

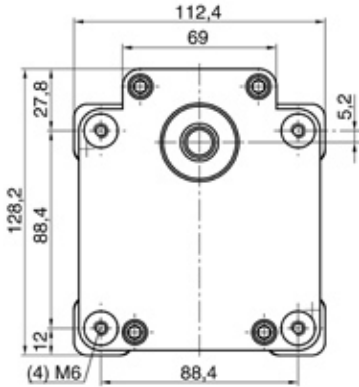


series **K200**
25 Nm

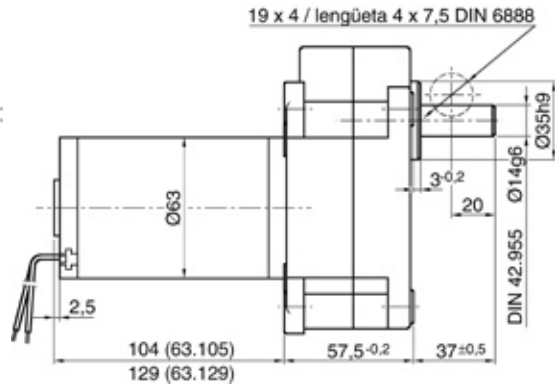
GEARBOX



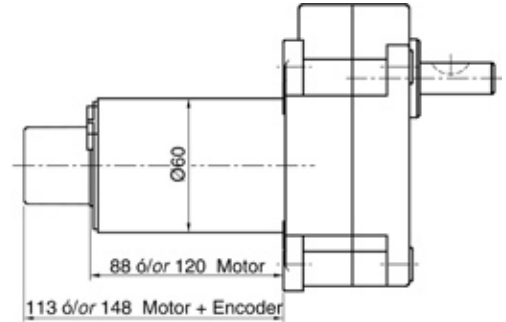
WITH DC. MOTORS



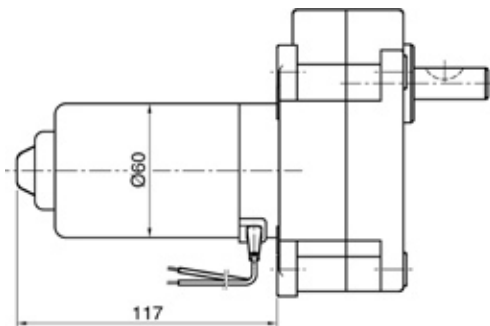
K200-Mounting



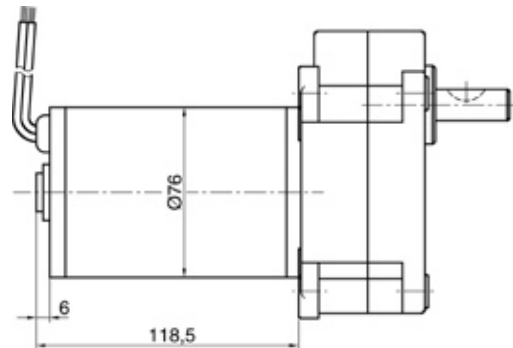
K200-63.105
K200-63.129



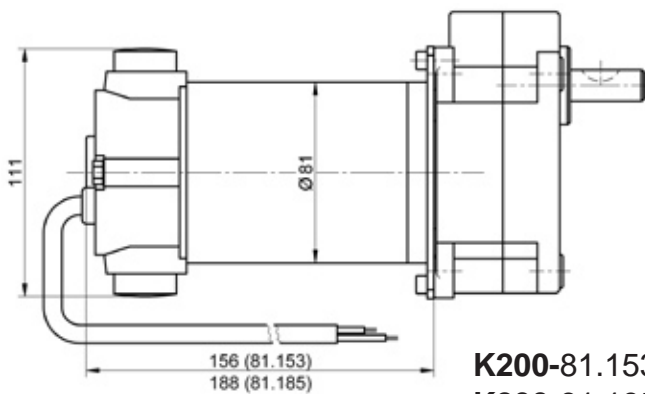
K200-60D-60ENC



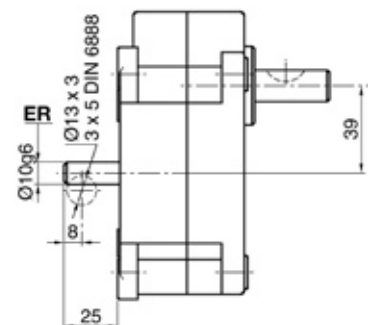
K200-60.120



K200-76.114

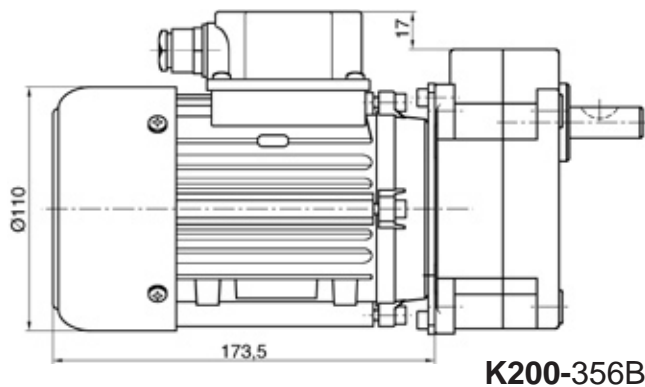


K200-81.153
K200-81.185

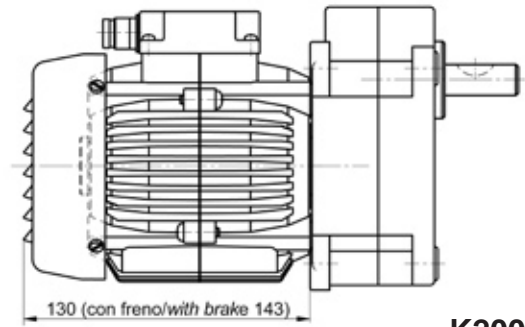


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\varnothing 14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N \approx 100 Kg.
Axial push.	750 N \approx 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **AC Motors:**
 - ASYNCHRONOUS motors series 356B, 230/400V.50Hz.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\varnothing 142$ mm circle, rotor shaft up to $\varnothing 10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\varnothing 26$ or centring registration 45 or $\varnothing 75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
- **K200 ER-10 VERSION.** Incorporates a $\varnothing 10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

			Motor Asíncrono <i>Asynchronous Motor</i>	
			356B..4 - .T4	
Reducción Ratio $i = X:1$	Nº Pasos <i>Stages</i>	Factor de par <i>Torque factor</i>	Velocidad en vacío <i>No load speed Vo (r.p.m.)</i>	Par Nominal <i>Nominal torque (N.m)</i>
5,01	2	4,06	273	2,59
8,00	2	6,48	170	4,15
9,81	2	7,95	140	5,06
12,26	2	9,93	112	6,33
15,73	2	12,74	87	8,12
19,72	3	14,38	69	9,17
24,11	3	17,58	57	11,21
30,10	3	21,94	46	14,00
32,70	3	23,84	42	15,20
36,80	3	26,83	37	17,07
38,62	3	28,15	35	17,96
43,39	3	31,63	32	20,00
47,20	3	34,41	29	Ex par/torque máx. 25 N.m
55,67	3	40,58	24	
63,98	3	46,64	21	
73,68	4	48,34	19	
80,21	4	52,63	17	
90,31	4	59,25	15	
98,04	4	64,32	14	
110,38	4	72,42	12	
130,17	4	85,40	11	
141,60	4	92,90	10	
166,99	4	109,56	8	
202,82	4	133,07	7	
226,37	4	148,52	6	
260,19	4	170,71	5	
335,38	5	198,04	4	
409,89	5	242,04	3	
638,66	5	377,12	2	

Ex Excede el máximo par admisible
 Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.

WARNING: The load might reduce final speed up to 40%.

VALORES NOMINALES/RATED VALUES

Motor 356B.T4= 1.370 r.p.m./0,637 N.m.

RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.

Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.

Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.

Load torque. Overloading of the output shaft will reduce the gearbox life.

Warning. Impact on the output when engaging the load could damage the gearbox.

