
ACS880-07 Cabinet-built single drives

60 to 2900 HP (45 to 2400 kW)



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

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 chopper, 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 programming environment based on 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 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. Bluetooth allows connection to the Drivetune mobile application while 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. The drive also offers built-in service features.



Technical data	
Voltage and power range	3-phase, 380 to 690 V +10/-10% 60 to 2900 hp (45 to 2400 kW)
Frequency	50/60 Hz ±5%
Mains choke	Standard (built-in)
Degree of protection	UL type 1 (IP22), UL type 1 filtered (IP42), UL type 12 (IP54)
Ambient temperature	32 to 122 °F (0 to +50 °C), >104 °F (40 °C) with derating
Compliance	UL, cUL, CSA, CE, GOST R, C-Tick
Safety (TUV Nord certified)	Safe torque off (STO), safe stop 1 (SS1), safe stop emergency (SSE), safely-limited speed (SLS), safe brake control (SBC), safe maximum speed (SMS) and prevention of unexpected startup (POUS)
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	
Fieldbus adapter modules	EtherNet/IP™, PROFINET IO, Modbus TCP/IP, EtherCAT®, PROFIBUS DP, DeviceNet™, CANopen, Modbus RTU, PowerLink, ControlNet
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/Mobile tools	Drive composer entry Drive composer pro Drivetune Mobile Application

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

abb.com/drives
abb.com/drivespartners

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB. Copyright© 2021 ABB. All rights reserved.