

Cat® C32

Diesel Generator Sets



Image shown might not reflect actual configuration.

1100 kVA

50 Hz, Prime

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. Conforms 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	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
Emission Certifications	Low Fuel consumption

ENGINE 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	125 °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 (Integrated voltage regulator) Bus bar mounted on right hand IP23 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)

Prime: 50 Hz; 415V



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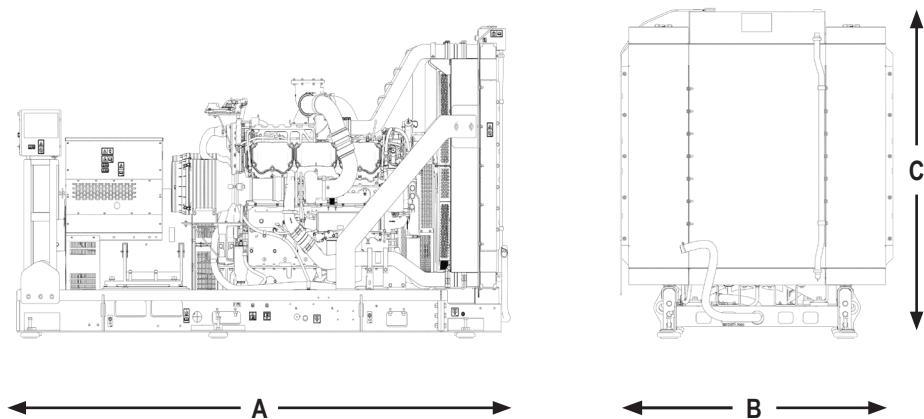
Model	Prime	Emission Strategy
C32	1100 kVA	Low Fuel consumption

PACKAGE PERFORMANCE

Performance	Prime
Frequency	50 Hz
Genset power rating with fan @ 0.8 power factor	1100 kVA
Engine Power Rating	1291 bhp
Performance Number	EM0745-01
Fuel Consumption	
100% load with fan, L/hr (gal/hr)	220.7 (58.3)
75% load with fan, L/hr (gal/hr)	164.8 (43.5)
50% load with fan, L/hr (gal/hr)	116.1 (30.6)
25% load with fan, L/hr (gal/hr)	68.7 (18.1)
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)	67.9 (2397.4)
Max. allowable combustion air inlet temp, °C (°F)	49 (120.2)
Exhaust System	
Exhaust stack gas temperature, °C (°F)	440.6 (825.2)
Exhaust gas flow rate, m³/min (CFM)	170.3 (6012.6)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.0 (40.0)
Heat Rejection	
Heat rejection to jacket water, kW (BTU/min)	308 (17535)
Heat rejection to exhaust (total), kW (BTU/min)	752 (42748)
Heat rejection to atmosphere from engine, kW (BTU/min)	124 (7051)
Heat rejection to atmosphere from generator, kW (BTU/min)	45 (2564)
Lube System	
Sump refill with filter	105L (27.7)

Alternator ²	Standby
Voltages, V	415
Motor Starting Capability @ 30% Voltage Dip, skVA	3093
Current, A	1530
Frame Size	1424
Excitation	IE
Temperature Rise, °C	125

WEIGHTS & DIMENSIONS



Genset Model	Dim “A” mm (in)	Dim “B” mm (in)	Dim “C” mm (in)	Generator Set Weight kg (lb)
1100 kVA, 880 ekW	4217 (162.02)	1822.5 (71.5)	2161.8 (85.11)	6717 (14,777)

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

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

Prime: Output available with varying load for an unlimited time. Prime power in accordance with ISO 8528. 10% overload power in accordance with ISO 3046.

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.

www.cat.com/electricpower
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