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R4S SERIES

IE4 Super Premium Efficiency
Three Phase Cast Iron Motor

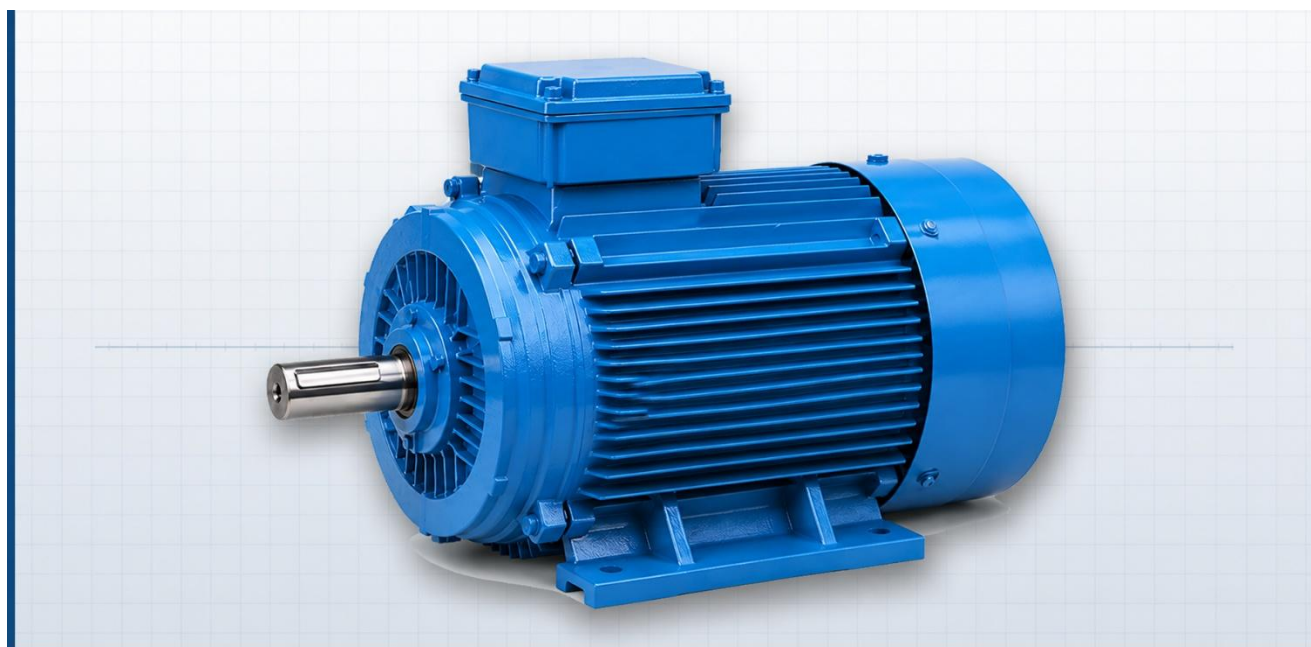
POWERING INDUSTRY WITH RELIABILITY

R4S SERIES

IE4 Super Premium Efficiency Cast Iron Motor

The RITTER R4S Series is a premium IE4 Super Premium Efficiency three-phase cast iron induction motor designed for continuous industrial operation. Built according to international IEC standards, the R4S Series delivers exceptional energy efficiency, high reliability, low maintenance, and long service life across demanding industrial applications. Designed in accordance with the IEC 60034 series, the R4S combines optimized electromagnetic design, premium electrical steel and heavy-duty mechanical construction for reliable continuous industrial service.

Every R4S motor combines a rigid cast iron frame, optimized electromagnetic design, VPI-treated windings, an IC411 totally enclosed fan-cooled system, premium grease-lubricated bearings and a corrosion-resistant coating system.



DESIGNED FOR

**Reliability****Long Service Life****Low Maintenance****High Efficiency****S1 Continuous Duty****Heavy-Duty Industrial Service**

Powering Industry with Reliability

IE4 Super Premium Efficiency · Cast Iron Construction · IEC Standard Design

R4S SERIES

Product Features

The R4S Series brings together proven electromagnetic design, a rigid cast iron structure and premium components to deliver efficiency and dependable operation throughout the drive train.



IE4 Super Premium Efficiency

Super premium efficiency class for lowest losses in continuous duty.



Rugged Cast Iron Construction

Cast iron frame and end shields for demanding industrial duty.



Low Noise

Optimized fan and airflow design supports low-noise operation in accordance with applicable IEC 60034-9 requirements.



Low Vibration

Precision-balanced rotor supports smooth, low-vibration operation in accordance with applicable IEC 60034-14 requirements.



High Reliability

Robust electrical and mechanical design, VPI-treated windings and premium materials support dependable service under continuous industrial duty.



Long Service Life

Durable cast iron construction, premium bearings, controlled temperature rise and corrosion-resistant protection support long operating life.



Energy Saving

Reduced losses lower energy consumption and operating cost.



Optimized Cooling

IC411 Totally Enclosed Fan Cooled (TEFC) design provides effective heat dissipation and reliable operation in demanding industrial environments.



Premium Bearings

Premium grease-lubricated anti-friction bearings ensure reliable operation with a bearing life >50,000 hours.



Flexible Terminal Box

Rotatable terminal box with four 90° positions and flexible cable-entry orientation for easier installation and maintenance.



Vacuum Pressure Impregnation

VPI-treated windings improve dielectric strength, moisture resistance, mechanical stability and insulation service life.



Corrosion Protection

ISO 12944 C3M coating system provides durable surface protection for industrial indoor and sheltered outdoor environments.



High Starting Performance

Designed to deliver strong starting performance for demanding loads.



Suitable for VFD Operation

Suitable for operation with variable frequency drives.



IEC Standard Design

Designed and built in accordance with the applicable IEC 60034 series, IEC 60072 dimensional standards and IE4 efficiency classification requirements.

R4S SERIES

Typical Applications

The R4S Series is designed for harsh industrial environments that demand maximum reliability and energy efficiency. From continuously running pumps and fans to heavy-duty crushers and mining equipment, R4S motors are built to keep critical processes moving with minimal maintenance and the lowest possible energy consumption. The series is suitable for S1 continuous-duty applications and installations requiring high efficiency, robust construction and low maintenance.



Pumps



Fans



Compressors

Hydraulic
Systems

Gear Drives



Conveyors



Crushers



Shredders



Mining



Cement



Paper



Steel



Water Treatment



General Industry

**Further
applications
on request**

R 4 S S E R I E S

Standard Specifications

Standard technical data for the R4S Series. Deviating configurations are available on request — see Available Options.

