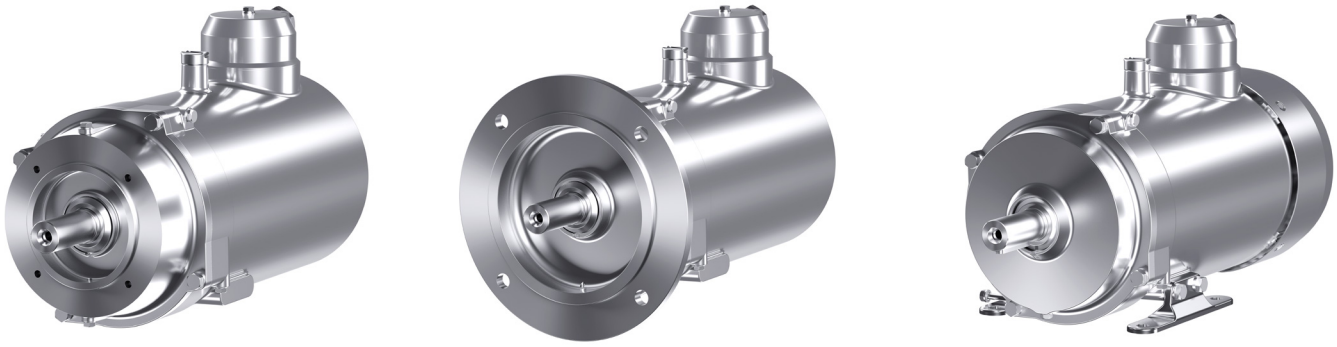
PRODUCT NOTE

IEC stainless steel encapsulated motors

Uncompromised hygiene, reliability and productivity



Sanitary design is the key feature of our stainless steel motor, engineered for the food and beverage industry fulfilling the hygienic design principals. This enables the food and beverage machinery to be effectively cleaned-in-place (CIP). The smoothly finished surface with laser engraved markings and self-draining design minimises the risk of micro-organisms to grow. The bearings are lubricated with H1 food grade grease, ensuring safe operations in food processing environments.

Reliable performance in extreme conditions
Stainless steel is the preferred material for food and beverage processes/operations, it is easy to clean and resistant to rust and corrosion. The IP69 rating provides ultimate protection against high pressure (100 bar) hot water (80°C) sprays at close range. The windings of this motor are fully encapsulated, providing long lifetime in extreme humid conditions.

Meeting the efficiency requirements around the world
The motor is available in IE3 premium efficiency class. The wide coverage of MEPS (Minimum Energy Performance Standards) around the world enable simple sourcing of motors from ABB. The motor is rated for different voltage and frequency variations including 50 Hz and 60 Hz.

Ideal for various food processing applications
Our stainless steel motor is a perfect solution for harsh industries like meat, poultry, fish, dairy, beverage and basically wherever high food safety is essential. We understand how costly production down time is to your bottom line, the features packed into this motor will prevent motor failures in the harshest conditions, thus improving your productivity by avoiding unwanted interruptions in the process. Downtime for maintenance, cleaning and equipment replacement is minimized. Productivity is maximized.

Contact us to let us know how we can help in your application or machinery.

Food safety and reliability	
IP69 protection	Withstands extreme washdown conditions
Encapsulated windings	Long lifetime in extreme humid conditions
H1 food grade grease	Safe operation in food processing environment
TENV cooling (80-90 frames)	Very easy to clean
IE3 efficiency	Lower operation costs and lower surface temperature

