## Marine Commercial N40

# N40 250

Rating type B: 147 kW (200 HP) @ 2800 rpm Rating type C: 125 kW (170 HP) @ 2800 rpm Rating type D: - kW (- HP) @ - rpm

#### **SPECIFICATIONS**

| Thermodynamic cycle                            |             | Diesel 4 stroke                    |
|--|-------------|------------------------------------|
| Air handling                                   |             | TCA                                |
| Cylinders arrangement                          |             | 4L                                 |
| Bore x Stroke                                  | millimeters | 102 x 120                          |
| Total displacement                             | liters      | 3.9                                |
| Valves per cylinder                            | number      | 4                                  |
| Cooling System                                 |             | liquid                             |
| Direction of Rotation (viewed facing flywheel) |             | CCW                                |
| Engine management                              |             | by EDC (Electronic Diesel Control) |
| Injection System                               |             | ECR                                |

#### STANDARD CONFIGURATION

| Flywheel housing                                   | type SAE 3   |
|--|--|
| Flywheel size                                      | inch 11" 1/2   |
| Air filter   | rear side  |
| Turbocharger                                       | Fixed Geometry (water cooled) Turbo with Aftercooler (TCA) |
| Heat excharger<br>Exhaust gas water mixer - Exhaus | tube type  |
| Water charge tank                                  | included   |
| Fuel filter  | number 1   |
| Fuel prefilter                                     | included (loose)   |
| Fuel pump  | included   |
| Oil filter   | number 1   |
| Oil sump   | aluminium  |
| Oil vapours blow-by circuit                        | rear   |
| Oil heat exchanger                                 | built in the crankcase                                     |
| Oil filler   | by cylinder head cover                                     |
| Starter  | 12V - 3kW  |
| Alternator   | 12 V - 90 A  |
| Engine stop device                                 | by electronic central unit                                 |
| Wiring harness                                     | with negative to ground connection                         |
| Painting color                                     | white "ICE"  |
|  |  |

#### WEIGHT AND DIMENSIONS

| Dimensions | LxWxH (mm) | 850 x 708 x 785 |
|------------|------------|-----------------|
| Dry Weight | Kg         | 490             |

DIMENSIONS CAN BE CHANGED ACCORDING TO ENGINE OPTIONS



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IMAGES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY

#### **ELECTRICAL SYSTEM**

| V |
|---|
|   |

### NOT INCLUDED IN STANDARD CONFIGURATION

| Battery - minimum capacity recommended               | Ah | 120 Ah |
|--|----|--------|
| Battery - minimum cold cranking capacity recommended | Ah | 900 Ah |

| LEGEND                    |                                     |                                      |                              |                                     |
|---------------------------|-------------------------------------|--------------------------------------|------------------------------|-------------------------------------|
| Arrangement               | Air Handling                        | Turbocharger                         | Injection System             | Exhaust System                      |
| L (in line)               | TCA (Turbocharged with aftercooler) | WG (Wastegate)                       | M (Mechanical)               | EGR (Exhaust Gas Recirculation)     |
| V (90° "V" configuration) | TC (Turbocharged)                   | VGT (Variable Geometry Turbocharger) | ECR (Electronic Common Rail) | SCR (Selective Catalytic Reduction) |
| NA (Naturally Aspirated)  | TST (Twin Stage Turbocharger)       | EUI (Electronic Unit Injector)       |                              |                                     |
|                           |                                     | MPI (Multi Point Injection)          |                              |                                     |

Voltage

A1 High Performance Crafts. 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. A2 Pleasure Commercial Vessels. Full throttle operation restricted within 10% of total use period. Cruising speed at engine rpm <90% of rated speed setting – Maximum usage 1000 hours per year.

B C D Light Duty: Full throttle operation restricted within 10% of use period. Cruising speed at engine rpm <90% of rated speed setting - Maximum usage 1500 hours per year. 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.

Heavy Duty

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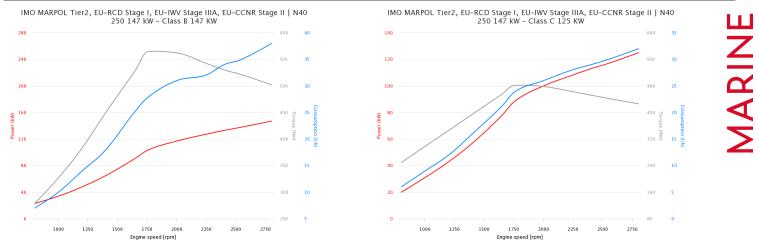




| RATING TYPE   |                   | В          | С          | D     |
|---|-------------------|------------|------------|-------|
| Maximum power [*]                                       | kW (HP)           | 147 (200)  | 125 (170)  | - (-) |
| At speed  | rpm               | 2800       | 2800       | -     |
| Maximum no load governed speed at max rating            | rpm               | 3000       | 3000       | -     |
| Minimu idling speed                                     | rpm               | 700        | 700        | -     |
| Mean piston speed at rated speed                        | m/s               | 11.2       | 11.2       | -     |
| MEP at max power  | bar               | 18.3       | 15.6       | -     |
| pecific fuel consumption at full load (best value)      | g/kWh @ rpm       | 212 @ 2400 | 212 @ 2400 | -     |
| il consumption at max rating                            | (% of fuel cons.) |            | = 0.1      |       |
| Iinimum starting temperature without auxiliaries        | °C                |            | -10°       |       |
| Dil and oil filter maintenance interval for replacement | hours             |            | 600        |       |

\* Net Power at flywheel according to ISO 3046/1, after 50 hours running, Fuel Diesel EN 590. Power tolerance 5%.

#### **POWER & TORQUE**



| LEGEND                    |                                     |                                      |                              |                                     |
|---------------------------|-------------------------------------|--------------------------------------|------------------------------|-------------------------------------|
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|                           | TST (Twin Stage Turbocharger)       | EUI (Electronic Unit Injector)       |                              |                                     |
|                           |                                     |                                      | MPI (Multi Point Injection)  |                                     |

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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.</li>
Heavy Duty

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