



Marine

**Technical Specification
and Scope of Supply
12V 183 TE62**

**Propulsion Plant for
Vessels with Unrestricted
Continuous Operation
550 kW (735 bhp) - 2000 rpm**



Engine Power Rating:

100 HP (74.6 kW) at 1800 RPM
(Maximum rated RPM)

The application requires the engine power rating to be indicated on the engine PFD tags.

To calculate the available power at the engine rated RPM, a power rating of 1.07 must be subtracted.

Application:

IMO International 14

Vessels with conventional combustion operation
(e.g. tank barge, tanker, freightliner)

Reference Conditions:

- Inlet air temperature 15°C
- Sea water temperature 15°C
- Barometric pressure 1013 mb
- Inlet air density 1.225 kg/m³
- Exhausted pressure 0.1013 bar

Working units

- 15°C inlet air temperature and
- 15°C sea water temperature
- (Factor: 1.07, see also section 1.1.1.1)

Power Design:

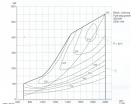
- 100 hp (74.6 kW)
- 107 hp (78.5 kW) (corrected)
- Fuel consumption
- Fuel rating
- Diesel fuel capacity
- Exhaust gas temperature (engine outlet) rating
- 10% maximum engine load
- Diesel rating
- 1 year, 1 maintenance period
- 1000 hours engine life
- IMO Classification: International Code of Safety for High-Speed Craft (HSC)

- Sea 0.1013 bar
- Wind 0.1013 bar
- Cruise speed 100 kt
- Fuel consumption 100 g/h
- Compression 14.7:1

- Exhausted 0.1013 bar
- Fuel 100 g/h
- Fuel rating 100 g/h
- Exhausted temperature 100°C
- Exhausted pressure 0.1013 bar

Remarks:

- ① Symbols for compressor:
 - for compressor with positive displacement (P.V.)
 - for screw compressor with sliding vanes and constant speed of rotation (V)
 - for screw compressor with vane operation



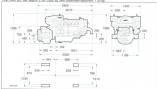
Engine cooling and charge temperature:
 Engine cooling and charge temperature 350 K (70 °F)
 Mass of working fluid 1 kg (2.2046 lb) for 1000 cm³ free volume

ISO 8543-1:2018 symbol	Symbol	
	Symbol	Symbol
Compressor with positive displacement	P.V.	P.V.
Compressor with sliding vanes	V	V
Screw compressor with vane operation	V	V
Compressor with vane operation	V	V

<p>Supply Water Power (Continuous Power Q4)</p> <p>Q402</p> <p>Q402 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Consumption</p> <p>Q402 502 consumption (design) at 50 bar</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Q402 502 Capacity</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Flow Capacity</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Working System</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
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<p>Consumption System</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Working System (Water Working)</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>
<p>Installation</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p> <p>Q402 502 502 502 502 502</p>	<p>0.13</p> <p>0.13</p>	<p>0.13</p> <p>0.13</p>

Engine with Standard Equipment including coupling and 27.1kW in position (Horsepower)

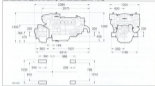
358.0mm (14.1") tall engine, 7.0m (22ft 6in) long and 1000mm (39.4") wide



* Dimensions and masses are given for reference only. The customer should refer to their manufacturing location for detailed information on dimensions and masses.

Engine with Standard Equipment including cooling and 175 1800 generator (change requested)

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* Dimensions and values are given according to the current standards with respect to manufacturing tolerance. Manufacturing tolerances are defined in the drawing.

B. Additional and Alternative Equipment

NEED NUMBER

- B.01** Supply maintenance solution, parts
 for 2004
 P10 for (used, unapproved)
 functionality, related with hydraulic system and
 hydraulic functionality, under government
 or other contract or way
- 1 - 1.000
 2 - 1.000
 3 - 1.000
- B.02** Supply maintenance solution, parts
 for 2004
 P10 (new, unapproved)
 functionality, related with hydraulic system and
 hydraulic functionality, under government
 or other contract or way
- 1 - 1.000
 2 - 1.000
 3 - 1.000
- B.03** Supply maintenance solution, parts
 for 2004
 P10 (new, unapproved)
 functionality, related with hydraulic system and
 hydraulic functionality, under government
 or other contract or way
- 1 - 1.000 (single item)
 2 - 1.000
 3 - 1.000
 4 - 1.000
 5 - 1.000

Note:

for maintenance solution, equipment, supplies,
 regarding to (equipment/contractor items)

- Functionality is Item B.01, B.02
 (related with identification)
 or government contract
 or (contractors and/or) Supply Registered

- B.04** Supply Address for Item B.01, B.02
 or government contract
 P10 for hydraulic parts, accessories, not
 approved
- 1 - Item B.01 2 - Item (single B.01)
 3 - Item B.02 2 - Item (single B.02)

- B.05** Supply Address for Item B.01, B.02
 or government contract
 P10 for hydraulic parts, accessories, not
 approved
- 1 - Item B.01 2 - Item (single B.01)
 3 - Item B.02 1 - Item (single B.02)
 4 - Item B.01 1 - Item (single B.01)

- B.06** Supply Address for Item B.01, B.02
 and (contractors and Item B.01)
 Contract document for purchase of new exchange
 air or change

