

HUIMA TECHNOLOGY

PERMANENT MAGNET ASSISTED SYNCHRONOUS RELUCTANCE MOTOR

(PMA-SYNRM)



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***INTELLIGENCE
CREATES
THE FUTURE***



COMPANY PROFILE

Jiangsu Huima Technology Co., Ltd. is a technology company dedicated to the research, manufacturing, sales, and service of high-efficiency intelligent control systems for synchronous reluctance motors. The company provides comprehensive solutions for energy conservation and industrial intelligence.

The Permanent Magnet Assisted Synchronous Reluctance Motor (PMA-SynRM) combines the advantages of permanent magnet synchronous motors and reluctance motors, offering high efficiency, high reliability, environmental friendliness, and a compact design. It is suitable for industrial energy-saving applications and various mechanical equipment driving scenarios, with broad market prospects.

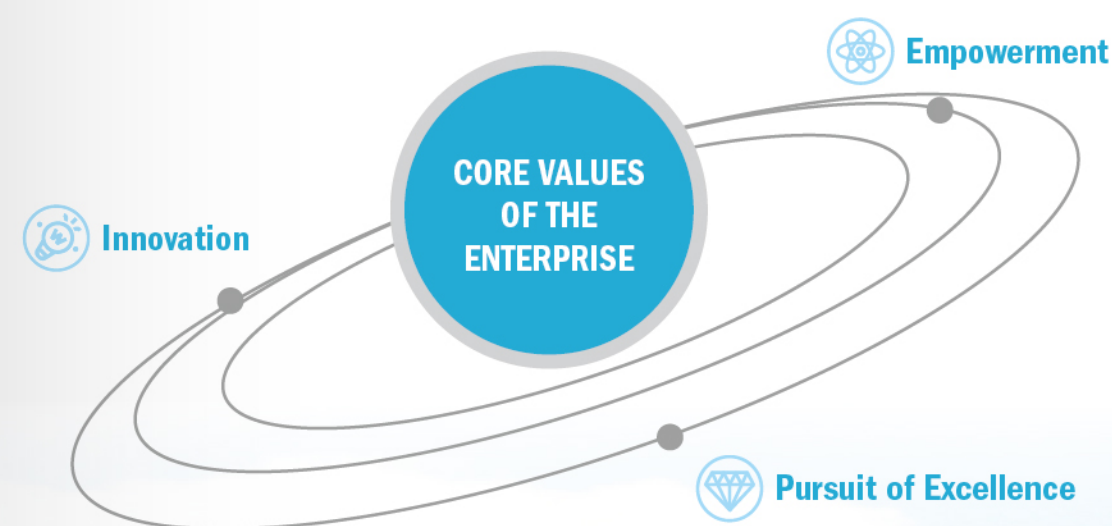
In recent years, the company has focused on high-energy consumption industries such as metallurgy, chemical, rubber and plastics, and printing and dyeing, as well as high-energy-consuming equipment like fans, pumps, compressors, and extruders. They provide turnkey solutions from energy-saving assessment, design, to construction and installation. The company has successfully promoted industrialization in numerous sectors, achieving significant energy-saving benefits. They contribute to the achievement of carbon peak and carbon neutrality goals, promoting high-quality development and ecological civilization in the motor industry through energy efficiency initiatives.

ENTERPRISE MISSION

Innovation-driven technology, with a mission for green development, builds an industrial intelligent manufacturing system!

ENTERPRISE VISION

Become a leading brand in China's energy-saving and smart motor manufacturing!



PRODUCT INTRODUCTION

The Permanent Magnet Assisted Synchronous Reluctance Motor (PMA-SynRM) is a fully enclosed, self-ventilated, and highly energy-efficient synchronous electric motor independently developed and manufactured by Huima Technology. Its energy efficiency meets the requirements of IEC standard IE5, which corresponds to the highest level of energy efficiency as per national standards. It offers advantages such as high efficiency, high starting torque, low noise, and low vibration.

This motor does not contain rare-earth permanent magnets in its internals. Instead, it utilizes a rotor with a high saliency ratio magnetic circuit design, combined with the optimal stator configuration, to maximize the utilization of reluctance torque. This ensures excellent overall efficiency and speed control performance of the motor. It uses a standard small to medium-sized asynchronous motor casing, making on-site replacement convenient.

The PMA-SynRM is an energy-efficient synchronous motor that contributes to resource conservation by eliminating the need for rare earth materials. It can be used to drive various types of general-purpose machinery, such as fans, pumps, air compressors, textile machinery, and more. It is suitable for meeting the driving requirements of various industrial automation equipment in different fields.



PRODUCT ADVANTAGES

IE5 Ultra Efficient Synchronous Reluctance Motor

Energy saving | High efficient | Smart intelligent



NOVEL APPEARANCE

square appearance motor, natural and novel



HIGH UNIVERSALITY

IEC standard frame design, which can meet the different demands of IE5, IE4 and IE3 series Products.



HIGH COST PERFORMANCE

high power density and small size.
The use of rare earth free permanent magnet greatly reduces the cost.



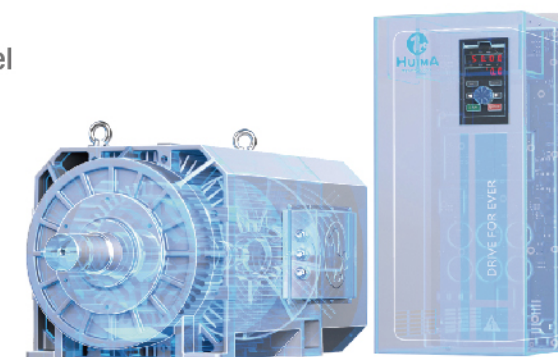
HIGH RELIABILITY

no squirrel cage in the rotor, lower temperature rise, longer service life of the bearing.
The rotor uses rare earth free permanent magnet with no risk of demagnetization and less maintenance.



IE5 ULTRA HIGH EFFICIENCY

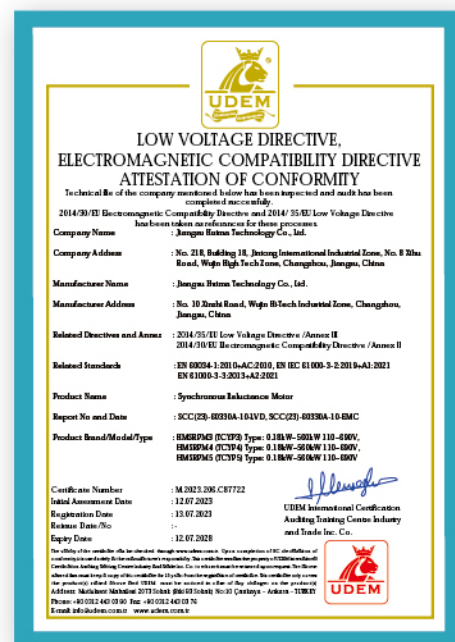
1st class of GB18613-2020 new national energy efficiency standard, energy saving of 5%-40%.



