BH series

Rossi

Motor bell housings

rossi.com

Contents

1

General information

Section contents

General information 1

1.1

Design features

General information

The scope of this catalog is to present our range of motor bell housings designed to fit Rossi G series helical and bevel helical gearboxes with motors.
The production planning includes the connection of electric motors with gear reducers by means of flexible coupling.
Connection available for:

- IEC standard electric motors, mounting position IM B5, from size 132 to size 315.
- NEMA standard electric motors, TC flange, from size N180TC to size N440TC

Connection available for gear reducers, helical and bevel helical type, from size 125 to size 360.

Available executions:

Helical gearboxes:
2I - 3I / UP2A std
2I – 3I / UP2D Consult us

Bevel helical gearboxes:
CI – C2I / UO2A std
CI – C2I / UO2V std
CI – C2I / UO2H std with BH fitted on extension 1
CI – C2I / UO2H std with BH fitted on extension 2
CI / UO2D std with BH fitted on extension 2

BH bell housing not available for following non-standard designs:

- Independent cooling fan (except double extension high speed shaft)
- ATEX design
- Labyrinth seals on high input shaft

When selecting a gearbox with bell housing it is recommended to verify the service factor of the selected drives on the basis of motor power and motor speed and in accordance with gearbox nominal performances stated on G catalog.
To assure the proper reliability to the gearbox, according to the application, please consult instructions stated on Rossi G cat. Cap. 3 - Service factor.

Housing

Housings are designed to deliver optimal strength and stiffness performance. They are equipped as standard with inspection windows to ensure high reliability.
They are made of nodular cast iron suitable for a range of temperature between -20°C and +50°C . It is also possible to supply solutions for environment conditions that exceed these values. In case please contact us.

Coupling

Flexible couplings are the standard solution provided.
Design temperature: -30°C / +50°C . We can also provide various types of couplings (geared, flexible all-steel, etc.) for applications with environmental conditions exceeding the aforementioned temperature limits, as well as for ATEX environments. Please contact us for more information.

1.2 Designation

BH 65×550

MOTOR FRAME

(Ød × ØP)	IEC frame size 132 … 315
N180 … N440 TC	NEMA frame size; TC = T shaft C flange

BELL HOUSING

1.3 Assembly instructions

Housing

Thoroughly clean and degrease all mating surfaces. Screws class 8.8 or 10.9, where indicated, must be used to fit bell housing to the gearbox.

Use 10.9 screws tightened to the torque values specified for 8.8 screws. A torque wrench must be used. Do not apply lubricants that could alter the friction coefficient, as this may lead to overloading the screws.
Always check the tightening torque after the first few hours of operation.
Motor connection bolts are always included.

Coupling

It is crucial to ensure that the initial axial and radial alignment is as precise as possible. This will help accommodate changes in operating conditions and ensure the coupling's long-term reliability and trouble-free performance.
Assembly of "Half-coupling" motor side (in case of motor assembling not realized by Rossi) :
- Remove the rubber components.
- Connect the hub to the motor shaft using the spacer provided, placing it between the motor shaft shoulder and the coupling hub.

It is recommended to heat the hub (up to a maximum of 80°C) during assembly to facilitate installation.
- Re-assemble the rubber components.

To ensure reliable coupling performance, it is recommended to use electric motors with mating tolerances that meet the accuracy standards specified in IEC 60072-1.

For the assembly of non-standard couplings, feasibility must be verified. In such cases, please refer to the specific supplier documentation.

1.4

Verifications

Maximum bending torque

Verify that the static bending torque (Mb) generated by the motor weight on the counter flange of the gear reducer is lower than the maximum allowable value (Mbmax) specified in the following pages:

$$M_b < M_{bmax}$$

where:

$M_b = G \cdot (X + E) / 1\,000\,000$ [kN m]

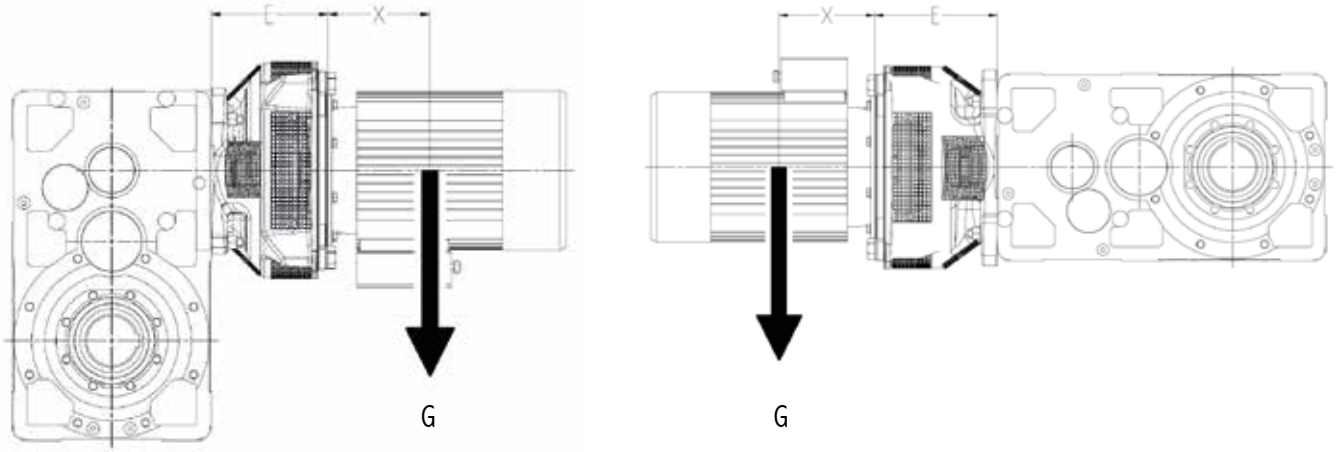
G [N] motor weight; numerically nearly equal to motor mass, expressed in kg, multiplied by 10

X [mm] distance from motor center of gravity to motor flange surface

E [mm] supplied in the following pages, according to gear reducer and motor size

Very long and thin motors, even if their bending torques are within the prescribed limits, may generate abnormal vibrations during operation. In such cases, it is necessary to provide additional motor support as outlined in the motor's specific documentation.

