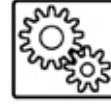




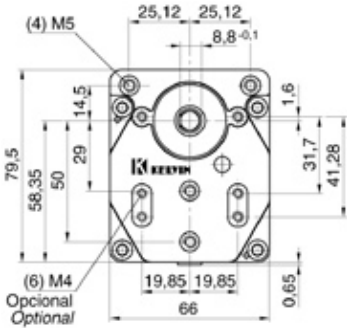
# series **K80**

8 Nm

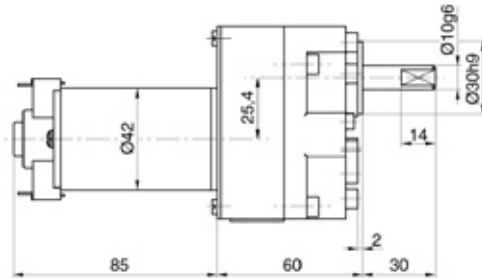
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

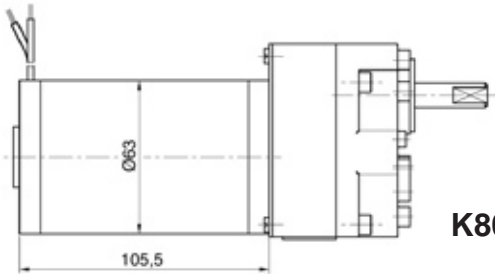


**K80-42.85**

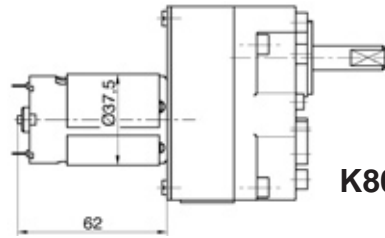


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



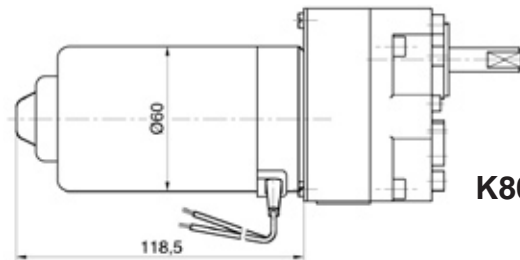
**K80-63.105**



**K80-37.62**

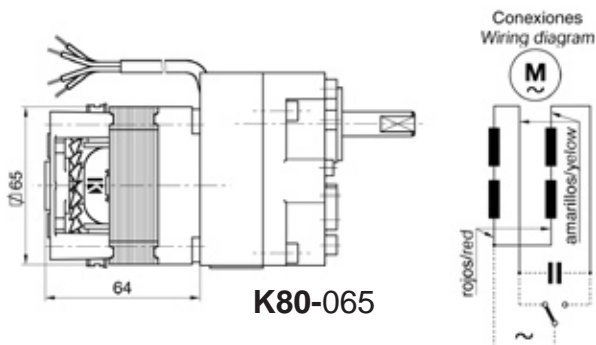


**K80-BL24/30**

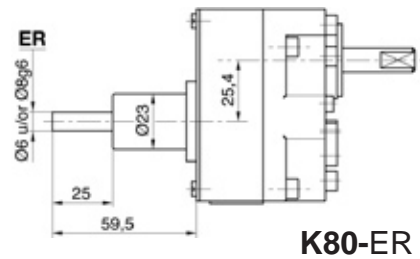


**K80-60.120**

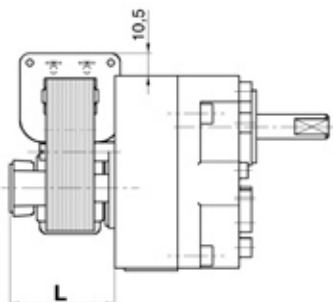
### WITH AC. MOTORS



**K80-065**

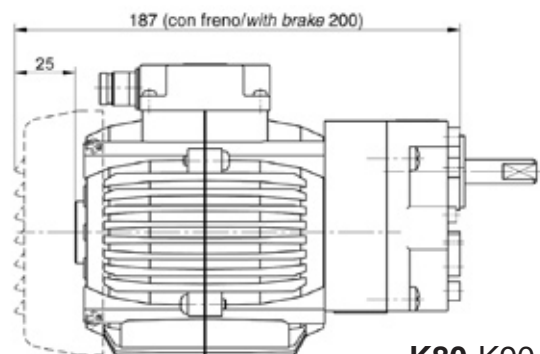


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## TECHNICAL CHARACTERISTICS


Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

- **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.
- **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.
- **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.
- **Maximal output shaft load:**

Axial pull.	500 N ≈ 50 Kg.
Axial push.	500 N ≈ 50 Kg.
Radial, at 15 mm. from the flange.	400 N ≈ 40 Kg.
- **Lubrication.** Lithium grade 2 grease lubricant.
- **Weight.** 0.8 Kg with the maximal number of stages.
- **MOTORS COUPLING.**
- **ASYNCHRONOUS AC. 230 V. 50 Hz:**
  - With bidirectional motor 065.
- **OPTIONS.**
- **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.
- **Frontal mounting:** 4 or 6 M4 threaded holes.
- **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**

			Motor Asíncrono <i>Asynchronous</i> Motor <b>065</b>	
Reducción <i>Ratio</i> <b>i = X:1</b>	Nº Pasos <i>Stages</i>	Factor de par <i>Torque</i> <i>factor</i>	Velocidad nominal <i>Nominal</i> <i>speed Vn</i> (r.p.m.)	Par Nominal <i>Nominal</i> <i>torque</i> (N.m)
3,7	2	3,0	-	-
4,5	2	3,6	-	-
6,0	2	4,8	-	-
9,9	2	8,0	253	0,26
12,0	2	9,7	208	0,32
16,0	2	12,9	156	0,42
23,6	3	17,2	106	0,56
28,8	3	21,0	87	0,68
36,9	3	26,9	68	0,88
40,0	3	29,2	63	0,95
45,0	3	32,8	56	1,07
53,3	3	38,9	47	1,27
60,0	3	43,8	42	1,42
64,0	3	44,9	39	1,52
69,1	4	50,4	36	1,46
86,4	4	56,1	29	1,83
92,2	4	59,9	27	1,95
96,0	4	62,4	26	2,03
108,0	4	70,2	23	2,28
120,0	4	78,0	21	2,54
128,0	4	83,2	20	2,70
135,0	4	87,7	19	2,85
144,0	4	94,5	17,4	3,04
160,0	4	104,0	16	3,38
180,0	4	117,0	14	3,80
200,0	4	130,0	12,5	4,23
240,0	4	156,0	10,4	5,07
259,2	5	152,9	9,6	4,97
360,0	5	212,4	6,9	6,90
400,0	5	236,0	6,3	7,67
600,0	5	354,0	4,2	<b>Ex</b> par/torque máx. 8 N.m
800,0	5	472,0	3,1	
960,0	5	566,9	2,6	
1.152,0	6	612,2	2,1	
2.250,0	6	1327,0	1,1	<b>Ex</b>
2.880,0	6	1699,2	0,9	

Excede el máximo par admisible  
*Exceeds maximal admissible torque*

**VELOCIDAD EN VACIO/PAR DE ARRANQUE**  
**NO LOAD SPEED/STARTING TORQUE**

Motor **065**= 2.500 r.p.m./0,0325 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.



