

LOW VOLTAGE AC DRIVES

# ABB general purpose drives

## ACS480, 0.37 to 22 kW



**Get it fast. Use it easily.  
Improve efficiency.**

The ACS480 general purpose drives are designed to simplify drive selection, set up, and operation for many basic applications without the head scratching complexities with its compact design and in a cost-effective way.

### Two products, many applications

As a part of general purpose drives family, the ACS480 includes all the essential components for typical light industry applications. It is ready to control compressors, pumps, fans, as well as many other basic speed-controlled applications, while the ACS580 fulfills even more demanding needs.

### Constant high quality with a compact design

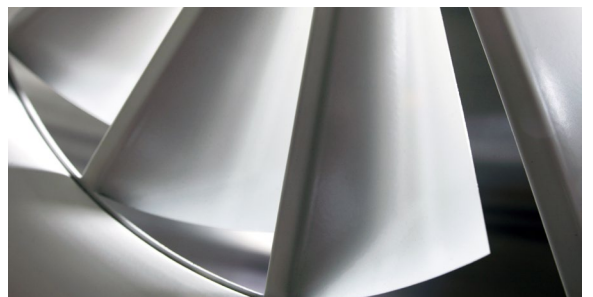
The cabinet-optimized ACS480 is designed for customers who value high quality and robustness in their applications to deliver the what is needed for the application efficiently with its compact design. Its coated control boards, high operating maximum ambient temperature, and supervision and protection functions ensure smooth and reliable processes. Additionally, all the drives are tested at maximum temperature with nominal loads.

### Easier than ever before

ACS480 drives have all the essential features built-in reducing commissioning and setup time. The assistant control panel with multiple languages is standard for ACS480 drives, and users can even 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.

### Instant availability

ACS480 products are available from the central stock for immediate delivery. The product is also widely available from ABB distributors.



## Technical data

|  |  |
|--|--|
| Voltage and power range                      | 1-phase, 200 V to 240 V, +10%/-15% from 0.37 to 22 kW<br>3-phase, 200 V to 240 V, +10%/-15% from 0.37 to 22 kW<br>3-phase, 380 to 480 V, +10%/-15% from 0.75 up to 22 kW   |
| Frequency                                    | 48 to 63 Hz  |
| Degree of protection                         | IP20<br>UL Type 1 with optional kit  |
| Ambient conditions                           | -10 to +50 °C no derating required, no frost allowed, +50 to +60 °C with derating  |
| Compliance                                   | CE<br>Low Voltage Directive 2014/34/EU, EN 61800-5-1: 2007<br>Machinery Directive 2006/42/EC, EN 61800-5-2: 2007<br>EMC Directive 2014/30/EU, EN 61800-3: 2004 + A1: 2012<br>RoHS directive 2011/65/EU<br>Quality assurance system ISO 9001<br>Environmental system ISO 14001<br>Waste electrical and electronic equipment directive (WEEE) 2002/96/EC RoHS directive 2011/65/EU<br>TUV certification for functional safety<br>UL, cUL certification   |
| Functional safety                            | Safe Torque Off (STO according EN 61800-5-2)<br>IEC 61508 ed2: SIL 3. IEC 61511: SIL 3<br>IEC 62061: SIL CL 3. EN ISO 13849-1: PL e  |
| EMC  | EMC according to EN 61800-3: 2004 + A1: 2012<br>Class C2 as standard   |
| Control connections in the standard delivery | <b>Base unit:</b> <ul style="list-style-type: none"><li>• Two digital inputs</li><li>• One relay output</li><li>• Safe Torque Off (SIL3/PL e)</li><li>• CCA-01 interface</li></ul> <b>I/O module (RIIO-01):</b> <ul style="list-style-type: none"><li>• Two analog inputs (mA or V mode), +10 V voltage supply</li><li>• Two analog outputs, AO1 (mA or V mode)</li><li>• Four digital inputs, DI5 (digital or frequency), +24 V voltage supply</li><li>• Two relay outputs</li><li>• EIA-485 Modbus RTU</li></ul> <b>Assistant control panel (ACS-AP-S):</b> <ul style="list-style-type: none"><li>• Mini USB</li></ul> |

## Control and communication options

|                                    |  |
|------------------------------------|--|
| Fieldbus adapters                  | PROFIBUS DP, DPV0/DPV1, DeviceNet, Two-Port Modbus/TCP, Two-Port Ethernet/IP, Two-Port PROFINET IO, CANopen, ControlNet, EtherCAT, POWERLINK   |
| Digital solutions and connectivity | Drive composer tool entry, available for free via ABB website<br>Drive composer tool pro<br>ABB Ability™ Mobile Connect<br>ABB SmartGuide<br>ABB Access  |
| Control panel options              | ACS-AP-S, assistant control panel (delivered as standard)<br>ACS-AP-W, control panel with Bluetooth interface<br>ACS-AP-I, industrial control panel<br>ACS-BP-S, basic control panel<br>RDUM-01, blank control panel with an RJ-45 connector |
| I/O option                         | <b>I/O extension (BIO-01) used with a fieldbus adapter:</b> <ul style="list-style-type: none"><li>• Three digital inputs</li><li>• One digital output</li><li>• One analog input</li></ul>   |
| Door mounting options              | DPMP-01, flush door mounting kit<br>DPMP-02, surface door mounting kit<br>DPMP-EXT2, door mounting kit which includes DPMP-02 and RDUM-01  |



Video playlist:  
ACS480 how-to videos

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

[new.abb.com/drives/general-purpose/ACS480](https://new.abb.com/drives/general-purpose/ACS480)

[new.abb.com/drives](https://new.abb.com/drives)

[new.abb.com/drives/drivespartners](https://new.abb.com/drives/drivespartners)

[new.abb.com/motors-generators](https://new.abb.com/motors-generators)

## Simple. Effortless. All-compatible.

### Essential features inside

- Integrated Safe Torque Off (STO)
- Modbus RTU terminal
- USB interface for PC tool connection
- Integrated brake chopper
- Integrated EMC C2 filter

### Get started, without the hassle

- Integrated PID controllers, timers, load analyzer, supervision functions, energy saving optimizer and energy saving calculator for effortless and easy operation
- Three relay outputs and ready-made PFC macro for running parallel pumps, fans, or compressors
- Common standard I/O connections and control functionalities with the ACS580 allows easy transition to the ACS480
- Connection to most common industrial automation systems via plug-in fieldbus and Ethernet adapters
- USB port for transferring information between PC and drive
- Free Drive Composer software to program and monitor drive performance

### Learn it once, use it everywhere

- Common drives architecture enables a smooth transition to other all-compatible drives in the ABB portfolio, such as the ACS580 drives
- The drives share the same user interfaces, fieldbus options, and operation logic, enabling users to use the knowledge gained with the ACS480 drives

## There is more to this drive

With optional Bluetooth® assistant control panel users can control the drive from up to 75 meters and out of the arc flash boundary.

Compact size together with the control panel door mounting kit make the ACS480 an **optimal product for cabinet installations.**

**Motor control capabilities** include support for asynchronous motors as well as high energy efficient permanent magnet and synchronous reluctance motors.

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