Higher-than-permissible loads may occur in dynamic applications where the gearmotor is subjected to translation, rotation, or oscillation (e.g., shaft mounting arrangements). Please consult us for a detailed analysis of each specific case.



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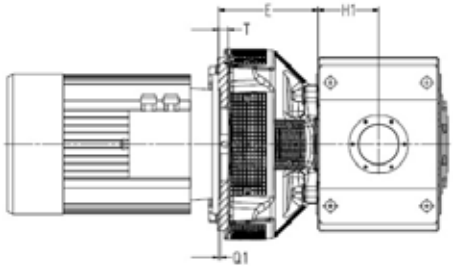
Selection tables

Section contents

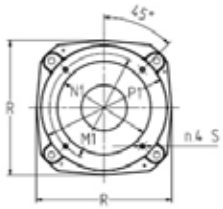
2.1

Main dimensions

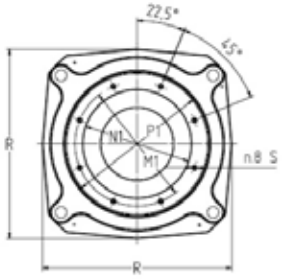
R 2I motor bell housing for IEC standard motors



2I



160 … 200



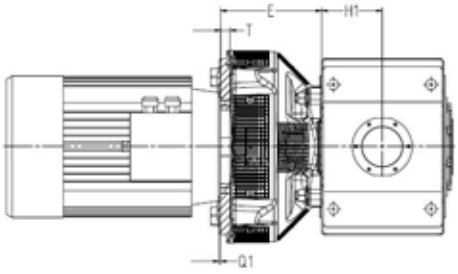
225 … 315

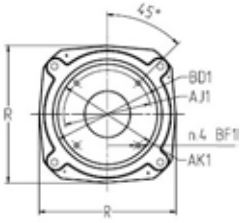
Gear reducer size	Motor frame B5	E	P1 ø	M1 ø	N1 ø G7	Q1	T	S	R	M_{bmax} 2)	Δm kg	Designation
140	**160**	230	360	300	250	6	34	M16	435	1500	52	BH42×350
	180	230	360	300	250	6	34	M16	435		52	BH48×350
	200	230	410	350	300	6	34	M16	435		52	BH55×400
	225	300	460	400	350	6	38	M16	610		110	BH60×450
160, 180	**160**	260	360	300	250	6	34	M16	435	3400	59	BH42×350
	180	260	360	300	250	6	34	M16	435		59	BH48×350
	200	260	410	350	300	6	34	M16	435		59	BH55×400
	225	300	460	400	350	6	38	M16	610		111	BH60×450
	250	300	560	500	450	6	38	M16	610		113	BH65×550
	280	300 1)	560	500	450	6	38	M16	610		119	BH75×550
200, 225	**180**	260	360	300	250	6	34	M16	435	6800	59	BH48×350
	200	260	410	350	300	6	34	M16	435		59	BH55×400
	225	320	460	400	350	6	38	M16	610		131	BH60×450
	250	320	560	500	450	6	38	M16	610		133	BH65×550
	280	320	560	500	450	6	38	M16	610		139	BH75×550
	315	352 1)	660	600	550	9	57	M22*	660		160	BH80×660 BH90×660
250, 280	**225**	320	460	400	350	6	38	M16	610	12000	131	BH60×450
	250	320	560	500	450	6	38	M16	610		133	BH65×550
	280	358	560	500	450	6	38	M16	610		160	BH75×550
	315	352	660	600	550	9	57	M22*	660		160	BH80×660 BH90×660
320, 321	**280**	358	560	500	450	6	38	M16	610	25000	160	BH75×550
	315	388	660	600	550	9	57	M22*	660		180	BH80×660 BH90×660
360	**280**	358	560	500	450	6	38	M16	610		160	BH75×550
	315	388	660	600	550	9	57	M22*	660		180	BH80×660 BH90×660

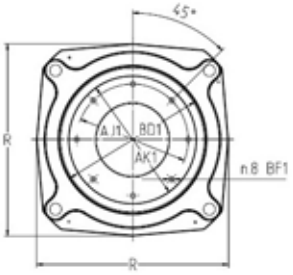
* Working length of thread 1.5 S.
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque page 8.

For available executions see page 6.