Technical data
IEC Stainless steel encapsulated motors

kw//HP	Speed RPM	Coolng Method	IEC Frame	US ABB Catalog Number	ABB Product Code	ABB Type Number	Full load efficiency at 460V, 60 Hz	Current I_nA Full Load Amps	Overall Length inches	Approx. Weight LBS	Voltage
B3 Foot Mounted											
1.5 // 2	1200	IC411/TEFC	100	SSEWDM10156-B	3GMA 103 510-ASB	M3MA 100LA 6	88.5	3.38	18.92	127.9	460VY, 60Hz/400VY, 50Hz
2.2 // 3	1800	IC411/TEFC	100	SSEWDM10224-B	3GMA 102 510-ASB	M3MA 100LA 4	89.5	4.76	18.92	125.7	460VY, 60Hz/400VY, 50Hz
3 // 4	3600	IC411/TEFC	100	SSEWDM10032-B	3GMA 101 510-ASB	M3MA 100LA 2	88.5	4.69	18.92	133.4	460VY, 60Hz/400VY, 50Hz
3 // 4	1800	IC411/TEFC	100	SSEWDM10034-B	3GMA 102 520-ASB	M3MA 100LB 4	89.5	6.43	18.92	125.7	460VY, 60Hz/400VY, 50Hz
B5 Flange Mounted											
0.37 // 0.5	1800	IC410/TENV	80	SSEWDM08374D-B	3GMA 082 310-BSB	M3MA 80MA 4	81.6	0.9	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.37 // 0.5	1200	IC410/TENV	80	SSEWDM08376D-B	3GMA 083 310-BSB	M3MA 80MA 6	79.2	1.05	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.55 // 0.73	3600	IC410/TENV	80	SSEWDM08552D-B	3GMA 081 310-BSB	M3MA 80MA 2	80.8	0.97	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.55 // 0.73	1800	IC410/TENV	80	SSEWDM08554D-B	3GMA 082 320-BSB	M3MA 80MB 4	83.9	1.08	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.55 // 0.73	1200	IC410/TENV	90	SSEWDM09556D-B	3GMA 093 310-BSB	M3MA 90MA 6	81.7	1.46	17.15	105.8	460VY, 60Hz/400VY, 50Hz
0.75 // 1	3600	IC410/TENV	80	SSEWDM08752D-B	3GMA 081 320-BSB	M3MA 80MB 2	77.0	1.28	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.75 // 1	1800	IC410/TENV	80	SSEWDM08754D-B	3GMA 082 330-BSB	M3MA 80MC 4	85.5	1.58	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.75 // 1	1200	IC410/TENV	90	SSEWDM09756D-B	3GMA 093 320-BSB	M3MA 90MB 6	82.5	1.85	17.15	114.6	460VY, 60Hz/400VY, 50Hz
1.1 // 1.5	3600	IC410/TENV	80	SSEWDM08112D-B	3GMA 081 330-BSB	M3MA 80MC 2	84.0	1.84	13.94	50.7	460VY, 60Hz/400VY, 50Hz
1.1 // 1.5	1800	IC410/TENV	90	SSEWDM09114D-B	3GMA 092 310-BSB	M3MA 90MA 4	86.5	1.98	17.15	105.8	460VY, 60Hz/400VY, 50Hz
1.5 // 2	3600	IC410/TENV	90	SSEWDM09152D-B	3GMA 091 310-BSB	M3MA 90MA 2	85.5	2.71	17.15	114.6	460VY, 60Hz/400VY, 50Hz
1.5 // 2	1800	IC410/TENV	90	SSEWDM09154D-B	3GMA 092 320-BSB	M3MA 90MB 4	86.5	2.51	17.15	114.6	460VY, 60Hz/400VY, 50Hz
1.5 // 2	1200	IC411/TEFC	100	SSEWDM10156D-B	3GMA 103 510-BSB	M3MA 100LA 6	88.5	3.38	18.92	127.9	460VY, 60Hz/400VY, 50Hz
2.2 // 3	3600	IC410/TENV	90	SSEWDM09222D-B	3GMA 091 320-BSB	M3MA 90MA 2	86.5	3.53	17.15	114.6	460VY, 60Hz/400VY, 50Hz
2.2 // 3	1800	IC411/TEFC	100	SSEWDM10224D-B	3GMA 102 510-BSB	M3MA 100LA 4	89.5	4.76	18.92	125.7	460VY, 60Hz/400VY, 50Hz
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B14 Flange Mounted											
0.37 // 0.5	1800	IC410/TENV	80	SSEWDM08374C-B	3GMA 082 310-CSB	M3MA 80MA 4	81.6	0.9	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.37 // 0.5	1200	IC410/TENV	80	SSEWDM08376C-B	3GMA 083 310-CSB	M3MA 80MA 6	79.2	1.05	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.55 // 0.73	3600	IC410/TENV	80	SSEWDM08552C-B	3GMA 081 310-CSB	M3MA 80MA 2	80.8	0.97	13.94	50.7	460VY, 60Hz/400VY, 50Hz
0.55 // 0.73	1800	IC410/TENV	80	SSEWDM08554C-B	3GMA 082 320-CSB	M3MA 80MB 4	83.9	1.08	13.94	50.7	460VY, 60Hz/400VY, 50Hz
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0.75 // 1	1200	IC410/TENV	90	SSEWDM09756C-B	3GMA 093 320-CSB	M3MA 90MB 6	82.5	1.85	17.15	114.6	460VY, 60Hz/400VY, 50Hz
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2.2 // 3	3600	IC410/TENV	90	SSEWDM09222C-B	3GMA 091 320-CSB	M3MA 90MA 2	86.5	3.53	17.15	114.6	460VY, 60Hz/400VY, 50Hz
2.2 // 3	1800	IC411/TEFC	100	SSEWDM10224C-B	3GMA 102 510-CSB	M3MA 100LA 4	89.5	4.76	18.92	125.7	460VY, 60Hz/400VY, 50Hz
3 // 4	3600	IC411/TEFC	100	SSEWDM10032C-B	3GMA 101 510-CSB	M3MA 100LA 2	88.5	4.69	18.92	133.4	460VY, 60Hz/400VY, 50Hz
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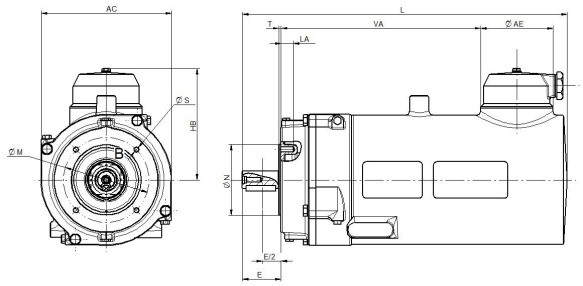
Please refer to complete technical catalog 9AKK107368 EN 04-2019 for full technical data including efficiencies at 400VY, 50Hz

