

HITACHI

Reliable solutions

EX-
7



ELECTRIC
DRIVE HYDRAULIC
EXCAVATOR



EX2000-7E | EX2600-7E | EX3600-7E | EX5600-7E | EX8000-7E



ELECTRIC



ENVIRONMENTALLY FRIENDLY



REGENERATIVE



PRODUCTIVE



SAFE

Introducing the Electric EX-7

The all new, next generation EX-7E (Electric) excavator series combines the benefits of a sophisticated, environmentally conscious design with enhanced performance features to achieve greater mining value for customers.

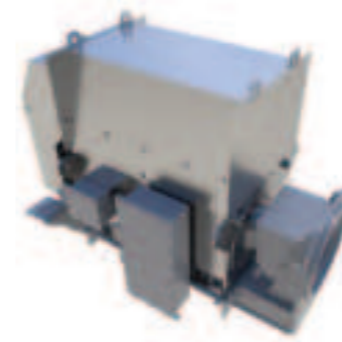
Designed
to meet
any mining
challenge.



Designed for Sustainability

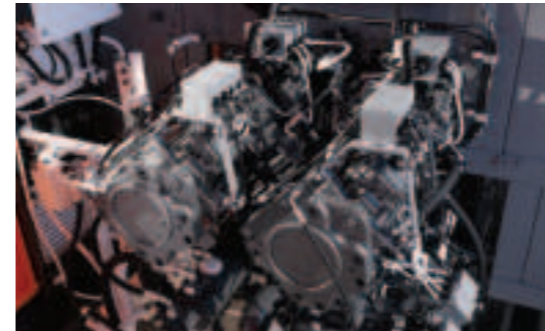
We want to help our customers reduce their environmental impact by providing emission-free mining equipment designed with future generations in mind.

Lower energy consumption is just one of the many advantages of the EX-7E excavator series (compared to EX-6E), thanks to a host of improved features: living proof that machines shouldn't have to sacrifice performance to be sustainable.



⚡ Main Motor

The EX-7E is electric motor-driven, so there is no diesel engine, eliminating the need for diesel fuel that significantly contributes to greenhouse gas emissions. Powering with electricity means no exhaust gas and less noise and vibration from the machine.



⚡ Main Pump Electric Regulators

Each individually controlled hydraulic pump has its own electric regulator that enhances energy efficiency and contributes to greater productivity and lower operating costs.

⚡ Cubicle

The main functions of the cubicle are:

1. Main switch for high voltage electric current
2. Reduction of motor starting current
3. Electricity transformer, 6 600-6 900 V, 7 200 V to 210 V, 110 V and 24 V
4. Electrical fault protection.

♻️ Hydraulic Regeneration Circuit

The boom regeneration valve fitted to the hydraulic system reduces pump demand, ultimately reducing power requirements from the hydraulic system and motor. The result is lower energy consumption and improved pump life.

♻️ Hydraulic Oil Cooler

A larger hydraulic oil cooler with variable speed fan reduces energy demand and creates a more reliable hydraulic system.

Hitachi AC Electric Motor

The EX-7E electric excavator utilizes the Hitachi AC electric motor – technology that's been designed and manufactured in-house by Hitachi Group and Hitachi Construction Machinery Group.

