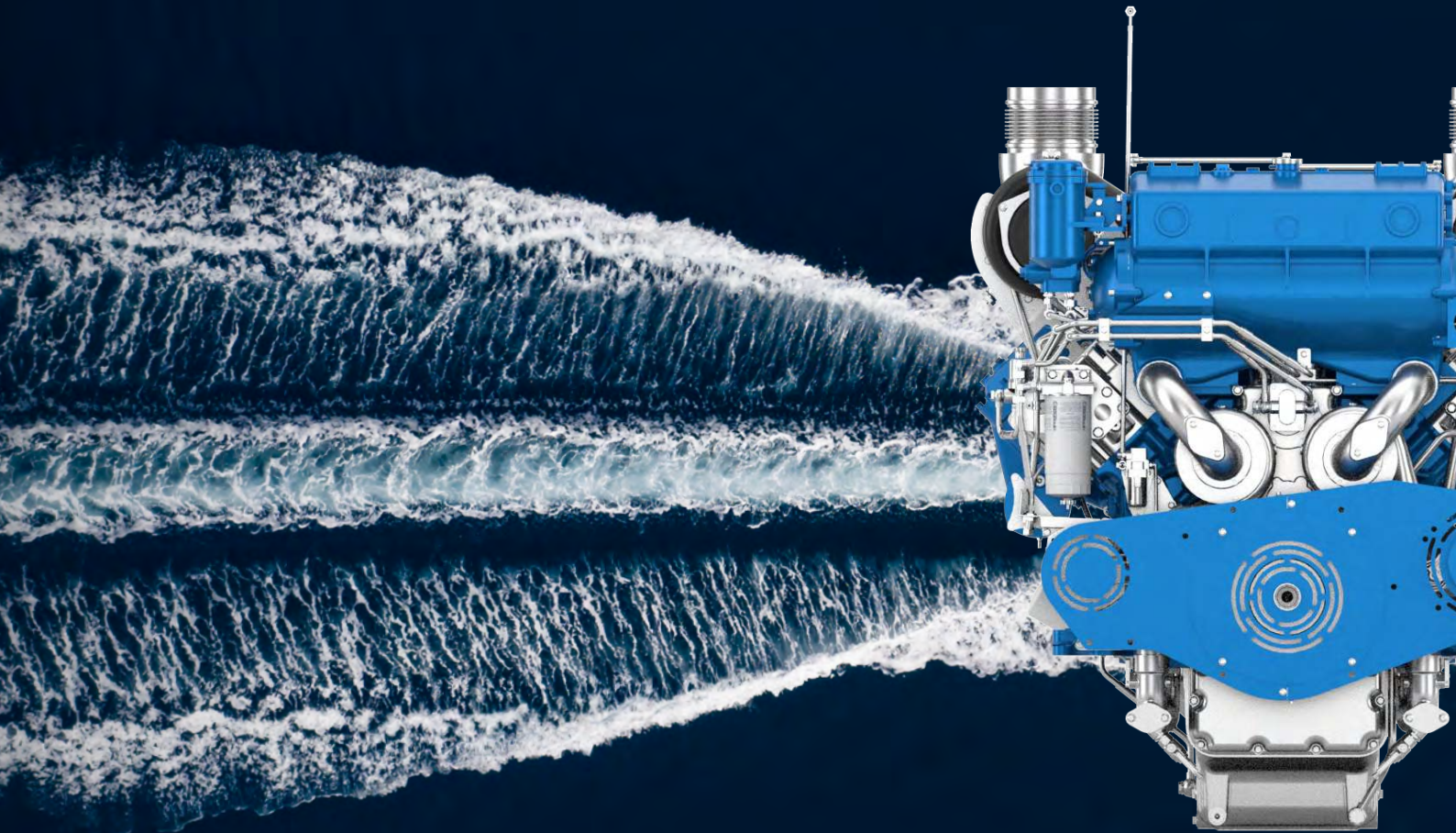
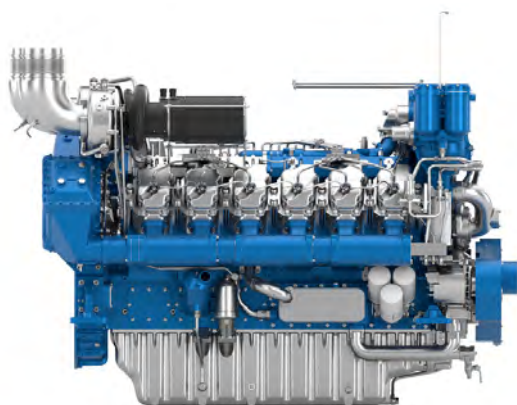




12M33.2

Marine Propulsion engine



Number of cylinders	V12
Bore and stroke (mm)	150 X 185
Displacement (L)	39.2
Engine rotation	Counterclockwise
Idle speed (rpm)	650
Flywheel	18"
Flywheel housing	SAE 0

Rated power

Rating	kW	rpm	HP	Fuel consumption			IMO
				Optimum value	Rated power		
				g/kWh	g/kWh	l/h	
P1	956	1800	1300	213	226	257	II
P2	1029	1800	1399	203	210	257	II
P2	1104	1800	1501	204	209	275	II

P1 - CONTINUOUS DUTY - Severe continuous application with little or no engine speed / load variations.