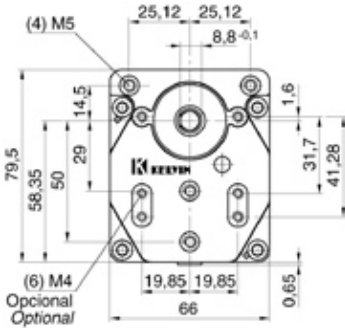
# series **K80**

8 Nm

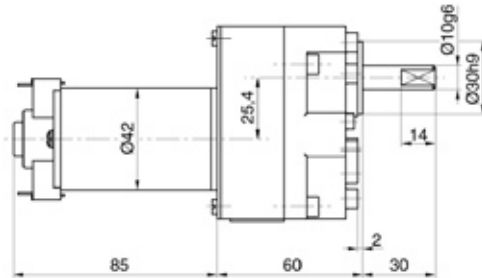
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

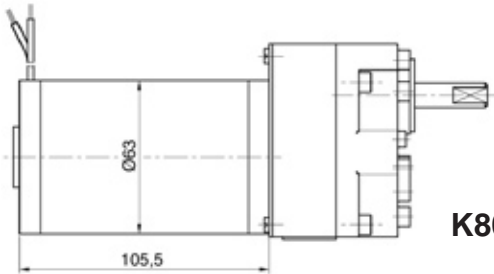


**K80-42.85**

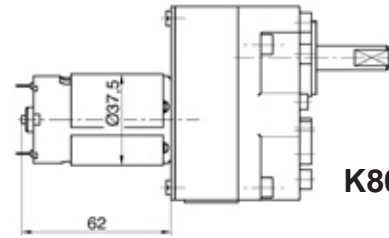


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



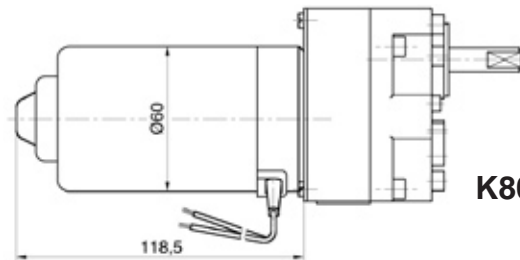
**K80-63.105**



**K80-37.62**

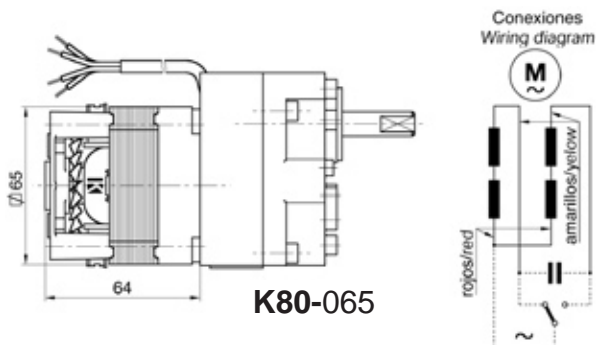


**K80-BL24/30**

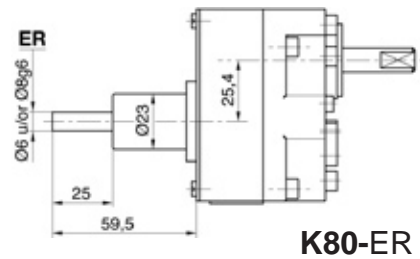


**K80-60.120**

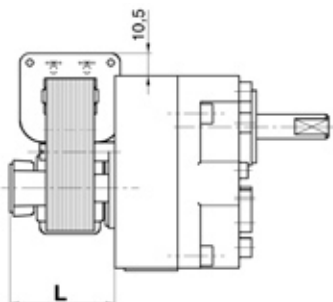
### WITH AC. MOTORS



**K80-065**

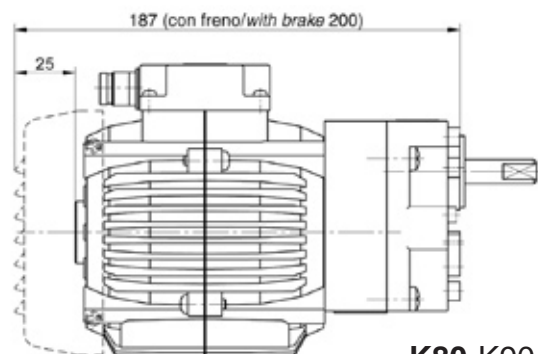


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

- **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.
- **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.
- **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.
- **Maximal output shaft load:**

Axial pull.	500 N ≈ 50 Kg.
Axial push.	500 N ≈ 50 Kg.
Radial, at 15 mm. from the flange.	400 N ≈ 40 Kg.
- **Lubrication.** Lithium grade 2 grease lubricant.
- **Weight.** 0.8 Kg with the maximal number of stages.

### ■ MOTORS COUPLING.


- **DC Motors:**
  - Motors 37.62 at 12 or 24 V.

### ■ OPTIONS.

- **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.
- **Frontal mounting:** 4 or 6 M4 threaded holes.
- **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**

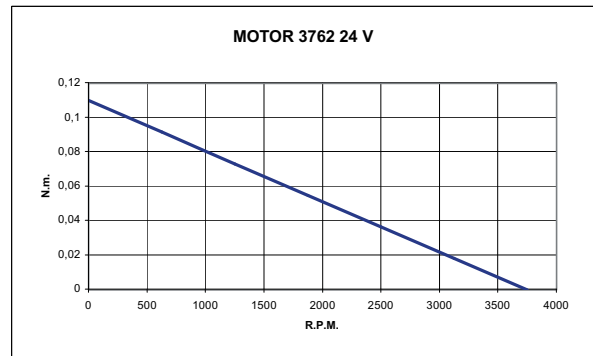
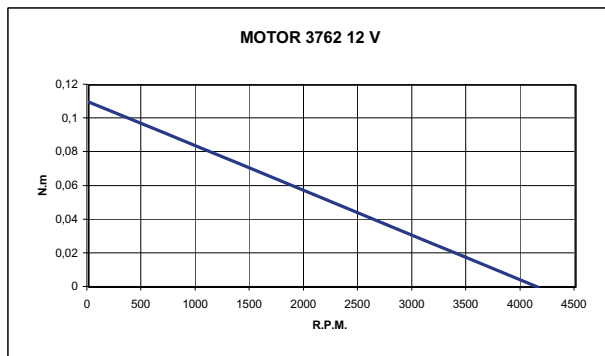
			MOTORES DE C.C. - DC MOTORS					
			Serie/Series : 37.62					
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor	12 V			24 V		
			Velocidad en vacío No load speed $V_0$ (r.p.m.)	Velocidad nominal Nominal speed $V_n$ (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed $V_0$ (r.p.m.)	Velocidad nominal Nominal speed $V_n$ (r.p.m.)	Par Nominal Nominal torque (N.m)
9,9	2	8,02	419	372	0,15	379	346	0,15
12,0	2	9,72	346	307	0,19	313	286	0,18
16,0	2	12,96	259	230	0,25	234	214	0,25
23,6	3	17,20	176	156	0,33	159	145	0,33
28,8	3	21,00	144	128	0,40	130	119	0,40
36,9	3	26,90	112	100	0,51	102	93	0,51
40,0	3	29,16	104	92	0,56	94	86	0,55
45,0	3	32,81	92	82	0,63	83	76	0,62
53,3	3	38,86	78	69	0,74	70	64	0,74
60,0	3	43,74	69	61	0,84	63	57	0,83
64,0	3	46,66	65	58	0,89	59	54	0,89
69,1	4	45,34	60	53	0,87	54	50	0,86
86,4	4	56,69	48	43	1,08	43	40	1,08
92,2	4	60,49	45	40	1,16	41	37	1,15
96,0	4	62,99	43	38	1,20	39	36	1,20
108,0	4	70,86	38	34	1,35	35	32	1,35
120,0	4	78,73	35	31	1,50	31	29	1,50
128,0	4	83,98	32	29	1,60	29	27	1,60
135,0	4	88,57	31	27	1,69	28	25	1,68
150,0	4	98,42	28	25	1,88	25	23	1,87
160,0	4	104,98	26	23	2,01	23	21	1,99
180,0	4	118,10	23	20	2,26	21	19	2,24
200,0	4	131,22	21	18	2,51	19	17	2,49
240,0	4	157,46	17	15	3,01	16	14	2,99
259,2	5	153,06	16	14	2,92	14	13	2,91
288,0	5	170,06	14	13	3,25	13	12	3,23
360,0	5	212,58	12	10	4,06	10	10	4,04
400,0	5	236,20	10	9	4,51	9	9	4,49
500,0	5	295,25	8	7	5,64	8	7	5,61
600,0	5	354,29	7	6	6,77	6	6	6,73
800,0	5	472,39	5	5	<b>Ex</b> par/torque máx. 8 N.m	5	4	<b>Ex</b> par/torque máx. 8 N.m
1.024,0	5	604,66	4	4		4	3	
2.250,0	6	1.195,74	2	2	2	2		
2.880,0	6	1.530,55	1	1	1	1		

**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 37.62-12 V= 4.150 r.p.m./0,0191 N.m.  
Motor 37.62-24 V= 3.750 r.p.m./0,019 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.