PARAMETER	SPECIFICATION
Motor Type	Three Phase Squirrel Cage Induction Motor
Construction	Cast Iron Frame and End Shields
Efficiency Class	IE4 Super Premium Efficiency
Pole Numbers	2, 4, 6, 8 Pole
Output Power	0.37 – 1000 kW
Frame Size	132 – 315
Voltage	400 V ±10%
Frequency	50 Hz
Insulation Class	Class F
Winding Treatment	VPI (Vacuum Pressure Impregnation) as option
Temperature Rise	Class B
Protection	IP55 (Optional IP56 / IP65 / IP66)
Duty	S1 Continuous
Mounting	IEC Standard
Cooling	IC411 – Totally Enclosed Fan Cooled (TEFC)
Ambient Temperature	40 °C
Altitude	1000 m
Terminal Box	Rotatable in Four 90° Positions
Rotation	CW / CCW
Bearing	Premium Grease-Lubricated Anti-Friction Bearings
Painting	ISO 12944 C3M Corrosion Protection System

All data refer to the standard product configuration.

Specific construction details, accessories and applicable standards are subject to motor frame size, output rating and confirmed project requirements.

R 4 S S E R I E S

Applicable International Standards

RITTER motors are designed and manufactured in accordance with internationally recognized standards to ensure reliable performance, energy efficiency, product quality, and compatibility across a wide range of industrial applications.

CATEGORY	APPLICABLE STANDARD
General Requirements	IEC 60034-1
Efficiency Classification	IEC 60034-30-1
Efficiency Test Methods	IEC 60034-2-1
Degree of Protection (IP Code)	IEC 60034-5
Cooling Methods (IC Code)	IEC 60034-6
Mounting Arrangements (IM Code)	IEC 60034-7
Terminal Marking & Direction of Rotation	IEC 60034-8
Noise Measurement	IEC 60034-9
Starting Performance	IEC 60034-12
Mechanical Vibration	IEC 60034-14
Frame Dimensions	IEC 60072-1
Rotor Balancing	ISO 21940 Series
Surface Protection	ISO 12944

RITTER R4S SERIES | PERFORMANCE DATA — 2 AND 4 POLE

Three Phase, 380–415 V, 50 Hz · IP55, Class F Insulation, Class B Temperature Rise

2-POLE · 3000 rpm sync.

Output (kW)	Frame	Speed (rpm)	Current (A)	Eff. 50%	Eff. 75%	Eff. 100%	PF 50%	PF 75%	PF 100%	Torque (Nm)	II/In	TI/Tn	Tb/Tn	Hot (s)	Cold (s)	Inertia (kgm²)	Weight (kg)	Sound dB(A)
0.12	63	2,880	0.43	61.1%	66.5%	66.5%	0.40	0.52	0.65	0.4	7.1x	5.8x	6.4x	40s	88s	0.0002	8.7	52 dB
0.18	63	2,870	0.57	61.9%	68.1%	70.8%	0.42	0.54	0.68	0.6	6.6x	4.5x	5.0x	22s	48s	0.0002	8.8	52 dB
0.25	63	2,785	0.62	67.5%	70.8%	74.3%	0.56	0.70	0.83	0.9	8.0x	3.0x	3.3x	12s	26s	0.0002	8.8	52 dB
0.37	71	2,850	0.83	75.7%	78.1%	78.1%	0.61	0.74	0.86	1.2	7.6x	2.9x	3.1x	16s	35s	0.0005	11.2	56 dB
0.55	71	2,850	1.22	77.3%	80.2%	81.5%	0.57	0.71	0.84	1.8	7.4x	3.7x	3.7x	17s	37s	0.0005	11.6	56 dB
0.75	80	2,875	1.64	79.5%	82.0%	83.5%	0.57	0.70	0.83	2.5	8.2x	3.5x	3.6x	17s	37s	0.0009	15.5	59 dB
1.1	L80	2,860	2.33	82.7%	84.3%	85.2%	0.59	0.72	0.84	3.7	8.4x	4.2x	4.6x	19s	42s	0.0011	17.0	59 dB
1.5	L90S	2,885	2.98	84.9%	86.2%	86.5%	0.67	0.78	0.88	5.0	8.7x	3.5x	3.9x	16s	35s	0.0023	22.6	62 dB
2.2	L90L	2,890	4.35	86.2%	87.5%	88.0%	0.66	0.77	0.87	7.3	9.1x	4.2x	4.6x	14s	31s	0.0030	25.6	62 dB