EX2000-7E

50 Hz, 6 000 V / 6 600 V, 610 kW (829 PS, 818 HP)

60 Hz, 6 600 V / 6 900 V, 610 kW (829 PS, 818 HP)

EX2600-7E

50 Hz, 6 000 V / 6 600 V, 860 kW (1 169 PS, 1 153 HP)

60 Hz, 6 600 V / 6 900 V, 860 kW (1 169 PS, 1 153 HP)

EX3600-7E

50 Hz, 6 000 V / 6 600 V, 1 200 kW (1 632 PS, 1 609 HP)

60 Hz, 6 600 V / 6 900 V, 1 200 kW (1 632 PS, 1 609 HP)

EX5600-7E

50 Hz, 6 000 V / 6 600 V, 2 x 860 kW (1 169 PS, 1 153 HP)

60 Hz, 6 600 V / 6 900 V, 2 x 860 kW (1 169 PS, 1 153 HP)

60 Hz, 7 200 V, 2 x 860 kW (1 169 PS, 1 153 HP)[†]

EX8000-7E

50 Hz, 6 000 V / 6 600 V, 2 x 1 200 kW (1 632 PS, 1 609 HP)

60 Hz, 6 600 V / 6 900 V, 2 x 1 200 kW (1 632 PS, 1 609 HP)

60 Hz, 7 200 V, 2 x 1 200 kW (1 632 PS, 1 609 HP)[†]

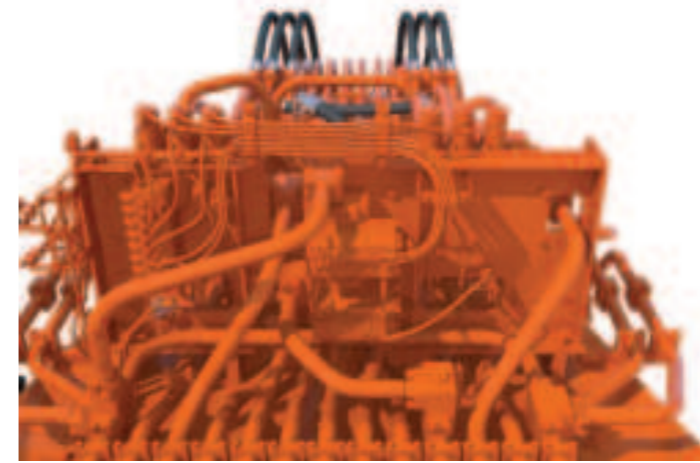
[†]Canadian Standard Association (CSA) specification

Designed for Environmental Benefits

As industry pioneers in mining excavators, Hitachi Construction Machinery continues to innovate and lead the way in sustainable mining machinery on our road to zero emissions.

Powered by the Hitachi AC electric motor which is driven by an external energy source, the EX-7E excavator series with improved features will help lower greenhouse gas emissions without compromising on performance, productivity or reliability. These are the proven advantages our customers have come to expect from more than 70 years of innovation from Hitachi Construction Machinery.

The EX-7E excavator series is engineered with the latest design and technological advancements to offer exceptional environmental benefits. Not only do these machines utilize a greener energy source, they also consume less energy, help to minimize waste, and reduce carbon emissions. These achievements align with our vision for a zero emission mining future.



Lower Environmental Impact

We strive to continually innovate and create better machines for our customers and the environment. The EX-7E offers lower energy consumption (compared to the EX-6E model) thanks to new energy-saving hydraulic features:

- main pump electronic regulators
- boom lower operation with regeneration circuit
- efficient cooling package.

These features offer significant environmental advantages without compromising productivity while increasing the machine's energy efficiency.

