

ABB general purpose drives
ACS580, 0.75 to 250 kW
for effortless energy efficiency



The ACS580 is part of ABB's new all-compatible drives portfolio. The drive's built-in features and compact design provide effortless energy efficiency for a wide range of applications.



Power and productivity
for a better world™



The innovation behind all-compatible is ABB's new common drives architecture, designed to simplify operation, optimize energy efficiency and maximize output.

Switch on simplicity without trading off efficiency

The wall-mounted ABB general purpose drive ACS580 is designed to control a wide range of variable and basic constant torque applications such as pumps, fans, conveyors and mixers in a broad range of industries. The drive is equipped with built-in features that simplify ordering and delivery, and reduces commissioning costs, since everything is provided in a single, compact package.

The drive features a new second generation swinging choke technology which, together with the drive's design, provides superior mitigation of harmonics in a smaller and lighter design. Other built-in features include EMC filter, brake chopper up to frame R3, Modbus fieldbus interface and safe torque off (STO). The plug-in fieldbus adapter modules enable connectivity with all major automation systems.

Control panel's straightforward primary settings menu and embedded assistants reduce time needed for drive commissioning. The menus are clearly named by function, such as motor, ramp and limit settings. The Drive composer PC tool offers extensive drive monitoring and process tuning capabilities.

Drive's energy optimizer control mode ensures the maximum torque per ampere, reducing energy drawn from the supply. The built-in energy calculators, including used and saved kWh, CO₂ reduction and money saved, help the user monitor and fine-tune processes to ensure optimal energy use.

Learn it once, use it everywhere

If an application requires more than a general purpose drive, the common drives architecture enables a smooth transition to other all-compatible drives in the ABB portfolio, such as the ACS880 industrial drives. The drives share the same user interfaces and options, enabling users to use the knowledge gained with the ACS580 drives.



Technical data

Voltage and power range	3-phase, 200 to 240 V or 380 to 480 V, +10/-15% From 0.75 up to 250 kW
Frequency	50/60 Hz ±5%
Mains choke	As standard, built-in second generation swinging choke
Degree of protection	IP21 as standard, IP55 as an optional variant
Ambient conditions	-15 to +50 °C, no frost allowed R0 to R3 up to +50 °C, R4 to R9 up to +40 °C, R4 to R9 +40 to +50 °C with derating 1% per 1 °C Up to 4000 meters
Compliance	CE
Safety	Safe torque off (STO), according to EN/IEC 61800-5-2, SIL 3, PL e
EMC	According to EMC Directive 2004/108/EC, EN 61800-3:2004 + A1 2012. Class C2 as standard.
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
Multi-function extensions	CMOD-01, two relay outputs, one digital output, external +24 V AC/DC power supply CMOD-02, galvanically isolated PTC input, external +24 V AC/DC power supply
I/O extension modules	CHDI-01, six 115/230 V AC digital inputs and two relay outputs
PC tools	Drive composer tool entry, available for free via ABB website Drive composer tool pro
Control panel options	ACS-AP-S, assistant control panel (as standard) ACS-AP-I, assistant control panel (compatible also with ACS880 drives)

For more information contact your local ABB representative or visit:

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