CAT C18 DIESEL GENERATOR SETS FOR INDUSTRIAL APPLICATIONS

CAT

100000



SMALLER FOOTPRINT; REDUCED INSTALLATION COSTS.

Cat[®] C18 engines are now available in ratings with industry-leading power density. Based on existing, proven platforms, these engines have been re-engineered to provide our customers with a solution precisely sized to balance power availability and reliability with lighter weight and easier handling. Benefi ts include lower overall site preparation, transportation, installation, and maintenance costs, with reduced fuel consumption and lower emissions.

More power, lower costs, and better reliability

Every major component must pass inspections before the entire unit is tested at and above 100 percent of the rated load for safety and operation. From a fast delivery to scheduled maintenance, your Cat dealer is at your service for the life of your genset.



C18 (60 HZ): 550 – 750 ekW

C18



C18 STANDARD MODELS

ekW			EMICCIONIC
Prime	Standby	FREQUENCY	EMISSIONS
500	550	60 Hz	Tier II
545	600	60 Hz	Tier II
600	650	60 Hz	Tier II
635	700	60 Hz	Tier II
680	750	60 Hz	Tier II

STANDARD FEATURES*

- Engine lubricating oil
 Antifreeze/corrosion inhibitor coolant fill
- Skid base with lifting points
- Vibration isolator between engine/ generator mounts and tank base
- Battery charging alternator
- GCCP 1.2 contr
 Factory tested to

• GCCP 1.5 paralle

(w/electrically

Control panel v

with enclosure

• Fuel Tanks UL/

Generators; an

permanent mag

base tanks

• Enlarged batt installed on b

Exhaust silend

• 3-pole 100 per

breaker

OPTIONAL FEATURES*

- Enclosures, sound-attenuated and weather protected, with common key
- Static battery chargers
- Jacket water heater
- Battery disconnect switch
- Heavy duty air-cleaners
- Engine lubricating oil drain pump
 Higher-level exhaust silencers
- Control system digital metering shutdowns, aut

HIGHER POWER

ery rack and cables, ase cer rcent UL rated circuit trol panel to full load specifications	 Full protective guarding with access hatches Oversized electrical stub-up area directly below circuit breaker Emergency stop ADEM™ A4 Coolant and lube drains piped to edge of base
eling controller option operated breaker) iewing window available s ULC; Integral and Sub-	 Remote monitoring and control Power terminal strips Cat digital voltage regulator Certifications; IBC/OSHPD, UL2200, CSA
ti-condensation heater gnet, CIP is, remote monitoring, g, multiple alarms/ to-start to utility	*Not all features and options listed



Image shown may not refle ct actual configuration.

Built compactly and self-contained, Cat C18 generator sets are even easier to own and operate. Added features include a re-designed tank base with a spill containment system.

RUNNING TIME

Our redesigned fuel tank delivers improved performance, serviceability, and maintenance access with maximum generator set running time.

ADVANCED DESIGN

We've been able to fix the location of breaker box and control panel locations for common installations across the product line while still enabling up-sizing of generators and generator options. The breaker box has removable cross braces (lower) to ease installation (open sets) if needed. The wide skid base, Integral fuel tanks, and sub base fuel tanks contain removable cabling access plates to allow easy access for installation.

ENGINE

Reliable Cat diesel engines power these generator sets that deliver industry-leading fuel efficiency and product life. Industrial capacity (approximately 10 and 25 dBA reduction) engine silencer is supplied loose. Service points are positioned for safe, easy access. All generator sets are shipped with engine oil and coolant.

GUARDS

Features complete heavy-gauge steel guarding with access hatches to all rotating parts, including cooling fan, charging alternator and drive belts. Optional exhaust manifold and turbocharger guards are also available, if required.

STARTER MOTOR, ALTERNATOR, BATTERIES, AND CABLES

All generator sets include industry-leading, high-capacity, maintenance-free batteries, battery rack (mounted on the base) and heavy-duty interconnecting cables with terminations.

VIBRATION ISOLATORS

Rubber pad anti-vibration mountings isolate tank base and control tower from engine/generator assembly.

