ABB machinery drives
ACS880, 0.37 to 45 kW
for adaptable performance

The ACS880 machinery drive is part of ABB's all-compatible drives portfolio. This flexible and high performance drive is designed for machine builders requiring adaptable performance for their machine.

Power and productivity
for a better world™

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

Adaptable performance

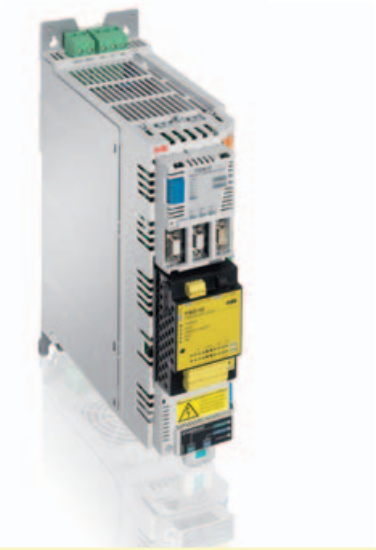
ABB's machinery drive ACS880 is designed to control applications such as winders, wire drawing, mixers, cranes, sorting conveyors, warehouse automation and other high performance applications. The drives are used in machine building industries including material handling, food and beverage, and textile.

The ACS880-M04 offers enhanced usability with an optional intuitive assistant control panel that comes with or without bluetooth functionality. Additional features include IEC 61131-3 programming capabilities for flexible control logic design, and integrated safety with safe torque off (STO) built-in as standard. The safety functions module (FSO-12/-21) and PROFIsafe over Profinet enhances the design process of safety for the operation of the machine. General motion control features in the drive improve precision performance of the target applications. ABB's Automation Builder software suite is used together with the drive for engineering both individual industry devices and for putting together entire automation projects. The control panel's straightforward primary settings menu and embedded assistants reduce time needed for commissioning the drive. 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.

The 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 machinery drive, the common drives architecture enables scalability to other all-compatible drives in the ABB portfolio, such as the ACS380 machinery drives and ACS880 industrial drives. The drives share the same user interfaces and options, enabling operators to apply the same knowledge gained with the ACS880 machinery drives.



Mains connection	
Voltage and power range	3-phase, 200 to 240 V, +10%/-15% 0.37 to 22 kW (0.5 to 30 HP) 3-phase, 380 to 500 V, +10%/-15% 0.37 to 45 kW (0.5 to 60 HP) Built-in braking chopper and common DC connection with internal charging circuit
Frequency	50/60 Hz ±5%
Degree of protection	IP20 as standard (UL open type)
Ambient conditions	-10 to +40 °C (14 to 104 °F), up to +55 °C (131 °F) with derating 0 to 4000 m, (0 to 13000 ft), derating above 1000 m (3300 ft)
Compliance	CE, RoHS, UL, cUL (pending)
Safety	Safe torque off (STO) acc. to EN/IEC61800-5-2: IEC61508 ed2: SIL 3, IEC 61511: SIL 3, IEC 62061: SIL CL 3, EN ISO 13849-1: PL e
Optional safety features	Safe stop 1 (SS1), safely-limited speed (SLS), safe stop emergency (SSE), safe brake control (SBC), safe maximum speed (SMS), prevention of unexpected startup (POUS), safe direction (SD) and safe speed monitor (SSM) acc. To EN/IEC 61800-5-2: SIL 3, IEC 61508 ed2: SIL 3, IEC 61511: SIL 3, IEC 62061: SIL CL 3, EN ISO 13849-1: PL e
Optional safety fieldbus	PROFIsafe over PROFINET, certified
EMC	Optional EMC category C2 or EMC category C3, according to EMC Directive 2004/108/EC, EN 61800-3:2004 + A1 2012
Drive programming	Adaptive programming, optional IEC 61131-3 application programming
Control connections	Six digital inputs including thermistor input, 2 digital inputs/outputs, one digital input interlock, two analog inputs, two analog outputs, three relay outputs, Modbus RTU (or drive-to-drive link), STO (SIL 3), External 24V DC support, memory unit connection
Control and connectivity options	
Fieldbus protocols	PROFIBUS DP, CANopen®, EtherCAT®, PROFINET IO, Ethernet/IP™, Modbus TCP, DeviceNET™, ControlNet, PowerLink
I/O extension modules	Digital extension FIO-01: Four digital inputs/outputs, two relay outputs Analog extension FIO-11: Three analog inputs, one analog output, two digital inputs/outputs
Feedback modules	HTL pulse encoder, TTL pulse encoder, absolute encoder, resolver
PC tools and accessories	BCBL-01 USB to RJ-45 data cable Drive composer tool entry, available for free via ABB website Drive composer tool pro Automation builder and Drive Manager for single point of commissioning through PROFIBUS and PROFINET networks
Control panel options	ACS-BP-S basic control panel ACS-AP-I assistant control panel ACS-AP-W assistant control panel with Bluetooth interface

For more information please contact your local ABB representative or visit:
new.abb.com/drives
www.abb.com/drivespartners

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