

Electric motors

H17R Series

Powerful, efficient and flexible...

Technical catalogue



Profile

H17R series high voltage electric motor with compact structure is a new product of our company, which has high efficiency, minimum vibration and low noise. It is also very easy to maintain, has a beautiful appearance and lower weight.

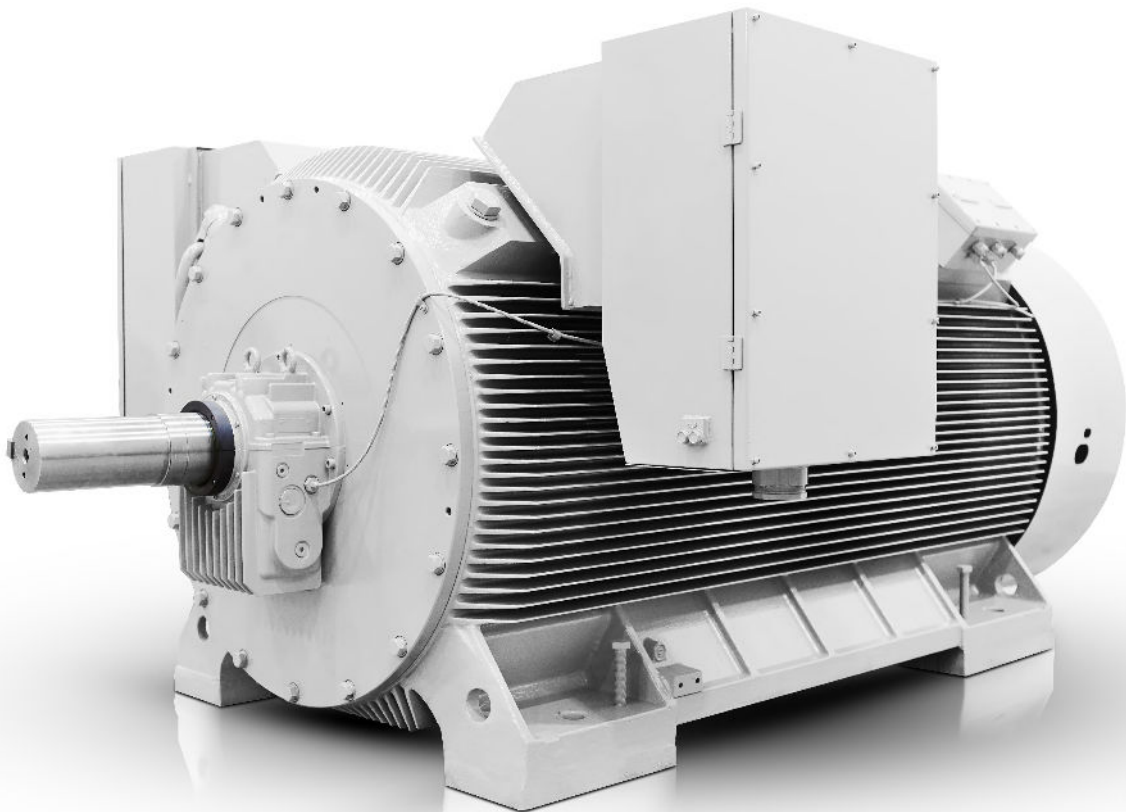
Performance and mounting dimensions correspond to the national IEC standard. Our company has been certified ISO9001-2000. The entire operation including ordering, research and development, production, sales and service is ISO9001 compliant.

The degree of protection is IP55, another degree of IP is available on request.

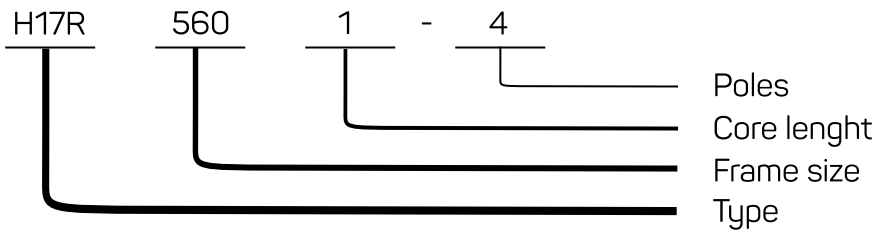
Cooling is according to IEC60034-5, (IC41), other cooling on request.

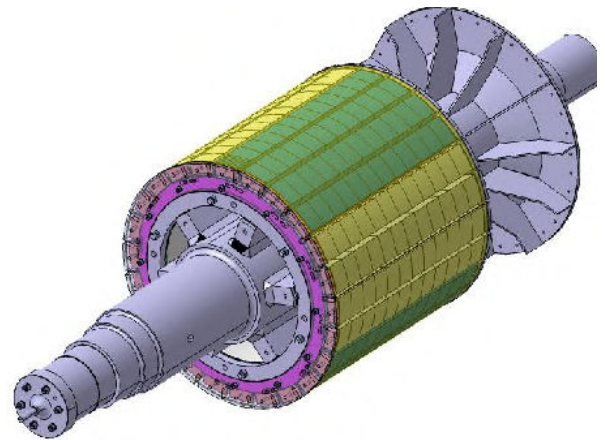
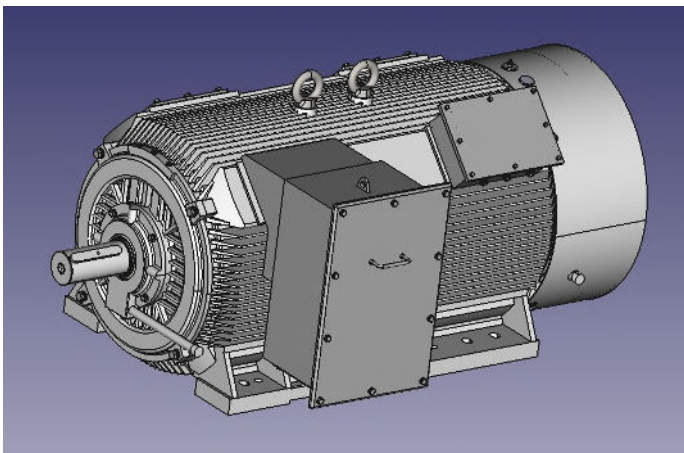
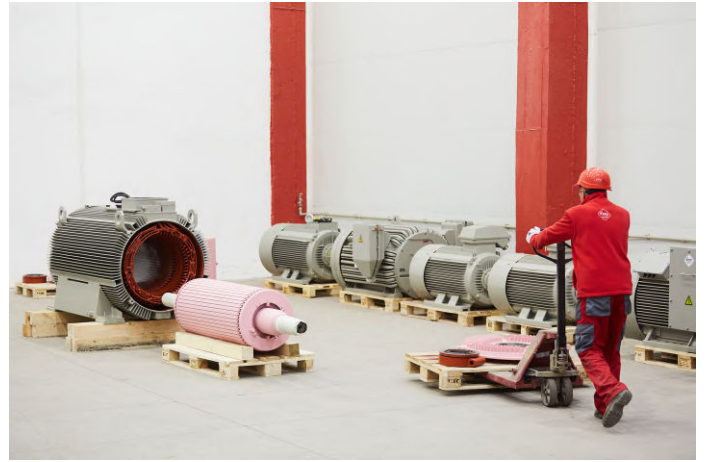
Emissions are according to and IEC60034-7.