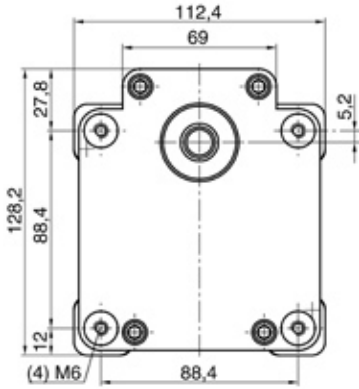


series **K200**
25 Nm

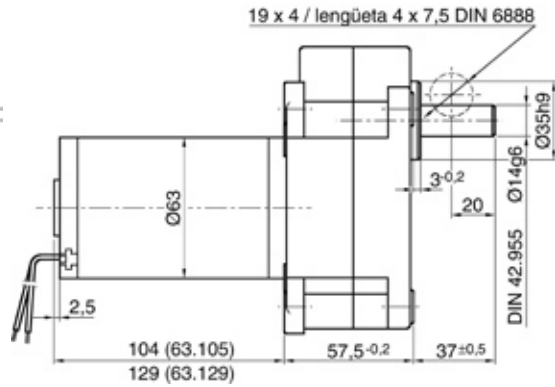
GEARBOX



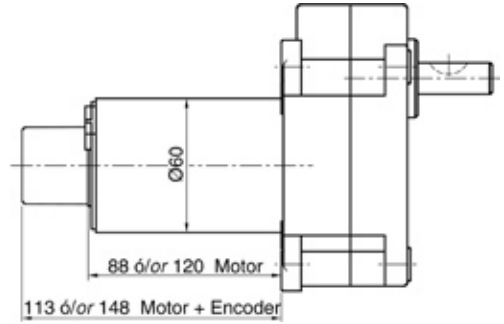
WITH DC. MOTORS



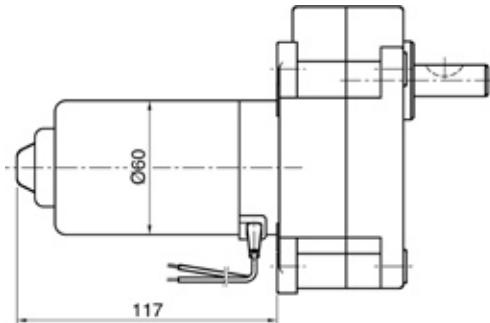
K200-Mounting



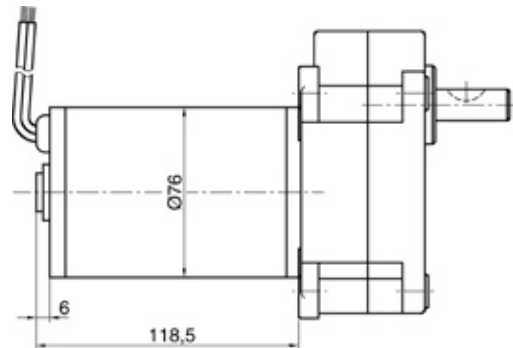
K200-63.105
K200-63.129



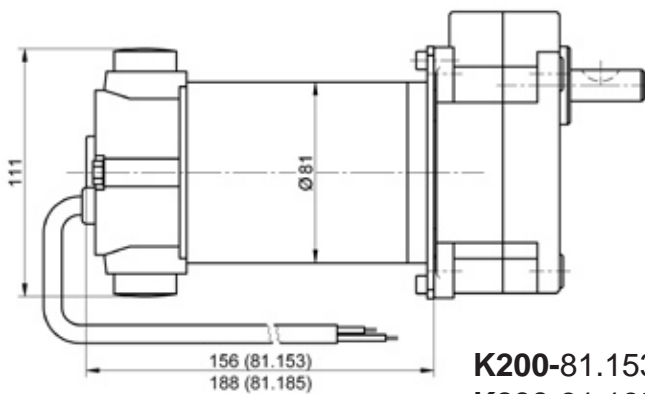
K200-60D-60ENC



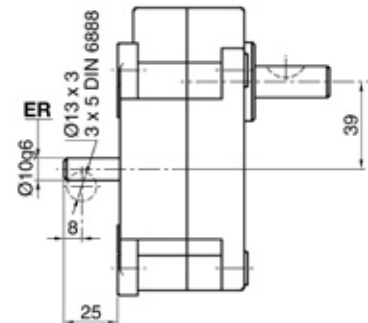
K200-60.120



K200-76.114

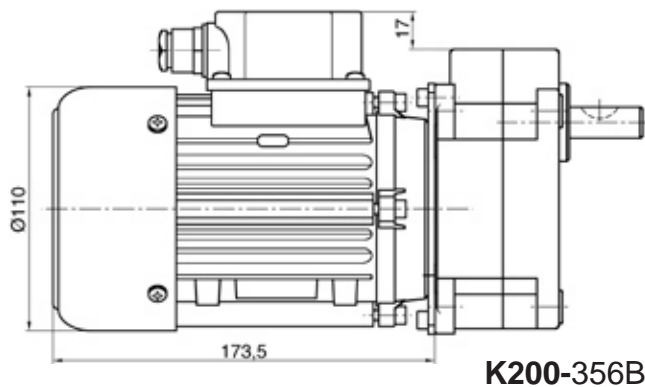


K200-81.153
K200-81.185

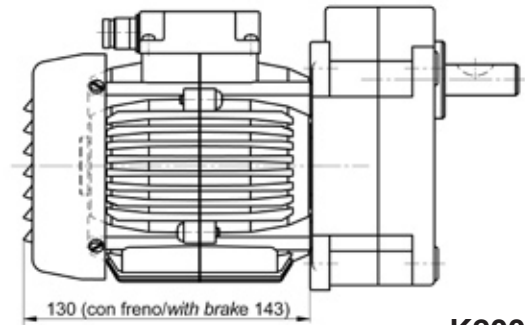


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\text{Ø}14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**
 - Axial pull. 1,000 N \approx 100 Kg.
 - Axial push. 750 N \approx 75 Kg.
 - Radial, at 15 mm. from the flange. 1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 60.120 at 12 and 24 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\text{Ø}142$ mm circle, rotor shaft up to $\text{Ø}10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\text{Ø}26$ or centring registration 45 or $\text{Ø}75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
 - **K200 ER-10 VERSION.** Incorporates a $\text{Ø}10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

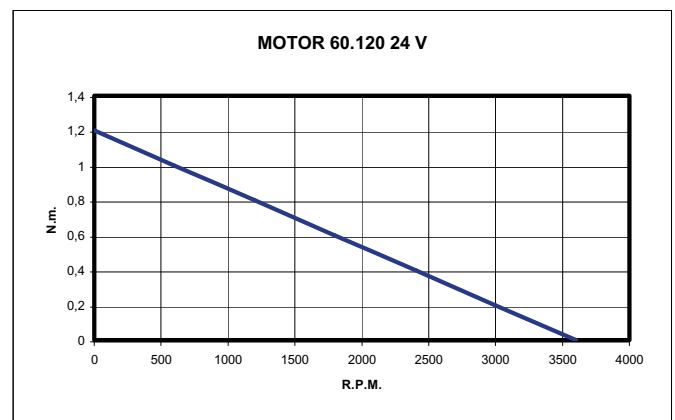
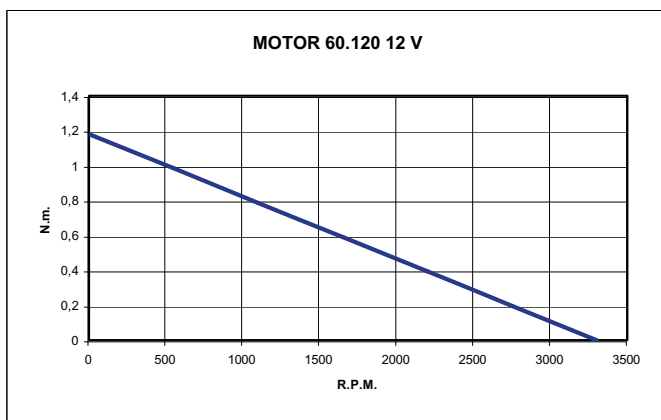
			MOTORES DE C.C. - DC MOTORS					
			Serie/Series : 60.120					
			12 V			24 V		
Reducción Ratio i = X:1	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	659	559	0,73	719	599	0,81
7,65	2	6,20	431	366	1,12	471	392	1,24
9,81	2	7,95	336	285	1,43	367	306	1,59
12,31	3	8,97	268	227	1,62	292	244	1,79
15,04	3	10,96	219	186	1,97	239	199	2,19
18,78	3	13,69	176	149	2,46	192	160	2,74
20,39	3	14,86	162	137	2,68	177	147	2,97
22,95	3	16,73	144	122	3,01	157	131	3,35
27,07	3	19,73	122	103	3,55	133	111	3,95
29,45	3	21,47	112	95	3,86	122	102	4,29
34,74	3	25,33	95	81	4,56	104	86	5,07
39,92	3	29,10	83	70	5,24	90	75	5,82
45,14	4	29,62	73	62	5,33	80	66	5,92
50,06	4	32,84	66	56	5,91	72	60	6,57
56,35	4	36,97	59	50	6,65	64	53	7,39
68,87	4	45,19	48	41	8,13	52	44	9,04
76,38	4	50,11	43	37	9,02	47	39	10,02
88,36	4	57,97	37	32	10,44	41	34	11,59
98,00	4	64,30	34	29	11,57	37	31	12,86
119,78	4	78,59	28	23	14,15	30	25	15,72
162,37	4	106,53	20	17	19,18	22	18	20,00
187,49	5	110,71	18	15	19,93	19	16	22,14
199,39	5	117,74	17	14	21,19	18	15	23,55
209,31	5	123,60	16	13	22,25	17	14	24,72
229,15	5	135,31	14	12	24,36	16	13	Ex
255,82	5	151,06	13	11	Ex	14	12	Ex
270,20	5	159,55	12	10,4	Ex	13	11	Ex
294,00	5	173,60	11	9,5	Ex	12	10	Ex
346,78	5	204,77	10	8	Ex	10	9	Ex
398,54	5	235,33	8	7	Ex	9	8	Ex

Ex Excede el máximo par admisible
Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.
WARNING: The load might reduce final speed up to 40%.

**VELOCIDAD EN VACIO/PAR NOMINAL
NO LOAD SPEED/NOMINAL TORQUE**
Motor 60.120-12 V= 3.300 r.p.m./0,18 N.m.
Motor 60.120-24 V= 3.600 r.p.m./0,20 N.m.

CURVAS - CURVES



RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.
Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.
Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.
Load torque. Overloading of the output shaft will reduce the gearbox life.
Warning. Impact on the output when engaging the load could damage the gearbox.

