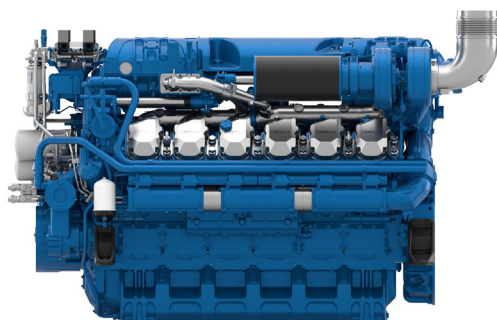




Number of cylinders	12V @ 90
Bore and stroke (mm)	150 X 150
Total displacement (L)	31.8 L
Compression ratio	15/1
Engine rotation	counter clockwise
Idle speed	650
Flywheel	SAE 0
Flywheel housing	SAE 18"
Common rail injection	

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

Excellent fuel consumption

Unparalleled performance in heavy duty applications

Rated power - Fuel consumption

Duty	kW	HP	rpm	Fuel consumption			IMO	EPA
				Optimum value	Rated power			
					g/kWh	g/kWh		
P1	883	1200	1800	200	200	207	II/II	3/4
P2	972	1320	1800	199	201	232	II	-
P2	1030	1400	2100	199	206	250	II/III	3/4
P2	1103	1500	2200	200	211	275	II/III	3/4
P3	1214	1650	2300	205	215	311	II/III	3/4

	P1	P2	P3
Application	Unrestricted	Heavy	Intermittent
Engine load variations	Very Little To None	Continuous	Important
Average Engine load factor	80-100%	30-80%	50%
Annual working time	More Than 5000 H	3000 -5000 H	1000 - 3000 H
Time at full load	Unlimited	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 boats
- River tug boats
- Push boats
- Freighters
- Dredges
- LCT
- Ferries

P3 Intermittent Duty

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

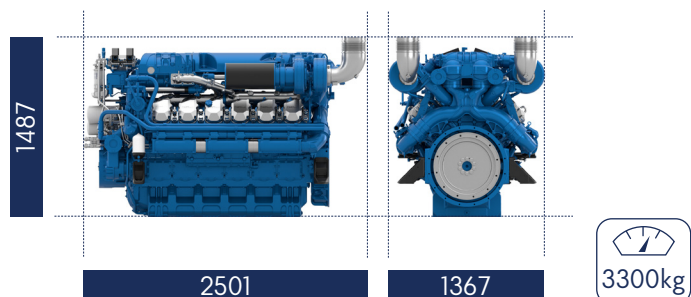
P4 Light Duty

- 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

Dimensions and dry weight (mm/kg)



Standard equipment

Cooling System

Two - stage cooling circuit with built - in HT thermostatic valve
 Integrated fresh water expansion tank
 High efficiency tubular heat exchanger
 Gear driven centrifugal raw water pump
 Self priming raw water pump with bronze impeller

Lubrication System

Full flow lube oil filters duplex type
 Fresh water cooled lube oil heat exchanger

Fuel System

Common-rail electronic injection
 High pressure pump with shielded high pressure injection rail and pipes
 Fuel oil filter duplex type
 External fuel pre-filter with water separator

Intake Air and Exhaust System

Double flow raw water cooled intake air heat exchanger module
 High efficiency dry turbocharger with ball bearing technology
 Two Stage Turbocharging system

Electrical System

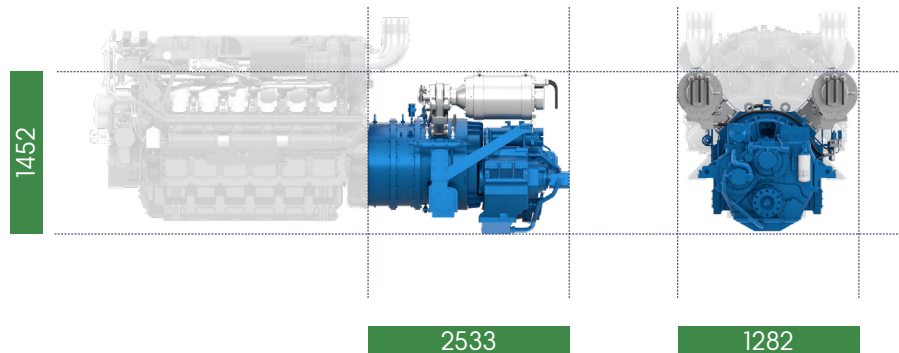
Voltage: 24V DC insulated
 Electrical starter
 190A battery alternator

Optional Equipment

Wet exhaust
 PTO elastic coupling
 Additional pulley
 Electric drain system
 Standard PTO for hydraulic pump
 Different alternators possible - including 12V
 Electrical rotary actuator

Please check with the Sales person to avail full list of options

Dimensions (mm)



