CATALOG

High voltage general purpose motors
Technical catalog

- N-series general purpose motors combine cost-efficient standardized designs and short lead times with safety, productivity, energy efficiency and reliability

High voltage general purpose motors from ABB combine cost-efficient standardized designs and short lead times with safety, productivity, energy efficiency and reliability. They are targeted at applications where a highly customized motor is not needed.

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ABB reserves the right to change the designs, technical specifications and dimensions without prior notice.

Data presented in rating lists are typical values. Accurate motor data will be given on request at the quotation phase.

All ratings in this catalog are designed for the following:
– Class F insulation / Maximum temperature rise of 80°C by resistance
– 40°C ambient
– Altitude of 1000 meters or less

High voltage general purpose motors N-series

High voltage general purpose motors from ABB combine cost-efficient standardized designs and short lead times with safety, productivity, energy efficiency and reliability. They are targeted at applications where a highly customized motor is not needed.

This catalog covers ABB's N-series high voltage general purpose motors: rib cooled motors (type NXR), modular induction motors (type NMI) and slip-ring motors (type NMK).

With their standardized designs and short lead times, the N-series high voltage pre-engineered motors meet most common needs across a wide range of industries.

Based on broad experience of different industries and applications, the motors use cost-effective pre-packaged designs to meet the same high quality standards as all ABB motors but with lead times that are several weeks shorter.

The pre-engineered N-series complements the A-series of engineered motors, which are highly customized, fine-tuned to the customer's precise needs, and offer a high degree of engineering flexibility.

Like all ABB products, the N-series motors are backed by ABB's global support network, which includes over 60 service centers and more than 150 authorized service providers worldwide. The availability of round-the-clock access to spares, repairs and replacements, as well as predefined maintenance programs for all stages of the product life cycle, helps customers to minimize downtime and reduce their cost of ownership.

MachSize
Easy-to-use online selection tool

Handy online tool makes it possible to select and buy a high voltage motor in just a few minutes.

MachSize is an intuitive online tool which reduces the time needed to get a quotation and order a motor from several days to just a few minutes. MachSize enables you to configure N-series high voltage general purpose motors, generate quotations, send orders and obtain all the necessary documentation. It guides you through the motor selection process in a series of straightforward, logical steps.

Because MachSize is an online tool, it can be accessed 24/7 on laptops, tablets, phones – any device that has a browser and Internet connection.

MachSize is targeted at registered customers and ABB partners like distributors and OEMs.

If you would like to try MachSize, please contact ABB. Our local sales unit will help you to register.

Rotor and stator

Rotor
The key to a long rotor operating life is minimal vibration. This is achieved through robust construction and careful balancing. ABB selects the shaft material according to the demands of the application and the ambient conditions in which the motor is to operate.

Squirrel cages are made of copper, copper alloy or aluminum, depending on the load and customer requirements. Additional stiffness is provided by fabricated rotor bars, which enable the motors to withstand long periods of heavy use. Aluminum bars and end rings are used to ensure optimal starting characteristics.

Once assembled each rotor is dynamically balanced at full operating speed in accordance with the ISO 1940-1 and ISO 11342 standards on mechanical vibration.

Stator
The stator core is welded and machined to form a solid and compact unit that retains its rigidity throughout the life of the motor. Radial air ducts ensure uniform and efficient cooling.

When completely wound and connected, the stator is vacuum pressure impregnated and cured with ABB's Micadur® Compact Industry insulation system, a specially formulated epoxy resin used by ABB to insulate all its rotating electrical machines over the past 30 years. Micadur ensures a sealed and homogeneous insulation system, resulting in low dielectric losses, high dielectric strength, excellent heat transfer and the elimination of hazardous internal partial discharges.

As standard, all motors are designed to stay within temperature class F.

High voltage terminal boxes

Technical data:

Voltage (max.)	6.6 kV
Current (max.)	800 A
No. of cables (max.)	2 per phase
Cross section of cables (max.)	300 mm^2/cable
Cable gland	blind gland (1 pce)
Clearance (min.)	60 mm
Creepage (min.)	89 mm
Gross volume	197 dm^3
Usable volume	189 dm^3
Connection screws	(M16x1/M12x2/ M10x2)/phase
Tightening torque for connection nuts	190 Nm (M16), 55 Nm (M12), 46 Nm (M10)
Ground connections	M12 (both in- and outside)
Weight	90 kg
Protection	IP66
Standards	DIN 42962 Teil 2, D2 (internal dimensions)

Materials:

Box	welded sheet steel (thickness min. 3 mm)
Cable gland plate	steel
Connection screws	bronze
Isolators	polyurethane resin or epoxy casting resin
Grounding pad	stainless steel

Other features:

- rigid welded construction
- ample size for connecting supply cables
- box turnable to allow cable entry from left or right
- box turnable in steps of 90°
- either 3-phase or 1-phase cables can be connected
- pressure relief plate in bottom of box in case of arcing short circuit
- different cable glands available

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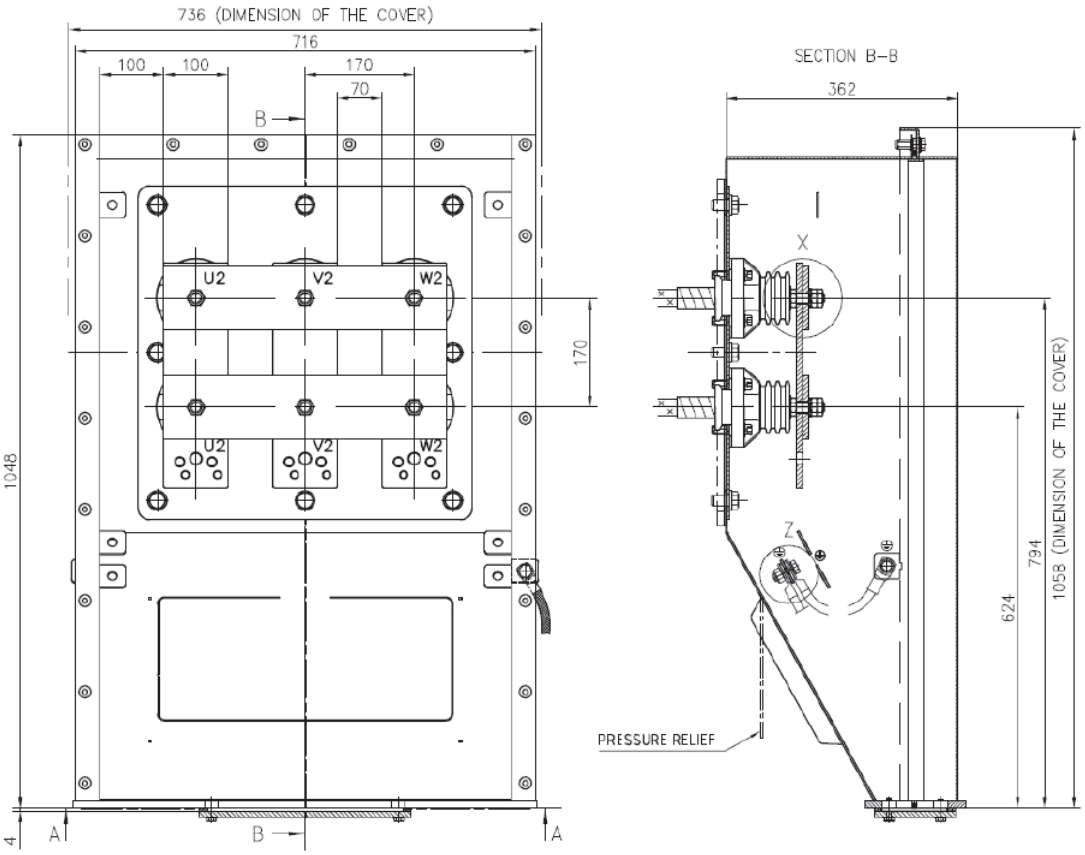
01 High voltage star point terminal box, max 6.6 kV. Dimensions in mm.



High voltage terminal boxes

Technical data:

Voltage (max.)	11.0 kV
Current (max.)	400 A
No. of cables (max.)	1 per phase
Cross section of cables (max.)	300 mm^2/cable
Cable gland	blind gland (1 pce)
Clearance (min.)	100 mm
Creepage (min.)	163 mm
Gross volume	127 dm^3
Usable volume	117 dm^3
Connection screws	M16 (3 pcs)
Connection nuts	tightening torque 40 Nm
Ground connections	M12 (both in- and outside)
Weight	62 kg
Protection	IP66
Standard	DIN 42962 TEIL 2, C2

Materials:

Box	welded sheet steel (thickness min. 3 mm)
Cable gland plate	steel
Connection screws	bronze
Isolators	epoxy casting resin
Grounding pad	stainless steel

Other features:

- rigid welded construction
- ample size for connecting supply cables
- box turnable to allow cable entry from left or right
- box turnable in steps of 90°
- either 3-phase or 1-phase cables can be connected
- pressure relief plate in bottom of box in case of arcing short circuit
- different cable glands available

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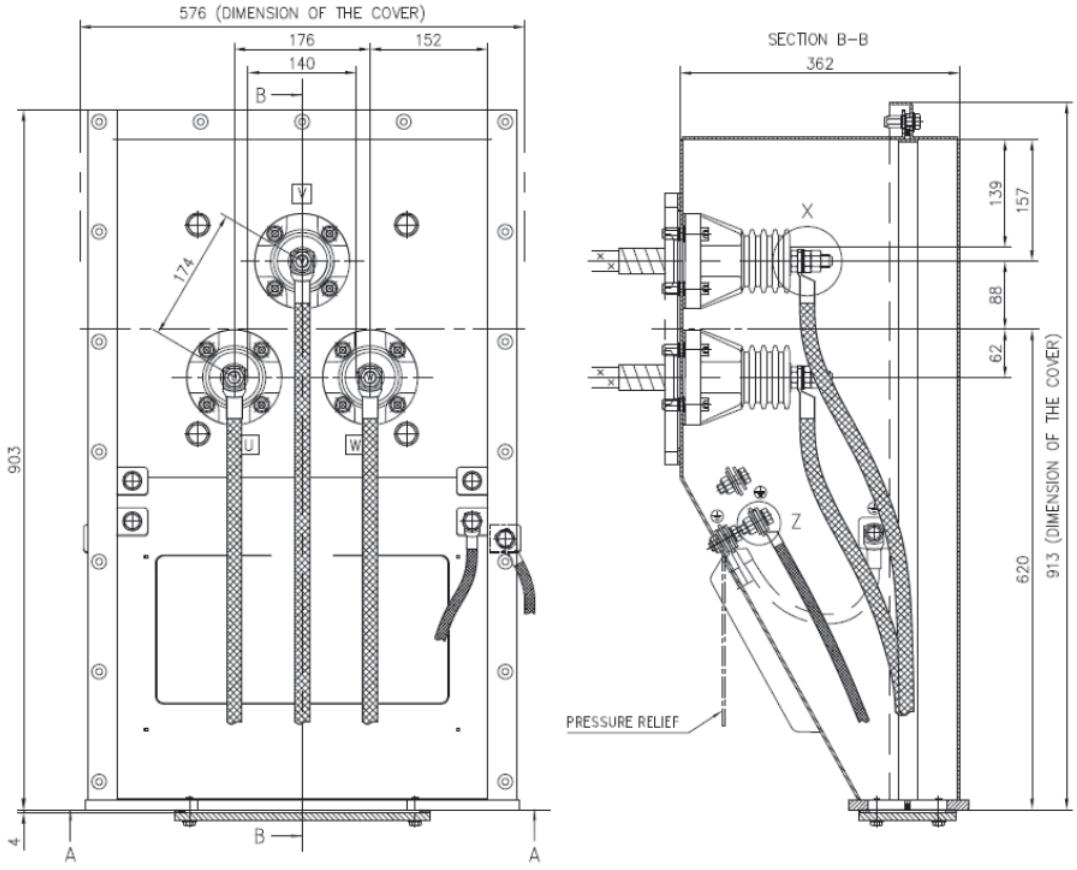
02 High voltage terminal box, max 11 k
Dimensions in mm.



High voltage terminal boxes

Dimensions for terminal box inlet, blind flange
As standard, main terminal boxes are supplied with a blind flange. Cable glands are available on request.

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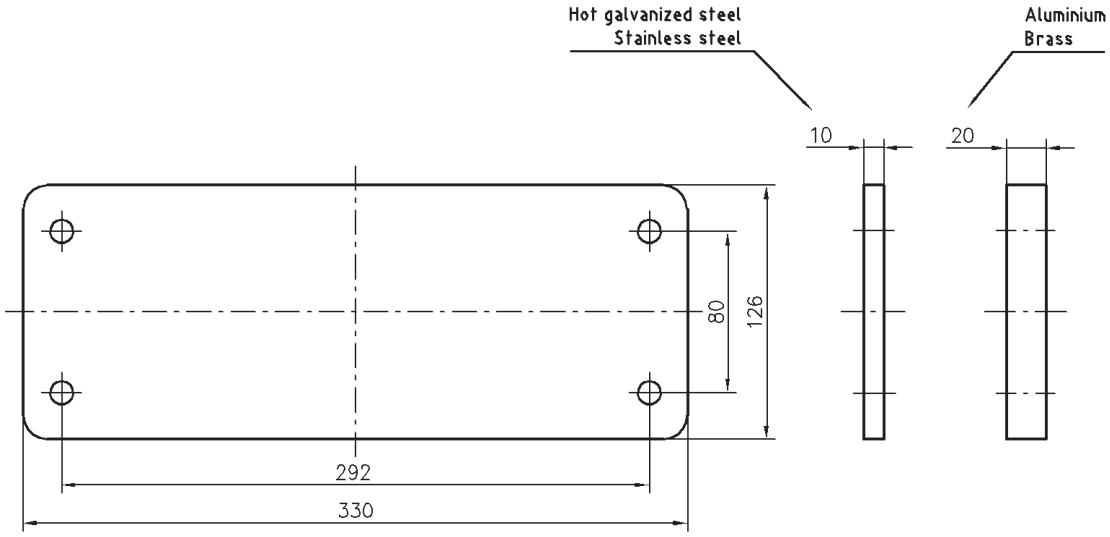
03 Blind flange FL 33 for terminal box.



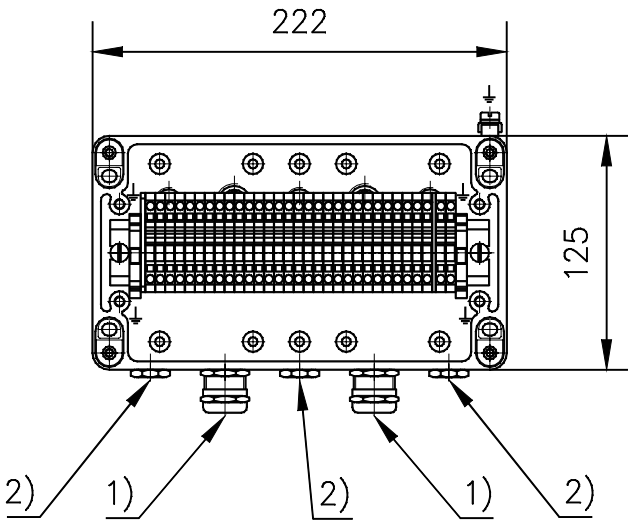
Auxiliary terminal boxes

As standard, motors in safe areas are equipped with one common auxiliary terminal box for monitoring devices and space heaters. As standard, motors in hazardous areas are equipped with two auxiliary terminal boxes, one for monitoring devices and one for space heaters.

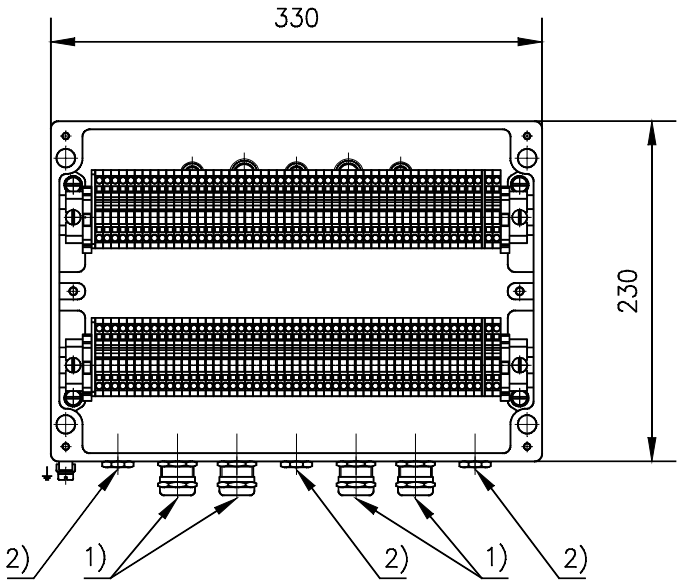
Standard auxiliary terminal boxes

Type designation	Use	Size (H x D x W) mm
Small terminal box	Standard	125 x 81 x 222
Large terminal box	When additional space needed	230 x 180 x 330

Typical arrangements for standard terminal boxes are shown below. The number of terminal blocks depends on the number of accessories used with the motor. Additional terminals can be supplied on request.



04 Small terminal box with terminal blocks and cable glands.
1) Cable gland M20x1.5 for cable outer diameter 10 to 14 mm (2 pcs)
2) Threaded hole for cable gland M16x1.5 (3 pcs), plugged.



05 Large terminal box with terminal blocks and cable glands.
1) Cable gland M20x1.5 for cable outer diameter 10 to 14 mm (4 pcs)
2) Threaded hole for cable gland M16x1.5 (3 pcs), plugged.

Bearings

This chapter provides information about bearings for NXR and NMI motors. For information about bearings for NMK motors, please contact ABB.

Horizontal motors

Horizontal motors in frame sizes 315 to 560 have deep groove ball bearings at both ends. The NMI 630 has a double bearing arrangement (a deep groove ball bearing and cylindrical roller bearing) at the D-end and a cylindrical roller bearing at the N-end (only horizontal motor available).

The bearing at the D-end is axially locked in horizontal motors. Standard bearings for horizontal motors are listed in the table below and the bearing construction is shown in the figures on page 12.

The standard bearing solution is designed to carry the weight of a typical coupling half and the motor's rotor only. Any additional radial or axial force caused by the driven equipment may require specially constructed bearings.

