

CANADIAN PANORAMA

ABB all-compatible drives

ACS180, ACS380, ACS580, ACS880

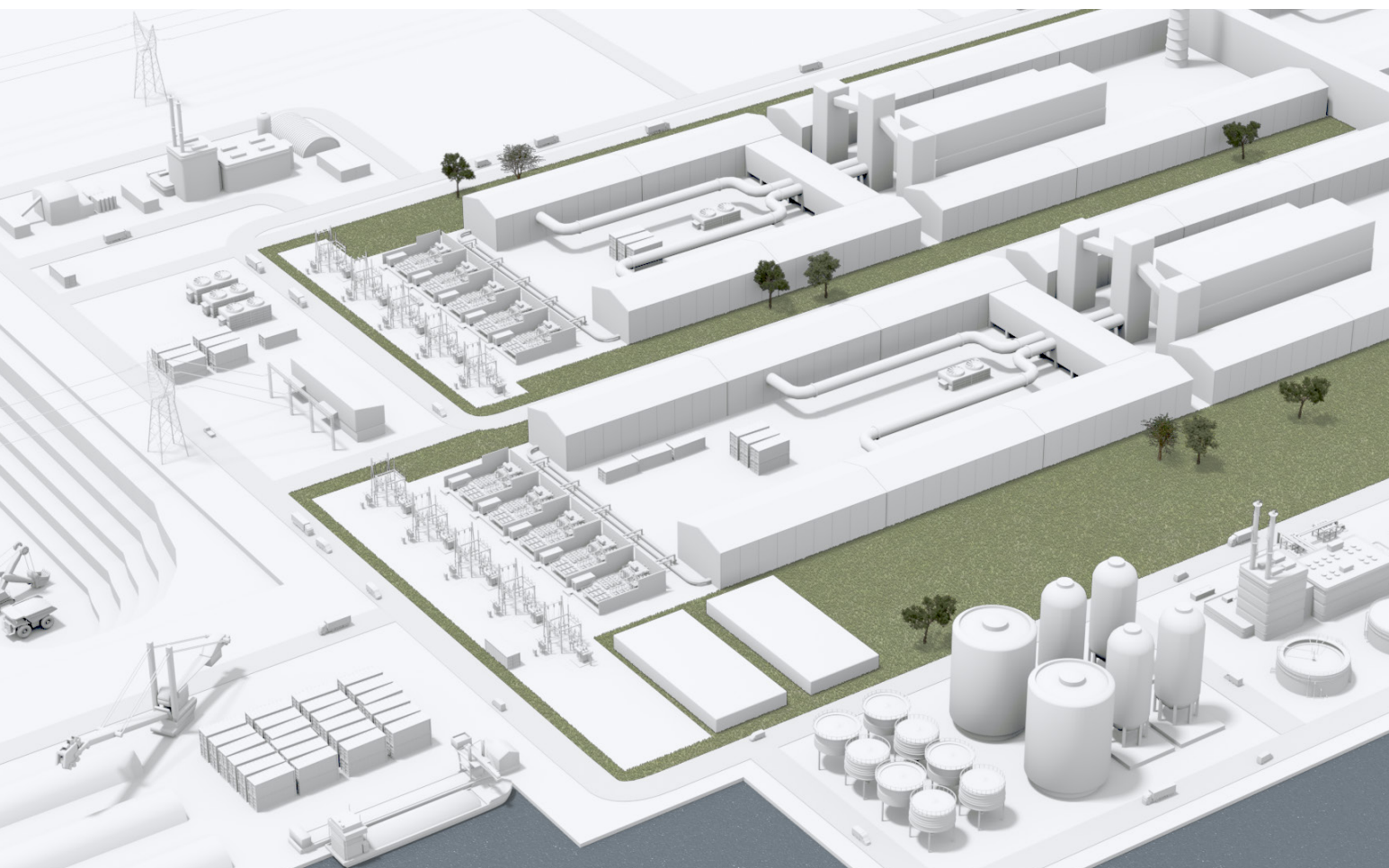


ABB all-compatible drives

Overview



ACS180-04S

ACS380-04x

ACS580-01

ACS880-01

All-compatible drives – ACSx80 family

Key features

All-compatible user interface saves commissioning and learning time

The ACS880 is part of ABB's all-compatible drives portfolio. Other drives in this portfolio are the ACS180, ACS380 and ACS580. These drives share the same easy-to-use PC tools and multilingual control panels. To further enhance the user experience, they also have the same parameter structure, which saves time on commissioning and learning. The drives also share the same communication options, simplifying the use of drives and spare parts handling.

