NEF

N60 ENT M37

FOR MARINE APPLICATIONS
6 CYLINDERS IN LINE - DIESEL CYCLE
272 kW (370 CV) @ 2800 rpm (A1)
243 kW (330 CV) @ 2800 rpm (B)
199 kW (270 CV) @ 2800 rpm (C)

TECHNOLOGICAL EXCELLENCE

IVECO MOTORS

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Thermodynamic cycle		Diesel 4 stroke - C.R.
Air intake		TAA
Arrangement		6L
Bore x Stroke	mm	102 X 120
Total displacement	l	5.9
Valves per cylinder		4
Cooling		liquid
Direction of rotation (viewed facing flywheel)		CCW
Compression ratio		17.5 : 1
Rotation mass moment of inertia (without flywheel)	kgm^2	0.31
Standard flywheel inertia	kgm^2	0.71

Air induction

Max suggested intake restriction with clean air filter	kPa(bar)	3.5 (0.035)
Max allowable restriction with dirty air filter	kPa(bar)	6.5 (0.065)
Air requirement for combustion at 100% load/rated speed (comb. + ventilation)	kg/h (m^3/h)	6700 (5750)
Turbocharging pressure at full load/rated speed	kPa(bar)	200 (2)
Turbocharging air max temperature (engine inlet)	°C	45

Exhaust system

Max allowable backpressure	kPa(bar)	10 (0.1)
Max exhaust temperature at maximum power	°C	640
Exhaust flow at max output	kg/h	1560

Lubrication system

Minimum oil pressure at idle (at 100°C)	kPa(bar)	70 (0.7)
Max oil temperature at full load/rated speed	°C	120
Engine angularity limits continuous operation: max front up and front down	0/360	16
max left hand and right hand	0/360	22° 30'
Total system capacity including pipes, filters etc.	liters	16.5

Sea water cooling system (open circuit)

Max intake restriction	kPa(bar)	20 (0.2)
Sea water pump flow	m^3/h	12
Heat rejected (total) at max power	kJ/s(kcal/h)	212.3 (182,000)
Sacrifical zinc anodes	n°	2

Cooling system (closed circuit)

Coolant capacity (engine only)	liters	24.5
Water pump flow at rated speed	m^3/h	15
Thermostat (modulating range)	°C	72 ÷ 82
Cooling liquid max temperature	°C	103
Min/max inner pressure in the cooling circuit (for keel cooling)	kPa(bar)	10/100 (0.1/1)
External cooling system max pressure drop (for keel cooling)	kPa(bar)	35 (0.35)

Fuel system

Injection system		Common Rail
Gas oil max intake restriction	kPa(bar)	35 (0.35)
Gas oil max intake temperature	°C	70
Max fuel backpressure to tank	kPa(bar)	20 (0.2)