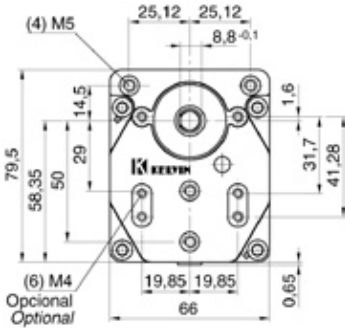
# series **K80**

8 Nm

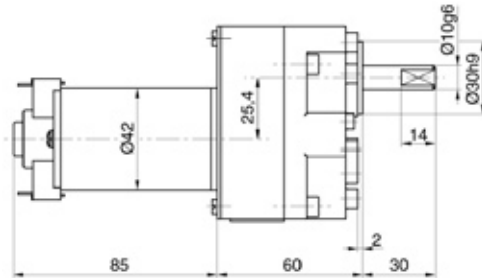
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

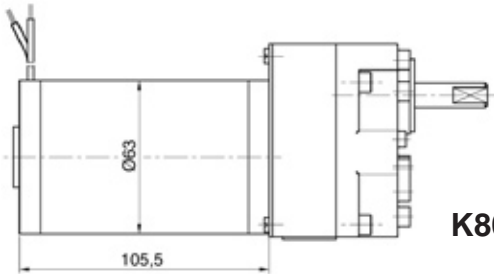


**K80-42.85**

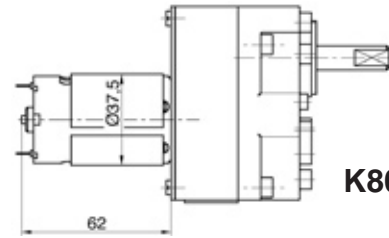


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



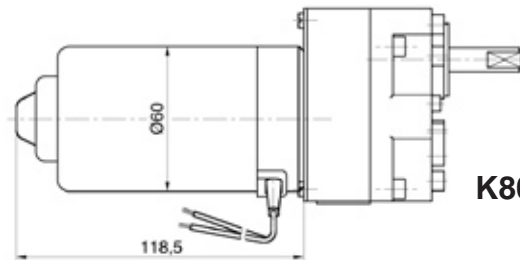
**K80-63.105**



**K80-37.62**

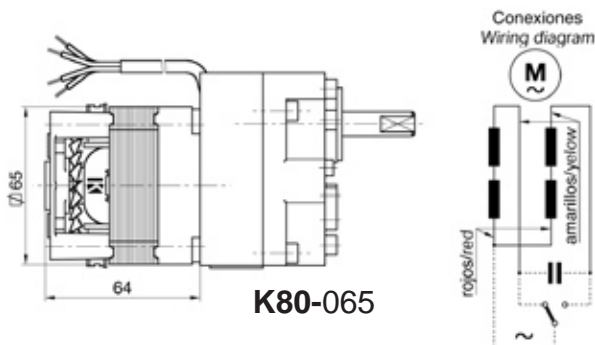


**K80-BL24/30**

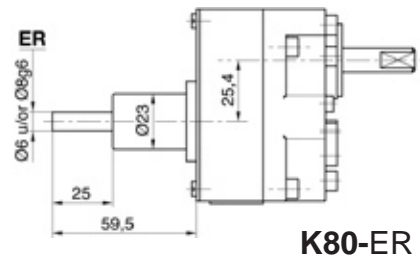


**K80-60.120**

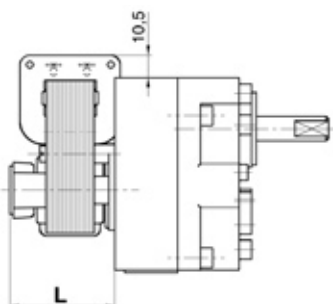
### WITH AC. MOTORS



**K80-065**

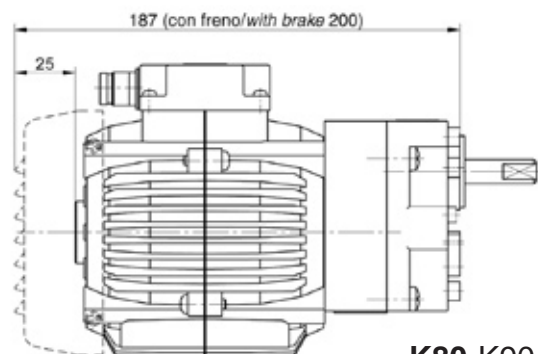


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

- **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.
- **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.
- **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.
- **Maximal output shaft load:**

Axial pull.	500 N ≈ 50 Kg.
Axial push.	500 N ≈ 50 Kg.
Radial, at 15 mm. from the flange.	400 N ≈ 40 Kg.
- **Lubrication.** Lithium grade 2 grease lubricant.
- **Weight.** 0.8 Kg with the maximal number of stages.

### ■ MOTORS COUPLING.

- **DC Motors:**
  - Motors 42.85 at 12 or 24 V.


### ■ OPTIONS.

- **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.
- **Frontal mounting:** 4 or 6 M4 threaded holes.
- **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**