PRODUCT QUALIFICATION

CE

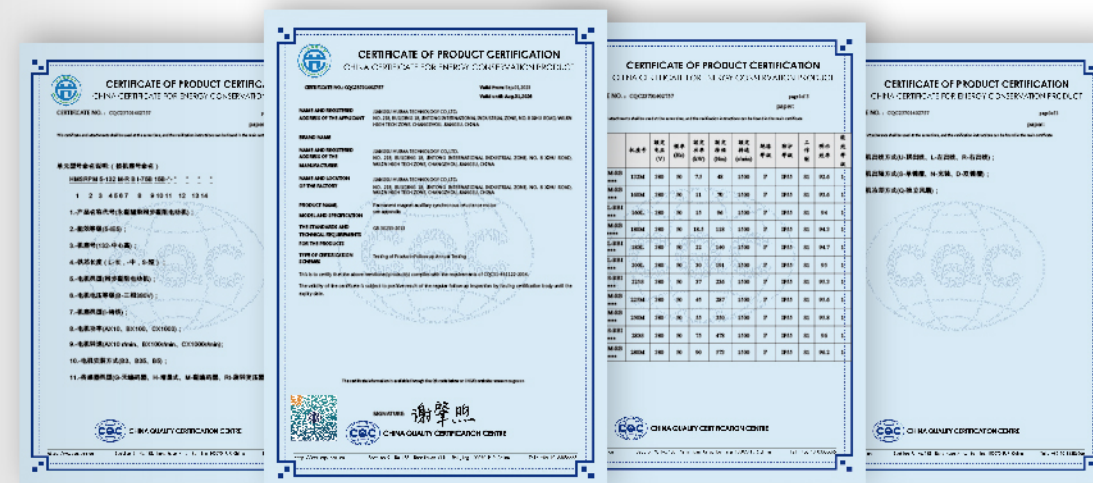
Obtained the quality certification accredited by the National Accreditation Committee of China.
Obtained the IE5 testing report from the Shanghai Institute of Electrical Engineering.

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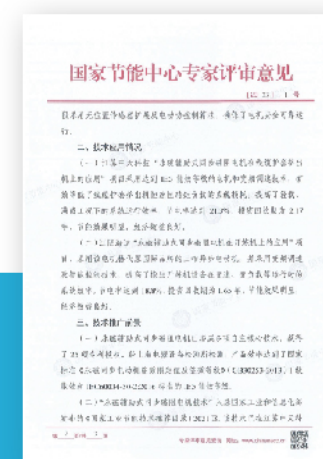
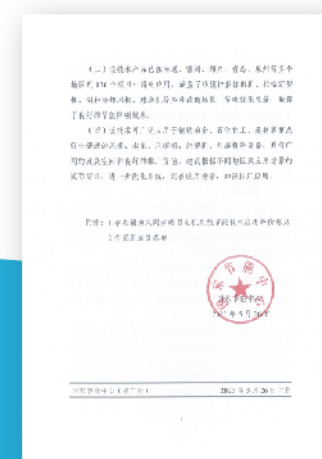
**Certified by the China National
Institute of Standardization's Energy
Efficiency Label Management Center as
Level 1 Energy Efficiency.**



Energy-saving Product Certification Certificate

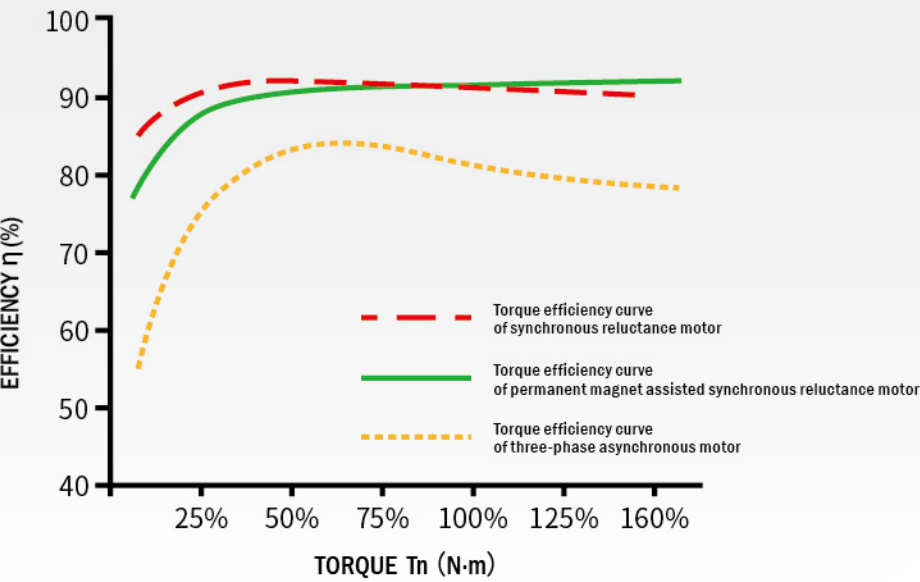


Huima Technology's Permanent Magnet Assisted Synchronous Reluctance Motor System Technology has received the "Energy-saving Technology Application Evaluation and Promotion" recognition from the National Energy Conservation Center.

