

# VECTOR 1200

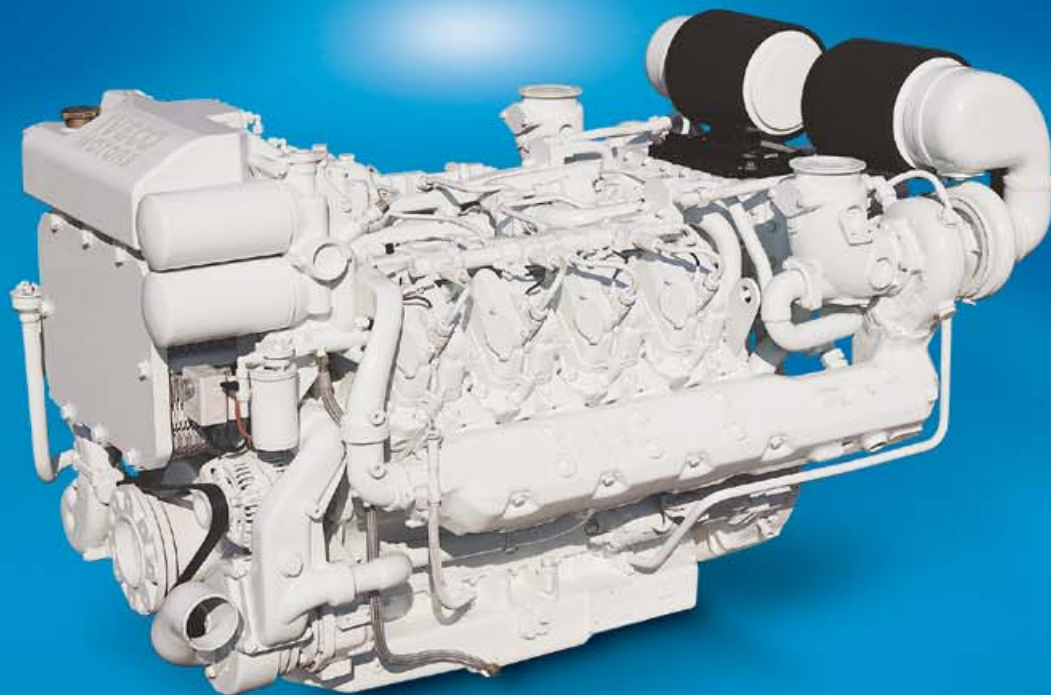
V08 ENT M12

## FOR MARINE APPLICATIONS

90° V8 CYLINDERS - DIESEL CYCLE

883 kW (1184 hp) @ 2300 rpm (A1)

810 kW (1086 hp) @ 2300 rpm (A2)



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

E X C E L L E N C E

**IVECO**  
MOTORS

 **FPT**  
POWERTRAIN TECHNOLOGIES

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|  |                                       |                         |
|--|---------------------------------------|-------------------------|
| Thermodynamic cycle                                |                                       | Diesel 4 stroke - C.R.  |
| Aspiration   |                                       | TAA                     |
| Configuration                                      |                                       | V8                      |
| Bore x Stroke                                      | mm (in.)                              | 145 X 152 (5.71 X 5.99) |
| Total displacement                                 | liters (cu. in.)                      | 20.08 (1,225)           |
| Valves per cylinder                                |                                       | 4                       |
| Cooling  |                                       | liquid                  |
| Direction of rotation (viewed facing flywheel)     |                                       | CCW                     |
| Compression ratio                                  |                                       | 15.3 to 1               |
| Rotation mass moment of inertia (without flywheel) | kgm <sup>2</sup> (lbft <sup>2</sup> ) | 1.281 (30.40)           |
| Standard flywheel inertia                          | kgm <sup>2</sup> (lbft <sup>2</sup> ) | 3.18 (75.46)            |

### Air induction

|   |                            |                      |
|---|----------------------------|----------------------|
| Max suggested intake restriction with clean air filter                        | kPa (in. H <sub>2</sub> O) | 3.5 (14)             |
| Max allowable restriction with dirty air filter                               | kPa (in. H <sub>2</sub> O) | 60 (240)             |
| Air requirement for combustion at 100% load/rated speed (comb. + ventilation) | kg/h (cfm)                 | 17,500 (8,829)       |
| Turbocharging pressure at full load/rated speed                               | kPa (psi)                  | 250 (36)             |
| Turbocharging air max temperature (engine inlet)                              | °C (°F)                    | 45 (113) @ 77°F amb. |

