ABB general purpose drives
ACS580, 0.75 to 500 kW
for effortless energy efficiency

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

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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 ACS580 is an all-compatible ABB general purpose drive, with offering of wall-mounted drives, drive modules for cabinet installations and cabinet-built drives. 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 particular at partial load. 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, CO_2 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, 380 to 480 V, +10%/-15% ACS580-01: from 0.75 up to 250 kW ACS580-04/-07: from 250 up to 500 kW
Frequency	50/60 Hz ±5%
Mains choke	As standard, built-in second generation swinging choke
Degree of protection	ACS580-01: IP21 as standard, IP55 as an optional variant (frames R0 to R9) ACS580-04: IP00 as standard, IP20 with option (frames R10 to R11) ACS580-07: IP42 as standard, IP54 as option (cabinet-built frames R10 to R11)
Ambient conditions	ACS580-01: -15 to +50 °C. No frost allowed. R4 to R9 from +40 to +50 °C with derating 1% per 1 °C ACS580-04: -15 to +55 °C. No frost allowed. R10 to R11 from +40 to +55 °C with derating 1% per 1 °C ACS580-07: 0 to +40 °C. No frost allowed (up to 4000 m)
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 for frames R0 to R9. Class C3 as standard for drive module and cabinet-built frames R10 to R11.
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
I/O extension modules	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 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-I, assistant control panel (compatible also with ACS880 drives) ACS-AP-W, control panel with Bluetooth interface

For more information contact your local ABB representative or visit:

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