

C15 ACERT™ OFFSHORE GENERATOR SET

Class 1/Division 2 Hazardous Location

320 kW (536 bhp) / 60 Hz @ 1800 rpm

288 kW (483 bhp) / 50 Hz @ 1500 rpm



Image shown may not reflect actual configuration

Cat® Engine

Specifications

I-6, 4-Stroke-Cycle-Diesel

Bore:

137 mm (5.4 in)

Stroke:

171 mm (6.7 in)

Displacement:

15.2 L (928 cu. in)

Aspiration:

Single Turbo, Aftercooled

Compression Ratio:

16:0:1

Rotation (view from flywheel):

Counterclockwise

Governor:

Electric ADEM A4

FEATURES AND BENEFITS

Engine Design

- Tough and durable, with field proven reliability
- Delivers full speed turndown over a wide range of site conditions and fuels
- Factory-installed components with single connection point eases packaging

Advanced Digital Engine Management

The ADEM A4 system represents the next generation of engine management systems while reducing the number of mechanical components and easing troubleshooting. Features include:

- Electronic ignition
- Electronic governing/speeding control
- Start/Stop logic
- Engine protection and monitoring

Full Range of Attachments

A wide variety of factory-installed attachments are available to simplify packaging, saving time and effort.

Product Support Offered Through Global Cat Dealer Network

- More than 2,200 dealer outlets
- Cat factory trained dealer technicians service every aspect of your Oil & Gas engine
- Caterpillar parts and labor warranty
- Preventive maintenance agreements available for repair-before-failure options.
- S O S program matches your oil and coolant samples against Caterpillar set standards to determine:
 - Interval engine component condition
 - Presence of unwanted fluids
 - Presence of combustion by-products
 - Site-specific oil change interval

Over 80 Years of Engine Manufacturing Experience

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation and many hours of productive life.

- Cast engine blocks, head, cylinder liners, and flywheel housings
- Machine critical components
- Assemble complete engine

Website

For all your Oil & Gas power requirements, visit www.cat.com

BUILT FOR IT.



STANDARD EQUIPMENT

Air Inlet System

- Separate circuit aftercooler with shutoff.
- 90° turbo inlet connection 304.8 mm (12") hose connection with flame arrestor.
- Turbocharger, rear mounted

Control System

- Electronic governing, PTO speed control
- Programmable ratings
- Cold mode start strategy
- Automatic altitude compensation
- Power compensation for fuel temperature
- Programmable diagnostics and fault logging
- Engine monitoring and protection system (speeds, temperature, pressure)
- J1939 Broadcast (diagnostic, engine status and control)

Cooling System

- Radiator cooled - Package/remote mounted *
- Jacket water pump, gear driven, centrifugal
- RH front water pump inlet

Exhaust System

- Right rear turbo exhaust, water cooled turbine housing

Flywheel and Flywheel Housing

- SAE standard rotation
- Flywheel housing: SAE No. 1
- 113 flywheel teeth

Fuel System

- Electronic unit injector

Lube System

- Oil cooler
- Oil filter, RH, simplex
- Oil pan, rear sump, 38 L capacity
- Oil filler (on valve cover)
- Oil dipstick, LH and RH side
- Oil pump
- Oil valve sampling, on oil filter base

Generator and Generator Attachments *

- Class I / Division 2 designed to customer's specifications.
- Insulation for harsh environment protection

Hazardous Location Product Specific

- Class I / Division 2 engine
- Class I / Division 2 generator *
- Class I / Division 2 air shut-off actuator *
- Class I / Division 2 engine display panel *
- ATEX compliant electrical systems (engine only)

Mounting System

- Mounting rails and isolation system based on customer request
- Battery sets - 24 Volt, dry

* via custom quotation by Caterpillar Oil & Gas Power Solutions

C15 ACERT™ OFFSHORE GENERATOR SET

Class 1/Divison 2 Hazardous Location

TECHNICAL INFORMATION

RATINGS	60 Hz		50 Hz	
Rated Speed	1800 rpm		1500 rpm	
Engine Power	400 kW	536 bhp	360 kW	483 bhp
Generator Set Rating ^{*)}	320 ekW*	400 kVA*	288 ekW*	360 kVA*
BMEP @ Rated	1754 kPa	254 psi	1911 kPa	277 psi
BSFC @ Rated	214.7 g/kWh	.353 lbs/bhp-hr	213 g/kWh	.350 lbs/bhp-hr
Air Intake System				
Intake Combustion Air Flow	30.1 m ³ /m	1062.2 cfm	24.8 m ³ /m	873.9 cfm
Intake Combustion Air Temperature	51 °C	124°F	43 °C	110 °F
Maximum Allowable Restriction (Clean Dry Element)	3.7 kPa	15 in H ₂ O	3.7 kg/h	15 in H ₂ O
Maximum Allowable Restriction (Dirty Dry Element)	6.2 kPa	25 in H ₂ O	6.2 kPa	25 in. H ₂ O
Cooling System				
Configuration	SCAC			
Cooling Water Temperature Engine Out (Nominal)	104 °C	219 °F	104 °C	219 °F
Aftercooler Water Operating Temperature	52 °C	126 °F	52 °C	126 °F