3.	L100L	2,905	5.52	88.6%	89.1%	89.1%	0.75	0.84	0.90	9.9	9.2x	3.0x	3.6x	15s	33s	0.0070	34.0	66 dB
4.	112M	2,905	7.55	88.7%	89.9%	90.0%	0.69	0.80	0.89	13.2	9.1x	2.8x	3.8x	17s	37s	0.0094	44.6	62 dB
5.5	132S	2,945	10.40	88.0%	89.9%	90.9%	0.67	0.78	0.88	17.8	9.1x	2.6x	3.8x	19s	42s	0.0206	66.0	63 dB
7.5	L132S	2,940	13.90	89.3%	90.9%	91.7%	0.70	0.81	0.89	24.4	9.3x	3.0x	3.8x	18s	40s	0.0267	75.0	63 dB
9.2	132M/L	2,940	16.60	90.1%	91.4%	92.2%	0.74	0.83	0.90	29.9	9.7x	2.9x	3.7x	16s	35s	0.0339	84.7	63 dB
11.	160M	2,955	20.20	91.2%	92.3%	92.6%	0.70	0.80	0.89	35.6	9.3x	2.9x	3.9x	17s	37s	0.0588	124.0	66 dB
15.	160L	2,955	27.00	92.2%	93.1%	93.3%	0.72	0.82	0.90	48.5	9.6x	3.2x	4.0x	15s	33s	0.0767	142.0	66 dB
18.5	180L	2,960	33.10	92.7%	93.6%	93.7%	0.74	0.82	0.90	59.7	9.5x	3.4x	3.7x	23s	51s	0.1138	179.0	66 dB
22.	180L	2,960	40.70	92.9%	93.7%	94.0%	0.68	0.78	0.87	71.0	9.5x	3.5x	3.5x	17s	37s	0.1225	187.0	66 dB
30.	200L	2,970	54.50	92.8%	93.9%	94.5%	0.70	0.80	0.88	96.5	9.0x	3.4x	3.5x	27s	59s	0.2284	263.0	66 dB
37.	225S/M	2,970	64.00	92.9%	94.0%	94.8%	0.78	0.85	0.90	119.0	9.2x	2.8x	3.4x	28s	62s	0.3757	412.0	66 dB
45.	250S/M	2,970	78.60	93.2%	94.3%	95.0%	0.76	0.84	0.90	145.0	9.2x	3.2x	3.4x	32s	70s	0.5038	484.0	66 dB
55.	250S/M	2,970	93.60	93.7%	94.6%	95.3%	0.79	0.86	0.90	177.0	8.1x	3.2x	3.2x	35s	77s	0.6068	530.0	66 dB
75.	280S/M	2,981	132.00	93.6%	94.8%	95.6%	0.75	0.83	0.90	240.0	8.3x	2.5x	3.2x	36s	79s	1.5109	670.0	66 dB
90.	280S/M	2,979	154.00	94.3%	95.2%	95.8%	0.78	0.85	0.90	289.0	8.4x	2.3x	3.0x	32s	70s	1.5998	710.0	66 dB
110.	315S/M	2,980	190.00	94.0%	95.5%	96.0%	0.76	0.84	0.90	353.0	8.0x	2.1x	2.9x	46s	101s	2.3439	920.0	66 dB
132.	315S/M	2,983	225.00	95.1%	95.9%	96.2%	0.79	0.85	0.90	423.0	8.3x	2.7x	3.3x	42s	92s	2.5570	1,020.0	66 dB
150.	315S/M	2,980	255.00	95.2%	96.0%	96.3%	0.78	0.85	0.90	481.0	8.0x	2.3x	2.9x	35s	77s	3.0522	1,030.0	66 dB
160.	315S/M	2,983	269.00	95.4%	96.2%	96.3%	0.80	0.86	0.90	513.0	8.4x	2.8x	3.0x	36s	79s	3.0522	1,135.0	66 dB
185.	315L	2,979	311.00	95.4%	96.1%	96.5%	0.82	0.88	0.90	593.0	6.8x	2.4x	2.6x	36s	79s	3.1267	1,200.0	66 dB
200.	315L	2,983	340.00	95.4%	96.2%	96.5%	0.77	0.85	0.90	641.0	8.6x	2.8x	3.3x	27s	59s	3.2756	1,225.0	66 dB
220.	315L	2,978	366.00	95.7%	96.4%	96.5%	0.85	0.89	0.90	706.0	7.7x	2.4x	2.4x	36s	79s	3.9255	1,400.0	66 dB
250.	315L	2,983	420.00	95.7%	96.4%	96.5%	0.81	0.87	0.90	801.0	9.2x	2.8x	3.1x	26s	57s	4.0200	1,413.0	66 dB
260.	315L	2,982	432.00	95.8%	96.5%	96.5%	0.82	0.88	0.90	833.0	7.7x	2.7x	2.8x	27s	59s	4.0736	1,430.0	66 dB
280.	355M/L	2,986	465.00	95.6%	96.2%	96.5%	0.86	0.89	0.90	896.0	8.4x	2.8x	2.8x	36s	79s	6.0053	1,816.0	66 dB
300.	355M/L	2,985	493.00	95.8%	96.2%	96.5%	0.87	0.90	0.90	960.0	8.9x	2.6x	2.6x	30s	66s	6.0053	1,816.0	66 dB
315.	355M/L	2,985	518.00	95.8%	96.2%	96.5%	0.86	0.90	0.90	1008.0	8.4x	3.1x	3.4x	27s	59s	6.0053	1,820.0	66 dB
355.	355A/B	2,986	590.00	96.5%	96.5%	96.5%	0.86	0.90	0.90	1136.0	8.8x	3.3x	3.6x	30s	66s	7.7211	2,240.0	66 dB

