



MARINE GENERATOR SET

85 GT/GTC

85 kVA (68 kW) 50 Hz

100 GTA/GTAC 97,3 kVA (77,9kW) 60 Hz

3 - Phase



Features and Benefits

Solé Diesel Gensets offer compactness, extremely low noise and vibration levels coupled with a high level of build quality.

The aluminium canopy provides the best power to weight ratio possible whilst giving the optimum user friendly operating characteristics possible.

The latest COMAP digital panel that incorporates the CAN system. This protocol, simplifies and economizes the communication between terminals.

All Solé products comply with the latest European Emission Levels and additional certification such as CE, RRR, RMRS, EPA Tier II and BV is available on request.

Solé Diesels now has a market presence in over 50 countries worldwide, which gives a comprehensive after sales service when ever and where ever needed.

The close relationship with global engine suppliers such as Deutz and Mitsubishi ensures that extra level of reliability and support.

Models and Ratings

Model	kW	kVA	Voltage	Amps	Phase	Hz	Engine RPM
85 GT/GTC	68	85	400/230	123,0	3	50	1500
			230	213,4	3	50	1500
100 GTA/GTAC	77,9	97,3	480/277	118,0	3	60	1800
			277	202,9	3	60	1800

Sound Level, Size and Weight

	Sound level (dB) ¹		Dimensions (mm)			Weight (Dry) (kg)
	50 Hz	60 Hz	Lenght	Width	Height	
With Canopy	n/a ²	n/a ²	1965	865	1048	1100
Without Canopy			1774,5	865	957,5	978

¹ Full Load at 7 meters

Ratings: Marine ratings per ISO 3046 (100 kPa barometric pressure, 30% relativity and 25 °C temperature)

² Not Available. Please contact the Sales Dept.





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Engine

Engine Specifications

Base	DEUTZ	
Solé Engine Model	SDZ-109	
Type	4 stroke	
Cylinder	4	
Displacement	4.764 cc	
Bore and Stroke	108x130 mm	
Compression ratio	19:1	
Injection	Direct	
Aspiration type	Turbocharger	
Lube Oil capacity (L)	11	
Oil Type	ACEA E5, API CH-4/SJ, 15W40	
Coolant capacity (L)	17,5	
Housing	SAE 2	
Flywheel	SAE 11 1/2	
	50 Hz	60 Hz
RPM	1.500	1.800
Power (Hp / kW)	110.1 / 81.0	115.5 / 85.0
Coolant flow rate (L/min)	110	132
Raw water flow (L/min)	97,28	116,73
Engine/generator Air cooling requirements (m3/min)	24,8	29,6

Typical fuel Consumption

	50 Hz	60 Hz
25%	5,5	5,8
50%	10,2	11,2
75%	15,0	16,1
100%	19,9	20,9

Diesel Liters/h at % load

Alternator

Alternator Details

Brand	MECCALTE
Model	ECP34-1S/4
Regulator type:	AVR DSR electronic
# of poles	4
Insulation Type*	H
IP protection*	21
Cos phi	0,8
Tropicalización	Standard
Excitation system	Brushless
Voltage regulation Accuracy**	± 1%
Standars	EN 61000-6-3, EN 61000-6-1
Frequency Regulation	Synchronous

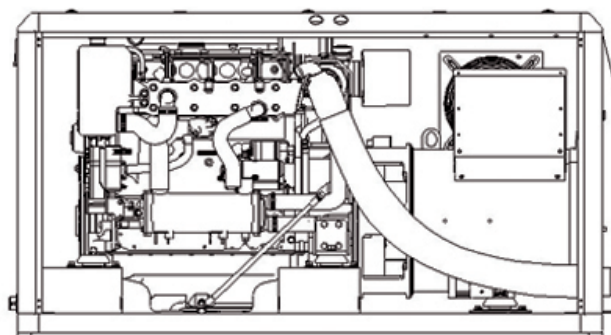
* Other protections available · ** With load from 0 to 100%, speed variation from -2% up to +5%, power factor 0,8 linear and balanced load. *** In all directions