Standard bearings for horizontal motors

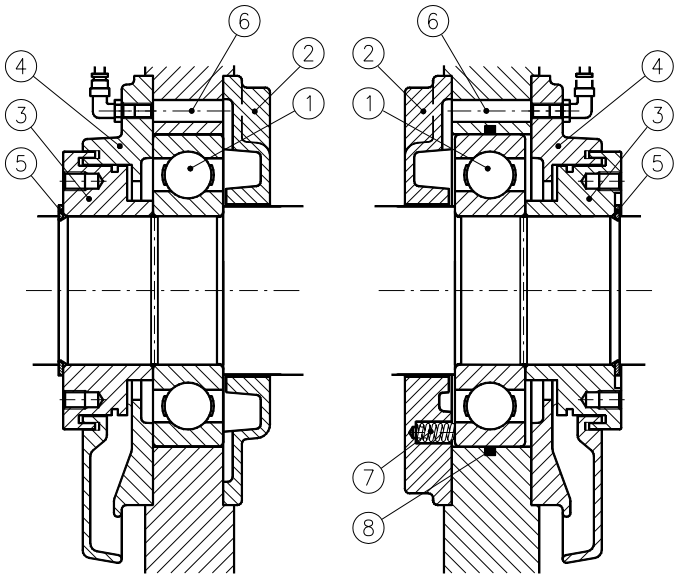
Frame size	Poles	D-end	N-end
NXR 315	≥2	6317M/C3	6317M/C3
NXR 355	2	6317M/C3	6317M/C3
NXR 355	≥4	6319M/C3	6319M/C3
NXR 400	2	6317M/C3	6317M/C3
NXR 400	≥4	6324/C3	6319M/C3
NXR 450	2	6319M/C3	6319M/C3
NXR 450	≥4	6324/C3	6324/C3
NXR 500	2	sleeve*	
NXR 500	≥4	6330M/C3	6330M/C3
NMI 400	2	6220M/C3	6220M/C3
NMI 400	≥4	6226/C3	6220/C3
NMI 450	2	6222M/C3	6222M/C3
NMI 450	≥4	6228/C3	6222/C3
NMI 500	2	sleeve*	sleeve*
NMI 500	≥4	6232M/C3	6228/C3
NMI 560	2	sleeve*	sleeve*
NMI 560	≥4	6038M/C3+NU1038M/C3	NU1034M/C3
NMI 630	2	sleeve*	sleeve*
NMI 630	4	6038M/C3+NU1038M/C3	NU1038M/C3
NMI 630	≥6	6044M/C3+NU1044M/C3	NU1044M/C3

*See section on sleeve bearings

Bearings

Standard bearing construction for horizontally mounted motors, frame sizes 315 to 630.

—
06
1 Groove ball bearing
2 Inner bearing cover
3 Grease valve
4 Outer bearing cover
5 Circlip
6 Hexagon screw
7 Spring
8 O-ring



D-end, axially locked

N-end, axially free

Bearings

Rated lifetime
Most standard bearings have a rated lifetime L10h in excess of 100,000 h. The rated lifetime for frame size 500, 2-pole, may be less than 100,000 h. The lifetimes are calculated in accordance with ISO R 281-1.

The basic rated lifetime L10h is the number of hours at rated bearing load and speed that 90% of a group of identical bearings will complete or exceed before the first evidence of failure.

Lubrication intervals
The motors are fitted with grease nipple(s) at both ends for lubricating the bearings. The grease nipples are located on the top of the motor. The amount of grease and the greasing interval are stamped on the relubrication plate, and the same information is shown in the table below.

Relubrication intervals and grease amount for NXR motors

Bearing type	Amount of grease [g]	Lubrication intervals in running hours at different speeds [rpm]									
		3600	3000	1800	1500	1200	1000	900	750	600	≤ 500
6317	35	2200	3000	8000	8800	8800	8800	8800	8800	8800	8800
6319	45	1500[1)]	2500[1)]	6600	8800	8800	8800	8800	8800	8800	8800
6324	75	NA	NA	4400	5900	8000	8800	8800	8800	8800	8800
6330	100	NA	NA	3000	3600	5900	8000	8800	8800	8800	8800

[1)] Use synthetic grease only

Relubrication intervals and grease amount for NMI motors

Bearing type	Amount of grease [g]	Lubrication intervals in running hours at different speeds [rpm]			
		3000	1500	1000	750
6220	30	2200	8800	8800	8800
6226	45	NA	5100	8800	8800
6222	38	1500	8800	8800	8800
6228	53	NA	3600	8000	8800
6232	70	NA	3000	6600	8800
_034	55	NA	5000	5000	8800
_038	70	NA	3000	5000	8800
_044	96	NA	3000	4400	6600

Sleeve bearings
As standard, the axial float of the rotor is ±8 mm from the mechanical center. The running center is located within the float area and therefore operation is also allowed while the motor is uncoupled eg, during test running. As standard, a pointer showing the running center with regard to the end limits is available. Continuous axial forces are not permitted and therefore a limiting type of coupling is needed to ensure the location of the rotor within the axial float range. On request and as an option, when the special axial float is at least ±3 mm, the magnetic running center can be adjusted to within ±2.4 mm of the mechanical center.

Sleeve bearings are generally self-cooled, oil ring lubricated but some require external flood lubrication. Please see the lubrication table below for standard lubrication requirements based on a maximum 40°C ambient and 50 Hz operation. Consult ABB for ambient temperatures above 40°C, or for self-cooling of bearings where flood lubrication is standard. Units requiring flood lubrication are supplied with provisions only. Refer the oil supply pressure, type of oil, and location of provisions to the factory for review prior to order acceptance.

Bearings

Sleeve bearings and lubrication methods

Frame size	Poles	D-end bearing	N-end bearing	Lubrication Method
NXR 355	2	EFNLB 9-80	EFNLQ 9-80	Self lubrication
NXR 355	≥4	EFNLB 9-90	EFNLQ 9-90	Self lubrication
NXR 400	2 (50Hz)	EFNLB 9-80	EFNLQ 9-80	Self lubrication
NXR 400	2 (60Hz)	EMNLB 9s-80	EMNLB 9s-80	Self lubrication
NXR 400	≥4	EFNLB 9-100	EFNLQ 9-100	Self lubrication
NXR 450	2	EMNLB 9s-80	EMNLB 9s-80	Self lubrication
NXR 450	4	EMNLB 9s-90	EMNLB 9s-90	Self lubrication
NXR 450	≥6	EMNLB 9s-100	EMNLB 9s-100	Self lubrication
NXR 500	2	EMZLB 9s-90	EMZLB 9s-90	Oil circulation[1)]
NXR 500	≥4	EFNLB 14-125	EFNLB 11-125	Self lubrication
NMI 400	2	MNLB 9s-80	MNLB 9s-80	Self lubrication
NMI 450	2	MNLB 9s-80	MNLB 9s-80	Self lubrication
NMI 500	2	FZLB 9-100	FZLQ 9-100	Forced lubrication
NMI 500	≥4	FNLB 11-125	FNLQ 11-125	Self lubrication
NMI 560	2	MZLB 11-125	MZLB 11-125	Forced lubrication
NMI 560	4	FNLB 18-160	FNLQ 18-160	Self lubrication
NMI 560	≥6	FNLB 14-160	FNLQ 14-160	Self lubrication
NMI 630	2	MZLB 14-160	MZLB 14-160	Forced lubrication
NMI 630	4	FNLB 18-160	FNLQ 18-160	Self lubrication
NMI 630	≥6	FNLB 18-200	FNLQ 18-200	Self lubrication

[1)] Self lubrication possible, please contact ABB

Rated lifetime

The bearing rates for all vertical motors with standard bearings have a rated lifetime L10h in excess of 100,000 h. The lifetimes are calculated in accordance with ISO R 281-1.

The basic rated lifetime L10h is the number of hours at rated bearing load and speed that 90% of a group of identical bearings will complete or exceed before the first evidence of failure.

Additional axial force from the driven equipment is not allowed.

Lubrication intervals

The motors are fitted with grease nipple(s) at both ends for lubricating the bearings. The grease nipples are located on the top of the motor. The amount of grease and the greasing interval are stamped on the relubrication plate, and the same information is shown in the table on page 13.

Vibration

Standard design
The standard motors manufactured according to IEC standard satisfy the Grade A vibration limits specified in IEC 60034-14. The maximum accepted values are shown in the table below.

Standard design unfiltered vibration limits

Poles	Speed [rpm]	Bearing housing vibration	Relative shaft vibration	Combined runout
2	1800 < n ≤ 3600	2.3 mm/s rms	65 µm p-p	16 µm p-p
≥ 4	n ≤ 1800	2.3 mm/s rms	90 µm p-p	23 µm p-p

Rib cooled motors, type NXR
More know-how per kilogram

The latest generation of multipurpose rib cooled motors offers high power density, easy configurability and built-in serviceability. They incorporate experience ABB has gained over more than 125 years of manufacturing electric motors.

These motors set a benchmark for the industry, offering more watts per kilogram than has ever been achieved before with rib 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.

NXR motors have a rugged cast iron frame. They are rib cooled motors with IC411 cooling and IP55 protection as standard. The motors are also available with IC416 cooling and optional IP66 protection. Their IP66 protection has been verified by a leading independent testing organization.

NXR motors cover the output range up to 1,800 kW, and they are available in shaft heights from 315 to 500 mm. The motors can be mounted horizontally (vertical mounting available for frame sizes 450 and 500). For NXR motors this catalog shows the technical data at 50 Hz and 60 Hz, and for synchronous speed from 500 to 3600 rpm.

Rib cooled motors, type NXR
Mounting arrangements

Standard mounting arrangements for NXR motors

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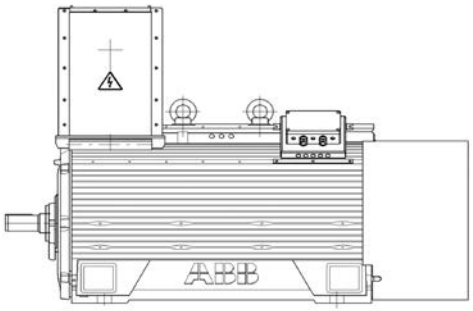
07 Code I: IM B3
Code II: IM 1001
Standard floor mounting, feet facing downwards (horizontal foot mounted)



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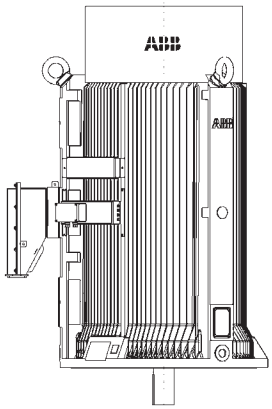
08 Code I: IM V1
Code II: IM 4011
Flange and free shaft end facing downwards (vertical solid shaft, flange mounted)



Rib cooled motors, type NXR
Enclosure and cooling

Standard combinations

IC411 / IP55
NXR motors have an external shaft mounted fan that uses the surrounding air for cooling. The motors are protected against dust and water jets. The operating principle of these motors is shown in diagram 09 below.

IC416 / IP55
NXR motors are available with IC416 cooling. An additional motor drives the cooling fan to produce the cooling required for low speed applications, especially in cases where the motor is fed via a variable speed drive.

Protection rating IP55
- Protection against dust: as in other dust-protected motors, some dust can enter but not in sufficient quantities to interfere with the motor's operation.
- Protection against water jets: water projected by a nozzle against the motor from any direction has no harmful effect.

Protection rating IP66
NXR motors are available with protection ratings up to IP66.
- Protection against dust: the enclosure is completely dust tight.
- Protection against water jets: water projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction has no harmful effect.

Cooling method (IC411)
- Frame surface cooled:
  The primary coolant is circulated in a closed circuit in the motor and gives its heat through the external surface of the motor (in addition to the heat transfer via the stator core and other heat conducting parts) to the final coolant which is the surrounding medium. The surface may be plain or ribbed, with or without an outer shell to improve the heat transfer.
- Self circulation:
  The coolant is moved dependent on the rotational speed of the main motor either by action of the rotor alone or by means of a component designed for this purpose and mounted directly on the rotor of the main motor, or by a fan or pump unit mechanically driven by the rotor or the main motor.

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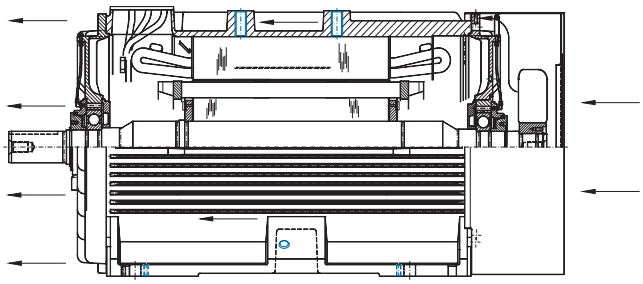
09 Sectional drawing of IC411 / IP55 motor



Rib cooled motors, type NXR
Technical data

The technical data on pages 20 to 36 covers NXR motors with 2 to 6 poles. Versions with 8, 10 and 12 poles are also available.

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IP55, IC411, insulation class F, temperature rise class B
690 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_P dB(A)
3000/r min = 2 poles				**690 V 50 Hz**												
250	NXR 315MB2	310126	2972	95.8	95.9	0.91	0.90	240	5.7	50	803	0.7	2.3	1.9	1760	80
280	NXR 315MB2	310125	2971	95.9	96.0	0.89	0.88	273	5.5	65	900	0.7	2.2	1.9	1770	80
315	NXR 315MC2	310124	2968	95.9	96.1	0.90	0.90	302	5.1	57	1013	0.7	2.1	2.0	1800	80
355	NXR 315MD2	310123	2971	96.1	96.4	0.91	0.90	339	5.5	67	1141	0.7	2.2	2.2	1890	80
390	NXR 315ME2	310122	2972	96.3	96.4	0.90	0.89	375	5.9	86	1253	0.8	2.4	2.5	1970	80
415	NXR 315ME2	310121	2981	96.6	96.7	0.90	0.90	396	5.9	84	1329	0.7	2.3	3.5	2030	80
450	NXR 355MF2	350123	2970	96.1	96.2	0.91	0.90	430	6.0	88	1447	0.9	2.3	4.3	2440	80
500	NXR 355MG2	350122	2967	96.1	96.3	0.92	0.92	470	6.0	81	1609	1.0	2.4	4.8	2570	80
550	NXR 355MG2	350121	2982	96.7	96.8	0.92	0.92	512	6.0	81	1761	0.7	2.3	6.2	2640	80
560	NXR 400ME2	400125	2974	96.4	96.4	0.91	0.90	533	5.8	101	1798	0.8	2.3	7.1	3110	81
630	NXR 400MG2	400124	2973	96.5	96.5	0.90	0.90	602	5.9	119	2023	0.8	2.2	8.3	3370	81
710	NXR 400MJ2	400123	2975	96.7	96.7	0.91	0.91	671	6.0	120	2279	0.8	2.3	8.6	3470	81
800	NXR 400MK2	400122	2977	96.8	96.9	0.92	0.91	751	6.3	134	2566	0.9	2.4	9.1	3620	81
850	NXR 400MK2	400121	2985	97.1	97.2	0.91	0.91	796	6.1	134	2719	0.7	2.2	11.8	3730	81
900	NXR 450MK2	450124	2977	96.8	96.8	0.90	0.90	856	5.4	152	2887	0.6	2.2	15.9	5130	81
1000	NXR 450MM2	450123	2982	97.0	97.0	0.91	0.90	946	6.0	181	3202	0.5	2.4	16.7	5350	81
1070	NXR 450MN2	450122	2982	97.0	97.1	0.92	0.91	1001	6.1	174	3426	0.6	2.5	16.9	5460	81
1120	NXR 450MN2	450121	2988	97.3	97.3	0.92	0.92	1040	6.1	172	3579	0.5	2.4	22.8	5640	81
1250	NXR 500MM2	500122	2984	97.0	97.0	0.94	0.94	1146	6.0	169	4000	0.6	2.4	23.4	6650	81
1280	NXR 500MM2	500121	2987	97.1	97.1	0.93	0.94	1177	5.8	167	4093	0.6	2.2	32.9	6870	81

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
690 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1500/r min = 4 poles				**690 V 50 Hz**												
280	NXR 315MC4	310145	1491	96.2	96.1	0.84	0.80	289	6.2	112	1793	0.7	2.4	4.6	1880	76
315	NXR 315MC4	310144	1490	96.2	96.2	0.86	0.83	320	5.6	110	2019	0.7	2.1	4.7	1900	76
355	NXR 315MC4	310143	1490	96.2	96.3	0.85	0.82	362	5.7	128	2276	0.7	2.2	4.8	1910	76
380	NXR 315MD4	310142	1490	96.3	96.4	0.84	0.80	392	6.0	151	2435	0.7	2.3	5.0	1950	76
420	NXR 315ME4	310141	1490	96.5	96.5	0.85	0.82	427	6.0	155	2691	0.7	2.3	5.6	2040	76
450	NXR 355MF4	350143	1484	96.1	96.2	0.85	0.82	460	5.6	157	2896	1.0	2.2	6.3	2430	76
500	NXR 355MH4	350142	1485	96.2	96.2	0.84	0.81	516	5.9	189	3215	1.1	2.3	6.8	2530	76
550	NXR 355MH4	350141	1490	96.5	96.5	0.85	0.82	560	5.8	188	3524	0.8	2.1	8.8	2620	76
630	NXR 400MF4	400144	1487	96.2	96.1	0.85	0.82	648	5.9	222	4047	1.0	2.2	11.6	3180	81
710	NXR 400MH4	400143	1487	96.3	96.3	0.85	0.82	727	5.8	241	4560	1.0	2.1	13.3	3420	81
800	NXR 400ML4	400142	1488	96.4	96.4	0.84	0.81	828	6.0	293	5134	1.0	2.1	15.0	3640	81
870	NXR 400ML4	400141	1492	96.7	96.6	0.85	0.83	888	6.0	285	5569	0.9	2.0	18.8	3760	81
900	NXR 450MJ4	450144	1488	96.6	96.6	0.88	0.87	881	5.8	244	5776	0.8	2.2	23.4	4840	81
1000	NXR 450ML4	450143	1490	96.7	96.7	0.87	0.84	997	6.0	317	6411	0.8	2.3	25.3	5050	81
1120	NXR 450MM4	450142	1490	96.8	96.7	0.86	0.83	1130	6.1	383	7179	0.8	2.3	28.2	5360	81
1200	NXR 450MM4	450141	1494	97.0	96.9	0.86	0.84	1202	6.0	384	7670	0.6	2.2	36.3	5550	81
1250	NXR 500MK4	500144	1489	96.9	96.9	0.89	0.88	1209	5.4	307	8017	0.6	2.1	33.8	6380	81
1400	NXR 500MM4	500143	1491	97.0	96.9	0.87	0.85	1381	6.0	430	8969	0.7	2.3	38.6	6750	81
1500	NXR 500MP4	500142	1490	97.1	97.1	0.90	0.88	1442	6.0	379	9613	0.7	2.3	42.3	7110	81
1600	NXR 500MP4	500141	1494	97.2	97.2	0.90	0.89	1530	5.7	363	10230	0.6	2.1	58.6	7400	81