4-POLE · 1500 rpm sync.

Output (kW)	Frame	Speed (rpm)	Current (A)	Eff. 50%	Eff. 75%	Eff. 100%	PF 50%	PF 75%	PF 100%	Torque (Nm)	II/In	TI/Tn	Tb/Tn	Hot (s)	Cold (s)	Inertia (kgm²)	Weight (kg)	Sound dB(A)
0.12	63	1,435	0.45	55.9%	63.5%	69.8%	0.36	0.46	0.59	0.8	8.4x	4.0x	4.1x	23s	51s	0.0007	8.8	43 dB
0.18	71	1,435	0.61	67.7%	73.1%	74.7%	0.37	0.48	0.61	1.2	8.4x	3.5x	3.7x	27s	59s	0.0008	11.3	44 dB
0.25	71	1,410	0.71	72.9%	76.2%	77.9%	0.43	0.55	0.69	1.7	6.7x	3.0x	3.0x	43s	95s	0.0008	11.3	44 dB
0.37	L80	1,450	0.84	76.5%	79.5%	81.1%	0.56	0.69	0.82	2.4	8.2x	2.7x	3.2x	18s	40s	0.0037	16.9	49 dB
0.55	L80	1,445	1.21	79.8%	82.2%	83.9%	0.56	0.69	0.82	3.6	8.6x	3.8x	4.0x	25s	55s	0.0039	17.6	49 dB
0.75	90S	1,460	1.71	82.1%	84.6%	85.7%	0.51	0.65	0.78	4.9	8.1x	2.7x	3.5x	21s	46s	0.0049	20.8	53 dB
1.1	L90L	1,455	2.36	85.1%	86.7%	87.2%	0.56	0.69	0.81	7.2	8.3x	2.8x	3.4x	20s	44s	0.0071	24.6	56 dB
1.5	100L	1,445	3.11	87.3%	88.2%	88.2%	0.60	0.72	0.83	9.9	8.6x	3.3x	3.6x	30s	66s	0.0097	33.4	56 dB
2.2	112M	1,460	4.49	89.3%	89.5%	89.5%	0.61	0.73	0.83	14.4	7.8x	2.2x	3.0x	40s	88s	0.0169	43.5	56 dB
3.	L112M	1,465	6.30	88.9%	90.0%	90.4%	0.55	0.68	0.80	19.6	9.0x	2.9x	3.6x	23s	51s	0.0195	46.5	56 dB
4.	132M	1,475	8.34	89.2%	90.6%	91.1%	0.55	0.68	0.80	25.9	8.0x	2.7x	3.5x	30s	66s	0.0488	67.7	61 dB
5.5	132M	1,475	11.10	90.2%	91.4%	91.9%	0.58	0.70	0.82	35.6	8.1x	2.7x	3.3x	26s	57s	0.0657	78.3	61 dB
7.5	160M	1,480	14.60	91.1%	92.3%	92.6%	0.62	0.74	0.84	48.4	8.7x	2.8x	3.2x	25s	55s	0.1121	120.0	61 dB
9.2	160M	1,479	18.30	91.6%	92.8%	93.0%	0.58	0.71	0.82	59.4	8.1x	2.7x	3.2x	24s	53s	0.1319	131.0	61 dB
11.	160L	1,480	21.00	92.1%	93.1%	93.3%	0.63	0.75	0.85	71.0	8.7x	2.9x	3.2x	22s	48s	0.1607	144.0	61 dB
15.	180M	1,480	28.80	92.6%	93.6%	93.9%	0.62	0.74	0.84	96.8	8.8x	3.3x	3.7x	20s	44s	0.1910	186.0	63 dB
18.5	180L	1,479	35.00	92.9%	93.8%	94.2%	0.63	0.75	0.85	120.0	9.1x	3.5x	3.7x	17s	37s	0.2263	196.0	63 dB
22.	200L	1,483	42.50	93.3%	94.3%	94.5%	0.61	0.73	0.83	142.0	8.7x	3.0x	3.3x	21s	46s	0.3202	241.0	63 dB
30.	225S/M	1,484	55.00	94.1%	94.8%	94.9%	0.66	0.77	0.87	193.0	8.7x	2.7x	3.3x	30s	66s	0.7078	405.0	64 dB
37.	225S/M	1,483	67.60	94.4%	95.0%	95.2%	0.67	0.78	0.87	238.0	8.6x	2.7x	3.3x	26s	57s	0.7322	413.0	64 dB
45.	250S/M	1,486	81.10	94.7%	95.2%	95.4%	0.68	0.79	0.88	289.0	9.2x	2.9x	3.3x	22s	48s	1.0757	491.0	66 dB
55.	250S/M	1,486	101.00	94.8%	95.3%	95.7%	0.65	0.76	0.86	354.0	8.4x	3.1x	3.5x	18s	40s	1.2046	520.0	66 dB
75.	280S/M	1,489	136.00	95.3%	95.8%	96.0%	0.70	0.80	0.87	481.0	7.7x	2.6x	2.8x	34s	75s	2.8540	735.0	66 dB
90.	280S/M	1,489	161.00	95.5%	96.0%	96.1%	0.71	0.80	0.88	578.0	8.0x	2.7x	2.9x	31s	68s	2.8540	790.0	66 dB
110.	315S/M	1,491	199.00	95.4%	96.0%	96.3%	0.69	0.79	0.87	705.0	7.0x	2.6x	2.8x	36s	79s	2.8735	935.0	66 dB
132.	315S/M	1,491	238.00	95.4%	96.1%	96.4%	0.68	0.78	0.87	846.0	7.3x	2.7x	2.9x	32s	70s	3.2050	980.0	66 dB
150.	315S/M	1,491	270.00	95.5%	96.1%	96.5%	0.66	0.77	0.87	961.0	8.0x	3.0x	3.0x	39s	86s	4.4207	1,040.0	66 dB
160.	315S/M	1,491	281.00	95.9%	96.4%	96.6%	0.71	0.80	0.89	1025.0	8.1x	3.0x	3.0x	25s	55s	4.8574	1,110.0	66 dB
185.	315L	1,490	325.00	96.1%	96.6%	96.7%	0.72	0.81	0.89	1186.0	7.1x	2.8x	3.1x	35s	77s	4.8574	1,225.0	66 dB
200.	315L	1,491	355.00	95.8%	96.5%	96.7%	0.70	0.80	0.88	1282.0	7.6x	3.0x	3.3x	26s	57s	4.9618	1,255.0	66 dB
220.	355M/L	1,493	391.00	95.4%	96.3%	96.7%	0.71	0.80	0.88	1408.0	7.0x	2.6x	2.6x	49s	108s	8.9494	1,680.0	66 dB
250.	355M/L	1,492	439.00	95.6%	96.3%	96.7%	0.74	0.82	0.89	1601.0	7.4x	2.2x	2.2x	44s	97s	8.9494	1,690.0	66 dB
260.	355M/L	1,491	451.00	95.7%	96.4%	96.7%	0.76	0.83	0.90	1666.0	7.5x	2.6x	2.6x	40s	88s	8.9343	1,765.0	66 dB
280.	355M/L	1,492	504.00	95.6%	96.4%	96.7%	0.70	0.79	0.87	1793.0	7.3x	2.7x	2.8x	25s	55s	8.9343	1,775.0	66 dB
300.	355M/L	1,491	527.00	95.9%	96.5%	96.7%	0.73	0.81	0.89	1923.0	7.2x	2.4x	2.6x	26s	57s	10.7173	1,860.0	66 dB
315.	355M/L	1,493	566.00	95.7%	96.4%	96.7%	0.70	0.79	0.87	2016.0	7.2x	2.7x	3.0x	26s	57s	10.7173	1,870.0	66 dB
330.	355A/B	1,491	573.00	96.4%	96.7%	96.7%	0.76	0.83	0.90	2115.0	7.2x	2.6x	2.6x	32s	70s	13.9325	2,330.0	76 dB
355.	355A/B	1,492	616.00	96.4%	96.7%	96.7%	0.75	0.83	0.90	2273.0	8.0x	2.6x	2.9x	27s	59s	14.6470	2,405.0	76 dB

RITTER R4S SERIES | PERFORMANCE DATA — 6 AND 8 POLE

Three Phase, 380–415 V, 50 Hz · IP55, Class F Insulation, Class B Temperature Rise

6-POLE · 1000 rpm sync.