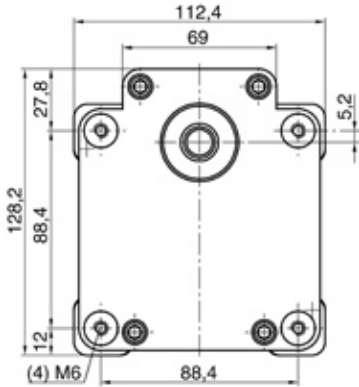


series **K200**
25 Nm

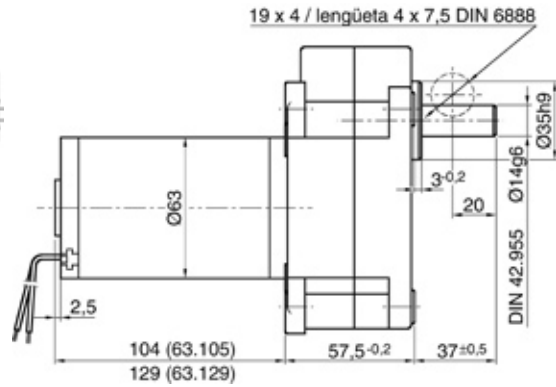
GEARBOX



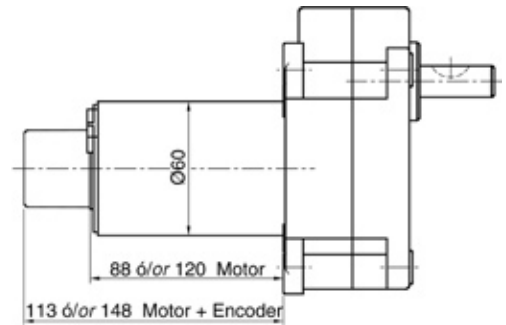
WITH DC. MOTORS



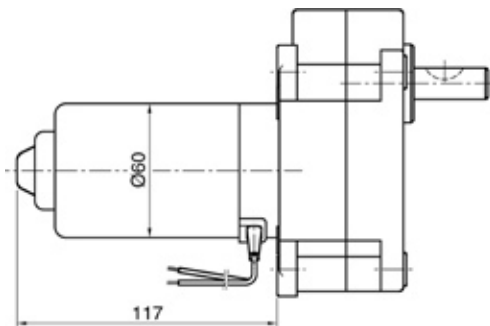
K200-Mounting



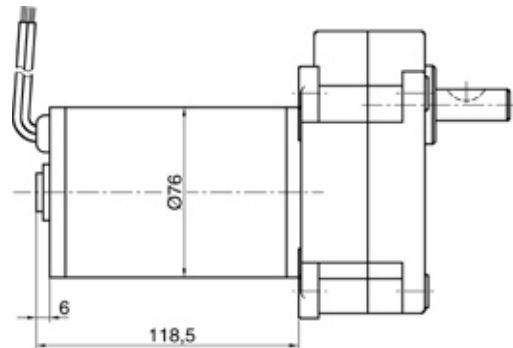
K200-63.105
K200-63.129



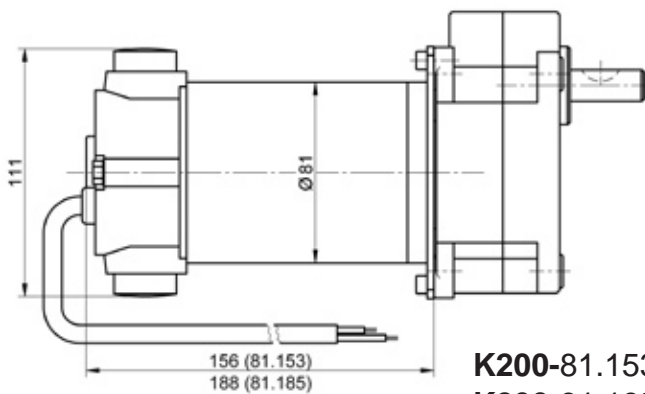
K200-60D-60ENC



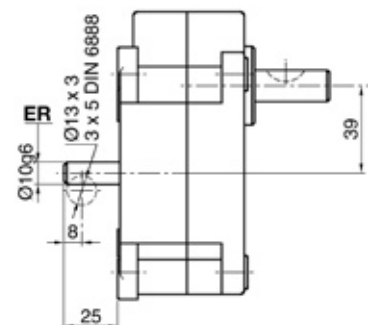
K200-60.120



K200-76.114

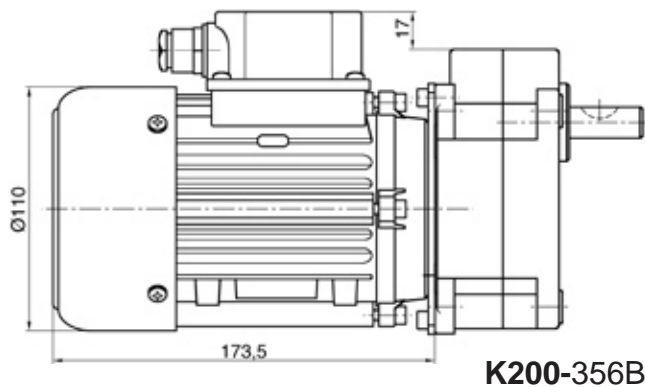


K200-81.153
K200-81.185

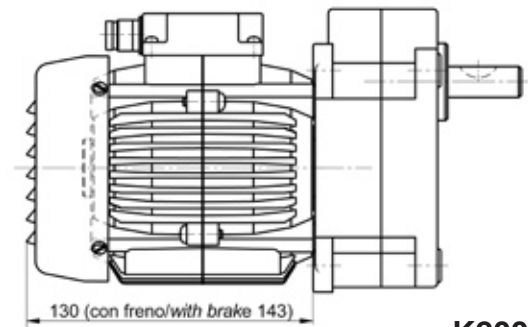


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\varnothing 14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N \approx 100 Kg.
Axial push.	750 N \approx 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 63.105 at 12, 24, 48 and 110 V.
 - Motor 63.129 at 12 and 24 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\varnothing 142$ mm circle, rotor shaft up to $\varnothing 10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\varnothing 26$ or centring registration 45 or $\varnothing 75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
- **K200 ER-10 VERSION.** Incorporates a $\varnothing 10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

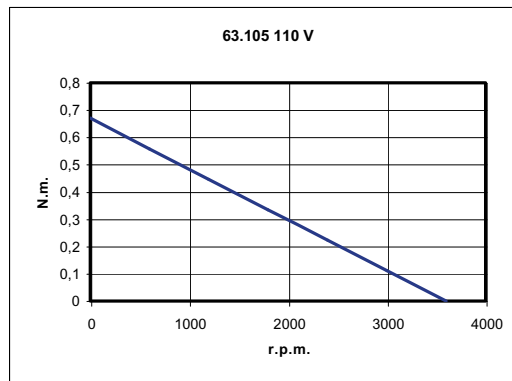
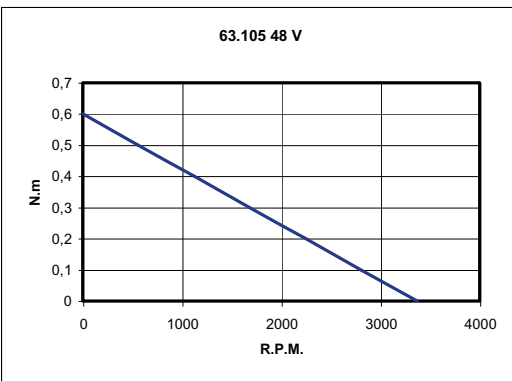
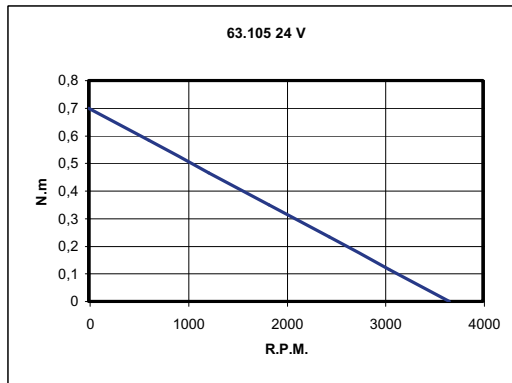
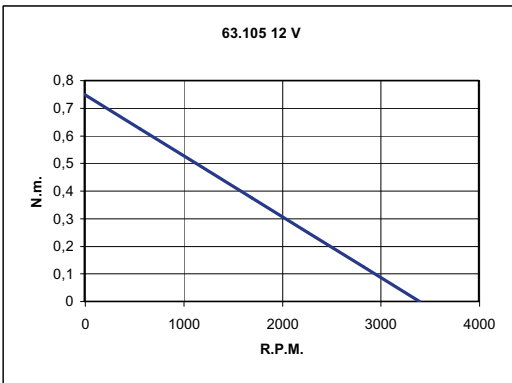
			MOTORES DE C.C. - DC MOTORS Serie/Series : 63.105											
			12 V			24 V			48 V			110 V		
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	679	525	0,69	731	553	0,69	673	519	0,69	719	553	0,69
8,00	2	6,48	425	329	1,10	458	346	1,10	421	325	1,10	450	346	1,10
9,81	2	7,95	347	268	1,35	373	282	1,35	344	265	1,35	367	282	1,35
12,26	2	9,93	277	215	1,69	299	226	1,69	275	212	1,69	294	226	1,69
15,73	2	12,74	216	167	2,17	233	176	2,17	214	165	2,17	229	176	2,17
19,72	3	14,38	172	133	2,44	186	140	2,44	171	132	2,44	183	140	2,44
24,11	3	17,58	141	109	2,99	152	115	2,99	140	108	2,99	149	115	2,99
30,10	3	21,94	113	87	3,73	122	92	3,73	112	86	3,73	120	92	3,73
32,70	3	23,84	104	80	4,05	112	85	4,05	103	80	4,05	110	85	4,05
36,80	3	26,83	92	71	4,56	99	75	4,56	92	71	4,56	98	75	4,56
38,62	3	28,15	88	68	4,79	95	72	4,79	87	67	4,79	93	72	4,79
43,39	3	31,63	78	61	5,38	84	64	5,38	78	60	5,38	83	64	5,38
47,20	3	34,41	72	56	5,85	78	59	5,85	71	55	5,85	76	59	5,85
55,67	3	40,58	61	47	6,90	66	50	6,90	61	47	6,90	65	50	6,90
63,98	3	46,64	53	41	7,93	57	43	7,93	53	41	7,93	56	43	7,93
73,68	4	48,34	46	36	8,22	50	38	8,22	46	35	8,22	49	38	8,22
80,21	4	52,63	42	33	8,95	46	35	8,95	42	32	8,95	45	35	8,95
90,31	4	59,25	38	29	10,07	41	31	10,07	37	29	10,07	40	31	10,07
98,04	4	64,32	35	27	10,94	37	28	10,94	34	27	10,94	37	28	10,94
110,38	4	72,42	31	24	12,31	33	25	12,31	31	24	12,31	33	25	12,31
130,17	4	85,40	26	20	14,52	28	21	14,52	26	20	14,52	28	21	14,52
141,60	4	92,90	24	19	15,79	26	20	15,79	24	18	15,79	25	20	15,79
166,99	4	109,56	20	16	18,63	22	17	18,63	20	16	18,63	22	17	18,63
226,37	4	148,52	15	12	20,00	16	12	20,00	15	11	20,00	16	12	20,00
260,19	4	170,71	13	10	Ex	14	11	Ex	13	10	Ex	14	11	Ex
335,38	5	198,04	10	8	Ex	11	8	Ex	10	8	Ex	11	8	Ex
409,89	5	242,04	8	6	Ex	9	7	Ex	8	6	Ex	9	7	Ex
638,66	5	377,12	5	4	Ex	6	4	Ex	5	4	Ex	6	4	Ex

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.
WARNING: The load might reduce final speed up to 40%.

