





MARINE GENERATORS

20 GS/GSC ELECTRONIC GOVERNOR

Single-Phase

General data

Maximum power*	20.1 kW (20.1 kVA)	Voltage	230 V
Prime Power**	18.3 kW	Amperage	87.4 A
Frequency	50 Hz	Phases	1

Dimensions and weights

Total length without canopy	1140 mm	Total length with canopy	1310 mm
Total width without canopy	610 mm	Total width with canopy	610 mm
Total height without canopy	662 mm	Total height with canopy	698 mm
Dry weight without canopy	402 Kg	Dry weight with canopy	426 Kg

Engine

Base engine manufacturer	Mitsubishi	Diameter	88 mm (3.46 in)
Model	MINI-63	Stroke	103 mm (4.06 in)
Туре	Diesel, 4 stroke	Compression ratio	22:1
Engine RPM	1500	Injection system	Mechanical and direct
Number of cylinders	4	Intake system	Naturally aspirated
Total displacement	2505 cc	SAE Flywheel housing	SAE 4
Oil	SAE 15W40	Coolant capacity	9.5 L (2.51 gal)
Oil capacity	6.5 L (1.72 gal)	Flywheel	SAE 7 1/2
Power	21.5 kW (29.24 CV)	Coolant flow rate	52 l/min (13.74 gal/m)
Salt water flow rate	38 l/min (10.04 gal/m)	Intake air flow rate	1.65 m3/m
Exhaust type	Wet exhaust elbow	V-Belt Protection	Optional

Rating conditions according to ISO 3046 (100 kPa barometric pressure, 30 % relative humidity abd 25 °C (77 °F)) * Maximum output power: maximum power supplied by the genset at full load

^{**} Prime Power: rated power according to ISO 3046 and ISO 8528-1. 10 % overload capacity one hour in twelve hours.

Fuel system details

Consumption 25%	2.4 l/h (0.63 gal)	Fuel type	Diesel
Consumption 50%	3.5 l/h (0.92 gal)	Fuel standards	Fueloil diesel ASTM
Consumption 75%	4.75 l/h (1.25 gal)	Injection pump type	In line
Consumption 100%	6.4 l/h (1.69 gal)	Governor type	Mechanical

Electrical system

Battery voltage	12 V	Stop solenoid type	ETR
Starter motor	2 kW	Alternator	50 A
Earth isolated	-	IP 65 box kit	Optional
SCO 11 double panel	Optional	Current transformers	Optional

Installation details

Exhaust hose inner diameter	60 mm (2.36 in)	Maximum fuel lift height	0.6 m (1.97 ft)
Sea water hose inner diameter	32 mm (1.26 in)	Maximum raw water lift height	3 m (118.11 in)
Fuel feeding hose inner diameter	8 mm (0.31 in)	Maximum sea water temperature	32 ° (89.6 °F)
Fuel return hose inner diameter	- (- in)	Maximum installation angle***	15°
Minimum battery capacity	12 V 95 Ah		
мінінші рацегу сарасіту	12 V 33 AN		

Alternator details

Brand	Sincro	Cos Phi	1
Model	SK160LA1	Tropicalized	Yes
Regulator type	BL4	Excitation system	Brushless
Number of poles	4	Voltage regulation accuracy**	1%
Isolation type*	Н	Alternator type	Synchronous
IP protection	23	Standards	EN 60034-1, IEC 60034-1, ISO 8528-3

Standard equipment

Wire earth isolated	SCO11 Control Panel
Silent Blocks	Electronic governor wiring 6 m
Oil extraction pump	User manual
Electronic governor	Packing

Optional accessories

Siphon break kit mandatory if generator is below waterline	Wet Exhaust System
Engine electrical system at 24 V	Water Filters
Service/Cruise Kits: fuel and oil filters, raw water pump, impeller, alternator belt,	Sea water cock
Dry Exhaust system	Welcome Kit

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^{*} 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

For other requirements please contact the Sales Dept.

Kit parallel generators control/power



General Description

Control and Power box for parallel operation

COMAP Inteligen200 Panel (See Panel Features)

Current Transformers (See Alternator Measurements)

Power Isolating Switch

Automatic Synchronism

Marine Generator Set Protections (See Alarm Management)

Power and Control Electrical Protection

Communication Control Cable Extensions (See Extensions)

Power inputs and outputs

Automatic or manual control switch

Audible and visual alarm

Can BUS communication with the control unit and the parallel box

Emergency Stop button

IP 65 Protection

Alarm Management

Shut-down (SD)

High engine coolant temperature

Low oil pressure

Over speed

Overload

Short circuit

Battery charge failure

High/low voltage

High/Low Frequency

Emergency stop button

Remote alarms

Warnings (WRN)

High engine coolant temperature

Low oil pressure

High/low battery voltage

Maintenance warning

Power Supply

Current transformers

Allows the following readings:

Current (A), Active Power (kW), Apparent Power (kVA) and PF

Earth isolated transformers

Operating Conditions

Control wiring. Box-Group (6/12/24 m)

Mitsubishi / Deutz

60974209 / 60994210P - 6 m

60974212 / 60994212P - 12 m

60974213 / 60994213P - 24 m

Wiring for communication between boxes (3/6/12 m)

60994503 - 3 m

60994522 - 6 m

60994521 - 12 m

Remote panel extension (12/24/36 m)

60972104 - 12 m

60972105 - 24 m

60972110 - 36 m

Display Information

Group and load Synchronization

Marine generator set measures

L1-L3 Voltage (V), frequency (Hz), Oil pressure (bar)

Coolant temperature (°C), battery voltage (V), RPM

Power* (kW), Apparent Power* (kVA), Current* (A), PF*

Remote panel

2 x 10 A Binary outputs

History log

Running hour indicator

Multilanguage

Configuration protected by password

Integrated PLC

Communication and Extension Module Plug-in

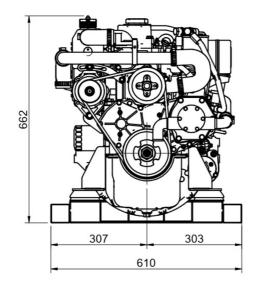
4G/LTE communication standard

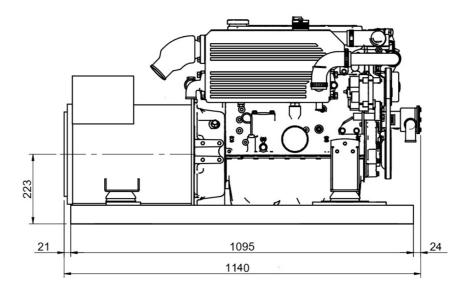
GPS

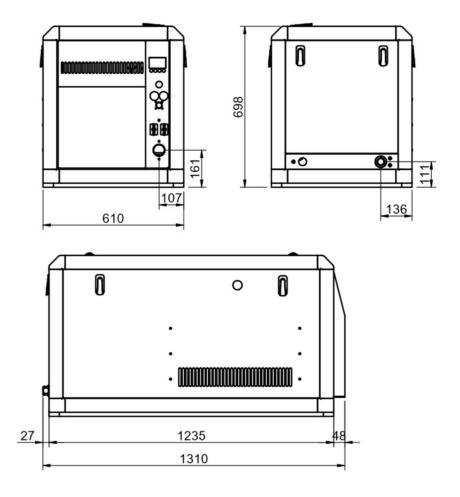
Operating modes

Inteligen200 Remote Double Panel	Remote panel extension (12/24/36 m)
It allows the same operation and functionality as main Inteligen200	Binary and Communication Input/Output Extension Module
They are connected with an RS485 port	

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