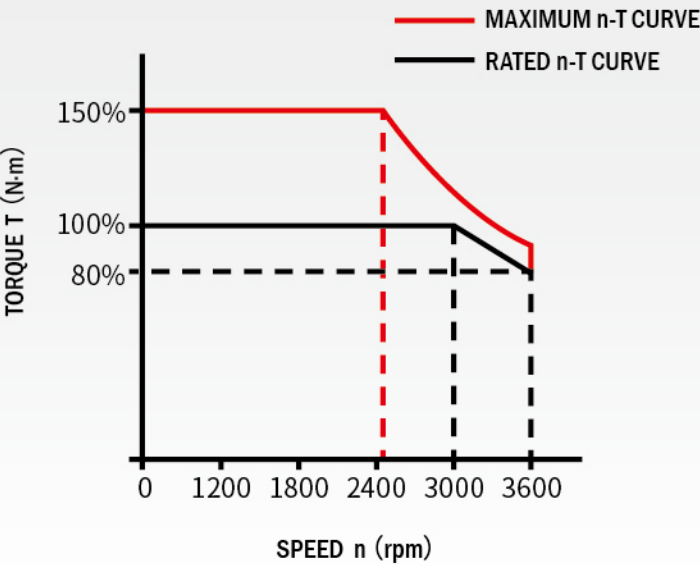


PRODUCT DIAGRAM

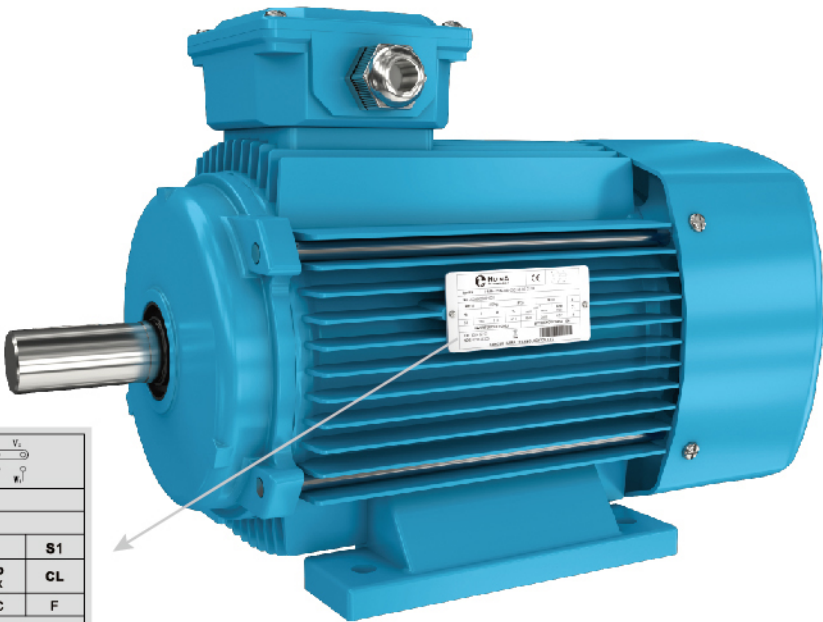
MOTOR TORQUE—EFFICIENCY CURVE



MOTOR SPEED—TORQUE CURVE



MODEL DESCRIPTION



 HUIMA TECHNOLOGY								
SynRM		HMM4-250M-RBI-55C15B-B3-GUSF						
No. 20050600001002								
kW 55		480 kg		IP 55		IM B3		S1
Hz	V	A	%	min⁻¹		Amb max		CL
50	380	118	95.7	1500 3000		40°C		F
INVERTER DUTY ONLY				EFFICIENCY CLASS IE4				
DE 6314 2Z C3								
NDE 6313 2Z C3								
JIANGSU HUIMA TECHNOLOGY CO.,LTD								

MODEL DEFINITION

PRODUCT SERIES	ENERGY EFFICIENCY LEVEL	DESIGN SEQUENCE	FRAME	MOTOR TYPE	VOLTAGE LEVEL	HOUSING TYPE	POWER	SPEED	INSTALLATION METHOD	SENSOR	WIRING METHOD	OUTPUT MODE	COOLING METHOD	SPECIAL CODE
HMM	4	empty	132M	R	B	I	75B	15B	B3	G	R	S	F	empty
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

IDENTIFICATION NUMBER	IDENTIFICATION DESCRIPTION	CONCRETE CONTENT		IDENTIFICATION NUMBER	IDENTIFICATION DESCRIPTION	CONCRETE CONTENT	
		CODE	ILLUSTRATE			CODE	ILLUSTRATE
1	PRODUCT SERIES	HMM	HMM Synchronous reluctance motor series	10	INSTALLATION METHOD	B3	Machine base with feet, end cover without flange
		HMSRPM	HMSRPM Permanent magnet assisted synchronous reluctance motor series			B35	The base is equipped with feet and the end cover has flanges (with through holes)
2	ENERGY EFFICIENCY LEVEL	3	IE3	11	SENSOR TYPE	B5	The base has no feet and the end cover has flanges (with through holes)
		4	IE4			No encoder	G
3	DESIGN SEQUENCE	5	IE5	12	WIRING METHOD	Incremental	H
		empty	in common use			Magnetic Encoder	M
4	FRAME	E	economical	13	OUTPUT MODE	Rotating transformer	Rt
		S	square			R	Right outgoing line (default)
5	MOTOR TYPE	S	S short casing	14	COOLING METHOD	L	Left outgoing line
		M	M middle casing			U	Upper outgoing line
6	MOTOR VOLTAGE LEVEL	L	L long casing	15	SPECIAL CODE	N	optic axis
		R	Synchronous reluctance motor			S	Single keyway (default)
7	HOUSING TYPE	P	Permanent magnet synchronous motor	14	COOLING METHOD	D	Double keyway
		I	Asynchronous motor			F	Self fan air cooling
8	POWER	A	three-phase 660V	15	SPECIAL CODE	Q	Independent fan
		B	three-phase 380V			X	natural cooling
9	SPEED	C	single phase 220V			Y	Liquid cooling
		I	cast iron			empty	not have
		A	cast aluminium			Ex	explosion-proof
		Ax10	Ax10			FA	High temperature oil nozzle
		Bx100	Bx100			HQ	High temperature grease lubrication
		Cx1000	Cx1000				
		Dx10000	Dx10000				
		Ax10r/min	Ax10r/min				
		Bx100r/min	Bx100r/min				
		Cx1000r/min	Cx1000r/min				

TECHNICAL SPECIFICATIONS ▶

MACHINE TYPE	Permanent magnet assisted synchronous reluctance motor	ENERGY EFFICIENCY CLASS	IEC standards: IE5, IE4, IE3
VOLTAGE LEVEL	AC380V	VIBRATION LEVEL	B
INSULATION CLASS	F	CLASS OF PROTECTION	IP55
COOLING MODE	IC411 Self-cooling or other (custom required)	INSTALLATION MODE	B3/B5/B35 or others (to be customized)
TEMPERATURE SENSOR	No sensors, incremental encoders or others	AXLE EXIT MODE	Optical axis, single keyway or other
USE ENVIRONMENT	The altitude is below 1000 meters, the temperature is -15℃-40℃, the relative humidity is below 95%RH		