Frame size 630 can be made with IC411 cooling.



Marking system





Quality management and certificates



VYBO Electric is a modern High-tech energy saving company that pays high attention to quality, environment, safety and precision and efficiency of work and energy in production. Therefore, it holds a lot of certificates and quality control systems. **Our priority is quality control.**

Basic certificates include:

ISO9001

The primary task of the ISO 9001 standard is to focus on system management and quality management in the organization. The satisfaction of the customer and the fulfillment of his requirements, which are specified in contracts, orders, or technical drawings, are in the first place. The quality management system is linked to all processes in the company. The standard focuses on the management of human and financial resources, on the stability of infrastructure, including buildings, transport, hardware, software and other communication or information technologies. An important part is also the planning of production and services, the management of the purchasing process, but also the management of non-conforming products.



ISO14001

The main priority of the ISO 14001 standard is to identify and understand the environmental aspects and activities that are related to the entire infrastructure of the company and, based on this, to regulate the environmental impact on the environment.

In its scope, the ISO 14001 standard creates the conditions for determining environmental goals and plans, the fulfillment of which is examined at regular intervals by top management and also by an independent body during internal audits.

This standard is intended for all organizations and companies that consider environmental protection as their primary goal.

The benefit of the standard for society is mainly:

- control over the environmental impact on the environment
- control over produced emissions and waste
- saving material and energy
- prevention of accidents
- compliance of the company's activities with legal requirements
- zero fines for environmental behavior
- creation of a good reputation and prestige of the company



The ISO 45001

Specification (formerly known as OHSAS 18001) is an internationally recognized standard that declares compliance with the principles of a safe enterprise, managing risks at work and protecting the health of workers during work. It does not only concern danger and accidents, but also emphasizes other aspects such as the good condition and mental well-being of the employee.

The certificate is held in Slovakia as STN ISO 45001:2019 and is under the title Management systems of safety and health protection at work. Requirements with guidance for use. It replaces the STN OHSAS 18001 standard.

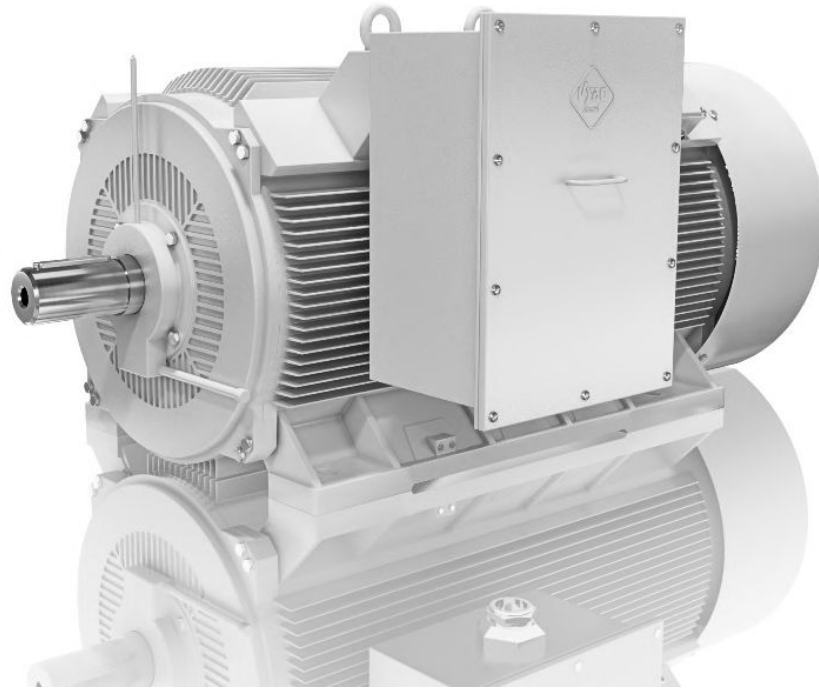


ISO50001

Energy management systems Energy efficiency help organizations save money, save energy resources and also help to prevent climate change. ISO 50001 encourages organizations in all sectors to use energy more efficiently through the development of an energy management system. The international standard ISO 50001: 2011 specifies the requirements for building, maintaining and improving the energy system. It aims to enable organizations to implement a systematic approach that will help achieve lasting improvements in energy efficiency, energy use and consumption.



