The ACS800 liquid-cooled regenerative drive features robust design for demanding applications. The drive incorporates two technologically advanced solutions in one compact, totally enclosed cabinet: liquid cooling provides high reliability while regeneration delivers significant energy savings.

The ACS800-17LC single drive is available in the range 55 to 5200 kW with 380 to 690 V supply.

Efficient liquid cooling
Direct liquid cooling helps to make the drive extremely compact and silent. Liquid cooling eliminates the need for high power filtered air cooling in electrical rooms and delivers effective heat transfer for high overall efficiency.

Complete regenerative drive
Regenerative operation feeds braking energy back into the network and eliminates the need for a braking chopper and external braking components, thus reducing the size, complexity and cost of the solution.

The ACS800-17LC is a complete regenerative drive in a single, compact package. Everything needed for regenerative operation, as well as the line filter, is built-in. The active supply unit provides full power flow in both motoring and generating modes, with ultra-fast transition between the two modes. This makes the drive ideal for a wide range of applications.

Intelligence and high availability
The ACS800-17LC features ABB’s Direct Torque Control technology which allows excellent motor control and a LCL line filter and active supply unit to cut harmonic distortion to exceptionally low levels. This allows the drive to exceed the requirements of the relevant international standards on harmonics.

The drive also has built-in redundancy through parallel connected modules: each module is a complete three-phase inverter, meaning that the drive can run with a partial load even when one of the modules is not operating. This enables higher drive availability and greater uptime. In addition, the power and inverter modules are based on compatible hardware, reducing service training needs and spare parts requirements.

“Compact and easy” are the watchwords to describe the entire ACS800 liquid-cooled drive range. They demonstrate how technology enables ABB to add more and more features into a shrinking space – and still give the benefits of easy installation, access and use.

Highlights
- Extremely versatile
- Modular, optimized design
- Programmability
- Wide range of I/O and communication options
- Extremely low harmonic content due to active supply unit and LCL filtering
- Fully regenerative active single drive in a compact package
- DNV, ABS and LR marine type approvals
- IP42 as standard, IP54 optional

Applications
- Thrusters and propulsion systems
- Test benches
- Winders
- Conveyors
- Cranes
- Winches
- Centrifuges
### Technical data

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### Power ratings

- **U_N = 400 V (Range 380 to 415 V)**: The power ratings are valid at nominal voltage 400 V.
  - I_{max} : maximum output current. Available for 10 s at start, otherwise as long as allowed by drive temperature. Note: max. motor shaft power is 150% P_{hd}.
  - P_{hd} : typical motor power in heavy-duty use.

- **U_N = 500 V (Range 380 to 500 V)**: The power ratings are valid at nominal voltage 500 V.
  - I_{max} : maximum output current. Available for 10 s at start, otherwise as long as allowed by drive temperature. Note: max. motor shaft power is 150% P_{hd}.
  - P_{hd} : typical motor power in heavy-duty use.

- **U_N = 690 V (Range 525 to 690 V)**: The power ratings are valid at nominal voltage 690 V.
  - I_{max} : maximum output current. Available for 10 s at start, otherwise as long as allowed by drive temperature. Note: max. motor shaft power is 150% P_{hd}.
  - P_{hd} : typical motor power in heavy-duty use.

For more information please contact:

- [www.abb.com/drives](http://www.abb.com/drives)
- [www.abb.com/drivespartners](http://www.abb.com/drivespartners)

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