



The C7.1 ACERT™ Industrial Power Unit is a complete power package containing a radiator, flywheel, alternator and alternator wiring, completely pre-assembled for fast, straightforward installation in a number of OEM, customer and packager applications. These fuel efficient units are ready-made for irrigation, industrial, mining and other pump applications.

Specifications

Power Rating		
Minimum Rating	116 kW	156 bhp
Maximum Rating	205 kW	275 bhp
Rated Speed	116-205 kW/156-275 bhp @ 2200 rpm, 129 kW/173 bhp @ 2500 rpm	

Emission Standards	
Emissions	China Stage II, U.S. EPA Tier 3 Equivalent, EU Stage IIIA Equivalent. Designed to meet China Stage III emission standards.

General	
Engine Configuration	Inline 6, 4-Stroke-Cycle Diesel
Bore	105 mm (4.1 in)
Stroke	135 mm (5.3 in)
Displacement	7.01 L (427.7 in³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	16.8:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise

Power Unit Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	1728 mm (68 in)
Width	788 mm (31 in)
Height	1140 mm (44.8)



Weight - Net Dry (Standard configuration without oil, cooling, clutch, compressor, A/C)	788 kg (1737 lbs)
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Benefits And Features

Emissions

Meets China Stage II, U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. Available using U.S. EPA flex provisions and EU flex provisions, and for other regulated and non-regulated areas.

Reliable, Quiet and Durable Power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

High Performance

Simple and efficient turbocharger provides optimal air management and improved fuel efficiency.

Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications while maintaining low operating costs.

Fuel & Oil

Cat® engines are designed to accommodate B20 biofuel. Your Cat dealer can provide more information regarding fuel and oil.

Broad Application Range

Industry leading range of factory configurable ratings and options for agricultural, material handling, construction, mining, aircraft ground support, and other industrial applications.

Package Size

Exceptional power density enables standardization across numerous applications. Multiple installation options minimize total package size. Ideal for equipment with narrow engine compartments.

Quality

Every Cat engine is manufactured to stringent standards in order to assure customer satisfaction.

World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance, including SOSSM sample
- Customer Support Agreements (CSA)
- Caterpillar Extended Service Coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat Industrial Service Distributor (ISD) program



Standard Equipment

Air Inlet

- Standard air cleaners

Control System

- Full electronic control system, all connectors and wiring looms waterproof and designed to withstand harsh off-highway environments
- Flexible and configurable software features and well-supported SAE J1939 CAN bus enables highly integrated machines

Cooling System

- Top tank temperature 108° C (226° F) as standard to minimize cooling pack size
- 50:50 water glycol mix
- Cooling system designed for operation in 48 C (118 F) ambient.

Flywheels and Flywheel Housing

- Wide choice of drivetrain interfaces, including SAE No. 1, SAE No. 2, and SAE No. 3 configurations

Fuel System

- Electronic high pressure common rail
- ACERT Technology
- Innovative filter design to ensure maximum protection of the engine

Lube System

- Wide choice of sumps for different applications

Power Take Off

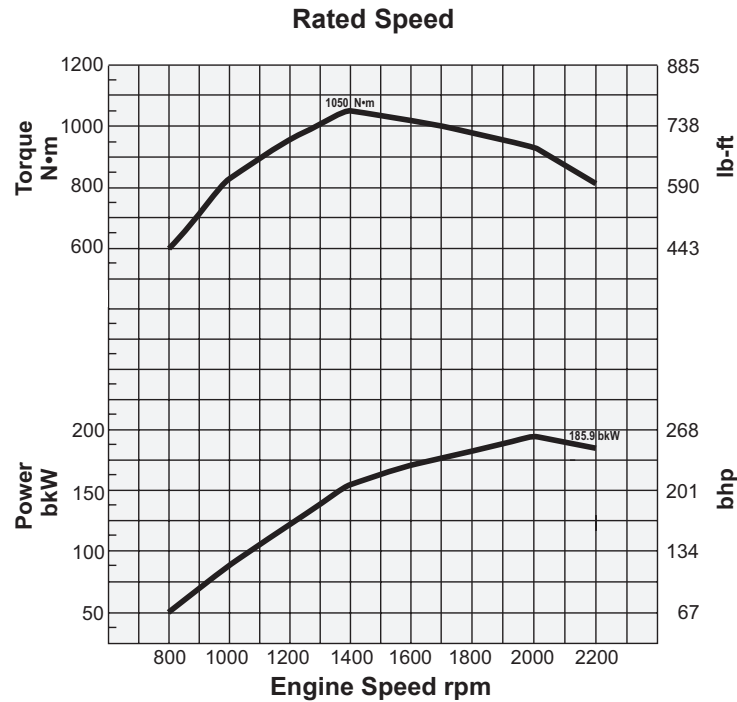
- SAE A or SAE B flanges on left-hand side. Right-hand side twin PTO also available. Engine power can also be taken from the front of the engine on some applications.

