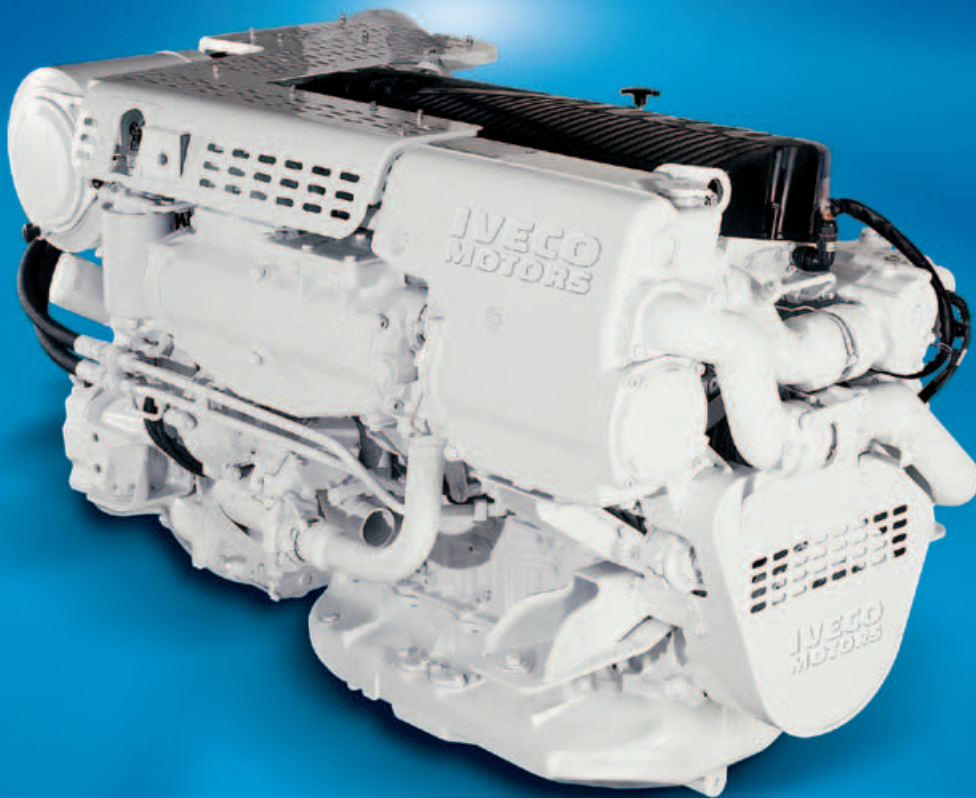


CURSOR 500

C78 ENT M50

FOR MARINE APPLICATIONS
6 CYLINDERS IN LINE - DIESEL CYCLE
368 kW (500 CV) @ 2600 rpm (A1)
331 kW (450 CV) @ 2600 rpm (A2)
294 kW (400 CV) @ 2600 rpm (B)
257 kW (350 CV) @ 2600 rpm (C)



T E C H N O L O G I C A L E X C E L L E N C E



a brand of



C78 ENT M50 FOR MARINE APPLICATIONS

Thermodynamic cycle		Diesel 4 stroke - D.I.
Air intake		TAA
Arrangement		6L
Bore x Stroke	mm	115 X 125
Total displacement	l	7.8
Valves per cylinder		4
Cooling		liquid
Direction of rotation (viewed facing flywheel)		CCW
Compression ratio		16 : 1
Rotation mass moment of inertia (without flywheel)	kgm ²	0.40
Standard flywheel inertia	kgm ²	1.93

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)	8700 (7500)
Turbocharging pressure at full load/rated speed	kPa(bar)	200 (2)
Turbocharging air max temperature (engine inlet)	°C	50

Exhaust system

Max allowable backpressure	kPa(bar)	10 (0.1)
Max exhaust temperature at maximum power	°C	680
Exhaust flow at max output	kg/h	1980