H17R - Medium and high voltage electric motors

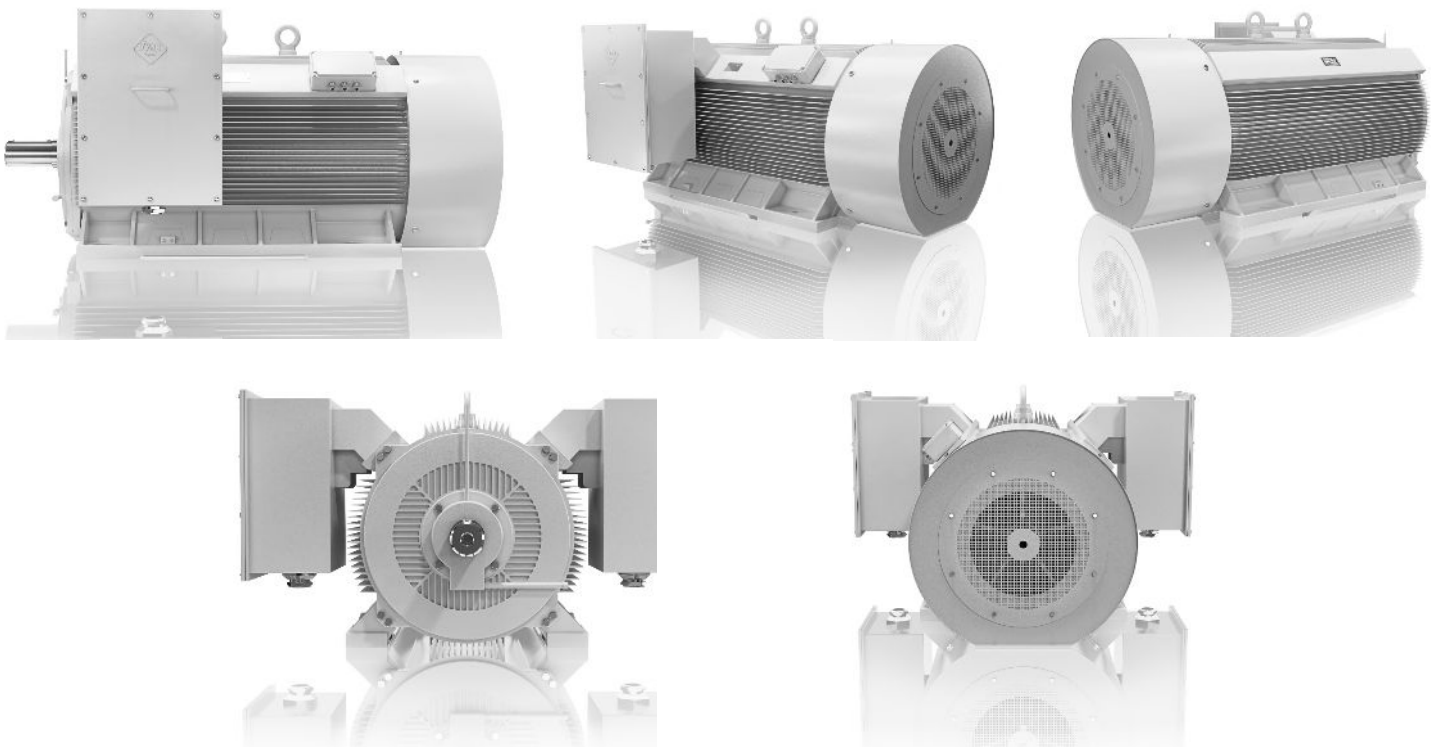


Electric motors H17R series

Type of motor: H17R
TEFC: Totally enclosed fan cooled three phase asynchronous electric motor, can be equipped with ventilation
Frame sizes: 315 mm - 630 mm
Power range: 132 kW - 3000 kW
Voltage: 1000 V - 13 800 V
Frame material: cast iron frame, optionally welded frame
Protection: IP 55, 65, 67

Cooling: IC 411, IC 416 (ribbed cooled)
Mounting: B3, B35, V1, IM V15
Possible: Special winding of VFD use, can support several kinds of voltage and frequency
Accessories: PT100, PTC and other thermal elements can be chose to protect bearings and winding, Heaters, anti-vibrations senzors and other

Gallery - 3D



Structure

The frame of this series is cast iron, it has two independent cooling systems, one is the cooling by the outside fan, the other is cooling by the inner fan. 2 Poles motor use a separate axial fan, 4-8 Poles motor can be both side rotation because of the centrifugal fan..

The rotor uses copper rotor and high precision balancing.

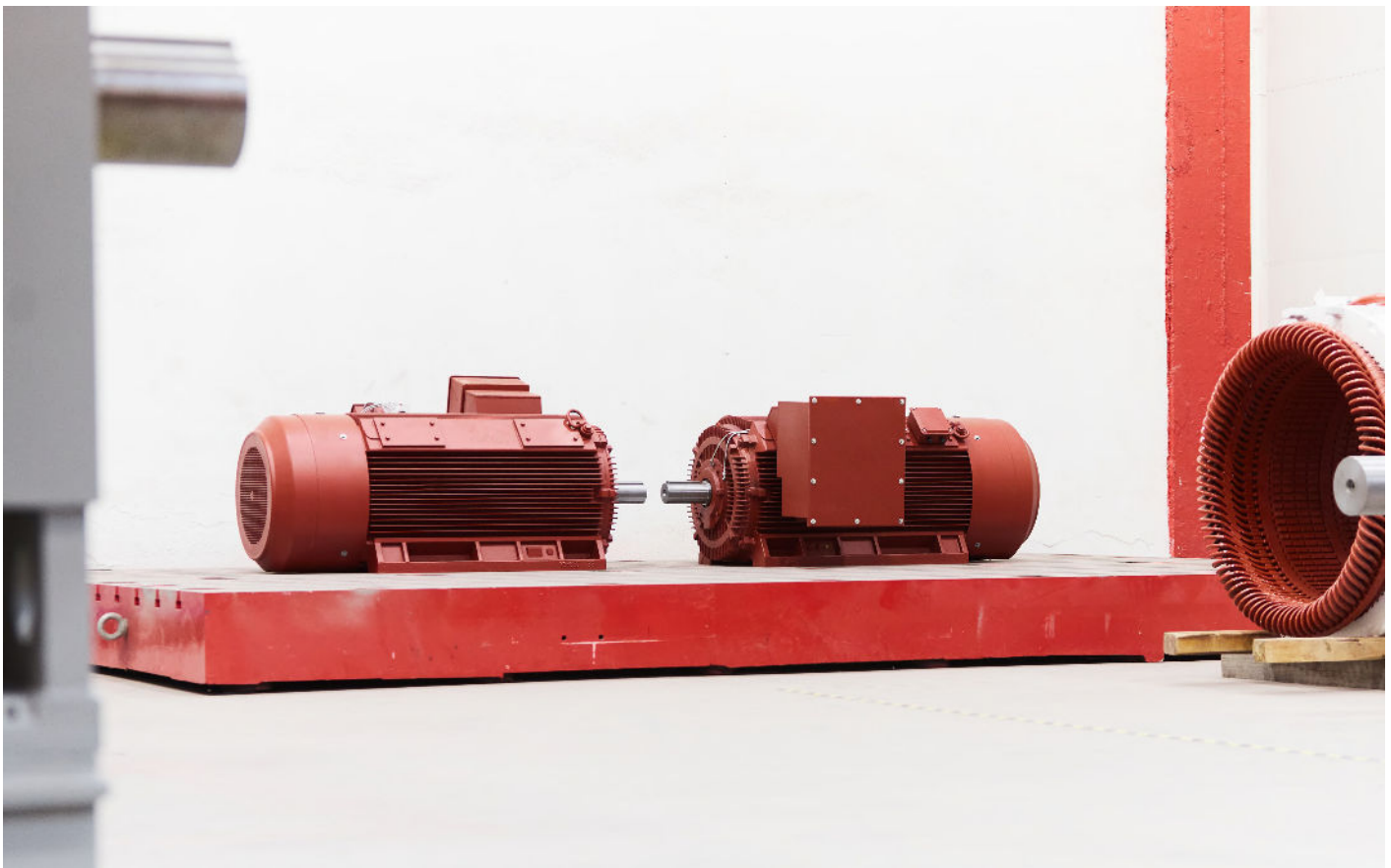
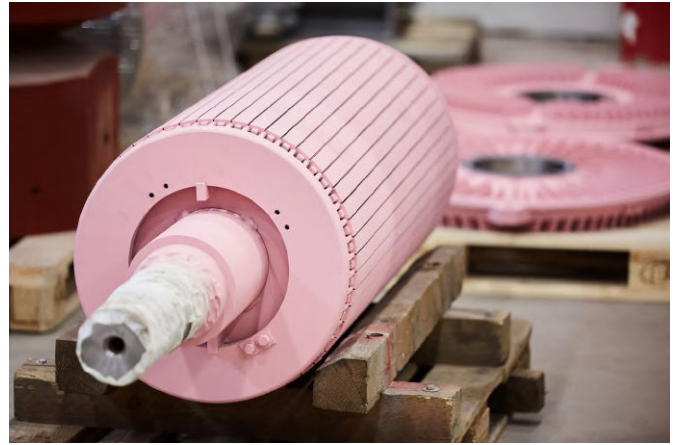
The bearing structure: Ball bearing structure: it has bearings, a ball and roller bearing on drive end, a roller bearing on non-drive end. The roller bearing can bear the radial force, and ball bearing can fixed position, also can get the axial force.

