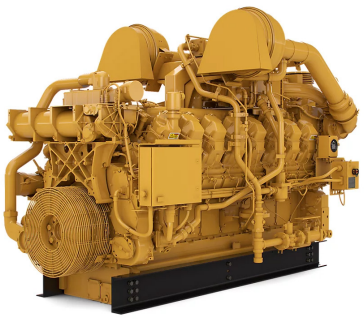


Image shown may not reflect actual configuration

Cat® G3516J

Gas Compression Engine

The Cat® G3516J gas compression engine delivers enhanced performance, fuel flexibility, and emissions capability in a proven G3500 platform. Available in 1500 hp and 1380 hp ratings, the G3516J combines increased power density with expanded fuel tolerance and configurable NOx emissions down to 0.3 g/bhp-hr, helping operators maximize gas throughput while maintaining reliable performance across a wide range of field conditions..

Features and Benefits:

ENGINE DESIGN

- Built on the proven G3500 LE platform for reliability and durability.
- Burns gaseous fuels down to MN 30 without derate.
- Robust diesel-strength structure supports long life.
- Higher power density improves fleet utilization and throughput.
- Extended cylinder-head service interval up to 30,000 hours.
- Cuffed cylinder liners reduce carbon-deposit risk.
- Individual-cylinder detonation-sensitive timing control.

FUEL & SITE FLEXIBILITY

- Capability to burn a wide spectrum of gaseous fuels gives operators more sourcing flexibility and helps make productive use of locally available gas.
- Broad speed operation at lower site-air density helps sustain compressor performance in hot or high-altitude conditions, reducing the need for excessive derating or oversized equipment.

RELIABILITY & ASSET PROTECTION

- Individual-cylinder detonation-sensitive timing responds to combustion differences before they become damaging, helping protect components when fuel quality or operating conditions vary.
- The robust G3500 LE-based structure, turbo oil accumulator, and vibration damper support dependable operation and longer component life under continuous-duty loading.

FUEL & SITE FLEXIBILITY

- Capability to burn a wide spectrum of gaseous fuels gives operators more sourcing flexibility and helps make productive use of locally available gas.

Specifications

Configuration	V-16, 4-Stroke-Cycle Gas	**Cooling System Capacity**	
Serial Prefix	N6H	**Total**	197.8 L (52.8 gal)
Bore	170 mm (6.7 in)	**JW**	178 L (47.6 gal)
Stroke	190 mm (7.5 in)	**SCAC**	19.8 L (5.2 gal)
Displacement	69 L (4211 in^3)	**Lube Oil System (refill)**	423 L (112 gal)
Aspiration	Turbocharged-2 Stage Aftercooled	**Oil Change Interval**	2000 hours
Digital Engine Management Governor and Protection	Electronic (ADEM™ A3)	**Rotation (from flywheel end)**	Counterclockwise
Combustion	Lean Burn	**Flywheel and Flywheel Housing**	SAE No. 21 Flywheel, SAE No. 00 Housing, 183 Teeth

