

Number of cylinders Bore and stroke (mm) Total displacement (L) Compression ratio Engine rotation Idle speed (rpm) Flywheel Flywheel housing 6 in line 105 X 130 6.75 18/1 counter clockwise 650 SAE 3 SAE 11.5"

Customer benefits

Genuine marine design, our engine is designed specifically for Marine applications with Marine components **Global environment care** with low exhaust emissions at any running cycle

Simple technology with mechanical injection

Life cycle cost efficiency with extended MTBO, modular concept reducing number of components and interfaces

Rated power - Fuel consumption

				Fuel consumption				
Duty	kW	НР	RPM	Optimum value	Rated	power	IMO	EPA
				g/kWh	g/kWh	l/h		
P2	136	185	2100	198	211	34		-
Р3	168	228	2425	193	216	43		-

	P2	Р3
Application	Continuous (Heavy)	Intermittent
Engine load variations	Important	Important
Average Engine load factor	30-80%	60%
Annual working time	3000-5000h	1000-3000h
Time at full load	8h each 12h	2h each 12h

P1 Continuous Duty

- Deep sea trawlers
- Shrimps trawlers
- Sea going tug boats
- River tug boats
- Push boats
- Freighters
- Dredges
- LCT
- Ferries

P2 Heavy Duty

- Deep sea trawlers
- Shrimps trawlers
- Sea going tug boatsRiver tug boats
- Push boats
- Freighters
- Dredges
- LCT
- Ferries

P3 Intermittent Duty

- Seasonal passenger vessels
- Fishing boats
- Pilot boats
- Commercial pleasure boats
- Pump boatsDisplacement sailboats
- Trawlers
- Bow thrusters

P4 Light Duty

- Private pleasure boats
- Multi-hull pleasure boats
- Survey or rescue fast vessels
- Military fast vessels.

P5 High performance Duty

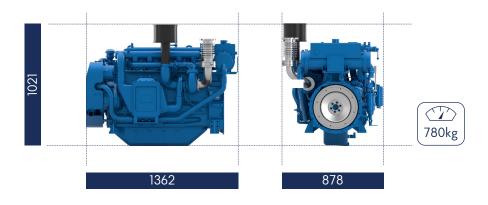
- Private pleasure boats
- Multi-hull pleasure boats

2





Dimensions and dry weight (mm/kg)

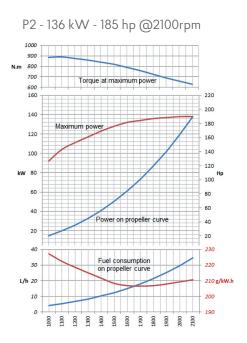


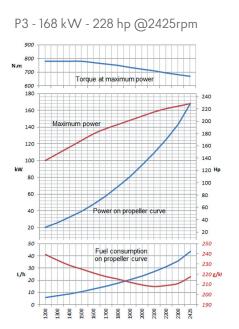
Standard equipment

Engine & Block	Cast iron cylinder block, with replaceable cylinder liners Separate cast iron cylinder heads Replaceable valves guides and seats Steel forged crankshaft with 7 bearings Lube oil cooled light alloy piston with 3 high performance piston rings
Cooling System	Fresh / raw water heat exchanger with integrated thermostatic valves and expansion tank Cast iron centrifugal fresh water pump, mechanically driven Rubber self-priming raw water pump, mechanically drive
Lubrication System	Full flow screwable oil filters Fresh water cooled lube oil cooler
Fuel System	In line injection pump with flanged mechanical governor Double wall injection bundle Duplex fuel filters replaceable engine running Water separator
Intake Air & Exhaust System	Insulated exhaust gas manifold Turbo blower with insulated turbine housing Low water temperature cooled intake air cooler
Electrical System	Voltage: 24Vcc Electrical starter on flywheel crown 35A battery charger
Optional Equipment	Cooling system adapted for box / keel cooling Connection for emergency raw water circuit Resilient mounts under engine Bilge pump Air starter Exhaust water injection after turbocharger Resilient mounts under engine Free end PTO



Performance





Power definition

(Standard ISO 3046/1 - 1995 (F))

Reference conditions

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

25°C / 77°F

Fuel oil

Relative density Lower calorific power Consumption tolerances

Inlet limit temperature

0,840 ± 0,005 42 700 kJ/kg + 5% (DIN ISO 3046-1) 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