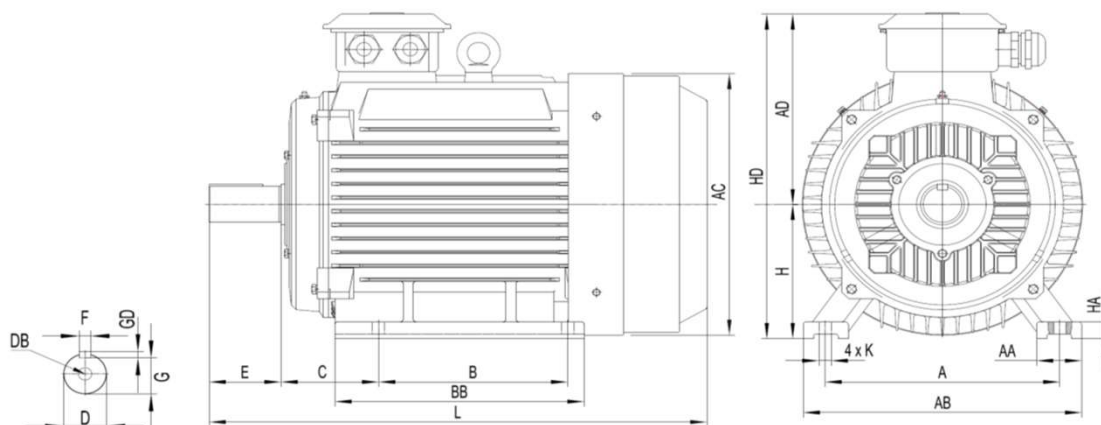
Output (kW)	Frame	Speed (rpm)	Current (A)	Eff. 50%	Eff. 75%	Eff. 100%	PF 50%	PF 75%	PF 100%	Torque (Nm)	II/In	TI/Tn	Tb/Tn	Hot (s)	Cold (s)	Inertia (kgm²)	Weight (kg)	Sound dB(A)
0.12	71	930	0.52	57.3%	63.2%	64.9%	0.33	0.42	0.55	1.2	5.5x	2.3x	2.5x	20s	44s	0.0008	11.3	43 dB
0.18	80	950	0.59	62.8%	68.0%	70.1%	0.41	0.53	0.67	1.8	7.0x	2.4x	2.7x	19s	42s	0.0019	13.2	43 dB
0.25	80	950	0.72	68.9%	72.5%	74.1%	0.45	0.58	0.72	2.5	6.4x	2.4x	2.6x	24s	53s	0.0024	14.2	43 dB
0.37	90S	960	1.01	74.8%	77.4%	78.0%	0.46	0.59	0.72	3.7	5.2x	2.3x	2.5x	41s	90s	0.0044	19.5	45 dB
0.55	90S	960	1.42	78.5%	80.3%	80.9%	0.46	0.59	0.73	5.5	5.8x	2.8x	3.1x	41s	90s	0.0055	21.6	45 dB
0.75	L90L	960	1.95	79.8%	81.5%	82.7%	0.45	0.58	0.71	7.5	6.2x	3.0x	3.0x	36s	79s	0.0077	25.3	45 dB
1.1	132S	981	2.89	84.5%	84.5%	84.5%	0.44	0.56	0.69	10.7	7.2x	2.1x	3.0x	128s	282s	0.0416	62.3	53 dB
1.5	132S	980	3.94	85.4%	85.9%	85.9%	0.43	0.56	0.68	14.6	7.0x	2.2x	3.0x	113s	249s	0.0491	67.1	53 dB
2.2	132S	976	5.34	86.5%	87.4%	87.4%	0.47	0.59	0.72	21.5	7.1x	2.2x	2.8x	84s	185s	0.0566	71.8	53 dB
3.	L132S	975	6.88	87.0%	88.3%	88.6%	0.51	0.63	0.75	29.4	7.1x	2.2x	2.5x	69s	152s	0.0643	77.1	53 dB
4.	132M	975	9.35	86.9%	88.4%	89.5%	0.47	0.60	0.73	39.2	7.7x	2.8x	2.9x	43s	95s	0.0679	79.1	53 dB
5.5	160M	980	11.70	88.8%	90.3%	90.5%	0.54	0.67	0.79	53.6	7.0x	2.5x	3.2x	25s	55s	0.1229	112.0	57 dB
7.5	160M	981	16.00	89.3%	90.8%	91.3%	0.52	0.66	0.78	73.1	7.4x	2.8x	3.4x	22s	48s	0.1664	128.0	57 dB
9.2	160L	981	19.00	89.9%	91.3%	91.8%	0.54	0.68	0.80	89.6	7.8x	2.9x	3.5x	20s	44s	0.2107	217.5	57 dB
11.	180M	982	22.10	91.2%	92.0%	92.3%	0.57	0.71	0.82	107.0	7.8x	2.6x	3.4x	18s	40s	0.2835	217.5	56 dB
15.	200L	984	29.90	91.8%	92.8%	92.9%	0.59	0.72	0.82	146.0	7.3x	2.4x	3.0x	25s	55s	0.3693	223.0	60 dB
18.5	200L	984	36.70	92.3%	93.2%	93.4%	0.58	0.71	0.82	180.0	7.4x	2.5x	3.0x	16s	35s	0.4563	248.0	60 dB
22.	225S/M	989	42.90	93.5%	93.7%	93.7%	0.59	0.72	0.83	213.0	8.8x	2.8x	3.5x	27s	59s	0.8169	367.0	63 dB
30.	225S/M	988	56.70	94.1%	94.2%	94.2%	0.63	0.75	0.85	290.0	8.3x	2.6x	3.2x	26s	57s	1.0211	406.0	63 dB
37.	250S/M	986	66.50	94.5%	94.5%	94.5%	0.72	0.81	0.89	359.0	7.5x	2.2x	2.6x	35s	77s	1.6538	510.0	64 dB
45.	280S/M	989	84.60	94.3%	94.8%	94.8%	0.65	0.76	0.85	435.0	7.6x	2.2x	2.8x	35s	77s	2.4709	625.0	65 dB
55.	280S/M	990	103.00	94.7%	95.1%	95.1%	0.65	0.76	0.85	531.0	7.6x	2.3x	2.7x	27s	59s	3.2496	705.0	65 dB
75.	315S/M	993	142.00	94.0%	95.0%	95.4%	0.61	0.73	0.84	722.0	7.3x	2.5x	2.8x	38s	84s	5.0838	905.0	66 dB
90.	315S/M	992	170.00	94.8%	95.3%	95.6%	0.61	0.73	0.84	867.0	7.0x	2.4x	2.7x	35s	77s	5.6056	950.0	66 dB
110.	315L	993	202.00	95.0%	95.7%	95.8%	0.65	0.77	0.86	1058.0	7.0x	2.5x	2.7x	40s	88s	8.8605	1,165.0	66 dB
132.	315L	992	245.00	95.2%	95.9%	96.0%	0.66	0.78	0.85	1271.0	7.1x	2.5x	2.6x	40s	88s	9.5838	1,240.0	66 dB
150.	315L	992	275.00	95.3%	95.9%	96.1%	0.67	0.77	0.86	1445.0	7.1x	2.5x	2.7x	34s	75s	10.3071	1,310.0	66 dB
160.	315L	993	296.00	95.2%	95.9%	96.2%	0.65	0.75	0.85	1540.0	7.5x	2.7x	2.8x	30s	66s	11.0304	1,350.0	66 dB
185.	355M/L	994	347.00	94.8%	95.8%	96.3%	0.64	0.75	0.84	1778.0	5.7x	2.0x	2.2x	50s	110s	11.7868	1,570.0	66 dB
200.	355M/L	994	379.00	94.8%	95.7%	96.3%	0.63	0.74	0.83	1923.0	6.7x	2.1x	2.3x	50s	110s	11.7868	1,585.0	66 dB
220.	355M/L	993	416.53	94.7%	95.6%	96.5%	0.61	0.74	0.83	2117.0	6.6x	2.0x	2.4x	40s	88s	14.0802	1,876.0	66 dB
250.	355M/L	994	486.00	94.8%	95.8%	96.5%	0.60	0.72	0.81	2403.0	6.6x	2.1x	2.5x	44s	97s	14.0802	1,876.0	66 dB
260.	355M/L	993	499.00	94.9%	95.9%	96.5%	0.62	0.73	0.82	2502.0	6.3x	2.1x	2.4x	44s	97s	14.0802	1,876.0	66 dB
280.	355M/L	994	544.00	94.8%	95.8%	96.5%	0.60	0.71	0.81	2692.0	6.6x	2.2x	2.5x	39s	86s	14.9936	1,948.0	66 dB
300.	355A/B	993	553.00	95.5%	96.2%	96.6%	0.67	0.77	0.85	2887.0	6.2x	1.8x	2.0x	50s	110s	18.9150	2,420.0	66 dB
315.	355A/B	994	596.00	95.2%	96.1%	96.6%	0.63	0.74	0.83	3028.0	6.9x	2.1x	2.2x	46s	101s	19.6070	2,475.0	66 dB

