

Cat® C32

Diesel Generator Sets



Image shown may not reflect actual configuration.

1250 kVA

50 Hz, Standby

FEATURES AND BENEFITS

CAT® DIESEL ENGINES

The four-cycle Cat diesel engine combines consistent performance with excellent fuel economy and transient response and block loading step as per ISO 8528-5. Confirms to ISO 8528-5 G3 block load acceptance requirements. The engines feature a reliable, rugged, and durable design that has been field proven in thousands of applications worldwide in emergency standby installations.

COOLING SYSTEM

The cooling system has been designed and tested to ensure proper generator set cooling, and includes the radiator, fan, belts, and all guarding installed as standard. Contact your Cat dealer for specific ambient and altitude capabilities.

GENERATORS

The generators used on Cat packages have been designed and tested to work with the Cat engine. The generators are built with robust Class H insulation and provide industry-leading motor starting capability and altitude capabilities.

GCCP CONTROL PANELS

User - Friendly set up and button layout for ease of use. Multiple Parameters monitored & displayed simultaneously for full visibility. The Module can be configured to suit wide range of applications for user flexibility.

ENGINE SPECIFICATIONS

Engine Model	Cat® C32 V12, 4-stroke Water-cooled Diesel
Bore x Stroke	145mm x 162mm (5.7in x 6.37in)
Displacement	32.1 L (1959 in³)
Compression Ratio	15.0:1
Aspiration	Turbocharged aftercooled
Fuel Injection System	MEUI™
Governor	Electronic ADEM™ A4
Emission Certifications	Low Fuel consumption

GENERATOR SET SPECIFICATIONS

Alternator Design	Brushless Single Bearing, 4 Pole
Stator	2/3 Pitch
No. of Leads	06
Available Voltage Options	415 V
Frequency	50 Hz
Alternator Voltage	24 V
Alternator Insulation and IP	Class H; IP23
Standard Temperature Rise	150 °C
Available Excitation Options	Internal Excitation
Voltage Regulation	±0.25%
Voltage Regulator	D350

STANDARD & OPTIONAL EQUIPMENT

Air inlet system	Single element air cleaner Service indicator
Control panels	GCCP 1.3 (DSE6320) Control panel (Standard). Emergency stop push button
Cooling system	Radiator fan and belt drive Fan and belt guard Coolant drain line with valve Coolant level sensor
Exhaust system	Dry exhaust manifold Flanged faced outlets Exhaust mufflers Stainless steel exhaust flex fittings Flanges
Fuel system	Primary fuel filters with integral water separator Fuel priming pump Flexible fuel lines Engine fuel transfer pump Integrated fuel cooler 990 liter fuel tank
Generators and generator attachments	AREP excited Class H insulation Class H temperature rise Random Wound D350 (Digital voltage regulator) Bus bar mounted on right hand IP 23 protection
Governing system	Cat Electronic Governor (ADEM™ A4).
Lube System	Lubricating oil and filter Oil drain line with valves Fumes disposal Gear type lube oil pump Lube oil level indicator (dipstick)
Mounting	Anti-vibration mounts
Starting/charging system	Heavy duty starting -24 Volts Batteries with rack and cables 45 amp charging alternator
General	SAE standard rotation Flywheel – SAE No.0 Flywheel – SAE No.18 (pilot shaft guided) Paint – Caterpillar Yellow (except rails and radiators gloss black)

Standby: 50 Hz; 415V



Image shown might not reflect actual configuration.

Engine Model	Cat® C32 V12, 4-stroke Water-cooled Diesel
Bore x Stroke	145 mm x 162 mm (5.7 in x 6.37 in)
Displacement	32.1 L (1959 in³)
Compression Ratio	15.0:1
Aspiration	Turbocharged aftercooled
Fuel Injection System	MEUI™
Governor	Electronic ADEM™ A4