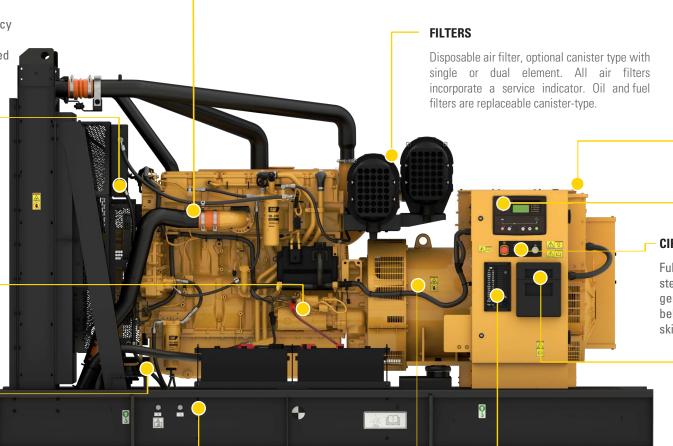


Image shown may not reflect actual configuration.

TANK BASE

Tank base incorporates enhanced lifting and mounting points. Anti-vibration pads affixed between the engine/generator feet and base isolate rotating parts. The tanks are designed with a 1 degree slope and drainage holes to remove any moisture. Integral tanks and sub tanks are dual wall steel construction and are available with or without enclosures.

GENERATOR/ALTERNATOR

Advanced Cat self-exciting and AREP excitation, self-regulating brushless generators are built for extended, dependable life. Features include fully interconnected damper windings, cooling systems, sealed bearings, Class H insulation and 2/3 pitch with THF <2% and TIF <50.

WIRING

The harness terminates at control panel with industrial-grade multi-pin connector. Mechanically held plug and socket attachments provide fast, convenient inspection and replacement of systems.

CONTROL PANEL

The GCCP 1.2 and 1.5 features monitoring an extensive number of engine parameters. These controllers display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs and remote PC. The controllers offer extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

CIRCUIT BREAKERS

Fully rated mainline circuit breaker housed in vibration isolated sheet steel enclosure, with removable cover plate, mounted integrally with generator set. Oversized electrical stub-up area is located directly below circuit breaker with removable access plate available on wide skid base and Integral tank bases to allow easier installation.

DOCUMENT HOLDER

Durable plastic container provides a convenient location for manuals and maintenance documents for reference.

VOLTAGE REGULATOR

The Voltage regulator design is in accordance with mounting in a generator terminal box or a control cabinet. It is required, at a minimum, to follow the local protection and safety standards.

ENGINEERING WITH YOU IN MIND.

High ambient and sound-attenuated enclosures reduce operational noises. And we've built our generators not just for peace and quiet but peace of mind, constructed with materials to endure the harshest environments. Generator sets consist of corrosion-resistant galvanized steel components and are finished with scratch- and rust-resistant powder-coated paint, along with robust thermoplastic corner posts. For added protection, the package has been designed with an all-round, overhanging base frame. Protect your power source with a locking control panel viewing window, and locking access doors for the fuel fill and battery.

NOISE ABSORPTION

Design ingenuity and noise absorbent materials have further improved the effectiveness of our sound attenuated enclosures, typically by 3 dBA at 1 meter (3 feet) and 7 meters (23 feet).

INTERNAL EXHAUST SILENCER SYSTEM

The internal silencer system enhances generator set safety, aesthetics, and silencer life. We're keeping hot exhaust pipes out of reach and the silencer out of the elements.

SOUND ATTENUATION

Sound attenuated level 1 enclosures are 75 dBA at 7 meters (23 feet) for all nodes and Sound attenuated level 2 enclosures are 70-72 dBA at 7 meters (23 feet) available up to 500kW.

CONVENIENT ACCESS

We've made the customer connection fully accessible - The bases, Integral tanks, and Sub base tanks contain removable access plates at the rear along with the breaker box having removable cross braces, covers, and glanding plates. .

CORROSION AND DAMAGE RESISTANCE

Our generator sets are built to last — and we believe their frame should be too. All are constructed to help avoid shipping and handling damage until unit reaches the application site. The generator sets also feature zinc phosphate and polyester powder coating. Optional Aluminum Sound attenuated enclosures are also available.

SOUND ATTENUATION

Sound attenuation enclosures are available for operation in up to 43°C (109°F) environments. Cold weather options are available to comply with NFPA110 level 1 requirements.