8-POLE · 750 rpm sync.

Output (kW)	Frame	Speed (rpm)	Current (A)	Eff. 50%	Eff. 75%	Eff. 100%	PF 50%	PF 75%	PF 100%	Torque (Nm)	II/In	TI/Tn	Tb/Tn	Hot (s)	Cold (s)	Inertia (kgm²)	Weight (kg)	Sound dB(A)
0.12	80	715	0.53	51.7%	58.7%	62.3%	0.35	0.45	0.57	1.6	5.9x	2.4x	2.6x	35s	77s	0.0032	16.0	42 dB
0.18	90S	720	0.72	58.2%	64.5%	67.2%	0.36	0.46	0.58	2.4	5.0x	1.8x	2.5x	49s	108s	0.0044	19.6	44 dB
0.25	90S	715	0.89	62.5%	67.7%	70.8%	0.38	0.48	0.61	3.3	4.1x	1.8x	2.3x	20s	44s	0.0052	21.0	44 dB
0.37	L90L	715	1.24	69.0%	72.9%	74.3%	0.38	0.49	0.62	4.9	4.0x	1.9x	2.4x	20s	44s	0.0077	25.3	44 dB
0.55	100L	720	1.84	71.3%	76.1%	77.0%	0.35	0.46	0.60	7.3	4.5x	2.0x	2.5x	72s	158s	0.0099	28.0	50 dB
0.75	100L	715	2.38	73.7%	77.6%	78.4%	0.37	0.49	0.62	10.0	4.4x	1.9x	2.3x	60s	132s	0.0127	31.0	50 dB
1.1	L100L	715	3.22	77.9%	80.5%	80.8%	0.40	0.52	0.65	14.7	4.6x	2.1x	2.2x	60s	132s	0.0176	36.6	50 dB
1.5	132S	715	3.80	82.1%	82.6%	82.6%	0.47	0.60	0.73	20.0	6.4x	2.1x	2.7x	43s	95s	0.0592	64.4	48 dB
2.2	160M	736	6.37	81.8%	84.5%	84.5%	0.37	0.50	0.63	28.6	5.6x	2.5x	3.1x	47s	103s	0.0878	98.0	51 dB
3.	160M	730	7.41	85.3%	85.9%	85.9%	0.47	0.60	0.72	39.3	4.9x	1.8x	2.3x	48s	106s	0.1053	104.0	51 dB
4.	160M	731	10.00	84.3%	86.4%	87.1%	0.44	0.57	0.70	52.3	5.1x	2.0x	2.5x	34s	75s	0.1141	108.0	51 dB
5.5	160M	731	13.40	86.0%	87.6%	88.3%	0.46	0.59	0.71	71.9	5.3x	2.1x	2.5x	31s	68s	0.1668	128.0	51 dB
7.5	180M	732	16.40	88.3%	89.3%	89.3%	0.52	0.66	0.78	97.9	6.9x	2.2x	2.9x	16s	35s	0.2299	156.0	52 dB
9.2	180M	731	19.40	89.3%	89.9%	89.9%	0.55	0.68	0.80	120.0	7.2x	2.2x	2.9x	15s	33s	0.2846	171.0	52 dB
11.	180L	732	23.10	89.6%	90.4%	90.4%	0.55	0.68	0.80	144.0	7.6x	2.5x	3.0x	14s	31s	0.3252	184.0	52 dB
15.	200L	735	32.50	91.2%	91.2%	91.2%	0.56	0.67	0.77	195.0	4.8x	1.9x	2.1x	45s	99s	0.5285	266.0	56 dB
18.5	225S/M	737	37.30	91.1%	91.7%	91.7%	0.61	0.73	0.82	240.0	8.0x	2.1x	2.5x	23s	51s	0.6547	336.0	56 dB
22.	225S/M	737	46.00	90.8%	91.9%	92.1%	0.55	0.68	0.79	285.0	8.2x	2.3x	2.8x	18s	40s	0.7214	349.0	56 dB
30.	250S/M	734	58.40	92.6%	92.7%	92.7%	0.62	0.74	0.84	391.0	8.4x	2.1x	3.1x	18s	40s	1.1995	440.0	56 dB
37.	280S/M	741	77.50	92.6%	93.1%	93.1%	0.57	0.69	0.78	477.0	6.0x	1.9x	2.3x	37s	81s	2.2566	595.0	59 dB
45.	280S/M	742	96.60	92.5%	93.3%	93.4%	0.53	0.65	0.76	579.0	6.6x	2.0x	2.5x	30s	66s	2.7079	642.0	59 dB
55.	315S/M	742	109.00	93.7%	93.7%	93.7%	0.63	0.73	0.82	708.0	6.2x	1.7x	2.1x	42s	92s	4.0271	859.0	62 dB
75.	315S/M	742	147.00	94.2%	94.2%	94.2%	0.62	0.73	0.82	966.0	6.7x	1.9x	2.3x	32s	70s	5.4915	974.0	62 dB
90.	315S/M	743	179.00	94.4%	94.4%	94.4%	0.60	0.71	0.81	1157.0	7.2x	2.2x	2.5x	30s	66s	6.5898	1,061.0	62 dB
110.	315L	741	212.00	94.6%	94.7%	94.7%	0.65	0.75	0.83	1418.0	6.1x	1.7x	2.2x	36s	79s	7.8392	1,217.0	66 dB
132.	355M/L	743	261.00	93.9%	94.8%	94.9%	0.61	0.72	0.81	1698.0	6.3x	1.6x	2.2x	30s	66s	9.8011	1,330.0	66 dB
150.	355M/L	745	300.00	94.0%	95.0%	95.1%	0.58	0.70	0.80	1924.0	7.4x	1.9x	2.6x	31s	68s	12.8639	1,510.5	66 dB
160.	355M/L	744	311.00	94.2%	95.1%	95.1%	0.63	0.73	0.82	2055.0	6.5x	1.6x	2.2x	31s	68s	12.8639	1,510.5	66 dB
185.	355M/L	744	350.00	94.7%	95.3%	95.3%	0.66	0.76	0.84	2376.0	6.6x	1.6x	2.1x	36s	79s	16.5393	1,727.0	66 dB
200.	355M/L	744	388.00	94.5%	95.4%	95.4%	0.62	0.73	0.82	2569.0	7.2x	1.9x	2.4x	32s	70s	18.9895	1,871.0	66 dB
220.	355M/L	743	408.79	94.8%	95.4%	95.9%	0.68	0.77	0.85	2829.0	6.5x	1.6x	2.0x	32s	70s	19.9084	1,926.0	66 dB
250.	355A/B	744	492.02	94.4%	95.4%	96.5%	0.58	0.70	0.80	3211.0	7.5x	2.0x	2.6x	25s	55s	21.6684	2,187.0	66 dB
260.	355A/B	744	505.05	94.5%	95.4%	96.5%	0.59	0.71	0.81	3339.0	7.3x	1.9x	2.5x	26s	57s	21.6684	2,192.0	66 dB
280.	355A/B	744	530.13	94.7%	95.4%	96.5%	0.63	0.74	0.83	3596.0	7.4x	1.8x	2.4x	28s	62s	25.1152	2,388.0	66 dB

