LOW VOLTAGE AC DRIVES

ABB drives for cranes

ACS380, 0.25 to 22 kW/0.37 to 30 hp

Designed to move your overhead and tower cranes reliably day after day.

All built-in for efficient overhead and tower crane movements
The drive includes built-in control for hoist, trolley and long travel/slew movements and the essential functions for typical crane applications. It works precisely both in open and closed loop configurations, and includes sensorless antisway for indoor crane travel movements.

Reliable operation
With their coated circuit boards, 50 °C ambient rating and advanced cooling system, ACS380 drives are made to last even in demanding atmospheres.

A lot packed into a compact unit
The drive includes an integrated brake chopper for dynamic braking and safe torque off (SIL 3) as standard. The drive can be installed in a crane cabinet either to a DIN rail or with a screw installation.

ENGINEERED
TO OUTRUN

Technical data

Voltage and power range	1-phase, 200 to 240 V, +10%/-15%, 0.25 to 3 kW 3-phase, 200 to 240 V, +10%/-15%, 0.25 to 15 kW 3-phase, 380 to 480 V, +10%/-15%, 0.37 to 22 kW Available in frame sizes R0-R4 Built-in braking chopper and common DC connection with internal charging circuit
Frequency	50/60 Hz ±5%
Degree of protection	IP20 as standard (Optional UL type 1 kit)
Operating temperature	-10 to +50 °C (14 to 122 °F), up to +60 °C (140 °F) with derating (except R0)
Altitude	230 V units: 0 to 2000 m above sea level (with derating above 1000 m) 400 V units: 0 to 4000 m above sea level (with derating above 1000 m, see manual for usage restriction at 4000 m)
Compliance	CE, RoHS, UL, cUL, EAC, KC, RCM, TÜV certification (safety functions)
Safety	Safe torque off (STO) acc. to EN/IEC 61800-5-2: IEC 61508 ed2: SIL 3, IEC 61511: SIL 3, IEC 62061: SIL CL 3, EN ISO 13849-1: PL e
Safety functions module	FSPS-21 PROFIsafe over PROFINET IO
EMC	EMC category C2 (200 V & 400 V) or EMC category C4 (200 V) and C3 (400 V), according to EMC Directive 2014/30/EU, EN 61800-3:2004 + A1 2012
User interface	Integrated, icon-based control panel
Drive programming	Adaptive programming
Motor control	Vector and scalar, both in open or closed loop
Crane interface variants	IO controlled crane drive: 4 DI + 2 DI/DO + 2 AI + 1 AO + 1 RO + STO, Embedded modbus Fieldbus controlled crane drive: 2 DI + 1 RO + STO + one fieldbus
I/O option modules	BTAC-02 HTL/TTL encoder interface + External 24 V DC (side option) BAPO-01 External 24 V DC (side option) BIO-01 I/O Extension module (front option)

ACS380 – part of ABB's all-compatible crane drives portfolio

Why select ABB's all-compatible crane drives?

- The ACS380 and ACS880 drives give the same user experience
- Possibility to use same assistant control panel or PC tool
- Adaptive block programming for extended crane functionality

Works with following crane interfaces

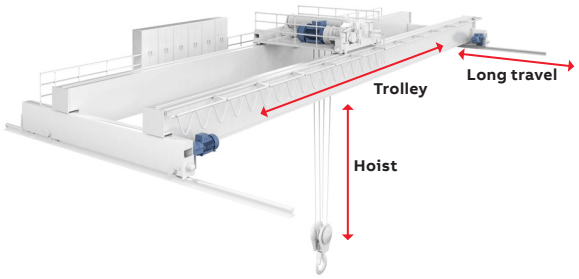
- Joystick
- Pendant controller
- Motor potentiometer
- Fieldbus control

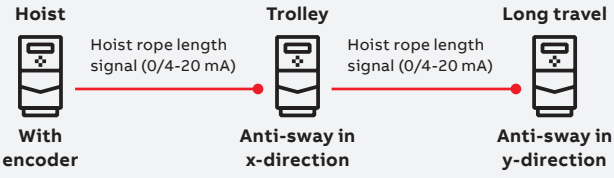
Built-in crane application includes

- Slowdown logic
- End limit logic
- Fast stop function
- Mechanical brake control
- Adaptive programming based sensorless antisway for indoor cranes

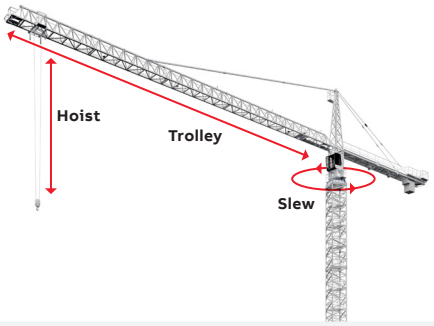
ACS380 supports the optional +N5050 Anti-sway Crane Control firmware, enabling automatic load-sway reduction, improved handling precision, and enhanced travel performance for trolley and long-travel motions on indoor EOT cranes.

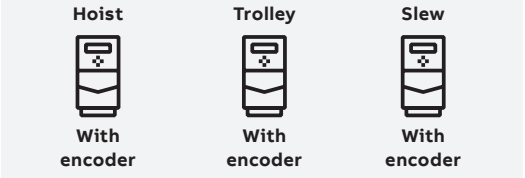
Indoor electric overhead traveling cranes





Outdoor tower cranes





Learn more from ABB crane drives web page

For more information please contact your local ABB representative or visit

new.abb.com/drives/cranes
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