Engine Electrical

Electrical System (V)	24
Starter Motor (kW)	4
Alternator (A)	55
Shutdown system	Electrical
Stop Solenoid Type	ETS

Installation Details

Ø int. Exhaust Hose (mm)	90
Ø int. Raw Water Hose (mm)	42
Ø int. Fuel supply hose (mm)	12
Ø int. Fuel return hose (mm)	12
Max. Fuel lift (m)	1
Max. Raw water lift (m)	2,5
Max. Raw water temperature (°C)	35
Maximun instalation angle (°)***	10
Min. Battery capacity (Ah)	24V / 90 Ah





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- Control Panel SCO 10. (canopy version only)

General Description

- Graphic LCD with light, 128 x 64 pixels display
- 2 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
- Two multipurpose timers

Power Supply

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

Operating Conditions

- Operating temperature -20+70°C
- Humidity 95% Without condensation
- Protection front panel IP65
- Standard Conformity
 - Low Voltage Directive EN 61010-1:95 +A1:97
 - Electromagnetic EN 50081-1:94, EN 50081-2:96
 - Compatibility EN 50082-1:99, EN 50082-2:97

Function Description

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

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

- Genset Accesories



Service/cruise kit

- 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
- Earth isolated system
- Exhaust System
- 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
- Water Filters
- Sea cök

For other requirements please contact the Sales Dept.



Solé Diesel Digital Display - SCO 10

- Dimensions 180 x 120 x 55 mm
- Weight 450g

Display Information

· Measurement

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

· History log

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
- High/Low battery voltage
- Maintenance request

· Sensor Fails (FLS)

· Isolated transformers

Voltage transformer unit to separate mains voltage and controller with voltage ratio 1:1.