RITTER R4S SERIES | DIMENSION CHART — FOOT MOUNT (B3)

Foot-mounted, no flange — IM B3 / IM 1001

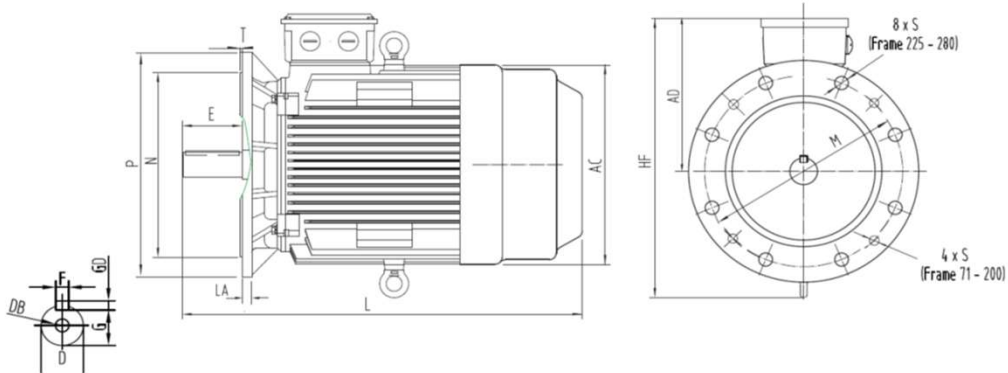


Frame	A	AA	B	C	D	DB	E	F	G	GD	H	K	AB	AC	AD	HD	L	BB	HA
80M	125	34	100	50	19	M6	40	6	15.5	6	80	10	160	165	145	225	355	150	10
90S	140	36	100	56	24	M8	50	8	20	7	90	10	180	180	165	255	405	165	12
90L	140	36	125	56	24	M8	50	8	20	7	90	10	180	180	165	255	425	185	12
100L	160	39	140	63	28	M10	60	8	24	7	100	12	200	205	175	275	425	190	14
112M	190	50	140	70	28	M10	60	8	24	7	112	12	230	225	190	302	465	210	15
132S	216	60	140	89	38	M12	80	10	33	8	132	12	265	270	220	352	525	250	18
132M	216	60	178	89	38	M12	80	10	33	8	132	12	265	270	220	352	560	290	18
160M	254	70	210	108	42	M16	110	12	37	8	160	14.5	315	320	260	420	710	303	20
160L	254	70	254	108	42	M16	110	12	37	8	160	14.5	315	320	260	420	750	347	20
180M	279	70	241	121	48	M16	110	14	42.5	9	180	14.5	355	360	265	445	780	370	22
180L	279	70	279	121	48	M16	110	14	42.5	9	180	14.5	355	360	265	445	780	370	22
200L	318	70	305	133	55	M16	110	16	49	10	200	18.5	395	400	305	505	875	370	26
225S	356	75	286	149	60	M16	140	18	53	11	225	18.5	435	450	325	550	915	355	28
225M*	356	75	311	149	55	M16	110	16	49	10	225	18.5	435	450	325	550	910	390	28
225M	356	78	311	149	60	M16	140	18	53	11	225	18.5	435	450	325	550	940	390	28
250M*	406	80	349	168	60	M16	140	18	53	11	250	24	490	510	380	630	995	420	30
250M	406	80	349	168	65	M16	140	18	58	11	250	24	490	510	380	630	995	420	30
280S*	457	90	368	190	65	M16	140	18	58	11	280	24	545	550	395	675	990	460	35
280S	457	90	368	190	75	M16	140	20	67.5	12	280	24	545	550	395	675	990	460	35
280M*	457	90	419	190	65	M16	140	18	58	11	280	24	545	550	395	675	1070	530	35
280M	457	90	419	190	75	M16	140	20	67.5	12	280	24	545	550	395	675	1070	530	35
315S*	508	120	406	216	65	M20	140	18	58	11	315	28	635	630	540	855	1220	570	45
315S	508	120	406	216	80	M20	170	22	71	14	315	28	635	630	540	855	1250	570	45
315M*	508	120	457	216	65	M20	140	18	58	11	315	28	635	630	540	855	1330	680	45
315M	508	120	457	216	80	M20	170	22	71	14	315	28	635	630	540	855	1360	680	45
315L*	508	120	508	216	65	M20	140	18	58	11	315	28	635	630	540	855	1380	680	45
315L	508	120	508	216	80	M20	170	22	71	14	315	28	635	630	540	855	1410	680	45
355M*	610	116	560	254	75	M20	140	20	67.5	12	355	28	735	715	645	1000	1500	700	52
355M	610	116	560	254	95	M20	170	25	86	14	355	28	735	715	645	1000	1530	700	52
355L*	610	116	630	254	75	M20	140	20	67.5	12	355	28	735	715	645	1000	1600	770	52
355L	610	116	630	254	95	M20	170	25	86	14	355	28	735	715	645	1000	1630	770	52
355L2*	610	116	630	254	80	M20	170	22	71	14	355	28	735	715	645	1000	1630	770	52
355L2	610	116	630	254	110	M20	210	28	100	14	355	28	735	715	645	1000	1670	770	52

