



N45 MNA M10 FOR MARINE APPLICATIONS

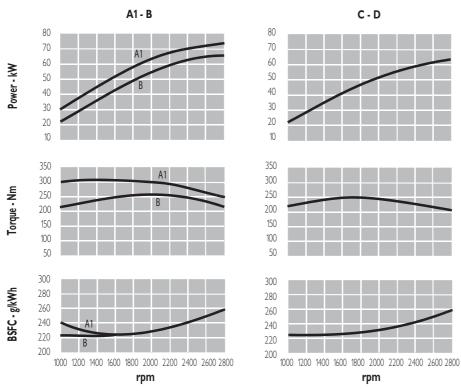
Arrangement 4L Bore x Stroke mm 104 x 182 Total displacement 1 4.5 Valves per cylinder 2 Cooling liquid Direction of rotation (viewed facing flywheel) CCW Engine management mechanical injection system mechanical pump Electrical system Voltage V 12 Standard configuration Flywheel housing type SAE 3 Flywheel housing type SAE 3 Flywheel size inch 10 Air filter left side Turbocharger Heat exchanger Electricanger tube type Extra cooled elbow Water change tank included foot group included Fuel prefilter n° 1 Fuel prefilter included (loose) Fuel pump included Oil filter n° 1 Fuel prefilter included (loose) Fuel pump included Fuel apond but the trankcase oil filter on valve cover Oil sarpo cast iron Oil vapours blow-by circuit on valve cover Starting motor 12 V - 3 kW Alternator 12 V - 3 kW Alternator engine wiring engine wiring Painting Fainting colour white "CE" Not included in the standard configuration Battery - minimum capacity recommended	Thermodynamic cycle		Diesel 4 stroke		
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Injection system	Direction of rotation (viewed facing flywheel)		CCW		
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Flywheel housing type SAE 3 Flywheel size inch 10 Air filter left side Turbocharger	Standard configuration				
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Engine stop device Wiring harness engine wiring Painting colour white "ICE" Not included in the standard configuration Battery - minimum capacity recommended electrical excitation engine wiring white "ICE" 180 Ah	Starting motor		12 V - 3 kW		
Wiring harness engine wiring Painting colour white "ICE" Not included in the standard configuration Battery - minimum capacity recommended 180 Ah	Alternator		12 V - 90 A with W contact		
Painting colour white "ICE" Not included in the standard configuration Battery - minimum capacity recommended 180 Ah	Engine stop device		electrical excitation		
Not included in the standard configuration Battery - minimum capacity recommended 180 Ah	Wiring harness		engine wiring		
Battery - minimum capacity recommended 180 Ah	Painting	colour	white "ICE"		
Battery - minimum capacity recommended 180 Ah	Not included in the standard configuration				
	Battery - minimum capacity recommended		180 Ah		
	Battery - minimum cold cranking capacity recommended		800 A		

FPT OFFERS THE WIDEST AVAILABILITY OF ENGINE BUILD OPTIONS TO CUSTOMER SPECIFIC REQUIREMENTS WITHIN THE ENGINE SUPPLY. TO FIND OUT MORE ABOUT THE CONFIGURATIONS AND ACCESSORIES WHICH ARE AVAILABLE, CONTACT THE FPT SALES NETWORK.

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Rating type		A1	В	С	D
Maximum power *	kW(HP)	74 (100)	66.5 (90)	63 (85)	63 (85)
At speed	rpm	2800	2800	2800	2800
Maximum no load governed speed at max rating	rpm	3100	3100	3100	3100
Minimum idling speed	rpm	650	650	650	650
Mean piston speed at rated speed	m/s	12.3	12.3	12.3	12.3
BMEP at max torque	kg/cm²	8.6	7.2	7.2	7.2
Specific fuel consumption at full load (best value)	g/kWh @ rpm		230 @ 1800		
Oil consumption at max rating	(% of fuel consumption) 0.1				
Minimum starting temperature without auxiliaries	°C	°C -10			
Oil and oil filter maintenance interval for replacement	hours	hours 600			

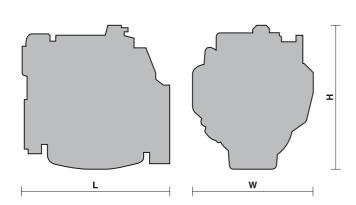
^{*} **Net Power** at flywheel according to ISO 3046/1, after 50 hours running, fuel Diesel EN 590. Power tolerance 5%. **Test conditions**: ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity.



A1 = High performance crafts.
B = Light duty.
Full throttle operation restricted within 10% of total use period.
Cruising speed at engine rpm < 90% of rated speed setting - Maximum usage: - 300 hours per year (A1 service) - 1500 hours per year (B service).

C = Medium duty.
 Full throttle operation < 25% of use period.
 Cruising speed at engine rpm < 90% of rated speed setting - Maximum usage 3000 hours per year.
 D = Heavy duty.

Maximum rating utilisation up to 100% of use period, for unlimited hours per year.



 \mathbf{L} = 830 mm

W = 683 mm

H = 830 mm

Dry weight (without marine gear) = 450 kg

ENGINE BENEFITS

- **PERFORMANCE:** Ratings, consumption and emissions optimisation due to modern mechanical injection systems; high torque at low rpms.
- SERVICEABILITY: Widespread and quick service.
- RELIABILITY: Functional design; long engine life.
- **COST EFFECTIVENESS:** Fuel consumption reduction; maintenance and overhaul intervals extension.
- ENVIRONMENTALLY FRIENDLY: Noise, gaseous emissions and vibrations reduction.
- **CUSTOMER ORIENTATION:** Wideness of uses, propulsion certifications and emissions; availability of accessories range.

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LOCAL DISTRIBUTOR



