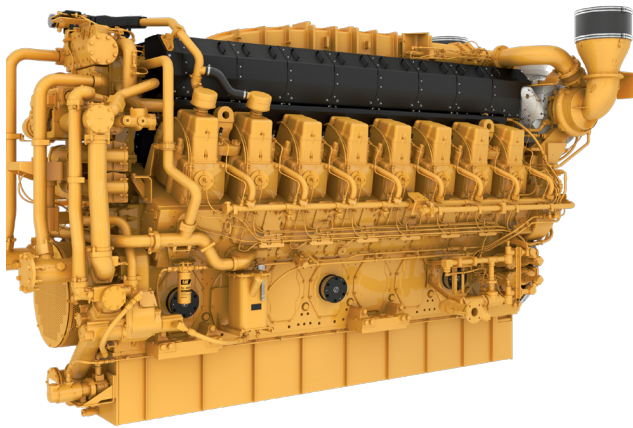




G3616 with ADEM™4 GAS ENGINE

3729 bkW (5000 bhp) & 4101 bkW (5500 bhp)

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



Shown with optional equipment.

SPECIFICATIONS

V-16, 4 -Stroke-Cycle

Serial Prefix.....	HTJ
Bore.....	300 mm (11.8 in)
Stroke.....	300 mm (11.8 in)
Displacement.....	339L (20,698cu.in)
Aspiration.....	Turbocharged-Aftercooled
Digital Engine Management	
GovernorandProtection.....	Electronic(ADEM™4)
Combustion.....	LowEmission(LeanBurn)
Cooling System Capacity	
Total.....	798 L (211 gal)
JW.....	690 L (182 gal)
SCAC.....	108 L (29 gal)
LubeOilSystem(refill).....	1329L(351 gal)
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.

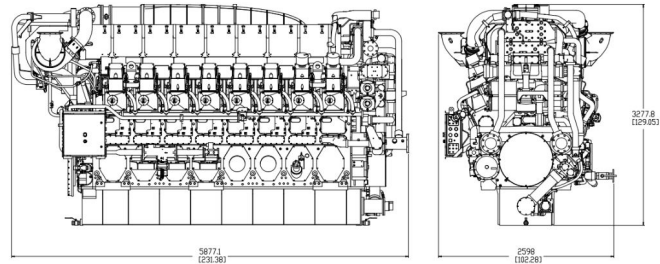
Full Range of Attachments

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

Testing

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

DIMENSIONS



Length	5877 mm	231.38in
Width	2598 mm	102.28in
Height	3279 mm	129.05in
Weight(wet)	31,888 kg	70,301lb

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

TECHNICAL DATA

Performance Number	EM6501-00	EM6502-00	EM6499-00	EM6500-00
Rating	0.3 g NOx NTE	0.5 g NOx NTE	0.3 g NOx NTE	0.5 g NOx NTE
Engine Power	3729 bkW (5000 bhp)	3729 bkW (5000 bhp)	4101 bkW (5500 bhp)	4101 bkW (5500 bhp)
Engine Speed	1000 rpm	1000 rpm	1000 rpm	1000 rpm
Max Altitude @ Rated Torque and 38° C (100°F)	2135 m (7005 ft)	2015 m (6611 ft)	1535m (5036 ft)	1405 m (4610 ft)
Speed Turndown @ Max Altitude, Rated Torque and 38°C (100°F)	25%	25%	25%	25%
Aftercooler Temperature				
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)
Emissions (NTE)*	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 (1.68)	2.89 (2.15)	2.26 (1.68)
CO ₂	573 (428)	577 (430)	565 (422)	570 (425)
VOC**	0.23 (0.17)	0.19 (0.14)	0.22 (0.16)	0.19 (0.14)
Fuel Consumption @ 100% load ***	9.36 MJ/bkW-hr (6619 Btu/bhp-hr)	9.23 MJ/bkW-hr (6529 Btu/bhp-hr)	9.27 MJ/bkW-hr (6629 Btu/bhp-hr)	9.13 MJ/bkW-hr (6456 Btu/bhp-hr)
Heat Balance @ 100% Load	bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)
Heat Rejection to Jacket Water	930 (52863)	930 (52903)	995 (56558)	995 (56572)
Heat Rejection to Oil Cooler	536 (30497)	539 (30626)	541 (30768)	554 (31520)
Heat Rejection to Stage 1 (JW)	828 (47066)	745 (42363)	1024 (58223)	931 (52929)
Heat Rejection to Stage 2 (SCAC)	236 (13430)	224 (12749)	271 (15421)	259 (14715)
Heat Rejection to Exhaust LHV to 25°C (77°F)	3280 (186503)	3244 (184483)	3490 (198465)	3428 (194970)
Heat Rejection to Atmosphere	346 (19694)	338 (19209)	347 (19751)	339 (19273)
Exhaust System				
Exhaust Stack Temperature	433 °C (812 °F)	440 °C (825 °F)	421 °C (790 °F)	425 °C (797 °F)
Gas Pressure	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

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, BS 5514/1, 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, BS 5514/1, 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 in Hg) and 15°C (59°F). Fuel rate is based on a cubic meter at 100 kPa (29.61 in Hg) and 15.6°C (60.1°F). Air flow is based on a cubic foot at 100 kPa (29.61 in Hg) and 25°C (77°F). Exhaust flow is based on a cubic foot at 100 kPa (29.61 in Hg) and stack temperature.