**VELOCIDAD EN VACÍO/PAR NOMINAL
 NO LOAD SPEED/NOMINAL TORQUE**
 Motor 63.105-12 V= 3.400 r.p.m./0,17 N.m.
 Motor 63.105-24 V= 3.660 r.p.m./0,17 N.m.
 Motor 63.105-48 V= 3.370 r.p.m./0,17 N.m.
 Motor 63.105-110 V= 3.600 r.p.m./0,17 N.m.

Ex Excede el máximo par admisible
 Exceeds maximal admissible torque

CURVAS - CURVES



RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.
Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.
Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

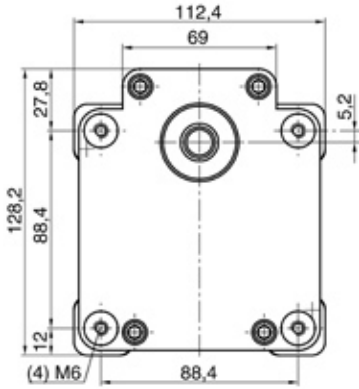
Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.
Load torque. Overloading of the output shaft will reduce the gearbox life.
Warning. Impact on the output when engaging the load could damage the gearbox.



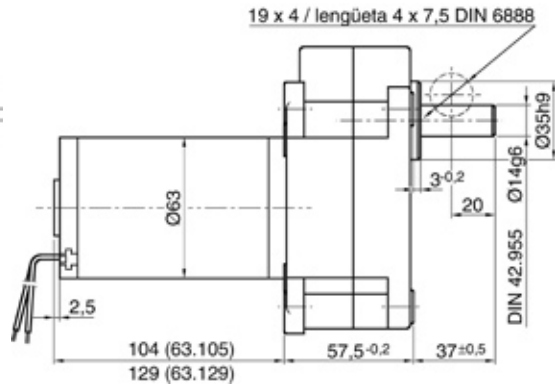
series **K200**
25 Nm

GEARBOX 

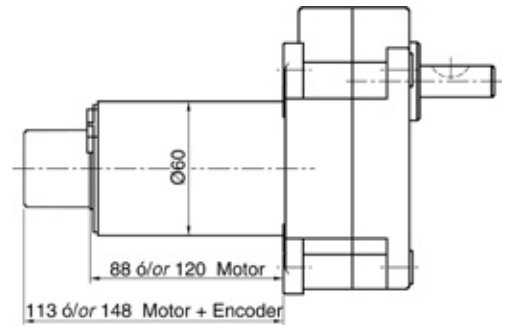
WITH DC. MOTORS



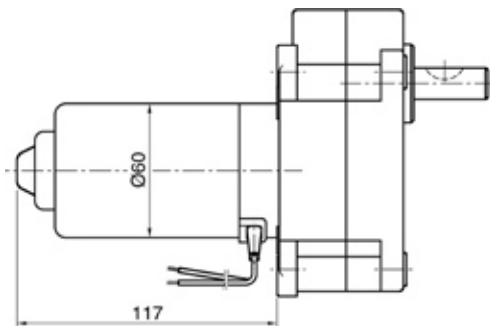
K200-Mounting



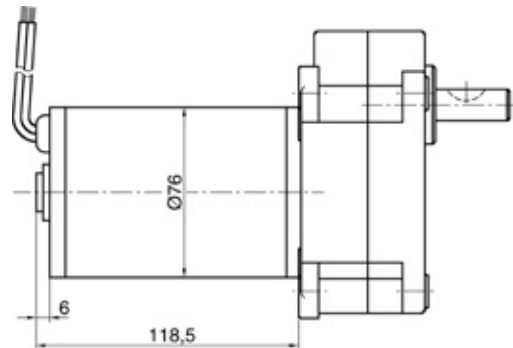
K200-63.105
K200-63.129



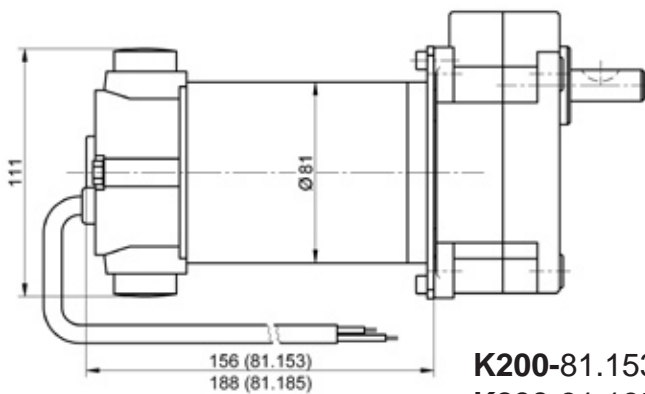
K200-60D-60ENC



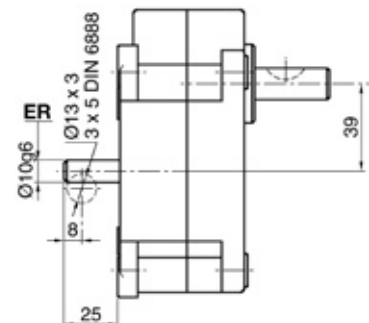
K200-60.120



K200-76.114

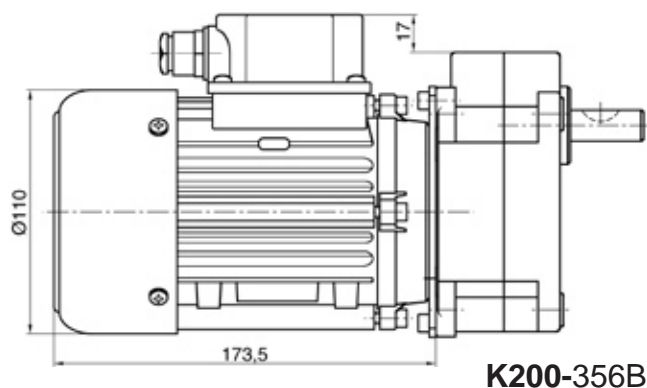


K200-81.153
K200-81.185

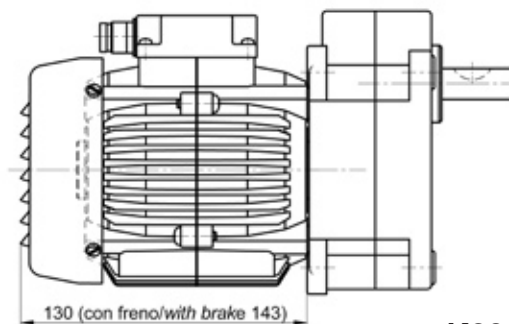


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\varnothing 14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N \approx 100 Kg.
Axial push.	750 N \approx 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 63.129 at 12 and 24 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\varnothing 142$ mm circle, rotor shaft up to $\varnothing 10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\varnothing 26$ or centring registration 45 or $\varnothing 75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
- **K200 ER-10 VERSION.** Incorporates a $\varnothing 10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

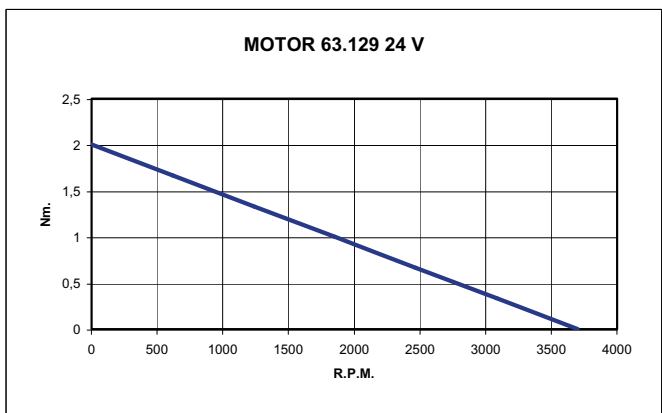
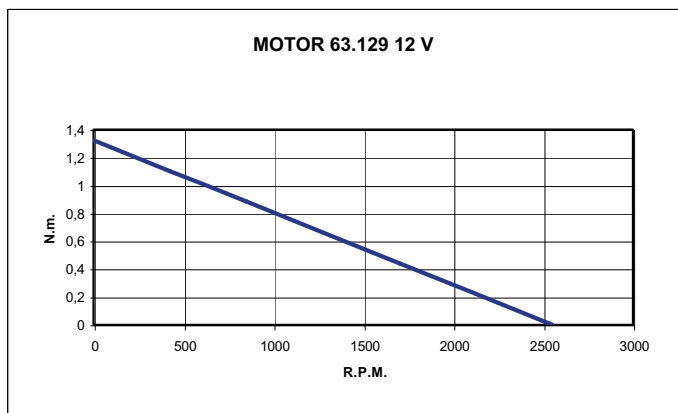
			MOTORES DE C.C. - DC MOTORS					
			Serie/Series : 63.129					
			12 V			24 V		
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	510	404	1,11	739	639	1,10
8,00	2	6,48	319	253	1,78	463	400	1,75
9,81	2	7,95	260	206	2,18	377	326	2,15
12,26	2	9,93	208	165	2,73	302	261	2,68
15,73	2	12,74	162	129	3,50	235	203	3,44
19,72	3	14,38	129	103	3,95	188	162	3,88
24,11	3	17,58	106	84	4,83	153	133	4,75
30,10	3	21,94	85	67	6,03	123	106	5,92
32,70	3	23,84	78	62	6,55	113	98	6,44
36,80	3	26,83	69	55	7,37	101	87	7,24
38,62	3	28,15	66	52	7,73	96	83	7,60
43,39	3	31,63	59	47	8,69	85	74	8,54
47,20	3	34,41	54	43	9,45	78	68	9,29
55,67	3	40,58	46	36	11,15	66	57	10,96
63,98	3	46,64	40	32	12,81	58	50	12,59
73,68	4	48,34	35	27	13,28	50	43	13,05
80,21	4	52,63	32	25	14,46	46	40	14,21
90,31	4	59,25	28	22	16,28	41	35	16,00
98,04	4	64,32	26	21	17,67	38	33	17,37
110,38	4	72,42	23	18	19,89	34	29	19,55
130,17	4	85,40	20	16	20,00	28	25	20,00
141,60	4	92,90	18	14	Ex par/torque máx. 25 N.m	26	23	Ex par/torque máx. 25 N.m
166,99	4	109,56	15	12		22	19	
226,37	4	148,52	11	9		16	14	
260,19	4	170,71	10	8		14	12	
335,38	5	198,04	8	6	11	10	Ex	
409,89	5	242,04	6	5	9	8		
638,66	5	377,12	4	3	6	5		