General

- Paint: Caterpillar yellow

Performance Data

Turbocharged Aftercooled – 2200 rpm

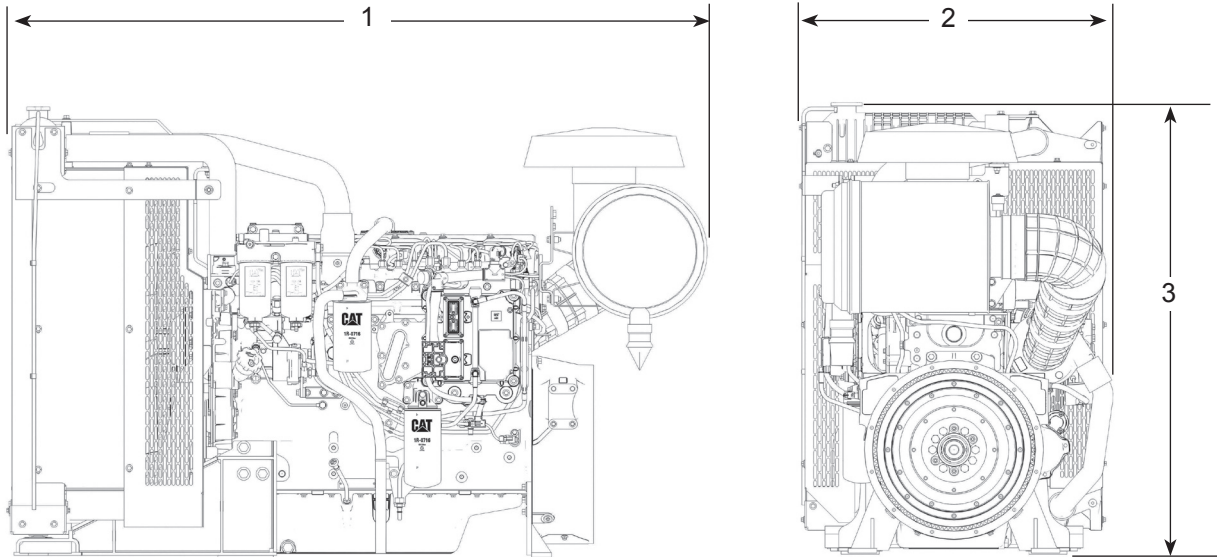


Speed Range

Rating	Speed rpm	Peak Power kW	Peak Power bhp	Speed rpm	Peak Torque N·m	Peak Torque lb-ft
C	2200	116.5	156.2	1400	706	520.7
C	2200	129.0	173.9	1400	840	619.5
C	2500	129.0	173.9	1400	840	619.5
C	2200	151.0	202.5	1400	922	680.0
C	2200	159.0	213.0	1400	975	719.1
C	2200	168.0	225.3	1400	1028	758.2
C	2200	185.9*	249.4	1400	1050	774.4
C	2200	205.0	274.9	1400	1050	774.4

*Curve shown

Dimensions



(1) Length — 1728 mm (68 in)

(2) Width — 788 mm (31 in)

(3) Height — 1140 mm (44.8 in)

Note: Final dimensions dependent on selected options

Ratings Definitions and Conditions

IND-C (Intermittent) is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Additional ratings are available for specific customer requirements. Consult your Cat dealer.

Rating Standards are based on ISO 14396: 2002. Production Tolerance On Power Output: +5%, -5%. Total Barometric Pressure (kPa): 100. Vapor Pressure (kPa): 1. Air Inlet Temperature (°C): 25.

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Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

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