

Marine

Commercial

N45

Rating type B: 66.5 kW (90 HP) @ 2800 rpm

Rating type C: 63 kW (85 HP) @ 2800 rpm

Rating type D: 63 kW (85 HP) @ 2800 rpm

SPECIFICATIONS

Thermodynamic cycle		Diesel 4 stroke
Air handling		NA
Cylinders arrangement		4L
Bore x Stroke	millimeters	104 x 132
Total displacement	liters	4.5
Valves per cylinder	number	2
Cooling System		liquid
Direction of Rotation (viewed facing flywheel)		CCW
Engine management		mechanical
Injection System		MPI

WEIGHT AND DIMENSIONS

Dimensions	LxWxH (mm)	811 x 700 x 836
Dry Weight	Kg	450

DIMENSIONS CAN BE CHANGED ACCORDING TO ENGINE OPTIONS

STANDARD CONFIGURATION

Flywheel housing	type	SAE 3
Flywheel size	inch	10"
Air filter		left side
Turbocharger		Naturally Aspirated (NA)
Heat exchanger		tube type
Exhaust gas water mixer - Exhaust cooled elbow		-
Water charge tank		included
Fuel filter	number	1
Fuel prefilter		included (loose)
Fuel pump		included
Oil filter	number	1
Oil sump		cast iron
Oil vapours blow-by circuit		on valve cover
Oil heat exchanger		built in the crankcase
Oil filler		by cylinder head cover
Starter		12V - 3kW
Alternator		12 V - 90 A with W contact
Engine stop device		electrical excitation
Wiring harness		with negative to ground connection
Painting color		white "ICE"



IMAGES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY

ELECTRICAL SYSTEM

Voltage	V	12
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NOT INCLUDED IN STANDARD CONFIGURATION

Battery - minimum capacity recommended	Ah	180 Ah
Battery - minimum cold cranking capacity recommended	Ah	800 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)	

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

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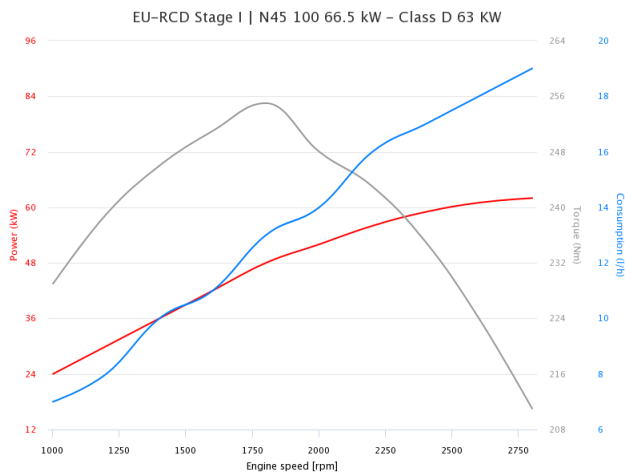
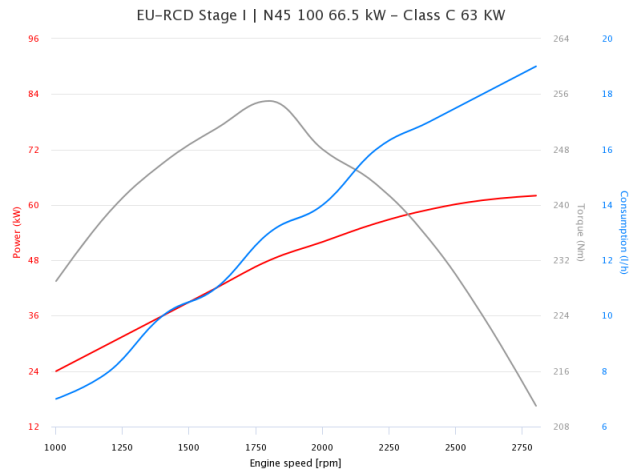
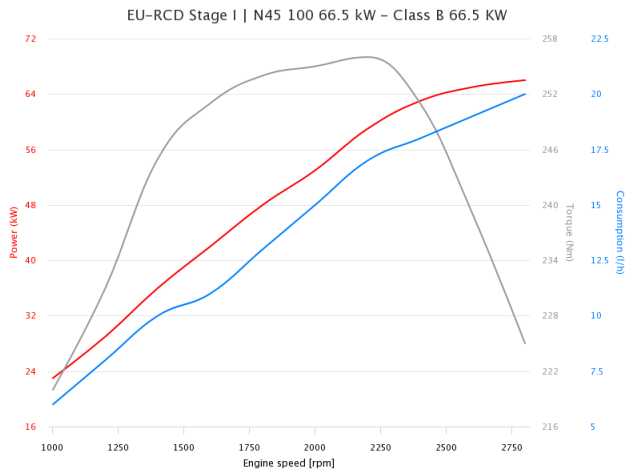


RATING TYPE

		B	C	D
Maximum power [*]	kW (HP)	66.5 (90)	63 (85)	63 (85)
At speed	rpm	2800	2800	2800
Maximum no load governed speed at max rating	rpm	3100	3100	3100
Minimum idling speed	rpm	650	650	650
Mean piston speed at rated speed	m/s	12.3	12.3	12.3
BMEP at max power	bar	7.2	7.2	7.2
Specific fuel consumption at full load (best value)	g/kWh @ rpm	230 @ 1800	230 @ 1800	230 @ 1800
Oil consumption at max rating	(% of fuel cons.)		= 0.1	
Minimum starting temperature without auxiliaries	°C		-10°	
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%.

POWER & TORQUE



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