





### **CBU** control panel (Mod-Bus transmission Unit)

New design, latest technology, big display and soft touch buttons for quick menu navigation, start and stop procedure, IP54 protection grade. Very compact MASTER CBU 93x93mm (3.66x3.66 in). CBU has many functions for easy monitoring of the generator:

- ON/OFF/START/STOP/MENU controls.
- Digital hour-meter, Main voltage, Generator Battery voltage, external battery pack voltage, Frequency, Service time, Event list of last 10 alarms and time.
- 13 different alarms icons displayed.
- 485 Mod-Bus connector for monitoring generator by boat main control monitor.

### **Engine**

- Easy access in case of maintenance to the feeding system and lubrication, of the sea/water pump and the air filter.
- Safety stop in case of low oil pressure.
- Safety stop in case high water/exhaust gas temperature.
- Oil and fuel filters of easy access.

#### **Alternator**

- Synchronous, 4 poles, brush less self-excited, electronic voltage regulator (AVR)
- Rotor and stator epoxy resin coated against external agents.
- Rotor dynamically balanced.
- Insulation class H.

### Soundproof cabin

A new project engineering design with a structure of a draw piece of aluminum supporting, painted aluminum panels type 5754 of high resistance to external agents.

Of limited weight and easy accessibility to the inner cabin in case of maintenance services.

## 22 kW 50 Hz

### THE INTERCOOLER W/A

Assures the perfect functioning of the generator independently of the external ambient temperature, therefore the alternator and the engine will work at ideal temperature optimizing the performance and reliability of the gen-set.

Engine	50 Hz
Model	KUBOTA 2403
Туре	Diesel 4 stroke
Cylinders (nr.)	4
Cylinder block material	Cast iron
Bore (mm - in.)	87
Stroke (mm - in.)	102,4
Displacement (cc - cu.in.)	2434
Power (hp)	29,5
Rated rpm	1500
Combustion system	Indirect
Engine head material	Cast iron
Speed governor	Electronic
Lubrication system	Forced
Oil sump capacity (L - qt.)	9,5
Engine stop system	Stop solenoid
Fuel pump	Electric
Fuel pump discharge (cm - in.)	70
Full load consumption (L/h - qt/h)	5,1 - 5,4
Starting battery (Ah-V)	100 - 12
Battery charger (Ah-V)	40 - 12
Starter (kW-V)	2 - 12
Max. inclination	30°
Water pump flow (L/min - gal/min)	20

Alternator	50 Hz
Туре	Synchronous, 4-poles, self-excited
Cooling	Air
Voltage (V)	230
Frequency (Hz)	50
Current (A)	95,7
Max. power (kW)	22
Continuous power (kW)	20
Power factor ( cos ø )	1
Insulating class	Н
Voltage stability	±1%
Frequency stability	±2%

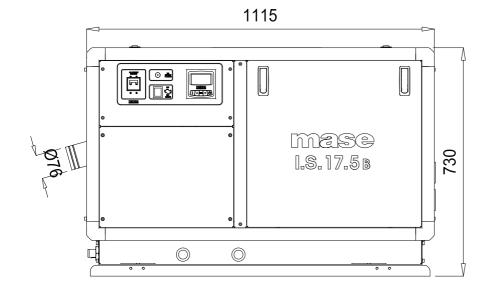
### Cooling system

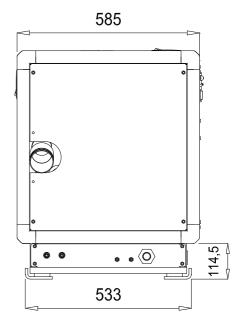
The cooling of the engine is based on a coolant closed circuit.

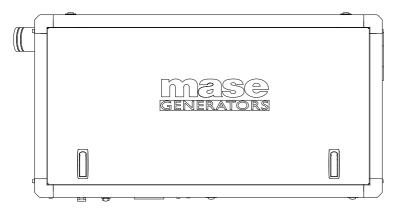
The system is composed by seawater/coolant heat exchanger. Air inside the canopy is cooled through seawater/air heat exchanger. This system makes cooling of alternator more effective and achieve optimal temperature for best performance and reliability of the generating set, indipendet from allocation room temperature.



	50 Hz	
Dimensions (Leng. x Width x Height)	1115 x 585 x 730	mm
	43,9 x 23,0 x 28,7	in.
Weight	475 - 1047	kg - lb
Noise level emission	47 dBA @ 7mt	







# FITTINGS (optional)

- **EXHAUST COMPONENTS KIT**
- SIPHON BREAK
- WATER-GAS SEPARATOR KIT
- STARTING REMOTE CONTROL PANEL WITH A SHIELD CONNECTING CABLE 10 Mt. ( 32.8 ft ) LONG OR
- SLAVE CBU CONTROL PANEL WITH A SHIELD CONNECTING CABLE 10 Mt. (32.8 ft) LONG



This drawing is only a reference and is not indicatly for the installation. For more information, you may contact your local dealer or **mase** generators S.p.A..

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