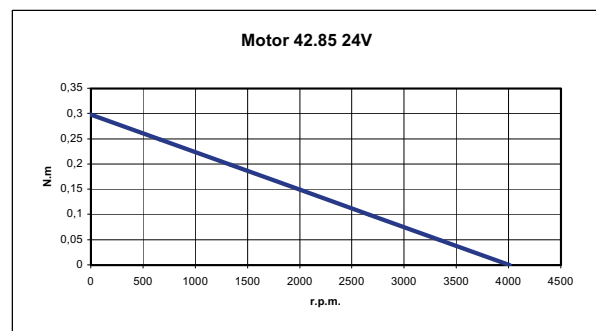
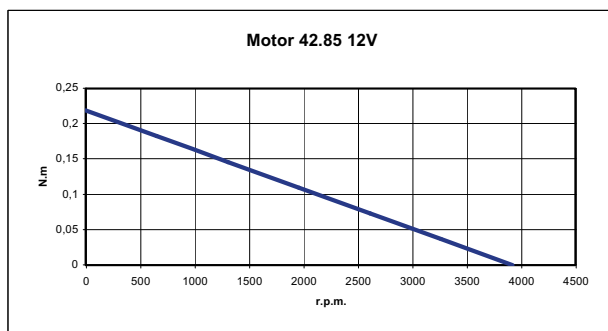
			MOTORES DE C.C. - DC MOTORS					
			12 V			24 V		
Serie/Series : 42.85			Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)	Velocidad en vacío No load speed Vo (r.p.m.)	Velocidad nominal Nominal speed Vn (r.p.m.)	Par Nominal Nominal torque (N.m)
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par Torque factor						
9,9	2	8,02	396	270	0,56	405	310	0,56
12,0	2	9,72	327	223	0,68	334	256	0,68
16,0	2	12,96	245	167	0,91	251	192	0,91
23,6	3	17,20	166	113	1,20	170	130	1,20
28,8	3	21,00	136	93	1,47	139	107	1,47
36,9	3	26,90	106	72	1,88	109	83	1,88
40,0	3	29,16	98	67	2,04	100	77	2,04
45,0	3	32,81	87	59	2,30	89	68	2,30
53,3	3	38,86	74	50	2,72	75	58	2,72
60,0	3	43,74	65	45	3,06	67	51	3,06
64,0	3	46,66	61	42	3,27	63	48	3,27
69,1	4	45,34	57	39	3,17	58	44	3,17
86,4	4	56,69	45	31	3,97	46	36	3,97
92,2	4	60,49	43	29	4,23	43	33	4,23
96,0	4	62,99	41	28	4,41	42	32	4,41
108,0	4	70,86	36	25	4,96	37	28	4,96
120,0	4	78,73	33	22	5,51	33	26	5,51
128,0	4	83,98	31	21	5,88	31	24	5,88
135,0	4	88,57	29	20	6,20	30	23	6,20
150,0	4	98,42	26	18	6,89	27	20	6,89
160,0	4	104,98	25	17	7,35	25	19	7,35
180,0	4	118,10	22	15	Ex par/torque máx. 8 N.m	22	17	Ex par/torque máx. 8 N.m
200,0	4	131,22	20	13		20	15	
240,0	4	157,46	16	11		17	13	
259,2	5	153,06	15	10		15	12	
288,0	5	170,06	14	9		14	11	
360,0	5	212,58	11	7,4		11	9	
400,0	5	236,20	10	6,7		10	8	
500,0	5	295,25	8	5		8	6	
600,0	5	354,29	7	4		7	5	
800,0	5	472,39	5	3,3		5	4	
1.024,0	5	604,66	4	2,6	4	3		
2.250,0	6	1195,74	2	1,2	2	1,4		
2.880,0	6	1530,55	1	1	1	1,1		

**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 42.85-12 V= 3.920 r.p.m./0,07 N.m.  
Motor 42.85-24 V= 4.010 r.p.m./0,07 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.



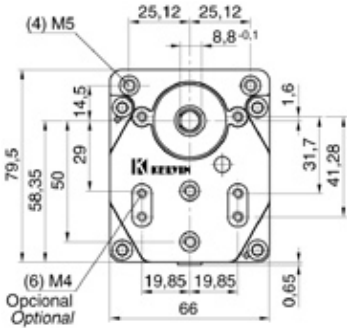
# series **K80**

8 Nm

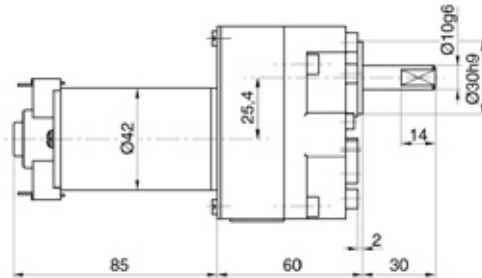
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

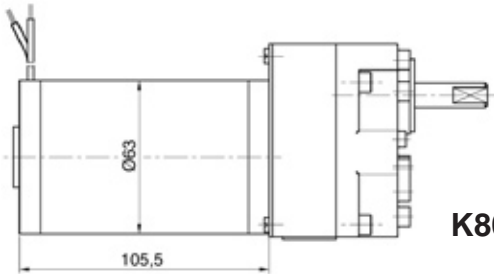


**K80-42.85**

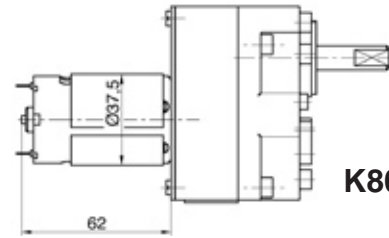


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



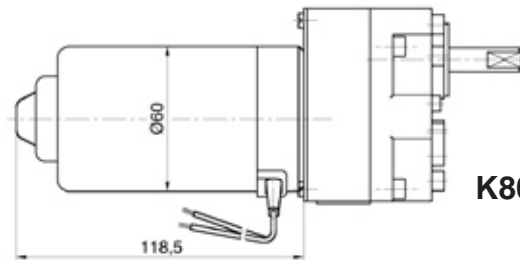
**K80-63.105**



**K80-37.62**

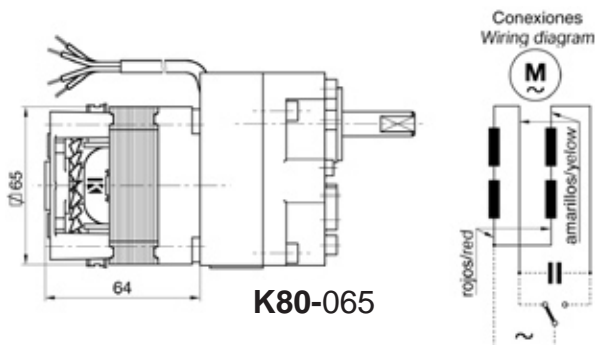


**K80-BL24/30**

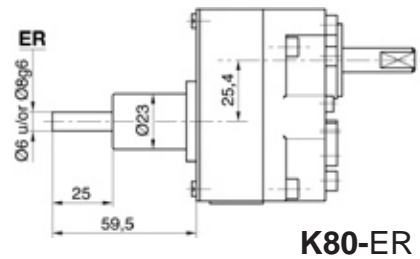


**K80-60.120**

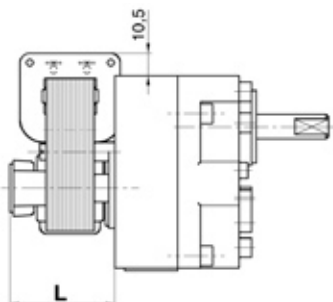
### WITH AC. MOTORS



**K80-065**

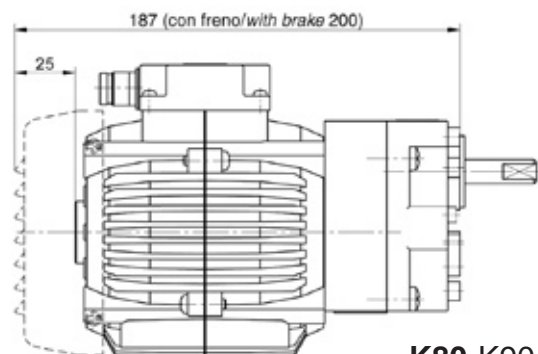


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

■ **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.

■ **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.

■ **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.

■ **Maximal output shaft load:**

Axial pull. 500 N ≈ 50 Kg.

Axial push. 500 N ≈ 50 Kg.

Radial, at 15 mm. from the flange. 400 N ≈ 40 Kg.

■ **Lubrication.** Lithium grade 2 grease lubricant.

■ **Weight.** 0.8 Kg with the maximal number of stages.

### ■ MOTORS COUPLING.

■ **DC Motors:**

■ Motors 60.120 at 12 or 24 V.

### ■ OPTIONS.


■ **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.

■ **Frontal mounting:** 4 or 6 M4 threaded holes.