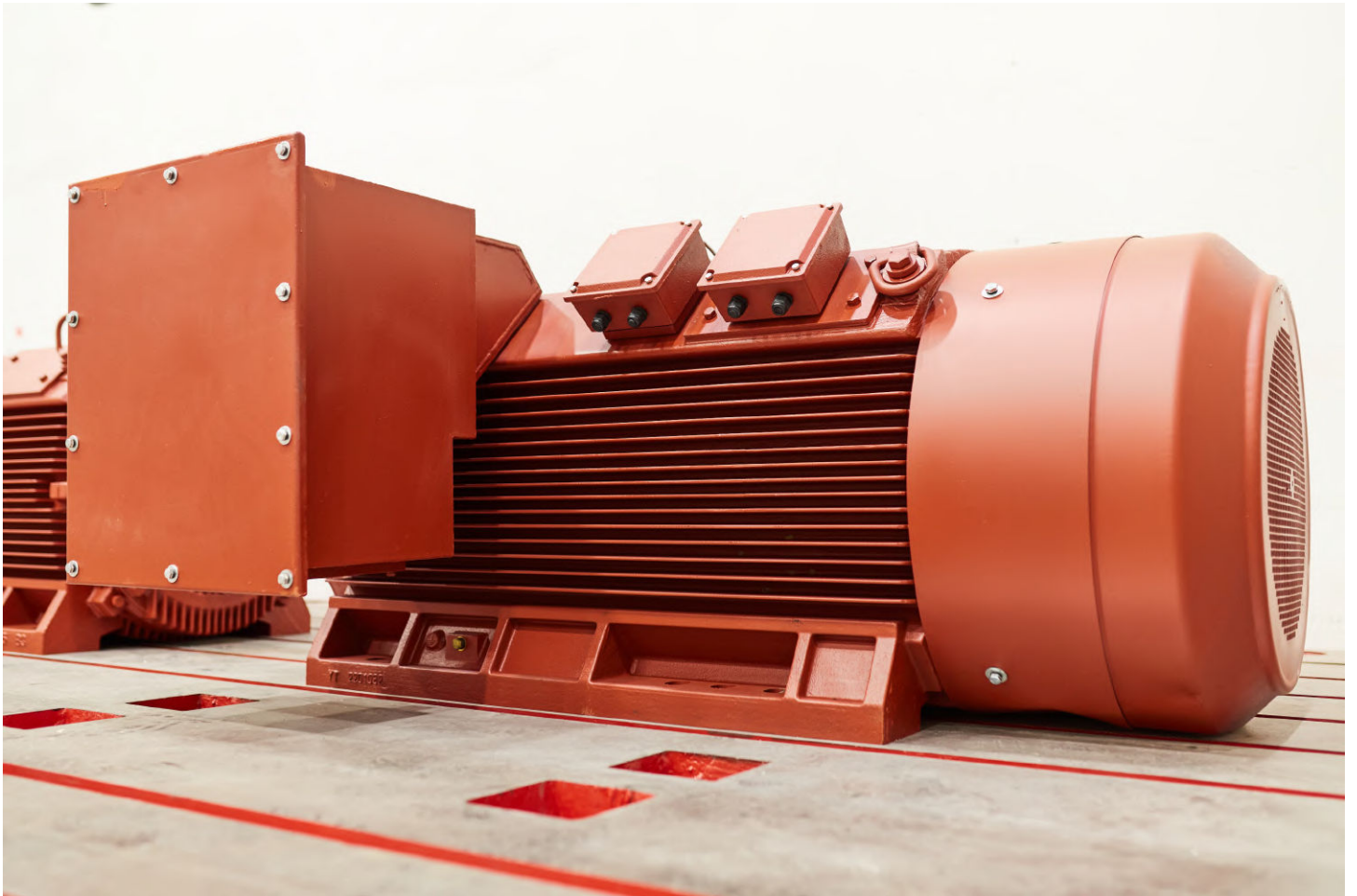
The main terminal box is located on the top right (left is also on request).