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
690 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1000/r min = 6 poles				**690 V 50 Hz**												
250	NXR 315MD6	310163	991	95.9	95.9	0.78	0.73	279	5.2	132	2408	0.8	2.1	4.8	1910	73
280	NXR 315MD6	310162	991	95.9	96.1	0.79	0.74	309	5.0	138	2698	0.8	2.0	5.0	1950	73
325	NXR 315ME6	310161	992	96.1	96.2	0.78	0.73	362	5.3	170	3130	0.8	2.1	5.7	2060	73
400	NXR 355MH6	350162	988	95.6	95.6	0.79	0.73	446	5.6	212	3867	1.1	2.3	7.2	2600	74
450	NXR 355MH6	350161	992	96.1	96.1	0.80	0.75	489	5.3	212	4332	0.8	2.1	9.3	2680	74
500	NXR 400MH6	420003	991	96.1	96.1	0.85	0.82	513	5.9	182	4817	0.9	2.2	17.7	3210	74
560	NXR 400MK6	420103	992	96.2	96.1	0.84	0.80	582	6.3	227	5390	1.0	2.3	19.8	3390	74
630	NXR 400ML6	420102	993	96.2	96.1	0.82	0.78	667	6.1	278	6060	0.9	2.3	23.2	3700	74
675	NXR 400ML6	420104	995	96.5	96.3	0.84	0.80	700	6.1	265	6477	0.7	2.1	30.2	3870	74
710	NXR 450MH6	450164	992	96.5	96.5	0.85	0.82	721	5.9	258	6836	0.8	2.3	31.5	4670	77
800	NXR 450MK6	450163	992	96.6	96.6	0.86	0.83	807	5.9	279	7701	0.8	2.3	35.6	4960	77
930	NXR 450MP6	450162	992	96.7	96.8	0.87	0.85	920	6.0	286	8955	0.9	2.2	42.3	5440	77
1000	NXR 450MP6	450161	995	96.9	97.0	0.88	0.86	984	5.9	277	9601	0.8	2.0	55.2	5680	77
1100	NXR 500ML6	500164	992	96.8	96.8	0.87	0.84	1096	5.9	359	10589	0.8	2.3	51.1	6460	77
1250	NXR 500MP6	500163	993	96.9	96.9	0.86	0.83	1251	6.1	432	12026	0.9	2.4	58.3	6920	77
1400	NXR 500MR6	500162	994	97.0	97.0	0.84	0.80	1438	6.1	563	13456	0.8	2.4	66.4	7450	77
1550	NXR 500MR6	500161	996	97.2	97.2	0.86	0.83	1555	6.0	521	14866	0.6	2.2	87.4	7770	77

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
3000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
3000/r min = 2 poles				**3000 V 50 Hz**												
125	NXR 315MA2	310329	2972	94.7	94.4	0.91	0.90	28	5.7	6	402	0.7	2.4	1.7	1670	80
160	NXR 315MA2	310328	2968	94.9	94.9	0.91	0.91	35	5.5	7	515	0.7	2.3	1.7	1670	80
200	NXR 315MA2	310327	2965	95.1	95.2	0.91	0.91	44	5.2	8	644	0.7	2.1	1.7	1680	80
250	NXR 315MB2	310326	2968	95.5	95.7	0.90	0.89	56	5.3	12	804	0.7	2.2	1.8	1710	80
280	NXR 315MB2	310325	2969	95.7	95.9	0.90	0.89	62	5.6	14	901	0.7	2.3	2.0	1760	80
315	NXR 315MC2	310324	2970	95.9	96.1	0.90	0.89	70	5.6	15	1013	0.7	2.3	2.2	1840	80
355	NXR 315MD2	310323	2972	96.1	96.3	0.90	0.89	78	5.8	17	1141	0.7	2.3	2.4	1920	80
380	NXR 315ME2	310322	2973	96.2	96.4	0.91	0.90	84	5.7	17	1221	0.7	2.3	2.7	2000	80
400	NXR 315ME2	310321	2981	96.5	96.6	0.91	0.90	87	5.8	16	1281	0.7	2.2	3.7	2070	80
450	NXR 355ME2	350324	2973	96.1	96.2	0.91	0.90	99	6.0	21	1445	0.8	2.3	4.0	2350	80
500	NXR 355MF2	350323	2973	96.2	96.4	0.91	0.90	109	6.0	22	1606	0.8	2.4	4.3	2440	80
530	NXR 355MG2	350322	2974	96.4	96.4	0.91	0.90	116	6.1	24	1702	0.8	2.4	4.6	2540	80
560	NXR 355MG2	350321	2982	96.6	96.7	0.91	0.90	122	6.0	23	1793	0.7	2.2	6.1	2610	80
630	NXR 400MF2	400325	2976	96.5	96.6	0.91	0.91	137	5.8	25	2022	0.8	2.3	7.5	3200	81
710	NXR 400MH2	400324	2978	96.7	96.8	0.92	0.92	153	6.0	25	2277	0.8	2.3	8.4	3430	81
800	NXR 400MK2	400323	2977	96.8	96.9	0.92	0.92	172	6.1	27	2566	0.9	2.3	9.4	3670	81
840	NXR 400ML2	400322	2978	96.9	96.9	0.91	0.91	182	6.2	33	2693	0.8	2.3	9.8	3750	81
900	NXR 400ML2	400321	2986	97.2	97.2	0.91	0.91	194	6.1	33	2878	0.7	2.2	12.6	3870	81
1000	NXR 450MM2	450323	2980	96.9	96.9	0.92	0.91	216	6.1	37	3204	0.7	2.5	16.7	5300	81
1100	NXR 450MN2	450322	2981	97.0	97.0	0.91	0.90	239	6.3	46	3524	0.7	2.5	18.1	5540	81
1130	NXR 450MN2	450321	2986	97.2	97.1	0.90	0.90	246	6.1	45	3614	0.6	2.3	22.8	5700	81
1250	NXR 500MN2	500323	2983	96.9	96.9	0.92	0.92	267	5.8	45	4001	0.6	2.2	25.3	6740	81
1500	NXR 500MR2	500322	2984	97.1	97.1	0.92	0.92	320	6.0	53	4800	0.6	2.2	30.4	7470	81
1550	NXR 500MR2	500321	2987	97.3	97.2	0.92	0.92	332	5.9	53	4955	0.6	2.1	39.2	7690	81

Rib cooled motors, type NXR
Technical data

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IP55, IC411, insulation class F, temperature rise class B
3000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S I_N pu	I_0 A	T_N Nm	T_S T_N pu	T_{max} T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1500/r min = 4 poles				**3000 V 50 Hz**												
125	NXR 315MA4	310349	1481	94.5	94.4	0.85	0.82	30	5.3	11	806	0.9	2.2	2.8	1650	76
160	NXR 315MA4	310348	1482	94.9	94.8	0.83	0.79	39	5.7	15	1031	1.0	2.3	2.8	1650	76
200	NXR 315MA4	310347	1481	95.0	95.1	0.83	0.79	49	5.7	20	1290	1.0	2.3	2.8	1660	76
224	NXR 315MB4	310346	1481	95.2	95.2	0.83	0.79	54	5.7	21	1445	1.0	2.3	3.0	1700	76
250	NXR 315MB4	310345	1481	95.4	95.4	0.83	0.78	61	5.8	25	1611	1.1	2.3	3.2	1750	76
280	NXR 315MC4	310344	1481	95.4	95.5	0.84	0.80	67	5.8	26	1805	1.1	2.3	3.6	1800	76
315	NXR 315MD4	310343	1481	95.6	95.8	0.85	0.82	75	5.9	27	2031	1.1	2.3	4.0	1900	76
360	NXR 315ME4	310342	1482	95.8	95.9	0.84	0.80	86	5.9	33	2319	1.1	2.3	4.5	2000	76
400	NXR 315ME4	310341	1490	96.2	96.3	0.84	0.81	95	5.7	34	2564	0.9	2.0	5.7	2060	76
450	NXR 355MF4	350343	1484	95.9	95.9	0.85	0.82	106	5.7	37	2895	1.0	2.2	6.4	2430	79
530	NXR 355MH4	350342	1486	96.1	96.1	0.85	0.81	125	6.1	46	3407	1.1	2.3	7.4	2610	79
570	NXR 355MH4	350341	1489	96.3	96.3	0.85	0.83	133	5.9	44	3654	1.0	2.1	9.4	2700	79
630	NXR 400MG4	400344	1487	96.3	96.2	0.87	0.84	145	6.0	49	4045	0.9	2.3	11.9	3260	81
710	NXR 400MJ4	400343	1487	96.4	96.4	0.88	0.85	162	5.9	50	4560	0.9	2.3	13.6	3490	81
800	NXR 400MM4	400342	1487	96.5	96.5	0.88	0.86	181	5.9	54	5138	0.9	2.2	15.4	3760	81
900	NXR 400MM4	400341	1492	96.8	96.8	0.88	0.87	203	6.0	53	5760	0.8	2.0	20.5	3910	81
1000	NXR 450ML4	450343	1489	96.7	96.6	0.87	0.84	230	5.9	73	6412	0.8	2.2	26.8	5150	81
1120	NXR 450MP4	450342	1490	96.8	96.7	0.86	0.83	260	5.9	88	7177	0.8	2.2	30.1	5500	81
1200	NXR 450MP4	450341	1494	97.0	96.8	0.86	0.84	275	6.0	85	7672	0.7	2.1	38.5	5710	81
1250	NXR 500MK4	500345	1490	96.9	96.8	0.88	0.85	284	5.9	88	8010	0.7	2.3	34.4	6340	81
1400	NXR 500MN4	500344	1490	97.0	96.9	0.88	0.86	314	5.9	91	8972	0.7	2.3	39.1	6750	81
1500	NXR 500MP4	500343	1491	97.0	97.0	0.88	0.85	340	5.9	103	9609	0.7	2.2	42.9	7070	81
1650	NXR 500MR4	500342	1491	97.1	97.0	0.87	0.85	375	6.1	120	10565	0.7	2.3	47.3	7440	81
1750	NXR 500MR4	500341	1495	97.2	97.1	0.88	0.86	393	6.2	114	11182	0.6	2.2	63.0	7730	81

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
3000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1000/r min = 6 poles				**3000 V 50 Hz**												
125	NXR 315MA6	310367	986	94.6	94.6	0.78	0.73	32	5.2	16	1210	1.0	2.3	2.7	1640	73
160	NXR 315MB6	310366	986	94.8	94.9	0.78	0.72	42	5.2	21	1549	1.0	2.3	3.0	1690	73
200	NXR 315MC6	310365	987	95.1	95.2	0.77	0.70	53	5.4	27	1935	1.1	2.3	3.4	1780	73
224	NXR 315MD6	310364	987	95.3	95.4	0.77	0.71	59	5.5	30	2167	1.1	2.3	3.8	1870	73
250	NXR 315ME6	310363	986	95.2	95.4	0.79	0.74	64	5.2	29	2421	1.0	2.2	4.1	1930	73
280	NXR 315MF6	310362	987	95.4	95.6	0.78	0.72	72	5.5	35	2709	1.1	2.3	4.5	2020	73
315	NXR 315MF6	310361	992	95.9	96.0	0.80	0.75	79	5.3	35	3034	0.8	2.0	6.0	2080	73
355	NXR 355MG6	350363	987	95.3	95.4	0.80	0.75	89	5.3	40	3434	1.0	2.2	6.9	2500	74
380	NXR 355MH6	350362	987	95.4	95.5	0.80	0.75	96	5.4	44	3675	1.0	2.2	7.4	2590	74
420	NXR 355MH6	350361	991	95.8	95.9	0.81	0.78	104	5.0	40	4048	0.9	1.8	9.5	2670	74
450	NXR 400MG6	420007	992	95.9	95.9	0.85	0.81	107	5.9	40	4333	0.9	2.2	17.7	3180	74
500	NXR 400MJ6	420006	993	96.0	95.9	0.82	0.78	122	6.0	51	4809	0.8	2.3	20.2	3400	74
560	NXR 400ML6	420009	993	96.1	96.0	0.83	0.79	135	6.1	54	5387	0.8	2.3	22.8	3630	74
630	NXR 400MM6	420008	994	96.3	96.3	0.85	0.83	148	5.9	48	6050	0.9	1.9	30.4	3850	74
710	NXR 450MJ6	450364	992	96.4	96.4	0.86	0.82	166	5.9	59	6834	0.8	2.3	32.7	4700	77
800	NXR 450ML6	450363	992	96.5	96.6	0.87	0.85	183	5.9	58	7704	0.9	2.3	37.8	5050	77
950	NXR 450MP6	450362	993	96.7	96.7	0.85	0.82	222	6.0	81	9138	0.8	2.3	43.7	5490	77
1000	NXR 450MP6	450361	995	96.8	96.8	0.86	0.84	231	5.8	75	9599	0.8	2.1	55.9	5730	77
1120	NXR 500MM6	500364	993	96.8	96.8	0.83	0.79	268	5.9	108	10766	0.8	2.4	51.4	6500	77
1250	NXR 500MP6	500363	994	96.9	96.9	0.83	0.78	300	6.0	125	12012	0.8	2.4	58.4	6910	77
1450	NXR 500MS6	500362	994	97.0	97.0	0.83	0.79	345	6.0	139	13933	0.8	2.4	69.7	7600	77
1570	NXR 500MS6	500361	996	97.2	97.2	0.85	0.82	365	6.1	127	15053	0.7	2.2	92.7	7950	77

Rib cooled motors, type NXR
Technical data

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IP55, IC411, insulation class F, temperature rise class B
6000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
3000/r min = 2 poles				**6000 V 50 Hz**												
160	NXR 315MB2	310629	2974	94.7	94.4	0.86	0.82	19	6.5	6	514	0.9	2.9	2.1	1720	80
180	NXR 315MB2	310628	2970	94.7	94.6	0.87	0.84	21	6.0	6	579	0.9	2.6	2.1	1720	80
200	NXR 315MB2	310627	2968	94.8	94.8	0.88	0.86	23	5.8	6	643	0.8	2.4	2.1	1720	80
224	NXR 315MB2	310626	2971	95.0	95.1	0.89	0.87	25	5.8	7	720	0.8	2.3	2.0	1720	80
250	NXR 315MC2	310625	2968	95.3	95.4	0.89	0.87	28	5.8	7	804	0.9	2.3	2.2	1770	80
280	NXR 315MC2	310624	2969	95.5	95.6	0.89	0.88	31	5.7	7	900	0.8	2.2	2.3	1800	80
315	NXR 315MD2	310623	2971	95.7	95.9	0.89	0.88	35	6.0	8	1012	0.9	2.3	2.5	1890	80
355	NXR 315ME2	310622	2975	96.0	96.2	0.90	0.88	39	6.0	9	1139	0.7	2.3	2.6	1950	80
370	NXR 315ME2	310621	2983	96.2	96.4	0.90	0.89	41	5.9	9	1185	0.7	2.2	3.6	2010	80
400	NXR 355ME2	350624	2970	95.7	95.9	0.91	0.90	44	5.9	9	1286	0.9	2.3	4.0	2290	80
450	NXR 355MF2	350623	2971	95.9	96.0	0.90	0.89	50	6.0	11	1446	0.9	2.3	4.5	2420	80
500	NXR 355MG2	350622	2974	96.1	96.2	0.90	0.89	55	6.0	12	1606	0.8	2.3	4.7	2510	80
530	NXR 355MG2	350621	2983	96.5	96.5	0.91	0.90	58	6.1	12	1696	0.7	2.2	6.1	2590	80
560	NXR 400MF2	400625	2975	96.3	96.4	0.91	0.91	61	5.8	10	1797	0.8	2.2	7.5	3170	81
630	NXR 400MG2	400624	2977	96.5	96.6	0.92	0.92	68	5.9	11	2021	0.8	2.3	7.9	3280	81
700	NXR 400MJ2	400623	2979	96.6	96.7	0.92	0.91	76	6.0	13	2244	0.8	2.3	8.9	3500	81
770	NXR 400ML2	400622	2978	96.7	96.8	0.92	0.92	83	6.1	13	2469	0.9	2.3	9.6	3680	81
800	NXR 400ML2	400621	2984	96.9	97.0	0.92	0.93	85	6.0	13	2560	0.7	2.2	12.7	3810	81
900	NXR 450MK2	450624	2980	96.7	96.8	0.91	0.91	98	5.9	18	2884	0.6	2.4	15.6	5030	81
1000	NXR 450MM2	450623	2980	96.8	96.9	0.90	0.90	110	5.9	20	3204	0.6	2.4	17.5	5330	81
1050	NXR 450MN2	450622	2982	96.9	96.9	0.90	0.89	115	6.5	23	3362	0.7	2.6	18.1	5460	81
1100	NXR 450MN2	450621	2986	97.1	97.1	0.90	0.90	120	6.3	23	3517	0.6	2.4	22.6	5610	81
1250	NXR 500MP2	500623	2984	96.9	96.8	0.92	0.92	134	5.9	23	4000	0.6	2.3	26.9	6880	81
1450	NXR 500MR2	500622	2985	97.1	97.0	0.92	0.92	155	6.1	27	4639	0.6	2.3	30.1	7370	81
1500	NXR 500MR2	500621	2988	97.2	97.1	0.92	0.92	161	6.0	27	4795	0.6	2.1	38.8	7580	81

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
6000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1500/r min = 4 poles				**6000 V 50 Hz**												
160	NXR 315MB4	310648	1483	94.3	94.0	0.77	0.70	21	6.0	11	1030	1.0	2.6	3.1	1680	76
200	NXR 315MB4	310647	1484	94.7	94.6	0.81	0.76	25	6.0	11	1287	1.1	2.4	3.0	1670	76
224	NXR 315MC4	310646	1483	95.0	95.0	0.82	0.78	28	5.9	12	1443	1.1	2.3	3.3	1730	76
250	NXR 315MC4	310645	1484	95.2	95.2	0.82	0.77	31	5.9	13	1609	1.1	2.3	3.4	1770	76
280	NXR 315MD4	310644	1483	95.3	95.4	0.84	0.80	34	5.9	13	1803	1.2	2.3	3.7	1820	76
315	NXR 315ME4	310643	1484	95.6	95.6	0.82	0.77	39	5.9	16	2026	1.1	2.3	4.1	1910	76
340	NXR 315ME4	310642	1486	95.8	95.8	0.81	0.76	42	6.1	19	2185	1.0	2.4	4.2	1950	76
370	NXR 315ME4	310641	1490	96.0	96.0	0.83	0.79	45	6.1	18	2371	0.9	2.3	5.6	2020	76
400	NXR 355MF4	350645	1485	95.6	95.6	0.85	0.82	47	6.0	17	2572	1.1	2.3	6.2	2360	79
450	NXR 355MG4	350644	1486	95.8	95.8	0.84	0.80	54	6.0	20	2892	1.0	2.3	6.9	2490	79
480	NXR 355MH4	350643	1486	95.8	95.8	0.83	0.79	58	6.2	24	3084	1.1	2.4	7.3	2560	79
530	NXR 355MH4	350641	1490	96.1	96.0	0.84	0.81	63	6.0	23	3396	1.0	2.1	9.2	2640	79
560	NXR 400MF4	400646	1487	96.0	96.0	0.88	0.87	63	5.8	18	3597	0.8	2.2	11.0	3090	81
630	NXR 400MH4	400645	1488	96.2	96.2	0.88	0.85	72	6.0	22	4043	0.8	2.2	12.3	3280	81
710	NXR 400MK4	400644	1488	96.4	96.4	0.88	0.86	81	5.9	24	4557	0.8	2.2	13.7	3490	81
780	NXR 400ML4	400643	1489	96.5	96.5	0.87	0.85	89	5.9	27	5004	0.8	2.2	15.0	3680	81
850	NXR 400ML4	400641	1493	96.7	96.7	0.88	0.86	97	5.9	28	5438	0.7	2.0	20.1	3840	81
900	NXR 450MK4	450644	1489	96.6	96.5	0.87	0.85	103	5.9	31	5771	0.8	2.2	24.2	4880	81
1000	NXR 450MM4	450643	1490	96.6	96.5	0.85	0.82	117	5.9	41	6407	0.8	2.2	27.9	5210	81
1080	NXR 450MN4	450642	1490	96.6	96.5	0.85	0.82	127	5.8	44	6922	0.8	2.1	29.9	5410	81
1170	NXR 450MN4	450641	1494	96.9	96.7	0.86	0.83	135	6.0	44	7479	0.7	2.1	37.7	5600	81
1250	NXR 500ML4	500644	1490	96.8	96.8	0.88	0.85	142	5.9	44	8010	0.7	2.3	34.8	6340	81
1400	NXR 500MN4	500643	1491	96.9	96.9	0.88	0.85	159	6.1	50	8968	0.7	2.3	40.7	6810	81
1600	NXR 500MR4	500642	1492	97.0	97.0	0.87	0.84	183	6.3	62	10243	0.7	2.4	47.0	7350	81
1700	NXR 500MR4	500641	1495	97.2	97.0	0.88	0.85	192	6.3	59	10861	0.6	2.3	62.4	7640	81