Electrical system

Voltage	V	12

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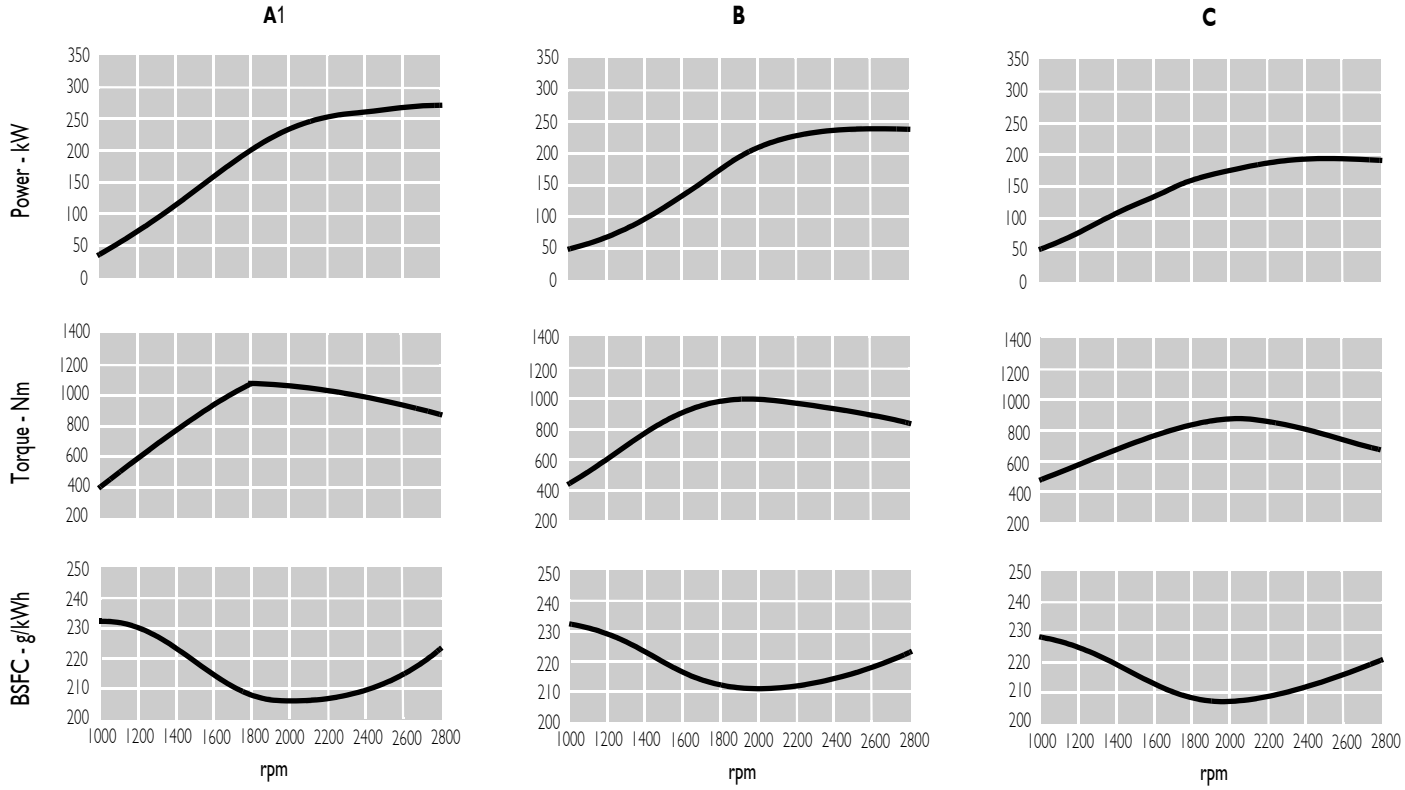
Rating type		A1	B	C
Maximum power *	kW(CV)	272 (370)	243 (330)	199 (270)
At speed	rpm	2800	2800	2800
Maximum no load governed speed at max rating	rpm		3000	
Minimum idling speed	rpm		600	
Mean piston speed at rated speed	m/s		11.2	
BMEP at max torque	kg/cm^2	23.0	21.8	19.8
Available certifications		CCNR	IMO MARPOL	95/24 CE
Specific fuel consumption at full load (best value)	g/kWh @ rpm		207 @ 2000	
Oil consumption at max rating	(% of fuel consumption)		≤ 0.2	
Minimum starting temperature without auxiliaries	°C		- 15	
Oil and oil filter maintenance interval for replacement	hours		600	
Dry weight (without marine gear)	kg		595	

*** 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.
Full throttle operation restricted within 10% of total use period.
Cruising speed at engine rpm < 90% of rated speed setting - Maximum useage 300 hours per year.

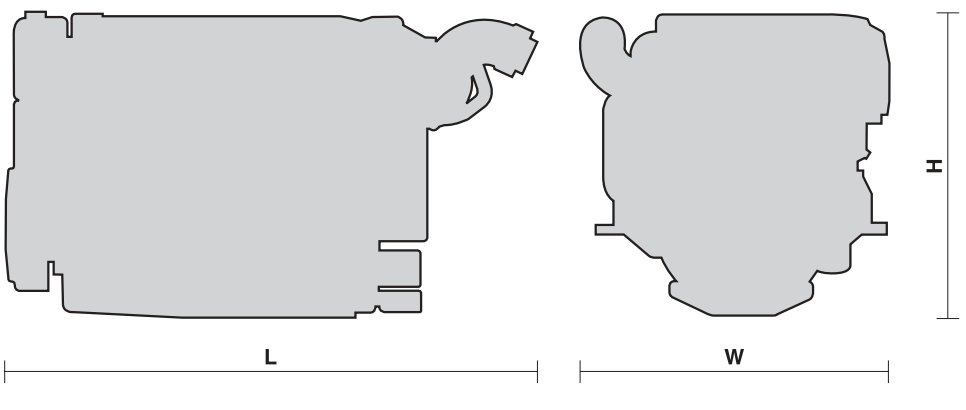
B = Light duty.
Full throttle operation restricted within 10% of total use period.
Cruising speed at engine rpm < 90% of rated speed setting - Maximum useage 1500 hours per year.

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

L = 1333 mm

W = 805 mm

H = 774 mm



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Standard configuration

Flywheel housing	SAE	3
Flywheel size	inch	11.5
Air filter		rear side
Turbocharger		cooled
Heat exchanger		tube type
Exhaust cooled elbow		-
Water charge tank		included
Fuel filter	n°	1 - left side
Fuel prefilter		included (loose)
Fuel pump		included
Oil filter	n°	1 - right side
Oil sump		aluminium
Oil vapours blow-by circuit		rear
Oil heat exchanger		built in the crankcase
Oil filler		on timing cover frontward
Starting motor		12 V - 3 kW
Alternator		12 V - 90 A
Engine stop device		by electronic central unit
Wiring harness		with EDC (Electronic Diesel Control)
Painting	colour	white " ICE "

Not included in the standard configuration

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

IVECO MOTORS 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 IVECO MOTORS SALES NETWORK.

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