

ABB industrial drives ACS880, multidrives, 1.5 to 7500 hp (1.5 to 5600 kW)



The ACS880 multidrives are 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 multidrives are part of ABB's new low voltage AC drive portfolio. Built-to-order to meet customers' needs, the new multidrives can meet technical challenges through a wide selection of options that are all mountable within the cabinet. A single supply and DC bus arrangement with multiple inverters reduce line power, cabinet size and investment costs. The features and options include extended I/O, fieldbus options, EMC filtering, brake options, fuses and main switch. The new cabinet design is more compact, including efficient thermal handling. Several ingress protection (IP) classes with IP22 and IP42 offering solutions for different environments are also available. 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 the 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.



Technical data

Voltage and power range	3-phase, 380 to 690 V +10/-10% Inverter unit (INU) 1.5 to 7500 hp (1.5 to 5600 kW) Diode supply unit (DSU) 50 to 5500 kVA IGBT supply unit (ISU) 300 to 6130 kVA (380 to 690 V)
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 derating)
Compliance	CE, UL, cUL 508A or cUL 508C, C-Tick, GOST R Pending: CSA C22.2 NO.14-95
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 (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	PROFIBUS DP, DeviceNet™, CANopen®, EtherNet/IP™, Modbus TCP/IP, PROFINET IO, EtherCAT®, 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	HTL pulse encoder, TTL pulse encoder, absolute encoder, resolver
PC tools	Drive composer entry Drive composer pro

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

www.abb.com/drives