Dimensions in mm; thread sizes (DB) per ISO metric coarse thread. Frame codes marked with * apply to 2-pole motors only. Data transcribed from RITTER factory reference drawings. Specifications subject to change without notice. © RITTER Electric Motor – www.rittermotor.com

RITTER R4S SERIES | DIMENSION CHART — FLANGE MOUNT (B5)

Flange-mounted, no feet — IM B5 / IM 3001



Frame	AC	AD	D	DB	E	F	G	GD	HF	L	LA	M	N	P	S	T
80M	165	145	19	M6	40	6	15.5	6	245	355	12	165	130	200	12	3.5
90S	180	165	24	M8	50	8	20	7	265	405	12	165	130	200	12	3.5
90L	180	165	24	M8	50	8	20	7	265	425	12	165	130	200	12	3.5
100L	205	175	28	M10	60	8	24	7	300	425	14	215	180	250	15	4
112M	225	190	28	M10	60	8	24	7	315	465	14	215	180	250	15	4
132S	270	220	38	M12	80	10	33	8	370	525	14	265	230	300	15	4
132M	270	220	38	M12	80	10	33	8	370	560	14	265	230	300	15	4
160M	320	260	42	M16	110	12	37	8	435	710	16	300	250	350	19	5
160L	320	260	42	M16	110	12	37	8	435	750	16	300	250	350	19	5
180M	360	265	48	M16	110	14	42.5	9	500	780	18	300	250	350	19	5
180L	360	265	48	M16	110	14	42.5	9	250	780	18	300	250	350	19	5
200L	400	305	55	M16	110	16	49	10	570	875	18	350	300	400	19	5
225S	450	325	60	M16	140	18	53	11	615	915	20	400	350	450	19	5
225M*	450	325	55	M16	110	16	49	10	615	910	20	400	350	450	19	5
225M	450	325	60	M16	140	18	53	11	615	940	20	400	350	450	19	5
250M*	510	380	60	M16	140	18	53	11	715	995	22	500	450	550	19	5
250M	510	380	65	M16	140	18	58	11	715	995	22	500	450	550	19	5
280S*	550	395	65	M16	140	18	58	11	760	990	22	500	450	550	19	5
280S	550	395	75	M16	140	20	67.5	12	760	990	22	500	450	550	19	5
280M*	550	395	65	M16	140	18	58	11	760	1070	22	500	450	550	19	5
280M	550	395	75	M16	140	20	67.5	12	760	1070	22	500	450	550	19	5
315S*	630	540	65	M20	140	18	58	11	970	1220	25	600	550	660	24	6
315S	630	540	80	M20	170	22	71	14	970	1250	25	600	550	660	24	6
315M*	630	540	65	M20	140	18	58	11	970	1330	25	600	550	660	24	6
315M	630	540	80	M20	170	22	71	14	970	1360	25	600	550	660	24	6
315L*	630	540	65	M20	140	18	58	11	970	1380	25	600	550	660	24	6
315L	630	540	80	M20	170	22	71	14	970	1410	25	600	550	660	24	6
355M*	715	645	75	M20	140	20	67.5	12	1135	1500	32	740	680	800	24	6
355M	715	645	95	M20	170	25	86	14	1135	1530	32	740	680	800	24	6
355L*	715	645	75	M20	140	20	67.5	12	1135	1600	32	740	680	800	24	6
355L	715	645	95	M20	170	25	86	14	1135	1630	32	740	680	800	24	6
355L2*	715	645	80	M20	170	22	71	14	1135	1630	32	740	680	800	24	6
355L2	715	645	110	M20	210	28	100	14	1135	1670	32	740	680	800	24	6

Dimensions in mm; thread sizes (DB) per ISO metric coarse thread. Frame codes marked with * apply to 2-pole motors only. Data transcribed from RITTER factory reference drawings. Specifications subject to change without notice. © RITTER Electric Motor – www.rittermotor.com

R4S SERIES

Available Options

The R4S Series can be adapted to the requirements of the application and the installation. The options below are available on request; other modifications can be engineered on a project basis.

	Electrical	■ Other Voltages ■ Other Frequencies ■ Tropical Insulation ■ Class H Insulation ■ Anti-Condensation Space Heater
	Temperature Monitoring & Protection	■ Thermistor (PTC) ■ RTD PT100 – Winding ■ RTD PT100 – Bearing
	Protection Degree	■ IP56 ■ IP65 ■ IP66
	Mechanical	■ Aluminium Cooling Fan ■ Plastic Cooling Fan ■ Stainless Steel Nameplate ■ Special Shaft ■ Condensation Drain Hole / Drain Plug ■ Drain Plug ■ Double Shaft Extension ■ Encoder or Encoder Preparation
	Bearing Options	■ Insulated Bearing ■ C3 Bearing ■ SKF ■ NSK ■ NTN
	Mounting	■ Foot Mounted – IM B3 ■ Flange Mounted – IM B5 ■ Foot & Flange – IM B35 ■ Vertical Flange Mounted – IMV1 / IMV3 ■ Other IEC Mounting Arrangements on Request ■ Custom Terminal Box Position

Options are subject to technical review and confirmation at order stage.

Availability may vary according to frame size, output, speed, mounting arrangement and operating conditions.



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R4S Series | IE4 Super Premium Efficiency Three Phase Cast Iron Motor

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