

Bearings

Process performance motors are normally fitted with single-row deep-groove ball bearings, as shown in the table below.

If the bearing at the D-end is replaced with a roller bearing (NU- or NJ-), higher radial forces can be handled. Roller bearings are suitable for belt-drive applications and can be ordered with variant code 037.

When high axial forces are involved, angular-contact ball bearings should be used. When ordering a motor with an angular-contact ball bearing, specify also the method of mounting and the direction and magnitude of axial force. The variant codes for ordering angular-contact ball bearings are 058 and 059.

Standard and alternative designs

Motor size	Number of poles	Standard design		Alternative designs		
		Deep groove ball bearings		Roller bearings (037)	Ang. contact ball bearings (058, 059)	
		D-end	N-end	D-end	D-end	N-end
71	2 - 8	6203-2Z/C3	6202-2Z/C3	NU 203 ECP/C3	7203 B	7202 B
80	2 - 8	6204-2Z/C3	6203-2Z/C3	NU 204 ECP/C3	7204 B	7203 B
90	2 - 8	6205-2Z/C3	6204-2Z/C3	NU 205 ECP/C3	7205 B	7204 B
100	2 - 8	6206-2Z/C3	6205-2Z/C3	NU 206 ECP/C3	7206 B	7205 B
112	2 - 8	6206-2Z/C3	6205-2Z/C3	NU 206 ECP/C3	7206 B	7205 B
132	2 - 8	6208-2Z/C3	6208-2Z/C3	NU 208 ECP/C3	7208 B	7208 B
160	2 - 12	6309/C3	6209/C3	NU 309 ECP/C3	7309 B	7209 B
180	2 - 12	6310/C3	6209/C3	NU 310 ECP/C3	7310 B	7209 B
200	2 - 12	6312/C3	6210/C3	NU 312 ECP/C3	7312 B	7210 B
225	2 - 12	6313/C3	6212/C3	NU 313 ECP/C3	7313 B	7212 B
250	2 - 12	6315/C3	6213/C3	NU 315 ECP/C3	7315 B	7213 B
280	2	6316/C3	6316/C3	¹⁾	7316 B	7616 B
	4 - 12	6316/C3	6316/C3	NU 316 ECP/C3	7316 B	7316 B
315	2	6316/C3	6316/C3	¹⁾	7316 B	7316 B
	4 - 12	6319/C3	6316/C3	NU 319 ECP/C3	7319 B	7316 B
355	2	6316M/C3	6316M/C3	¹⁾	7316 B	7316 B
	4 - 12	6322/C3	6316/C3	NU 322 ECP/C3	7322 B	7316 B
400	2	6317M/C3	6317M/C3	¹⁾	7317 B	7317 B
	4 - 12	6324/C3	6319/C3	NU 324 ECP/C3	7324 B	7319 B
450	2	6317M/C3	6317M/C3	¹⁾	7317 B	7317 B
	4 - 12	6326M/C3	6322/C3	NU 326 ECP/C3	7326 B	7322 B

¹⁾ On request

Axially-locked bearings

All motors are equipped as standard with an axially locked bearing at the D-end.

Transport locking

Motors with roller bearings or an angular-contact ball bearing are fitted with a transport lock before dispatch to prevent damage to bearings during transport. A warning sign is attached to motors larger than 250 when transport locking is used.

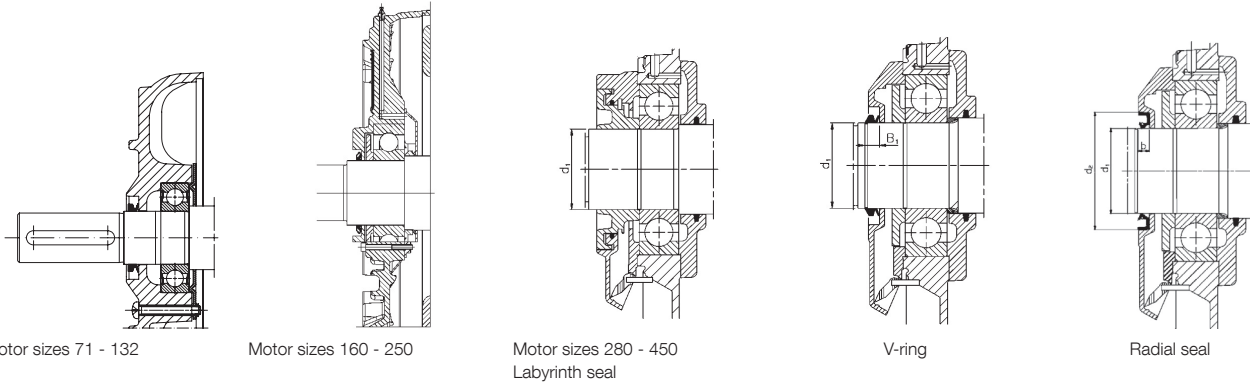
Locking may also be fitted in other cases if severe transport conditions are expected.

Bearing seals

These tables present the standard and alternative sizes and types of bearing seals per motor size.

Bearing seals for motor sizes 71 – 250

Motor size	Number of poles	Standard design		Alternative design
		Axial seal		Radial seal at D-end (DIN 3760)
		D-end	N-end	Variant code 072
71	2 - 12	VA16	Labyrinth seal	17x28x7
80	2 - 12	VA20	Labyrinth seal	20x40x7
90	2 - 12	VA25	Labyrinth seal	25x42x7
100	2 - 12	VA30	Labyrinth seal	30x47x7
112	2 - 12	VA30	Labyrinth seal	30x47x7
132	2 - 12	VA40	VA40	40x62x7
160	2 - 12	RB45	RB45	45x62x8
180	2 - 12	RB50	RB45	50x68x8
200	2 - 12	RB60	RB50	60x80x8
225	2 - 12	RB65	RB60	65x85x10
250	2 - 12	RB75	RB65	75x95x10



Bearing seals for motor sizes 280 - 450

Motor size	Number of poles	Standard design		Alternative design	
		D-end	N-end	D-end	N-end
280	2	Labyrinth seal	VS80	-	Labyrinth seal
280	4 - 12	VS80	VS80	Labyrinth seal	Labyrinth seal
	4 - 12			Radial seal 80x110x10	Radial seal 80x110x10
315	2	Labyrinth seal	VS80	-	Labyrinth seal
315 SM, ML	4 - 12	VS95	VS80	Labyrinth seal	Labyrinth seal
	4 - 12			Radial seal 95x125x10	Radial seal 80x110x10
315 LK	4 - 12	Labyrinth seal	VS80	-	Labyrinth seal
	4 - 12			-	Radial seal 80x110x10
355	2	Labyrinth seal	VS80	-	Labyrinth seal
355	4 - 12	Labyrinth seal	VS80	-	Labyrinth seal
400	2	Labyrinth seal	Labyrinth seal	-	-
400	4 - 12	Labyrinth seal	VS95	-	Labyrinth seal
450	2	Labyrinth seal	Labyrinth seal	-	-
450	4 - 12	Labyrinth seal	Labyrinth seal	-	-

Table is valid for IE2 motors
 Axial seal:
 RB45...75 = Gamma-ring
 VA16...65 = V-ring, type A
 VS80...95 = V-ring, type S