

## MARINE Application

## NEF series

## N60 400

PLEASURE - Diesel

294 kW(400 HP) @ 3000 rpm (A1)  
 272 kW(370 HP) @ 3000 rpm (A2)  
 243 kW(330 HP) @ 3000 rpm (B)  
 199 kW(270 HP) @ 3000 rpm (C)



### SPECIFICATIONS

Thermodynamic Cycle	Diesel 4 stroke
Air Handling	TAA
Arrangement	6L
Bore x Stroke (mm)	102 X 120
Total Displacement (L)	5.9
Valves per cylinder (n°)	4
Cooling System	liquid
Direction of Rotation (viewed facing flywheel)	CCW
Engine management	by EDC (Electronic Diesel Control)
InjectionSystem	ECR

### STANDARD CONFIGURATION

Flywheel housing (type)	SAE 3
Flywheel size (inch)	11" ½
Air Filter	rear side
Turbocharger	Fixed Geometry (water cooled) Turbo with Aftercooler (TAA)
Heat Exchanger	tube type
Exhaust gas water mixer - Exhaust cooled elbow	-
Water charge tank	included
Fuel filter (n°)	1 - left side
Fuel prefilter	included (loose)
Fuel Pump	included
Lift pump	-
Oil filter (n°)	1 - right side
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	12V - 90A
Engine stop device	by electronic central unit
Wiring harness	with negative to ground connection
Painting color	white "ICE"

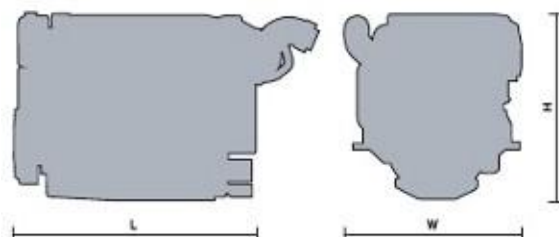
### ELECTRICAL SYSTEM

Voltage	12
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### NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended [*] (Ah)	120
Battery - minimum cold cranking capacity recommended [*] (A)	900

### WEIGHT AND DIMENSIONS



L = 1072  
 W = 739  
 H = 778  
**Dry Weight** (without marine gear)= Kg 595

### Legend

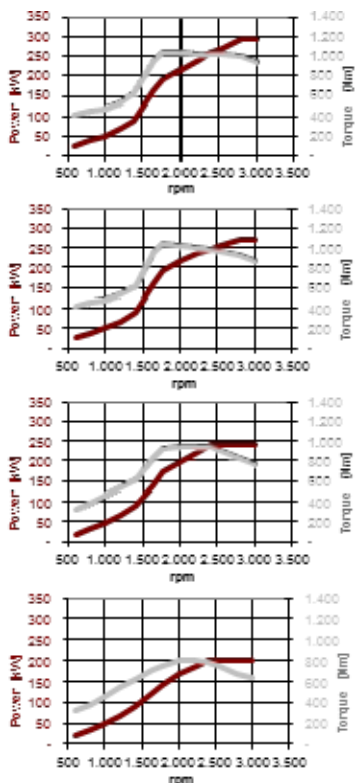
Arrangement	Air Handling	Turbocharger	InjectionSystem	
L (in line)	TAA (Turbocharged with aftercooler) TC (Turbocharged)	WG (Wastegate) VGT (Variable Geometry)	M (Mechanical) ECR (Electronic Common Rail)	SD: Stern Drive version PD (POD Drive version)

FOR INFORMATION ON THE AVAILABLE RATINGS NOT LISTED IN THIS DOCUMENT PLEASE CONTACT THE FPT INDUSTRIAL SALES NETWORK OR VISIT OUR SITE [WWW.FPTINDUSTRIAL.COM](http://WWW.FPTINDUSTRIAL.COM)



RATING TYPE	A1	A2	B	C
Maximum power (kW(HP))@rpm)	294 ( 400 ) @ 3000	272 ( 370 ) @ 3000	243 ( 330 ) @ 3000	199 ( 270 ) @ 3000
High idle speed (rpm)	3150	3150	3150	3150
Low idle speed (rpm)	± 600	± 600	± 600	± 600
Mean piston speed at rated speed (m/s)	-	-	-	-
BMEP at max power (kg/cm)	-	-	-	-
Specific fuel consumption at full load (best value) (g/kWh @ rpm)	-	-	-	-
Oil consumption at max rating (% of fuel cons.)	-	-	-	-
Minimum starting temperature without auxiliaries (°C)	-	-	-	-
Oil 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%.



- 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 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.
- 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

## FEATURES

### SPECIFIC FEATURES

The NEF range features state-of-the-art diesel technologies (Common Rail, electronic systems, 4 valve/cylinder), thus ensuring high performance, lightness, compactness, design, low environmental impact (low smoke, noise and vibration) for cruisers, yachts and light/medium duties commercial boats up to 12 metres.

### TECHNOLOGICAL INNOVATION

Features achieved using innovative technologies and production processes such as: Electronic Common Rail, ladder frame cylinder block, fracture split connecting rods, rear gear-train timing system.

### TECHNOLOGICAL SOLUTIONS FOR SERVICING

To reduce maintenance operations and improve engine life and reliability, the NEF Series engines adopts plateau machined cylinder walls and oil cooled pistons by J-jets.

### SOLUTIONS FOR LOW OPERATING COSTS

High functional engine design and solutions for long intervals in oil and filters replacement (up to 600 h).

### MARINIZATION

Functional engine lay-out, design and specific settings focused on marine duties. Optimized engine and turbo-charging cooling systems.

### COMPONENT INTEGRATION

Improved technical solutions such as: integrated oil cooler, integrated oil pump and water pump, blow-by system.

### OPTION LIST

Wide range of accessories availability including electronic remote control, monitoring systems, international emission standards as IMO MARPOL, 2003/44/EC, 2004/26/EC, EPA Recreational & Commercial and propulsion homologation as RINA. Specific for pleasure duty, stern drive and POD drive availability completes and optimizes the NEF Series application for a wide range of boat types and propulsion solution.

### SERVICEABILITY & MAINTAINABILITY

Easier engine servicing thanks to advanced diagnostic equipment & widespread worldwide service network.

## BENEFITS

HIGH TORQUE AND POWER & PERFORMANCE  
REDUCED FUEL CONSUMPTION AND EXHAUST GAS EMISSION

ENGINE EFFICIENCY AND STIFFNESS  
VIBRATION & NOISE REDUCTION

REDUCED MAINTENANCE, LONGER ENGINE LIFE AND RELIABILITY

REDUCED MAINTENANCE NEEDS AND OPERATING COST

MARINE LAY-OUT AND SETTINGS  
SAFETY AND PROTECTION ON BOARD

LEAKAGE PREVENTION

CUSTOMER ORIENTATION

QUICK AND ACCURATE SERVICE SUPPORT

## Lees Group

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FPT INDUSTRIAL 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