Application

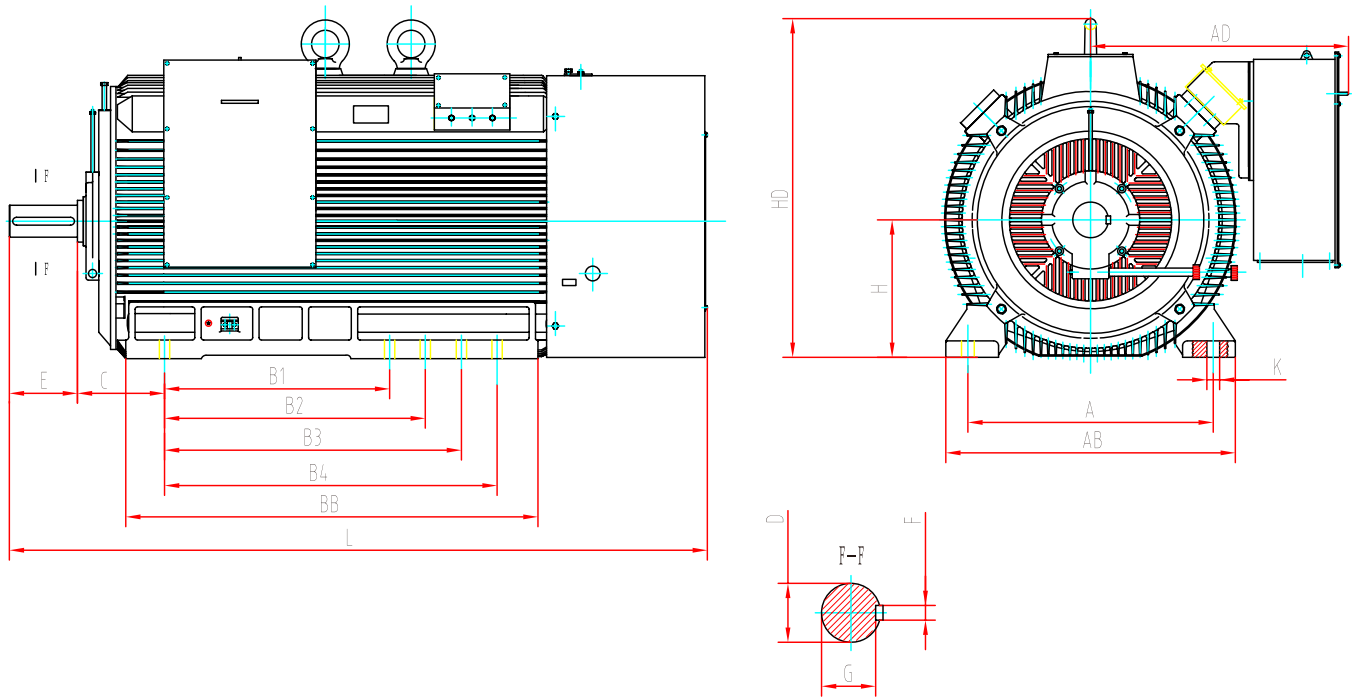
The motors are applicable to drive various types of universal machines, such as compressors, wind machines, pumps and crushers and other mechanical equipment. Also widely used in petrochemical industries, chemical plant, medicine factory or mining and power plants as prime movers in other abominable condition.







Mounting and dimensions (6 KV)



Frame size	Poles	Mounting dimensions (mm)									Overall dimension (mm)						
		A	B1	B2	B3	B4	C	D	E	F	K	AB	AD	BB	HB	HD	L
315	2	630	800	900	/	/	254	75	140	20	28	730	750	1200	110	900	2000
315	4,6,8	630	800	900	/	/	254	100	210	28	28	730	750	1200	110	900	2000
355	2	630	710	800	900	/	254	75	140	20	35	760	860	1200	210	970	2000
355	4,6,8	630	710	800	900	/	254	95	170	25	35	760	860	1200	210	970	2000
400	2	710	800	900	1000	/	280	80	170	22	35*47	870	860	1300	290	1050	2200
400	4,6,8	710	800	900	1000	/	280	110	210	28	35*47	870	860	1300	290	1050	2200
450	2	800	900	1000	1120	1250	280	95	170	25	35*47	980	930	1495	390	1135	2360
450	4,6,8	800	900	1000	1120	1250	280	120	210	32	35*47	980	930	1495	390	1135	2360
500	2	900	1250	/	/	/	425	110	210	28	42*60	1080	970	1600	470	1220	2560
500	4,6,8	900	1250	/	/	/	315	140	250	36	42*60	1080	970	1490	470	1220	2560
560	2	1000	1400	/	/	/	530	130	250	32	42*60	1180	1030	1680	590	1380	2660
560	4,6,8	1000	1400	/	/	/	355	160	300	40	42*60	1180	1030	1680	590	1380	2660



Technical data H17R (6 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	T _{max} /T _n	T _{st} /T _n	I _{max} /I _n	Rotor inertia (kg·m ²)	Weight (kg)
2 poles electric motors										
315	220	3000	94,4	0,89	25,2	2,9	0,61	6,2	2,1	2865
	250	3000	94,5	0,89	28,6	2,9	0,64	6,3	2,4	2900
	280	3000	94,6	0,9	31,6	2,9	0,66	6,7	2,7	2950
	315	3000	94,7	0,9	35,6	3,2	0,7	7,3	3,1	3040
355	355	3000	94,8	0,9	40	3	0,7	6,8	3,3	3075
	400	3000	95,1	0,9	45	2,9	0,68	6,7	3,5	3160
	450	3000	95,2	0,91	50	2,8	0,7	6,6	3,7	3215
	500	3000	95,3	0,91	55,5	2,8	0,72	6,6	4	3280
400	500	3000	95,4	0,9	55,9	2,8	0,6	6,1	4,3	3630
	560	3000	95,5	0,91	62	2,8	0,64	6,3	4,5	3700
	630	3000	95,6	0,91	69,7	2,9	0,69	6,5	4,9	3820
	710	3000	95,7	0,91	78,5	3	0,77	7	5,3	3950
450	800	3000	95,8	0,9	89,3	2,8	0,61	6,3	6	4700
	900	3000	95,9	0,9	100,4	3	0,71	7	6,2	4800
	1000	3000	96,1	0,9	111,3	2,5	0,61	6	6,8	5000
	1120	3000	96,2	0,91	123,1	2,8	0,74	6,8	7,5	5100
500	1250	3000	96,3	0,91	137,3	2,9	0,6	6,6	15	6860
	1400	3000	96,4	0,91	153,6	2,9	0,63	6,8	16	7000
	1600	3000	96,5	0,91	175,3	2,9	0,67	6,9	17	7140
	1800	3000	96,6	0,91	197	3	0,75	7,4	19	7400
560	2000	3000	96,7	0,91	218,7	2,7	0,6	6,4	28	7800
	2240	3000	96,8	0,91	244,7	2,9	0,67	7	30	8030
	2500	3000	96,9	0,91	272,8	3	0,8	7,6	32	8300