R 2I motor bell housing for NEMA standard motors, T shaft, C flange







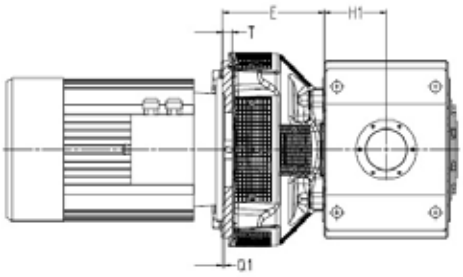
2I **N210TC … 320TC** **N360TC … 440TC**

Gear reducer size	NEMA motor frame	E	NEMA C-FACE Input side BD1 ø in	AJ1 ø in	AK1 ø in G7	Q1 in	T in	BF1 in	R	M_{bmax} 2)	Δm kg	Designation
140	**N210TC**	213	9.251	7.25	8.5	0.213	0.614	0.551	335	1500	34	BHN210TC
	N250TC	230	9.251	7.25	8.5	0.213	1.339	0.551	435		58	BHN250TC
	N280TC	230	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
	N320TC	230	–	11	12.5	0.213	1.339	0.669	435		58	BHN320TC
160, 180	**N250TC**	291	9.251	7.25	8.5	0.213	1.339	0.551	435	3400	58	BHN250TC
	N280TC	260	11.417	9	10.5	0.213	1.339	0.551	435		62	BHN280TC
	N320TC	291	–	11	12.5	0.213	1.339	0.669	435		58	BHN320TC
	N360TC	300 1)	15.945	11	12.5	0.213	1.496	0.669	610		123	BHN360TC
200, 225	**N280TC**	260	11.417	9	10.5	0.213	1.339	0.551	435	6800	62	BHN280TC
	N320TC	335	–	11	12.5	0.213	1.339	0.669	435		67	BHN320TC
	N360TC	320	15.945	11	12.5	0.213	1.496	0.669	610		143	BHN360TC
	N400TC	320	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN400TC
250, 280	**N360TC**	320	15.945	11	12.5	0.213	1.496	0.669	610	12000	143	BHN360TC
	N400TC	358	15.945	11	12.5	0.213	1.496	0.669	610		172	BHN400TC
	N440TC	358	18.307	14	16	0.213	1.496	0.669	610		181	BHN440TC
320, 321	**N400TC**	461	15.945	11	12.5	0.213	1.496	0.669	610	25000	214	BHN400TC
	N440TC	461	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC
360	**N400TC**	461	15.945	11	12.5	0.213	1.496	0.669	610		214	BHN400TC
	N440TC	461	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC

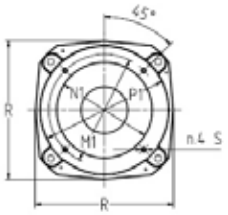
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque page 8.

For available executions see page 6.

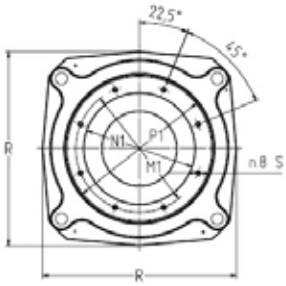
R 3I motor bell housing for IEC standard motors



3I



132 … 200



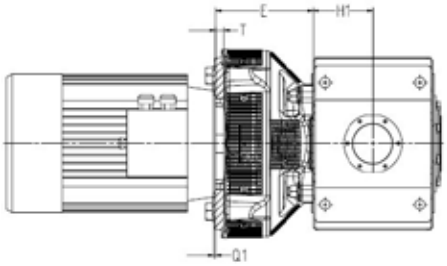
225 … 315

Gear reducer size	Motor frame	E		P1	M1	N1	Q1	T	S	R	M_{bmax}	Δm	Designation
				ø	ø	ø						kg	
	B5	$i_N \leq 63$	$i_N \geq 71$			G7					2)		
140	**132**	213	155	310	265	230	5	16	M12	335		31	BH38×300
	160	230	–	360	300	250	6	34	M16	435	1500	52	BH42×350
	180	230	–	360	300	250	6	34	M16	435		52	BH48×350
160, 180	**160**	230	230	360	300	250	6	34	M16	435		52	BH42×350
	180	230	–	360	300	250	6	34	M16	435	3400	52	BH48×350
	200	230	–	410	350	300	6	34	M16	435		52	BH55×400
	225	300	–	460	400	350	6	38	M16	610		110	BH60×450
200, 225	**160**	260	260	360	300	250	6	34	M16	435		59	BH42×350
	180	260	260	360	300	250	6	34	M16	435		59	BH48×350
	200	260	260	410	350	300	6	34	M16	435		59	BH55×400
	225	320	–	460	400	350	6	38	M16	610	6800	131	BH60×450
	250	320	–	560	500	450	6	38	M16	610		136	BH65×550
	280	320	–	560	500	450	6	38	M16	610		142	BH75×550
250, 280	**200**	270	270	410	350	300	6	34	M16	435		80	BH55×400
	225	320	320	460	400	350	6	38	M16	610		131	BH60×450
	250	320	320	560	500	450	6	38	M16	610		133	BH65×550
	280	320	–	560	500	450	6	38	M16	610	12000	139	BH75×550
	315	352 [1]	–	660	600	550	9	57	M22*	660		159	BH80×660 BH90×660
320, 321	**225**	358	358	460	400	350	6	38	M16	610		152	BH60×450
	250	358	358	560	500	450	6	38	M16	610		157	BH65×550
	280	358	358	560	500	450	6	38	M16	610		163	BH75×550
	315	390	390 [1]	660	600	550	9	57	M22*	660		187	BH80×660 BH90×660
360	**225**	358	358	460	400	350	6	38	M16	610	25000	152	BH60×450
	250	358	358	560	500	450	6	38	M16	610		157	BH65×550
	280	358	358	560	500	450	6	38	M16	610		163	BH75×550
	315	390	390 [1]	660	600	550	9	57	M22*	660		187	BH80×660 BH90×660

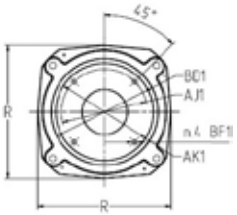
* Working length of thread 1.5 S.
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque page 8.

