



**2**  
**YEAR**  
**WARRANTY**

### Control Panel

- The microprocessor based design features a vibration-proof keypad with UV protection.
- Digital hour-meter
- ON/START/OFF controls
- Low oil pressure light and safety cut-out
- Engine and alternator high temperature warning lights and safety cut-outs
- Remote Control Panel helm accessory available

### Engine

- One-side serviceability of injection and lubrication system, sea water pump and air filter
- Low oil pressure safety cut-out
- Exhaust high temperature cut-out
- Double vibration damping system
- Easy access to the disposable oil filter
- Built-in oil sump evacuation pump

### Alternator

- Synchronous, 4 poles, self-excited
- Rotor and stator epoxy resin coated against external agents
- Rotor dynamically balanced
- Insulation class H

### Sound absorbant exterior housing

The aluminum housing provides effective sound reduction and ensures the proper operation of the intercooler system. The top and side panels are removable, offering easy access during installation, and maintenance, even in very tight areas. The exterior housing of the IS13.5 offers practical, quiet function with style.

### Engine cooling system

The engine cooling system is based on an internal closed coolant system. The two pumps of the sea water/coolant heat exchanger also reduce the temperature of the air flow inside the box. This system cools the alternator providing the optimal temperature for the best performance and reliability of the genset, regardless of its on-board location.

### Engine

Model:	<b>Yanmar 3TNE88</b>
Type:	Diesel / 4-stroke
Cylinders:	3
Cylinder block material:	Cast iron
Bore:	3.46"
Stroke:	3.54"
Displacement :	1642cc
Power @ 1800 rpm:	21.9hp
RPM:	1800
Compression ratio:	18:1
Combustion system:	Direct injection
Engine head material:	Cast iron
Speed governor:	Centrifugal mechanical
Lubrication system:	Forced
Oil sump capacity with filter:	5.1 qt.
Engine stop system:	Fuel solenoid
Fuel pump:	Electric
Fuel pump discharge:	2.3'
Fuel consump. @ full load:	1.16gal/hr
Air combustion requirement:	45cfm
Starting battery:	80 Ah - 12V
Battery charger:	15 Ah - 12V
Max. inclination:	30°
Water pump flow:	8.8gal/min

### Generator Ratings (@77° F)

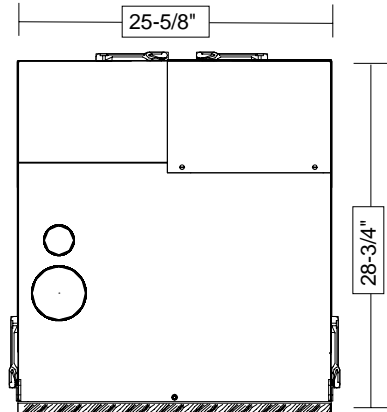
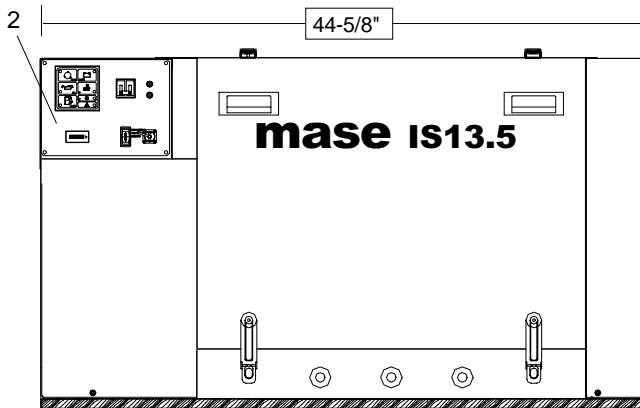
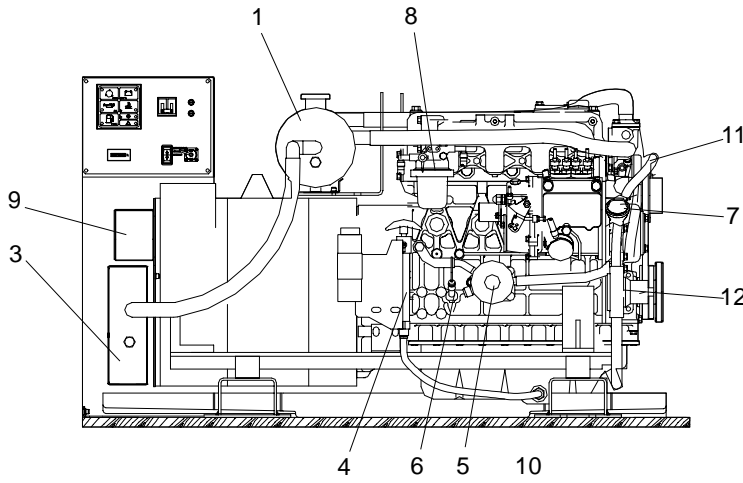
Type:	Synchronous, 4-poles, self-excited
Cooling:	Air/water (Intercooler water/air)
Voltage:	120 - 240V
Nominal current:	112.5 - 56.2A
Frequency:	60Hz
Max. power:	13.5 kW
Continuous power:	12.3 kW
Battery charging output:	10A - 12V
Power factor (cos $\phi$ ):	1
Insulating class:	H
Voltage stability:	$\pm 2\%$
Frequency stability:	$\pm 2.5\%$

### The Water/Air Intercooler

The engine cooling system is based on an internal closed coolant system. However, in addition, the unique Mase Intercooler System creates an internal circular motion of air keeping the engine, as well as the alternator, at the ideal temperature. By creating this cooling "capsule" a minimal amount of heat is absorbed and emitted by the genset.

# IS13.5

Dimensions: (LxWxH) 44-5/8" x 25-5/8" x 28-3/4"  
Weight: 764 lbs.  
Sound Level: 50 dBA at 23'



## Suggested Installation Accessories

- **Exhaust Kit** - reduces sound of engine exhaust
- **Water/Gas Separator Kit** - separates water and exhaust while further reducing sound
- **Siphon Break** - prevents sea water from entering the generator when off... *mandatory for below waterline installations*
- **Remote Control Panel**- operates the generator from remote location (panel size 5-3/8" x 3-5/8" with a 33' shielded cable)

- 1- Heat exchanger (sea water / coolant)
- 2- Local control panel
- 3- Heat exchanger (sea water / air) - intercooler
- 4- Oil sump emptying pump
- 5- Oil filter
- 6- Oil dipstick
- 7- Oil fill cap
- 8- Fuel filter
- 9- Air filter
- 10- Oil sump
- 11- Centrifugal circulating pump
- 12- Sea water pump

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## Mase Generators of North America

Email: MaseGen@aol.com

Website: www.MaseNorthAmerica.com

### Mase Generators S.p.A

Via Tortona, 345

47023 Cesena (FO) Italy

Phone: 0547-354-311, Fax: 0547-317-555

### Northern Division

4500-106 Cascade Road SE

Grand Rapids, MI 49546

Ph: 616-575-6400, Fax: 616-575-6401

### Southern Division

12344 Wiles Road

Coral Springs, FL 33076

Ph: 954-227-8299, Fax: 954-227-1399

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