ELECTRICAL PARAMETERS ▶ IE5

MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos ϕ)	RATED CURRENT (A)	RATED TORQUE (N·m)	OVERLOAD TORQUE MULTIPLE
3000 r/min									
HMSRPM5-132S2-RBI-75B30B	7.5	132S2	3000	100	93.3	0.86	15.4	23.9	1.5
HMSRPM5-160M1-RBI-11C30B	11	160M1	3000	100	94	0.86	22.5	35.0	1.5
HMSRPM5-160M2-RBI-15C30B	15	160M2	3000	100	94.5	0.87	30.1	47.8	1.5
HMSRPM5-160L-RBI-185B30B	18.5	160L	3000	100	94.9	0.87	37.0	58.9	1.5
HMSRPM5-180M-RBI-22C30B	22	180M	3000	100	95.1	0.87	43.9	70.0	1.5
HMSRPM5-200L1-RBI-30C30B	30	200L1	3000	100	95.5	0.87	59.6	95.5	1.5
HMSRPM5-200L2-RBI-37C30B	37	200L2	3000	100	95.8	0.87	73.3	117.8	1.5
HMSRPM5-225M-RBI-45C30B	45	225M	3000	100	96	0.88	87.9	143.3	1.5
HMSRPM5-250M-RBI-55C30B	55	250M	3000	100	96.2	0.88	107.2	175.1	1.5
HMSRPM5-280S-RBI-75C30B	75	280S	3000	100	96.5	0.88	146.0	239.0	1.5
HMSRPM5-280M-RBI-90C30B	90	280M	3000	100	96.6	0.88	177.0	287.0	1.5
HMSRPM5-315S1-RBI-110C30B	110	315S1	3000	100	96.8	0.87	219.0	350.2	1.5
HMSRPM5-315S2-RBI-132C30B	132	315S2	3000	100	96.9	0.87	257.0	420.2	1.5
1500 r/min									
HMSRPM5-132S-RBI-55B15B	5.5	132S	1500	50	93.4	0.81	12.2	35	1.5
HMSRPM5-132M-RBI-75B15B	7.5	132M	1500	50	94	0.83	16.1	48	1.5
HMSRPM5-160M-RBI-11C15B	11	160M	1500	50	94.6	0.84	23.2	70	1.5
HMSRPM5-160L-RBI-15C15B	15	160L	1500	50	95.1	0.85	31.1	96	1.5
HMSRPM5-180M-RBI-185B15B	18.5	180M	1500	50	95.3	0.86	37.8	118	1.5
HMSRPM5-180L-RBI-22C15B	22	180L	1500	50	95.5	0.86	44.9	140	1.5
HMSRPM5-200L-RBI-30C15B	30	200L	1500	50	95.9	0.86	60.9	191	1.5
HMSRPM5-225S-RBI-37C15B	37	225S	1500	50	96.1	0.87	74.1	236	1.5
HMSRPM5-225M-RBI-45C15B	45	225M	1500	50	96.3	0.87	90.0	287	1.5
HMSRPM5-250M-RBI-55C15B	55	250M	1500	50	96.5	0.87	109.7	350	1.5

ELECTRICAL PARAMETERS ▶ IE5

MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos ϕ)	RATED CURRENT (A)	RATED TORQUE (N·m)	OVERLOAD TORQUE MULTIPLE
1500 r/min									
HMSRPM5-280S-RBI-75C15B	75	280S	1500	50	96.7	0.88	147.6	478	1.5
HMSRPM5-280M-RBI-90C15B	90	280M	1500	50	96.9	0.88	176.8	573	1.5
HMSRPM5-315S-RBI-110C15B	110	315S	1500	50	97	0.88	215.9	700	1.4
HMSRPM5-315M-RBI-132C15B	132	315M	1500	50	97.1	0.88	258.8	840	1.5
HMSRPM5-315L1-RBI-160C15B	160	315L1	1500	50	97.2	0.88	313.3	1019	1.3
HMSRPM5-315L2-RBI-185C15B	185	315L2	1500	50	97.3	0.88	361.9	1178	1.3
HMSRPM5-315L3-RBI-200C15B	200	315L3	1500	50	97.4	0.88	390.9	1273	1.3
HMSRPM5-355M1-RBI-220C15B	220	355M1	1500	50	97.4	0.9	420.4	1401	1.3
HMSRPM5-355M2-RBI-250C15B	250	355M2	1500	50	97.4	0.9	477.7	1592	1.3
HMSRPM5-355L1-RBI-280C15B	280	355L1	1500	50	97.4	0.9	535.0	1783	1.3
HMSRPM5-355L2-RBI-315C15B	315	355L2	1500	50	97.4	0.9	601.9	2006	1.3
1000 r/min									
HMSRPM5-132M2-RBI-55B10B	5.5	132M2	1000	33.3	92.2	0.83	12.0	53	1.5
HMSRPM5-160M-RBI-75B10B	7.5	160M	1000	33.3	92.9	0.82	16.5	72	1.5
HMSRPM5-160L-RBI-11C10B	11	160L	1000	33.3	93.7	0.82	24.0	105	1.4
HMSRPM5-180L-RBI-15C10B	15	180L	1000	33.3	94.3	0.86	31.0	143	1.5
HMSRPM5-200L1-RBI-185B10B	18.5	200L1	1000	33.3	94.6	0.86	38.1	177	1.5
HMSRPM5-200L2-RBI-22C10B	22	200L2	1000	33.3	94.9	0.86	45.2	210	1.5
HMSRPM5-225M-RBI-30C10B	30	225M	1000	33.3	95.3	0.86	61.3	287	1.5
HMSRPM5-250M-RBI-37C10B	37	250M	1000	33.3	95.6	0.87	74.5	353	1.5
HMSRPM5-280S-RBI-45C10B	45	280S	1000	33.3	95.8	0.87	90.4	430	1.5
HMSRPM5-280M-RBI-55C10B	55	280M	1000	33.3	96	0.87	110.3	525	1.5
HMSRPM5-315S-RBI-75C10B	75	315S	1000	33.3	96.3	0.88	148.2	716	1.5
HMSRPM5-315M-RBI-90C10B	90	315M	1000	33.3	96.5	0.88	177.5	860	1.5
HMSRPM5-315L1-RBI-110C10B	110	315L1	1000	33.3	96.6	0.88	216.7	1051	1.5
HMSRPM5-315L2-RBI-132C10B	132	315L2	1000	33.3	96.8	0.88	259.6	1261	1.5
HMSRPM5-355M1-RBI-160C10B	160	355M1	1000	33.3	96.9	0.89	310.8	1528	1.5
HMSRPM5-355M2-RBI-185C10B	185	355M2	1000	33.3	97	0.89	359.0	1767	1.5
HMSRPM5-355M3-RBI-200C10B	200	355M3	1000	33.3	97	0.89	388.1	1910	1.5
HMSRPM5-355L1-RBI-220C10B	220	355L1	1000	33.3	97	0.89	426.9	2101	1.5
HMSRPM5-355L2-RBI-250C10B	250	355L2	1000	33.3	97	0.89	485.1	2388	1.5

