

ABB industrial drives ACS880-07, single drives, 45 to 2800 kW



The ACS880-07 cabinet-built single drive is part of ABB's new all-compatible drives portfolio. The drives are compatible with virtually all types of AC motors, automation systems, users and business requirements.



Power and productivity
for a better world™



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

Simplifying your world without limiting your possibilities

The ACS880-07 cabinet-built single drive is compatible with a broad range of industries. Typical applications include conveyors, kilns, extruders, pumps and fans. The drive configuration contains a rectifier, DC link and an inverter, all built into a compact cabinet. Built-to-order to meet customers' needs, the drive can meet any technical challenge partly through its built-in array of options. The features and options include extended I/O, fieldbus options, du/dt filtering, EMC filtering, a brake resistor, fuses and a main switch. Induction motors, synchronous motors and induction servo motors are all supported as standard, without any additional software. The drive can control them in either open loop or closed loop, through its high precision motor control platform, direct torque control (DTC). Built-in safety features reduce the need for external safety

components. The drive supports the CODESYS programming environment according to IEC 61131-3.

Learn it once, use it everywhere

The common drives architecture features the same control panel, parameter menu structure, universal accessories and engineering tools. The new control panel is equipped with an intuitive and high-resolution control display that enables easy navigation. Many flexible data visualizations including bar charts, histograms and trend graphs help users to analyze processes, with assistants available to simplify setup. The menus and messages are customizable for the specific terminology of different applications. An integrated USB port allows easy connection to PC tool - Drive composer, which offers fast and harmonized startup, commissioning and monitoring. The built-in energy calculators, including used and saved kWh, CO₂ reduction and money saved, help the user fine-tune processes to ensure optimal energy use. The energy optimizer control mode ensures the maximum torque per ampere, reducing energy drawn from the supply.



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Technical data

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|---------------------------------------|--|
| Voltage and power range | 3-phase, 380 to 690 V +10/-10% 45 to 2800 kW |
| Frequency | 50/60 Hz ±5% |
| Mains choke | Standard (built-in) |
| Degree of protection | IP22, IP42, IP54 (UL type 12) |
| Ambient temperature | 0 to +50 °C, (>40 °C with derating) |
| Compliance | CE; GOST R, UL, cUL, CSA pending: C-Tick |
| Safety (TÜV Nord certified) | Safe torque-off (STO), safe stop 1 (SS1), safe stop emergency (SSE), safely-limited speed (SLS), safe brake control (SBC) and safe maximum speed (SMS) |
| EMC | According to IEC 61800-3, class C3 and C2 as a internal option |
| Control connections | Two analog inputs, two analog outputs, six digital inputs including thermistor input, two digital inputs/outputs, three relay outputs, drive interlock input, drive-to-drive link (or Modbus RTU), safe torque-off (STO), external 24 V DC supply input, memory unit connection, USB via control panel |

Control and communication options

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|---------------------------------|--|
| Fieldbus adapter modules | PROFIBUS DP, DeviceNet™, CANopen, EtherNet/IP™, Modbus TCP/IP, PROFINET IO, EtherCAT®, Modbus RTU, PowerLink |
| I/O extension modules | FIO-01: four digital inputs/outputs, two relay outputs FIO-11: three analog inputs, one analog output, two digital inputs/outputs FDCO-01, FDCO-02: DDCS communication options |
| Feedback modules | TTL pulse encoder, HTL pulse encoder, absolute encoder, resolver |
| PC tools | Drive composer entry Drive composer pro |

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

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