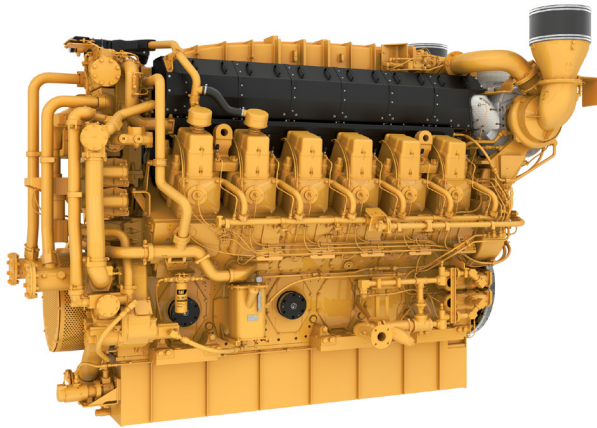




# G3612 with ADEM™4 GAS ENGINE

2796 bkW (3750 bhp) & 3076 bkW (4125 bhp)

0.3 and 0.5 g/bhp-hr NOx (NTE)



Shown with optional equipment.

## SPECIFICATIONS

V-12, 4 -Stroke-Cycle

|                                |                          |
|--------------------------------|--------------------------|
| Serial Prefix.....             | ZMC                      |
| Bore.....                      | 300 mm (11.8 in)         |
| Stroke.....                    | 300 mm (11.8 in)         |
| Displacement.....              | 254.4L (15,528cu.in)     |
| Aspiration.....                | Turbocharged-Aftercooled |
| Digital Engine Management      |                          |
| GovernorandProtection.....     | Electronic(ADEM™4)       |
| Combustion.....                | LowEmission(LeanBurn)    |
| Cooling System Capacity        |                          |
| Total.....                     | 675 L (178 gal)          |
| JW.....                        | 570 L (150 gal)          |
| SCAC.....                      | 105 L (28 gal)           |
| LubeOilSystem(refill).....     | 1030L(272gal)            |
| OilChangeInterval.....         | 5000hrs                  |
| Rotation(fromflywheelend)..... | counterclockwise         |
| Flywheel Teeth.....            | 255                      |

## FEATURES AND BENEFITS

### Engine Design

- ADEM4 engine control system provides complete engine control, monitoring, and protection while maintaining emissions.
- Widest fuel tolerance in the industry for application flexibility.
- Proven reliability and durability with the lowest owning and operating costs.

### Emissions

Meets U.S. EPA Spark Ignited Stationary NSPS emissions for 2010 with the use of an oxidation catalyst.

### Advanced Digital Engine Management

ADEM4 engine management system integrates speed control, air/fuel ratio control, and ignition/detonation controls into a complete engine management system. ADEM4 has improved: user interface, display system, shutdown controls, and system diagnostics.

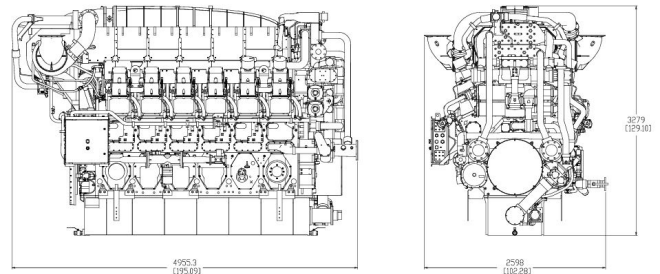
### Full Range of Attachments

Large variety of factory-installed engine attachments reduces packaging time.

### Testing

Every engine is full-load tested to ensure proper engine performance.

## DIMENSIONS



|             |           |           |
|-------------|-----------|-----------|
| Length      | 4955.3 mm | 195.09 in |
| Width       | 2598 mm   | 102.28 in |
| Height      | 3279 mm   | 129.10 in |
| Weight(wet) | 26,835 kg | 58,500 lb |

Note: Do not use for installation design. See general dimension drawings for detail. Weights and dimensions are approximations.