For available executions see page 6.

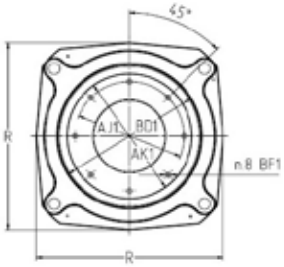
R 3I motor bell housing for NEMA standard motors, T shaft, C flange



3I



N180TC … 320TC



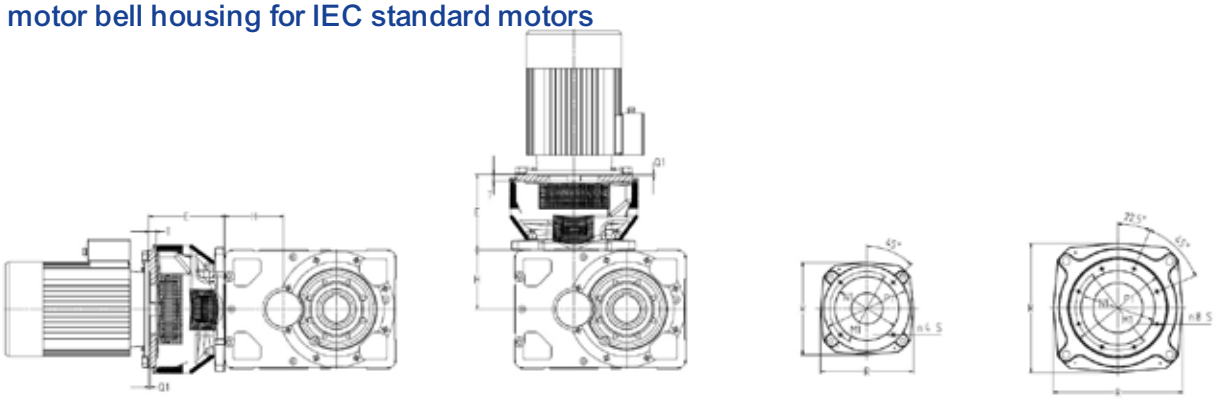
N360TC … 440TC

				NEMA C-FACE Input side									
Gear reducer size	NEMA motor frame	E		BD1 ø in	AJ1 ø in	AK1 ø in G7	Q1 in	T in	BF1 in	R	M_{bmax} 2)	Δm kg	Designation
		$i_N \leq 63$	$i_N \geq 71$										
140	**N180TC**	155	155	9.251	7.25	8.5	0.213	0.614	0.551	335	1500	30	BHN180TC
	N210TC	213	155	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	230	–	9.251	7.25	8.5	0.213	1.339	0.551	435		58	BHN250TC
	N280TC	230	–	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
160, 180	**N180TC**	–	155	9.251	7.25	8.5	0.213	0.614	0.551	335	3400	30	BHN180TC
	N210TC	213	213	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	230	230	9.251	7.25	8.5	0.213	1.339	0.551	435		58	BHN250TC
	N280TC	230	230	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
	N320TC	230	–	–	11	12.5	0.213	1.339	0.669	435		58	BHN320TC
	N360TC	300	–	15.945	11	12.5	0.213	1.496	0.669	610		124	BHN360TC
200, 225	**N210TC**	–	236	9.251	7.25	8.5	0.213	0.614	0.551	335	6800	41	BHN210TC
	N250TC	260	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	260	260	11.417	9	10.5	0.213	1.339	0.551	435		64	BHN280TC
	N320TC	335	260	–	11	12.5	0.213	1.339	0.669	435		67	BHN320TC
	N360TC	320	–	15.945	11	12.5	0.213	1.496	0.669	610		143	BHN360TC
	N400TC	320	–	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN400TC
250, 280	**N250TC**	–	270	9.251	7.25	8.5	0.213	1.339	0.551	435	12000	84	BHN250TC
	N280TC	270	270	11.417	9	10.5	0.213	1.339	0.551	435		84	BHN280TC
	N320TC	270	270	–	11	12.5	0.213	1.339	0.669	435		84	BHN320TC
	N360TC	320	320	15.945	11	12.5	0.213	1.496	0.669	610		143	BHN360TC
	N400TC	320	320	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN400TC
	N440TC	358 1)	–	18.307	14	16	0.213	1.496	0.669	610		181	BHN440TC
320, 321	**N320TC**	346	270	–	11	12.5	0.213	1.339	0.669	435	25000	98	BHN320TC
	N360TC	358	358	15.945	11	12.5	0.213	1.496	0.669	610		164	BHN360TC
	N400TC	358	358	15.945	11	12.5	0.213	1.496	0.669	610		181	BHN400TC
	N440TC	358	358 1)	18.307	14	16	0.213	1.496	0.669	610		181	BHN440TC
360	**N320TC**	346	270	–	11	12.5	0.213	1.339	0.669	435		98	BHN320TC
	N360TC	358	358	15.945	11	12.5	0.213	1.496	0.669	610		164	BHN360TC
	N400TC	358	358	15.945	11	12.5	0.213	1.496	0.669	610		181	BHN400TC
	N440TC	358	358 1)	18.307	14	16	0.213	1.496	0.669	610		181	BHN440TC

1) Valid for motor 447/9TC - Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque page 8.