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
6000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1000/r min = 6 poles				**6000 V 50 Hz**												
140	NXR 315MD6	310666	989	94.4	94.0	0.72	0.63	20	6.2	12	1352	1.1	3.1	3.8	1820	73
160	NXR 315MD6	310665	988	94.4	94.3	0.75	0.68	22	6.0	12	1547	1.1	2.8	3.8	1820	73
180	NXR 315MD6	310664	987	94.5	94.5	0.76	0.69	24	6.0	13	1742	1.1	2.7	4.0	1860	73
200	NXR 315ME6	310663	987	94.7	94.7	0.76	0.69	27	6.1	14	1936	1.2	2.8	4.2	1900	73
240	NXR 315ME6	310662	988	95.0	95.1	0.77	0.71	32	5.7	16	2320	1.1	2.4	4.3	1940	73
265	NXR 315ME6	310661	992	95.4	95.5	0.79	0.73	34	5.5	16	2550	0.9	2.2	5.7	2000	73
280	NXR 355MF6	350664	988	94.9	94.9	0.80	0.74	36	5.5	17	2707	1.0	2.3	6.3	2340	74
315	NXR 355MH6	350663	989	95.1	95.1	0.79	0.73	40	5.7	19	3043	1.1	2.4	7.0	2490	74
350	NXR 355MH6	350662	989	95.2	95.2	0.79	0.73	45	5.8	22	3381	1.1	2.4	7.3	2550	74
380	NXR 355MH6	350661	992	95.5	95.5	0.80	0.76	48	5.4	20	3659	1.0	2.0	9.4	2630	74
400	NXR 400MG6	420019	991	95.6	95.4	0.79	0.74	51	5.9	24	3855	1.0	2.4	11.6	3120	74
450	NXR 400MH6	420018	990	95.7	95.6	0.82	0.77	55	5.9	24	4339	1.0	2.4	13.0	3310	74
500	NXR 400MK6	420016	990	95.8	95.7	0.82	0.78	61	5.9	26	4821	1.0	2.3	14.4	3500	74
540	NXR 400MM6	420015	991	95.9	95.7	0.82	0.77	66	6.1	28	5205	1.0	2.4	15.9	3710	74
600	NXR 400MM6	420108	995	96.2	95.8	0.77	0.70	78	6.3	40	5757	0.8	2.5	20.1	3840	74
630	NXR 450MH6	450665	992	96.2	96.2	0.85	0.82	74	6.0	27	6064	0.8	2.3	30.2	4480	77
710	NXR 450MK6	450664	992	96.3	96.3	0.86	0.82	83	6.0	30	6832	0.8	2.3	34.7	4800	77
800	NXR 450MM6	450663	993	96.5	96.4	0.85	0.81	94	6.0	35	7694	0.8	2.4	39.5	5150	77
880	NXR 450MP6	450662	993	96.5	96.5	0.85	0.82	103	6.1	38	8463	0.8	2.4	43.3	5390	77
950	NXR 450MP6	450661	995	96.7	96.6	0.87	0.84	109	6.1	35	9119	0.9	2.1	55.6	5630	77
1000	NXR 500ML6	500665	993	96.6	96.5	0.84	0.80	119	6.0	46	9617	0.8	2.4	51.8	6370	77
1120	NXR 500MN6	500664	993	96.7	96.6	0.85	0.81	132	6.0	49	10772	0.8	2.3	58.0	6740	77
1250	NXR 500MQ6	500663	993	96.7	96.7	0.85	0.81	147	6.0	55	12021	0.8	2.3	64.2	7100	77
1350	NXR 500MS6	500662	993	96.8	96.8	0.84	0.80	160	6.0	62	12977	0.8	2.4	71.7	7560	77
1500	NXR 500MS6	500661	996	97.1	97.1	0.84	0.81	176	6.0	64	14379	0.7	2.2	91.9	7870	77

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
10000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
3000/r min = 2 poles				**10000 V 50 Hz**												
355	NXR 400ME2	401027	2974	95.4	95.3	0.89	0.87	24	6.4	6	1140	0.8	2.7	5.9	3070	81
400	NXR 400ME2	401026	2973	95.5	95.5	0.90	0.88	27	6.2	6	1285	0.7	2.6	5.9	3070	81
450	NXR 400MF2	401025	2973	95.7	95.8	0.90	0.89	30	6.1	6	1445	0.8	2.4	6.3	3180	81
500	NXR 400MG2	401024	2971	95.8	95.9	0.91	0.90	33	6.1	6	1607	0.9	2.4	6.7	3300	81
560	NXR 400MH2	401022	2973	96.0	96.1	0.91	0.90	37	6.1	7	1799	0.9	2.4	7.1	3420	81
600	NXR 400MH2	401021	2983	96.3	96.5	0.91	0.91	39	6.0	7	1921	0.7	2.2	8.9	3500	81
630	NXR 450MG2	451025	2977	96.1	96.1	0.91	0.90	42	5.6	8	2021	0.6	2.3	13.9	4600	81
710	NXR 450MJ2	451024	2979	96.3	96.3	0.90	0.89	47	5.9	9	2276	0.6	2.4	14.7	4770	81
800	NXR 450MK2	451023	2979	96.4	96.5	0.91	0.90	53	5.7	10	2564	0.6	2.3	15.8	5000	81
870	NXR 450ML2	451022	2980	96.6	96.6	0.91	0.90	57	6.0	11	2787	0.6	2.4	16.3	5120	81
900	NXR 450ML2	451021	2985	96.7	96.8	0.91	0.91	59	6.2	11	2879	0.6	2.3	20.6	5260	81
1000	NXR 500ML2	501024	2984	96.5	96.4	0.92	0.92	65	5.9	12	3200	0.6	2.3	22.2	6230	81
1150	NXR 500MN2	501023	2983	96.7	96.6	0.92	0.91	75	5.8	13	3682	0.6	2.1	26.0	6720	81
1280	NXR 500MQ2	501022	2983	96.8	96.8	0.92	0.92	83	6.0	14	4097	0.6	2.2	29.1	7140	81
1320	NXR 500MQ2	501021	2988	97.0	96.9	0.92	0.92	85	6.1	14	4219	0.6	2.1	36.7	7330	81
1500/r min = 4 poles				10000 V 50Hz												
355	NXR 400ME4	401046	1487	94.9	94.6	0.82	0.77	26	6.2	12	2280	0.8	2.7	8.3	2980	81
400	NXR 400MF4	401045	1486	95.0	94.9	0.84	0.79	29	6.0	12	2571	0.8	2.6	8.8	3080	81
450	NXR 400MG4	401044	1487	95.3	95.2	0.85	0.81	32	6.1	12	2890	0.8	2.5	9.2	3170	81
500	NXR 400MH4	401043	1486	95.5	95.5	0.87	0.84	35	6.4	12	3213	0.9	2.5	10.0	3310	81
560	NXR 400MJ4	401042	1487	95.7	95.6	0.86	0.82	40	6.0	15	3596	0.8	2.4	10.9	3470	81
600	NXR 400MJ4	401041	1491	95.9	95.8	0.85	0.82	42	5.9	15	3842	0.7	2.2	13.5	3560	81
630	NXR 450MG4	451045	1488	96.0	95.9	0.85	0.81	45	6.0	17	4042	0.8	2.4	15.2	4520	81
710	NXR 450MJ4	451044	1489	96.2	96.1	0.85	0.81	50	6.0	19	4554	0.8	2.4	17.1	4820	81
800	NXR 450ML4	451043	1488	96.3	96.3	0.86	0.83	56	5.9	19	5133	0.8	2.4	18.6	5060	81
850	NXR 450MM4	451042	1489	96.4	96.4	0.85	0.82	60	6.0	22	5451	0.8	2.4	19.5	5200	81
960	NXR 450MM4	451041	1493	96.6	96.5	0.84	0.81	68	6.1	25	6140	0.6	2.3	24.9	5360	81
1000	NXR 500MJ4	501044	1490	96.5	96.4	0.86	0.83	69	6.0	24	6408	0.7	2.4	28.4	6120	81
1150	NXR 500ML4	501043	1490	96.7	96.6	0.87	0.84	79	6.0	26	7370	0.8	2.3	32.3	6490	81
1300	NXR 500MP4	501042	1491	96.9	96.8	0.87	0.84	89	6.1	29	8326	0.7	2.4	36.4	6930	81
1400	NXR 500MP4	501041	1494	97.0	96.9	0.88	0.86	94	6.1	27	8947	0.6	2.2	49.4	7180	81
710	NXR 450MM6	451061	995	96.1	95.9	0.81	0.77	52	5.9	23	6814	0.8	2.3	31.8	5370	78

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
10000 V, 50 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S I_N pu	I_0 A	T_N Nm	T_S T_N pu	T_{max} T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1000/r min = 6 poles				**10000 V 50 Hz**												
250	NXR 400MH6	401065	990	94.2	93.7	0.73	0.65	21	6.1	12	2411	1.0	3.0	10.2	3270	74
280	NXR 400MH6	401064	990	94.4	93.9	0.75	0.67	23	6.3	13	2701	1.1	3.1	10.7	3340	74
315	NXR 400MJ6	401063	989	94.5	94.1	0.76	0.68	25	6.2	14	3041	1.1	2.9	11.1	3420	74
355	NXR 400MJ6	401062	991	94.8	94.5	0.75	0.67	29	6.0	16	3420	1.1	2.7	11.1	3450	74
400	NXR 400MJ6	401061	993	95.1	94.9	0.78	0.72	31	5.8	15	3845	1.0	2.3	13.7	3540	74
450	NXR 450MH6	451065	991	95.2	94.9	0.80	0.74	34	5.9	16	4337	0.9	2.5	20.6	4600	77
500	NXR 450MJ6	451064	990	95.3	95.1	0.81	0.76	37	5.9	17	4821	1.0	2.5	21.9	4750	77
560	NXR 450MK6	451063	992	95.6	95.5	0.81	0.77	42	5.6	18	5392	0.9	2.2	22.9	4920	77
630	NXR 450MM6	451062	992	95.7	95.5	0.81	0.76	47	6.2	21	6066	1.1	2.4	25.7	5220	77
710	NXR 450MM6	451061	995	96.1	96.0	0.81	0.77	52	5.9	23	6814	0.8	2.3	31.8	5370	77
800	NXR 500MJ6	501064	993	96.2	96.3	0.84	0.80	57	5.8	22	7696	0.8	2.3	32.8	6040	77
950	NXR 500MM6	501063	993	96.5	96.4	0.83	0.78	69	6.0	29	9133	0.8	2.4	38.4	6500	77
1080	NXR 500MQ6	501062	993	96.6	96.6	0.84	0.80	77	6.0	30	10384	0.8	2.4	44.4	6980	77
1175	NXR 500MQ6	501061	996	96.8	96.8	0.85	0.82	83	6.0	29	11270	0.7	2.2	59.2	7250	77
750/r min = 8 poles				10000 V 50 Hz												
400	NXR 500MH8	501088	743	94.4	93.8	0.76	0.69	32	5.9	17	5143	1.1	2.7	30.8	5700	78
450	NXR 500MH8	501087	743	94.5	94.0	0.75	0.69	36	5.9	20	5786	1.1	2.7	31.8	5780	78
500	NXR 500MJ8	501086	742	94.7	94.2	0.76	0.70	40	5.8	21	6431	1.1	2.6	34.2	5960	78
560	NXR 500MK8	501085	744	95.1	94.6	0.75	0.68	45	5.9	25	7185	1.1	2.5	34.9	6090	78
630	NXR 500ML8	501084	744	95.2	94.8	0.76	0.69	50	5.9	27	8084	1.1	2.5	38.2	6340	78
710	NXR 500MN8	501083	744	95.4	95.0	0.76	0.69	57	6.0	30	9108	1.0	2.5	41.8	6660	78
800	NXR 500MQ8	501082	744	95.6	95.2	0.76	0.70	63	6.0	33	10262	1.0	2.5	46.4	7020	78
900	NXR 500MQ8	501081	746	95.9	95.6	0.79	0.73	69	5.8	33	11518	0.7	2.3	59.1	7240	78

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
4160 V, 60 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
3600/r min = 2 poles				**4160 V 60 Hz**												
160	NXR 315MA2	320429	3570	94.2	93.7	0.91	0.90	26	5.9	6	428	0.7	2.4	1.8	1660	84
200	NXR 315MA2	320428	3569	94.7	94.4	0.91	0.90	32	5.6	7	535	0.6	2.3	1.7	1660	84
250	NXR 315MB2	320427	3571	95.1	94.9	0.90	0.89	40	5.7	10	669	0.6	2.3	1.8	1680	84
280	NXR 315MB2	320426	3571	95.4	95.2	0.90	0.88	45	5.7	11	749	0.6	2.3	1.9	1710	84
315	NXR 315MC2	320425	3571	95.6	95.5	0.90	0.89	51	5.7	12	842	0.6	2.3	2.0	1770	84
355	NXR 315MC2	320424	3572	95.8	95.7	0.90	0.89	57	5.8	13	949	0.7	2.3	2.2	1830	84
375	NXR 315MD2	320423	3572	95.8	95.8	0.91	0.90	60	5.9	13	1002	0.7	2.3	2.4	1870	84
425	NXR 315ME2	320422	3574	96.0	96.0	0.90	0.89	68	5.8	15	1136	0.6	2.3	2.6	1970	84
445	NXR 315ME2	320421	3582	96.3	96.3	0.91	0.91	70	6.0	14	1186	0.6	2.2	3.7	2040	84
450	NXR 355ME2	360424	3570	95.8	95.8	0.91	0.91	71	5.7	14	1204	0.7	2.2	4.1	2340	84
500	NXR 355MF2	360423	3572	95.9	95.9	0.92	0.91	78	5.9	15	1337	0.7	2.3	4.3	2390	84
570	NXR 355MH2	360422	3574	96.2	96.2	0.92	0.91	89	6.0	17	1523	0.7	2.3	4.8	2540	84
600	NXR 355MH2	360421	3582	96.4	96.4	0.92	0.92	94	6.1	17	1600	0.7	2.2	6.2	2620	84
630	NXR 400MF2	410425	3575	96.1	96.1	0.92	0.91	99	6.1	17	1683	0.8	2.4	7.6	3100	85
710	NXR 400MH2	410424	3576	96.4	96.3	0.91	0.91	111	6.0	20	1896	0.7	2.3	8.5	3310	85
800	NXR 400MJ2	410423	3576	96.5	96.5	0.92	0.92	125	6.1	21	2136	0.7	2.3	9.2	3480	85
860	NXR 400ML2	410422	3577	96.6	96.6	0.92	0.91	134	6.2	24	2296	0.7	2.3	9.7	3610	85
890	NXR 400ML2	410421	3583	96.8	96.7	0.92	0.92	138	6.4	23	2372	0.8	2.3	12.6	3730	85
1000	NXR 450MK2	460424	3580	96.5	96.4	0.91	0.91	156	6.1	28	2668	0.6	2.5	15.2	4960	85
1100	NXR 450MM2	460423	3580	96.7	96.5	0.92	0.92	171	6.3	30	2934	0.7	2.5	17.2	5340	85
1170	NXR 450MN2	460422	3582	96.7	96.5	0.90	0.90	185	6.3	37	3120	0.6	2.5	18.2	5500	85
1200	NXR 450MN2	460421	3585	96.9	96.7	0.90	0.90	189	6.1	37	3196	0.6	2.3	22.7	5650	85
1320	NXR 500MN2	510423	3582	96.5	96.3	0.92	0.92	205	5.9	36	3519	0.6	2.2	26.1	6720	85
1530	NXR 500MR2	510422	3583	96.8	96.6	0.92	0.92	236	6.1	41	4078	0.6	2.3	31.1	7440	85
1600	NXR 500MR2	510421	3587	96.9	96.7	0.93	0.93	246	6.2	41	4259	0.6	2.2	39.4	7640	85

Rib cooled motors, type NXR
Technical data

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IP55, IC411, insulation class F, temperature rise class B
4160 V, 60 Hz