■ **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**

			MOTORES DE C.C. - DC MOTORS					
			Serie/Series : 60.120					
Reducción Ratio <i>i = X:1</i>	Nº Pasos Stages	Factor de par Torque factor	12 V			24 V		
			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)
3,7	2	3,00	892	757	0,54	973	811	0,60
4,5	2	3,65	733	622	0,66	800	667	0,73
6,0	2	4,86	550	467	0,87	600	500	0,97
9,9	2	8,02	333	283	1,44	364	303	1,60
12,0	2	9,72	275	233	1,75	300	250	1,94
16,0	2	12,96	206	175	2,33	225	188	2,59
23,6	3	17,20	140	119	3,10	153	127	3,44
28,8	3	21,00	115	97	3,78	125	104	4,20
36,9	3	26,90	89	76	4,84	98	81	5,38
40,0	3	29,16	83	70	5,25	90	75	5,83
45,0	3	32,81	73	62	5,90	80	67	6,56
53,3	3	38,86	62	53	6,99	68	56	7,77
60,0	3	43,74	55	47	7,87	60	50	
64,0	3	46,66	52	44		56	47	
69,1	4	45,34	48	41		52	43	
86,4	4	56,69	38	32		42	35	
92,2	4	60,49	36	30		39	33	
96,0	4	62,99	34	29		38	31	
108,0	4	70,86	31	26		33	28	
120,0	4	78,73	28	23		30	25	
128,0	4	83,98	26	22		28	23	
135,0	4	88,57	24	21		27	22	
150,0	4	98,42	22	19		24	20	
160,0	4	104,98	21	18		23	19	
180,0	4	118,10	18	16		20	17	
200,0	4	131,22	17	14		18	15	
240,0	4	157,46	14	12		15	13	
259,2	5	153,06	13	11		14	12	
288,0	5	170,06	11	10		13	10	
360,0	5	212,58	9	8		10	8,3	
400,0	5	236,20	8	7		9	7,5	
500,0	5	295,25	7	6		7	6	
600,0	5	354,29	6	5		6	5	
800,0	5	472,39	4	4		5	4	
1.024,0	5	604,66	3	3		4	3	
2.250,0	6	1195,74	1,5	1,2		2	1,3	
2.880,0	6	1530,55	1,1	1		1	1	

Ex  
par/torque  
máx.  
8 N.m

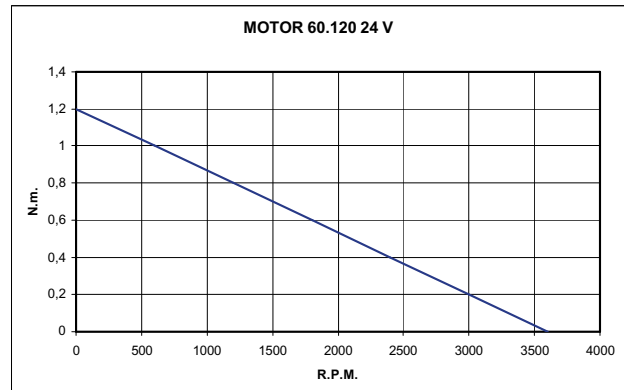
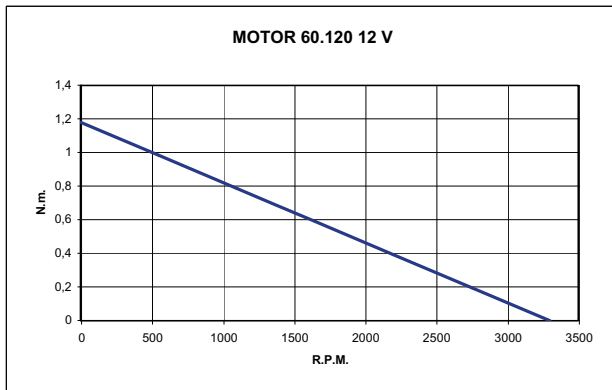
Ex  
par/torque  
máx.  
8 N.m

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 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.



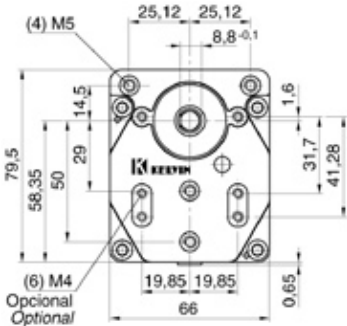
# serie **K80**

8 Nm

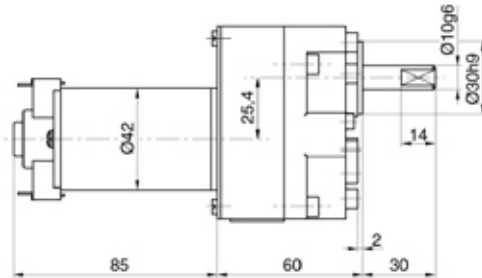
## REDUCTOR



### CON MOTORES DE CC.



**K80-Fijación**

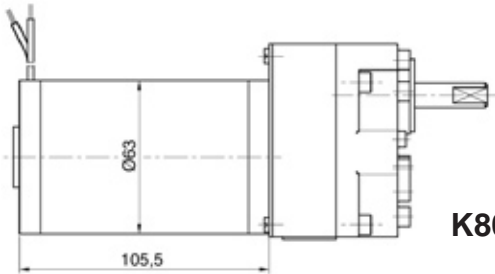


**K80-42.85**

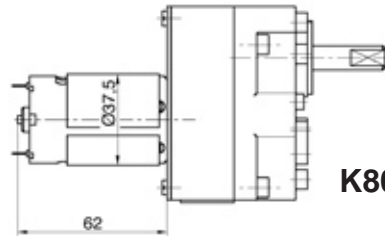


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo.Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



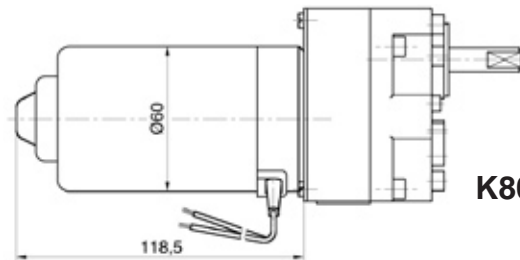
**K80-63.105**



**K80-37.62**

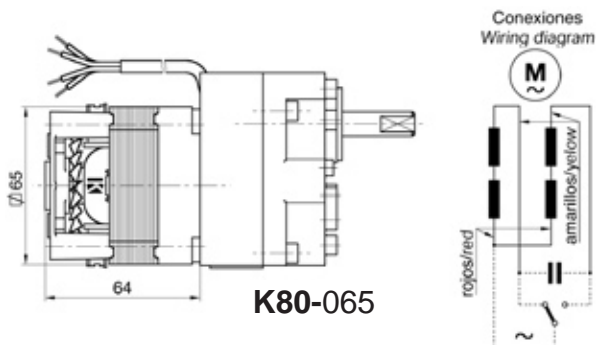


**K80-BL24/30**

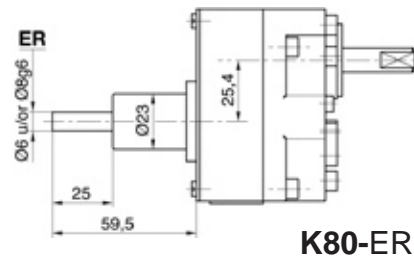


**K80-60.120**

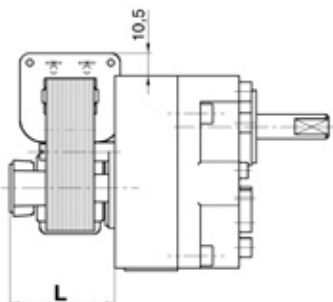
### CON MOTORES DE CA.



**K80-065**

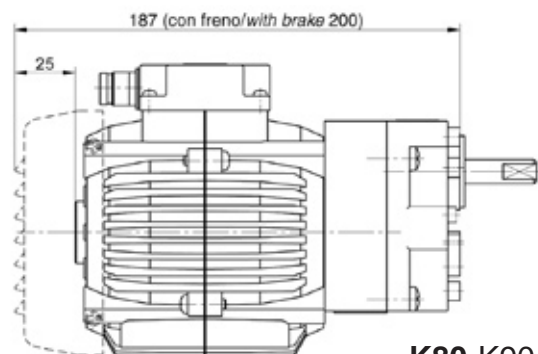


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo.Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## CARACTERISTICAS TECNICAS

Reductor de gran resistencia mecánica, para trabajo duro e intensivo en cualquier posición, a temperatura ambiente, de -15 a 50°C, con **par de utilización hasta 8 Nm**.