Displacement hull:

- Engine mean load factor: 100%.
- Annual duration of use: Unrestricted.
- Use under full load: unlimited (100%).

Application examples: Deep Sea vessels and shrimp trawlers, high sea or river tugboats, towboats, cargos, cargo boats, dredgers, ferries.

P2 - HEAVY DUTY - Continuous application with frequent variations in engine speed and load.

Displacement or semi-displacement hull:

- Engine mean load factor: 80%.
- Annual duration of use: 5,000 hours.
- Use under full load: 8 hours in a 12-hours period (66%).

Application examples: Annual passenger vessels, harbour tugs, self-propellers, coasters, fast fishing boats such as tuna boats, seiners, pot vessels or liners, buoying vessels, oceanographic research vessels.

P3 - INTERMITTENT DUTY - Intermittent application with significant variations in engine speed and load.

Planning or semi-planning hull:

- Engine mean load factor: 70%.
- Annual duration of use: 3,000 hours.
- Use under full load: 2 hours in a 12-hours period (16%).
- Cruising speed is less than 90% of nominal engine speed.

Application examples: Seasonal passenger vessels, fishing launches, pilot boats, pump boats, displacement sailboats, trawlers, bow thrusters.

P4 - LIGHT DUTY - Light application with significant variations in engine speed and load.

Planning hull:

- Engine mean load factor: 90%.
- Annual duration of use: less than 1,500 hours.
- Use under full load: 1 hour in a 12-hours period (8%).
- Cruising speed is less than 80% of nominal engine speed.

Application examples: Survey or rescue fast vessels, military fast vessels, patrol boats, commercial pleasure craft.

P5 - HIGH PERFORMANCE DUTY - High performance application with significant variations in engine speed and load:

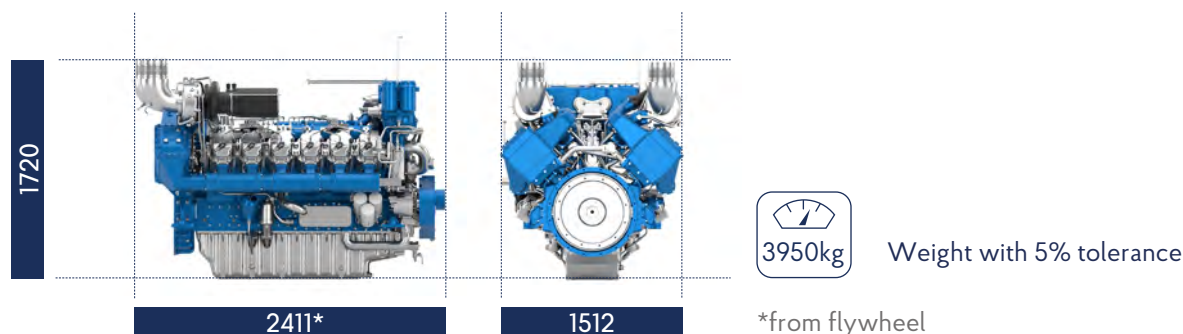
- Engine mean load factor : 60%.
- Annual duration for use: 500 hours.
- Use under full load: 1 hour in a 12-hours period (8%).

Application examples: Private pleasure boats, multi-hull pleasure boats.

WARRANTY DISCLAIMER

Warranty does not apply whenever the engine operation conditions differ from the initial duty class - P1, P2, P3, P4 and P5 - operational conditions. The operator must therefore modify the duty class accordingly, to benefit from SIMB warranty coverage.

Dimensions and dry weight (mm/kg)



Standard equipment

Cooling System

Two-stage cooling circuit with integrated HT thermostatic valve
High efficiency heat exchanger (Tube Type) with integrated fresh water expansion tank
Belt-driven self-priming raw water pump with bronze impeller
Belt-driven centrifugal freshwater pump

Lubrication System

Duplex full-flow spin-on lube oil filters
Freshwater-cooled lube oil cooler
Mechanical oil drain pump

Fuel System

Mechanical fuel injection system
Double-wall fuel injection pipe with leakage detection system
Duplex fuel filters, replaceable while engine is running
Simplex fuel prefilter with water separator
Mechanical fuel priming pump