				Efficiency		Power factor											
Output kW	Motor type	Product ID	Speed r/min	Full load 100 %	3/4 load 75 %	Full load 100 %	3/4 load 75 %	I_N A	$\frac{I_S}{I_N}$ pu	I_0 A	T_N Nm	$\frac{T_S}{T_N}$ pu	$\frac{T_{max}}{T_N}$ pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1800/r min = 4 poles				**4160 V 60 Hz**												
160	NXR 315MA4	320448	1783	94.3	93.9	0.84	0.80	28	5.9	12	857	0.9	2.4	2.8	1640	81
200	NXR 315MA4	320447	1781	94.6	94.4	0.84	0.80	35	5.7	14	1072	0.9	2.2	2.8	1640	81
250	NXR 315MB4	320446	1782	95.0	94.8	0.81	0.76	45	5.7	20	1339	0.9	2.3	3.0	1680	81
280	NXR 315MB4	320445	1783	95.2	95.0	0.81	0.76	50	5.8	23	1500	0.9	2.3	3.2	1730	81
315	NXR 315MC4	320444	1783	95.5	95.3	0.82	0.78	56	5.9	24	1687	0.9	2.3	3.6	1820	81
355	NXR 315MD4	320443	1783	95.7	95.5	0.82	0.78	63	6.1	27	1901	1.0	2.4	4.0	1910	81
415	NXR 315ME4	320442	1784	95.8	95.7	0.81	0.76	75	6.0	34	2221	1.0	2.4	4.5	2000	81
460	NXR 315ME4	320441	1791	96.2	96.0	0.82	0.77	81	6.0	36	2453	0.8	2.2	5.7	2060	81
500	NXR 355MG4	360443	1785	95.9	95.8	0.85	0.82	85	5.9	32	2675	1.0	2.2	6.8	2470	81
560	NXR 355MH4	360442	1785	96.1	96.0	0.85	0.82	95	5.9	34	2995	1.0	2.2	7.3	2570	81
610	NXR 355MH4	360441	1791	96.2	96.0	0.83	0.79	106	5.9	42	3253	0.7	2.1	9.2	2660	81
630	NXR 400MF4	410445	1788	96.1	95.9	0.87	0.84	105	5.9	35	3364	0.7	2.2	11.0	3080	83
710	NXR 400MG4	410444	1788	96.3	96.2	0.88	0.86	116	5.9	36	3793	0.7	2.2	12.1	3260	83
800	NXR 400MJ4	410443	1789	96.4	96.3	0.87	0.84	133	5.9	45	4270	0.7	2.2	13.4	3460	83
900	NXR 400ML4	410442	1789	96.6	96.4	0.87	0.85	148	6.1	48	4804	0.7	2.2	15.0	3690	83
950	NXR 400ML4	410441	1793	96.7	96.5	0.87	0.85	156	6.1	49	5059	0.7	2.1	20.0	3850	83
1000	NXR 450MK4	460444	1789	96.5	96.3	0.87	0.85	165	5.9	53	5338	0.7	2.2	24.6	4900	83
1100	NXR 450ML4	460443	1790	96.6	96.4	0.87	0.84	183	6.0	61	5870	0.7	2.2	26.8	5130	83
1200	NXR 450MP4	460442	1790	96.7	96.6	0.87	0.85	197	5.9	62	6402	0.7	2.2	29.4	5420	83
1250	NXR 450MP4	460441	1793	96.8	96.5	0.88	0.86	204	6.0	59	6657	0.7	2.1	38.5	5630	83
1400	NXR 500ML4	510444	1789	96.8	96.6	0.89	0.87	225	5.8	63	7472	0.7	2.2	36.6	6510	84
1600	NXR 500MP4	510443	1790	96.9	96.8	0.88	0.86	259	5.8	77	8535	0.6	2.2	42.1	6990	84
1700	NXR 500MR4	510442	1791	97.0	96.8	0.88	0.86	275	5.9	82	9066	0.6	2.3	47.2	7430	84
1800	NXR 500MR4	510441	1793	97.0	96.8	0.89	0.87	290	6.1	79	9584	0.6	2.1	63.0	7710	84

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
4160 V, 60 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1200/r min = 6 poles				**4160 V 60 Hz**												
125	NXR 315MA6	320469	1187	94.2	94.0	0.80	0.74	23	5.4	11	1006	0.9	2.4	2.7	1620	76
160	NXR 315MA6	320468	1187	94.5	94.4	0.78	0.71	30	5.3	16	1288	0.9	2.3	2.7	1630	76
180	NXR 315MB6	320467	1186	94.7	94.6	0.79	0.73	34	5.2	17	1449	0.9	2.2	2.9	1670	76
200	NXR 315MB6	320466	1186	94.8	94.8	0.79	0.73	37	5.2	19	1610	0.9	2.2	3.1	1700	76
224	NXR 315MC6	320465	1186	95.0	95.0	0.79	0.74	41	5.1	20	1804	0.9	2.2	3.4	1760	76
250	NXR 315MD6	320464	1185	95.2	95.2	0.80	0.76	45	5.1	21	2014	0.9	2.1	3.8	1840	76
280	NXR 315ME6	320463	1185	95.3	95.4	0.81	0.76	50	5.1	22	2256	0.9	2.1	4.1	1920	76
310	NXR 315MF6	320462	1186	95.5	95.5	0.80	0.75	56	5.3	26	2496	1.0	2.2	4.4	1990	76
335	NXR 315MF6	320461	1191	95.9	95.9	0.81	0.77	60	5.2	26	2685	0.7	2.0	5.9	2050	76
355	NXR 355MG6	360463	1187	95.3	95.2	0.81	0.76	64	5.4	29	2855	0.9	2.2	6.7	2450	79
425	NXR 355MH6	360462	1187	95.5	95.4	0.81	0.76	76	5.4	34	3418	0.9	2.2	7.4	2580	79
470	NXR 355MH6	360461	1192	95.9	95.8	0.82	0.78	83	5.2	34	3766	0.7	2.0	9.5	2670	79
500	NXR 400MG6	420010	1192	95.8	95.6	0.83	0.80	87	5.9	35	4006	0.8	2.2	16.7	3070	79
560	NXR 400MH6	420014	1192	96.0	95.8	0.83	0.79	97	5.9	40	4485	0.7	2.2	19.4	3320	79
620	NXR 400MK6	420106	1193	96.0	95.6	0.80	0.75	112	6.4	53	4961	0.8	2.4	21.7	3510	79
680	NXR 400ML6	420107	1193	96.1	96.0	0.84	0.80	117	6.3	46	5445	0.8	2.3	23.3	3670	79
720	NXR 400MM6	420105	1195	96.3	96.1	0.85	0.82	122	6.2	45	5754	0.7	2.1	30.3	3840	79
800	NXR 450MJ6	460464	1192	96.3	96.1	0.85	0.81	136	5.9	52	6407	0.8	2.3	33.8	4740	82
900	NXR 450ML6	460463	1193	96.4	96.2	0.85	0.81	153	5.9	60	7206	0.7	2.3	37.9	5030	82
1050	NXR 450MP6	460462	1193	96.5	96.4	0.85	0.81	178	6.0	69	8406	0.8	2.4	43.6	5440	82
1120	NXR 450MP6	460461	1195	96.7	96.5	0.85	0.83	188	5.9	66	8949	0.7	2.1	55.2	5660	82
1250	NXR 500MM6	510464	1193	96.7	96.6	0.84	0.80	213	5.9	85	10003	0.7	2.4	53.5	6570	82
1400	NXR 500MQ6	510463	1193	96.8	96.7	0.85	0.82	236	5.8	90	11204	0.7	2.4	62.5	7120	82
1550	NXR 500MS6	510462	1194	96.9	96.7	0.85	0.81	263	6.0	104	12400	0.7	2.5	70.5	7560	82
1700	NXR 500MS6	510461	1196	97.0	96.9	0.86	0.83	284	6.1	100	13574	0.7	2.2	93.1	7910	82

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
6600 V, 60 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
3600/r min = 2 poles				**6600 V 60 Hz**												
160	NXR 315MB2	320629	3574	94.0	93.3	0.86	0.83	17	6.5	6	427	0.8	3.0	2.1	1710	84
200	NXR 315MB2	320628	3569	94.4	94.0	0.89	0.86	21	5.8	6	535	0.7	2.5	2.0	1710	84
224	NXR 315MB2	320627	3567	94.5	94.3	0.90	0.88	23	5.8	6	600	0.7	2.5	2.0	1700	84
250	NXR 315MB2	320626	3573	94.8	94.7	0.90	0.89	25	5.8	6	668	0.6	2.3	1.9	1700	84
280	NXR 315MB2	320625	3573	95.2	95.1	0.90	0.88	28	5.8	7	748	0.6	2.3	2.0	1730	84
315	NXR 315MC2	320624	3571	95.4	95.3	0.90	0.89	32	5.6	7	842	0.6	2.2	2.1	1760	84
355	NXR 315MD2	320623	3573	95.7	95.6	0.90	0.89	36	5.8	8	949	0.7	2.3	2.3	1850	84
420	NXR 315ME2	320622	3575	96.0	96.0	0.90	0.89	42	5.9	9	1122	0.6	2.3	2.6	1950	84
430	NXR 315ME2	320621	3582	96.2	96.2	0.90	0.90	43	5.9	9	1146	0.6	2.2	3.6	2010	84
450	NXR 355MF2	360624	3570	95.7	95.7	0.91	0.91	45	5.8	8	1204	0.8	2.2	4.2	2340	84
500	NXR 355MF2	360623	3573	95.9	95.9	0.92	0.91	50	5.9	9	1336	0.7	2.3	4.3	2410	84
550	NXR 355MH2	360622	3576	96.1	96.1	0.92	0.91	54	6.0	10	1469	0.7	2.3	4.6	2510	84
570	NXR 355MH2	360621	3582	96.3	96.3	0.92	0.92	56	6.1	10	1520	0.6	2.2	6.2	2600	84
630	NXR 400MF2	410625	3576	96.2	96.1	0.91	0.91	62	6.1	11	1682	0.7	2.4	7.7	3120	85
710	NXR 400MH2	410624	3576	96.3	96.3	0.92	0.91	70	6.1	12	1896	0.7	2.3	8.4	3280	85
800	NXR 400MK2	410623	3578	96.5	96.5	0.92	0.92	78	6.3	13	2135	0.7	2.4	9.3	3530	85
860	NXR 400MK2	410622	3579	96.6	96.6	0.91	0.91	85	6.4	16	2295	0.7	2.4	9.6	3580	85
890	NXR 400MK2	410621	3584	96.8	96.7	0.91	0.91	88	6.5	15	2372	0.7	2.3	12.4	3700	85
950	NXR 450MK2	460624	3579	96.4	96.3	0.91	0.91	94	6.0	17	2535	0.6	2.4	14.9	4980	85
1050	NXR 450ML2	460623	3581	96.6	96.4	0.90	0.90	105	6.1	20	2800	0.6	2.4	16.2	5230	85
1140	NXR 450MN2	460622	3581	96.7	96.5	0.91	0.91	112	6.3	21	3040	0.6	2.5	17.9	5450	85
1180	NXR 450MN2	460621	3586	96.8	96.7	0.91	0.91	116	6.3	21	3143	0.6	2.4	22.7	5610	85
1250	NXR 500MM2	510624	3583	96.5	96.2	0.92	0.92	122	6.0	21	3332	0.6	2.3	24.7	6540	85
1400	NXR 500MP2	510623	3584	96.7	96.4	0.93	0.93	136	6.2	23	3730	0.6	2.3	26.7	6880	85
1500	NXR 500MR2	510622	3583	96.7	96.5	0.92	0.92	146	6.1	24	3998	0.6	2.2	30.8	7390	85
1580	NXR 500MR2	510621	3587	96.9	96.7	0.92	0.93	153	6.1	24	4206	0.6	2.2	39.0	7580	85

Rib cooled motors, type NXR
Technical data

IP55, IC411, insulation class F, temperature rise class B
6600 V, 60 Hz

Output kW	Motor type	Product ID	Speed r/min	Efficiency Full load 100 %	Efficiency 3/4 load 75 %	Power factor Full load 100 %	Power factor 3/4 load 75 %	I_N A	I_S / I_N pu	I_0 A	T_N Nm	T_S / T_N pu	T_{max} / T_N pu	Rotor inertia kgm²	Motor weight kg	Sound pressure level L_p dB(A)
1800/r min = 4 poles				**6600 V 60 Hz**												
160	NXR 315MB4	320649	1783	93.8	93.2	0.78	0.72	19	6.1	10	857	1.0	2.7	3.1	1660	81
200	NXR 315MB4	320648	1783	94.4	94.0	0.81	0.77	23	5.9	10	1071	1.0	2.3	3.0	1660	81
224	NXR 315MB4	320647	1782	94.5	94.3	0.83	0.79	25	5.8	10	1200	0.9	2.3	3.0	1660	81
250	NXR 315MB4	320646	1782	94.8	94.6	0.82	0.78	28	5.7	12	1340	1.0	2.2	3.0	1680	81
280	NXR 315MC4	320645	1783	95.1	95.0	0.82	0.78	31	5.7	13	1500	0.9	2.2	3.5	1770	81
315	NXR 315MD4	320644	1784	95.4	95.2	0.81	0.77	36	5.8	15	1686	0.9	2.2	3.9	1860	81
355	NXR 315ME4	320643	1784	95.5	95.4	0.82	0.77	40	5.9	17	1901	0.9	2.3	4.1	1910	81
400	NXR 315ME4	320642	1786	95.8	95.6	0.81	0.75	45	6.0	21	2138	0.9	2.4	4.2	1950	81
435	NXR 315ME4	320641	1790	96.0	95.8	0.83	0.79	48	6.1	19	2320	0.8	2.3	5.6	2020	81
450	NXR 355MF4	360643	1784	95.7	95.6	0.85	0.82	48	6.0	17	2408	1.0	2.2	6.1	2330	81
500	NXR 355MG4	360653	1785	95.9	95.8	0.85	0.82	53	5.8	18	2675	0.9	2.1	6.7	2460	81
550	NXR 355MH4	360642	1785	96.0	95.9	0.85	0.82	59	5.8	20	2942	0.9	2.1	7.2	2550	81
600	NXR 355MH4	360641	1791	96.1	95.9	0.82	0.78	67	6.0	27	3199	0.7	2.2	9.2	2640	81
630	NXR 400MG4	410645	1787	96.1	96.0	0.88	0.86	65	5.9	19	3366	0.7	2.2	11.3	3140	83
710	NXR 400MH4	410644	1787	96.3	96.2	0.89	0.87	72	6.0	20	3794	0.8	2.2	12.6	3320	83
770	NXR 400MJ4	410643	1787	96.4	96.3	0.89	0.87	79	5.9	21	4114	0.7	2.2	13.4	3450	83
860	NXR 400ML4	410642	1788	96.5	96.4	0.89	0.87	88	5.9	24	4594	0.7	2.2	15.1	3680	83
920	NXR 400ML4	420101	1792	96.7	96.5	0.89	0.88	93	6.1	24	4902	0.6	2.1	20.2	3840	83
1000	NXR 450MK4	460644	1790	96.5	96.2	0.86	0.83	106	5.9	35	5335	0.7	2.2	25.4	4940	83
1100	NXR 450MM4	460643	1791	96.6	96.4	0.86	0.83	116	6.0	39	5866	0.7	2.2	26.9	5140	83
1200	NXR 450MN4	460642	1791	96.7	96.5	0.86	0.83	126	6.0	42	6399	0.7	2.2	29.0	5390	83
1250	NXR 450MN4	460641	1794	96.8	96.5	0.87	0.85	129	6.2	39	6655	0.7	2.2	38.0	5600	83
1400	NXR 500ML4	510644	1790	96.7	96.5	0.88	0.85	144	6.0	44	7469	0.7	2.3	37.1	6500	84
1600	NXR 500MP4	510643	1790	96.9	96.8	0.88	0.86	163	5.9	47	8534	0.6	2.3	42.5	7000	84
1700	NXR 500MR4	510642	1791	96.9	96.8	0.88	0.86	174	6.2	54	9063	0.7	2.4	47.2	7360	84
1750	NXR 500MR4	510641	1794	96.9	96.7	0.88	0.86	180	6.3	51	9315	0.6	2.2	62.7	7640	84

Rib cooled motors, type NXR
Technical data

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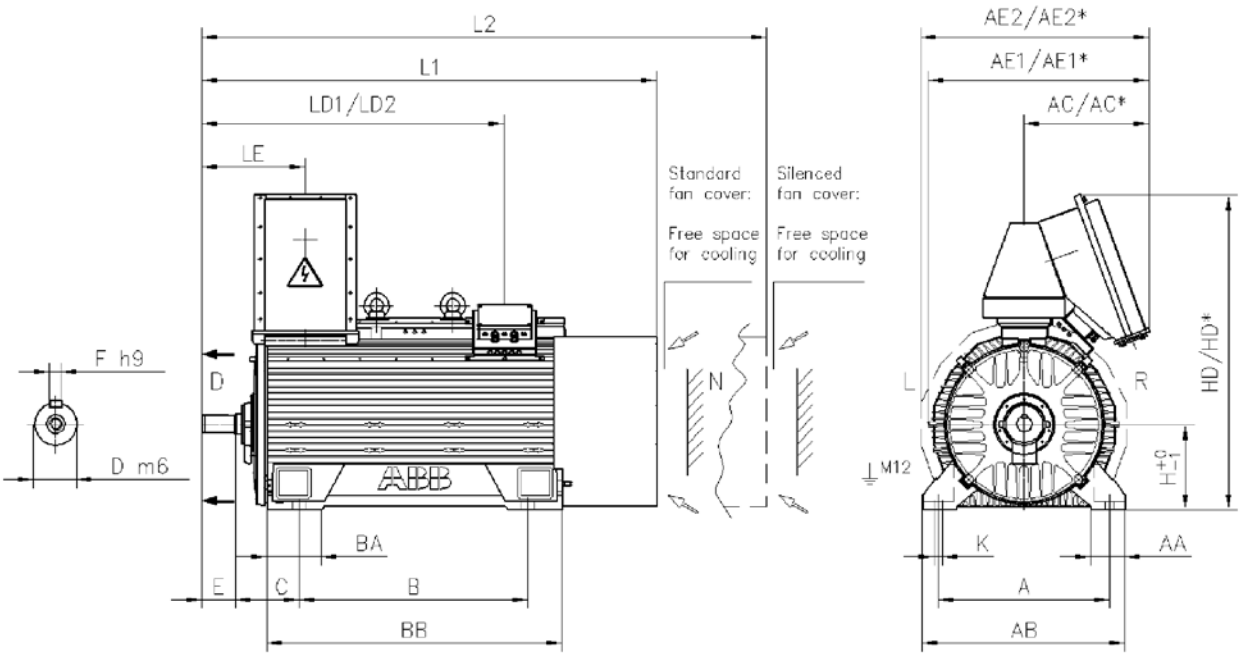
IP55, IC411, insulation class F, temperature rise class B
6600 V, 60 Hz

