BROCHURE

Low voltage AC drives

ABB general purpose drives
ACS580, 1 to 700 hp

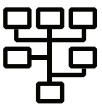
ABB
Local
ACS580
31.0 Hz
Output frequency
Hz
30.98
Motor current
A
39.12
Motor torque %
%
66.5
Options
15:05
Menu
?
Stop
Loc/Rem
Start

Switch on simplicity

The ACS580 general purpose drive is equipped with built-in features that simplify ordering and delivery, and reduce commissioning costs. Everything is provided in a single, compact and ready-to-use package.

Communication with all major automation networks
Optional fieldbus adapters enable connectivity with all major industrial automation networks.

Start-up and maintenance tool
Drive Composer PC tool for start-up, configuration, monitoring and process tuning is included as standard. The PC tool is connected to the drive's control panel via a USB interface.



Adaptive programming
Adaptive programming is ideal for creating custom programs for various applications. It does not require expertise in programming.

Simple to select, install and use
Built-in features such as an EMC filter, choke, a Modbus RTU fieldbus interface and safe torque off functionality simplify drive selection, installation and use.

Designed for maximum reliability
Design features like coated circuit boards, minimized airflow through the control board section, earth fault protection and design for 40°C ambient temperature make the ACS580 an easy choice.

Control at your fingertips
The control panel's straightforward primary settings menu with assistants help you set up the drive quickly and effectively.

Remote monitoring
With a built-in web server and stand- alone datalogger, NETA-21 module enables worldwide and secure access to your drives.

Scalable performance
The ACS580 is a perfect match not only for simple applications, but also for applications where sophisticated speed and torque control are needed.

The all-compatible ACS580 series
Effortless energy efficiency

ABB's ACS580 drives provide the quality, reliability, and energy savings you expect from ABB drives as well as features, such as the primary settings menu and Bluetooth connectivity, that will make it easier to use and safer to maintain.

With offices in over 90 countries and a network of global technical partners, you can rely on ABB for technical assistance and local support worldwide.

Save time and money
The ACS580 is simple to install, commission, use, expand, and even upgrade, when the time comes. A compact design makes handling the units easy and with all the essential features built-in, commissioning and setup time is greatly reduced by leveraging the Primary Settings menus and assistants. The assistant control panel, which provides 16 different language options, can be upgraded to an optional Bluetooth control panel to enable wireless commissioning and monitoring.

—

The ACS580 is simple to install, commission, use, expand, and even upgrade, when the time comes.

Keep your system running smoothly
ACS580 drives are designed for customers who value reliability, high quality, and robustness in their applications. Product features, such as coated boards, compact UL Type 12 (IP55) and UL Type 4X (IP69) enclosure for wall-mounted drives and UL Type 3R enclosure for packaged drives make the ACS580 suitable for harsh conditions. The UL Type 4X wash-down duty enclosure is NSF169 certified for splash zones in Food and Beverage applications.

Additionally, all ACS580 drives and their protective functions are thoroughly tested for performance at maximum temperature with nominal loads.

Contain costs to improve your bottom line
When you think of VFDs, you likely think of energy savings – and rightly so. Energy savings alone can easily justify the cost of a VFD, even on small applications that traditionally use starters. Just by up-grading from constant to variable speed, you can create energy savings of up to 50%. Add to that the ability to track the savings, in both energy and dollars, so you can evaluate the effectiveness of your system, and adjust accordingly for even more savings.

When your processes runs more efficiently, the result is not only energy savings, but minimized wear and tear on your mechanical equipment, and overall process efficiencies, which results in financial savings.

The ACS580 design helps to contain costs as well. Because all the essential features, including Safe Torque Off (STO), are integrated into the ACS580, the amount of equipment that needs to be installed, commissioned, and maintained is less.

As one of ABB's all-compatible products, fieldbus adapters, flange mounting kit, and PC tools are consistent, to simplify commissioning and minimize your need for training, as well.

