ABB DC Drives

DCS 600 CraneDrive

Standard ready-to-use
crane drive product
22 to 5150 A, 10 to 4900 kW

The cost-effective crane drive with safety and performance fitted as standard.

DCS 600 CraneDrive

ABB's dedicated crane drive offers a standard range of functions, which ensure safer and faster crane operation for both 'stand alone' and 'field bus' controlled drive configurations.

Benefits from proven crane software & drive hardware.

Available for both DCS 600 modules and DCA 600 enclosed converters..

DCS 600 CraneDrive benefits:

- Wide power range.
- Ready-to-use with proven modular crane functionality.
- Easy installation and start-up reduces total project costs.
- Smooth crane operation reduces damages.
- Rapid torque response increases operational productivity.
- Compact and lightweight converter modules.
- Small size and weight of the DC motor.
- Low inertia of the DC motor.
- Cost effective refurbishment of existing DC based installations.
- Common control and monitoring structure with ACS 600 CraneDrive.
- Skilled local support engineers available in many countries worldwide.

Flexible User Interface

Joystick Interface. For control from a driver's cabin with step or continuous speed reference.

Pendant Control. For low speed cranes controlled from ground level with step button or motorised potentiometer reference.

Radio Control. For cranes controlled from ground level with step or continuous speed reference.

Fieldbus Communication. Interfaces with popular fieldbus modules for PLC control of the crane drive.

Limit Switch Supervision. Interfacing of limits and ultimate limits to ensure the crane functions within a safe envelope.

Optimal Operational Safety

Mechanical Brake. Controls and supervises the opening and closing of the brake.

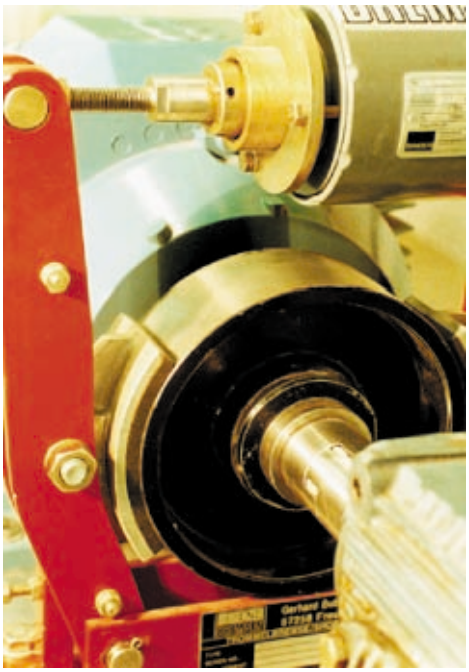
Fast Stop. Stops the drive as fast as possible. When stopped, movement in the opposite direction to the fault is possible e.g. external detection for overload or slack rope.

Torque Proving. Ensures that the motor is able to produce torque before brake is lifted.

Speed Monitor. Supervises actual motor speed to be within given limits. It also detects overspeeds and zero speed for control interlocks.

Torque Monitor. Supervises the correlation between requested speed & actual motor speed and direction.

Fault Handling. Monitors internal faults, identifies possible causes and presents fault history.



Outstanding Crane Drive Performance

Start and Stop. Supervising and control logic for starting and stopping the drive, including torque proving.

Speed Reference. Individual settings of acceleration and deceleration ramp times. For smooth load handling and reduction of 'shock' loading.

Speed and Torque. Ensures a minimum variation of speed independently of the load.

Torque Memory. Presetting of torque when starting the hoist with suspended load. The risk of load drop is thereby minimized.

Power Optimization. Automatic field weakening of hoist drive. Ensures maximum hoist speed relative to the load and thus optimizes cycle times.

Master Follower. Facilitates load sharing of two motors on the same shaft. Can also be used when dual-redundancy is required.

Speed Correction. Co-ordination of two drives from external control system. Input for correction of speed error when used in synchronized operations.

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