Lubrication system

Minimum oil pressure at idle (at 100°C)	kPa(bar)	150 (1.5)
Max oil temperature at full load/rated speed	°C	120
Engine angularity limits continuous operation: max front up and front down	0/360	20
max left hand and right hand	0/360	22 30'
Total system capacity including pipes, filters etc.	liters	31

Sea water cooling system (open circuit)

Max intake restriction	kPa(bar)	20 (0.2)
Sea water pump flow	m ³ /h	17.5
Heat rejected (total) at max power	kJ/s(kcal/h)	314.9 (270,000)
Sacrificial zinc anodes	n°	2

Cooling system (closed circuit)

Coolant capacity (engine only)	liters	40
Water pump flow at rated speed	m ³ /h	25.2
Thermostat (modulating range)	°C	68 ÷ 78
Cooling liquid max temperature	°C	105
Min/max inner pressure in the cooling circuit (for keel cooling)	kPa(bar)	10/150 (0.1/1.5)
External cooling system max pressure drop (for keel cooling)	kPa(bar)	35 (0.35)

Fuel system

Injection system		Electronic Unit Injection (E.U.I.)
Gas oil max intake restriction	kPa(bar)	20 (0.2)
Gas oil max intake temperature	°C	60

Electrical system

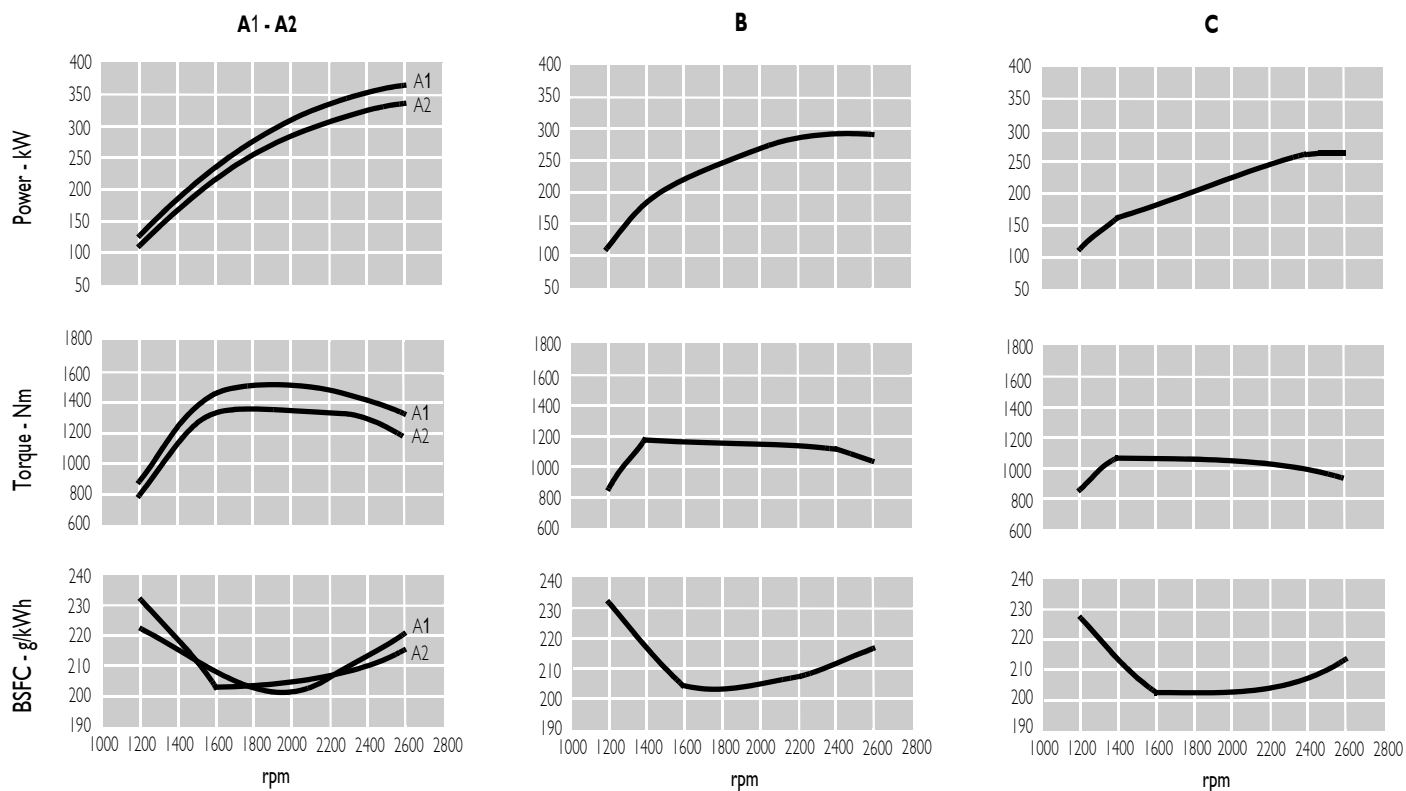
Voltage	V	24
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C78 ENT M50 FOR MARINE APPLICATIONS