Intake Air and Exhaust System

Fresh water cooled exhaust gas manifold
High efficiency single stage freshwater-cooled turbocharger
Raw water cooled charge air cooler

Electrical System

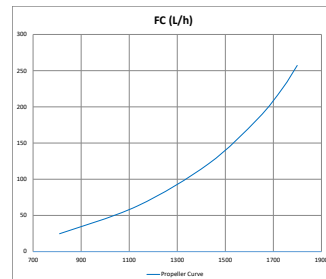
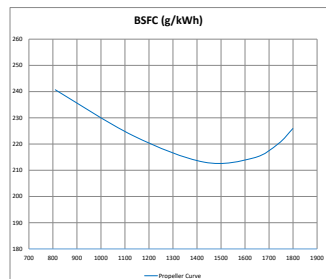
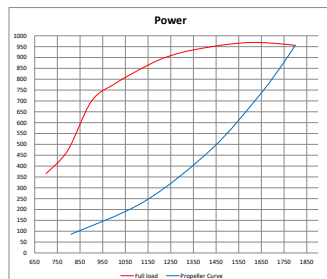
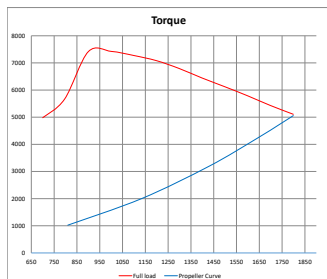
24V DC system, Insulated
Electrical starter
Battery Charger 175A

Optional Equipment

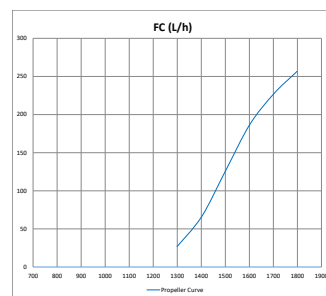
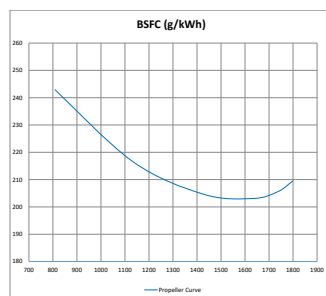
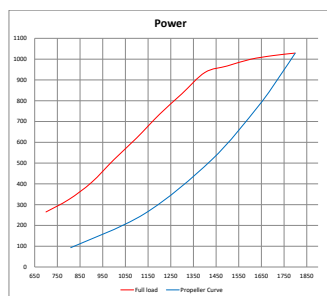
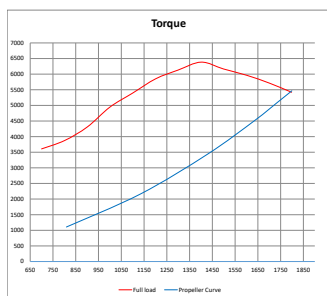
Keel Cooling configuration
Elastic pads
Front PTO
Electric oil prelubricating pump

Performance

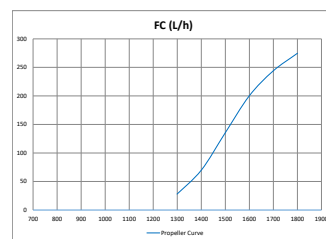
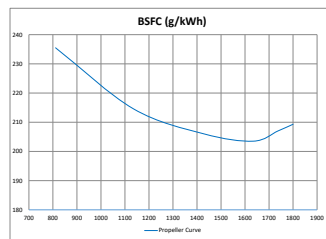
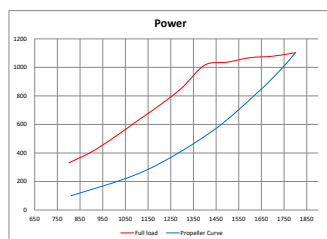
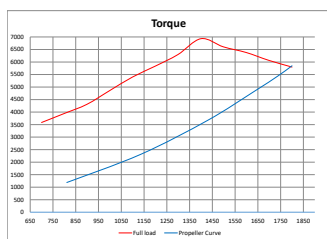
P1 - 956 kW - 1800 rpm



P2 - 1029 kW - 1800 rpm



P2 - 1104 kW - 1800 rpm



Power definition

(Standard ISO 3046-1:2002)

Reference conditions

Ambient temperature	25°C / 77°F
Barometric pressure	100 kPa
Relative humidity	30%R
Raw water temperature	25°C / 77°F

Fuel oil

Relative density	0,840 ± 0,005
Lower calorific power	42 700 kJ/kg
Consumption tolerances	± 5%
	(DIN ISO 3046-1)
Inlet limit temperature	35°C / 95°F

Our ratings also comply with classification societies maximum temperature definition without power derating.

Ambient temperature	45°C / 113°F
Raw water temperature	32°C / 90°F