MITSUBISHI HEAVY INDUSTRIES

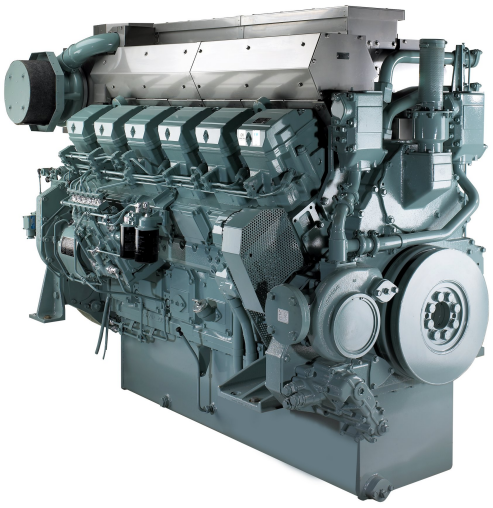
HVO

MITSUBISHI MARINE ENGINE

S12R-MPTAW

588–1040 kW | Marine Propulsion
IMO-T2, IMO-T3 (SCR option)*
and EU-5 (SCR option)*

Reliable mechanical engine



ENGINE DATA			
Engine model	S12R-MPTAW	**Method of operation**	12-cylinder, 4-stroke, water-cooled diesel engine, with direct-injection, turbocharger and air-cooler
Cylinder configuration	12/60°V		
Bore × stroke (mm)	170 x 180		
Total displacement (l)	49.03		
Compression ratio	14.5:1	**Cooling method**	separate high and low temperature cooling circuit; charge air cooler by closed freshwater system controlled by thermostat (intercooler)
Flywheel and housing	SAE 21 / SAE 00		
Dry weight (kg)	5320		
Aspiration	Turbocharged and after-cooled		

RATING [1,2]						
Duty Class	UCD	UCD	UCD	UCD	UCD	HD
Output (kW)	588	696	749	749	940	1040
Output (bhp)	788	933	1004	1004	1260	1394
Engine speed (rpm)	1400	1500	1500	1600	1600	1650
Running Hours	7000 - unlimited	7000 - unlimited	7000 - unlimited	7000 - unlimited	7000 - unlimited	5000-7000
Propulsion System	CPP/FPP	CPP/FPP	CPP/FPP	CPP/FPP	CPP/FPP	CPP/FPP
Emissions	IMO-T2, IMO-T3 (SCR option)* and EU-5 (SCR option)*					

1 For rating definitions, please see our website.

2 Atmospheric condition: barometric pressure: 100 kPa, ambient temperature: 298 K, relative humidity: 30%.

* The SCR after treatment can be provided through our partners. Please contact MTEE for more information.

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STANDARD EQUIPMENT

FUEL SYSTEM
- Flexible fuel supply - and return hoses
- Fuel feed pump
- Fuel fine filters, change-over type
- Fuel injection pump
- Dual walled high-pressure fuel lines
- Fuel injectors

LUBRICATING OIL SYSTEM
- Wet type oil pan with inspection covers
- Oil pressure pump, gear driven
- Lubricating oil filters, change-over type
- By-pass filter
- Oil cooler with thermostat

STARTING AND ELECTRICAL SYSTEM
- Electric starter (Earth floated 24V)
- Alternator, 30 Amps.
- Stop solenoid (ETS)

COOLING SYSTEM
- Fresh water pump including piping and thermostat (HT)
- Front pulley PTO standard

AIR INLET SYSTEM
- Mitsubishi turbocharger
- Air inlet silencer with pre-cleaner
- Inlet air aftercooler or intercooler
- Inlet manifolds or ducts

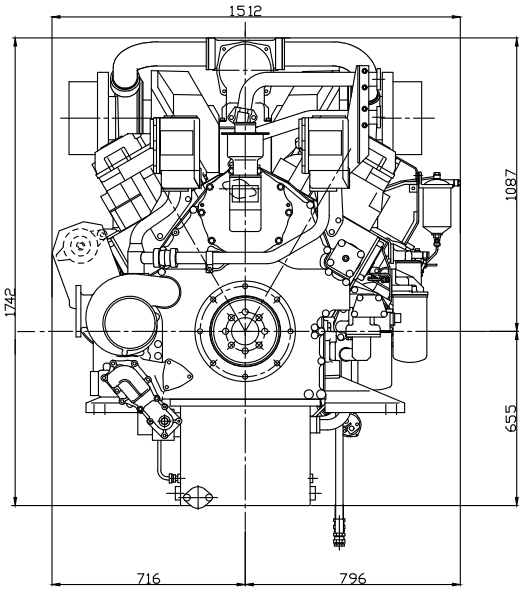
EXHAUST SYSTEM
- Stainless steel insulation (SOLAS)

