



# Cranes Power, Control and Automation application solutions

# One source for all your industrial product needs.

## Complete crane technology solutions from one company

ABB has developed a comprehensive range of fully integrated crane technology solutions including AC and DC drives, control systems and safety engineering. We offer a unique capability for customers to meet all their crane automation requirements from a single, high quality manufacturer.

This also comes with the complete global technical, application and service support provided by our local skilled and experienced engineers who understand the particular demands and challenges of the crane industry. The ABB crane portfolio is further enhanced by specific solutions, such as remote monitoring and predefined application control programs for cranes, along with engineering and software development support.

## How ABB can help you

### Application solutions

- Crane control programs
- Torque memory
- Brake control and monitoring
- Indoor sensorless anti-sway control

### Productivity

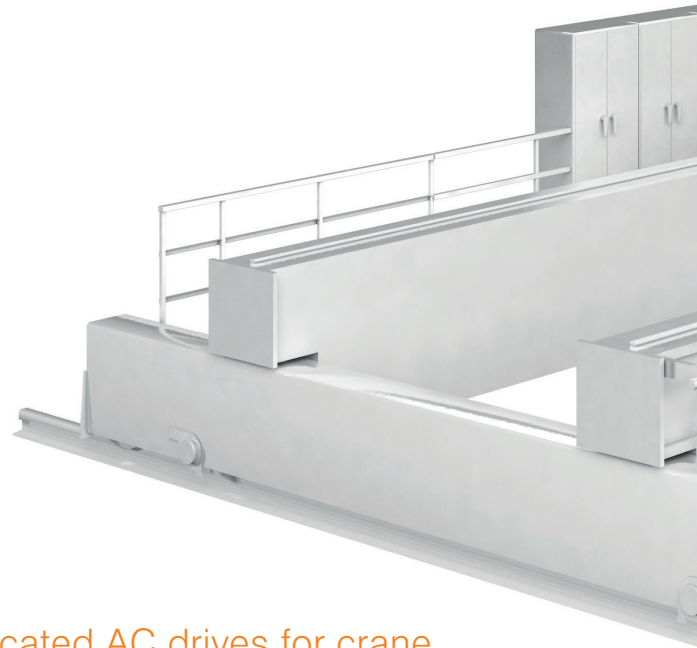
- Energy efficient drives and motors
- High availability
- Load speed control

### Easy to use

- Engineering tools
- Ready-made user macros
- Crane system check
- Commissioning assistant, for specific applications

### Service

- Remote access, for diagnostic support
- Service metering
- Global life cycle support
- Global availability of spare parts



Dedicated AC drives for crane applications. Inverter controls are standard for crane and trolley travelling.

When used with the ABB industrial drive range - rated from 0,55 to 5.600 kW, (230 to 690 V) - ABB's crane control program brings a series of functions to the hoist, trolley and long-travel movements of cranes. Eliminating the need for an external PLC, the program incorporates all the functions commonly required in crane applications and enables stepless speed and torque control in:

- Industrial cranes
- Harbor cranes
- Tower cranes
- Marine and deck cranes

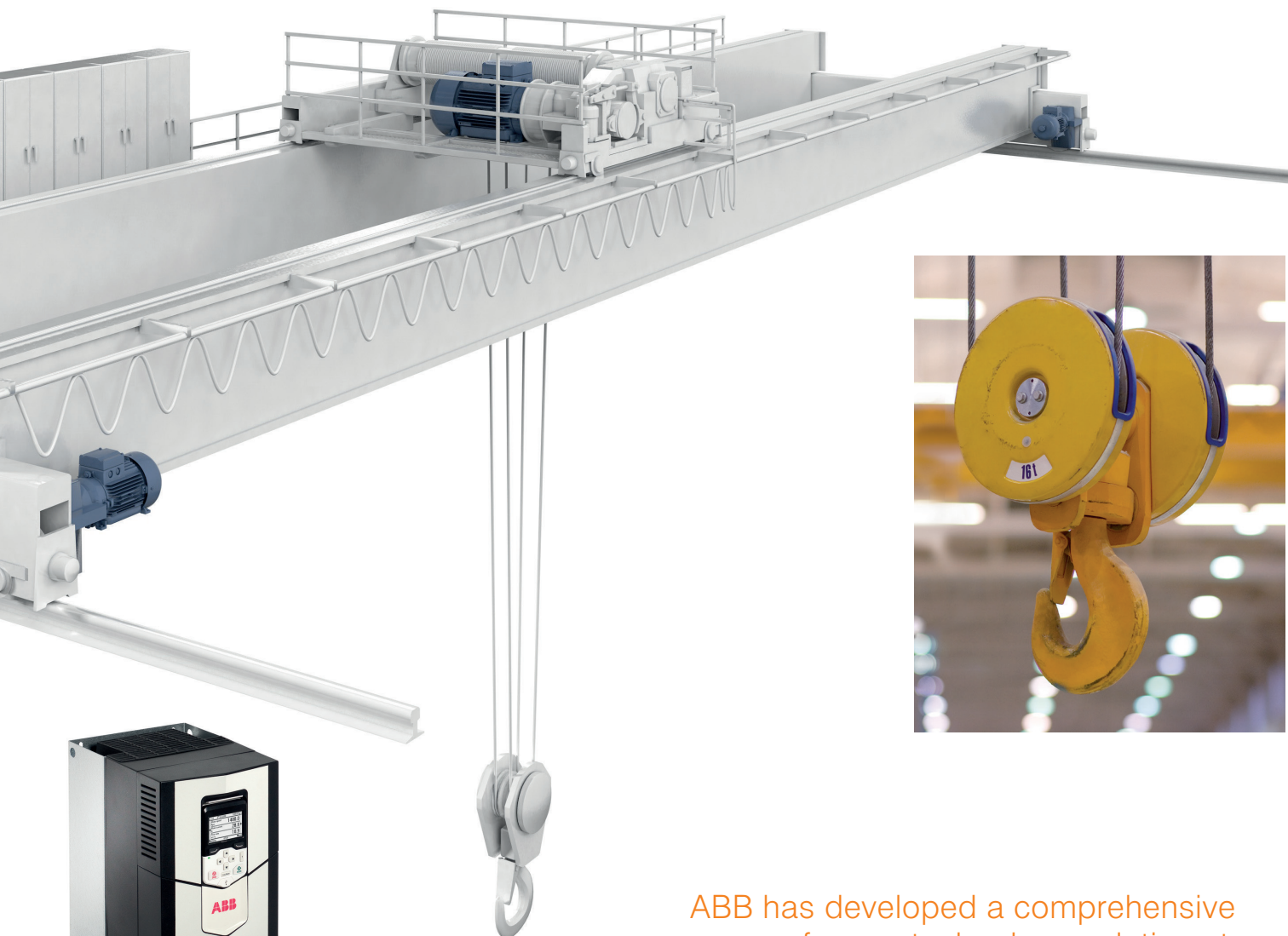
Speed control of a crane plays an essential role in making material handling safer and more effective. ABB Inverter controls deliver smooth starts, acceleration and deceleration, which minimizes load swing and enables fast and accurate load positioning. Smooth starts and stops also reduce wear and mechanical stresses on crane and building structures.