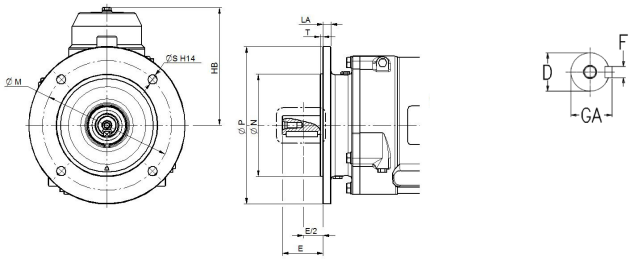
Dimension drawings

IEC stainless steel encapsulated motors, IEC 80-90

Flange-mounted B14



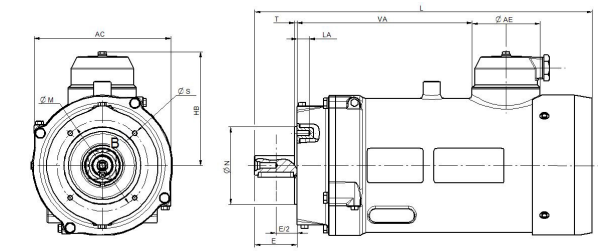
Flange-mounted B5



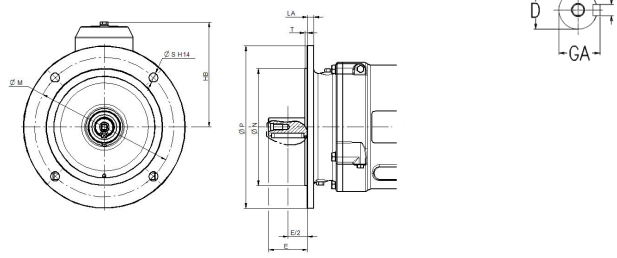
															Flange-mounted B5					Flange-mounted B14				
Motor size	**AC**	**Ø AE**	**Ø D**	**DB**	**E**	**EG**	**F**	**G**	**GA**	**HB**	**L**	**VA**	**M**	**N**	**P**	**S**	**T**	**M**	**N**	**P**	**S**	**T**
80	156	97	19	M6	40	19	6	15,5	21,5	140	354	247	156	130	200	14	3,5	100	80	120	M6	3
90	175	97	24	M8	50	19	8	20	27	149.5	435,5	268,5	165	130	200	14	3,5	115	95	140	M8	3