Technical data H17R (6 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	T _{max} /T _n	T _{st} /T _n	I _{max} /I _n	Rotor inertia (kg·m)	Weight (kg)
4 poles electric motors										
315	220	1500	94,4	0,88	25,5	2,2	0,74	5,2	4,2	2900
	250	1500	94,5	0,88	28,9	2,2	0,74	5,1	4,9	2970
	280	1500	94,6	0,88	32,4	2,3	0,83	5,4	5,6	3050
	315	1500	94,8	0,88	36,3	2,4	0,95	5,9	6,3	3120
355	355	1500	95	0,88	40,9	2,4	0,96	6,4	6,5	3220
	400	1500	95,1	0,88	46	2,3	0,96	6,3	6,8	3290
	450	1500	95,2	0,89	51,1	2,2	0,9	6,2	7,1	3340
	500	1500	95,3	0,89	56,7	2,2	0,99	6,2	7,4	3400
400	500	1500	95,3	0,89	56,7	2,4	0,86	6	8	3970
	560	1500	95,4	0,89	63,5	2,4	0,88	6	8,5	4080
	630	1500	95,5	0,89	71,3	2,4	0,92	6,1	9,3	4170
	710	1500	95,6	0,9	79,4	2,3	0,97	6,2	9,8	4250
450	800	1500	95,7	0,9	89,4	2,5	0,69	6,1	13	5000
	900	1500	95,8	0,9	100,4	2,5	0,75	6,4	15	5200
	1000	1500	95,9	0,9	111,5	2,7	0,82	6,8	16	5450
	1120	1500	96	0,9	124,7	2,5	0,79	6,5	18	5700
500	1250	1500	96,1	0,91	137,5	2,6	0,7	6,2	33	6850
	1400	1500	96,2	0,91	153,9	2,6	0,7	6,2	35	7040
	1600	1500	96,3	0,91	175,7	2,5	0,72	6,4	37	7180
	1800	1500	96,5	0,91	197,2	2,6	0,79	6,8	39	7330
560	2000	1500	96,7	0,91	218,7	2,4	0,64	6	63	8170
	2240	1500	96,8	0,91	244,7	2,6	0,73	6,5	68	8420
	2500	1500	96,9	0,91	272,8	2,5	0,72	6,4	76	8660



Technical data H17R (6 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	T _{max} /T _n	T _{st} /T _n	I _{max} /I _n	Rotor inertia (kg·m)	Weight (kg)
6 poles electric motors										
315	185	1000	94,2	0,85	22,2	2,2	0,9	5	6,8	2670
	200	1000	94,3	0,85	24	2,3	1	5,4	7,4	2720
	220	1000	94,4	0,85	26,4	2,3	1,1	5,6	7,9	2850
	250	1000	94,6	0,85	29,9	2,4	1,2	5,8	8,4	3000
355	250	1000	94,7	0,85	29,9	1,9	0,8	4,6	8,7	3255
	280	1000	94,8	0,85	33,4	2	0,9	4,9	9,2	3345
	315	1000	94,9	0,85	37,6	2,1	1,1	5,8	9,6	3440
400	355	1000	95,1	0,85	42,3	2,2	1,2	5,8	10,4	3530
	400	1000	95,1	0,85	47,6	2,4	1,1	6,2	11,8	4010
	450	1000	95,3	0,85	53,5	2,3	1,1	6,1	12,5	4110
	500	1000	95,4	0,86	58,6	2,2	1,1	5,9	13,3	4200
450	560	1000	95,5	0,86	65,5	2,2	1,1	5,9	14,2	4290
	630	1000	95,6	0,86	73,7	2	0,9	5,2	16	5100
	710	1000	95,7	0,86	83,1	1,9	0,9	5,3	18	5300
	800	1000	95,8	0,86	93,4	2	1	5,5	20	5500
500	900	1000	95,9	0,86	105	2,1	1,1	6	22	5700
	1000	1000	96	0,86	116,6	2,1	1,1	6,2	44	6820
	1120	1000	96,1	0,86	130,4	2	1,1	6	46	7000
	1250	1000	96,2	0,86	145,4	2	1,1	5,9	48	7170
560	1400	1000	96,3	0,86	162,7	1,9	1,1	5,9	51	7360
	1600	1000	96,4	0,87	183,6	1,8	0,9	4,9	97	8300
	1800	1000	96,5	0,87	206,3	1,8	0,9	5,2	101	8550
	2000	1000	96,6	0,87	229	1,9	1	5,7	106	8780