				Efficiency		Power factor										
Output kW	**Motor type**	**Product ID**	**Speed r/min**	**Full load 100 %**	**3/4 load 75 %**	**Full load 100 %**	**3/4 load 75 %**	**I_N A**	**I_S I_N pu**	**I_0 A**	**T_N Nm**	**T_S T_N pu**	**T_{max} T_N pu**	**Rotor inertia kgm²**	**Motor weight kg**	**Sound pressure level L_p dB(A)**
1200/r min = 6 poles				**6600 V 60 Hz**												
160	NXR 315MC6	320666	1188	94.3	93.9	0.73	0.65	20	6.0	12	1286	1.0	2.9	3.5	1770	76
200	NXR 315MD6	320665	1186	94.6	94.4	0.78	0.71	24	6.1	12	1610	1.1	2.7	3.7	1810	76
224	NXR 315MD6	320664	1189	94.9	94.7	0.76	0.70	27	5.9	14	1800	1.1	2.5	3.8	1830	76
250	NXR 315MD6	320663	1188	95.1	94.9	0.76	0.69	30	5.9	16	2009	1.1	2.5	4.0	1870	76
280	NXR 315ME6	320662	1188	95.2	95.1	0.78	0.72	33	5.7	17	2251	1.1	2.4	4.3	1940	76
315	NXR 315ME6	320661	1192	95.6	95.6	0.79	0.74	36	5.5	17	2523	0.8	2.1	5.7	2000	76
355	NXR 355MG6	360663	1188	95.2	95.0	0.80	0.75	41	5.6	19	2854	0.9	2.3	6.6	2420	79
410	NXR 355MH6	360662	1189	95.4	95.1	0.78	0.72	48	6.0	24	3293	1.1	2.5	7.3	2550	79
460	NXR 355MH6	360661	1193	95.8	95.6	0.80	0.75	53	5.9	24	3682	0.8	2.3	9.5	2640	79
500	NXR 400MJ6	420020	1190	95.7	95.5	0.83	0.78	55	5.7	22	4013	0.9	2.3	12.5	3240	79
560	NXR 400ML6	420022	1189	95.8	95.7	0.84	0.81	61	5.4	22	4497	0.8	2.1	14.4	3500	79
630	NXR 400MM6	420110	1193	96.0	95.6	0.78	0.71	74	6.1	37	5044	1.0	2.5	15.4	3690	79
675	NXR 400MM6	420109	1195	96.2	95.8	0.81	0.76	76	6.3	34	5395	0.8	2.4	20.3	3840	79
710	NXR 450MH6	460665	1191	96.1	96.1	0.87	0.85	74	5.9	24	5691	0.8	2.3	30.0	4460	82
800	NXR 450MK6	460664	1192	96.3	96.2	0.87	0.85	83	5.8	27	6411	0.7	2.3	34.0	4750	82
900	NXR 450MM6	460663	1192	96.4	96.3	0.86	0.83	95	5.9	32	7208	0.7	2.3	38.4	5070	82
1000	NXR 450MP6	460662	1192	96.5	96.4	0.88	0.85	104	5.9	32	8011	0.7	2.3	43.4	5400	82
1050	NXR 450MP6	460661	1194	96.6	96.5	0.88	0.86	108	6.0	31	8395	0.8	2.1	56.0	5630	82
1120	NXR 500ML6	510665	1192	96.5	96.4	0.85	0.82	119	5.8	42	8970	0.7	2.3	50.7	6300	82
1250	NXR 500MN6	510664	1193	96.7	96.6	0.85	0.82	132	5.9	47	10006	0.7	2.4	55.5	6650	82
1400	NXR 500MQ6	510663	1193	96.8	96.7	0.86	0.83	147	5.9	51	11207	0.7	2.4	62.8	7090	82
1550	NXR 500MS6	510662	1193	96.9	96.8	0.86	0.83	163	6.1	58	12405	0.7	2.4	70.3	7540	82
1650	NXR 500MS6	510661	1196	97.0	96.9	0.86	0.84	172	6.1	56	13176	0.7	2.2	92.6	7880	82

Rib cooled motors, type NXR
Dimension drawings

IEC, antifriction bearings, 1 < UN ≤ 11 kV, IM 1001, IC411



NXR	Poles	A	B	C	D	E	F	H	K	AA	AB	BA	BB	L1	L2	LD1	LD2	LE
315M	2	710	800	280	70	140	20	315	35	140	800	236	1070	1755	2215	1175	925	445
315M	≥4	710	800	280	80	170	22	315	35	140	800	236	1070	1785	2245	1205	955	475
355M	2	710	950	265	70	140	20	355	35	140	840	226	1225	1895	2355	1260	960	430
355M	≥4	710	950	265	90	170	25	355	35	140	840	226	1225	1925	2385	1290	990	460
400M	2	800	1250	224	80	170	22	400	35	160	900	229	1430	2145	2670	1525	1075	470
400M	≥4	800	1250	224	110	210	28	400	35	160	900	229	1430	2185	2710	1565	1115	510
450M	2	900	1250	355	90	170	25	450	42	170	1050	285	1610	2365	2935	1705	1405	500
450M	≥4	900	1250	355	110	210	28	450	42	170	1050	285	1610	2405	2975	1745	1445	540
500M	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
500M	≥4	1120	1500	315	140	250	36	500	42	200	1250	266	1780	2720	3325	1985	1535	590

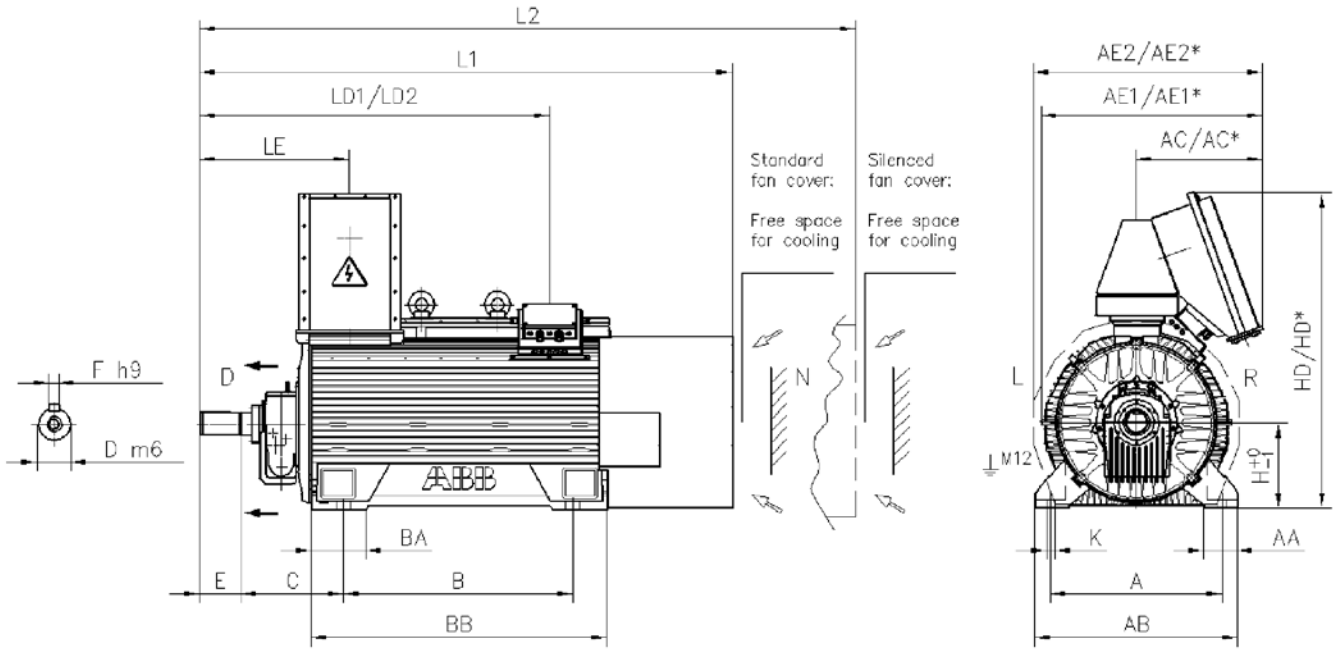
NXR	Poles	AC	AC*	AE1	AE1*	AE2	AE2*	HD	HD*
315M	2	525	NA	910	NA	940	NA	1260	NA
315M	≥4	525	NA	910	NA	940	NA	1260	NA
355M	2	525	NA	920	NA	960	NA	1310	NA
355M	≥4	525	NA	920	NA	960	NA	1310	NA
400M	2	525	685	970	1130	1000	1160	1425	1610
400M	≥4	525	685	970	1130	1000	1160	1425	1610
450M	2	525	685	1030	1190	1065	1220	1555	1745
450M	≥4	525	685	1030	1190	1065	1220	1555	1745
500M	2	NA	NA	NA	NA	NA	NA	NA	NA
500M	≥4	525	685	1085	1245	1115	1275	1680	1870

*Dimension for 6.6 kV < UN ≤ 11 kV
1) Standard fan cover
2) Silenced fan cover
Note: 450 2p antifriction bearing only available for 50 Hz
Note: 500 only available with ≥ 4p

Table gives main dimensions in mm.

Rib cooled motors, type NXR
Dimension drawings

IEC, sleeve bearings, 1 < UN ≤ 11 kV, IM 1001, IC411



NXR	Poles	A	B	C	D	E	F	H	K	AA	AB	BA	BB	L1	L2	LD1	LD2	LE
315M	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
315M	≥4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
355M	2	710	950	425	70	140	20	355	35	140	840	226	1225	2180	2640	1420	1120	590
355M	≥4	710	950	425	90	170	25	355	35	140	840	226	1225	2210	2670	1450	1150	620
400M	2	800	1250	375	80	170	22	400	35	160	900	229	1430	2405	2930	1680	1225	625
400M	≥4	800	1250	375	110	210	28	400	35	160	900	229	1430	2445	2970	1720	1270	660
450M	2	900	1250	450	90	170	25	450	42	170	1050	285	1610	2520	3090	1800	1500	590
450M	≥4	900	1250	450	110	210	28	450	42	170	1050	285	1610	2560	3130	1840	1540	630
500M	2	1120	1500	425	100	210	28	500	42	200	1250	266	1780	2760	3365	2055	1605	660
500M	≥4	1120	1500	560	140	250	36	500	42	200	1250	266	1780	3130	3735	2230	1780	830

NXR	Poles	AC	AC*	AE1	AE1*	AE2	AE2*	HD	HD*
315M	2	NA	NA	NA	NA	NA	NA	NA	NA
315M	≥4	NA	NA	NA	NA	NA	NA	NA	NA
355M	2	525	NA	920	NA	960	NA	1310	NA
355M	≥4	525	NA	920	NA	960	NA	1310	NA
400M	2	525	685	970	1130	1000	1160	1425	1610
400M	≥4	525	685	970	1130	1000	1160	1425	1610
450M	2	525	685	1030	1190	1065	1220	1555	1745
450M	≥4	525	685	1030	1190	1065	1220	1555	1745
500M	2	525	685	1085	1245	1115	1275	1680	1870
500M	≥4	525	685	1085	1245	1115	1275	1680	1870

*Dimension for 6.6 kV < UN ≤ 11 kV
1) Standard fan cover
2) Silenced fan cover
Note: Shaft height 315 not available

Table gives main dimensions in mm.

Modular induction motors, type NMI
Easy to buy, integrate and use

NMI modular induction motors provide a cost-efficient solution for pump and fan applications. They are easy to integrate into the process due to their compact design, interface flexibility, and low noise.

NMI motors have a welded steel frame. They are rated from 315 to 8,000 kW, and are available in shaft heights from 400 to 630 mm.

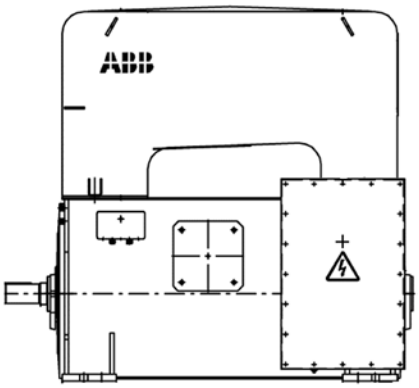
The motors are available for horizontal or vertical mounting. Vertical mounting is specifically designed for vertical, condensate and circulating water pumps.

For more detailed technical data on NMI modular induction motors, please contact ABB.

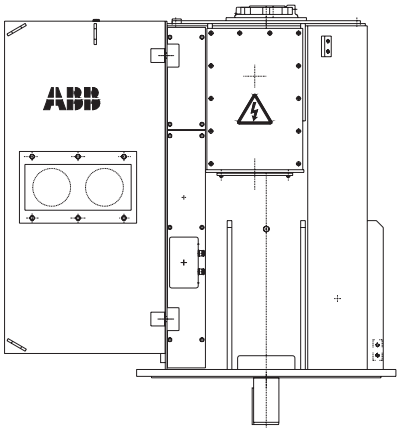
Modular induction motors, type NMI
Mounting arrangements

Standard mounting arrangements for NMI motors

—
10 Code I: IM B3
Code II: IM 1001
Horizontal foot mounted



—
11 Code I: IM V1
Code II: IM 4011
Vertical flange mounted (free shaft end facing downwards)

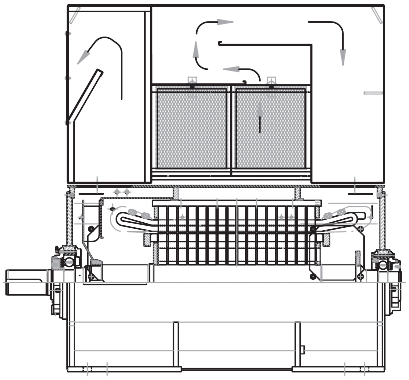


Modular induction motors, type NMI
Enclosure and cooling

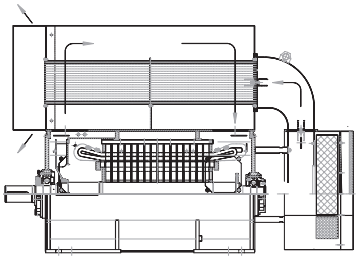
—
12 IC01 / IP24
13 IC611 / IP55
14 IC81W / IP55
15 IC31 / IP55
16 IC01

Standard combinations for NMI motors:

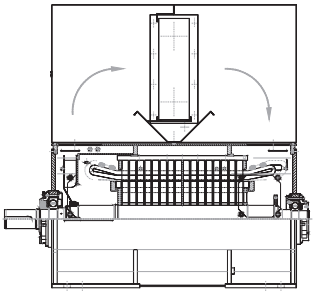
IC01 / IP24
This weather protected motor has a shaft mounted cooling fan inside the housing. The design of the motor reduces the ingress of rain, snow and airborne particles into the electrical parts. On the air intake path this is achieved by ensuring that the average velocity does not exceed 3 m/s, allowing any heavier particles to settle. The design of the air intake path includes three acute direction changes in excess of 90 degrees to further reduce the flow rate to the optimal level. The motor is protected against splashing water from any direction.


— 12

IC611 / IP55
This design has an air-to-air heat exchanger mounted on the motor, which is fully enclosed. Shaft mounted fans are fitted both inside and outside of the casing to supply the inside and outside cooling circuits respectively. The motor is protected against dust and splashing water from any direction.

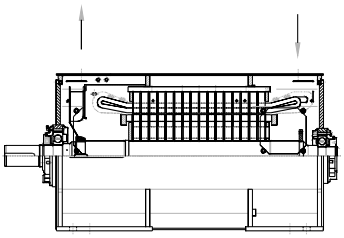

— 13

IC81W / IP55
This fully enclosed motor is fitted with an air-to-water heat exchanger. A shaft mounted fan is fitted inside the casing to supply the internal cooling circuit. The motor is protected against dust and splashing water from any direction.

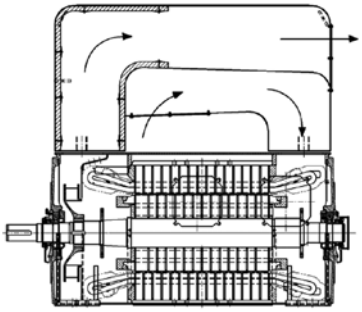

— 14

The terminal boxes have a protection rating of at least IP55.

IC31 / IP55
This version is fitted with inlet and outlet pipes to use remote cooling air. Essentially this is the AMI motor frame without an upper cover. The motor is protected against dust and splashing water from any direction.

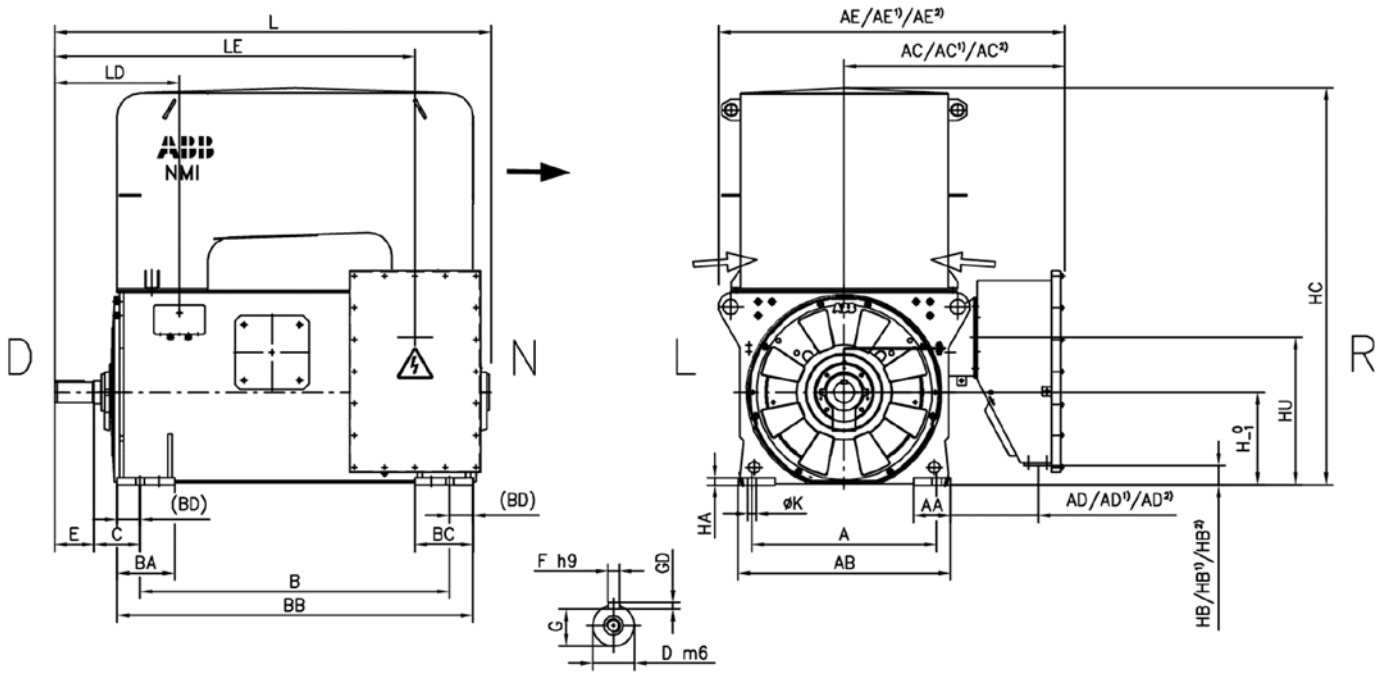

— 15

IC01
IC01 with asymmetric inside air circulation.