IEC stainless steel encapsulated motors, IEC 100

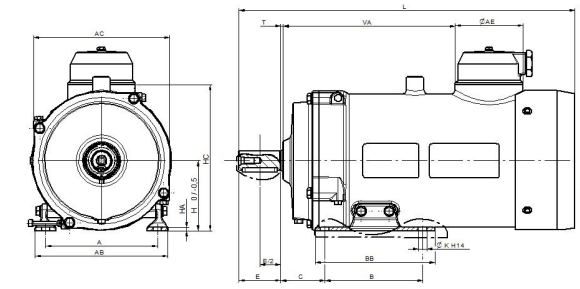
Flange-mounted B14



Flange-mounted B5



Foot-mounted B3

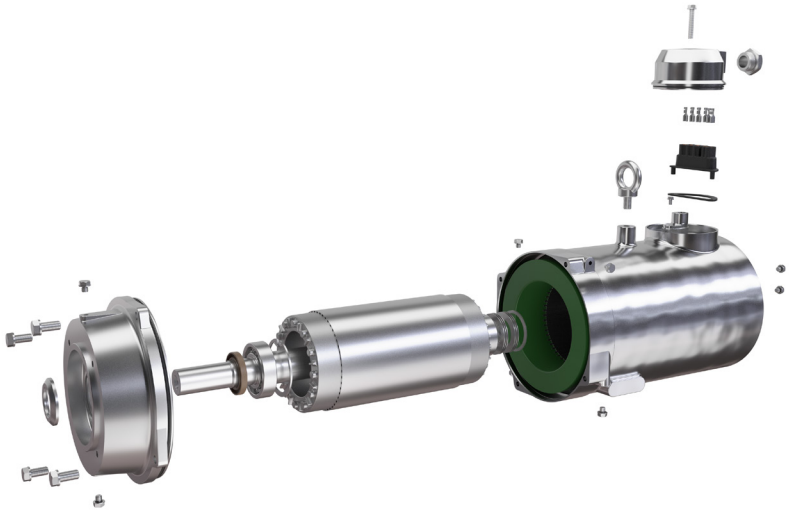


																Flange-mounted B5					Flange-mounted B14				
Motor size	**AC**	**Ø AE**	**Ø D**	**DB**	**E**	**EG**	**F**	**G**	**GA**	**HB**	**L**	**VA B3**	**VA B5/B14**	**M**	**N**	**P**	**S**	**T**	**M**	**N**	**P**	**S**	**T**
100	194,5	97	28	M10	60	22	8	24	31	161,6	480,5	249,5		215	180	250	14,5	4	130	110	159	M8	3,5

Motors in brief

Size	M3MA	80	90	100
Stator frame, shaft	Material		Stainless steel AISI 304	
Bearings	D-end	6205-2Z	6206-2Z	6206-2Z
	N-end	6204-2Z	6205-2Z	6205-2Z
		Heat stabilized bearings, withstand wide temperature range -20°C to +150°C		
Axially locked bearings	Retaining ring		Locked at D-end	
Bearing seals	D- and N-end		Seal on D-end, Gamma-ring externally and radial seal internally	
Lubrication			Permanently lubricated shielded bearing with H1 grease	
Measuring nipples for conditioning monitoring			Not included	
Fan		No fan	No fan	Nylon
Cooling		TENV / IC410	TENV / IC410	TEFC / IC411
Rating plate			Laser engraved on the frame	
Terminal box	Material		Stainless steel AISI 304	
Connections			Suitable for M25 x 1.5 IP69 cable gland	
Stator winding			Encapsulated winding with epoxy resin Elantron MC622-W58	
Rotor	Material		Die-cast aluminum	
Balancing method			Half-key balancing	
Keyway				Closed keyway
Lifting lugs		No	Removable lifting lug kit included	
Drain holes		Drain holes closed upon high pressure water cleaning, plugged with stainless steel screws		
Enclosure			IP 69K	

Designed for ultimate reliability in extreme conditions



- Heat stabilized bearings with H1 food grade grease
- Windings encapsulated with epoxy resin - environmental protection against water and humidity
- Rotatable terminal box cover allows to adjust cable exit in all directions
- Suitable for cable gland and various types of IP69 connectors
- Drain water large channels guarantee effective and easy cleaning
- Squirrel cage rotor technology for IE3 efficiency
- Stainless steel AISI 304 frame and hygienic design
- Water drain holes suitable for horizontal and vertical mounting

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