- **Caja.** De fundición inyectada en Zamak, con fijación frontal por cuatro taladros roscados a M5.
- **Reducción.** De engranajes rectos, con piñones y ruedas de acero con tratamiento térmico superficial. El rodaje intermedio gira en ejes de acero tratado y rectificadas fijos en la caja.
- **Eje de salida.** De acero, de Ø10 x 30 mm. de longitud útil, con rebaje plano, gira en rodamientos de bolas.
- **Carga axial:**
  - A la tracción. 500 N ≈ 50 Kg.
  - Al empuje. 500 N ≈ 50 Kg.
  - Radial, a 15 mm. de la salida del eje. 400 N ≈ 40 Kg.
- **Engrase.** Grasa al litio, grado 2.
- **Peso neto.** Con máximo número de pasos: 0,8 Kg.


### ■ MOTOR TIPO.

- **Corriente continua:**
  - Motor 63.105 a 12, 24, 48 ó 110 V.

### ■ OPCIONES.

- **Otros motores con PLACA PORTAMOTOR intermedia:**
  - De diámetro exterior de 30 a Ø65 mm y eje de 3 a Ø7 mm.
  - Velocidad máxima recomendada 4.000 r.p.m.
- **Fijación frontal:** 4 ó 6 taladros roscados a M4.
- **VERSION K80 ER:** Sin motor, con eje receptor de entrada de 6 u Ø8 mm. en el lado opuesto al del eje de salida, montado en rodamientos de bolas.

**Otras ejecuciones especiales, consultar.**

			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)
3,7	2	3,00	919	711	0,51	989	749	0,51	911	703	0,51	973	749	0,51
4,5	2	3,65	756	584	0,62	813	616	0,62	749	578	0,62	800	616	0,62
6,0	2	4,86	567	438	0,83	610	462	0,83	562	433	0,83	600	462	0,83
9,9	2	8,02	343	266	1,36	370	280	1,36	340	263	1,36	364	280	1,36
12,0	2	9,72	283	219	1,65	305	231	1,65	281	217	1,65	300	231	1,65
16,0	2	12,96	213	164	2,20	229	173	2,20	211	163	2,20	225	173	2,20
23,6	3	17,20	144	111	2,92	155	117	2,92	143	110	2,92	153	117	2,92
28,8	3	21,00	118	91	3,57	127	96	3,57	117	90	3,57	125	96	3,57
36,9	3	26,90	92	71	4,57	99	75	4,57	91	70	4,57	98	75	4,57
40,0	3	29,16	85	66	4,96	92	69	4,96	84	65	4,96	90	69	4,96
45,0	3	32,81	76	58	5,58	81	62	5,58	75	58	5,58	80	62	5,58
53,3	3	38,86	64	49	6,61	69	52	6,61	63	49	6,61	68	52	6,61
60,0	3	43,74	57	44	7,44	61	46	7,44	56	43	7,44	60	46	7,44
64,0	3	46,66	53	41	7,93	57	43	7,93	53	41	7,93	56	43	7,93
69,1	4	45,34	49	38	7,71	53	40	7,71	49	38	7,71	52	40	7,71
86,4	4	56,69	39	30		42	32		39	30		42	32	
92,2	4	60,49	37	29		40	30		37	28		39	30	
96,0	4	62,99	35	27		38	29		35	27		38	29	
108,0	4	70,86	31	24		34	26		31	24		33	26	
120,0	4	78,73	28	22		31	23		28	22		30	23	
128,0	4	83,98	27	21		29	22		26	20		28	22	
135,0	4	88,57	25	19		27	21		25	19		27	21	
150,0	4	98,42	23	18		24	18		22	17		24	18	
160,0	4	104,98	21	16		23	17		21	16		23	17	
180,0	4	118,10	19	15		20	15		19	14		20	15	
200,0	4	131,22	17	13		18	14		17	13		18	14	
240,0	4	157,46	14	11		15	12		14	11		15	12	
259,2	5	153,06	13	10		14	11		13	10		14	11	
288,0	5	170,06	12	9		13	10		12	9		13	10	
360,0	5	212,58	9	7,3		10	8		9	7,2		10	8	
400,0	5	236,20	9	6,6		9	7		8	6,5		9	7	
500,0	5	295,25	7	5		7	6		7	5		7	6	
600,0	5	354,29	6	4		6	5		6	4		6	5	
800,0	5	472,39	4	3,3		5	3,5		4	3,3		5	3,5	
1.024,0	5	604,66	3	2,6		4	2,7		3	2,5		4	2,7	
2.250,0	6	1195,74	2	1		2	1		1,5	1		2	1	
2.880,0	6	1530,55	1	1 min		1	1 min		1,2	1,11 min		1	1,04 min	

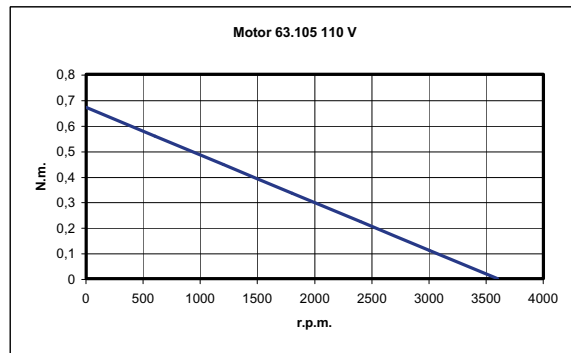
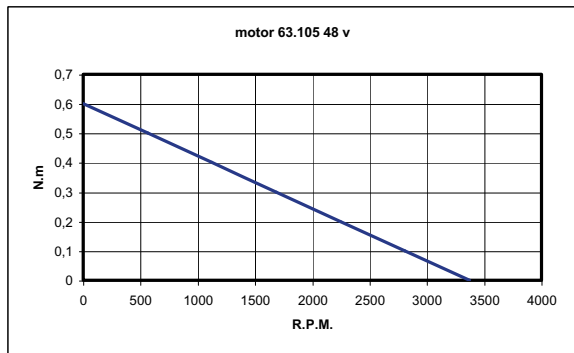
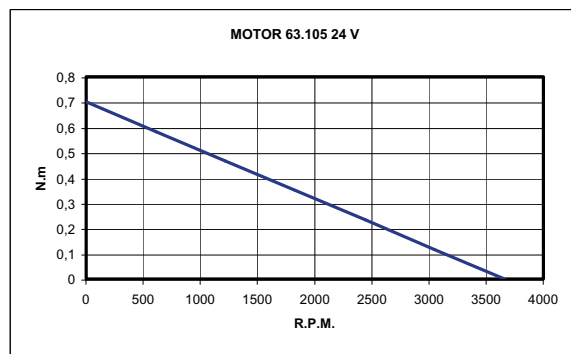
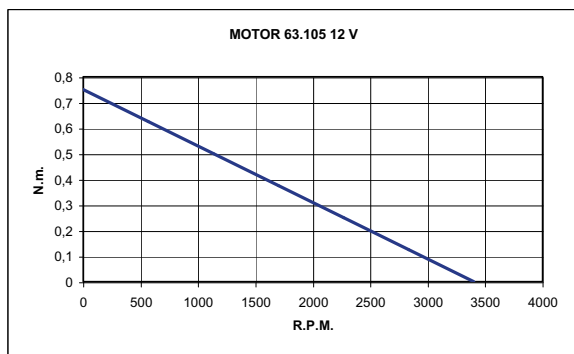
**ATENCIÓN:** Las velocidades pueden verse influenciadas por la carga hasta un -40%.  
**WARNING:** The load might reduce final speed up to 40%.

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

Motor 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.