— 16

Modular induction motors, type NMI
Dimension drawings

Antifriction bearing, IM 1001, IC01/IP24



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	200	90	170	25	81	400	36	1910	160	920	920	865	960	360	300	390
400L	≥4	800	1340	200	120	210	32	109	400	36	1950	160	920	920	865	960	360	300	390
450L	2	950	1400	250	100	210	28	90	450	42	2120	185	1070	975	915	1005	330	270	350
450L	≥4	950	1400	250	130	250	32	119	450	42	2160	185	1070	975	915	1005	330	270	350
500L	≥4	1000	1600	250	150	250	36	138	500	42	2380	190	1170	1025	960	1055	330	270	350

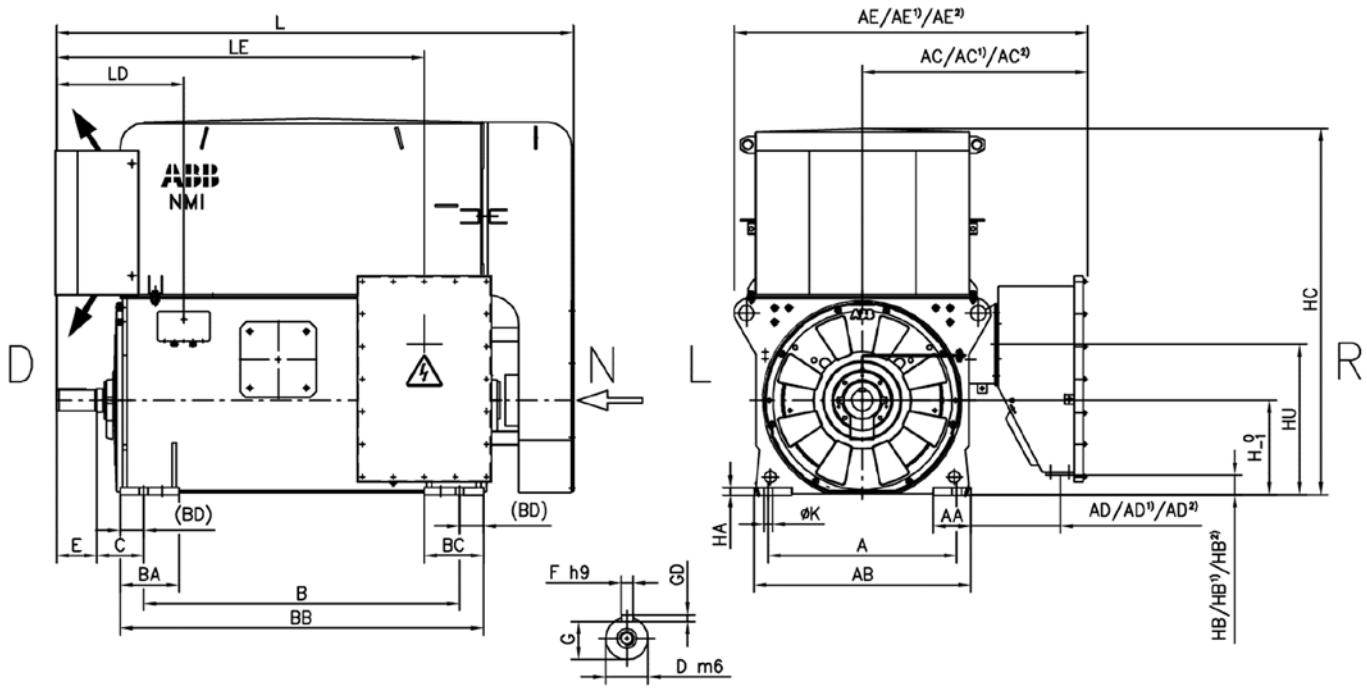
NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	HU
400L	2	1475	1415	1495	250	1540	250	100	14	30	120	250	85	1720	540	1560	635
400L	≥4	1475	1415	1495	250	1540	250	100	18	30	120	250	85	1720	580	1600	635
450L	2	1570	1510	1600	270	1700	270	150	16	39	170	300	135	1870	610	1720	685
450L	≥4	1570	1510	1600	270	1700	270	150	18	39	170	300	135	1870	650	1760	685
500L	≥4	1670	1605	1695	280	1900	280	150	20	45	250	375	210	2065	675	2010	765

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Modular induction motors, type NMI
Dimension drawings

Antifriction bearing, IM 1001, IC611/IP55



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	200	90	170	25	81	400	36	2200	160	920	920	865	960	360	300	390
400L	≥4	800	1340	200	120	210	32	109	400	36	2230	160	920	920	865	960	360	300	390
450L	2	950	1400	250	100	210	28	90	450	42	2430	185	1070	975	915	1005	330	270	350
450L	≥4	950	1400	250	130	250	32	119	450	42	2470	185	1070	975	915	1005	330	270	350
500L	≥4	1000	1600	250	150	250	36	138	500	42	2720	190	1170	1025	960	1055	330	270	350
560L	≥4	1180	2000	250	180	300	45	165	560	42	3455	225	1320	NA	1200	1285	NA	435	510
630L	4	1400	2240	250	180	300	45	165	630	42	3680	200	1500	NA	1285	1365	NA	430	510
630L	≥6	1400	2240	250	200	350	45	185	630	42	3730	200	1500	NA	1285	1365	NA	430	510

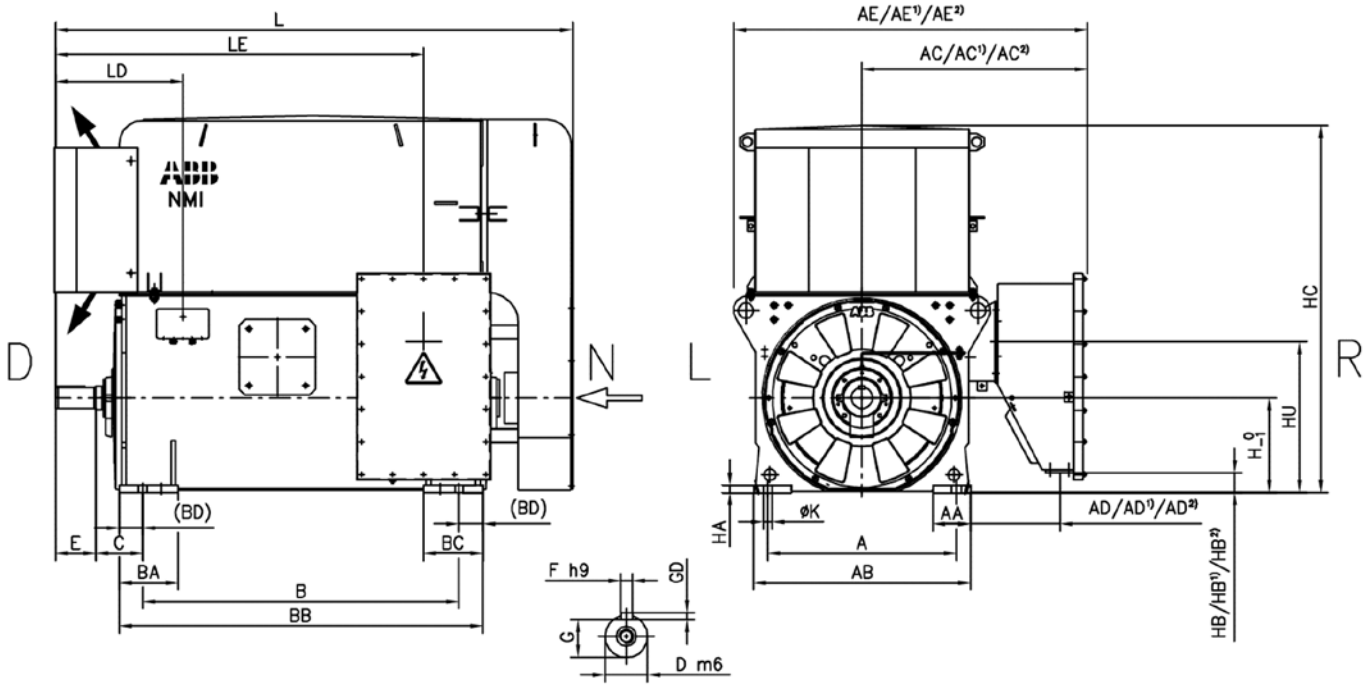
NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	HU
400L	2	1475	1415	1495	250	1540	250	100	14	30	120	250	85	1595	540	1560	635
400L	≥4	1475	1415	1495	250	1540	250	100	18	30	120	250	85	1595	580	1600	635
450L	2	1570	1510	1600	270	1700	270	150	16	39	170	300	135	1740	610	1720	685
450L	≥4	1570	1510	1600	270	1700	270	150	18	39	170	300	135	1740	650	1760	685
500L	≥4	1670	1605	1695	280	1900	280	150	20	45	250	375	210	1930	675	2010	765
560L	≥4	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2170	695	2435	800
630L	4	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2380	695	2675	950
630L	≥6	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2380	745	2725	950

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Modular induction motors, type NMI
Dimension drawings

Antifriction bearing, IM 1001, IC81W/IP55



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	200	90	170	25	81	400	36	1910	160	920	920	865	960	360	300	390
400L	≥4	800	1340	200	120	210	32	109	400	36	1950	160	920	920	865	960	360	300	390
450L	2	950	1400	250	100	210	28	90	450	42	2120	185	1070	975	915	1005	330	270	350
450L	≥4	950	1400	250	130	250	32	119	450	42	2160	185	1070	975	915	1005	330	270	350
500L	≥4	1000	1600	250	150	250	36	138	500	42	2380	190	1170	1025	960	1055	330	270	350
560L	≥4	1180	2000	250	180	300	45	165	560	42	2750	225	1320	NA	1200	1285	NA	435	510
630L	4	1400	2240	250	180	300	45	165	630	42	3000	200	1500	NA	1285	1365	NA	430	510
630L	≥6	1400	2240	250	200	350	45	185	630	42	3035	200	1500	NA	1285	1365	NA	430	510

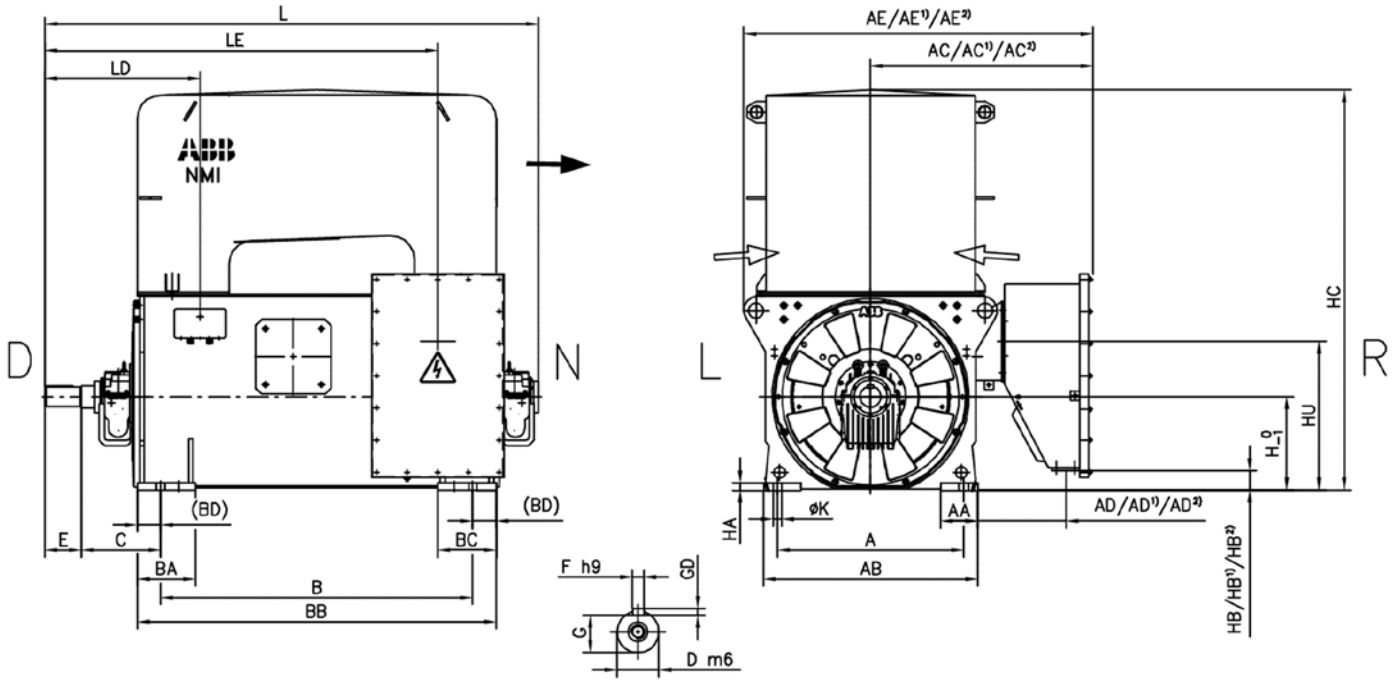
NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	LF	HU
400L	2	1495	1435	1530	250	1540	250	100	14	30	120	250	85	1665	540	1560	1040	635
400L	≥4	1495	1435	1530	250	1540	250	100	18	30	120	250	85	1665	580	1600	1080	635
450L	2	1600	1540	1620	270	1700	270	150	16	39	170	300	135	1870	610	1720	1160	685
450L	≥4	1600	1540	1620	270	1700	270	150	18	39	170	300	135	1870	650	1760	1200	685
500L	≥4	1700	1635	1730	280	1900	280	150	20	45	250	375	210	2065	675	2010	1300	765
560L	≥4	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2225	695	2435	1550	800
630L	4	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2330	695	2675	1670	950
630L	≥6	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2330	745	2725	1720	950

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Modular induction motors, type NMI
Dimension drawings

Sleeve bearing, IM 1001, IC01/IP24



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	375	90	170	25	81	400	36	2140	160	920	920	865	960	360	300	390
450L	2	950	1400	375	100	210	28	90	450	42	2280	185	1070	975	915	1005	330	270	350
500L	2	1000	1600	425	120	210	32	109	500	42	2560	190	1170	1025	960	1055	330	270	350
500L	≥4	1000	1600	450	150	250	36	138	500	42	2665	190	1170	1025	960	1055	330	270	350

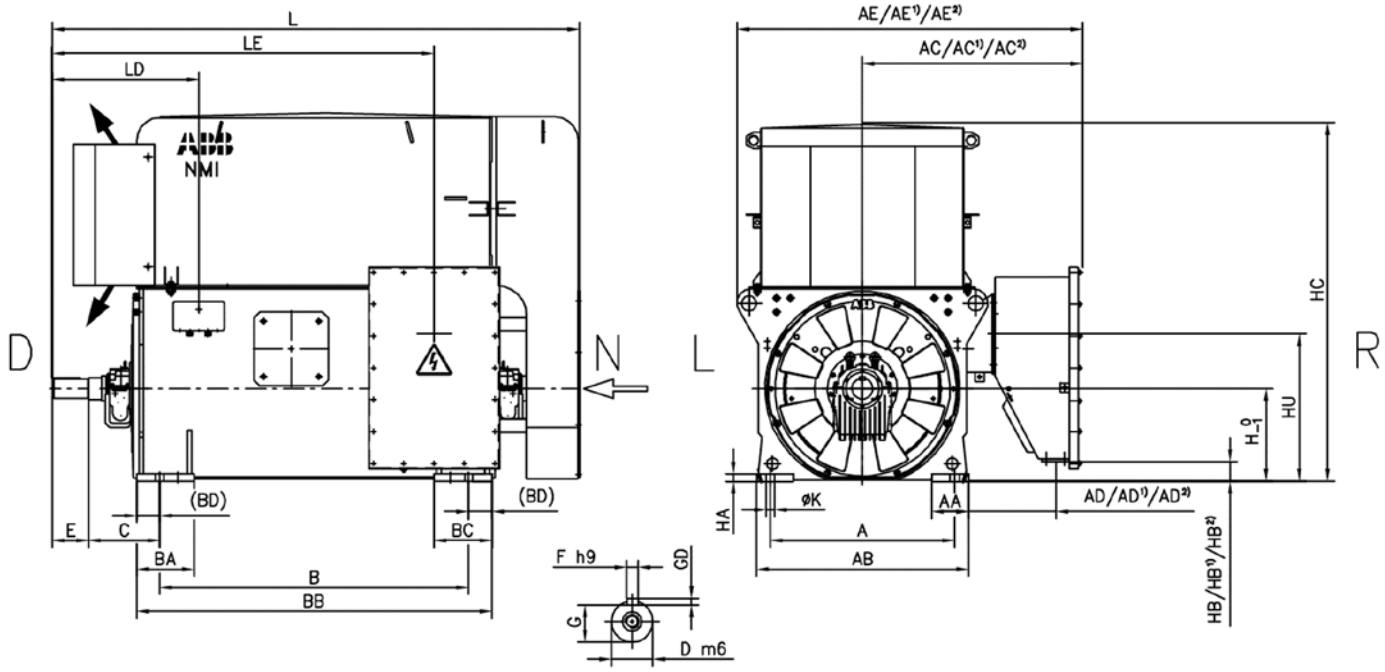
NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	HU
400L	2	1475	1415	1495	250	1540	250	100	14	30	120	250	85	1720	715	1735	635
450L	2	1570	1510	1600	270	1700	270	150	16	39	170	300	135	1870	735	1845	685
500L	2	1670	1605	1695	280	1900	280	150	18	45	250	375	210	2065	810	2145	765
500L	≥4	1670	1605	1695	280	1900	280	150	20	45	250	375	210	2065	875	2210	765

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Modular induction motors, type NMI
Dimension drawings

Sleeve bearing, IM 1001, IC611/IP55



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	375	90	170	25	81	400	36	2370	160	920	920	865	960	360	300	390
450L	2	950	1400	375	100	210	28	90	450	42	2560	185	1070	975	915	1005	330	270	350
500L	2	1000	1600	425	120	210	32	109	500	42	2855	190	1170	1025	960	1055	330	270	350
500L	≥4	1000	1600	450	150	250	36	138	500	42	2920	190	1170	1025	960	1055	330	270	350
560L	2	1180	2000	400	140	250	36	128	560	42	3945	225	1320	NA	1200	1285	NA	435	510
560L	4	1180	2000	500	180	300	45	165	560	42	3705	225	1320	NA	1200	1285	NA	435	510
560L	≥6	1180	2000	475	180	300	45	165	560	42	3680	225	1320	NA	1200	1285	NA	435	510
630L	2	1400	2240	400	160	300	40	147	630	42	4285	200	1500	NA	1285	1365	NA	430	510
630L	4	1400	2240	500	180	300	45	165	630	42	3930	200	1500	NA	1285	1365	NA	430	510
630L	≥6	1400	2240	500	200	350	45	185	630	42	3980	200	1500	NA	1285	1365	NA	430	510