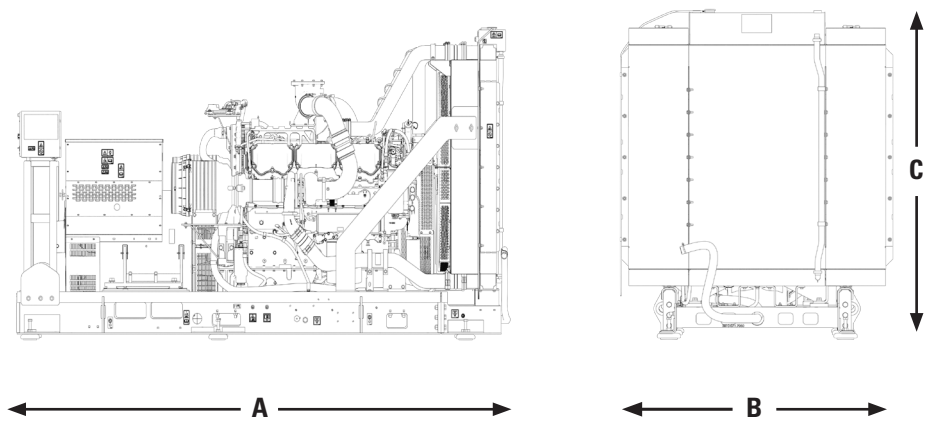
Model	Standby	Emission Strategy
C32	1250 kVA	Low Fuel consumption

PACKAGE PERFORMANCE

Performance	Standby
Frequency	50 Hz
Genset power rating with fan @ 0.8 power factor	1250 kVA
Engine Power Rating	1460 BHP
Performance Number	EM0679-00
Fuel Consumption	
100% load with fan, L/hr (gal/hr)	252.3 (66.6)
75% load with fan, L/hr (gal/hr)	185.5 (49.0)
50% load with fan, L/hr (gal/hr)	128.4 (33.9)
25% load with fan, L/hr (gal/hr)	75 (19.8)
Cooling System¹	
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)
Radiator air flow, m³/min (cfm)	1143 (40364)
Total cooling system coolant capacity, L (gal)	116 (30.6)
Inlet Air	
Combustion air inlet flow rate, m³/min (cfm)	74.2 (2620.3)
Max. allowable combustion air inlet temp, °C (°F)	49 (120.2)
Exhaust System	
Exhaust stack gas temperature, °C (°F)	464.6 (836.3)
Exhaust gas flow rate, m³/min (cfm)	192.9 (6812.1)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.0 (40.0)
Heat Rejection	
Heat rejection to jacket water, kW (Btu/min)	340 (19335.4)
Heat rejection to exhaust (total), kW (Btu/min)	871 (49538.6)
Heat rejection to atmosphere from engine, kW (Btu/min)	139 (7904.7)
Heat rejection to atmosphere from generator, kW (Btu/min)	50 (2843.4)
Lube System	
Sump refill with filter	105 (27.7)

Alternator ²	Standby
Voltage, V	415
Motor Starting Capability @ 30% Voltage Dip, skVA	3093
Current, A	1739
Frame Size	1424
Excitation	IE
Temperature Rise, °C	150

WEIGHTS & DIMENSIONS



***Note:** For reference only – do not use for installation design. Please contact your local dealer for exact weights and dimensions

Genset Model	Dim “A” mm (in)	Dim “B” mm (in)	Dim “C” mm (in)	Generator Set Weight
1250 kVA, 1000ekW	4217 (166.02)	1822.5 (71.5)	2161.8 (85.11)	6717 (14,777)

DEFINITIONS AND CONDITIONS

¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to the existing restriction from the factory.

² Alternator temperature rise is based on a 40°C (104°F) ambient per NEMA MG1-

APPLICABLE CODES AND STANDARDS

ISO 3046, ISO 8528, IEC60034-1, IS4722

Standby Power: Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby rated ekW. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Ratings: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 standard conditions.

Fuel Rates: Fuel Consumption reported in accordance as per the ISO 3046-1 standard.

Additional ratings may be available for specific customer requirements, contact your Cat representative for details.

LET’S DO THE WORK.™

www.cat.com/electricpower
©2024 Caterpillar
All rights reserved.

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.
CAT, CATERPILLAR, LET’S DO THE WORK, 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.