Partner with ABB to achieve success
We encourage you to collaborate with ABB's factory and local VFD experts who are available throughout the lifecycle of your system. You have access to this team of experts to assist with developing functional, cost-effective, and easy-to-maintain systems, improving designs to meet specific project requirements, ensuring that you include the latest technologies, and training your staff on appropriate topics. Our goal is to ensure your success.

We also offer preventive maintenance to keep your system in tip-top shape and service plans in the event a machine does go down. You can also count on our free, 24/7/365 technical support to assist whenever you need help.

ACS580 offerings

The ACS580 general purpose drive portfolio includes wall-mounted, packaged and cabinet-built drives. All variations feature Safe Torque Off (STO), common software including Adaptive Programming, and an intuitive control panel with USB connection.

ACS580-01 drive
A wall-mounted drive available in UL (NEMA) Type 1 (IP21), UL Type 12 (IP55), and UL Type 4X (IP69) enclosures. Our wall-mounted drives are available from 0.75 to 350HP and feature compact designs for easy installation and commissioning.

ACS580-07 drive
A cabinet-built single drive available from 150 to 700HP at 480V. The UL (NEMA) Type 12 (IP55) enclosure is a product feature that makes this drive suitable for harsh conditions.

ACS580-0P drive with bypass
A packaged drive with two-contactor bypass and circuit breaker disconnect with fast acting fuses. This packaged drive includes the high-quality robust ACS580 drive with the extra insurance of across the-line operation in an emergency. Available up to 350HP and is offered in UL (NEMA) Type 1 / IP21, Type 12 / IP55, and Type 3R packaging at 208/230V, 460V and 575V.

ACS580-0P drive
A packaged drive with fast acting fuses and either an input disconnect or circuit breaker. It is also available with a two-contractor bypass and a circuit breaker. This packaged drive is available from 1 to 200HP and is offered in UL (NEMA) Type 1 / IP21, Type 12 / IP55, and Type 3R making it a great fit for a variety of applications and environments.

Typical applications

ACS580 drives improve process performance, increase productivity and ensure machine and personnel safety

Pumps

Standard features

- Power range up to 700HP available in different enclosure versions
- Motor cables up to 1,000 ft (300 m)
- Built-in choke in all ACS580 devices for harmonic mitigation in partial loads
- Cavitation control to help prevent damage to pump impeller

Industry: Food and beverage, agriculture, automotive, rubber and plastics

Fans

Standard features

- Compact UL Type 12 devices with coated PCBs for stand-alone installation
- EMC level C2 for installation in the 1st environment
- Support for high efficiency, PM and SynRM motors

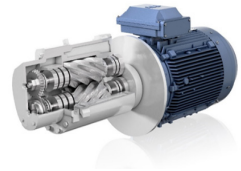
Industry: Food and beverage, agriculture, automotive, textile

Compressors

Standard features

- Broad support for different fieldbus protocols
- STO for machinery safety
- Power range up to 350HP
- Cooling compressor temperature control; supports mutliple refrigerant types

Industry: Food and beverage



Conveyors

Standard features

- Integrated braking chopper up to 30HP
- Compact UL Type 12 and 4X wash-down duty enclosures
- STO for machinery safety
- External +24 V supply (optional on R1-R5 frame) to maintain communication when the mains supply is disconnected

Industry: Material handling, sawmill, textile, automotive, food and beverage

Mixers

Standard features

- UL Type 4X IP69 rating provides protection from pressurized hot water wash down in splash zone
- Vector control ensures high starting torque at low speeds
- STO for personnel / machinery safety
- Connectivity: Control panels / IO / Fieldbus options
- Coated control boards

Industry: Food and beverage

For more information, please contact
your local ABB representative or visit

www.abb.com/ACS580
www.abb.com/drives

Online manuals
for the ACS580 drives

Video playlist:
ACS580 how-to videos

ACS580-PHPB02U-EN REVE EFFECTIVE: 08/12/2025