For available executions see page 6.

R CI motor bell housing for IEC standard motors

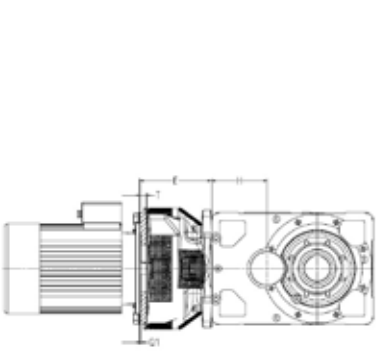


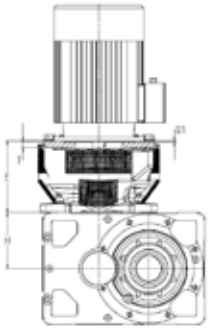
CI

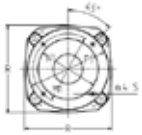
132 … 200 **225 … 315**

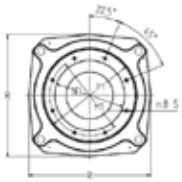
Gear reducer size	Motor frame	E						P1	M1	N1	Q1	T	S	R	M_{bmax}	Δm	Designation
		UO2A / UO2A sin 3)			UO2V / UO2V sin 3)			ø	ø	ø					2)	kg	
	B5	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$			G7							
125	**132**	–	213	213	–	213	213	310	265	230	5	16	M12	335		31	BH38×300
	160	291	230	230	291	230	230	360	300	250	6	34	M16	435	1500	52	BH42×350
	180	291	230	230	291	230	230	360	300	250	6	34	M16	435		52	BH48×350
	200	291	230 1)	–	291	230 1)	–	410	350	300	6	34	M16	435		52	BH55×400
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
140	**132**	–	213	213	–	213	213	310	265	230	5	16	M12	335		31	BH38×300
	160	291	230	230	291	230	230	360	300	250	6	34	M16	435	1500	52	BH42×350
	180	291	230	230	291	230	230	360	300	250	6	34	M16	435		52	BH48×350
	200	291	230 1)	–	291	230 1)	–	410	350	300	6	34	M16	435		52	BH55×400
		$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$										
160	**160**	–	291	291	–	291	291	360	300	250	6	34	M16	435		52	BH42×350
	180	–	291	291	–	291	291	360	300	250	6	34	M16	435	3400	52	BH48×350
	200	335	291	260	335	291	260	410	350	300	6	34	M16	435		65	BH55×400
	225	422	300	300	422	300	300	460	400	350	6	38	M16	610		137	BH60×450
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
180	**160**	–	291	291	–	291	291	360	300	250	6	34	M16	435		52	BH42×350
	180	–	291	291	–	291	291	360	300	250	6	34	M16	435	3400	52	BH48×350
	200	335	291	260	335	291	260	410	350	300	6	34	M16	435		65	BH55×400
	225	422	300	300	422	300	300	460	400	350	6	38	M16	610		137	BH60×450
		$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$										
200	**160**	–	–	335	–	–	335	360	300	250	6	34	M16	435		65	BH42×350
	180	–	–	335	–	–	335	360	300	250	6	34	M16	435		65	BH48×350
	200	–	335	335	–	335	335	410	350	300	6	34	M16	435		65	BH55×400
	225	–	422	320	–	422	320	460	400	350	6	38	M16	610	6800	137	BH60×450
	250	422	422	320	422	422	320	560	500	450	6	38	M16	610		144	BH65×550
	280	422	320	320 1)	422	320	320 1)	560	500	450	6	38	M16	610		150	BH75×550
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
225	**160**	–	–	335	–	–	335	360	300	250	6	34	M16	435		65	BH42×350
	180	–	–	335	–	–	335	360	300	250	6	34	M16	435		65	BH48×350
	200	–	335	335	–	335	335	410	350	300	6	34	M16	435		65	BH55×400
	225	–	422	320	–	422	320	460	400	350	6	38	M16	610	6800	137	BH60×450
	250	422	422	320	422	422	320	560	500	450	6	38	M16	610		144	BH65×550
	280	422	320	320 1)	422	320	320 1)	560	500	450	6	38	M16	610		150	BH75×550
		$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$										
250	**200**	–	–	346	–	–	346	410	350	300	6	34	M16	435		91	BH55×400
	225	–	–	358	–	–	358	460	400	350	6	38	M16	610		153	BH60×450
	250	–	358	358	–	358	358	560	500	450	6	38	M16	610	12000	153	BH65×550
	280	461	358	358	461	358	358	560	500	450	6	38	M16	610		160	BH75×550
	315	493	390 1)	390 1)	493	390 1)	390 1)	660	600	550	9	57	M22*	660		180	BH80×660 BH90×660
		$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$										
280	**200**	–	–	346	–	–	346	410	350	300	6	34	M16	435		91	BH55×400
	225	–	–	358	–	–	358	460	400	350	6	38	M16	610		153	BH60×450
	250	–	358	358	–	358	358	560	500	450	6	38	M16	610	12000	153	BH65×550
	280	461	358	358	461	358	358	560	500	450	6	38	M16	610		160	BH75×550
	315	493	390 1)	390 1)	493	390 1)	390 1)	660	600	550	9	57	M22*	660		180	BH80×660 BH90×660
		$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$										
320, 321	**280**	–	461	461	–	461	461	560	500	450	6	38	M16	610		200	BH75×550
	315	493	493	493	493	493	493	660	600	550	9	57	M22*	660	25000	227	BH80×660 BH90×660
		$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$										
360	**280**	–	461	461	–	461	461	560	500	450	6	38	M16	610		200	BH75×550
	315	493	493	493	493	493	493	660	600	550	9	57	M22*	660	25000	227	BH80×660 BH90×660