Ex Excede el máximo par admisible
Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.
WARNING: The load might reduce final speed up to 40%.

VELOCIDAD EN VACÍO/PAR NOMINAL
NO LOAD SPEED/NOMINAL TORQUE
Motor 63.129-12 V= 2.553 r.p.m./0,275 N.m.
Motor 63.129-24 V= 3.700 r.p.m./0,270 N.m.

CURVAS - CURVES



RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.
Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.
Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

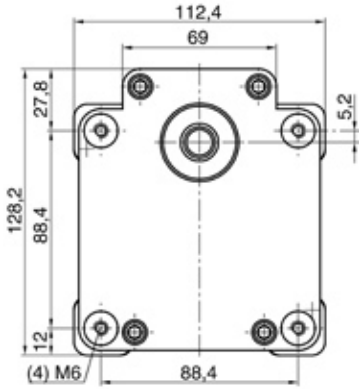
Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.
Load torque. Overloading of the output shaft will reduce the gearbox life.
Warning. Impact on the output when engaging the load could damage the gearbox.



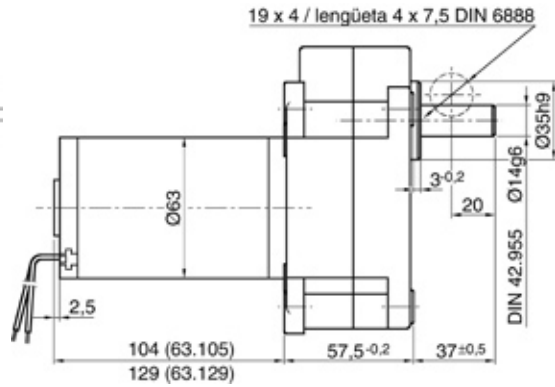
series **K200**
25 Nm

GEARBOX 

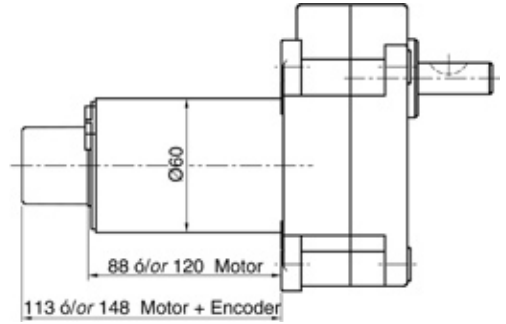
WITH DC. MOTORS



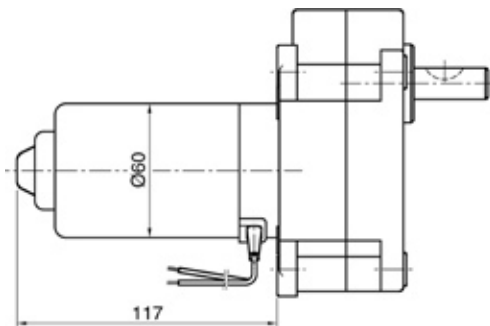
K200-Mounting



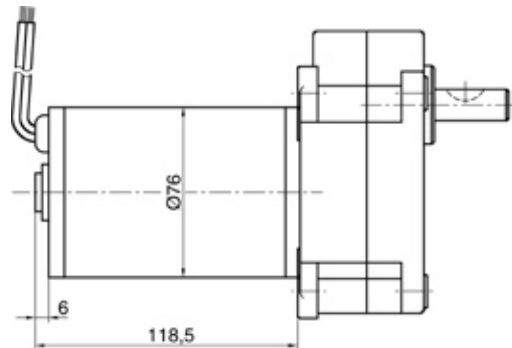
K200-63.105
K200-63.129



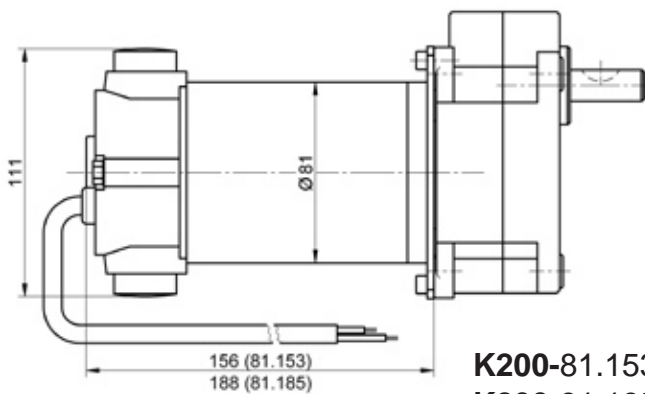
K200-60D-60ENC



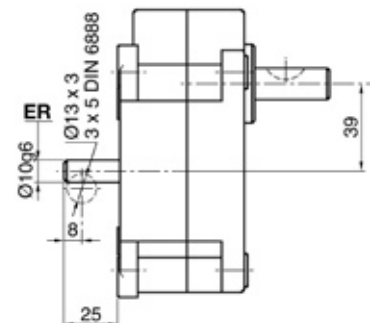
K200-60.120



K200-76.114

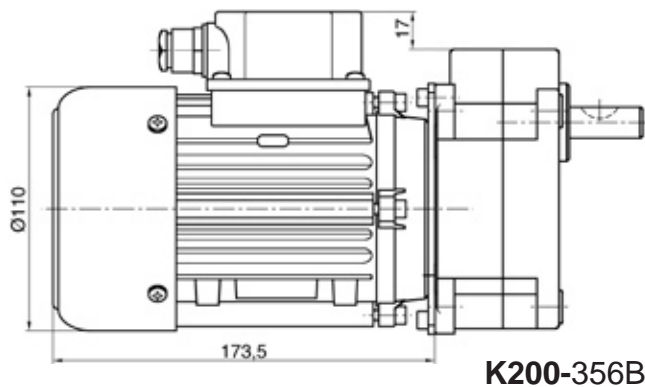


K200-81.153
K200-81.185

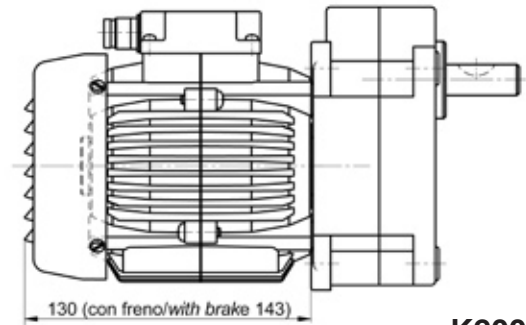


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** Ø 14 mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N ≈ 100 Kg.
Axial push.	750 N ≈ 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N ≈ 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 76.114 at 48 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or Ø142 mm circle, rotor shaft up to Ø10 mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar Ø26 or centring registration 45 or Ø75.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10⁷ gear ratio.
- **K200 ER-10 VERSION.** Incorporates a Ø10 mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

			MOTOR DE C.C. DC MOTOR	
			76.114 - 48 V	
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	798	1,26
8,00	2	6,48	499	2,01
9,81	2	7,95	407	2,46
12,26	2	9,93	327	3,08
15,73	2	12,74	255	3,95
19,72	3	14,38	203	4,46
24,11	3	17,58	166	5,45
30,10	3	21,94	133	6,80
32,70	3	23,84	122	7,39
36,80	3	26,83	109	8,32
38,62	3	28,15	104	8,73
43,39	3	31,63	92	9,81
47,20	3	34,41	85	10,67
55,67	3	40,58	72	12,58
63,98	3	46,64	62	14,46
73,68	4	48,34	55	14,99
80,21	4	52,63	50	16,31
90,31	4	59,25	44	18,37
98,04	4	64,32	41	19,94
110,38	4	72,42	34	22,45
130,17	4	85,40	31	Ex par/torque máx. 25 N.m
141,60	4	92,90	28	
166,99	4	109,56	24	
226,37	4	148,52	18	
260,19	4	170,71	15	
335,38	5	198,04	12	
409,89	5	242,04	9,8	
638,66	5	377,12	7,2	

Ex Excede el máximo par admisible
Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.

WARNING: *The load might reduce final speed up to 40%.*

**VELOCIDAD EN VACIO/PAR NOMINAL
NO LOAD SPEED/NOMINAL TORQUE**

Motor 76.114-48 V= 4.000 r.p.m./0,3 N.m.

RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.

Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.

Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.

Load torque. Overloading of the output shaft will reduce the gearbox life.

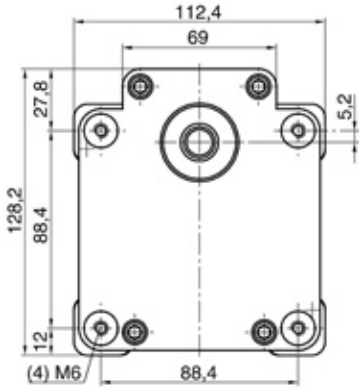
Warning. Impact on the output when engaging the load could damage the gearbox.



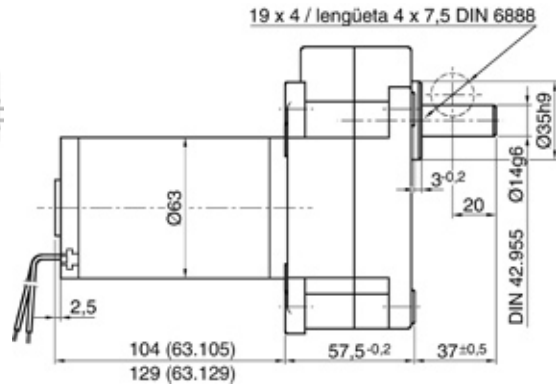
series **K200**
25 Nm

GEARBOX 

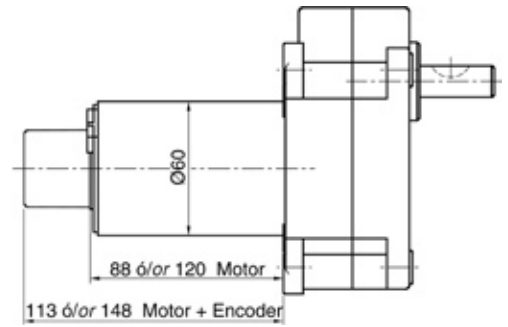
WITH DC. MOTORS



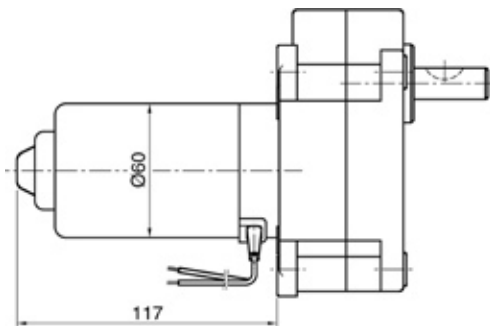
K200-Mounting



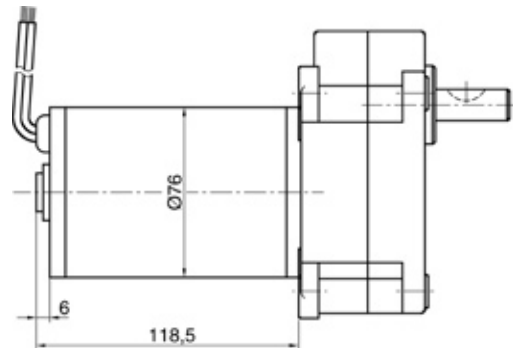
K200-63.105
K200-63.129



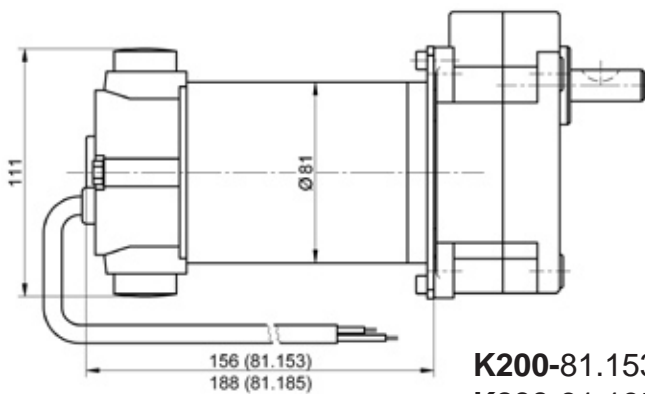
K200-60D-60ENC



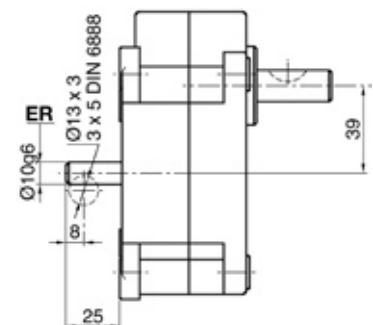
K200-60.120



K200-76.114

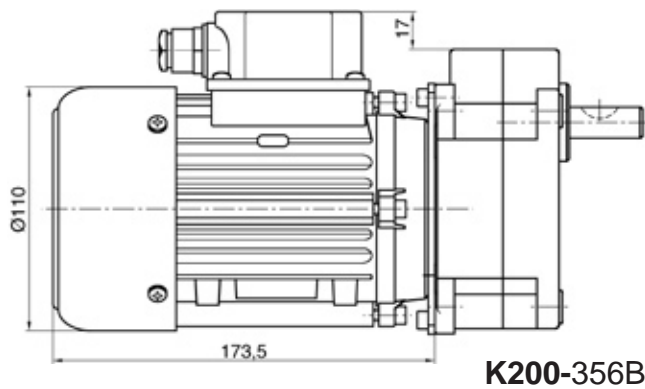


K200-81.153
K200-81.185

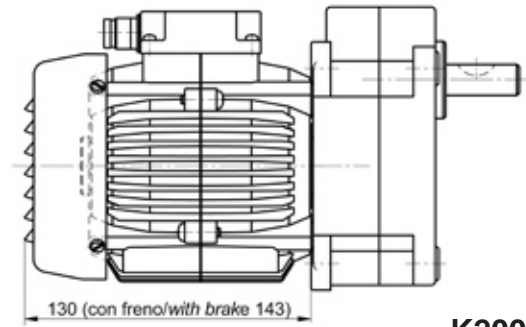


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** Ø 14 mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**
 - Axial pull. 1,000 N ≈ 100 Kg.
 - Axial push. 750 N ≈ 75 Kg.
 - Radial, at 15 mm. from the flange. 1,000 N ≈ 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 81.153 at 12 and 24 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or Ø142 mm circle, rotor shaft up to Ø10 mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar Ø26 or centring registration 45 or Ø75.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10⁷ gear ratio.
 - **K200 ER-10 VERSION.** Incorporates a Ø10 mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

			MOTORES DE C.C. - <i>DC MOTORS</i>					
			Serie/Series : 81.153					
			12 V			24 V		
Reducción Ratio i = X:1	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	659	599	1,26	659	599	1,26
7,65	2	6,20	431	392	1,92	431	392	1,92
9,81	2	7,95	336	306	2,46	336	306	2,46
12,31	3	8,97	268	244	2,78	268	244	2,78
15,04	3	10,96	219	199	3,40	219	199	3,40
18,78	3	13,69	176	160	4,24	176	160	4,24
20,39	3	14,86	162	147	4,61	162	147	4,61
22,95	3	16,73	144	131	5,19	144	131	5,19
27,07	3	19,73	122	111	6,12	122	111	6,12
29,45	3	21,47	112	102	6,66	112	102	6,66
34,74	3	25,33	95	86	7,85	95	86	7,85
39,92	3	29,10	83	75	9,02	83	75	9,02
45,14	4	29,62	73	66	9,18	73	66	9,18
50,06	4	32,84	66	60	10,18	66	60	10,18
56,35	4	36,97	59	53	11,46	59	53	11,46
68,87	4	45,19	48	44	14,01	48	44	14,01
76,38	4	50,11	43	39	15,54	43	39	15,54
88,36	4	57,97	37	34	17,97	37	34	17,97
98,00	4	64,30	34	31	19,93	34	31	19,93
119,78	4	78,59	28	25	20,00	28	25	20,00
162,37	4	106,53	20	18		20	18	
187,49	5	110,71	18	16		18	16	
199,39	5	117,74	17	15		17	15	
209,31	5	123,60	16	14	Ex	16	14	Ex
229,15	5	135,31	14	13	par/torque	14	13	par/torque
255,82	5	151,06	13	12	máx.	13	12	máx.
270,20	5	159,55	12	11	25 N.m	12	11	25 N.m
294,00	5	173,60	11	10		11	10	
346,78	5	204,77	10	9		10	9	
398,54	5	235,33	8	8		8	8	

Ex Excede el máximo par admisible
Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.
WARNING: The load might reduce final speed up to 40%.

VELOCIDAD EN VACÍO/PAR NOMINAL
NO LOAD SPEED/NOMINAL TORQUE
Motor **81.153-12 V**= 3.300 r.p.m./0,31 N.m.
Motor **81.153-24 V**= 3.300 r.p.m./0,31 N.m.

RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.

Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.

Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.

Load torque. Overloading of the output shaft will reduce the gearbox life.

Warning. Impact on the output when engaging the load could damage the gearbox.