· Binary Input/Output extension module

· IG-IB Internet communication bridge

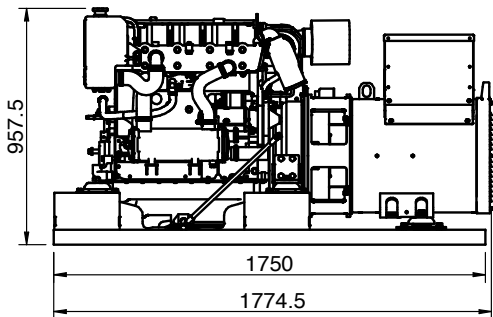
For Ethernet/Internet communications

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

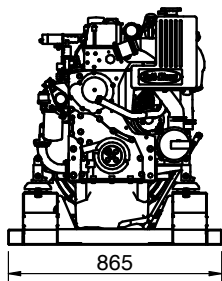


Dimensions

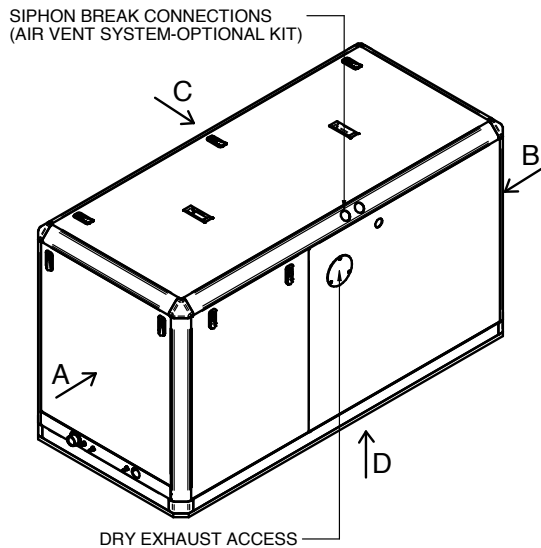
85 GT/GTC - 100 GTA/GTAC



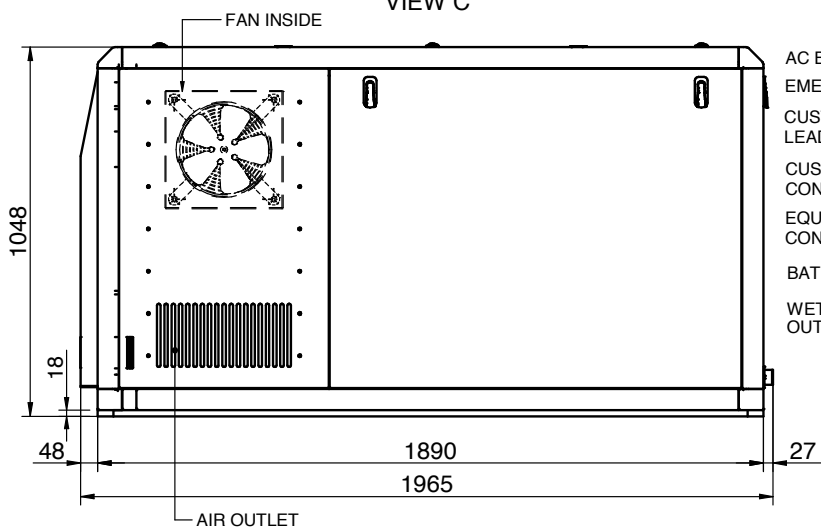
VIEW C



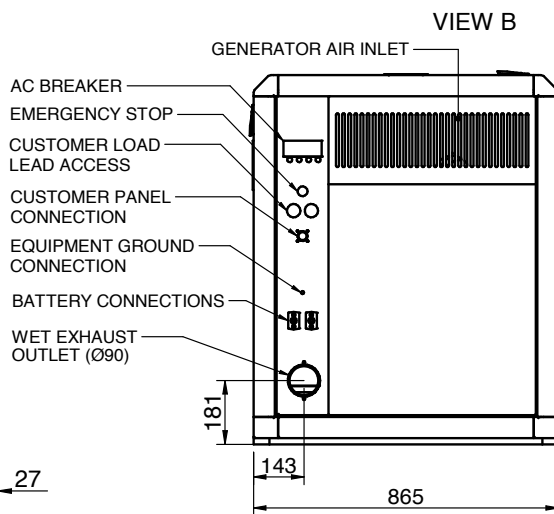
(85 GT / 100 GTA)



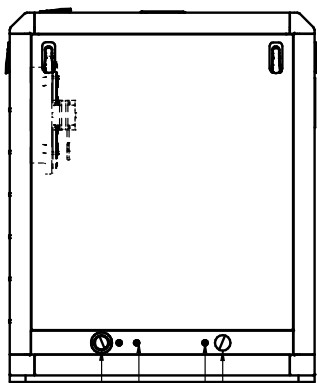
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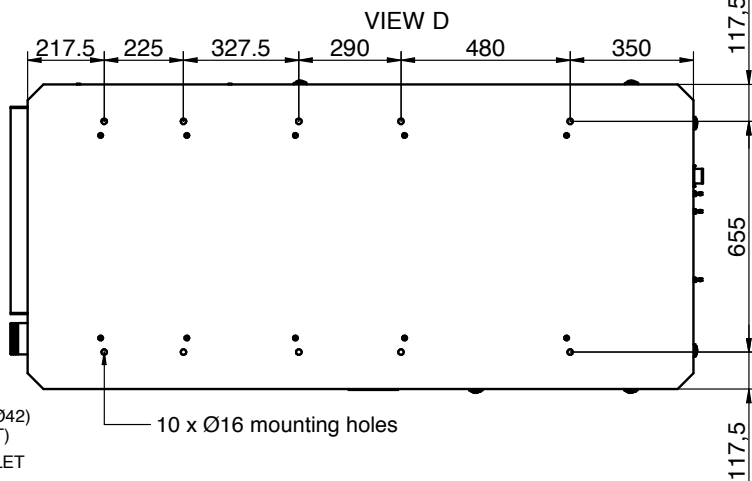
VIEW A



VIEW B



- SEA WATER INLET (Ø42)
(ONLY DRY EXHAUST)
- LEAKS COOLANT OUTLET
(Ø12)
- FUEL INLET/OUTLET (Ø12)
- SEA WATER INLET (Ø42)



Dimensions in millimetres

This drawing is provided for reference only.

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