

ABB industrial drives

ACS880 regenerative drives, 3 to 3300 HP



ACS880 regenerative drives are suitable for applications with cyclic or continuous braking. Regenerative drives are capable of recovering braking energy and feeding it back to the network. The drive package includes everything needed for regenerative operation.

Capture energy instead of wasting it

- **Energy savings**
 With regenerative functionality, braking energy is fed back to the supply network so that it can be utilized by other equipment. Compared to mechanical or resistor braking, which waste braking energy as heat, regenerative operation offers significant savings in energy consumption and cooling.
- **Minimized downtime**
 Regenerative drives ensure reliable operation in unstable supply network conditions. The drive's active supply unit is able to boost output to guarantee full motor voltage even when the supply voltage is below nominal.
- **Optimized cost and space**
 Everything needed for regenerative operation, such as an active supply unit and a line filter, is included with the drive. As no external braking devices are needed, the installation footprint is reduced, as well as the time needed for engineering and assembly.
- **Maximized motor performance and efficiency**
 ABB's direct torque control (DTC) provides precise speed and torque control for maximum motor performance and efficiency. The drive's voltage boost capability also improves motor efficiency – with a higher voltage, the same power is achieved with less current.



Technical data

ACS880-11 wall-mounted regenerative drives

Power range	3 to 150 HP
Voltage range	3-phase, 380 to 500 V
Enclosure	UL Type 1 and Type 12 (as Standard). Flange mounting with UL Type 12 back side protection as an option.

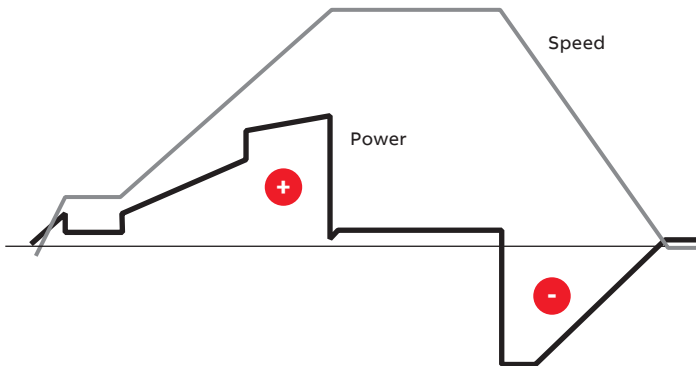
ACS880-14 regenerative drive modules

Power range	150 to 450 HP
Voltage range	3-phase, 380 to 690 V
Enclosure	UL Type Open

ACS880-17 cabinet-built regenerative drives

Power range	60 to 3300 HP
Voltage range	3-phase, 380 to 690 V
Enclosure	UL Type 1, UL Type 1 filtered and UL Type 12 (as standard).

Speed and power curves in cyclic operation



Video playlist:

ACS880 how-to videos



Regenerative drive animation



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

www.abb.com/drives
new.abb.com/drives/regenerativedrives

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Key features

- **Possibility to regenerate 100% of power continuously**
- **Everything for regenerative operation included in a compact package**
Designed for easy installation.
- **Easy commissioning**
No need to set extra parameters for the active supply unit.
- **Low harmonic content**
Total harmonic current distortion is typically <3% in nominal situation and undistorted network. Fulfills harmonic recommendations, such as IEEE 519, IEC 61000-3-2, IEC 61000-3-12 and G5/4.
- **Unity power factor**
Possibility also for network power factor correction.
- **Voltage boost**
Guarantees full motor voltage in all conditions and can also be utilized to overcome a voltage drop caused by long supply or motor cables or output filters. Voltage boost capability may allow a smaller motor to be used.
- **Nine-year maintenance interval**
- **Factory-tested solution for high reliability**
All ACS880 drives are tested at maximum temperature with nominal loads.

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