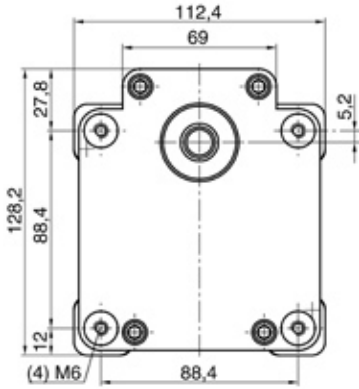


series **K200**
25 Nm

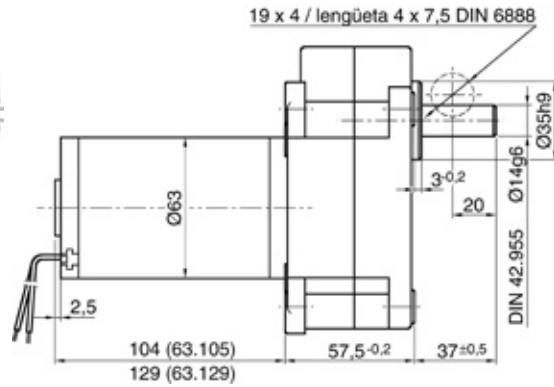
GEARBOX



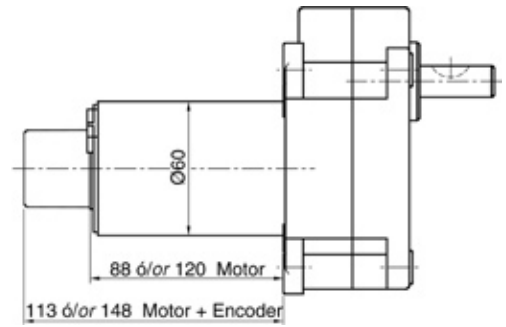
WITH DC. MOTORS



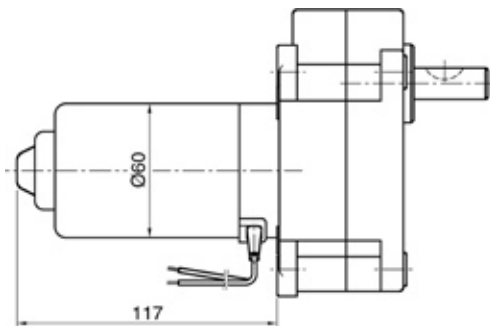
K200-Mounting



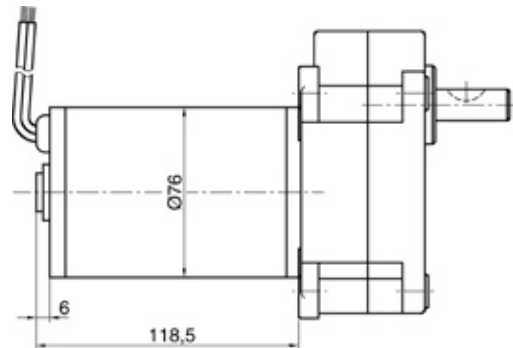
K200-63.105
K200-63.129



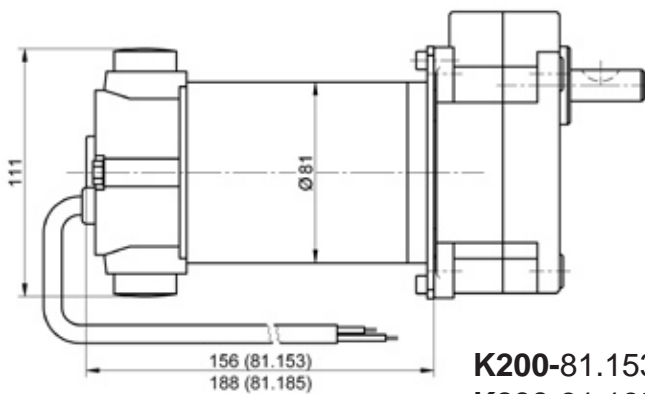
K200-60D-60ENC



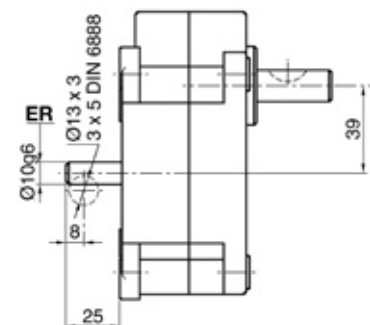
K200-60.120



K200-76.114

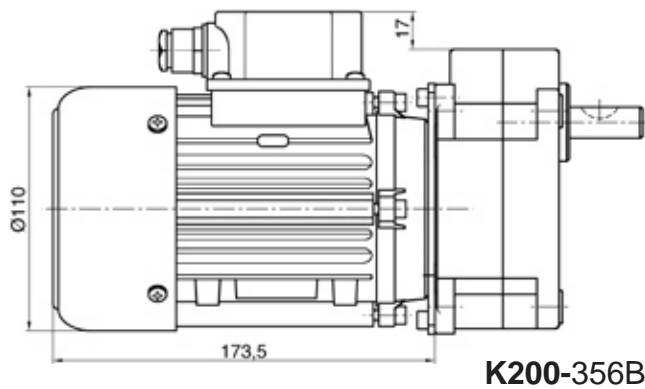


K200-81.153
K200-81.185

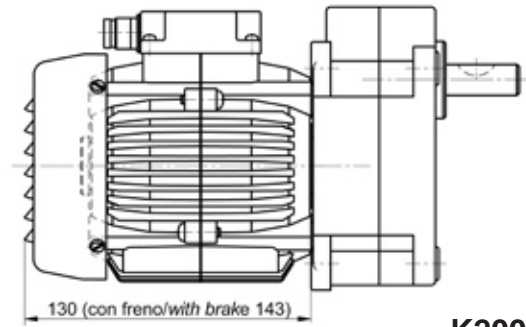


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\text{Ø}14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N \approx 100 Kg.
Axial push.	750 N \approx 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **DC Motors:**
 - Motor 81.185 at 12 and 24 V.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\text{Ø}142$ mm circle, rotor shaft up to $\text{Ø}10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\text{Ø}26$ or centring registration 45 or $\text{Ø}75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
- **K200 ER-10 VERSION.** Incorporates a $\text{Ø}10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

			MOTORES DE C.C. - DC MOTORS					
			Serie/Series : 81.185					
			12 V			24 V		
Reducción Ratio i = X:1	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
5,01	2	4,06	639	559	2,31	659	599	2,31
7,65	2	6,20	418	366	3,53	431	392	3,53
9,81	2	7,95	326	285	4,53	336	306	4,53
12,31	3	8,97	260	227	5,12	268	244	5,12
15,04	3	10,96	213	186	6,25	219	199	6,25
18,78	3	13,69	170	149	7,80	176	160	7,80
20,39	3	14,86	157	137	8,47	162	147	8,47
22,95	3	16,73	139	122	9,54	144	131	9,54
27,07	3	19,73	118	103	11,25	122	111	11,25
29,45	3	21,47	109	95	12,24	112	102	12,24
34,74	3	25,33	92	81	14,44	95	86	14,44
39,92	3	29,10	80	70	16,59	83	75	16,59
45,14	4	29,62	71	62	16,88	73	66	16,88
50,06	4	32,84	64	56	18,72	66	60	18,72
56,35	4	36,97	57	50	20,00	59	53	20,00
68,87	4	45,19	46	41	Ex par/torque máx. 25 N.m	48	44	Ex par/torque máx. 25 N.m
76,38	4	50,11	42	37		43	39	
88,36	4	57,97	36	32		37	34	
98,00	4	64,30	33	29		34	31	
119,78	4	78,59	27	23		28	25	
162,37	4	106,53	20	17		20	18	
187,49	5	110,71	17	15		18	16	
199,39	5	117,74	16	14		17	15	
209,31	5	123,60	15	13		16	14	
229,15	5	135,31	14	12		14	13	
255,82	5	151,06	13	11	13	12		
270,20	5	159,55	12	10,4	12	11		
294,00	5	173,60	11	9,5	11	10		
346,78	5	204,77	9	8	10	9		
398,54	5	235,33	8	7	8	8		

Ex Excede el máximo par admisible
Exceeds maximal admissible torque

ATENCIÓN: Las velocidades pueden verse influenciadas por la carga hasta un -40%.
WARNING: The load might reduce final speed up to 40%.

**VELOCIDAD EN VACIO/PAR NOMINAL
NO LOAD SPEED/NOMINAL TORQUE**
Motor 81.185-12 V= 3.200 r.p.m./0,57 N.m.
Motor 81.185-24 V= 3.300 r.p.m./0,57 N.m.

RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.

Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.

Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.

Load torque. Overloading of the output shaft will reduce the gearbox life.

Warning. Impact on the output when engaging the load could damage the gearbox.

