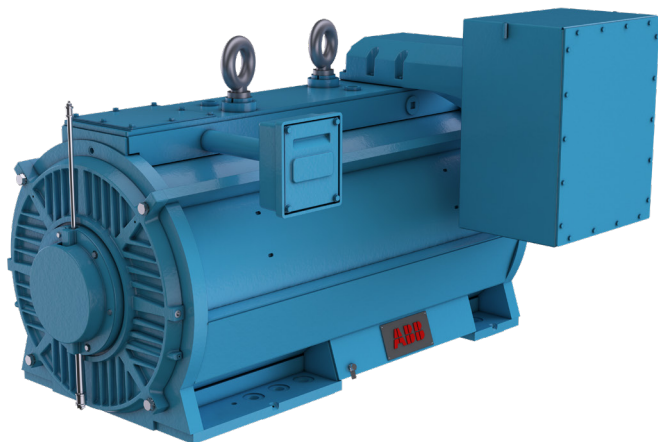


PRODUCT NOTE

ABB Water Jacket Cooled motor AXW



ABB's latest generation of water jacket cooled motors (AXW series) for the IEC market offer high power density, customizable motors with built-in serviceability, allowing for a compact footprint and improved efficiencies.

Engineered motors

ABB's custom designed water cooled motors are available as A-series engineered motors - AXW 315 and AXW 400.

A-series engineered motors are highly customizable to meet the customers precise needs and to offer a high degree of engineering flexibility. The AXW series of motors can fill the customer's application needs where the rib cooled motors may not meet the needs of the application or environment.

AXW motors are available for both direct-on-line (DOL) and variable speed drive (VSD) operation.

High power density for compact installations

The AXW sets a benchmark for the industry, offering more power per weight than has been achieved before with water cooled motors. High power density means that for a given output you can often use a motor one frame size smaller than with conventional products. This helps to save space and enables more compact installations.

ABB's engineering team achieved high power density by leveraging the proven AXR rib cooled platform and adding the water jacket to provide constant cooling, while removing the external fan to help improve efficiencies and lower noise.

Internal air circulation has been increased throughout the motor, while the external cooling was maximized by adding the water jacket. Auxiliary wiring can be routed inside the motor as well as outside the motor, depending on the customers preference and requirements. Even the end shields have been designed for optimized cooling.

Main specifications:	
Output power:	180 to 1100 kW
Frame size:	315 and 400
Number of poles:	2 to 8
Voltages:	Up to 6.6 kV
Frequency:	50/60 Hz, VSD
Cooling:	IC71W
Protection:	IP54 (optionally IP56)
Enclosed material:	Steel frame and cast iron endplates
Bearings:	Anti-friction or sleeve
Motor types:	AXW
Mounting:	Horizontal
Ex protection types:	Hazardous area location Class I Div 2 area capable

Easy configurability

The AXW is designed for modifications to be done easily and quickly. This means you can reduce the number of spare units needed if your plant is running several motors with the terminal boxes on different sides.

- Ready-made fixing points on side of motor make mounting accessories straightforward
- End shields are pre-engineered for accessories such as instrumentation
- Main terminal boxes can be mounted on either DE or ODE side
- Auxiliary terminal boxes can be mounted on either side and positioned along the motor

Built-in serviceability cuts service downtime

Built-in serviceability makes maintenance straight-

forward, and therefore reduces downtime.

- Easily remove the bearing top cap, and check the coil end and bearings with an endoscope without removing the end shields (Sleeve bearings).
- Cable routing ensures that the cables are clearly routed and always secured in the same position.
- Pre-designed fixing points enable easy mounting of condition monitoring systems. These systems collect and analyze operating data from the motors, providing early warnings of problems before failures occur.
- Constant cooling source is perfect for dirty or dusty environments

Optimized for variable speed drive use

By controlling the motor with a variable speed drive, you can optimize the motor's performance, minimize energy consumption and control your process more accurately. ABB's motor-drive packages are easy to install and operate.

Key features and benefits

- High efficiency for lower total cost of ownership
- High power density for more watts per kilogram than ever before with water cooled designs
- Optional ingress protection level available up to IP56
- Compact size for smaller overall installations
- Rigid, weight-optimized frame is engineered to minimize vibration
- Fixing points make accessory fitting straight forward
- Flexible repositioning of main terminal box on site by ABB service personnel
- Designed for easy deployment of ABB condition monitoring systems
- Based on more than 130 years of experience manufacturing electric motors
- Constant cooling source for variable speed applications

For more information please visit:

abb.com/motors-generators

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