R CI motor bell housing for NEMA standard motors, T shaft, C flange









CI

N180TC … 320TC

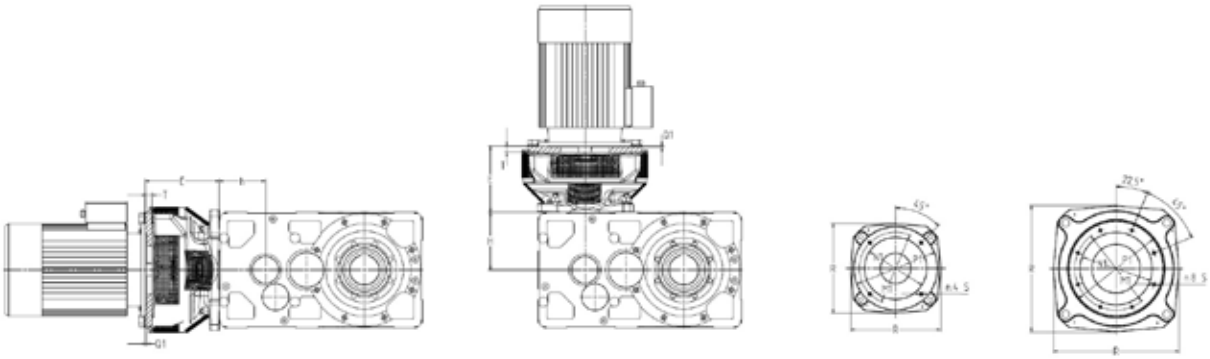
N360TC … 440TC

Gear reducer size	NEMA motor frame	E						NEMA C-FACE Input side						R	M_{bmax}	Δm	Designation
		UO2A / UO2A sin 4)			UO2V / UO2V sin 4)			BD1 ø in	AJ1 ø in	AK1 ø in G7	Q1 in	T in	BF1 in		3)	kg	
		$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$										
125	**N180TC**	–	–	213	–	–	213	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN180TC
	N210TC	–	213	213	–	213	213	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	291	230	230	291	230	230	9.251	7.25	8.5	0.213	1.339	0.551	435	1500	58	BHN250TC
	N280TC	291	291	291	291	291	291	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
	N320TC	291	291 [1)]	–	291	291 [1)]	–	–	11	12.5	0.213	1.339	0.669	435		58	BHN320TC
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
140	**N180TC**	–	–	213	–	–	213	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN180TC
	N210TC	–	213	213	–	213	213	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	291	230	230	291	230	230	9.251	7.25	8.5	0.213	1.339	0.551	435	1500	58	BHN250TC
	N280TC	291	291	291	291	291	291	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
	N320TC	291	291 [1)]	–	291	291 [1)]	–	–	11	12.5	0.213	1.339	0.669	435		58	BHN320TC
		$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$										
160	**N210TC**	–	–	236	–	–	236	9.251	7.25	8.5	0.213	0.614	0.551	335		41	BHN210TC
	N250TC	–	–	260	–	–	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	–	291	291	–	291	291	11.417	9	10.5	0.213	1.339	0.551	435	3400	55	BHN280TC
	N320TC	335	291	335	335	291	335	–	11	12.5	0.213	1.339	0.669	435		69	BHN320TC
	N360TC	422	300	300	422	300	300	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN360TC
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
180	**N210TC**	–	–	236	–	–	236	9.251	7.25	8.5	0.213	0.614	0.551	335		41	BHN210TC
	N250TC	–	–	260	–	–	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	–	291	291	–	291	291	11.417	9	10.5	0.213	1.339	0.551	435	3400	55	BHN280TC
	N320TC	335	291	335	335	291	335	–	11	12.5	0.213	1.339	0.669	435		69	BHN320TC
	N360TC	422	300	300	422	300	300	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN360TC
		$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 8$	$9 \le i_N \le 16$	$i_N \ge 18$										
200	**N250TC**	–	–	260	–	–	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	–	–	335	–	–	335	11.417	9	10.5	0.213	1.339	0.551	435		69	BHN280TC
	N320TC	–	335	335	–	335	335	–	11	12.5	0.213	1.339	0.669	435	6800	69	BHN320TC
	N360TC	–	422	320	–	422	320	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN360TC
	N400TC	422	422	320	422	422	320	15.945	11	12.5	0.213	1.496	0.669	610		159	BHN400TC
		$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 9$	$10 \le i_N \le 16$	$i_N \ge 18$										
225	**N250TC**	–	–	260	–	–	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	–	–	335	–	–	335	11.417	9	10.5	0.213	1.339	0.551	435		69	BHN280TC
	N320TC	–	335	335	–	335	335	–	11	12.5	0.213	1.339	0.669	435	6800	69	BHN320TC
	N360TC	–	422	320	–	422	320	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN360TC
	N400TC	422	422	320	422	422	320	15.945	11	12.5	0.213	1.496	0.669	610		159	BHN400TC
		$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$										
250	**N320TC**	–	–	346	–	–	346	–	11	12.5	0.213	1.339	0.669	435		94	BHN320TC
	N360TC	–	–	461	–	–	461	15.945	11	12.5	0.213	1.496	0.669	610	12000	204	BHN360TC
	N400TC	–	461	461	–	461	461	15.945	11	12.5	0.213	1.496	0.669	610		212	BHN400TC
	N440TC	461	461 [1) 2)]	461 [1) 2)]	461	461 [1) 2)]	461 [1) 2)]	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC
		$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$										
280	**N320TC**	–	–	346	–	–	346	–	11	12.5	0.213	1.339	0.669	435		94	BHN320TC
	N360TC	–	–	461	–	–	461	15.945	11	12.5	0.213	1.496	0.669	610	12000	204	BHN360TC
	N400TC	–	461	461	–	461	461	15.945	11	12.5	0.213	1.496	0.669	610		212	BHN400TC
	N440TC	461	461 [1) 2)]	461 [1) 2)]	461	461 [1) 2)]	461 [1) 2)]	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC
		$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 10$	$11,2 \le i_N \le 16$	$i_N \ge 18$										
320, 321	**N440TC**	556	556	556	556	556	556	18.307	14	16	0.213	1.496	0.669	610	25000	239	BHN440TC
		$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$	$i_N \le 11,2$	$12,5 \le i_N \le 16$	$i_N \ge 18$										
360	**N440TC**	556	556	556	556	556	556	18.307	14	16	0.213	1.496	0.669	610	25000	239	BHN440TC

