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LOW VOLTAGE AC DRIVES

# **Performance and reliability on board** with the marine certified ACS880 drives



# Performance. Speed. Reliability.

## Everything counts.

Our marine certified ACS880 drives provide reliable operation and performance where it's needed the most. They offer accurate speed and torque control for wide range of motor types, and help you save fuel and lower emissions. The ACS880 drives are now also available with a marine specific 440 V voltage.



ACS880 drives are available with power range from 0.55 to 6000 kW and voltages from 208 to 690 V including marine specific 440 V.

### Marine certified ACS880 drives

ACS880 drives fulfill marine and offshore requirements, and the design and operation comply with regulations from all major classification societies including ABS, BV, CCS, ClassNK, DNV GL, KRS, Lloyd's Register and RINA. The drives are available for new installs and retrofits of various marine applications including thrusters, winches, deck cranes, pumps, and HVAC systems.

You may download the marine type approval certificates issued for ACS880 drives from our website: [new.abb.com/drives/segments/marine/marine-type-approvals](http://new.abb.com/drives/segments/marine/marine-type-approvals)

### Excellent suitability to marine environment

Vibration dampers, coated circuit boards and extended operational temperature offer excellent suitability to humid conditions on the sea. Controllable cooling fans and incoming air temperature measurement further reduce operating environment related failures.

### The all-compatible drive

Efficient and environmental friendly ACS880 drives are compatible with various motor types and therefore suitable for many marine

applications. Compact installation and maintenance with the support of all major fieldbuses allows easy commissioning in all locations.

### Accurate, precise control without an encoder

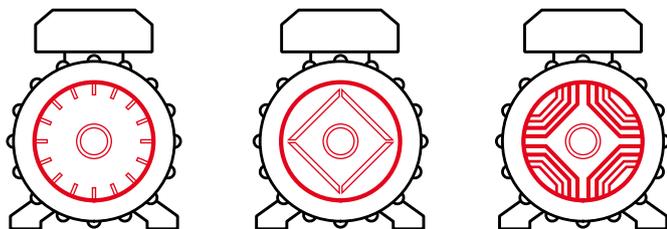
The direct torque control (DTC) technology used in the ACS880 drives facilitate accurate control of speed and torque without rotary encoder feedback from the motor shaft. This reduces your encoder related maintenance risks and costs.

### Safe operation

Safe torque off is built-in as standard in the drive. An optional safety functions module provides additional safety functions achieving up to SIL 3 or PL e safety level.

### ACS880 drives key features:

- Help you save energy and fuel
- Control a wide range of motor types
- Include direct torque control technology for accurate speed and torque control without encoders
- Reduce noise and vibrations in motor installations
- Robust and compact design
- Global support, life cycle services and strong application expertise back our offering



Smooth torque over the entire speed range helps reduce noise and vibrations with various motor types including induction, permanent magnet and synchronous reluctance.

### Technical data

Supply connection	
Voltage range	$3\sim U_{N2} = 208 \text{ to } 230 \text{ V}$
	$3\sim U_{N3} = 380 \text{ to } 415 \text{ V}$
	$3\sim U_{N4} = 440 \text{ to } 480 \text{ V} \quad +/ -10\%$
	$3\sim U_{N5} = 500 \text{ to } 525 \text{ V}$
Power range	Air-cooled: 0.55 to 5600 kW
	Liquid-cooled: 250 to 6000 kW
Frequency	50/60 Hz $\pm 5\%$
Connections	
Motor types	Asynchronous induction, permanent magnet and synchronous reluctance motors
Type of control	Direct torque control (DTC) or scalar control
Environmental limits	
Degree of protection	Single drives: IP20, IP21, IP55 Drive modules: IP00, IP20 Cabinet drives: IP22, IP42, IP54
Ambient temperature	Single drives and single drive modules: -15 to +55 °C Multidrive modules, liquid cooled modules and module packages: 0 to +55 °C Cabinet drives: 0 to +50 °C

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

**[abb.com/drives/marine](http://abb.com/drives/marine)**

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