- Standalone and master-follower control
- Redundancy with crane control program
- Crane system check
- Antisway control
- Flexible control platform
- Mechanical brake control and torque memory
- Adaptive programming
- Load speed control
- Safety control
- Speed monitor and speed matching

## Regenerative drives

By using an ABB regenerative drive, the energy can be fed back into the electricity grid rather than be dissipated to the atmosphere.





The wall-mountable ABB industrial drives with built-in crane control software and range of safety functions give you the flexibility to meet your crane control needs.

ABB has developed a comprehensive range of crane technology solutions to various application needs.

- Safety
- Performance
- Efficiency
- Speed

Everything counts in your demanding process.

## Extend the control

Our AC500 range of PLC's give you freedom and flexibility to develop crane solutions when a PLC is needed.

- Use our Automation Builder software suite to develop and configure your solutions. Automation Builder lets you program multiple ABB devices such as PLC's, drives and HMI's.
- Extend inputs or outputs and communication options to adapt to your specific needs



# One source for all your industrial product needs.

ABB has a comprehensive range of high performance products dedicated to crane applications.

We provide drives, motors, and mechanical power transmission products, services and expertise to improve customers' processes and optimize the total cost of ownership over the total life cycle of our products and beyond.

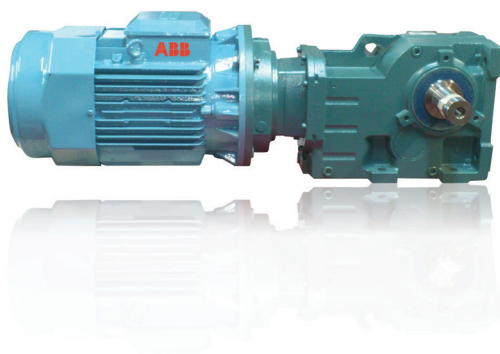
## Optimized cost of ownership. See all the hidden costs without paying any.

To see the real cost of a system, you have to look beyond the purchase price. You also need to take into account the cost of running and the cost to your business when it is not running. The figure you get is the total cost of ownership, ie the true price you pay for owning a system. It's not difficult to calculate and the results can be surprising.

$$\text{Cost of ownership} = \text{Purchase} + \text{Cost of running} + \text{Cost of not running}$$


An even more eye-opening figure is the cost of ownership ratio. This shows the relationship between the purchase price and total cost of ownership.

$$\text{Cost of ownership ratio} = \frac{\text{Purchase}}{\text{Cost of ownership}}$$



## Mechanical power transmission products

With Dodge® mechanical power transmission products, you get more than just power. You get the widest range of mechanical products available – plus the added assurance of a reliable partner dedicated to responsive service and complete support. For well over a century, Dodge products have helped manufacturers in numerous industries increase the productivity and profitability of their operations. By focusing on each industry and concentrating on its specific needs, we have developed innovative product solutions and advanced technologies that help improve output, decrease downtime, and enhance system value. Only ABB offers you a total mechanical power transmission solution: rugged, reliable products with patented features along with experienced field experts.

## Robust construction; fine graduation

ABB is proud to now offer the complete line of Dodge® mechanical gearing products. These gear products are manufactured to meet a specific need. Regardless of industry or environment, ABB offers a gearing solution that fits your needs. In terms of greater cost savings, extended life, and maintenance-free operation, there is no competition.



## EU MEPS

### Efficiency requirements for low voltage motors

Europe takes the second step of Motor regulation  
EC640/2009

### IE3 Motors become compulsory!!!

From January 1, 2015 Europe joins the club of energy efficiency forerunners making IE3 the compulsory minimum efficiency requirement for Direct On Line fed motors from 7,5 kW up to 375 kW. Alternatively an IE2 motor can be placed on the market when that is fed through a variable speed drive.

To place of an IE2 motor on the market requires also specific markings about the compulsory need to be driven by a drive. The marking will be done by means of a sticker, that all the European motor manufacturers (being part of CEMEP) have agreed to use. This way of marking is also validated by the Commission as the original regulation requires marking on the motor rating plate.



### ABB Process Performance Motors

- Motors for the most demanding continuous process applications
- Tailor-made to meet the individual needs of applications
- Prepared to answer for any reliability, availability and energy efficiency challenge-both now and in the future.

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