^{*)} Assumes 96 % efficiency and a power factor of 0.8 Continuous rating power

Package Dimensions		
Dimensions and Weight* (Package)		
Length (B)	4313 mm	169.8 in
Width (C)	2416 mm	95.1 in
Height (D)	2274 mm	89.5 in
Package Weight (dry) ^{*)}	5530 kg	12192 lb

^{*)} Dependent on generator type

C15 ACERT™ OFFSHORE GENERATOR SET

Class 1/Divison 2 Hazardous Location

HEAT REJECTION DATA

60 Hertz										
Percent Load	Engine Power		Rejection to JW		Rejection to Atmosphere		Rejection to Exhaust		Rejection to SCAC	
	bkW	bhp	kW	btu/min	kW	btu/min	kW	btu/min	kW	btu/min
100	400	536	250	14,237	48.8	2,774	318	18,110	69.8	3,967
90	360	483	231	13,150	45.9	2,612	292	16,630	62.6	3,557
80	320	429	214	12,158	43.6	2,481	274	15,591	55.3	3,143
75	300	402	205	11,641	42.6	2,421	264	15,014	51.5	2,929
70	280	375	195	11,081	41.5	2,363	251	14,296	47.6	2,708
60	240	322	174	9,906	39.6	2,250	225	12,768	39.6	2,254
50	200	268	152	8,620	37.5	2,133	195	11,070	31.4	1,784
40	160	215	124	7,031	34.8	1,982	157	8,936	22.3	1,270
30	120	161	95.5	5,431	32	1,821	118	6,735	14.8	842
25	100	134	82.2	4,674	30.6	1,738	99.7	5,670	11.8	670
20	80	107	70.3	3,997	27.8	1,582	84.1	4,780	9.4	535
10	40	53.6	48.2	2,740	21.4	1,218	56.2	3,198	5.6	320

50 Hertz										
Percent Load	Engine Power		Rejection to JW		Rejection to Atmosphere		Rejection to Exhaust		Rejection to SCAC	
	bkW	bhp	kW	btu/min	kW	btu/min	kW	btu/min	kW	btu/min
100	363	487	229	13,030	54.7	3,110	280	15,940	51.1	2,905
90	327	438	210	11,938	51.9	2,954	257	14,608	44.4	2,523
80	290	389	191	10,881	47.9	2,722	235	13,356	38.2	2,173
75	272	365	182	10,362	46.3	2,632	223	12,703	35.1	1,998
70	254	341	173	9,852	44.9	2,553	212	12,039	32.1	1,825
60	218	292	156	8,893	42.5	2,419	188	10,702	26.2	1,488
50	182	243	140	7,951	38.3	2,177	165	9,401	20.8	1,181
40	145	195	123	7,017	32.9	1,872	143	8,105	15.9	905
30	109	146	107	6,083	27.5	1,566	119	6,777	11.7	663
25	90.8	122	98.8	5,616	24.9	1,414	107	6,101	9.7	554
20	72.6	97.4	90.5	5,149	22.2	1,261	95.2	5,416	8	454
10	36.3	48.7	74.1	4,215	16.8	956	70.7	4,021	4.9	277

Rating Definitions and Conditions:

The corrected performance values shown for Cat engines will approximate the values obtained when the observed performance data is corrected to SAE J1349, ISO 3046-2, 8665m 2288, 9249, and 1585, EEC 80/1269 and DIN 70020 standard reference conditions.

Engines are equipped with standard accessories: lube oil, fuel pump, and jacket water pump. The power required to drive auxiliaries must be deducted from the gross output to arrive at the new power available for the external flywheel load. Typical auxiliaries include cooling fans, air compressors and charging alternators.

To find your nearest dealer, please visit:
www.cat.com

Subject to change without notice.
Leaflet No. 267 · 02.15 · e · L+S · VM3

© 2016 Caterpillar All Rights Reserved. Printed in Germany.
CAT, CATERPILLAR, their respective logos, MaK, "Caterpillar Yellow" and the POWER EDGE trad dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

BUILT FOR IT.