Rated power - Fuel consumption

Emachine		
Std & autonomy		Two units 100 kW
Nominal torque	636	Nm
Nominal power	200	kW
Peak torque	928	Nm
Peak power	260	kW
Weight	390	kg
Hybrid module		HM6300
PTI Ratio	0.95	
Weight	900	kg

Prop package dimensions		
Length	2533	mm
Height	1452	mm
Width	1282	mm
Interface	SAE 0/18"	

Total hybrid package weight		
	Hybrid package	
Std	2210	kg
Autonomy	3130	kg

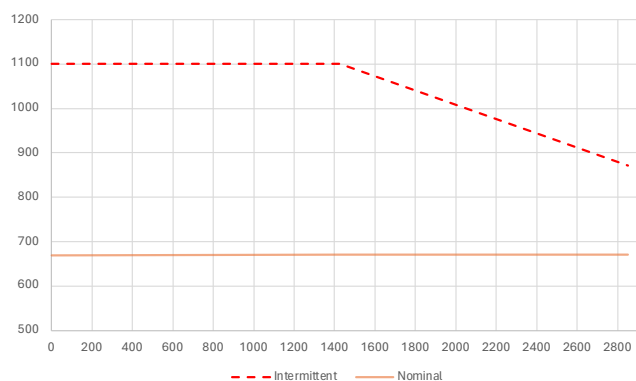
Battery pack		
Std		
Technology	LFP	
Voltage (V)	384	V
Capacity (Ah)	200	Ah
Energy (kWh)	76.8	kWh
N Modules	4	
Module Dimensions	619x955x352	mm
Total Weight	920	kg

Autonomy		
Technology	LFP	
Voltage (V)	384	V
Capacity (Ah)	400	Ah
Energy (kWh)	153.6	kWh
N Modules	8	
Module Dimensions	619x955x352	mm
Total Weight	1840	kg

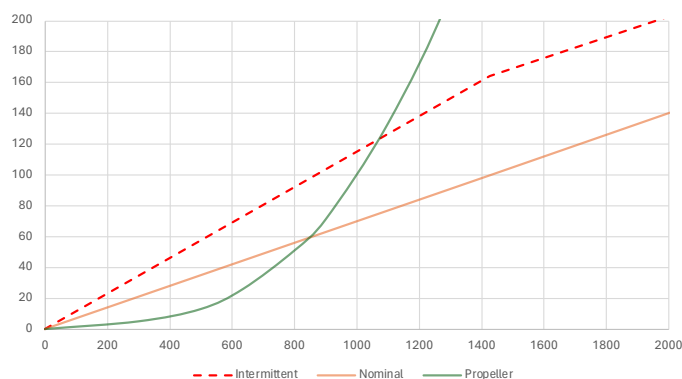
Full electric autonomy		
Std	1	h
High Autonomy	2	h

Standard & High Performance Autonomy Configurations

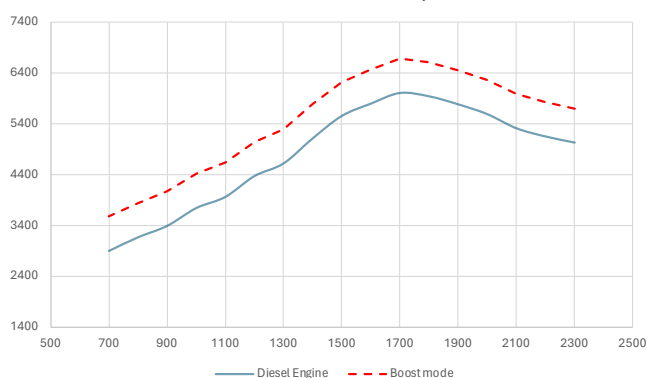
Full Electric - Torque



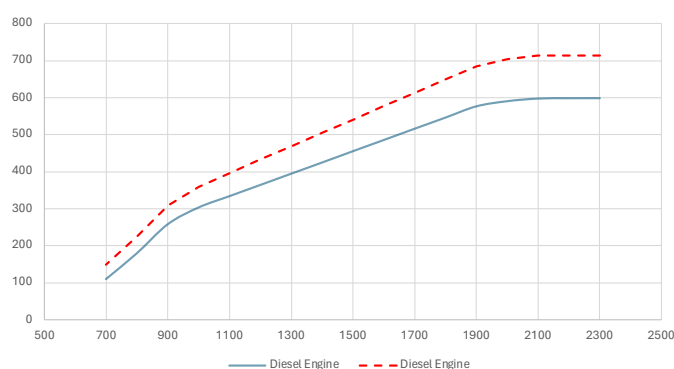
Full Electric - Power



Diesel + Electric Torque



Diesel + Electric Power



Power definition

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

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	0 ± 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