CAT® NEXT GENERATION DIESEL GENERATOR SETS

C15 ACERT™ and C18 ACERT
410-700 kVA / 365-600 ekW
THE NEXT GENERATION CAT® DIESEL GENERATOR SET FEATURES SEVERAL KEY DESIGN AND PERFORMANCE ENHANCEMENTS TO ITS ENCLOSURES AND ITS DURABILITY.

The Cat® generator sets from 410 – 700 kVA (365 – 600 ekW) provide reliable energy solutions for every business, every need. Prime power or standby service, diesel fuel generator sets deliver dependable, clean, economical power – even in the most demanding conditions – and are available in a wide range of configurations with optional equipment.

Cat generator sets are designed, engineered and manufactured for optimal performance. All major components are tested individually; once assembled, the entire unit is tested at and above 100 percent of rated load for safety and operation. These complete, ready-to-run packages have another distinct advantage: They all come with the comprehensive service and support of Cat Dealers – beginning with prompt delivery and ongoing support throughout the life of the generator set.

C15 ACERT (50 Hz): 410 – 550 kVA
C15 ACERT (60 Hz): 365 – 500 ekW

C18 ACERT (50 Hz): 550 – 700 kVA
C18 ACERT (60 Hz): 500 – 600 ekW
**C15 ACERT STANDARD MODELS**

<table>
<thead>
<tr>
<th>GENERATOR SET MODEL</th>
<th>FREQUENCY (Hz)</th>
<th>STANDBY (kVA)</th>
<th>PRIME (kVA)</th>
<th>LENGTH (mm)</th>
<th>WIDTH (in)</th>
<th>HEIGHT (in)</th>
<th>WEIGHT (kg)</th>
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**C18 ACERT STANDARD MODELS**

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<th>GENERATOR SET MODEL</th>
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<th>PRIME (kVA)</th>
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**STANDARD FEATURES***

- Engine lubricating oil
- Antifreeze/corrosion inhibitor coolant fill
- Steel tank base with drip tray, lifting and dragging points
- Vibration isolators between engine/generator mounts and tank base
- Battery charging alternator
- Enlarged battery rack and cables, installed on tank base
- Exhaust silencer
- 3- and 4-pole 100 percent rated, IEC compliant circuit breaker
- EMCP4.1 panel
- Factory tested 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

**OPTIONAL FEATURES***

- Enclosures, high ambient and sound-attenuated, with common key
- Static battery chargers
- Jacket water heater
- Engine lubricating oil drain pump
- Higher-level exhaust silencers
- Generator anti-condensation heater
- Generator excitation: permanent magnet
- Control systems, remote monitoring, digital metering, multiple alarms/shutdowns, auto-start to utility
- Remote annunciators (EMCP4.2 required)
- Remote monitoring and control
- 3- and 4-pole circuit breaker options, including motorised
- Power terminal strips
- Coastal insulation protection
- CAT digital voltage regulator

*Not all features and options listed
Features complete heavy-gauge steel guardings 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.

GUARDS

Reliable Cat ACERT diesel engines power these generator sets that deliver industry-leading fuel efficiency and product life. Industrial capacity (approximately 10, 25 and 35 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.

STARTER MOTOR, ALTERNATOR, BATTERIES AND CABLES

All generator sets include industry-leading, high-capacity, maintenance-free batteries, battery rack (mounted on the tank 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.

TANK BASE

Tank base incorporates enhanced lifting and mounting points. Anti-vibration pads affixed between the engine/generator feet and base isolate rotating parts. Welded integral steel tank base is standard. Optional dual wall steel tank base for total fluid containment is available with enclosed sets and an optional narrow skid base is available for open sets.
The new Cat C15 ACERT™ and C18 ACERT generator sets offer a sleek design common across the range with a compact, self-contained generator that is easier to own and operate. Construction enhancements begin with a smartly redesigned tank base with spill containment as standard.

RUNNING TIME
Redesigned fuel tank always delivers eight hours of performance at 100 percent of rated load in prime applications.

MODULAR DESIGN
By segmenting our generators into smaller modular power and control systems, we have made them easier to upgrade. Some examples of modular design in the Cat generator sets: common braided copper connections are preformed, all alternator and breaker options are a standard length, and different options can be accommodated by moving the breaker box mounting position. In addition, the tower is designed with a removable top section, the Automatic Voltage Regulatory (AVR) is now contained within the lower section for easy adjustment, and Mate-n-Lock connections are standard.

FILTERS
Disposable air filter, optional canister type with single or dual element. All air filters incorporate a service indicator. Oil and fuel filters are replaceable canister-type.