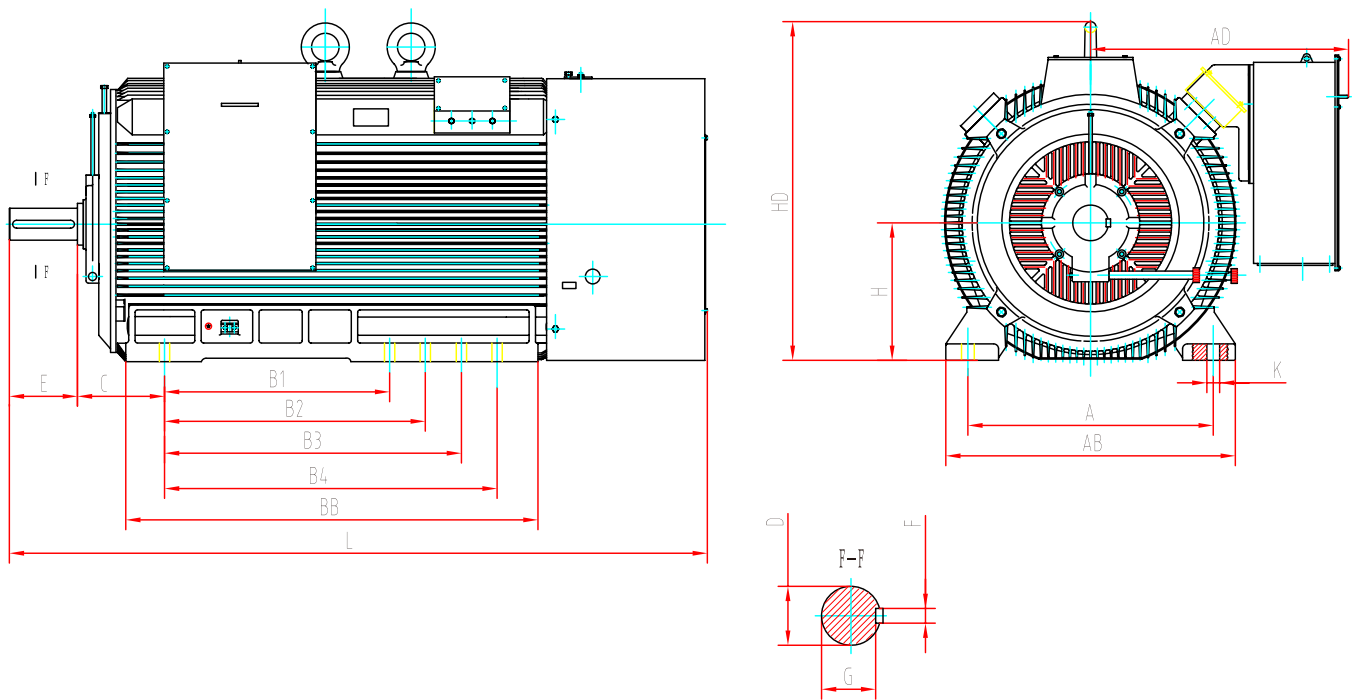


Technical data H17R (6 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	T _{max} /T _n	T _{st} /T _n	I _{max} /I _n	Rotor inertia (kg·m ²)	Weight (kg)
8 poles electric motors										
315	132	750	93,8	0,75	18,1	2,4	0,9	5,6	4,5	3050
	160	750	93,9	0,76	21,6	2,1	1,1	5,1	5,3	3130
	185	750	94	0,76	24,9	2,1	1,1	5,1	6	3200
355	200	750	94,1	0,78	26,2	2,4	1,2	5,4	6,8	3270
	220	750	94,3	0,78	28,8	2,4	1,2	5,3	7,5	3350
	250	750	94,4	0,79	32,3	2,2	1,1	4,9	8,2	3430
	280	750	94,5	0,79	36,1	2,1	1	4,8	9,1	3510
400	315	750	94,6	0,81	39,6	2,1	0,9	4,9	13	4020
	355	750	94,7	0,81	44,5	1,9	0,9	4,7	14	4090
	400	750	94,8	0,81	50,1	1,9	0,9	4,6	15	4200
	450	750	94,9	0,81	56,3	1,9	0,9	4,6	16	4310
450	500	750	95,1	0,82	61,7	2	0,9	4,6	19	5100
	560	750	95,2	0,82	69	2	1	4,9	21	5300
	630	750	95,4	0,82	77,5	2,1	1,1	5,2	23	5500
	710	750	95,5	0,82	87,2	2,3	1,3	5,8	25	5700
500	800	750	95,6	0,83	97	2,1	1,1	5,4	44	6800
	900	750	95,7	0,83	109	2,1	1	5,3	46	6950
	1000	750	95,8	0,83	121	2,1	1	5,3	48	7190
	1120	750	95,9	0,83	135,4	2	1	5,2	51	7320
560	1250	750	96	0,83	151	2	0,9	5,1	120	8400
	1400	750	96,1	0,83	168,9	2	1	5,4	128	8600
	1600	750	96,2	0,83	192,8	2,1	1	5,6	134	8800



Mounting and dimensions (10 KV)



Frame size	Poles	Mounting dimensions (mm)								Overall dimensions (mm)							
		A	B1	B2	B3	B4	C	D	E	F	K	AB	AD	BB	HB	HD	L
450	2	800	900	1000	1120	1250	280	95	170	25	35*47	980	950	1495	390	1135	2360
450	4,6,8	800	900	1000	1120	1250	280	120	210	32	35*47	980	950	1495	390	1135	2360
500	2	900	1250	/	/	/	425	110	210	28	42*60	1080	1000	1600	470	1220	2560
500	4,6,8	900	1250	/	/	/	315	140	250	36	42*60	1080	970	1490	470	1220	2560
560	2	1000	1400	/	/	/	530	130	250	32	42*60	1180	1040	1680	590	1380	2660
560	4,6,8	1000	1400	/	/	/	355	160	300	40	42*60	1180	1040	1680	590	1380	2660



Technical data H17R (10 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	Tmax/Tn	Tst/Tn	Imax/In	Weight (kg)
2 poles electric motors									
450	630	3000	95	0,87	44	2	0,7	7	5200
	710	3000	95,1	0,88	49	2	0,7	7	5300
	800	3000	95,3	0,88	55,1	2	0,7	7	5500
	900	3000	95,4	0,88	61,9	2	0,7	7	5600
500	1000	3000	96,1	0,9	66,8	2	0,7	6,8	6200
	1120	3000	96,2	0,91	73,9	2	0,7	6,8	6300
	1250	3000	96,3	0,91	82,4	2	0,7	6,6	6450
560	1400	3000	96,4	0,91	92,1	2	0,7	6,8	7500
	1600	3000	96,5	0,91	105,2	2	0,7	6,8	7800

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	Tmax/Tn	Tst/Tn	Imax/In	Weight (kg)
4 poles electric motors									
450	630	1500	95,2	0,86	44,4	2	0,8	6,5	5400
	710	1500	95,4	0,86	50,1	2	0,8	6,5	5500
	800	1500	95,5	0,87	55,6	2	0,8	6,5	5700
	900	1500	95,6	0,88	62,5	2	0,8	6,5	5800
500	1000	1500	95,7	0,88	68,6	2	0,8	6,5	6400
	1120	1500	95,8	0,88	76,7	2	0,8	6,5	6500
	1250	1500	96	0,88	85,4	2	0,8	6,5	6650
560	1400	1500	96,1	0,89	94,5	2	0,8	6,5	7700
	1600	1500	96,2	0,89	107,9	2	0,8	6,5	8000



Technical data H17R (10 KV)