Simplicity at your fingertips as standard

The control panel's assistants and preprogrammed application macros help you set up the drive quickly and effectively. The intuitive, high-contrast, high-resolution display offers easy navigation in multiple languages. The PC tool for commissioning and configuration provides extensive drive monitoring capabilities and quick access to drive settings, as well as features such as a graphical interface for configuring safety functions, visual control diagrams, and direct links to user manuals.

Common PC tools

Drive Composer is a start-up and maintenance tool for ABB's common architecture drives. The tool is used to view and set drive parameters, and to monitor and tune process performance. The entry version is available for free and can be downloaded online.

Machinery drive – ACS180-04S

Key features

- Versatile integrated features : EMC filter, STO, user panel, Modbus RTU
- Open loop-vector control (dual ratings)
- Support AM & PM motors
- UL, cUL certification (UL61800-5-1)

Main benefits

- All essentials built-in
- Same user interface as ACS380/580/880
- Optimized for compact machines

Machinery drive – ACS380-04x

Key features

- Factory configured fieldbus communications for OEMs
- Built-in brake chopper as standard
- Integrated STO (Safe Torque Off - Sil3, PLe)
- Cold Configurator Adapter
- UL, cUL certification (UL61800-5-1)

Main benefits

- Optimized machine control
- Ease of integration
- Adaptable to your needs
- Decreased installation volume

General purpose drive – ACS580-01

Key features

- Base drive for the 580 portfolio
- UL(NEMA) Type 1, 12
- NEMA 12 footprint same as NEMA 1
- SCCR rating: 100kA with fuses
- DC Swinging Choke technology to mitigate harmonics
- EMC C2 filters for 1st environment installations
- Integrated STO (Safe Torque Off - Sil3, PLe)
- UL61800-5-1/CSA C22.2 NO.274 (cUL/CSA listing)

Main benefits

- Energy savings
- Faster start-up/commissioning
- Easy monitoring and maintenance

Packaged drive – ACS580-0P

Key features

- Input disconnect switch and fast acting fuses
- Optional input circuit breaker (+F255)
- UL(NEMA) Type 1, 12 and 3R
- Door-mounted input disconnect (padlockable in the OFF position).

Main benefits

- Compact design for easy installation, commissioning and maintenance

Industrial drive – ACS880-01

Key features

- Enclosure classes: IP20 for cabinet mounting, IP21 (NEMA 1) for wall-mounting and IP55 (NEMA 12) for dusty and wet environments
- Integrated STO (Safe Torque Off - Sil3, PLe)
- UL61800-5-1/CSA C22.2 NO.274 (cUL/CSA listing)
- Removable memory unit
- Functional safety modules for machinery safety
- Fieldbus adapter modules
- IEC-PLC-like programming
- Application-specific software
- Low harmonic variant

Main benefits

- Drive/communication flexibility, compatible with most major connectivity solutions
- Ensures machine and personnel safety
- Access drive status from anywhere
- Provides historical information on your system
- Global availability and support