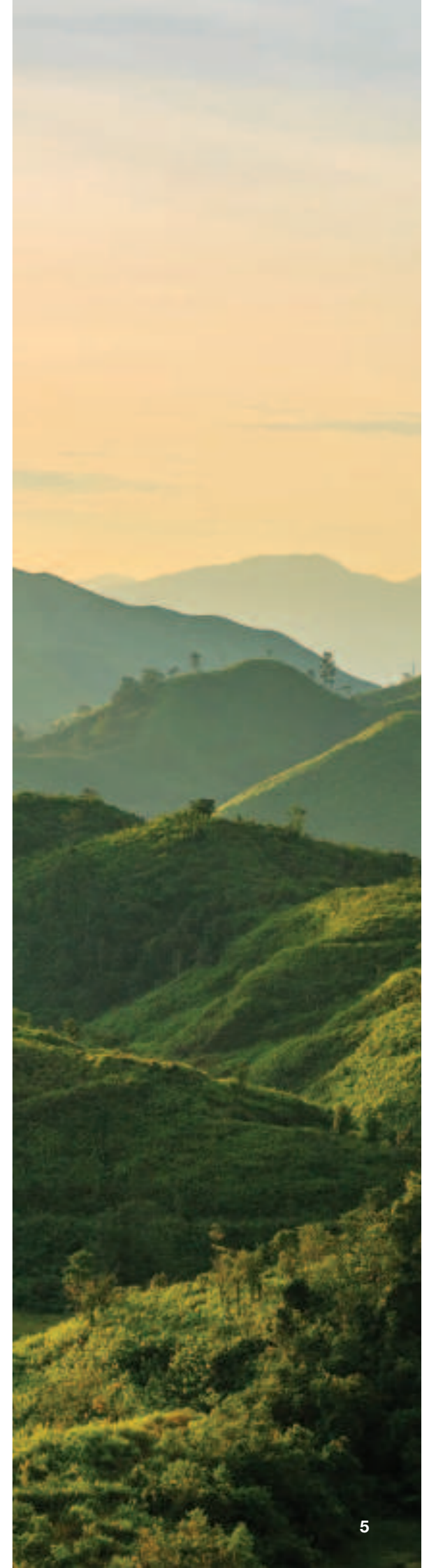


Zero Emissions

Hitachi Construction Machinery electric excavators are an eco-friendly alternative to diesel excavators. Utilizing electricity as a power source leads to lower CO₂ emissions and reduces overall environmental impacts, showcasing Hitachi Construction Machinery's environmental commitments and helping the industry achieve carbon emissions reduction targets.

Reduction in Waste

With no engine, there's no need for continued maintenance or replacement of parts such as air, oil and fuel filters, engine oil or coolant. Reducing our reliance on consumables leads to improved environmental practices and reduced maintenance costs.



Designed for Production and Cost Optimization

The EX-7E offers a host of advantages to ensure superior performance and consistently impressive output for mining operations.

Featuring leading-edge technology, the EX-7E excavators are designed to maximize productivity while providing greater cost optimization benefits to help reduce operating costs over the life of the machine.



Increased Productivity

Productivity is improved because there is no downtime for fueling, engine and radiator maintenance or engine overhaul.

Cleaner, Cheaper Power Source

In many regions around the world, the cost of electricity is generally cheaper than diesel fuel. Utilizing electricity as a power source and using an efficient main motor adds even further cost savings, helping to optimize mining operations while reducing impacts on the environment.



Reduction of Running Costs

Running costs are reduced by eliminating the need for engine overhaul, engine maintenance and consumables such as engine oil filters. The use of electricity as a power source and an efficient main motor also contribute to lower running costs.

Designed for Safety

Safety is Hitachi Construction Machinery's ultimate priority, evident in the new safety features onboard our EX-7E excavators.

Features include an independent disconnection switch with interlocking system and prevention of three-phase relay misconnection – now standard – enhancing the safety credentials of our excavator range.



Disconnecting Switch

NEW FEATURE – DESIGNED FOR EX-7E

The disconnecting switch is now located in the motor room, separated from the high-voltage equipment inside the cubicle. Placed inside a dedicated box, the relay can be viewed from the outside through the inspection window.

Interlocking System

An interlocking system is now available for placement between the disconnecting switch and the cubicle to further safeguard against incorrect operation, allowing for safer maintenance.

Low Noise Level

NEW FEATURE – DESIGNED FOR EX-7E

The EX-7E series produces less noise and vibrations in operation than diesel models, making them an ideal option for noise-sensitive areas.

High Voltage Ground Fault Check

This function can detect ground faults by monitoring the current between the main motor and cubicle, ceasing supply to the main motor where an anomaly is detected.

