ABB general purpose drives
ACS580, 1 to 700 HP

Designed to simplify drive selection, set up, operation and maintenance, the ACS580 general purpose drives conquer more applications in more industries without the head scratching complexities. The ACS580 drive is offered in a variety of options including wall-mounted, cabinet-built and packaged with disconnect means.

One product, many applications
The drive includes all the essential components for typical light industry applications. The ACS580 is ready to control compressors, conveyors, mixers, pumps, fans, as well as many other variable and constant torque applications.

Reliability and constant high quality
ACS580 drives are designed for customers who value high quality and robustness in their applications. Coated control boards, high enclosure classes, and motor temperature monitoring along with supervision and other protection functions ensure your processes will run smoothly – even in harsh conditions. In addition, all the drives are tested during production at maximum temperature and with nominal loads to ensure every drive performs as it should.

Easier than ever before
ACS580 drives have all the essential features built-in, reducing commissioning and setup time. The assistant control panel with a broad set of languages is standard for ACS580 drives. You can also upgrade to an optional Bluetooth® control panel for wireless commissioning and monitoring. Primary settings and control macros ensure quick setup and the help button on the control panel offers instant advice in unclear situations.

Short lead-times
ACS580 products are available from central stocks around the world for quick delivery up to 700 HP. The product is also widely available from ABB distributors globally.

—
Technical data

Voltage and power range	1-phase, 240 V, +10%/-15% 3-phase, 208 to 240 V, +10%/-15% 3-phase, 380 to 500 V, +10%/-15% 3-phase, 500 to 600 V, +10%/-15% **ACS580-01:** from 1 to 350 HP **ACS580-07:** from 200 to 700 HP **ACS580-0P:** from 1 to 200 HP **ACS580-0P (bypass):** from 1 to 350 HP*
Frequency	50/60 Hz ±5%
Mains choke	DC choke in frames up to R9. AC choke in R10-R11
Degree of protection	**ACS580-01**: UL Type 1 (standard), UL Type 12 and 4X (option) **ACS580-07**: UL Type 12 (standard) **ACS580-0P**: UL Type 1 (standard), UL Type 12 and 3R** (option)
Ambient conditions	**ACS580:** -15 to 40 °C (Type 4X: -25 to 40 °C). No frost allowed **ACS580-01:** R1 to R9 from 40 to 50 °C with derating **ACS580-07:** R6 to R11 from 40 to 50 °C with derating **ACS580-0P:** R1 to R8 from 40 to 50 °C with derating **ACS580-0P (bypass):** R1 to R9 from 40 to 50 °C by special order
Compliance	**ACS580-01**: • CE, TÜV Nord (safety functions), cULus, EAC, RCM, KC **ACS580-07**: • CE, cULus, EAC, RCM
Safety functions	Safe torque off (STO) according to EN/IEC 61800-5-2, SIL 3, PL e (TÜV Nord certified)
EMC	According to EMC Directive 2014/30/EU, EN 61800-3:2004 + A1 2012. **ACS580-01**: Class C2 as standard **ACS580-07**: Class C2 or C3 as standard (depends on the frame size)
Harmonic mitigation	According to EN 61000-3-12: 2011
Control connections	Two analog inputs, two analog outputs, six digital inputs, three relay outputs, EIA-485 Modbus RTU, safe torque off (STO), USB via control panel

Control and communication options

Fieldbus adapters	PROFIBUS DP, CANopen®, DeviceNet™, EtherNet/IP™, Modbus TCP, PROFINET IO, EtherCAT®, POWERLINK, ControlNet
Optional I/O extension modules	**CMOD-01**: External +24 V AC/DC • Two relay outputs • One digital output **CMOD-02**: External +24 V AC/DC and isolated PTC input **CHDI-01**: 115/230 V AC digital input • Six digital inputs • Two relays **CPTC-02**: ATEX-certified PTC interface and external +24 V **CAIO-01**: Bipolar I/O extension • Three bipolar analog inputs and two unipolar outputs
PC tools	Drive composer tool entry, available for free via ABB website Drive composer tool pro
Control panel options	ACS-AP-I, assistant control panel ACS-AP-W, control panel with Bluetooth interface

* 3-phase, 208/230V, 460V, 575V Wye, 60Hz
**UL Type 3R enclosure only available for packaged drives at select horsepowers

Video playlist:
ACS580 how-to
videos

Online manuals
for the ACS580
drives

Simple. Connected. All-compatible.

Essential features inside
• Integrated safe torque off (STO)
• Removable Modbus RTU terminal
• Two option slots, one for a fieldbus adapter and one for an I/O extension
• External +24 V AC/DC (standard in R6-R9, with CMOD-01 option on R1-R5)
• USB interface for PC tool connection
• Optimized DC choke
• Integrated EMC filter

Get started, without the hassle
• Optional Bluetooth assistant control panel for controlling the drive up to 250 ft (75 m) and out of the arc flash boundary
• Connection to all major industrial automation systems via plug-in fieldbus and Ethernet adapters
• USB port for transferring information between PC and drive
• Optional remote monitoring module for configuring the drive parameters, and monitoring various data such as load levels, runtime, energy consumption, I/O data, and temperature of the motor bearings
• Free Drive composer software to program and monitor drive

Learn it once, use it everywhere
• Common drives architecture enables a smooth transition to other all-compatible drives in the ABB portfolio
• The drives share the same user interfaces and options, enabling users to re-apply the knowledge gained with the ACS580 drives

—
There is more to this drive

A wide power range includes drives for wall-mounting and cabinet-built drives.

Adaptive programming for customizing the drive for the application, without any previous programming knowledge.

Motor control capabilities include asynchronous motors, permanent magnet motors and synchronous reluctance motors.