

LOW VOLTAGE AC DRIVES

ABB drives for cranes

ACS380, 0.37 to 22 kW



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.

● **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.



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 Built-in braking chopper and common DC connection with internal charging circuit
Frequency	50/60 Hz ±5%
Degree of protection	IP20 as standard (UL open type)
Ambient conditions	-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, EAC, CSA, TÜV NORD
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
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

Ordering variants



IO controlled crane drive

4 DI + 2 DI/DO + 2 AI + 1 AO + 1 R0 + STO
Embedded modbus

Options:

- One of following side extension options
 - HTL/TTL encoder & ext. 24 V DC supply
 - 4 × relay output module
 - External 24 V DC supply



Fieldbus controlled crane drive

2 DI + 1 R0 + STO + one preconfigured fieldbus

Options:

- Fieldbus options
PROFIBUS, PROFINET, EtherNet/IP™, Modbus TCP/IP, EtherCAT®, POWERLINK, DeviceNet™, CanOpen®
- One of following side extension options
 - HTL/TTL encoder & ext. 24 V DC supply
 - 4 × relay output module
 - External 24 V DC supply
- One front extension I/O option
can be used together with fieldbus
3 DI + 1 DO + 1 AI

Learn more from ACS380 product catalog



For more information contact your local ABB representative or visit:

www.abb.com/drives/cranes
www.abb.com/drivespartners

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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
- And much more

Robust design

- Advanced cooling system
- Earth fault protection based on three-phase current measurement

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