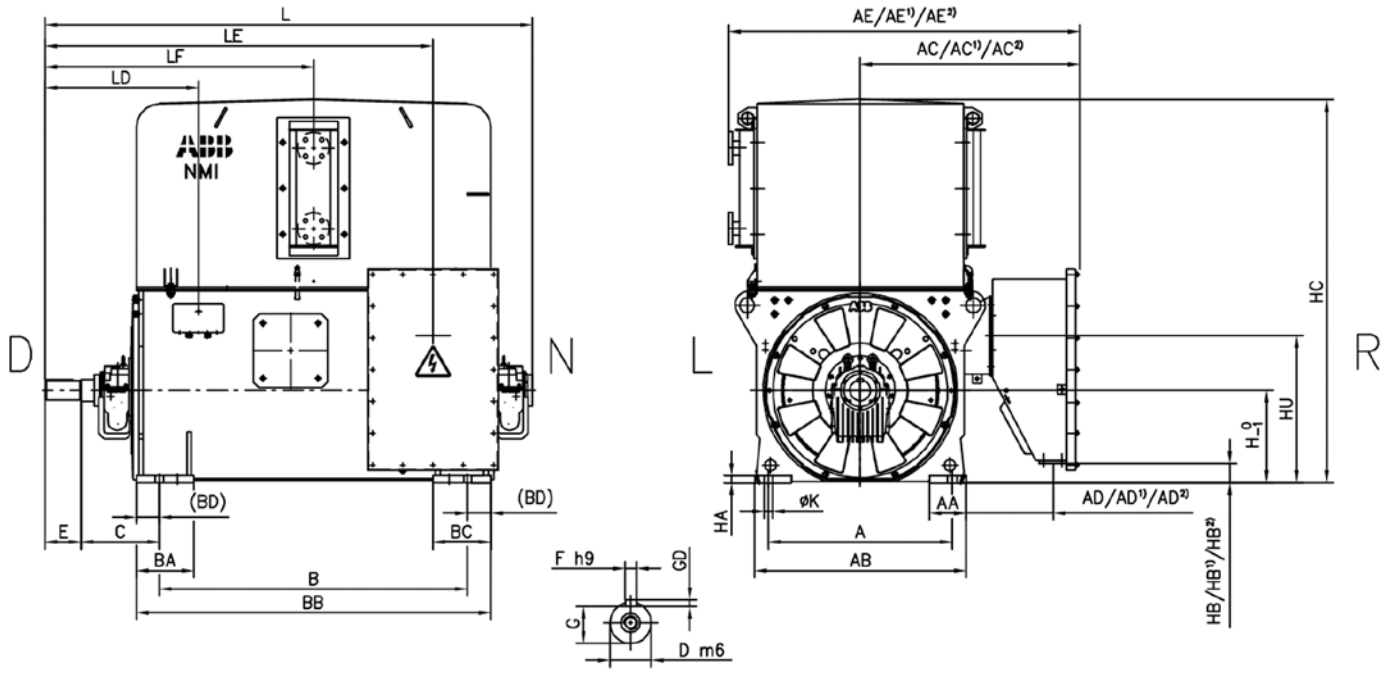
NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	HU
400L	2	1475	1415	1495	250	1540	250	100	14	30	120	250	85	1595	715	1735	635
450L	2	1570	1510	1600	270	1700	270	150	16	39	170	300	135	1740	735	1845	685
500L	2	1670	1605	1695	280	1900	280	150	18	45	250	375	210	1930	810	2145	765
500L	≥4	1670	1605	1695	280	1900	280	150	20	45	250	375	210	1930	875	2210	765
560L	2	NA	2040	2125	400	2230	400	115	20	65	NA	410	245	2170	795	2535	800
560L	4	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2170	945	2685	800
560L	≥6	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2170	920	2660	800
630L	2	NA	2215	2295	400	2470	400	115	22	65	NA	560	395	2380	845	2825	950
630L	4	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2380	945	2925	950
630L	≥6	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2380	995	2975	950

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Modular induction motors, type NMI
Dimension drawings

Sleeve bearing, IM 1001, IC81W/IP55



NMI	Poles	A	B	C	D	E	F	G	H	K	L	AA	AB	AC	AC[1)]	AC[2)]	AD	AD[1)]	AD[2)]
400L	2	800	1340	375	90	170	25	81	400	36	2140	160	920	920	865	960	360	300	390
450L	2	950	1400	375	100	210	28	90	450	42	2280	185	1070	975	915	1005	330	270	350
500L	2	1000	1600	425	120	210	32	109	500	42	2560	190	1170	1025	960	1055	330	270	350
500L	≥4	1000	1600	450	150	250	36	138	500	42	2665	190	1170	1025	960	1055	330	270	350
560L	2	1180	2000	400	140	250	36	128	560	42	2985	225	1320	NA	1200	1285	NA	435	510
560L	4	1180	2000	500	180	300	45	165	560	42	3190	225	1320	NA	1200	1285	NA	435	510
560L	≥6	1180	2000	475	180	300	45	165	560	42	3120	225	1320	NA	1200	1285	NA	435	510
630L	2	1400	2240	400	160	300	40	147	630	42	3240	200	1500	NA	1285	1365	NA	430	510
630L	4	1400	2240	500	180	300	45	165	630	42	3425	200	1500	NA	1285	1365	NA	430	510
630L	≥6	1400	2240	500	200	350	45	185	630	42	3475	200	1500	NA	1285	1365	NA	430	510

NMI	Poles	AE	AE[1)]	AE[2)]	BA	BB	BC	BD	GD	HA	HB	HB[1)]	HB[2)]	HC	LD	LE	LF	HU
400L	2	1495	1435	1530	250	1540	250	100	14	30	120	250	85	1665	715	1735	1215	635
450L	2	1600	1540	1620	270	1700	270	150	16	39	170	300	135	1870	735	1845	1285	685
500L	2	1700	1635	1730	280	1900	280	150	18	45	250	375	210	2065	810	2145	1435	765
500L	≥4	1700	1635	1730	280	1900	280	150	20	45	250	375	210	2065	875	2210	1500	765
560L	2	NA	2040	2125	400	2230	400	115	20	65	NA	410	245	2415	795	2535	1425	800
560L	4	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2225	945	2685	1800	800
560L	≥6	NA	2040	2125	400	2230	400	115	25	65	NA	410	245	2225	920	2660	1775	800
630L	2	NA	2215	2295	400	2470	400	115	22	65	NA	560	395	2380	845	2825	1545	950
630L	4	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2330	945	2925	1920	950
630L	≥6	NA	2215	2295	400	2470	400	115	25	65	NA	560	395	2330	995	2975	1970	950

[1)] Dimension for 1<Un≤6 kV
[2)] Dimension for 6<U≤10 kV

Table gives main dimensions in mm.

Slip-ring motors, type NMK
Availability for heavy load inertia applications

Slip-ring motors are an ideal solution for applications which require high starting torque and low starting current. They are especially suitable for heavy load inertia applications like mill drives or situations where network conditions are weak.

ABB's slip-ring motors minimize mechanical stress at starting, increasing the lifetime of your driven equipment. They provide maximized availability and high torque over the entire speed range.

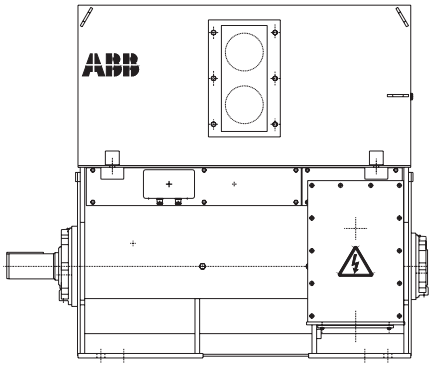
NMK motors have a welded steel frame. They are available in shaft heights from 400 to 500 mm, with IC611 or IC616 cooling and IP55 protection. The motors can be mounted horizontally and are rated up to 2,800 kW.

For more detailed technical data on NMK slip-ring motors, please contact ABB.

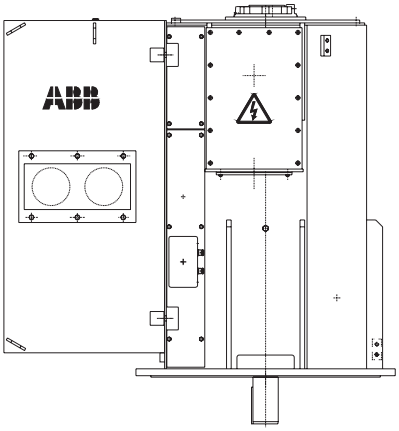
Slip-ring motors, type NMK
Mounting arrangements

Standard mounting arrangements for NMK motors

—
17 Code I: IM B3
Code II: IM 1001
Horizontal foot mounted



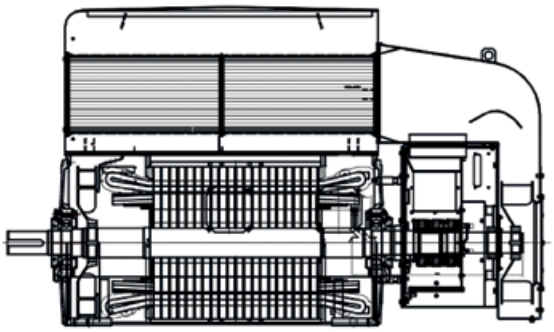
—
18 Code I: IM V1
Code II: IM 4011
Vertical flange mounted
(free shaft end facing
downwards)



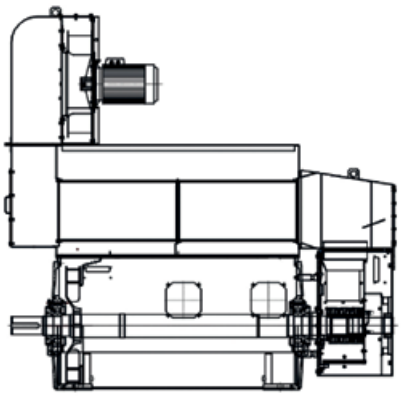
Slip-ring motors, type NMK
Enclosure and cooling

IC611 / IP55, IC616 / IP55
This design has an air-to-air heat exchanger mounted on the motor, which is fully enclosed. Shaft mounted fans are fitted both inside and outside of the casing to supply the inside and outside cooling circuits respectively. The motor is protected against dust and splashing water from any direction.

—
19 Air-to-air cooled
IP55 IC611
TEAAC

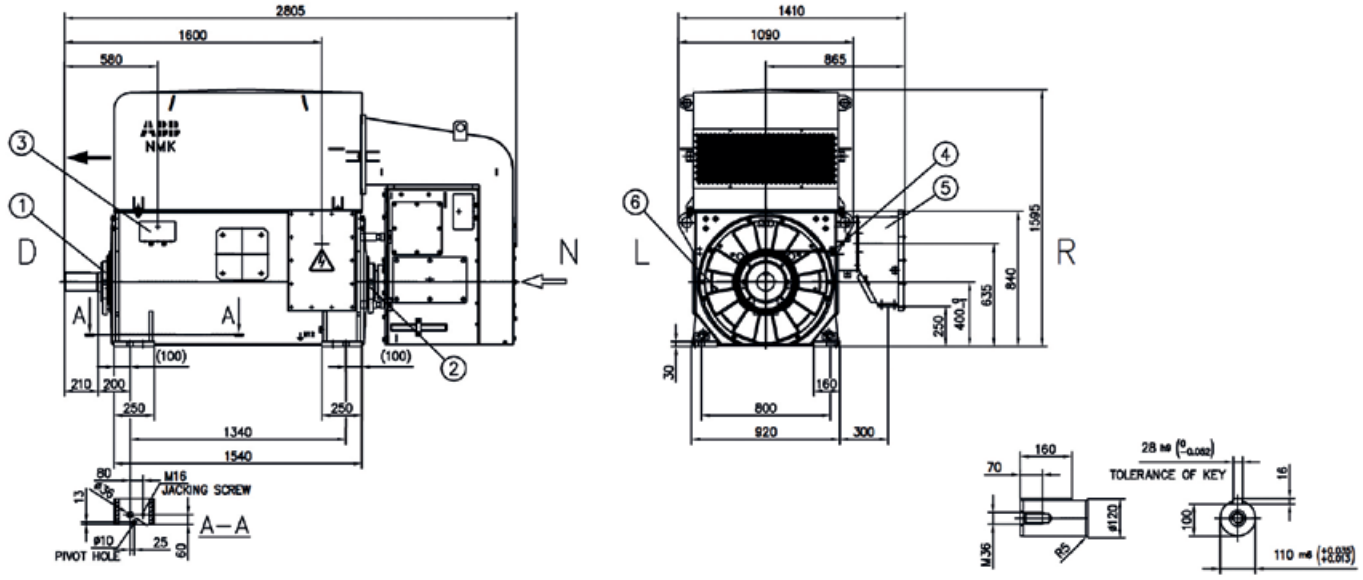


—
20 Air-to-air cooled
IP55 IC616
TEAAC

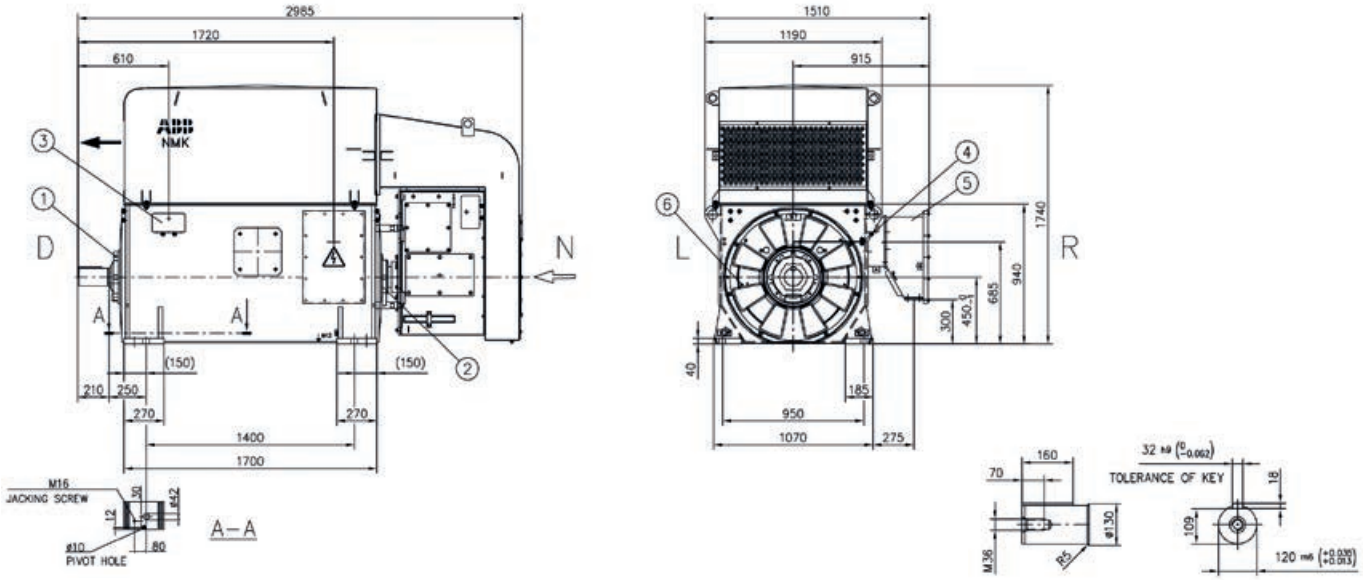


Slip-ring motors, type NMK
Dimension drawings

Antifriction bearings, 1 < U <= 6.6 kV, IM 1001, IC616 / IP55, >=4 pole, frame size 400

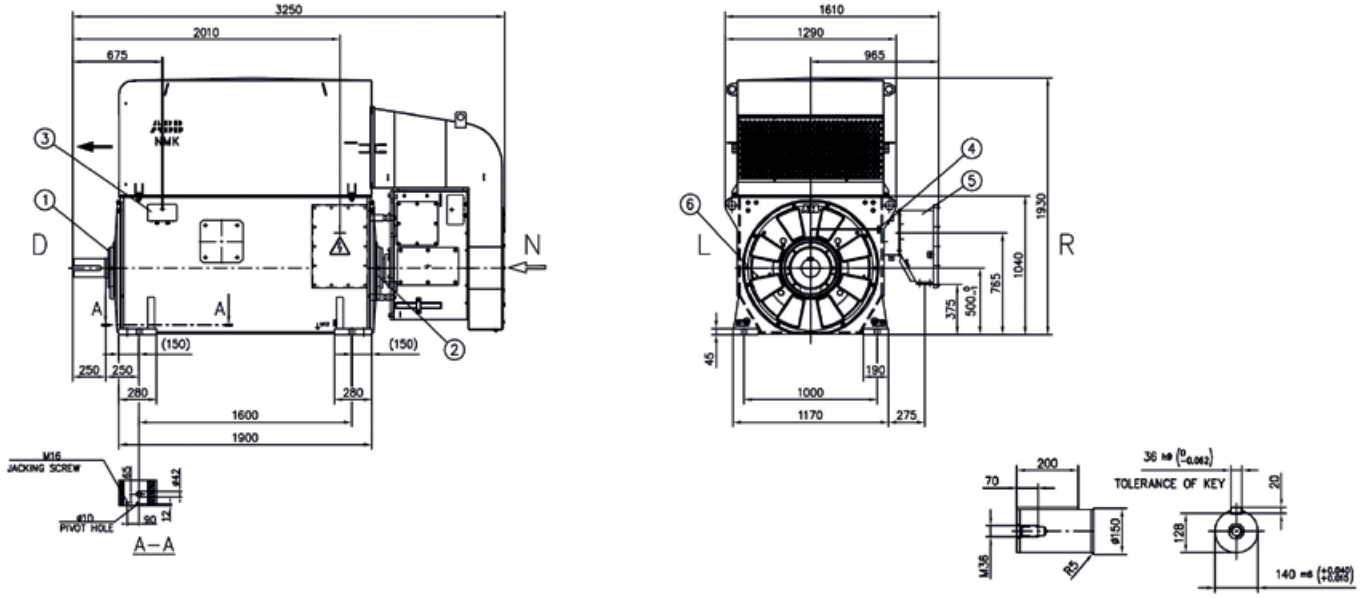


Antifriction bearings, IEC, 1 < U <= 6.6 kV, IM 1001, IC611 / IP55, >=4 pole, frame size 450



Slip-ring motors, type NMK
Dimension drawings

Antifriction bearings, IEC, 1 < U <= 6.6 kV, IM 1001, IC611 / IP55, >=4 pole, frame size 500



Total product offering

ABB offers a wide range of motors, generators and mechanical power transmission products with a complete portfolio of services.

IEC motors
- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for food and beverage
- Motors for variable speed drives
- Permanent magnet motors
- Synchronous reluctance motors
- Traction motors

NEMA motors
- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for variable speed drives
- Permanent magnet motors
- Servomotors
- Washdown motors

Generators
- Generators for wind turbines
- Generators for diesel and gas engine power plants
- Generators for steam and gas turbine power plants
- Generators for marine applications
- Generators for industrial applications
- Generators for traction applications
- Synchronous condensers for reactive power compensation

Mechanical power transmission components, bearings, gearings
- Mounted bearings
- Enclosed gearing
- Mechanical drive components
- Couplings
- Sheaves and bushings
- Conveyor components
- Geared motor units

Life cycle services

Notes

Notes

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For more information and contact details:

abb.com/motors&generators

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