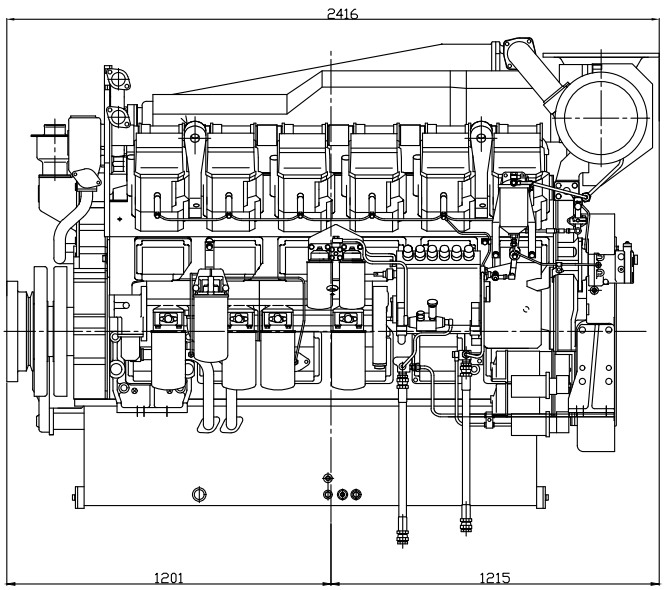
OTHER
- Mounting brackets for rigid mounting
- Flywheel and housing, SAE standard
- Torsional vibration damper

OPTIONAL EQUIPMENT

SCR Aftertreatment
For more details, please see page 3

DIMENSIONS





More information

Contact your local dealer for more information regarding Mitsubishi Marine Engines and optional equipment or, visit **engine-genset.mhi.com**

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OPTIONAL EQUIPMENT

CERTIFICATION / CLASSIFICATION
- Available in cooperation with major classification societies.

GOVERNOR (MANDATORY)
- Hydraulic governor
- Electronic governor (not available for single engine propulsion)
- Electronic governor, with speed control box

FUEL SYSTEM
- Drip tray fuel filters

LUBRICATING OIL SYSTEM
- Drip tray oil filters
- Lubricating oil drain pump
- Pre-lubrication oil system

MONITORING SYSTEM
- Complete digital monitoring system
- Sensor package; sensors mounted on engine with terminal box

STARTING AND ELECTRICAL SYSTEM
- Air starter motor (30 bar)

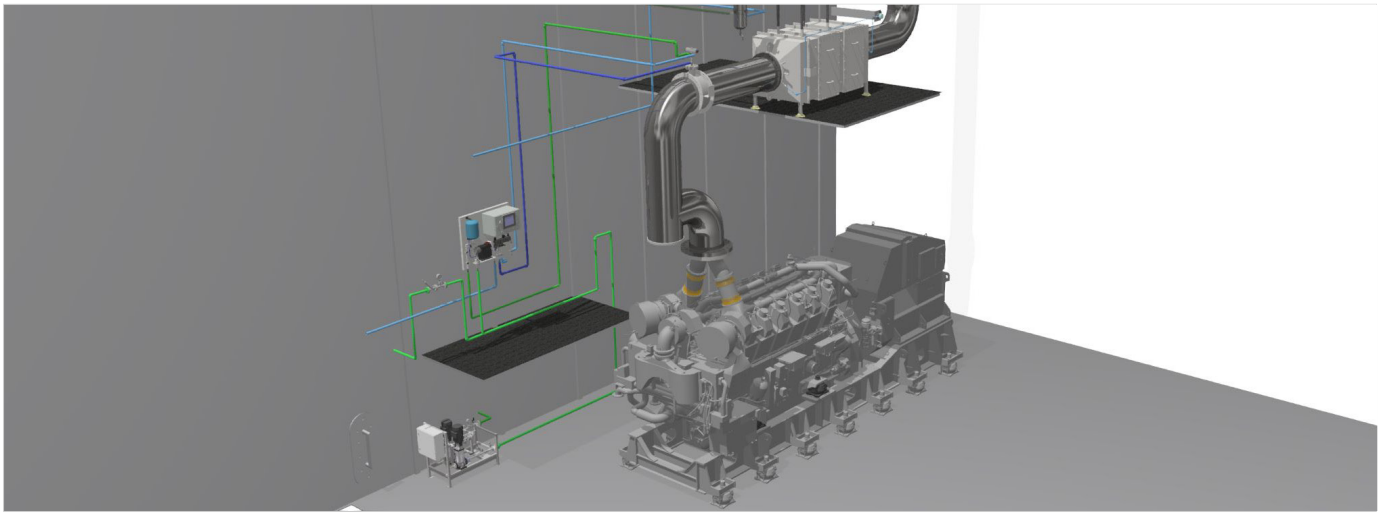
COOLING SYSTEM
- Cooling system with fresh water pump, V-belt including piping and thermostat (LT)
- Cooling water heater with circulation pump
- Cooling water pipe on thermostat housing (HT)

EXHAUST SYSTEM
- Flexible expansion joint
- Horizontal exhaust instead of vertical

SCR AFTER TREATMENT SYSTEM

- SCR reactor
- Injection unit
- Dosing unit
- Shoot blower system
- Control system
- Urea pump unit

DIMENSIONS



Dimensions

Engine L x W x H (mm)	2416 x 1585 x 1807
SCR25	
SCR unit (SCR25) size (excl. insulation) L x W x H (mm)	893 x 882 x 2349
Mixing pipe requirements diameter (DN)*	400
Mixing pipe length (mm)*	2700
SCR36	
SCR unit (SCR36) size (excl. insulation) L x W x H (mm)	1041 x 1036 x 2504
Mixing pipe requirements diameter (DN)*	500
Mixing pipe length (mm)*	2500

* Insulation of the SCR system is not included in the scope of supply, to be supplied and installed by the shipyard.

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