### Exhaust system

|  |              |               |
|--|--------------|---------------|
| Max allowable backpressure                       | kPa (in. Hg) | 10 (2.95)     |
| Max exhaust temperature at full load/rated speed | °C (°F)      | 660 (1,220)   |
| Exhaust flow at max output                       | kg/h (lb/h)  | 4800 (10,582) |

### Lubrication system

|  |                 |           |
|--|-----------------|-----------|
| Minimum oil pressure at idle at 100°C (212°F)                              | kPa (psi)       | 200 (29)  |
| Max oil temperature at full load/rated speed                               | °C (°F)         | 120 (248) |
| Engine angularity limits continuous operation: max front up and front down | degrees         | 20°       |
| max left hand and right hand   | degrees         | 22°       |
| Total system capacity including pipes, filters etc.                        | liters (quarts) | 50 (53)   |

### Sea water cooling system (open circuit)

|                                    |                             |              |
|------------------------------------|-----------------------------|--------------|
| Max intake restriction             | kPa (in. Hg)                | 30 (8.90)    |
| Sea water pump flow                | m <sup>3</sup> /h (gal/min) | 78 (343.4)   |
| Heat rejected (total) at max power | kW (BTU/min)                | 571 (32,501) |
| Sacrificial zinc anodes            | n°                          | 1            |

### Cooling system(closed circuit)

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Coolant capacity (engine only)                                   | liters (quarts)             | 50 (52.8)             |
| Water pump flow at rated speed                                   | m <sup>3</sup> /h (gal/min) | 56.5 (248.8)          |
| Thermostat (operating range)                                     | °C (°F)                     | 65 to 80 (149 to 176) |
| Cooling liquid max temperature                                   | °C (°F)                     | 100 (212)             |
| Min/Max inner pressure in the cooling circuit (for keel cooling) | kPa (psi)                   | -                     |
| External cooling system max pressure drop (for keel cooling)     | kPa (psi)                   | -                     |

### Fuel system

|                                   |                            |                      |
|-----------------------------------|----------------------------|----------------------|
| Injection system                  |                            | Common Rail          |
| Fuel inlet max intake restriction | kPa (in. H <sub>2</sub> O) | 50 (200.5)           |
| Fuel inlet max intake temperature | °C (°F)                    | 70 (158) @ 77°F amb. |

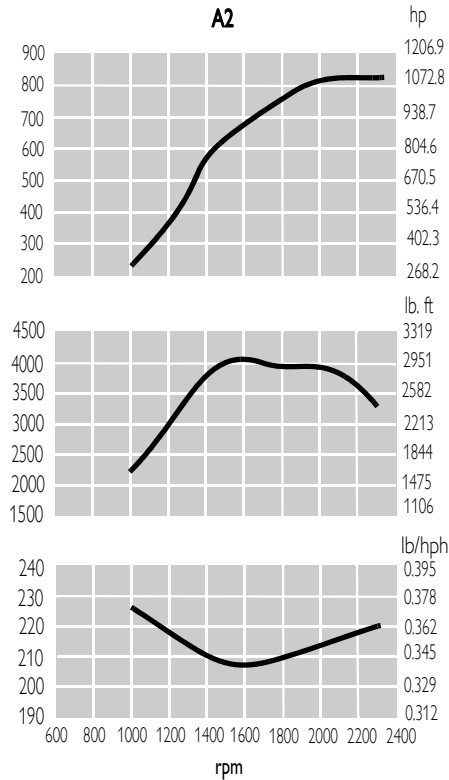
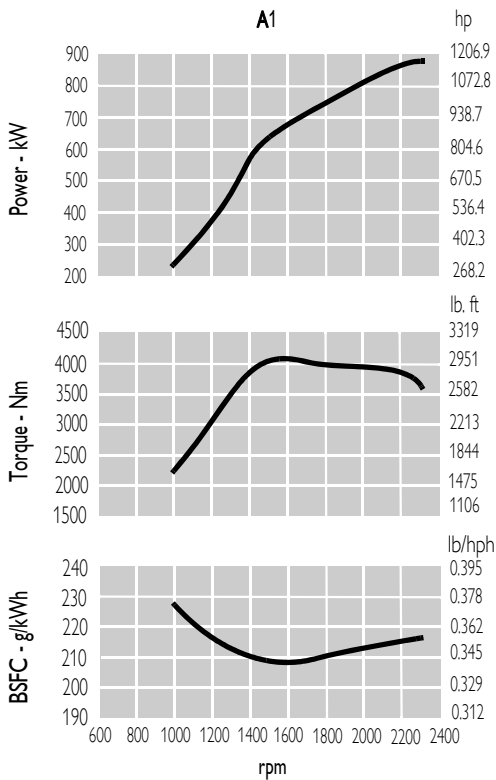
### Electrical system