Three-Phase Relay

NEW FEATURE – DESIGNED FOR EX-7E

The EX-7E three-phase relay features a single socket connection point, significantly reducing the risk of misconnection. If the relay – located within the control panel's inner cubicle – detects an error (e.g. "overcurrent", "open phase" or "reverse phase"), the main motor will stop, triggering a warning to display on the monitor.



Aerial Angle (Optional)

Aerial Angle provides the operator with a 360-degree live view around their excavator. Cameras strategically mounted on the machine generate a single aerial view of the machine's surroundings. Multiple screen display options can be selected on the cab's 12-inch Aerial Angle monitor for ease of operation.



Designed for Reliability

Hitachi produced its first electric motor in 1910 and is currently one of the biggest industrial electric motor suppliers in the world, showcasing our proven, trusted design and longstanding environmental commitment.

Hitachi Construction Machinery has a reputation for producing reliable, advanced products with a proven track record across many industries. The following electrical components found in the EX-7E series are designed and engineered by Hitachi Construction Machinery, demonstrating our longstanding commitment to engineering excellence:

- main motor
- cubicle
- slip ring.

Updated Hydraulics

The flow regeneration valve fitted to the hydraulic system reduces pump demand, ultimately reducing power requirements from the hydraulic system, leading to overall environmental benefits.

Pressurized Cubicle

The sealed and pressurized cubicle with air filters prevents dust and debris from entering, offering improved life of electrical components and controllers, thereby improving the overall reliability of the machine.



Increased Transformer Capacity

Originally 30 kVA in the EX-6E, the transformer has been increased to 50 kVA in the EX-7E for both cold weather and optional power supply, ultimately increasing the transformer's usability.

Electricity Consumption Monitoring

Electricity can now be recorded via a watt meter, allowing the operator to better understand the electricity consumption during operation and service personnel to check electricity levels during maintenance.

210 VAC Power Supply

A 210 VAC (AC Power) power supply can be installed between cubicle and other electrical components simply by connecting the cubicle wall. Providing a capacity of 3 kW/8.7 A and 3-pin connector outlet, it can provide power to any small device.

Cubicle Indoor Temperature Monitoring

This newly incorporated function of the EX-7E series monitors the conditions inside the cubicle. When the temperature in the cubicle reaches below -10 °C (14 °F), the operator is alerted to turn on the heater switch to maintain the machine's operability.



Contact your local Hitachi Construction Machinery dealer

to find out
more about our
electric excavators

www.hitachicm.com



Specifications

	EX2000-7E	EX2600-7E	EX3600-7E	EX5600-7E	EX8000-7E
Power Output	610 kW (829 PS, 818 HP)	860 kW (1 169 PS, 1 153 HP)	1200 kW (1 632 PS, 1 609 HP)	2 x 860 kW (1 169 PS, 1 153 HP)	2 x 1200 kW (1 632 PS, 1 609 HP)
Loading Shovel Bucket ISO 7546:1983	12.0–13.5 m ³ (15.7–17.7 cu. yd.)	15.0–16.5 m ³ (19.6–21.6 cu. yd.)	22.0–24.0 m ³ (28.8–31.4 cu. yd.)	29.0–31.0 m ³ (38.0–40.5 cu. yd.)	43.0–45.0 m ³ (56.2–58.9 cu. yd.)
Backhoe Bucket ISO 7541:2007	12.0–14.0 m ³ (15.7–18.3 cu. yd.)	18.0–19.5 m ³ (23.5–25.5 cu. yd.)	22.0–24.0 m ³ (28.8–31.4 cu. yd.)	36.0–38.5 m ³ (47.1–50.4 cu. yd.)	48.0–52.0 m ³ (62.7–68.0 cu. yd.)

Before using a machine with a satellite communication system or telecommunication system, please make sure that the satellite communication system or telecommunication system complies with local regulations, safety standards and legal requirements. If not so, please make modifications accordingly.

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation. The machines shown in this brochure are so positioned for the sake of demonstrations. When leaving the machine, be sure to rest the bucket on the ground.

