



G3608 with ADEM™4 GAS ENGINE

1864 bkW (2500 bhp) & 2051 bkW (2750 bhp)

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



Shown with optional equipment.

SPECIFICATIONS

In-Line 8, 4 -Stroke-Cycle	
Serial Prefix.....	NSF
Bore.....	300 mm (11.8 in)
Stroke.....	300 mm (11.8 in)
Displacement.....	169.6L(10,350cu.in)
Aspiration.....	Turbocharged-Aftercooled
Digital Engine Management	
Governor and Protection.....	Electronic (ADEM™4)
Combustion.....	Low Emission (Lean Burn)
Cooling System Capacity	
Total.....	503 L (133 gal)
JW.....	413 L (109 gal)
SCAC.....	90 L (24 gal)
Lube Oil System(refill).....	912L (241 gal)
Oil Change Interval.....	5000 hrs
Rotation (from flywheel end).....	Counterclockwise
Flywheel Teeth.....	255

FEATURES AND BENEFITS

Engine Design

- ADEM™4 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

ADEM™4 (A4) engine management system integrates speed control, air/fuel ratio control, and ignition/detonation controls into a complete engine management system. The ADEM™4 (A4) has an improved: user interface, display system, shutdown controls, and system diagnostics.

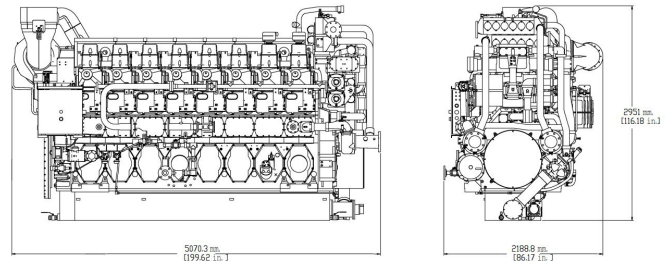
Full Range of Attachments

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

Testing

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

DIMENSIONS



Length	5070.3 mm	199.62 in
Width	2188.8 mm	86.17 in
Height	2951 mm	116.18 in
Weight(wet)	21,092 kg	46,500lb

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

TECHNICAL DATA

	0	EM6493-02	EM6494-02	EM6491-02	EM6492-02
Rating		0.3 g NOx NTE	0.5 g NOx NTE	0.3 g NOx NTE	0.5 g NOx NTE
Engine Power		1864 bkW (2500 bhp)	1864 bkW (2500 bhp)	2051 bkW (2750 bhp)	2051 bkW (2750 bhp)
Engine Speed		1000 rpm	1000 rpm	1000 rpm	1000 rpm
Max Altitude @ Rated Torque and 38° C (100°F)		2380 m (7808 ft)	2345 m (7694 ft)	1540 m (5052 ft)	1460 m (4790 ft)
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)	2.88 (2.15)	2.26 (1.68)
CO ₂		584 (435)	587 (438)	571 (426)	581 (433)
VOC**		0.23 (0.17)	0.20 (0.15)	0.2 (0.17)	0.19 (0.15)
Fuel Consumption @ 100% load ***		9.46 MJ/bkW-hr (6687 Btu/bhp-hr)	9.33 MJ/bkW-hr (6595 Btu/bhp-hr)	9.35 MJ/bkW-hr (6608 Btu/bhp-hr)	9.21 MJ/bkW-hr (6510 Btu/bhp-hr)
Heat Balance @ 100% Load		bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)
Heat Rejection to Jacket Water		489 (27817)	466 (26513)	528 (30047)	507 (28821)
Heat Rejection to Oil Cooler		221 (12557)	223 (12667)	218 (12411)	220 (12531)
Heat Rejection to Aftercooler					
Stage 1 (JW)		370 (21027)	331 (18811)	461 (26193)	416 (23679)
Stage 2 (SCAC)		156 (8855)	147 (8352)	183 (10412)	174 (9893)
Heat Rejection to Exhaust LHV to 25°C (77°F)		1667 (94817)	1667 (94828)	1763 (100250)	1755 (99779)
Heat Rejection to Atmosphere		199 (11344)	200 (11347)	200 (11383)	200 (11353)
Exhaust System					
Exhaust Stack Temperature		435 °C (815 °F)	446 °C (835 °F)	420 °C (788 °F)	429 °C (804 °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

- Single 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, ISO3046/1, BS5514/1, and DIN6271/1 standards.

Transient response data is acquired from an engine/generator combination at normal operating temperature and in accordance with ISO3046/1 standard ambient conditions. Also in accordance with SAE J1995, BS5514/1, and DIN6271/1 standard reference conditions.

Conditions: Power for gas engines is based on fuel having an LHV of 33.74 kJ/L (905 Btu/cu ft) 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.