PRODUCT NOTE

ABB AMI 5800

A True NEMA Modular Induction Machine

The AMI 5800 meets NEMA electrical performance requirements and mechanical mounting standards while providing the energy-efficient operation and sustainable design and manufacturing processes ABB is known for. With modular mechanical construction and electrical designs, the AMI 5800 by ABB is a dependable driver of new equipment packages or a stress-free solution for replacing existing machines with the latest motor technology.

Designed for North America
Our team of engineers, drawing on two hundred years of combined experience designing large motors for the North American and global markets, have created a design that delivers the reliability and performance necessary to make the AMI 5800 a dependable and long-lasting solution.

To make the most use of that experience, the AMI 5800 has been painstakingly engineered to ensure that the mounting dimensions of the footpad, shaft extension and terminal box locations are able to match the North American installed base. These efforts make this machine a natural fit for upgrading existing installations with next-generation designs.

Solution-based Designs
A high degree of modularity and customization permits each design to provide the features and accessories to ensure trouble-free operation while avoiding unnecessary options and complexity.

Our experience in providing motors for driven equipment across all industries in North America has guided our offerings to ensure our motors meet the demands of your environment and application.

Solid Foundation
An important part of the of the AMI 5800 is its welded, high-strength steel frame. This welded steel construction, typically only seen in larger frame motors, offers lower frame stress while mitigating vibrations and resonance and increasing the life of the motor and improving reliability. This design also complies with the vibration levels specified by NEMA and API. With reinforced end shields, the durable frame stands up to tough environments and long-term use.

It is also configured to ensure optimal air flow, whether an open-air or totally enclosed cooler is utilized. In addition, the AMI 5800's short XBA dimension (BA + V) allows it to fit in tight areas, making it ideal for the replacement of older equipment. Reinforced foot mounting ensures that torque is the only contribution the motor provides to the driven equipment, providing low levels of vibration even at all speed ranges.

Dedicated salesforce
With the industry's largest collection of motor experts, ABB's North American Large Motors salesforce is not only local to your needs but also committed to working with you on your next large motor solution.

Application engineering
Local engineering teams with deep application knowledge ensure proper design and motor selection.

ABB Services
Local certified ABB service technicians and authorized service repair facilities are there for the lifecyle of your motor, to reduce unplanned downtime and extend equipment life.

Training
ABB offers on-site, classroom and online training.

Supported in North America
With decades of experience operating in North America as well as globally, ABB and our team of Reliance® engineers know what it takes to produce dependable machines for our discerning customer base. You get a dependable True NEMA motor that you can rely on for many years thanks to the combination of a Reliance design and ABB quality.

ABB has an experienced sales force as well as a skilled application engineering team who understands NEMA motor standards. They are dedicated to taking care of you and supporting your business outcomes.

Designed by Reliance. Manufactured by ABB. Made for you.

With results-driven design and manufacturing, the AMI 5800's long life and low overall operating costs reduce operational downtime and increase output, leading to better financial returns. It fits a wide range of industries and applications.

Industries
- Power Generation
- Chemical, Oil & Gas
- Mining and Minerals
- Metals
- Pulp and Paper

Applications
- Compressors (centrifugal, reciprocating, etc.)
- Centrifugal Pumps
- Fans
- Mills
- Conveyers
- Extruders

AMI 5800

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The AMI 5800 Workhorse

Mechanically and electrically NEMA compliant, the modular design of the AMI 5800 produces a maximum output of 1750 HP. With options of anti-friction and sleeve in 2 to 8 poles, it delivers the capabilities for your specific environment.

Main features

Output power	Up to 1750 HP
Frame size	5810 – 5812
Number of poles	2 to 8
Voltage	460, 2300/4160, 6600 V
Frequency	50/60 Hz DOL, VSD
Service Factor	DOL = B @ 1.0SF / F @ 1.15SF, VSD = 1.0 @ F rise
Insulation Class	F
Cooling	WPI, WPII, TEAAC, TEWAC (IC01, IC611, IC81W)
Protection	IP23 (WPI), IP24W (WPII), IP55 (TEAAC & TEWAC)
Shaft heights	NEMA frame 5800, 14.5” (368.5mm)
Bearings	Antifriction & Sleeve
Mounting	Horizontal
Standards	NEMA MG 1, CSA
Explosive area classification	Class I, Division 2

The AMI 5800
Built to keep moving

General Features

Quality assurance

- ISO 9001
- ISO 14001
- CE-marking

Design lifetime

- 25 years
- 20 000 starts per lifetime

Additional features

Noise level	82 +3 dB(A) (up to 77 + 3 dB(A) possible with silencer)
Quality assurance	ISO 9001, ISO 14001
Design lifetime	25 years (20,000 starts per lifetime)
Internal cooling	Asymmetrical
Direction of rotation	Unidirectional for 2-pole, Bidirectional for 4-pole and above
Vibration level	Grade A or B
Standard paint system	C3
Stator	Form wound Micadur Compact Industry (MCI) insulation system VPI Magnetic slot wedges
Rotor	Fabricated Aluminum bar as standard (Copper or Copper alloy bar available) Bars fixed to slots by swaging Rotor balanced with half key acc. ISO 1940/1
Critical speeds	> Maximum nominal speed (for all speeds)

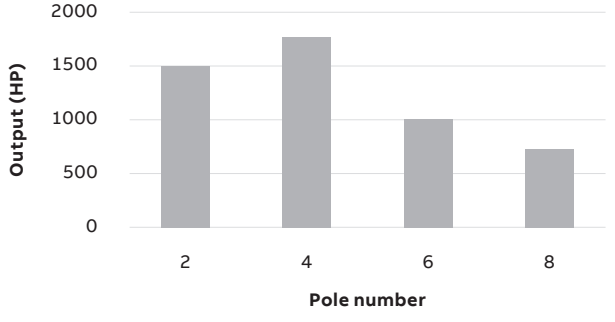

Figure 1. AMI5800 60Hz motors output as function of pole number.

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Scan the QR code and learn more about the **ABB AMI 5800**

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