent power (kVA) and PF genset measures

## Dimensions