# TECHNICAL DATA

| Performance Number   | EM6497-01                        | EM6498-01                        | EM6495-01                        | EM6496-01                        |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <b>Rating</b>  | 0.3 g NOx NTE                    | 0.5 g NOx NTE                    | 0.3 g NOx NTE                    | 0.5 g NOx NTE                    |
| <b>Engine Power</b>  | 2796 kW (3750 bhp)               | 2796 kW (3750 bhp)               | 3076 kW (4125 bhp)               | 3076 kW (4125 bhp)               |
| <b>Engine Speed</b>  | 1000 rpm                         | 1000 rpm                         | 1000 rpm                         | 1000 rpm                         |
| Max Altitude @ Rated Torque and 38° C (100°F)                | 3090 m (10138 ft)                | 3000 m (9843 ft)                 | 2260 m (7415 ft)                 | 2125 m (6972 ft)                 |
| Speed Turndown @ Max Altitude, Rated Torque and 38°C (100°F) | 25%                              | 25%                              | 25%                              | 25%                              |
| <b>Aftercooler Temperature</b>                               |                                  |                                  |                                  |                                  |
| Stage 1 (JW)   | 88 °C (190 °F)                   | 88 °C (190 °F)                   | 88 °C (190 °F)                   | 88 °C (190 °F)                   |
| Stage 2 (SCAC)   | 54 °C (130 °F)                   | 54 °C (130 °F)                   | 54 °C (130 °F)                   | 54 °C (130 °F)                   |
| <b>Emissions (NTE)*</b>                                      | g/bkW-hr (g/bhp-hr)              | g/bkW-hr (g/bhp-hr)              | g/bkW-hr (g/bhp-hr)              | g/bkW-hr (g/bhp-hr)              |
| NOx  | 0.4 (0.3)                        | 0.67 (0.5)                       | 0.4 (0.3)                        | 0.67 (0.5)                       |
| CO   | 2.88 (2.15)                      | 2.26 (1.69)                      | 2.88 (2.15)                      | 2.26 (1.69)                      |
| CO <sub>2</sub>  | 580 (432)                        | 574 (428)                        | 573 (427)                        | 567 (423)                        |
| VOC**  | 0.25 (0.19)                      | 0.22 (0.16)                      | 0.25 (0.18)                      | 0.21 (0.16)                      |
| <b>Fuel Consumption @ 100% load ***</b>                      | 9.39 MJ/bkW-hr (6640 Btu/bhp-hr) | 9.25 MJ/bkW-hr (6543 Btu/bhp-hr) | 9.28 MJ/bkW-hr (6779 Btu/bhp-hr) | 9.14 MJ/bkW-hr (6464 Btu/bhp-hr) |
| <b>Heat Balance @ 100% Load</b>                              | bkW (Btu/min)                    | bkW (Btu/min)                    | bkW (Btu/min)                    | bkW (Btu/min)                    |
| Heat Rejection to Jacket Water                               | 727 (41317)                      | 702 (39931)                      | 780 (44351)                      | 751 (42691)                      |
| Heat Rejection to Oil Cooler                                 | 329 (18704)                      | 331 (18840)                      | 333 (18945)                      | 336 (19120)                      |
| Heat Rejection to Aftercooler                                |                                  |                                  |                                  |                                  |
| Stage 1 (JW)   | 581 (33064)                      | 551 (31352)                      | 730 (41486)                      | 700 (39798)                      |
| Stage 2 (SCAC)   | 147 (8371)                       | 141 (8029)                       | 168 (9527)                       | 161 (9130)                       |
| Heat Rejection to Exhaust LHV to 25°C (77°F)                 | 2518 (143214)                    | 2476 (140816)                    | 2668 (151703)                    | 2315 (148701)                    |
| Heat Rejection to Atmosphere                                 | 324 (18454)                      | 315 (17925)                      | 320 (18182)                      | 315 (17919)                      |
| <b>Exhaust System</b>  |                                  |                                  |                                  |                                  |
| Exhaust Stack Temperature                                    | 437 °C (819 °F)                  | 442 °C (828 °F)                  | 423 °C (794 °F)                  | 427 °C (800 °F)                  |
| <b>Gas Pressure</b>  | 400-485 kPag (58.0-70.3 psig)    | 400-485 kPag (58.0-70.3 psig)    | 485-552 kPag (70.3-80.1 psig)    | 485-552 kPag (70.3-80.1 psig)    |

\* at 100% load and speed, listed as not to exceed

\*\* Volatile organic compounds as defined in U.S. EPA 40 CFR 60, subpart JJJJ

\*\*\* ISO 3046/1

## STANDARD EQUIPMENT

### Air Inlet System

- Air cleaner - standard duty
- Inlet air adapter

### Cooling System

- Compressor Oil cooler connections
- Jacket Water pump
- Aftercooler/oil cooler pump
- Jacket Water thermostats and housing
- Two-stage aftercooler
- Jacket Water heater connections
- Standard ANSI connections

### Starting System

- Dual turbine starting motors

### Exhaust System

- Dry exhaust manifolds
- Single vertical outlet adapter
- Dual layer heat shields
  - Layer 1: stainless steel foil
  - Layer 2: carbon steel

### Fuel System

- Gas admission valves-electronically controlled fuel supply pressure

### Instrumentation

- 8 inch HMI Engine Control Panel
- Interconnect Harness

### Lubrication System

- Crankcase breather- top mounted
- Oil pan drain valve- front and rear

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## OPTIONAL EQUIPMENT

### Air Inlet System

- Heavy-duty air cleaner with precleaners

### Charging Alternator

- 35 Amp & 65 Amp charging alternators - CSA approved

### Exhaust System

- Flexible bellows adapters

### Fuel System

- Fuel filter
- Gas pressure regulator
- Flexible connection

### Lubrication System

- Air or electric motor-driven prelube
- Duplex oil filter
- Oil level regulator

### Rating Definitions and Conditions

Engine performance is obtained in accordance with SAE J1995, ISO 3046/1, BS5514/1, and DIN 6271/1 standards.

Transient response data is acquired from an engine/generator combination at normal operating temperature and in accordance with ISO 3046/1 standard ambient conditions. Also in accordance with SAE J1995, BS5514/1, and DIN 6271/1 standard reference conditions.

Conditions: Power for gas engine is based on fuel having an LHV of 33.74 kJ/L (905 Btu/cuft) at 101 kPa (29.91 inHg) and 15°C (59°F). Fuel rate is based on a cubic meter at 100 kPa (29.61 inHg) and 15.6°C (60.1°F). Air flow is based on a cubic foot at 100 kPa (29.61 inHg) and 25°C (77°F). Exhaust flow is based on a cubic foot at 100 kPa (29.61 inHg) and stack temperature.

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