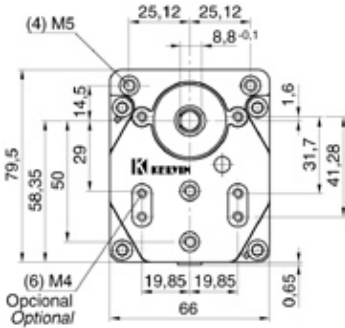
# series **K80**

8 Nm

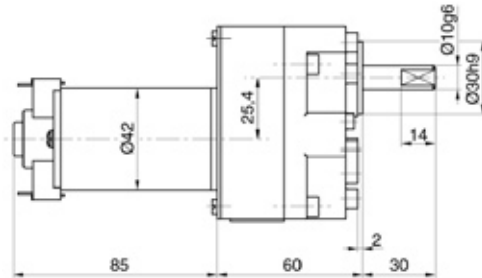
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

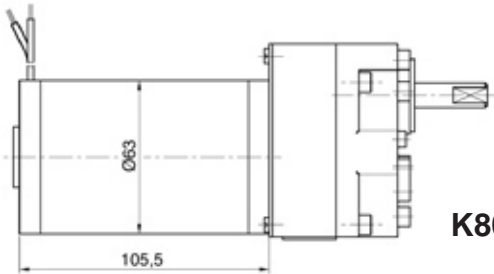


**K80-42.85**

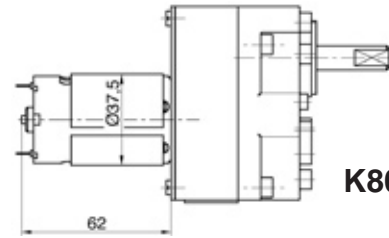


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



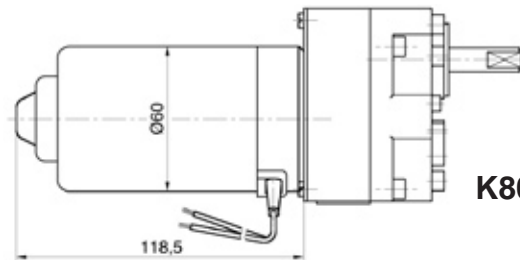
**K80-63.105**



**K80-37.62**

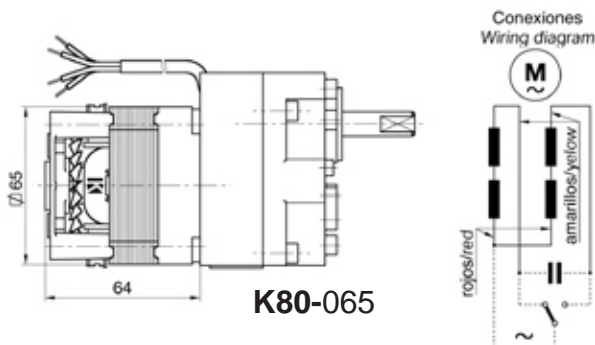


**K80-BL24/30**

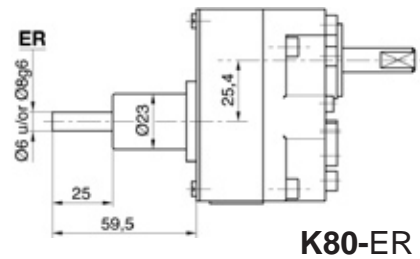


**K80-60.120**

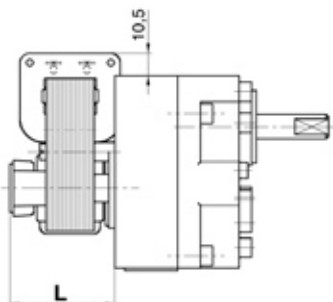
### WITH AC. MOTORS



**K80-065**

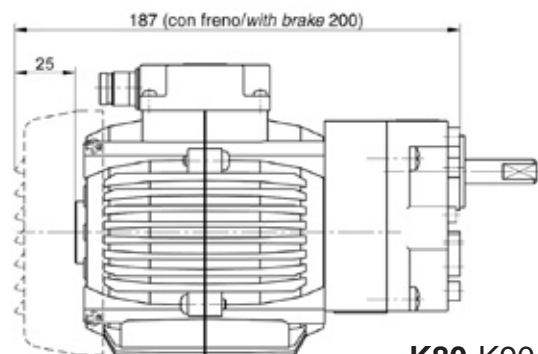


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**



## TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

■ **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.

■ **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.

■ **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.

■ **Maximal output shaft load:**

Axial pull. 500 N ≈ 50 Kg.

Axial push. 500 N ≈ 50 Kg.

Radial, at 15 mm. from the flange. 400 N ≈ 40 Kg.

■ **Lubrication.** Lithium grade 2 grease lubricant.

■ **Weight.** 0.8 Kg with the maximal number of stages.

### ■ MOTORS COUPLING.

■ **DC Motors:**

■ BRUSHLESS motors BL24/30 at 24 or 36 V. with integrated electronic control.

### ■ OPTIONS.


■ **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.

■ **Frontal mounting:** 4 or 6 M4 threaded holes.

■ **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**

			MOTORES DE C.C. - DC MOTORS					
			BL-24/30			BL-24/80		
Reducción <i>Ratio</i> <b>i = X:1</b>	Nº Pasos <i>Stages</i>	Factor de par <i>Torque</i> factor	Velocidad en vacío <i>No load</i> speed Vo (r.p.m.)	Velocidad nominal <i>Nominal</i> speed Vn (r.p.m.)	Par Nominal <i>Nominal</i> torque (N.m)	Velocidad en vacío <i>No load</i> speed Vo (r.p.m.)	Velocidad nominal <i>Nominal</i> speed Vn (r.p.m.)	Par Nominal <i>Nominal</i> torque (N.m)
9,9	2	8,02	303	222	1,12	424	343	1,80
12,0	2	9,72	250	183	1,36	350	283	2,19
16,0	2	12,96	188	138	1,81	263	213	2,92
23,6	3	17,20	127	93	2,41	178	144	3,87
28,8	3	21,00	104	76	2,94	146	118	4,72
36,9	3	26,90	81	60	3,77	114	92	6,05
40,0	3	29,16	75	55	4,08	105	85	6,56
45,0	3	32,81	67	49	4,59	93	76	7,38
53,3	3	38,86	56	41	5,44	79	64	
60,0	3	43,74	50	37	6,12	70	57	
64,0	3	46,66	47	34	6,53	66	53	
69,1	4	45,34	43	32	6,35	61	49	
86,4	4	56,69	35	25	7,94	49	39	
92,2	4	60,49	33	24		46	37	
96,0	4	62,99	31	23		44	35	
108,0	4	70,86	28	20		39	31	
120,0	4	78,73	25	18		35	28	
128,0	4	83,98	23	17		33	27	
135,0	4	88,57	22	16		31	25	
150,0	4	98,42	20	15		28	23	
160,0	4	104,98	19	14		26	21	
180,0	4	118,10	17	12		23	19	
200,0	4	131,22	15	11		21	17	
240,0	4	157,46	13	9		18	14	
259,2	5	153,06	12	8,5		16	13	
288,0	5	170,06	10	7,6		15	12	
360,0	5	212,58	8,3	6,1		12	9,4	
400,0	5	236,20	7,5	5,5		11	8,5	
500,0	5	295,25	6	4		8	7	
600,0	5	354,29	5	4		7	6	
800,0	5	472,39	4	3		5	4	
1.024,0	5	604,66	3	2		4	3	
2.250,0	6	1195,74	1,3	1,0 min		2	2	
2.880,0	6	1530,55	1	1,3 min		1	1	

**Ex**  
par/torque  
máx.  
8 N.m

**Ex**  
par/torque  
máx.  
8 N.m

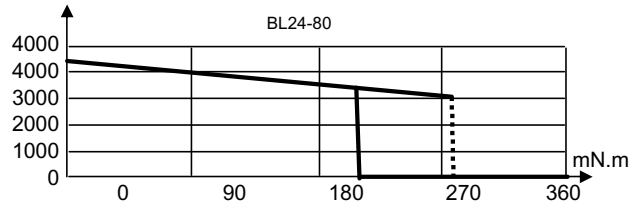
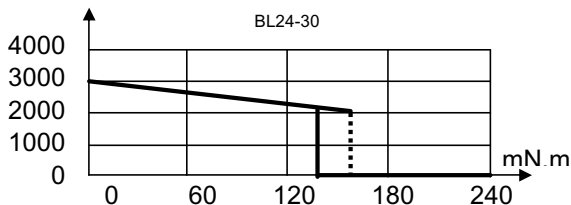
1 vuelta cada X...  
One turn every X...

