



# G3606 with ADEM™4 GAS ENGINE

1417 bkW (1900 bhp) & 1540 BKW (2065 bhp)

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



Shown with optional equipment.

## SPECIFICATIONS

In-Line 6, 4 -Stroke-Cycle	
Serial Prefix.....	XSF
Bore.....	300 mm (11.8 in)
Stroke.....	300 mm (11.8 in)
Displacement.....	127.2L (7762cu.in)
Aspiration.....	Turbocharged-Aftercooled
Digital Engine Management	
Governor and Protection.....	Electronic (ADEM™4)
Combustion.....	Low Emission (Lean Burn)
Cooling System Capacity	
Total.....	420 L (111 gal)
JW.....	340 L (90 gal)
SCAC.....	80 L (21 gal)
Lube Oil System (refill).....	708L (187 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.

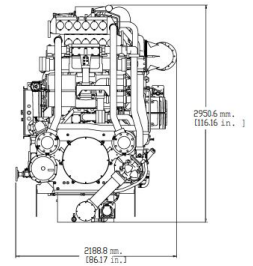
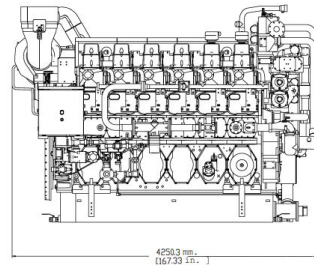
### Full Range of Attachments

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

### Testing

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

## DIMENSIONS



Length	4250.3 mm	167.33 in
Width	2188.8 mm	86.17 in
Height	2950.6 mm	116.16 in
Weight (wet)	16,730 kg	36,883 lb

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

# TECHNICAL DATA

Performance Number	EM6489-02	EM6490-02	EM6487-02	EM6488-02
<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>	1417 bkW (1900 bhp)	1417 bkW (1900 bhp)	1540 bkW (2065 bhp)	1540 bkW (2065 bhp)
<b>Engine Speed</b>	1000 rpm	1000 rpm	1000 rpm	1000 rpm
Max Altitude @ Rated Torque and 38° C (100°F)	2760 m (9055 ft)	2730 m (8957 ft)	1970 m (6463 ft)	1930 m (6332 ft)
<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	2.89 (2.15)	2.26 (1.68)	2.26 (1.68)	2.89 (2.15)
CO <sub>2</sub>	593 (443)	593 (442)	593 (443)	586 (437)
VOC**	0.26 (0.19)	0.22 (0.17)	0.25 (0.19)	0.22 (0.16)
<b>Fuel Consumption @ 100% load ***</b>	9.53 MJ/bkW-hr (6739 Btu/bhp-hr)	9.39 MJ/bkW-hr (6637 Btu/bhp-hr)	9.41 MJ/bkW-hr (6653 Btu/bhp-hr)	9.27 MJ/bkW-hr (6552 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	407 (23152)	389 (22137)	439 (24974)	420 (23898)
Heat Rejection to Oil Cooler	204 (11587)	204 (11628)	206 (11728)	207 (11782)
Heat Rejection to Aftercooler				
Stage 1 (JW)	266 (15131)	253 (14388)	319 (18163)	306 (17426)
Stage 2 (SCAC)	141 (8045)	135 (7681)	163 (9296)	106 (6019)
Heat Rejection to Exhaust LHV to 25°C (77°F)	1247 (70891)	1230 (69942)	1294 (73584)	1274 (72452)
Heat Rejection to Atmosphere	110 (6274)	116 (6022)	111 (6285)	106 (6019)
<b>Exhaust System</b>				
Exhaust Stack Temperature	429 °C (805 °F)	436 °C (817 °F)	413 °C (775 °F)	418 °C (785 °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

- 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.