ELECTRICAL PARAMETERS ▶ IE4

MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos φ)	RATED CURRENT (A)	RATED TORQUE (N · m)	OVERLOAD TORQUE MULTIPLE
3000 r/min									
HMSRPM4-132S1-RBI-75B30B	7.5	132S1	3000	100	91.7	0.86	15.9	23.9	1.2
HMSRPM4-132S2-RBI-11C30B	11	132S2	3000	100	92.6	0.86	23.1	35.0	1.2
HMSRPM4-132M-RBI-15C30B	15	132M	3000	100	93.3	0.86	31.3	47.8	1.2
HMSRPM4-160M1-RBI-185B30B	18.5	160M1	3000	100	93.7	0.86	38.4	58.9	1.2
HMSRPM4-160M2-RBI-22C30B	22	160M2	3000	100	94	0.86	45.5	70.0	1.2
HMSRPM4-160L1-RBI-30C30B	30	160L1	3000	100	94.5	0.86	61.8	95.5	1.2
HMSRPM4-180M-RBI-37C30B	37	180M	3000	100	94.8	0.87	75.1	117.8	1.2
HMSRPM4-180L-RBI-45C30B	45	180L	3000	100	95	0.87	91.1	143.3	1.2
HMSRPM4-200L-RBI-55C30B	55	200L	3000	100	95.3	0.87	111.0	175.1	1.2
HMSRPM4-225M1-RBI-75C30B	75	225M1	3000	100	95.6	0.87	150.9	238.8	1.2
HMSRPM4-225M2-RBI-90C30B	90	225M2	3000	100	95.8	0.87	180.7	286.5	1.2
HMSRPM4-250M-RBI-110C30B	110	250M	3000	100	96	0.87	220.4	350.2	1.2
HMSRPM4-280S-RBI-132C30B	132	280S	3000	100	96.2	0.88	260.9	420.2	1.2
HMSRPM4-280M-RBI-160C30B	160	280M	3000	100	96.3	0.88	316.0	509.3	1.2
HMSRPM4-315S-RBI-200C30B	200	315S	3000	100	96.5	0.88	394.1	636.7	1.2
1500 r/min									
HMSRPM4-132S-RBI-55B15B	5.5	132S	1500	50	91.9	0.81	12.4	35	1.2
HMSRPM4-132M-RBI-75B15B	7.5	132M	1500	50	92.6	0.83	16.3	48	1.2
HMSRPM4-160M-RBI-11C15B	11	160M	1500	50	93.3	0.84	23.5	70	1.2
HMSRPM4-160L1-RBI-15C15B	15	160L1	1500	50	93.9	0.85	31.5	96	1.2
HMSRPM4-160L2-RBI-185B15B	18.5	160L2	1500	50	94.2	0.85	38.7	118	1.2
HMSRPM4-180M-RBI-22C15B	22	180M	1500	50	94.5	0.85	45.8	140	1.2
HMSRPM4-180L-RBI-30C15B	30	180L	1500	50	94.9	0.85	62.2	191	1.2
HMSRPM4-200L1-RBI-37C15B	37	200L1	1500	50	95.2	0.85	75.2	236	1.2
HMSRPM4-200L2-RBI-45C15B	45	200L2	1500	50	95.4	0.86	90.5	287	1.2
HMSRPM4-225M-RBI-55C15B	55	225M	1500	50	95.7	0.86	109	350	1.2
HMSRPM4-250M-RBI-75C15B	75	250M	1500	50	96	0.86	151	478	1.2
HMSRPM4-280M1-RBI-90C15B	90	280M1	1500	50	96.1	0.88	180	573	1.2
HMSRPM4-280M2-RBI-110C15B	110	280M2	1500	50	96.3	0.88	228	700	1.2
HMSRPM4-280M3-RBI-132C15B	132	280M3	1500	50	96.4	0.87	273	840	1.2
HMSRPM4-315L1-RBI-160C15B	160	315L1	1500	50	96.6	0.88	322	1019	1.2
HMSRPM4-315L2-RBI-200C15B	200	315L2	1500	50	96.7	0.88	390	1273	1.2

ELECTRICAL PARAMETERS ▶ IE4

MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos φ)	RATED CURRENT (A)	RATED TORQUE (N · m)	OVERLOAD TORQUE MULTIPLE
1500 r/min									
HMSRPM4-355M1-RBI-220C15B	220	355M1	1500	50	96.7	0.89	428	1401	1.2
HMSRPM4-355M2-RBI-250C15B	250	355M2	1500	50	96.7	0.89	486	1592	1.2
HMSRPM4-355L1-RBI-280C15B	280	355L1	1500	50	96.7	0.89	544	1783	1.2
HMSRPM4-355L2-RBI-315C15B	315	355L2	1500	50	96.7	0.89	613	2006	1.2
1000 r/min									
HMSRPM4-132M-RBI-55B10B	5.5	132M	1000	33.3	90.5	0.82	12.4	52.5	1.2
HMSRPM4-160M-RBI-75B10B	7.5	160M	1000	33.3	91.3	0.82	16.8	72.0	1.2
HMSRPM4-160L-RBI-11C10B	11	160L	1000	33.3	92.3	0.82	24.3	105.0	1.2
HMSRPM4-180L-RBI-15C10B	15	180L	1000	33.3	92.9	0.86	31.4	143.0	1.2
HMSRPM4-200L1-RBI-185B10B	18.5	200L1	1000	33.3	93.4	0.86	38.5	177.0	1.2
HMSRPM4-200L2-RBI-22C10B	22	200L2	1000	33.3	93.7	0.86	45.7	210.0	1.2
HMSRPM4-225M-RBI-30C10B	30	225M	1000	33.3	94.2	0.86	62.0	286.0	1.2
HMSRPM4-250M-RBI-37C10B	37	250M	1000	33.3	94.5	0.87	75.3	353.0	1.2
HMSRPM4-280S-RBI-45C10B	45	280S	1000	33.3	94.8	0.87	91.3	430.0	1.2
HMSRPM4-280M-RBI-55C10B	55	280M	1000	33.3	95.1	0.87	111	526.0	1.2
HMSRPM4-315S-RBI-75C10B	75	315S	1000	33.3	95.4	0.88	150	715.0	1.2
HMSRPM4-315M-RBI-90C10B	90	315M	1000	33.3	95.6	0.88	179	859.0	1.2
HMSRPM4-315L1-RBI-110C10B	110	315L1	1000	33.3	95.8	0.88	218	1051.0	1.2
HMSRPM4-315L2-RBI-132C10B	132	315L2	1000	33.3	96	0.88	261	1261.0	1.2
HMSRPM4-355M1-RBI-160C10B	160	355M1	1000	33.3	96.2	0.89	313	1528	1.2
HMSRPM4-355M2-RBI-185C10B	185	355M2	1000	33.3	96.3	0.89	361	1767	1.2
HMSRPM4-355M3-RBI-200C10B	200	355M3	1000	33.3	96.3	0.89	391	1910	1.2
HMSRPM4-355L1-RBI-220C10B	220	355L1	1000	33.3	96.4	0.89	429	2101	1.2
HMSRPM4-355L2-RBI-250C10B	250	355L2	1000	33.3	96.5	0.89	487	2388	1.2

