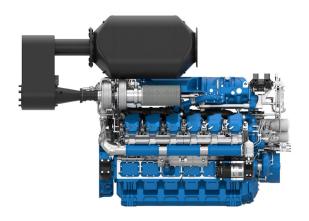


**Propulsion Diesel Engine** 

Baudouin.com



### Propulsion Diesel Engine



Number of cylinders 12V @ 90 Bore and stroke (mm) 150 X 150 Total displacement (L) 31.8 Compression ratio 15/1

Engine rotation counter clockwise

Idle speed 650 Flywheel SAE 0 Flywheel housing SAE 18"

### **Customer benefits**

**Most advanced Common Rail technology** and high-end injection system (2200 bar), key to achieve strict emissions regulations and competitive performances.

**Highly efficient turbochargers** optimized to operate with high performance keeping fuel consumption under control. **Individual cylinder heads** allowing easy maintenance.

**Key components** made of highly reliable materials.

### Rated power - Fuel consumption

|      |      |      |      | Fuel consumption |             |     |     |     |      |         |
|------|------|------|------|------------------|-------------|-----|-----|-----|------|---------|
| Duty | kW   | HP   | RPM  | Optimum value    | Rated power |     | IMO | EPA | CCNR | CE97/68 |
|      |      |      |      | g/kWh            | g/kWh       | l/h |     |     |      |         |
| P1   | 883  | 1200 | 1800 | 200              | 202         | 209 | /   | 3/4 | II   | III A   |
| P2   | 1030 | 1400 | 2100 | 201              | 210         | 254 | /   | 3/4 | II   | III A   |
| P2   | 1103 | 1500 | 2200 | 200              | 210         | 275 | /   | 3/4 | II   |         |
| Р3   | 1214 | 1650 | 2300 | 201              | 209         | 311 | /   | 3/4 | -    | -       |

|                            | P1                      | P2           | Р3            |  |
|----------------------------|-------------------------|--------------|---------------|--|
| Application                | Unrestricted Continuous | Continuous   | Intermittent  |  |
| Engine load variations     | Very Little To None     | Continuous   | Important     |  |
| Average Engine load factor | 80-100%                 | 30-80%       | 60%           |  |
| 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
- FreightersDredges
- · LCT
- Ferries

### P2 Heavy Duty

- Deep sea trawlers
- Shrimps trawlers
- · Sea going tug boats
- River tug boats
- Push boats
- Freighters
- Dredges
- LCTFerries

### 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.

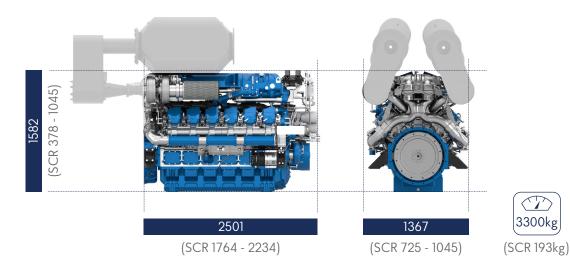
### P5 High performance Duty

- Private pleasure boats
- Multi-hull pleasure boats



Propulsion Diesel Engine

### 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

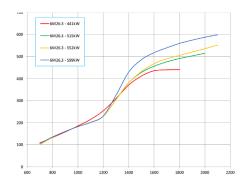
Different alternators possible - inlcuding 12V

Electrical rotary actuator

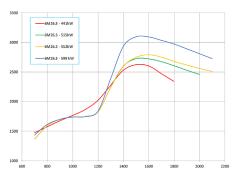


Propulsion Diesel Engine

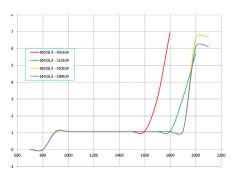
### **Power Curves**



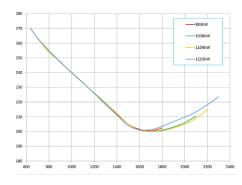
### **Torque Curves**



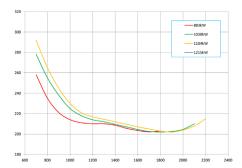
### Cons. Urea - Full Curve



### **Full Load**



### **Prop Curves**



### **Power definition**

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

### Reference conditions

Ambient temperature  $25^{\circ}\text{C} / 77^{\circ}\text{F}$ Barometric pressure 100 kPaRelative humidity  $30^{\circ}\text{R}$ Raw water temperature  $25^{\circ}\text{C} / 77^{\circ}\text{F}$ 

### 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  $45^{\circ}\text{C} / 113^{\circ}\text{F}$  Raw water temperature  $32^{\circ}\text{C} / 90^{\circ}\text{F}$