Drive electrical ratings

Light duty

HP*		0.5	0.75	1	1.5	2	3	5	7.5	10	15	20	25
ACS180-04S	208/230V***	02A4	03A7	04A8	06A9	07A8	09A8 ³⁾	17A5	25A0	032A	048A	055A	
	460 V		01A8	02A6	03A3	04A0 ³⁾	07A2	09A4	12A6	17A0	25A0	033A	038A
ACS380-04x	208/230V***	02A4	03A7	04A8	06A9	07A8	09A8 ³⁾	17A5	25A0	032A	048A	032A	
	460 V		01A8	02A6	03A3	04A0 ³⁾	07A2	09A4	12A6	17A0	25A0	032A	038A
ACS580-01	208/230V			04A6	06A6	07A5	10A6	017A	024A	031A	046A	059A	075A
	460 V			02A1	03A0	03A5	04A8	07A6	012A	014A	023A	027A	034A
	575V					02A7	03A9	06A1	09A0	011A	017A	022A	027A
ACS580-0P	208/230V			04A6	06A6	07A5	10A6	017A	024A	031A	046A	059A	075A
	460 V			02A1	03A0	03A5	04A8	07A6	012A	014A	023A	027A	034A
	575V					02A7	03A9	06A1	09A0	011A	017A	022A	027A
ACS880-01	208/230V			04A6	06A6	07A5	10A6	16A8	24A3	031A	046A	061A	075A
	460 V			02A1	03A0	03A4	04A8	07A6	11A0	014A	021A	027A	034A
	575V							07A4	09A9	14A3	019A	023A	027A

Light duty

HP*		30	40	50	60	75	100	125	150	200	300	350
ACS180-04S	208/230V											
	460 V	045A ³⁾										
ACS380-04x	208/230V											
	460 V	045A ³⁾										
ACS580-01	208/230V	088A	114A	143A	169A	211A	273A	343A**	396A**			
	460 V	044A	052A	065A	077A	096A	124A	156A	180A	240A	361A	414A
	575V	032A	041A	052A	062A	077A	099A	125A	144A	192A	271A ¹⁾	
ACS580-0P	208/230V	088A	114A	143A	169A	211A	273A					
	460 V	044A	052A	065A	077A	096A	124A	156A	180A	240A		
	575V	032A	041A	052A	062A	077A	099A	125A	144A			
ACS880-01	208/230V	087A	115A	145A	170A	206A	274A					
	460 V	040A	052A	065A	077A	096A	124A	156A	180A	240A	361A	414A
	575V		035A	042A	061A	084A	098A	119A	142A	174A	271A ¹⁾	

*Ratings are according to the standard UL (NEC) table, please check with local ABB representative for specific sizing requirements.

**Available in North America only; cULus listed; not CE

*** Ratings for 3-phase versions only. Please see Manual or catalog for 1-phase ratings.

1) Some restriction apply, please contact your local ABB representative.

2) Continuous operation allowing 110% overload for 1 minute every 10 minutes.

3) Dual ratings for this HP size, please review the technical catalog / manual for details.



Industry

ACSx80 product family is designed for variable torque and basic constant torque applications in light industry.



Reliability and consistent high quality
ACSx80 drives are designed for customers who value high quality and robustness in their applications. The product features, such as coated boards and compact IP55 (ACS580 up to IP66) enclosure make the ACSx80 suitable for harsh conditions. Additionally, all ACSx80 drives are tested at maximum temperature and with nominal loads. The tests include performance and all protective functions.



Variable Torque

Variable torque applications, such as centrifugal pumps: booster, irrigation, circulating and vacuum pumps. Centrifugal fans: process cooling and ventilation. Centrifugal compressors: refrigerated compressors.



Easier than ever
ACSx80 drives have all the essential features built-in to reduce commissioning and setup time. The assistant control panel with multiple language choices is standard in ACS580 drives. Users can also upgrade to an optional Bluetooth-enabled control panel for wireless commissioning and monitoring. Primary settings and application control macros ensure quick product setup.



Constant Torque

Basic constant torque applications, such as conveyors, mixers, extruders, positive displacement pumps and fans.



Instant availability
The entire ACSx80 line-up for products up to 600 HP are available from central stocks around the world for immediate delivery.