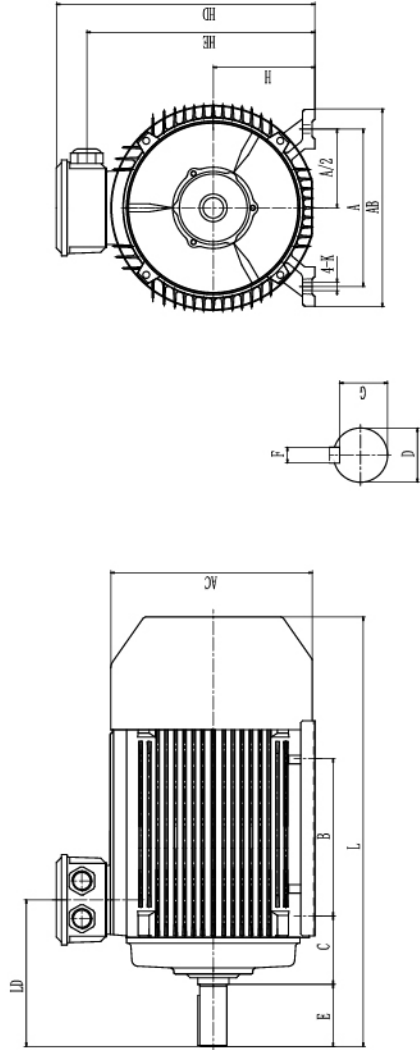
ELECTRICAL PARAMETERS ▶ IE3

MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos φ)	RATED CURRENT (A)	RATED TORQUE (N·m)	OVERLOAD TORQUE MULTIPLE
3000 r/min									
HMSRPM3-132S1-RBI-75B30B	7.5	132S1	3000	100	90.1	0.86	16.2	23.9	1.2
HMSRPM3-132S2-RBI-11C30B	11	132S2	3000	100	91.2	0.86	23.5	35.0	1.2
HMSRPM3-132M-RBI-15C30B	15	132M	3000	100	91.9	0.86	31.8	47.8	1.2
HMSRPM3-160M1-RBI-185B30B	18.5	160M1	3000	100	92.4	0.87	38.5	58.9	1.2
HMSRPM3-160M2-RBI-22C30B	22	160M2	3000	100	92.7	0.87	45.7	70.0	1.2
HMSRPM3-160L1-RBI-30C30B	30	160L1	3000	100	93.3	0.87	61.9	95.5	1.2
HMSRPM3-160L2-RBI-37C30B	37	160L2	3000	100	93.7	0.87	76.0	117.8	1.2
HMSRPM3-180M-RBI-45C30B	45	180M	3000	100	94	0.87	92.1	143.3	1.2
HMSRPM3-180L-RBI-55C30B	55	180L	3000	100	94.3	0.87	112.2	175.1	1.2
HMSRPM3-200L1-RBI-75C30B	75	200L1	3000	100	94.7	0.87	152.3	238.8	1.2
HMSRPM3-200L2-RBI-90C30B	90	200L2	3000	100	95	0.87	182.2	286.5	1.2
HMSRPM3-225M-RBI-110C30B	110	225M	3000	100	95.2	0.87	222.3	350.2	1.2
HMSRPM3-250M-RBI-132C30B	132	250M	3000	100	95.4	0.88	263.1	420.2	1.2
HMSRPM3-280S-RBI-160C30B	160	280S	3000	100	95.6	0.88	318.3	509.3	1.2
HMSRPM3-280M-RBI-200C30B	200	280M	3000	100	95.8	0.88	397.0	636.7	1.2
1500 r/min									
HMSRPM3-132S-RBI-55B15B	5.5	132S	1500	50	89.6	0.82	16.9	35	1.2
HMSRPM3-132M-RBI-75B15B	7.5	132M	1500	50	90.4	0.82	16.9	48	1.2
HMSRPM3-160M-RBI-11C15B	11	160M	1500	50	91.4	0.84	24.0	70	1.2
HMSRPM3-160L1-RBI-15C15B	15	160L1	1500	50	92.1	0.85	32.1	96	1.2
HMSRPM3-160L2-RBI-185B15B	18.5	160L2	1500	50	92.6	0.85	39.4	118	1.2
HMSRPM3-180M-RBI-22C15B	22	180M	1500	50	93.0	0.85	46.6	140	1.2
HMSRPM3-180L-RBI-30C15B	30	180L	1500	50	93.6	0.85	63.2	191	1.2
HMSRPM3-200L1-RBI-37C15B	37	200L1	1500	50	93.9	0.86	76.7	236	1.2
HMSRPM3-200L2-RBI-45C15B	45	200L2	1500	50	94.2	0.86	93.0	287	1.2
HMSRPM3-225M-RBI-55C15B	55	225M	1500	50	94.6	0.86	113	350	1.2
HMSRPM3-250M-RBI-75C15B	75	250M	1500	50	95.0	0.87	152	478	1.2
HMSRPM3-280S1-RBI-90C15B	90	280S1	1500	50	95.2	0.87	182	573	1.2
HMSRPM3-280S2-RBI-110C15B	110	280S2	1500	50	95.4	0.87	222	700	1.2
HMSRPM3-280M-RBI-132C15B	132	280M	1500	50	95.6	0.87	266	840	1.2
HMSRPM3-315S-RBI-160C15B	160	315S	1500	50	95.8	0.88	318	1019	1.2
HMSRPM3-315M-RBI-185C15B	185	315M	1500	50	96.0	0.88	366	1178	1.2