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 and can be terminated both vertically and horizontally.

CONTROL PANEL
Standard EMCP4.1 control panel is fully equipped with all necessary engine gauges, AC meters and warnings. Optional EMCP4.2 for additional functionality.

WIRING
The loom terminates at control panel with industrial-grade multi-pin connector. Mechanically held plug and socket attachments provide fast, convenient inspection and replacement of systems. Looms are “keyed” to prevent incorrect installation.

VOLTAGE REGULATOR
Improved load acceptance with R450; testing showed better performance than VR6 predecessor. Fully sealed regulator accurately maintains load voltage at +0.5 percent from no load to full load.

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

GENERATOR/ALTERNATOR
Advanced Cat self-exciting, 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.
Improved roof panel design seals lap joints with adhesive gasket strips on each side of the joint to prevent water ingress through roof.

In addition to the base frame, the control panel viewing window and access doors for the fuel fill and battery are lockable. Finally, installation and service are made easy by oversized cable access, an oversized rear door for panel access, and purpose-designed improved dragging and jacking points in the base and an integrated lifting frame (C15 ACERT only).

INTEGRAL LIFTING FRAME (C15 ACERT ONLY)
Frame is designed to lift the entire generator set from the center of the unit, and has been tested to lift four times the maximum possible weight configuration.

WATER INGRESS PROTECTION
Improved roof panel design seals lap joints with adhesive gasket strips on each side of the joint to prevent water ingress through roof.

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

BASE FRAME
Along with the addition of easier to use drag points, the base frame has been redesigned with a 1 degree slope to contain all accidental oil, coolant and fuel spillages, as well as drain fuel.
NOISE ABSORBENT MATERIALS
Smart design and use of noise absorbent materials have further improved our sound attenuated enclosures, typically by 3 dBA at 1 metre (3 feet) and 7 metres (23 feet).

INTERNAL EXHAUST SILENCER SYSTEM
The internal silencer system enhances generator set safety, aesthetics and silencer life. Hot exhaust pipes stay out of reach and the silencer stays out of the elements.

SOUND ATTENUATION
Sound attenuated (typically less than 73 dBA at 7 metres / 23 feet) enclosures are available on the C15 ACERT and C18 ACERT generator sets.

CONVENIENT ACCESS
A tower control panel with a hinged top section and lower access panel allows full access to customer connection and AVR. Removable aluminum gland plates allow full access to cable from both vertical and horizontal locations with eight times outside diameter bend radius. Fuel pipe installation is through dedicated access holes located on the same side as optional fuel transfer pump for remote bulk tank. Base frame jacking points and “tear drop” drag points allow for quick and easy shackle fitting and removal, and an integrated lifting frame (C15 ACERT only) allows for easy handling.

CORROSION AND DAMAGE RESISTANCE
Highly corrosion-resistant galvanised steel construction provides a long-lasting exterior finish. The new Cat generator sets also feature zinc phosphate and polyester powder coating; corner posts are composed of high-grade UV stable engineering thermoplastic.

AMBIENT CAPABILITY
High ambient enclosures are available for operation in up to 50°C (122°F) environments. These are available for the C15 ACERT and C18 ACERT generator sets.

SEALS
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 EMCP4 control panels, which provide additional capability to monitor generator set performance. EMCP4.1 and EMCP4.2 control panels are currently available.

ELECTRICAL CABLES
Cables have been reconfigured and rerouted to avoid any unnecessary cross routing. All cables are direct and double bolted to avoid double braiding and prevent braid turning.

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 during transit. Corner posts are made out of high-grade thermoplastic, which are weather resistant and UV stable.
CAT GENERATOR SETS OFFER A COMPLETE LINE OF CONTROL PANELS.
The EMCP4.1 and EMCP4.2 control panels are equipped with many operational and protection features. Optional instrumentation, shutdowns/alarms and state-of-the-art communication for remote monitoring and control are also available. Control panels offer the modular flexibility of being easily interchanged, with similar dimensions and hardware.

They allow for open protocol communication to ensure remote monitoring compatibility with most building management or supervisory control systems. Up to eight generator sets may be controlled using virtual computer screen control panels.
The reliable power that Cat generator sets produce is matched only by the power that backs them. 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.
Your Cat Dealer provides fully integrated solutions for all your electric power needs, with a full range of products and services, plus the invaluable expertise and industry-leading technology that come with a proven performer like Caterpillar.

To find your nearest dealer go to: www.catelectricpowerinfo.com