

# 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

		Standard design		Alternative designs		
		Deep groove ball bearings		Roller bearings (037)	Ang. contact ball bearings (058, 059)	
Motor size	Number of poles	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	<sup>1)</sup>	7316 B	7616 B
	4 - 12	6316/C3	6316/C3	NU 316 ECP/C3	7316 B	7316 B
315	2	6316/C3	6316/C3	<sup>1)</sup>	7316 B	7316 B
	4 - 12	6319/C3	6316/C3	NU 319 ECP/C3	7319 B	7316 B
355	2	6316M/C3	6316M/C3	<sup>1)</sup>	7316 B	7316 B
	4 - 12	6322/C3	6316/C3	NU 322 ECP/C3	7322 B	7316 B
400	2	6317M/C3	6317M/C3	<sup>1)</sup>	7317 B	7317 B
	4 - 12	6324/C3	6319/C3	NU 324 ECP/C3	7324 B	7319 B
450	2	6317M/C3	6317M/C3	<sup>1)</sup>	7317 B	7317 B
	4 - 12	6326M/C3	6322/C3	NU 326 ECP/C3	7326 B	7322 B

<sup>1)</sup> 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.

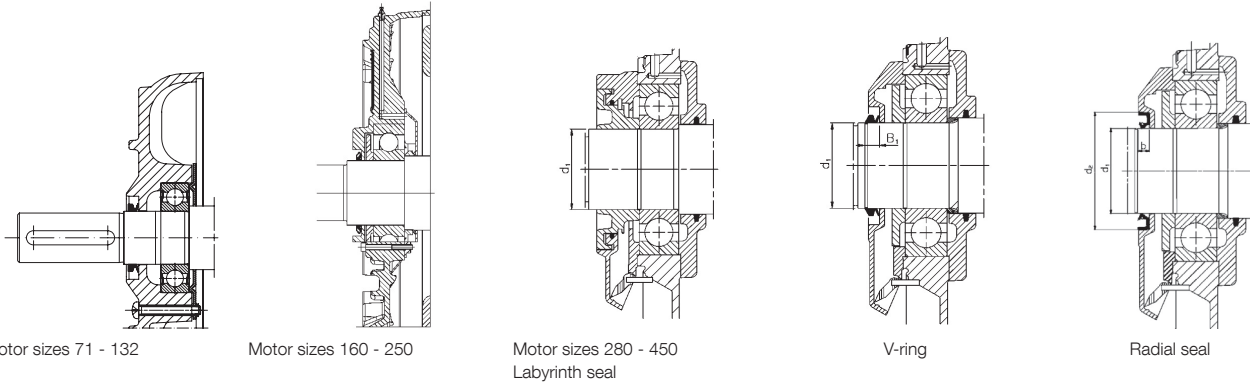
Locking may also be fitted in other cases if severe transport conditions are expected.

## 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
		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