

## Product note

### IE4 SynRM motor range extension

### 132 size aluminum frame motors 5,5kW to 15kW



The 132 size IE4 SynRM aluminum frame motor is perfect combination of light weight and high efficiency.

This motor provides perfect continuity for the existing IE4 SynRM cast iron motor range. The IE4 SynRM power range reaches now down to 5,5kW. Light weight and compact construction makes this motors an ideal choice for many applications such as fans, pumps and compressors. Package this motor with a ACH580 drive to get a perfect high efficiency package for HVAC segment.

#### Technical data

Technical data for IE4 synchronous reluctance motors at 400V

IP 55 - IC 411- Insulation class F, temperature rise class B

Output kW	Motor type	Product code	Speed $n_N$ r/min	Freq. $f_{el}$ Hz	Motor efficiency with VSD supply	Current $I_N$ A	Torque $T_N$ Nm	$T_{OL} / T_N$	Max speed* $n_{max}$ r/min	Inertia J kgm <sup>2</sup>	Weight m kg
			<b>3000 r/min</b>								
			<b>400 V network</b>								
5,5	M3AL 132 SMA 4	3GAL 132 217 - _SC	3000	100	90,9	12,6	17,5	1,5	4200	0,0174	41
7,5	M3AL 132 SMB 4	3GAL 132 227 - _SC	3000	100	91,7	16,9	23,9	1,5	4200	0,0174	41
11	M3AL 132 SMC 4	3GAL 132 237 - _SC	3000	100	92,6	25	35,0	1,5	4200	0,0211	47
15	M3AL 132 SMD 4	3GAL 132 247 - _SC	3000	100	93,3	33,5	47,7	1,5	4200	0,0211	47
			<b>1500 r/min</b>								
			<b>400 V network</b>								
5,5	M3AL 132 SMA 4	3GAL 132 213 - _SC	1500	50	91,9	12,1	35,0	1,5	2100	0,0301	63
7,5	M3AL 132 SMB 4	3GAL 132 223 - _SC	1500	50	92,6	16,2	47,7	1,5	2100	0,0301	63
11	M3AL 132 SMC 4	3GAL 132 233 - _SC	1500	50	93,3	24	70,0	1,5	2100	0,0336	69

\* Check loadability below and above nominal speed with DriveSize dimensioning tools.

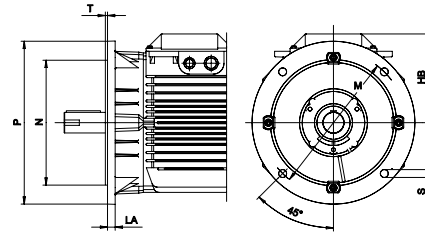
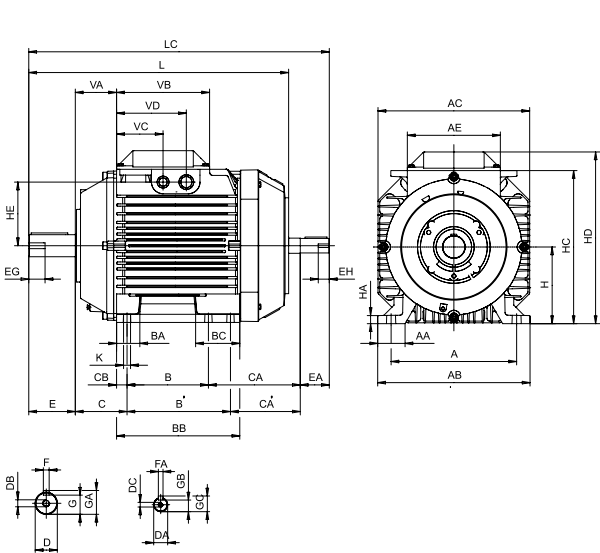
Motors are available with nominal power rating from 5,5 up to 15kW with 3000rpm, from 5,5 up to 11kW with 1500rpm. M3AL 132 IE4 motors expand ABB's available offering with motor-drive packages; being compatible with ABB drives ACS880, ACS850, ACQ810 and ACH580.

#### Super Premium Efficiency IE4 SynRM motors

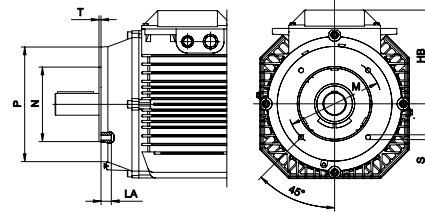
- IE4 SynRM power range 5,5kW to 315kW
- Ultra-high efficiency; cut the costs of running
- Proven synchronous reluctance technology
- Magnet free; easier maintenance, no demagnetization
- Excellent partial load efficiency performance
- Unprecedented reliability with low winding and bearing temperatures

## Dimensions

IE4 synchronous reluctance motors, frame size 132.



Flange-mounted motor, large flange IM B5 (IM 3001), IM 3002



Flange-mounted motor, small flange IM B14 (IM 3601), IM 3602

Foot-mounted motor IM B3 (IM1001), IM 1002

### IM B3 (IM 1001), IM 1002

	A	AA	AB	AC	AE	B	B'	BA	BB	BC	C	CA	CB	D	DA	DB	DC	E	EA	EG	EH
132 SMA-D*	216	47	262	261	160	140	178	40	212	76	89	198	18	38	24	M12	M8	80	50	28	19
132 SMA-B**	216	47	262	261	160	140	178	40	212	76	89	261	18	38	24	M12	M8	80	50	28	19
132 SMC**	216	47	262	261	160	140	178	40	212	76	89	301	18	38	24	M12	M8	80	50	28	19

	F	FA	G	GA	GB	GC	H	HA	HC	HD	HE	K	L	LC	VA	VB	VC	VD
132 SMA-D*	10	8	33	41	20	27	132	14	263.5	295.5	109.5	12	487	557	71	160	80	120
132 SMA-B**	10	8	33	41	20	27	132	14	287	321	123.5	12	550	620	71	160	42	102
132 SMC**	10	8	33	41	20	27	132	14	287	321	123.5	12	590	660	71	160	42	102

### IM B5 (IM 3001), IM 3002

	HB	LA	M	N	P	S	T
132 SMA-D*	163,5	14	265	230	300	14,5	4
132 SMA-C**	189	14	265	230	300	14,5	4

Motor Type	Type of through holes	Size of through holes	Cable outer diameter mm
132 SMA-D*	Knock-out	2x(M25+M20)	2x(Ø11-16+Ø8-14)
132 SMA-B**	Knock-out	2x(M40+M32+M12)	2x(Ø19-27+Ø14-21)
132 SMA-C**	Knock-out	2x(M40+M32+M12)	2x(Ø19-27+Ø14-21)

### IM B14 (IM 3601), IM 3602

	HB	LA	M	N	P	S	T
132 SMA-D*	163,5	14,5	165	130	200	M10	3,5
132 SMA-C**	189	14,5	165	130	200	M10	3,5

\* 3000 RPM

\*\* 1500 RPM

For more information please contact:  
[www.abb.com/motors&generators](http://www.abb.com/motors&generators)

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