|         |   |    |
|---------|---|----|
| Voltage | V | 24 |
|---------|---|----|

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| Rating type   |                          | A1                 | A2         |
|---|--------------------------|--------------------|------------|
| Maximum power *   | kW(hp)                   | 883 (1184)         | 810 (1086) |
| At speed  | rpm                      | 2300               | 2300       |
| Maximum no load governed speed at max rating            | rpm                      | 2400               | 2400       |
| Minimum idling speed                                    | rpm                      | 600                | 600        |
| Mean piston speed at rated rpm                          | m/s (ft./s)              | 11.7 (38.39)       |            |
| BMEP at max torque                                      | kg/cm <sup>2</sup> (psi) | 25.7 (365.45)      |            |
| BSFC at full load (best value)                          | g/kWh (lb/hp h) @ rpm    | 207 (0.340) @ 1700 |            |
| Oil consumption at max rating                           | (% of fuel consumption)  | 0.15               |            |
| Minimum starting temperature without aids               | °C (°F)                  | -10 (+14)          |            |
| Oil and oil filter maintenance interval for replacement | hours                    | 500                |            |
| Dry weight (without marine gear)                        | kg (lb)                  | 1980 (4,365)       |            |

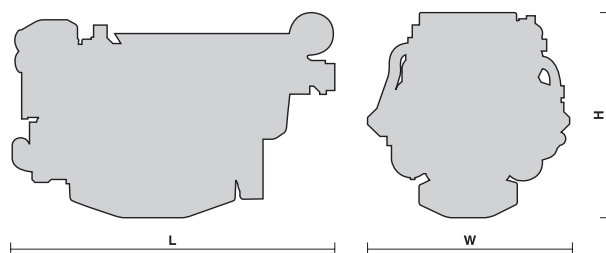
\* **Net Power** at flywheel according to ISO 3046/1, after 50 hours running, fuel Diesel EN 590. Power tolerance 5%.  
**Test conditions** : ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30 % relative humidity.



A1= High performance crafts.  
 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

L = 1900 mm (74.9 in)  
 W = 1220 mm (31,7 in)  
 H = 1201 mm (47.3 in)



## V08 ENT M12 FOR MARINE APPLICATIONS

### Standard configuration

|                            |       |                                      |
|----------------------------|-------|--------------------------------------|
| Flywheel housing           | SAE   | 1                                    |
| Flywheel diameter          | in.   | 14                                   |
| Air filter                 |       | included                             |
| Turbocharger               |       | water cooled                         |
| Heat exchanger             |       | plate type                           |
| Exhaust cooled elbow       |       | -                                    |
| Water charge tank          |       | included                             |
| Fuel filter                |       | 2                                    |
| Fuel prefilter             |       | 1 (supplied loose)                   |
| Fuel pump                  |       | included                             |
| Oil filter                 |       | 2                                    |
| Oil sump                   |       | aluminium                            |
| Oil vapors blow-by circuit |       | included                             |
| Oil heat exchanger         |       | included                             |
| Oil filler                 |       | lateral                              |
| Starting motor             |       | 24 V - 8.5 kW                        |
| Alternator                 |       | 28 V - 90 A insulated poles          |
| Engine shut-off            |       | electronic central unit              |
| Wiring harness             |       | with EDC (Electronic Diesel Control) |
| Painting                   | color | white "ICE"                          |

### Not included in the standard configuration

Battery - minimum capacity recommended

Battery - minimum cold cranking capacity recommended

**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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