Shared features of the ABB all-compatible drives portfolio

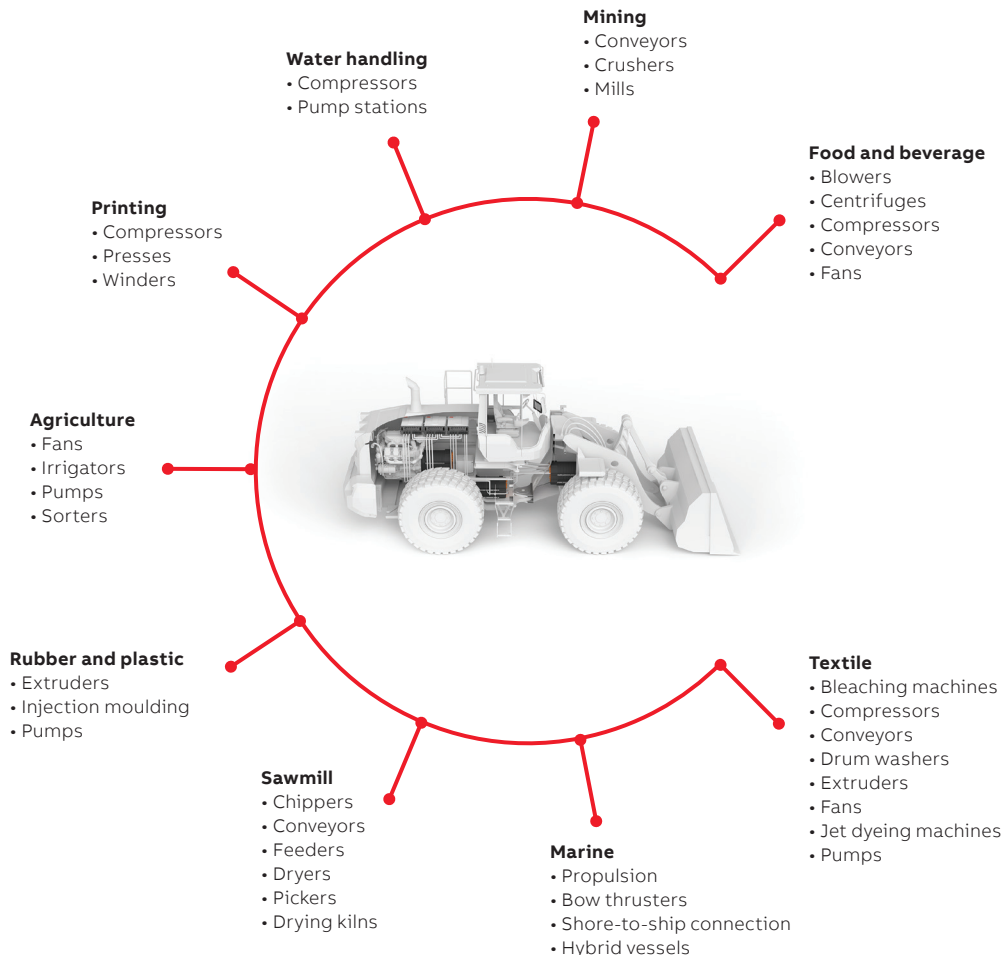
Drivetune smartphone app

- The Drivetune smartphone app together with the Bluetooth-enabled control panel allow you to set up and commission the drive remotely from a safe and comfortable location, using the same primary settings menu that is available on the drive's control panel.



ACSx80 drive family

Effortless process automation



Control panel with primary settings

- Primary settings make commissioning the drive easier than ever
- The optional Bluetooth-enabled control panel allows easy smartphone connection and remote support capability
- Easily available USB interface for PC and tool connection
- Help button for problem solving

Reliable communication protocols

- Embedded RTU Modbus and optional fieldbus adapters enable connectivity with all major automation networks and control systems

Reliability and quality

- All units are tested under full load at maximum allowed ambient temperature to verify quality
- Printed circuit boards have an extra coating to protect against humid and harsh environments

Scalar, vector and direct torque control for process control

- Scalar control for effortless process control
- Vector control for accurate speed and torque control in demanding applications
- Direct Torque Control (DTC) greatly increases motor torque response
- Support for induction, permanent magnet and synchronous reluctance motors (SynRM)

Brake chopper

- The brake chopper is built-in as standard for ACS180 (R2-R4), ACS380, ACS580 frames up to R3 and ACS880 frames up to R3
- Optional brake chopper can be added to ACS880 frames R4-R9



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For more information, please contact
your local ABB representative or visit
new.abb.com/drives/low-voltage-ac/