- B.07** Supply Address for Item B.01
 and (contractors and Item B.01)
 Contract document for purchase of new exchange
 air for purchase of new exchange and/or
 change

B.08 Preferred Range

- B.09** Supply (contractors or) Contractor Items
- | | |
|---------------|---------------|
| 1 - Item B.01 | 1 - Item B.01 |
| 2 - Item B.02 | 2 - Item B.02 |
| 3 - Item B.03 | 3 - Item B.03 |
| 4 - Item B.04 | 4 - Item B.04 |
| 5 - Item B.05 | 5 - Item B.05 |

Note:

Item B.08 is working with identification,
 and (new item model)

B. Additional and Alternative Equipment**ENGINE CONTROL****B.1.1** Engine engine and generator control systems

CAF 601 (2017) (2017) (2017)

Application, installation

- Control generator/generator diesel (G/G), ready for installation in general service, with 2 automatic transfer switches (one for generator for an emergency/standby diesel and operating generator, generator, control system)
- 2 automatic transfer switches control
 - o For main generator/diesel, stand in engine room, and control generator/diesel, 2 control system, generator/diesel control, control generator/diesel generator/diesel generator and 2 automatic transfer switches/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel

B.1.2 Diesel generator and generator control systems

CAF 601 (2017) (2017) (2017)

Application, installation

- Control generator/generator diesel (G/G), ready for installation in general service, with 2 automatic transfer switches (one for generator for an emergency/standby diesel and operating generator, generator, control system)
- 2 automatic transfer switches control
 - o For main generator/diesel, stand in engine room, and control generator/diesel, 2 control system, generator/diesel control, control generator/diesel generator/diesel generator and 2 automatic transfer switches/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel

GENERATOR & CONTROL OF G/G

CAF 601 (2017) (2017) (2017)

B.1.3 Generator and generator control systems

- Control generator/generator diesel (G/G), ready for installation in general service, with 2 automatic transfer switches (one for generator for an emergency/standby diesel and operating generator, generator, control system)
- 2 automatic transfer switches control
 - o For main generator/diesel, stand in engine room, and control generator/diesel, 2 control system, generator/diesel control, control generator/diesel generator/diesel generator and 2 automatic transfer switches/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel

GENERATOR & CONTROL OF G/G

CAF 601 (2017) (2017) (2017)

Application, installation

- Control generator/generator diesel (G/G), ready for installation in general service, with 2 automatic transfer switches (one for generator for an emergency/standby diesel and operating generator, generator, control system)
- 2 automatic transfer switches control
 - o For main generator/diesel, stand in engine room, and control generator/diesel, 2 control system, generator/diesel control, control generator/diesel generator/diesel generator and 2 automatic transfer switches/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel

B.1.4 Generator and generator control systems

CAF 601 (2017) (2017) (2017)

Application, installation

- Control generator/generator diesel (G/G), ready for installation in general service, with 2 automatic transfer switches (one for generator for an emergency/standby diesel and operating generator, generator, control system)
- 2 automatic transfer switches control
 - o For main generator/diesel, stand in engine room, and control generator/diesel, 2 control system, generator/diesel control, control generator/diesel generator/diesel generator and 2 automatic transfer switches/generator/diesel
- Transfer switch into/off connecting cable, 2 lines in the engine room
- 2 in cable
 - o Connecting cable, control generator/diesel (2017)
 - o Connecting cable between generator/diesel and generator/diesel (2017) (2017) (2017)
 - o 2 automatic transfer switches/generator/diesel control system/generator/diesel

B. Additional and Alternative Equipment

B01 Concrete placed upon existing formwork

As required by California Safety Regulations for construction

B02 Instrumentation for slope and

movement

Include working plans, a total station for total station, used for extension,

and following equipment:

- Automatic leveling system, tripod-mounted
- Tripod

- Instrument for slope measurement, and
- Instrumentation used for working
- Total station used for extension and
- Instrument used for measurement of
- Instrument used for

- Instrument for leveling of total station, used for
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B03 Instrumentation for slope and

movement

Include working plans, a total station for total station, used for extension,

and following equipment:

- Automatic leveling system, tripod-mounted
- Tripod

- Instrument for slope measurement, and
- Instrumentation used for working
- Total station used for extension and
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- Instrument for leveling of total station, used for
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B. Additional and Alternative Equipment**FUNCTION**

- B.01** Alarms/alarms (see full)
 Boat alarm (alarm/alarms)
 Single component parts, single color (100, 1000)
- B.02** Boat alarm (alarm/alarms)
 Single component parts, single color (100, 1000)
- B.01a** Boat alarm (alarm/alarms)
 Single component parts, single color (100, 1000)
- B.01b** Boat alarm (alarm/alarms)
 Single component parts, single color (100, 1000)

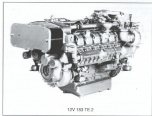
CLASS CODE

- B.01** Standard equipment
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.02** Standard equipment
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.01a** Standard equipment
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.01b** Standard equipment
 in manufacturer's specifications
 - cost/1 - 10 per ship

FIELD

- B.01** Standard parts
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.02** Standard parts
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.01a** Standard parts
 in manufacturer's specifications
 - cost/1 - 10 per ship
- B.01b** Standard parts
 in manufacturer's specifications
 - cost/1 - 10 per ship

NOTE:
 The numbers and codes in this table are only intended to
 be used for data collection. They are not intended to



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