ELECTRICAL PARAMETERS ▶ IE3

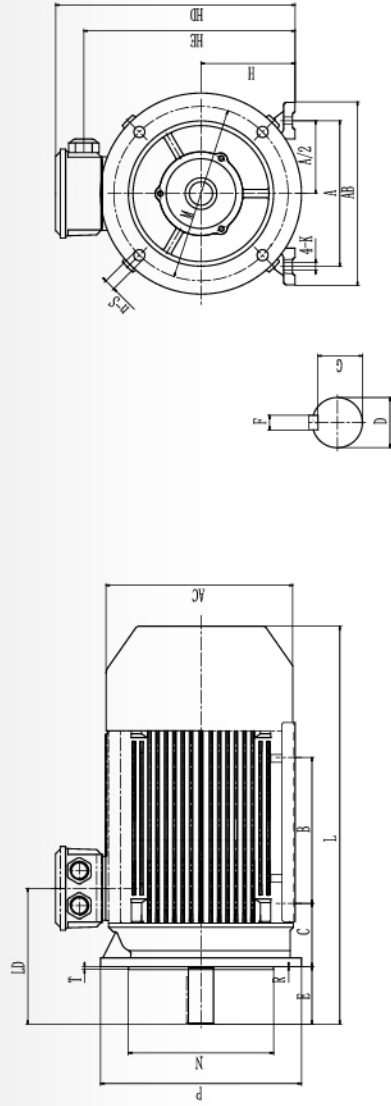
MODEL	RATED POWER (kW)	FRAME	SPEED (r/min)	RATED FREQUENCY (Hz)	RATED EFFICIENCY (%)	POWER FACTOR (cos φ)	RATED CURRENT (A)	RATED TORQUE (N·m)	OVERLOAD TORQUE MULTIPLE
1500 r/min									
HMSRPM3-315L1-RBI-200C15B	200	315L1	1500	50	96.0	0.88	396	1273	1.2
HMSRPM3-315L2-RBI-220C15B	220	315L2	1500	50	96.0	0.88	436	1401	1.2
HMSRPM3-315L3-RBI-250C15B	250	315L3	1500	50	96.0	0.88	495	1592	1.2
HMSRPM3-355M1-RBI-280C15B	280	355M1	1500	50	96.0	0.89	548	1783	1.2
HMSRPM3-355M2-RBI-315C15B	315	355M2	1500	50	96.0	0.89	617	2006	1.2
HMSRPM3-355L1-RBI-355C15B	355	355L1	1500	50	96.0	0.89	695	2260	1.2
1000 r/min									
HMSRPM3-132M1-RBI-55B10B	5.5	132M1	1000	33.3	88	0.82	12.8	52.5	1.2
HMSRPM3-132M2-RBI-75B10B	7.5	132M2	1000	33.3	89.1	0.83	17.0	71.6	1.2
HMSRPM3-160L-RBI-11C10B	11	160L	1000	33.3	90.3	0.85	24.0	105.1	1.2
HMSRPM3-180M-RBI-15C10B	15	180M	1000	33.3	91.2	0.86	32.0	143.3	1.2
HMSRPM3-180L-RBI-185B10B	18.5	180L	1000	33.3	91.7	0.86	39.3	176.7	1.2
HMSRPM3-200L1-RBI-22C10B	22	200L1	1000	33.3	92.2	0.86	46.4	210.1	1.2
HMSRPM3-200L2-RBI-30C10B	30	200L2	1000	33.3	92.9	0.86	62.8	286.5	1.2
HMSRPM3-225M-RBI-37C10B	37	225M	1000	33.3	93.3	0.87	76.3	353.4	1.2
HMSRPM3-250M-RBI-45C10B	45	250M	1000	33.3	93.7	0.86	93.5	429.8	1.2
HMSRPM3-280S-RBI-55C10B	55	280S	1000	33.3	94.1	0.87	112	525.3	1.2
HMSRPM3-280M-RBI-75C10B	75	280M	1000	33.3	94.6	0.87	153	716.3	1.2
HMSRPM3-315S1-RBI-90C10B	90	315S1	1000	33.3	94.9	0.87	182	859.5	1.2
HMSRPM3-315S2-RBI-110C10B	110	315S2	1000	33.3	95.1	0.88	220	1050.5	1.2
HMSRPM3-315M-RBI-132C10B	132	315M	1000	33.3	95.4	0.87	266	1260.6	1.2
HMSRPM3-315L-RBI-160C10B	160	315L	1000	33.3	95.6	0.88	318	1528.0	1.2
HMSRPM3-355M1-RBI-185C10B	185	355M1	1000	33.3	95.8	0.88	367	1766.8	1.2
HMSRPM3-355M2-RBI-200C10B	200	355M2	1000	33.3	95.8	0.88	397	1910.0	1.2
HMSRPM3-355L1-RBI-220C10B	220	355L1	1000	33.3	95.8	0.88	437	2101.0	1.2
HMSRPM3-355L2-RBI-250C10B	250	355L2	1000	33.3	95.8	0.89	491	2387.5	1.2
HMSRPM3-355L3-RBI-280C10B	280	355L3	1000	33.3	95.8	0.89	550	2674.0	1.2

MOTOR SIZE ▶ (B3)



FRAME	SPEED	INSTALLATION DIMENSIONS										OVERALL DIMENSIONS					
		A	A/2	B	C	D	E	F	G	H	K	AB	AC	AD	L	HE	HD
132S	3000,1500	216	108	140	89	38	80	10	33	132	12	270	310	175	510	303	365
132M				178											550		
160M		254	127	210	108	42		12	37	160	14.5	320	340	256.5	730	373	425
160L				254											760		
180M		279	139.5	241	121	48	110	14	42.5	180		355	390	272	770	410	460
180L	1500			279											800		
200L		318	159	305	133	55		16	49	200		395	445	297	860	450	520
225S				286		60	140	18	53					328	830		
225M	3000	356	178	311	149	55	110	16	49	225	18.5	435	495	298	830	497	575
	1500					60			53					328	860		
250M	3000	406	203	349	168			18		250		490	550	346.5	990	552	635
	1500					65	140		58		24						
280S	3000			368		75		20	67.5	280		550	630	356	990	610	705
280M	1500	457	228.5	419	190	65		18	58						1040		
						75		20	67.5								
315S	3000			406		80	170	18	58					397	1180		
	1500					80	170	22	71					427	1290		
315M	3000	508	254	457	216	65	140	18	58	315	28	635	645	397	1210	755.5	845
315L	1500					80	170	22	71					427	1320		
				508		65	140	18	58					397	1210		
315L	3000					80	170	22	71					427	1320		
355M	1500			560		75	140	20	67.5					424	1500		
	3000	610	305	630	254	95	170	25	86	355	28	730	710	454	1530	910	1010
355L	1500					75	140	20	67.5					424	1500		
						95	170	25	86					454	1530		

MOTOR SIZE ▶ (B35)



