

6F21

Common rail diesel engine, 2-stage turbocharging

Baudouin.com



Common rail diesel engine, 2-stage turbocharging



Number of cylinders 6

Bore and stroke $127 \times 165 \text{ mm}$

Total displacement 12.5 L

Engine rotation Counterclockwise

Idle speed 700rpm Flywheel housing SAE 1 Flywheel SAE 14"

Customer benefits

Genuine marine design - our engine is designed specifically for marine applications with marine components, such as individual cylinder heads that make maintenance easy even in the smallest of engine rooms

Continuous compact power - best in class for power output at P3 & P4 and co-leader at P5 rating and best in class for power density throughout all 3 duty ratings

Global environment care - low exhaust emissions at any running cycle

Latest safe technology - including as a standard, double wall HP pipes and a protected rail, with fuel leak sensor, and also marine approved components and monitoring systems

Rated power - Fuel consumption

Duty	Kw	Нр	rpm	Fuel consumption g/kWh	l/h	IMO
Р3	599	815	2300	220	155	II
P4	662	900	2300	223	174	II
P5	735	1000	2300	228	197	II

[EPA 3 is in progress]

	P3	P4	P5	
Application	intermittent	light	high performance	
Engine load variations	important	very important	important	
Average engine load factor	60%	60%	60%	
Annual working time	1000 to 3000h	less than 1500h	500h	
Time at full load	2h each 12h	1h each 12h	1h each 12h	

Power definition

(Standard ISO 3046/1 - 1995 (F)

Reference conditions

 $\begin{array}{lll} \mbox{Ambient temperature} & 25^{\circ}\mbox{C}\xspace / 77^{\circ}\mbox{F} \\ \mbox{Barometric pressure} & 100 \mbox{ kPa} \\ \mbox{Relative humidity} & 30\%\mbox{R} \\ \mbox{Raw water temperature} & 25^{\circ}\mbox{C}\xspace / 77^{\circ}\mbox{F} \\ \end{array}$

Fuel oil

Relative density 0.840 ± 0.005 Lower calorific power $42\,700\,\mathrm{kJ/kg}$ Consumption tolerances $0 \pm 5\%$ Inlet limit temperature $35^{\circ}\mathrm{C}/95^{\circ}\mathrm{F}$ Our ratings also comply with classification societies maximum temperature definition without power derating.

Ambient temperature Raw water temperature

45°C / 113°F 32°C / 90°F

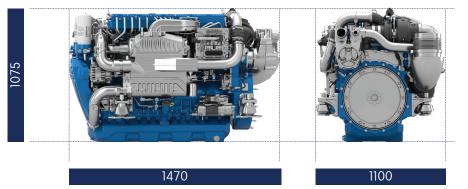


6F21



Common rail diesel engine, 2-stage turbocharging

Dimensions and dry weight (mm/kg)





Standard equipment

Cooling systemTwo - 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 systemCommon-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 Rigid mounting

Water injection exhaust Closed circuit venting SAE A Live PTO Front PTO 1000N.m Cabin heating connections

Fresh water pre-heater 120V & 240V

Gearbox oil draining

GOC adj. raw water connection





Common rail diesel engine, 2-stage turbocharging