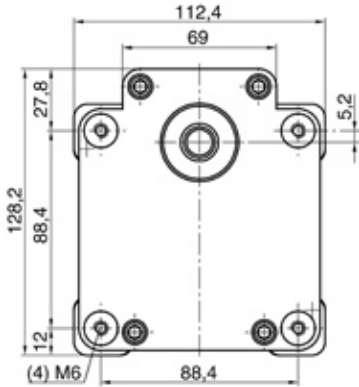


series **K200**
25 Nm

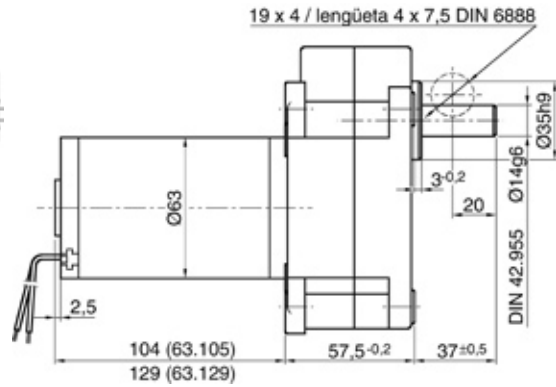
GEARBOX



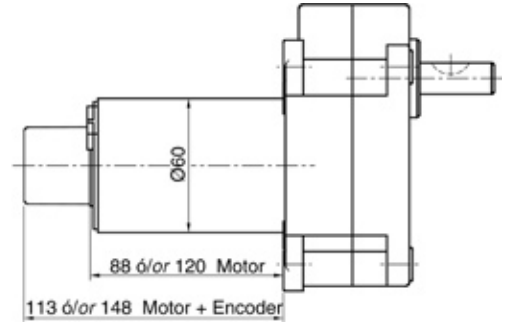
WITH DC. MOTORS



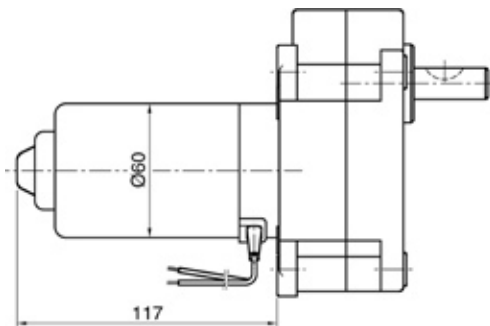
K200-Mounting



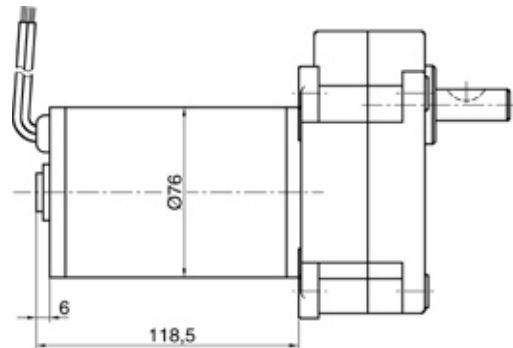
K200-63.105
K200-63.129



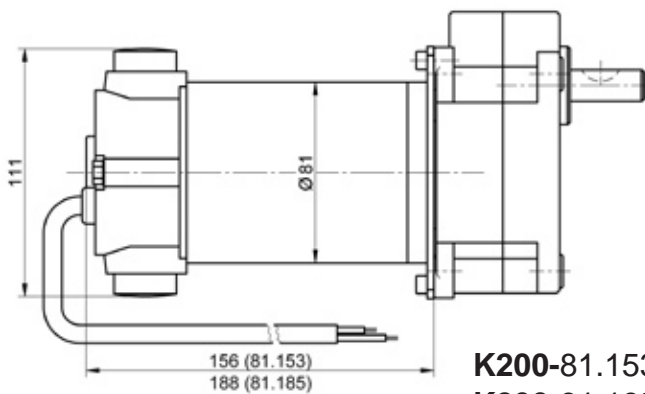
K200-60D-60ENC



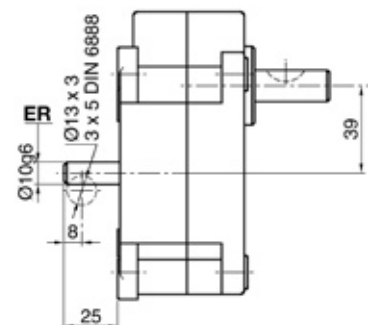
K200-60.120



K200-76.114

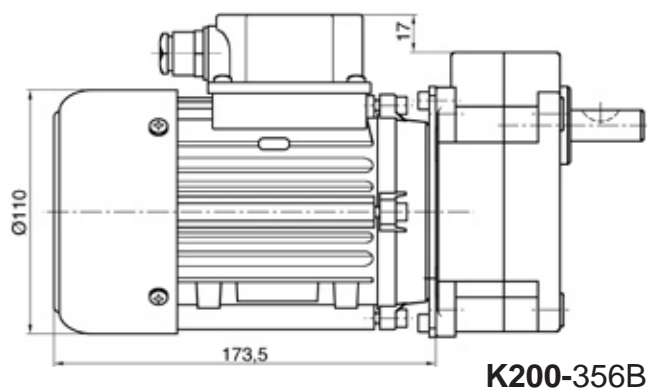


K200-81.153
K200-81.185

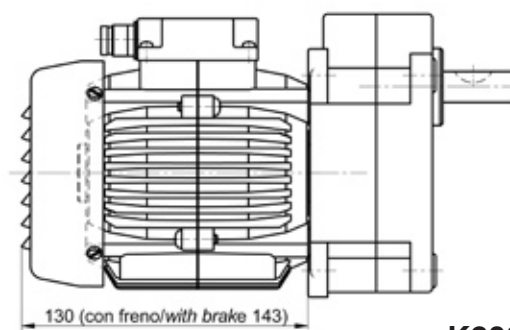


K200 ER-10

WITH AC. MOTORS



K200-356B



K200-K90

TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -20° to 50°C with torque load up to 25 Nm.

- **Box.** Made of die-cast aluminium alloy L 2630. Frontal mounting with four M6 threaded holes.
- **Gearset.** Worm gearset with hardened steel pinions and wheels with superficial thermal treatment, which turn on ball bearings.
- **Output shaft:** $\varnothing 14$ mm. and 35 mm. long with a key hole for curved key DIN 6888, 4 x 6.5 mm. This shaft turns on ball bearings with weatherproof seal.
- **Maximal output shaft load:**

Axial pull.	1,000 N \approx 100 Kg.
Axial push.	750 N \approx 75 Kg.
Radial, at 15 mm. from the flange.	1,000 N \approx 100 Kg.
- **Lubrication:** Kluber lubricant, Staburags NBU 12/300.
- **Weight:** 1.5 Kg. with the maximal number of stages.


■ MOTOR COUPLING.

- **AC Motors:**
 - ASYNCHRONOUS motors series K90, 230/400 V. 50 Hz.

■ OPTIONS.

- **Other motors:**
 - The coupling motor must have: 4 mounting holes at 90° on a 88, 101, 125 or $\varnothing 142$ mm circle, rotor shaft up to $\varnothing 10$ mm. and a maximal recommended speed of 4,000 r.p.m., with centring collar $\varnothing 26$ or centring registration 45 or $\varnothing 75$.
 - Ask about the coupling with INTERMEDIATE FLANGE.
 - By means of intermediate KELVIN gearboxes coupled to this gearbox and operated by conventional DC. motors, or low inertia motors, it can provide up to 10^7 gear ratio.
- **K200 ER-10 VERSION.** Incorporates a $\varnothing 10$ mm. receiver input shaft turning on ball bearings, located at the opposite side of the output shaft. The shaft has a key hole for a 3 x 5 mm. curved key DIN 6888.

Your special requests are welcome.

			MOTORES ASINCRONOS - ASYNCHRONOUS MOTORS Serie/Series : K90...												
			K90.M4			K90.T4			K90.M2			K90.T2			
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal torque (N.m)	
5,01	2	4,06	297	270	1,42	297	250	2,23	595	552	1,83	595	553	2,64	
8,00	2	6,48	186	169	2,27	186	156	3,56	373	346	2,92	373	346	4,21	
9,81	2	7,95	152	138	2,78	152	127	4,37	304	282	3,58	304	282	5,16	
12,26	2	9,93	122	111	3,48	122	102	5,46	243	226	4,47	243	226	6,45	
15,73	2	12,74	95	86	4,46	95	79	7,01	189	176	5,73	189	176	8,28	
19,72	3	14,38	76	69	5,03	76	63	7,91	151	140	6,47	151	140	9,34	
24,11	3	17,58	62	56	6,15	62	52	9,67	124	115	7,91	124	115	11,42	
30,10	3	21,94	50	45	7,68	50	42	12,07	99	92	9,87	99	92	14,26	
32,70	3	23,84	46	41	8,34	46	38	13,11	91	85	10,73	91	85	15,49	
36,80	3	26,83	40	37	9,39	40	34	14,75	81	75	12,07	81	75	17,44	
38,62	3	28,15	39	35	9,85	39	32	15,48	77	72	12,67	77	72	18,30	
43,39	3	31,63	34	31	11,07	34	29	17,40	69	64	14,23	69	64	20,00	
47,20	3	34,41	32	29	12,04	32	26	18,92	63	59	15,48	63	59	22,37	
55,67	3	40,58	27	24	14,20	27	22	20,00	54	50	18,26	54	50	Ex par/torque máx. 25 N.m	
63,98	3	46,64	23	21	16,32	23	20		47	43	20,00	47	43		
72,32	4	47,45	21	19	16,61	21	17		41	38	21,35	41	38		
80,21	4	52,63	19	17	18,42	19	16		37	34	23,68	37	35		
90,31	4	59,25	16	15	20,00	16	14		33	31		33	31		
98,04	4	64,32	15	14	22,51	15	13		30	28		30	28		
110,38	4	72,42	13	12		13	11		27	25		27	25		
130,17	4	85,40	11,4	10,4		11,4	10		23	21		23	21		
141,60	4	92,90	10,5	9,6	Ex par/torque máx. 25 N.m	10,5	9	Ex par/torque máx. 25 N.m	21	20	Ex par/torque máx. 25 N.m	21	20		Ex par/torque máx. 25 N.m
166,99	4	109,56	9	8		9	7		18	17		18	17		
202,82	4	133,07	7,3	7		7,3	6,2		15	14		15	14		
226,37	4	148,52	6,6	6		6,6	5,5		13	12		13	12		
260,19	4	170,71	6	5		6	5		11	11		11	11		
335,38	5	198,04	4,4	4		4,4	4		9	8		9	8		
409,89	5	242,04	3,6	3		3,6	3		7	7		7	7		
555,63	5	328,09	3	2		3	2		5	5		5	5		

VALORES NOMINALES/RATED VALUES

Motor K90.M4= 1.355 r.p.m./0,35 N.m.
 Motor K90.T4= 1.250 r.p.m./0,55 N.m.
 Motor K90.M2= 2.765 r.p.m./0,45 N.m.
 Motor K90.T2= 2.635 r.p.m./0,65 N.m.

Ex Excede el máximo par admisible
 Exceeds maximal admissible torque

RECOMENDACIONES:

Nivel de ruido: el nivel de ruido del reductor depende de la uniformidad de la carga, ubicación (evitar resonancia) y de la velocidad; a menor velocidad, principalmente la del motor, menor nivel de ruido.

Par admisible: sobrepasar la carga máx. implica disminuir sensiblemente la vida del reductor.

Evitar montar o desmontar ninguna pieza a golpes en el eje de salida, ya que podría dañar el reductor de forma irreparable.

GEARBOX TIPS:

Noise. Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.

Load torque. Overloading of the output shaft will reduce the gearbox life.

Warning. Impact on the output when engaging the load could damage the gearbox.