Notes of page 16:
*) Working length of thread 15 · S.
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque see page 8.
3) For available executions see page 6.

Notes of page 17:
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Verification valid for motor 447/9TC.
3) Max bending torque see page 8.
4) For available executions see page 6.

R C2I motor bell housing for IEC standard motors

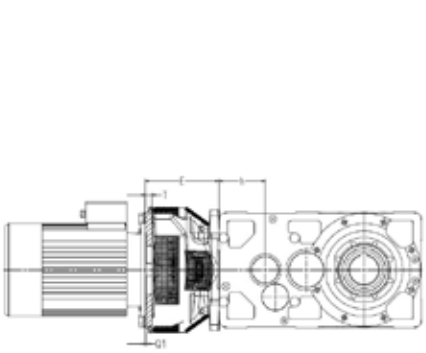


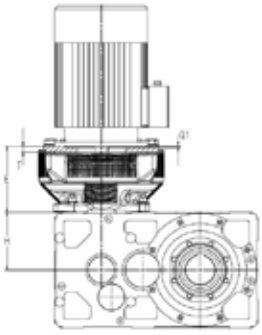
C2I **132 … 200** **225 … 315**

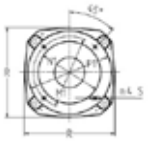
Gear reducer size	Motor frame	E						P	M	N	Q	T	S	R	M_{bmax}	Δm	Designation
		UO2A / UO2A sin 3)			UO2V / UO2V sin 3)			ø	ø	ø						kg	
	B5	$i_N \leq 31,5$	$35,5 \leq i_N \leq 63$	$i_N \geq 71$	$i_N \leq 31,5$	$35,5 \leq i_N \leq 63$	$i_N \geq 71$			G7					2)		
140	**132**	213	213	213	213	155	155	310	265	230	5	16	M12	335		31	BH38×300
	160	230	230	–	230	230	–	360	300	250	6	34	M16	435	1500	52	BH42×350
	180	230	–	–	230	–	–	360	300	250	6	34	M16	435		52	BH48×350
160, 180	**160**	291	260	230	260	230	230	360	300	250	6	34	M16	435		59	BH42×350
	180	291	260	–	260	230	–	360	300	250	6	34	M16	435	3400	59	BH48×350
	200	291	230 1)	–	260	230 1)	–	410	350	300	6	34	M16	435		59	BH55×400
	225	300	–	–	300	–	–	460	400	350	6	38	M16	610		111	BH60×450
200, 225	**160**	335	260	260	335	260	260	360	300	250	6	34	M16	435		65	BH42×350
	180	335	260	260	335	260	260	360	300	250	6	34	M16	435		65	BH48×350
	200	335	260	260	335	260	260	410	350	300	6	34	M16	435	6800	65	BH55×400
	225	422	320	–	320	320	–	460	400	350	6	38	M16	610		137	BH60×450
	250	422	320	–	320	320	–	560	500	450	6	38	M16	610		144	BH65×550
	280	422	–	–	320	–	–	560	500	450	6	38	M16	610		150	BH75×550
250, 280	**200**	–	346	270	–	270	270	410	350	300	6	34	M16	435		91	BH55×400
	225	358	358	320	320	320	320	460	400	350	6	38	M16	610		153	BH60×450
	250	358	358	320	320	320	320	560	500	450	6	38	M16	610	12000	153	BH65×550
	280	358	320	–	320	320	–	560	500	450	6	38	M16	610		160	BH75×550
	315	390 1)	352 1)	–	352 1)	352 1)	–	660	600	550	9	57	M22*	660		180	BH80×660 BH90×660
320, 321	**225**	–	358	358	–	358	358	460	400	350	6	38	M16	610		152	BH60×450
	250	461	358	358	358	358	358	560	500	450	6	38	M16	610		193	BH65×550
	280	461	358	358	358	358	358	560	500	450	6	38	M16	610		200	BH75×550
	315	493	390 1)	390 1)	390	390 1)	390 1)	660	600	550	9	57	M22*	660		227	BH80×660 BH90×660
360	**225**	–	358	358	–	358	358	460	400	350	6	38	M16	610	25000	152	BH60×450
	250	461	358	358	358	358	358	560	500	450	6	38	M16	610		193	BH65×550
	280	461	358	358	358	358	358	560	500	450	6	38	M16	610		200	BH75×550
	315	493	390 1)	390 1)	390	390 1)	390 1)	660	600	550	9	57	M22*	660		227	BH80×660 BH90×660

