# Power Generation for the Offshore Oil & Gas Industry

**C175 Offshore Generator Set** 





# DRILL FARTHER, DRILL DEEPER, GET AHEAD.



# **Improve Your Operation and Your Bottom Line**

The Cat<sup>®</sup> C175 delivers more reliable power in less space than any other generator set in its class, allowing deeper drilling and higher loading. It puts out 1833 ekW, 2619 kVA at 60 Hz in a 6.9 x 2.2 m footprint, and weighs just 24,000 kg. As efficient as it is powerful, this compact package will make a huge impact on your rig's performance.



# ENGINE

The proven success of the 3500 series engines forms the foundation of the Cat C175 diesel engine. Low owning and operating costs, high endurance components, and outstanding serviceability add to the innovations. The C175 also incorporates ACERT<sup>TM</sup> Technology.

Advancements in air management and fuel delivery come together to improve overall engine response, fuel economy, and emission control. Available with options and accessory equipment to meet your specific needs, the C175 is at the core of this powerful solution for offshore drilling.

# **Engine Design Features**

- Duplex fuel and oil filtration
- Automatic air shutoff
- Two-stage aftercooler
- Single flow exhaust
- Engine-mounted air intake filters
- SOLAS (Safety of Life at Sea) compliant exhaust manifold heat shielding
- Marine Classification Society (MCS) engine certification available







# **C175 FEATURES AND BENEFITS**

Caterpillar can help you navigate the challenges in the oil and gas industry, including global competition, tightening emission standards, and high productivity demands.

Rating: 1833 ekW (2619 kVA) at 60 Hz (1200 rpm)

# **Making Your Investment Work Harder**

- Optimal power solution for offshore jack-up and compact semi-submersible rigs
- Provides 20% more installed power over 3516C
- Significant weight savings and overall footprint compared to medium speed
- Similar footprint allows retrofit for today's 3516 design
- Offshore drilling package provides single lift handling for ease of installation
- Few shipped-loose parts reduces delay in shipyard and gets you up and running faster

# **Driving Down Total Cost of Ownership**

- Fuel consumption optimized for drilling application
- Increased oil change interval to 1000 hours
- Proven drilling generator selected to meet the demands and harsh conditions found in the offshore drilling environment

# **Committed to Sustainable Development**

• Meets EPA Marine Tier 2 and IMO Tier II emission standards for offshore applications

# **Improving Workforce Efficiency**

- Cat Alarm and Protection System provides the latest technology in generator set control, protection, and operator interface
- Dual ADEM<sup>™</sup> A4 engine management system for improved engine uptime

# **Fully Integrated Petroleum Solution**

- Complete customizable Cat generator set allows for singlesource support
- Established global dealer network provides readily available, trained technicians and local availability of parts
- Complete Caterpillar Scope of Supply
  - Caterpillar warranty for all factory packaged components
  - Industry-leading one-year warranty on parts

# **GENERATOR**

The high efficiency close-coupled generator is designed to match the performance and output characteristics of the C175 standard package. With industry-leading mechanical and electrical design it offers:

- Class F insulation
- IP23 enclosure
- 1833 kW/2619 kVa
- 600V, 3-Phase, 0.7 PF
- Two-bearing close-coupled configuration
- Six-wire, WYE connection, form wound
- Permanent magnet excitation (PMG)
- Temperature rise 90°C by resistance, 50°C ambient



# **MAXIMUM PERFORMANCE, SAFETY, AND EASE OF OPERATION**

The Cat Alarm and Protection System integrates with dual ADEM A4 engine control modules to provide redundant engine control, generator set protection, and a simple operator interface.

- 5.7 in (145 mm) color display
- User configurable alarm settings
- 15 user-selectable screen formats
- Provides true text fault codes via J1939 (eliminating cryptic readouts)
- · Allows users to select various display options
- 11 selectable languages available
- Remote Monitor Display 8.4 in color touch screen (optional)
- · Industry-standard communication protocols
- · Rigid wiring harness technology
- Fully electronic generator set implements safety alarm, derate, and shutdown in case of abnormal operation



# You Know the Drill.

And we know how to power it. On your offshore rig, you're at the mercy of a remote location, tough conditions, and the even tougher petroleum industry. But power is one thing you won't have to worry about. And the global Cat dealer network stands ready wherever and whenever you need us, so expert support is never out of reach.

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Power your way to deeper water, deeper drilling, and higher loading. Call your local Cat dealer or visit www.catoilandgasinfo.com today.

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