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	Tmax/Tn	Tst/Tn	Imax/In	Weight (kg)
6 poles electric motors									
450	450	1000	94,2	0,83	33,2	2	0,8	6	5400
	500	1000	94,5	0,83	36,8	2	0,8	6	5500
	560	1000	94,6	0,84	40,7	2	0,8	6	5700
	630	1000	94,9	0,84	45,6	2	0,8	6	5800
500	710	1000	95	0,84	51,4	2	0,8	6	6400
	800	1000	95,2	0,85	57,1	2	0,8	6	6500
	900	1000	95,4	0,85	64,1	2	0,8	6	6650
	1000	1000	95,5	0,86	70,3	2	0,8	6	7700
560	1120	1000	95,7	0,87	77,7	2	0,8	6	8000
	1250	1000	95,9	0,87	86,5	2	0,8	6	8200
	1400	1000	96,1	0,87	96,7	2	0,8	6	8400

Frame size	Rated power (kW)	Rated speed	Efficiency (%)	Power factor	Full load current (A)	Tmax/Tn	Tst/Tn	Imax/In	Weight (kg)
8 poles electric motors									
450	315	750	93,5	0,77	61,7	2	0,8	5,5	4800
	355	750	93,7	0,77	69	2	0,8	5,5	4900
	400	750	93,8	0,78	77,5	2	0,8	5,5	5100
	450	750	93,9	0,78	87,2	2	0,8	5,5	5300
500	500	750	94,4	0,79	97	2	0,8	5,5	6400
	560	750	94,5	0,79	109	2	0,8	5,5	6500
	630	750	94,9	0,8	121	2	0,8	5,5	6650
	710	750	95	0,8	135,4	2	0,8	5,5	7700
560	800	750	95,2	0,81	151	2	0,8	5,5	8000
	900	750	95,3	0,82	168,9	2	0,8	5,5	8200
	1000	750	95,4	0,83	192,8	2	0,8	5,5	8400



Degrees of protection (IEC600034-5)

Designation	First numeral	Second numeral
	Protection against contact and ingress of foreign bodies protection against hazardous "live" parts and moving mechanical parts.	Protection against water
	Ingress of dust is not totally prevented, but dust not interfere with the satisfactory operation of equipment. A probe of 1mm diameter shall not penetrate the enclosure.	What projected in jets against the enclosure from any direction will have no harmful effects.
	No ingress of dust	Projected in power jets shall have no harmful effects
IP55	Dust protected	Jetting water
IP56	Dust protected	Powerful jetting
IP65	Dust tight	Jetting water
IP66	Dust tight	Powerful jetting





Address

VYBO ELECTRIC a. s. | tel: +421 944 105 361
Radlinského 18 | e-mail: mv@vyboelectric.eu
052 01 Spišská Nová Ves
Slovenská republika

www.vyboelectric.com



SOLUTIONS FOR INDUSTRY

BUREAU VERITAS
Certification



VYBO Electric a.s.
Radlinského 18, 052 01 Spišská Nová Ves
Slovak Republic

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 14001: 2015

Scope of certification

MANUFACTURE AND SALE OF ELECTRIC MOTORS, SALES AND DEVELOPMENT OF VARIABLE FREQUENCY DRIVES.

Original cycle start date: 18.05.2022
Expiry date of previous cycle: N/A
Certification Audit date: 31.03.2022
Certification cycle start date: 18.05.2022

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 17.05.2025

Certificate No. SK-U22 055E Version: 1 Issue date: 18.05.2022

Certification body address: 5th Floor, 86 Prescott Street, London E1 8HQ, United Kingdom
Local office: Plynárska 7/B, BRATISLAVA 821 09, Slovak Republic



Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: +421 2 2341 4165

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Bureau Veritas Certification

Certificate

Awarded to

VYBO Electric a.s.

Radlinského 18, 052 01 Spišská Nová Ves
Slovak Republic

BUREAU VERITAS CERTIFICATION (Z) s.r.o. certifies that the Management System of the above organisation has been assessed and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 45001:2018

Scope of supply

MANUFACTURE AND SALE OF ELECTRIC MOTORS, SALES AND DEVELOPMENT OF VARIABLE FREQUENCY DRIVES.

Original Approval Date: 18-05-2022
Expiry date of previous cycle: N/A
Certification Cycle Start Date: 18-05-2022
Certification Cycle End Date: 17-05-2025
Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 17-05-2025

To check this certificate validity please call: +420 210 090 215

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Version 1 Issue Date: 18-05-2022

Certificate Number: CZF - 2206117

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Obchodní 1, 143 02 Praha 4, Czech Republic

1/1

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



CERTIFICATE

TÜV SÜD Slovakia s.r.o.
Certification Body for Management Systems
Accredited by SNAS
Certificate on accreditation No. Q-011
certifies that



VYBO Electric a.s.
Radlinského 18
SK – 052 01 Spišská Nová Ves
ICO: 45 537 143

has established and applies
a Quality Management System for

**Manufacture and sale of electric motors.
Sales and development of variable frequency drives.**

An audit was performed, Report No. 2264/40/22/Q/AS/C
Proof has been furnished that the requirements
according to

STN EN ISO 9001:2016

are fulfilled. The certificate is valid from 2022-04-14 until 2025-04-13
Certificate Registration No. Q 2264-1

Bratislava, 2022-04-14

TÜV SÜD Slovakia s.r.o.
Certification Body for Management Systems
Member of Group TÜV SÜD
Jaskovka 6, 821 03 Bratislava

F-Q-019/26

Certificate SK22/3701

The management system of

VYBO Electric a.s.

Radlinského 18
052 01 Spišská Nová Ves, Slovakia

has been assessed and certified as meeting the requirements of

EN ISO 50001:2018

For the following activities

**Production & sales of electric motors.
Sales & development of variable frequency drives.**

Further clarifications regarding the scope of this certificate and the applicability of EN ISO 50001:2018 requirements may be obtained by consulting the organisation.

This certificate is valid from 7 April 2022 until 6 April 2025
and remains valid subject to satisfactory surveillance audits.
Recertification audit due a minimum of 60 days
before the expiration date.
Issue 1. Certified with SGS since 7 April 2022

Authorised by

Ing. Róbert Bodnár
Director

SGS Slovakia spol. s r. o.
Klyučská 14, 040 11 Košice, Slovakia
t +421 55 783 61 11, f +421 55 783 61 20, www.sgs.com

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