FRAME	SPEED	INSTALLATION DIMENSIONS															OVERALL DIMENSIONS					
		A	A/2	B	C	D	E	F	G	H	K	M	N	P	R	S	T	n	AB	AC	L	HD
132S	3000,1500	216	108	140	89	38	80	10	33	132	12	265	230	300		14.5	4	4	270	310	535	365
132M				178																550		
160M		254	127	210	108	42		12	37	160		300	250	350					320	340	730	425
160L	3000,1500	279	139.5	241	121	48	110	14	42.5	180	14.5	300	250	350				5	355	390	805	460
180M				279																835		
180L		318	159	305	133	55		16	49	200		350	300	400					395	445	890	520
200L	1500			286		60	140	18	53			400	350	450				8	435	495	865	575
225S	3000	356	178	311	149	55	110	16	49	225	18.5	400	350	450		18.5					895	
225M	1500																		490	550	995	635
250M	3000	406	203	349	168	60		18	58	250								0				
	1500					65													550			
280S	3000			368		75	140	20	67.5	280	24	500	450	550								
280M	1500	457	228.5	419	190	65		18	58									6	550	630	1030	705
						75		20	67.5												1080	
315S	3000			406		65		20	67.5													
	1500					65		18	58									8			1180	
315M	3000	508	254	457	216	65	140	18	58	315		600	550	660							1290	
315L	1500			508		80	170	22	71										635	645	1210	845
						65	140	18	58		28							24			1320	
315L	3000					80	170	22	71												1210	
355M	1500			560		75	140	20	67.5												1320	
	3000	610	305	630	254	95	170	25	86	355								6			1500	1010
355L	1500					75	140	20	67.5										730	710	1530	
						95	170	25	86												1500	

MODEL DESCRIPTION

													
SynRM		HMM4-250M-RBI-55C15B-B3-GUSF-Ex											
No. 20050600001002													
kW 55		480 kg		IP 55				IM B3				S1	
Hz	V	A		%	nom		min ⁻¹ max		Amb max		CL		
50	380	118		95.7	1500		3000		40°C		F		
INVERTER DUTY ONLY								EFFICIENCY CLASS IE4					
DE 6314 2Z C3													
NDE 6313 2Z C3													
													
													
JIANGSU HUIMA TECHNOLOGY CO.,LTD													

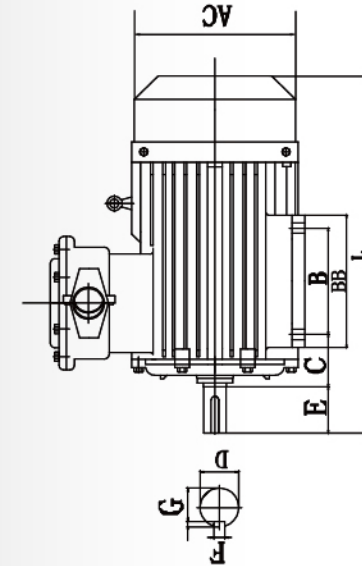
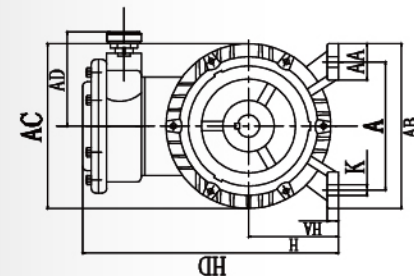


MODEL DEFINITION

PRODUCT SERIES	ENERGY EFFICIENCY LEVEL	DESIGN SEQUENCE	FRAME	MOTOR TYPE	VOLTAGE LEVEL	HOUSING TYPE	POWER	SPEED	INSTALLATION METHOD	SENSOR	WIRING METHOD	OUTPUT MODE	COOLING METHOD	SPECIAL CODE
HMM	4	empty	132M	R	B	I	75B	15B	B3	G	R	S	F	empty
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

IDENTIFICATION NUMBER	IDENTIFICATION DESCRIPTION	CONCRETE CONTENT		IDENTIFICATION NUMBER	IDENTIFICATION DESCRIPTION	CONCRETE CONTENT	
		CODE	ILLUSTRATE			CODE	ILLUSTRATE
1	PRODUCT SERIES	HMM	HMM Synchronous reluctance motor series	10	INSTALLATION METHOD	B3	Machine base with feet, end cover without flange
		HMSRPM	HMSRPM Permanent magnet assisted synchronous reluctance motor series			B35	The base is equipped with feet and the end cover has flanges (with through holes)
2	ENERGY EFFICIENCY LEVEL	3	IE3			B5	The base has no feet and the end cover has flanges (with through holes)
		4	IE4				
3	DESIGN SEQUENCE	empty	in common use	11	SENSOR TYPE	No encoder	G
		E	economical			Incremental	H
		S	square			Magnetic Encoder	M
			S short casing			Rotating transformer	Rt
4	FRAME	132M	M middle casing	12	WIRING METHOD	R	Right outgoing line (default)
			L long casing			L	Left outgoing line
5	MOTOR TYPE	R	Synchronous reluctance motor			U	Upper outgoing line
		P	Permanent magnet synchronous motor			N	optic axis
6	MOTOR VOLTAGE LEVEL	A	three-phase 660V	13	OUTPUT MODE	S	Single keyway (default)
		B	three-phase 380V			D	Double keyway
		C	single phase 220V			F	Self fan air cooling
		I	cast iron			Q	Independent fan
7	HOUSING TYPE	A	cast aluminium	14	COOLING METHOD	X	natural cooling
			Ax10			Y	Liquid cooling
8	POWER	75B	Bx100			empty	not have
			Cx1000			Ex	explosion-proof
9	SPEED	15B	Ax10r/min	15	SPECIAL CODE	FA	High temperature oil nozzle
			Bx100r/min			HG	High temperature grease lubrication
			Cx1000r/min				

EXPLOSION-PROOF MOTOR SIZE (IMB3)



FRAME	SPEED	INSTALLATION DIMENSIONS										OVERALL DIMENSIONS									
		A	B	C	D	E	F	G	H	K	AA	BB	HA	AB	AC	AD	HD	L			
132S		216	140	89	38	80	10	33	132	12	60	190	18	280	270	200	450	510			
132M			178					37			60	230	18					550			
160M	3000, 1500, 1000	254	210	108	42		12		160	15	70	258	21	330	325		520	670			
180M		279	241	121	48	110	14	42.5	180		70	302	21	355	360	220	550	710			
180L			279								70	311	22					730			
200L		318	305	133	55		16	49	200		70	349	22	390	400		645	750			
225S	1500, 3000, 1500, 1000	356	286	149	60	140	18	53	225	19	75	355	28	435	450	250	690	865			
225M			311		55	110	16	49			75	388	28				860	890			
250M		406	349	168	60		18	53	250		80	420	30	490	500		730				
280S	3000, 1500, 1000		368		65	140		58	280	24	85	438	35	545	560	300	810	1010			
280M		457	419	190	75		20	67.5			85	489	35								
315S	3000, 1500, 1000		406		65		20	67.5													
315M					80	170	22	71				570									
315L	1500, 1000		457	216	65	140	18	58	315			680	45	640	630	400	1020	1350			
355S	3000, 1500, 1000		508		80	170	22	71		28											
355M		610	500		75	140	20	67.5				800	50	740	750	500	1080	1570			
355L	1500, 1000		630	254	95	170	25	86	355		116							1650			
					75	140	20	67.5										1750			



EXPLOSION-PROOF MOTOR SIZE ▶ (IMB35)