Technical Data

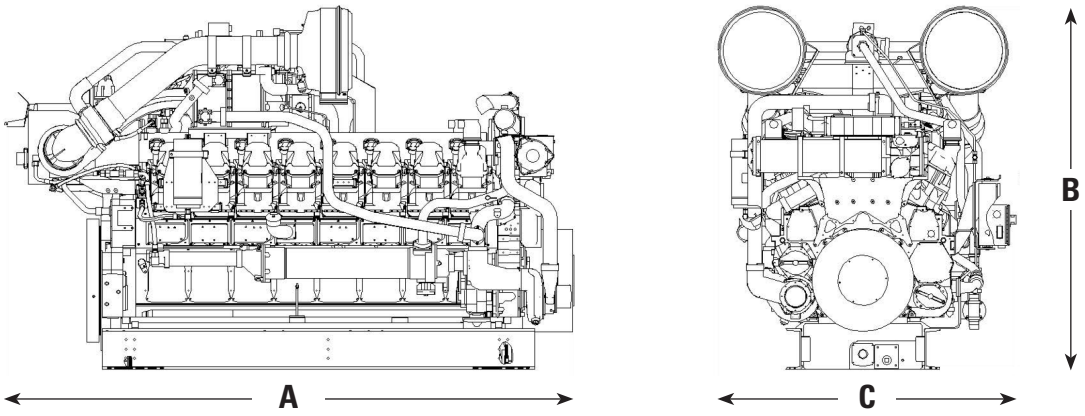
Performance Number	EM6315-03	EM6319-04	EM6323-04	EM6325-05
Rating	0.3g NOx (PC Plug)	0.3g NOx (PC Plug)	0.5g NOx (J-Gap Plug)	0.5g NOx (J-Gap Plug)
Engine Power bkW (bhp)	1029 (1380)	1129 (1500)	1029 (1380)	1129 (1500)
Engine Speed rpm	1400	1400	1400	1400
Max Altitude @ Rated Torque and 38 °C (100 °F) – m (ft)	1798 (5899)	1241 (4072)	2033 (6670)	1539 (5049)
Speed Turndown @ Max Altitude	25	25	25	25
Aftercooler Temperature				
Stage 1 (JW) C (F)	99 (210)	99 (210)	99 (210)	99 (210)
Stage 2 (SCAC) C (F)	54 (130)	54 (130)	54 (130)	54 (130)
Emission (NTE)*				
NOx g/bkW-hr (g/bhp-hr)	0.40 (0.30)	0.40 (0.30)	0.67 (0.50)	0.67 (0.50)
CO g/bkW-hr (g/bhp-hr)	3.00 (2.24)	3.00 (2.24)	2.76 (2.06)	2.73 (2.04)
CO_2 g/bkW-hr (g/bhp-hr)	616 (459)	614 (458)	628 (468)	619 (462)
VOC g/bkW-hr (g/bhp-hr)	0.70 (0.52)	0.67 (0.50)	0.57 (0.42)	0.54 (0.4)
Fuel Consumption (ISO) MJ/bkW-hr (Btu/bhp-hr)	10.35 (7316)	10.19 (7201)	10.31 (7287)	10.19 (7205)
Heat Balance bkW (Btu/min)				
Heat Rejection to JW	646 (36721)	669 (38623)	621 (35323)	646 (36721)
Heat Rejection to OC	78 (4439)	81 (4669)	76 (4331)	80 (4532)
Heat Rejection to Aftercooler				
Heat Rejection to 1AC (JW)	167 (9496)	207 (13973)	182 (10342)	205 (11634)
Heat Rejection to 2AC (SCAC)	94 (5337)	103 (5632)	89 (5071)	96 (5465)
Heat Rejection to Atmosphere	99 (5630)	99 (5630)	108 (6130)	112 (6395)
Exhaust System				
Exhaust Temperature – Engine Outlet – °C (°F)	428 (802)	415 (780)	440 (824)	444 (831)
Exhaust Gas Flow m^3/min (scfm)	226.8 (8010)	242.5 (8563)	226.4 (7995)	224.7 (8641)
Air Flow m^3/min (scfm)	89.5 (3162)	97.4 (3441)	87.7 (3097)	94.2 (3328)
Gas Pressure – kPag (psig)	48-276 (7-40)	48-276 (7-40)	48-276 (7-40)	48-276 (7-40)

All technical data is based on 100% load and speed
** Volatile organic compounds as defined in U.S. EPA 40 CFR 60, subpart JJJJ *** ISO 3046/1

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.

Dimensions



A	Length	3598.5 mm	141.67 in	**C**	Width	1898.7 mm	74.75 in
B	Height	2285.2 mm	89.97 in		Weight (dry)	9008.9 kg	19861 lb

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

Standard and Optional Equipment

Standard Equipment

Air Inlet System
- Axial flow air cleaners
- Single element canister type with service indicator

Cooling System
- Two-stage charge air cooling:
  - First stage: JW + 1st stage
  - AC Second stage: OC + 2nd stage AC

Exhaust System
- Water-cooled exhaust manifolds
- Dry turbocharger housings
- Water-cooled exhaust elbow

Fuel System
- 7-40 psig gas supply
- Electronic fuel metering valve
- Gas pressure regulator
- Gas shutoff valve

Instrumentation
- 8 inch HMI Engine Control Panel
- Interconnect harness

Lubrication System
- Crankcase breather - top mounted
- Oil sampling valve
- Turbo oil accumulator
- Deep sum oil pan

Optional Equipment

Air Inlet System
- Round air inlet adapter
- Rain shield

Charging Alternator
- CSA alternator 24V, 65A

Connections
- Mechanical joint assembly connections

Exhaust System
- Flexible fittings
- Elbows
- Flanges
- Mufflers

Fuel System
- Fuel filter

Lubrication System
- Lubricating oil
- Oil pan drain
- Air prelube pump
- Oil bypass filter

Starting System
- 90 psi starter
- 150 psi starter

© 2026 Caterpillar
All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, LET'S DO THE WORK, VisionLink™, their respective logos, "Caterpillar Corporate Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.