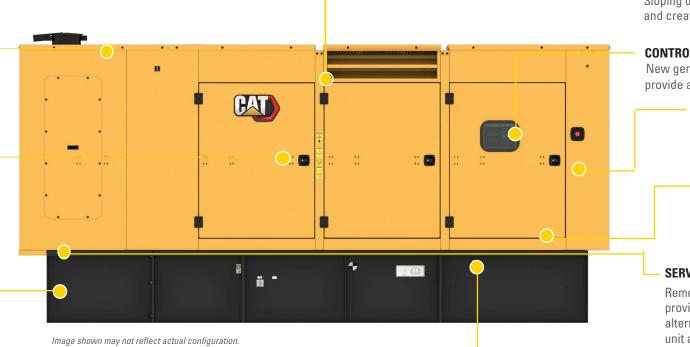
SFALS

WATER INGRESS PROTECTION

Improved roof design contains sectioned pieces separated with distinct channels that incorporate overlapping roof joints and gutters at air inlets to prevent water ingress. Enclosures are tested to meet UL2200 water ingress specifications.

DOOR LATCHES

Rotational compression door latches providing positive door sealing by pulling the door inward to compress the seal.



BASE FRAME

Along with the reduced footprint (for 650-750 kW) and accessibility improvements we have maintained robust design. The steel narrow skid base is standard on open sets and steel wide skid base is standard on enclosed sets.

during transit.

Sloping door seals above doors prevent water collection and create a better seal against inclement weather.

CONTROL PANELS

New generator sets are fitted with the latest GCCP control panels, which provide additional capability to monitor generator set performance.

FRONT PANELS

Removable front panel provides easier access to cooling system, silencer, control box, and alternator. These changes reduce the time necessary to maintain the unit and ensure proper performance.

ELECTRICAL CABLES

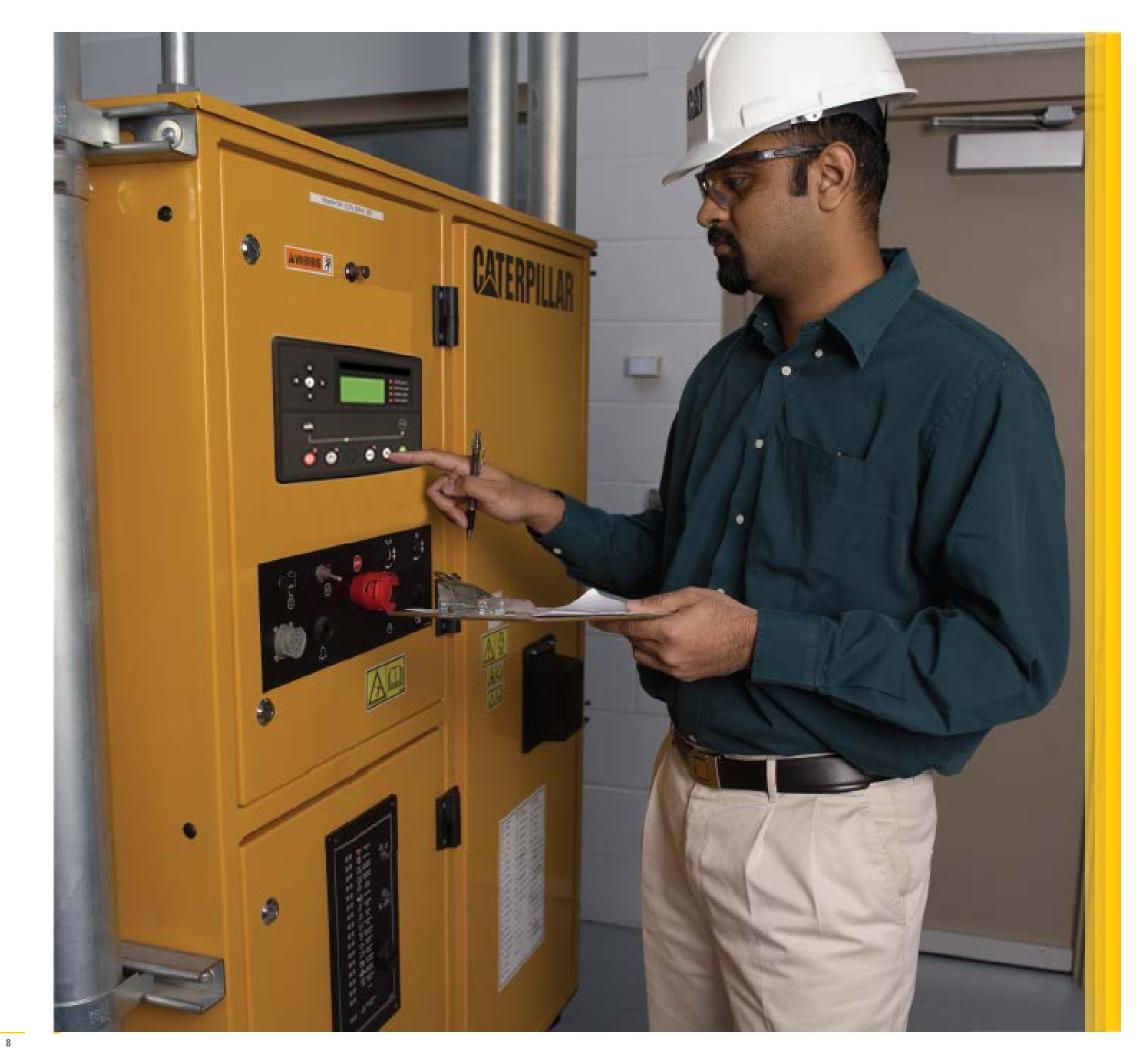
Cables have been reconfigured and rerouted to avoid any unnecessary cross routing.