Rating type		A1	A2	B	C
Maximum power *	kW(CV)	368 (500)	331 (450)	290 (400)	257 (350)
At speed	rpm	2600	2600	2600	2600
Maximum no load governed speed at max rating	rpm		2800		
Minimum idling speed	rpm		600		
Mean piston speed at rated speed	m/s		10.8		
BMEP at max torque	kg/cm ²	24.8	21.5	20.1	17.9
Specific fuel consumption at full load (best value)	g/kWh @ rpm		206 @ 1600		
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		910		

* **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.

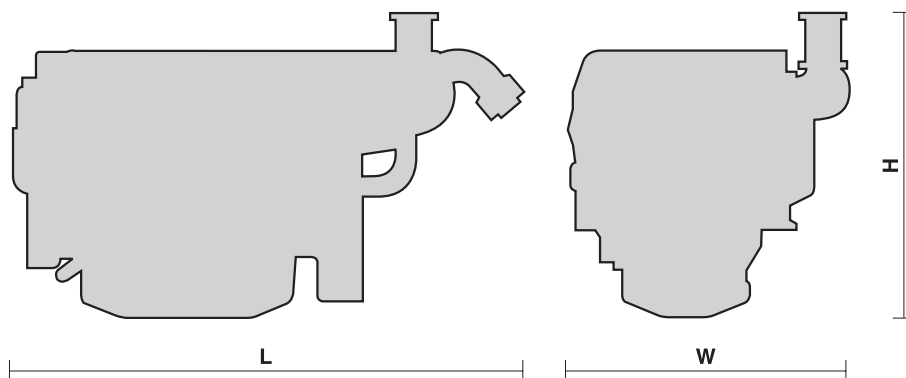


A1= High performance crafts.
A2= Pleasure/commercial vessels.
 Full throttle operation restricted within 10% of total use period.
 Cruising speed at engine rpm < 90% of rated speed setting - Maximum usage :
 - 300 hours per year (A1 service)
 - 1000 hours per year (A2 service).

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 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.

L = 1771 mm
 W = 1000 mm
 H = 1077 mm



C78 ENT M50 FOR MARINE APPLICATIONS

Standard configuration

Flywheel housing	SAE	1
Flywheel size	inch	14
Air filter		rear side
Turbocharger		waste gate controlled and water cooled
Heat exchanger		tube type
Exhaust cooled elbow		-
Water charge tank		included
Fuel filter	n°	1 - right side
Fuel prefilter		1 (supplied loose)
Fuel pump		1 gear driven
Oil filter	n°	2 - left side
Oil sump		aluminium
Oil vapours blow-by circuit		included
Oil heat exchanger		included
Oil filler		on timing cover
Starting motor		24 V - 4.5 kW
Alternator		28 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		2 x 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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