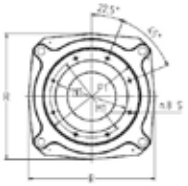
*) Working length of thread 1.5 S.
1) Possible combination upon usable key length verification at shear and specific pressure.
2) Max bending torque see page 8.
3) For available executions see page 6.

R C2I motor bell housing for NEMA standard motors, T shaft, C flange









C2I

N180TC … 320TC

N360TC ... 440TC

Gear reducer size	NEMA motor frame	E						NEMA C-FACE Input side									Designation
		UO2A / UO2A sin 4)			UO2V / UO2V sin 4)			BD1 ø in	AJ1 ø in	AK1 ø in G7	Q1 in	T in	BF1 in	R	M_{bmax} 3)	Δm kg	
		$i_N \le 31,5$	$35,5 \le i_N \le 63$	$i_N \ge 71$	$i_N \le 31,5$	$35,5 \le i_N \le 63$	$i_N \ge 71$										
140	**N180TC**	–	155	155	–	155	155	9.251	7.25	8.5	0.213	0.614	0.551	335	1500	30	BHN180TC
	N210TC	213	213	155	213	155	155	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	291	230	–	230	230	–	9.251	7.25	8.5	0.213	1.339	0.551	435		58	BHN250TC
	N280TC	291	–	–	230	–	–	11.417	9	10.5	0.213	1.339	0.551	435		58	BHN280TC
160, 180	**N180TC**	–	–	213	–	–	155	9.251	7.25	8.5	0.213	0.614	0.551	335	3400	34	BHN180TC
	N210TC	–	213	213	–	213	155	9.251	7.25	8.5	0.213	0.614	0.551	335		34	BHN210TC
	N250TC	260	230	230	130	230	230	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	291	260	–	260	230	–	11.417	9	10.5	0.213	1.339	0.551	435		64	BHN280TC
	N320TC	291	291 1)	–	260	291 1)	–	–	11	12.5	0.213	1.339	0.669	435		64	BHN320TC
200, 225	**N210TC**	–	–	236	–	–	236	9.251	7.25	8.5	0.213	0.614	0.551	335	6800	41	BHN210TC
	N250TC	–	260	260	–	260	260	9.251	7.25	8.5	0.213	1.339	0.551	435		64	BHN250TC
	N280TC	335	335	335	335	260	260	11.417	9	10.5	0.213	1.339	0.551	435		69	BHN280TC
	N320TC	335	335	335	335	260	260	–	11	12.5	0.213	1.339	0.669	435		69	BHN320TC
	N360TC	422	320	–	320	320	–	15.945	11	12.5	0.213	1.496	0.669	610		151	BHN360TC
	N400TC	422	–	–	422	–	–	15.945	11	12.5	0.213	1.496	0.669	610		161	BHN400TC
250, 280	**N250TC**	–	–	270	–	–	270	9.251	7.25	8.5	0.213	1.339	0.551	435	12000	86	BHN250TC
	N280TC	–	346	346	–	270	270	11.417	9	10.5	0.213	1.339	0.551	435		94	BHN280TC
	N320TC	–	346	346	–	270	270	–	11	12.5	0.213	1.339	0.669	435		94	BHN320TC
	N360TC	461	358	320	320	320	320	15.945	11	12.5	0.213	1.496	0.669	610		204	BHN360TC
	N400TC	461	461	320	358	358	320	15.945	11	12.5	0.213	1.496	0.669	610		214	BHN400TC
	N440TC	461 1) 2)	461 1) 2)	–	358 1) 2)	358 1) 2)	–	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC
320, 321	**N320TC**	–	346	346	–	270	270	–	11	12.5	0.213	1.339	0.669	435	25000	94	BHN320TC
	N360TC	–	461	461	–	358	358	15.945	11	12.5	0.213	1.496	0.669	610		204	BHN360TC
	N400TC	461	461	461	461	358	358	15.945	11	12.5	0.213	1.496	0.669	610		214	BHN400TC
	N440TC	461	461 1) 2)	461 1) 2)	461	358 1) 2)	358 1) 2)	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC
360	**N320TC**	–	346	346	–	270	270	–	11	12.5	0.213	1.339	0.669	435		94	BHN320TC
	N360TC	–	461	461	–	358	358	15.945	11	12.5	0.213	1.496	0.669	610		204	BHN360TC
	N400TC	461	461	461	461	358	358	15.945	11	12.5	0.213	1.496	0.669	610		214	BHN400TC
	N440TC	461	461 1) 2)	461 1) 2)	461	358 1) 2)	358 1) 2)	18.307	14	16	0.213	1.496	0.669	610		221	BHN440TC

1) Possible combination upon usable key length verification at shear and specific pressure.
2) Verification valid for motor 447/9TC.
3) Max bending torque page 8.
4) For available executions see page 6.

Solutions for an evolving industry

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