SERVICEABILITY

Removable front panel, large rear door and removable rear inlet ducts provide easier access to cooling system, silencer, control box, and alternator. These changes reduce the time necessary to maintain the unit and ensure proper performance.

DAMAGE PROTECTION

Added base frame overhangs all around the enclosure protect



CAT GENERATOR SETS OFFER A COMPLETE LINE OF **CONTROL PANELS.**

GCCP control panels offer you optional Instrumentation, shutdowns/alarms, and state-of-the-art communication for remote monitoring and control.



GCCP 1.5

Digital control panel with advanced protection and remote communications

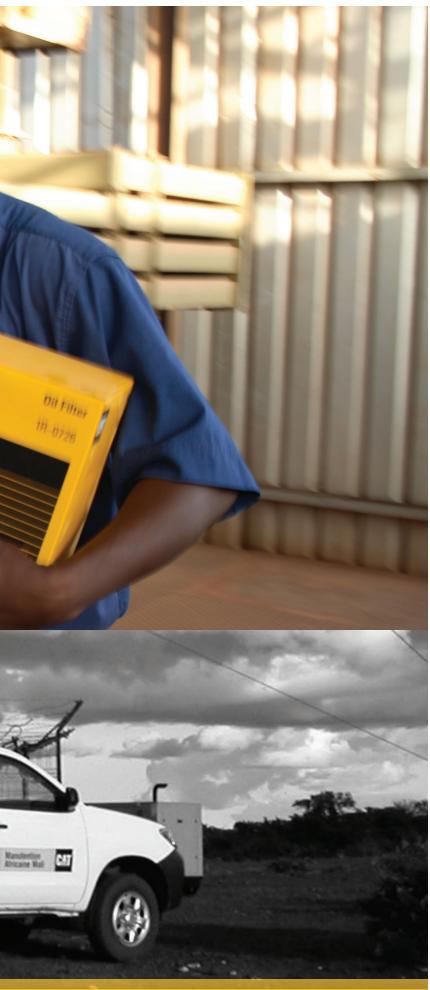
Each has the modular flexibility of being easily interchanged, with similar dimensions and hardware. They also allow for open protocol communication to ensure remote monitoring compatibility with most building management or supervisory control systems.

ANYTIME, ANYWHERE SUPPORT.

More than 1,800 Cat dealer outlets in 200 countries are equipped with everything you need, from installing and configuring your Cat generator set to maintaining peak performance for the life of the product. System selection assistance, equipment training, parts, service expertise, and maintenance programs are available wherever and whenever you need them.



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We're dedicated to providing integrated solutions for all your electric power needs. Your Cat dealer is equipped with a full range of products, services and invaluable expertise to keep the generator set you trust today the one you trust 20 years from now.

To find your nearest dealer, go to www.cat.com/dealer-locator.com



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