**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 BL-24/30= 3.000 r.p.m./0,140 N.m.  
Motor BL-24/80= 4.200 r.p.m./0,225 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.



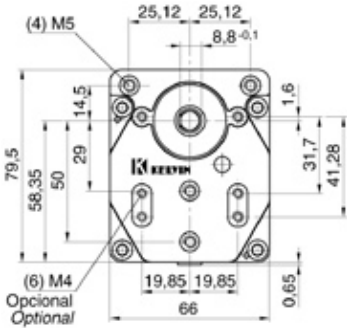
# series **K80**

8 Nm

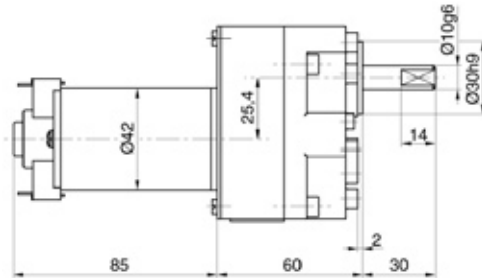
## GEARBOX



### WITH DC. MOTORS



**K80-Fijación**  
**K80-Mounting**

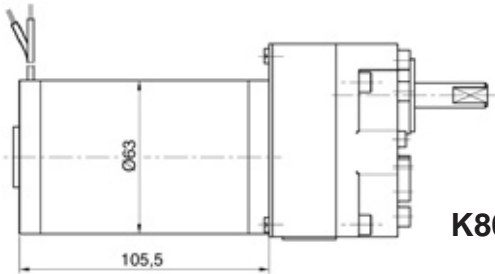


**K80-42.85**

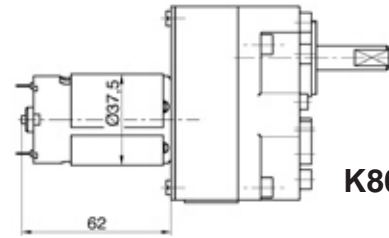


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



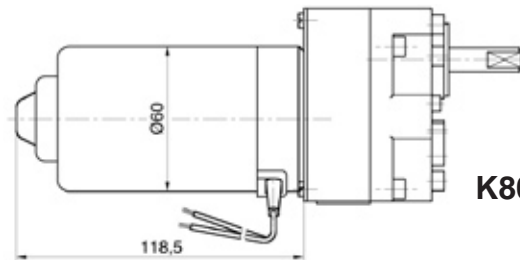
**K80-63.105**



**K80-37.62**

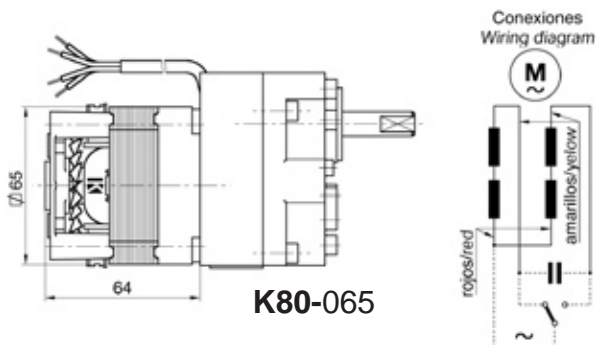


**K80-BL24/30**

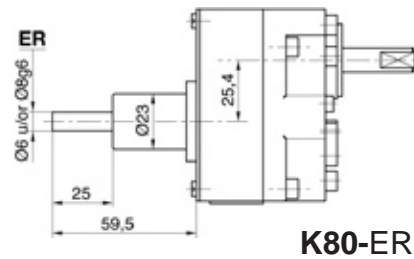


**K80-60.120**

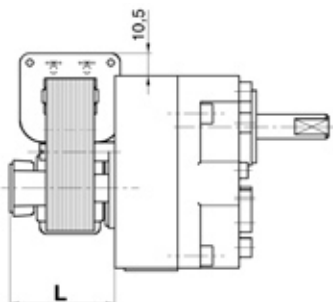
### WITH AC. MOTORS



**K80-065**

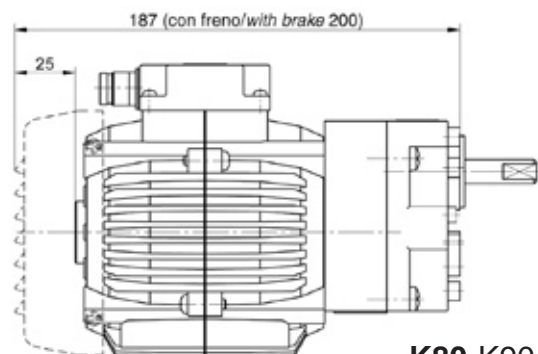


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## TECHNICAL CHARACTERISTICS

Gearbox for heavy duty continuous workload in any position, at room temperature from -15 to 50°C, with **maximal torque load 8 Nm.**

- **Box.** Made of die-cast zamak. Frontal mounting by four M5 threaded holes.
- **Gearset.** Spur gearset with hardened steel pinions and steel gearwheels with superficial thermal treatment, which turn on rectified hardened steel shafts attached to the box.
- **Output shaft.** Steel shaft 10Ø mm. and 30 mm. long with a flat surface. This shaft turns on ball bearings.
- **Maximal output shaft load:**

Axial pull.	500 N ≈ 50 Kg.
Axial push.	500 N ≈ 50 Kg.
Radial, at 15 mm. from the flange.	400 N ≈ 40 Kg.
- **Lubrication.** Lithium grade 2 grease lubricant.
- **Weight.** 0.8 Kg with the maximal number of stages.

### ■ MOTORS COUPLING.


- **ASYNCHRONOUS AC. 230 V. 50 Hz:**
  - Series G620 - G630 - G640.

### ■ OPTIONS.

- **Other motors:**

The coupling motor is made with an intermediate flange and must have Ø65 mm. maximal and rotor shaft up to Ø7 mm. The maximal recommended speed is 4,000 r.p.m.
- **Frontal mounting:** 4 or 6 M4 threaded holes.
- **K80 ER VERSION:** Without motor, incorporates a 6 or Ø8 mm. receiver input shaft turning on ball bearings located on the opposite side of the output shaft.

**Your special requests are welcome.**

			MOTORES ASINCRONOS ASYNCHRONOUS MOTOR			
			Velocidad en vacío No load speed Vo (r.p.m.)	G.620	G.630	G.640
Reducción Ratio $i = X:1$	Nº Pasos Stages	Factor de par por Torque factor		Par Nominal Nominal torque (N.m)	Par Nominal Nominal torque (N.m)	Par Nominal Nominal torque (N.m)
14,8	2	12,0	195	0,22	0,25	0,34
18	2	14,6	160	0,26	0,31	0,41
24	2	19,4	120	0,35	0,41	0,55
35,5	3	25,8	81	0,47	0,55	0,73
43	3	31,5	67	0,57	0,67	0,88
49,2	3	35,9	59	0,64	0,75	0,99
58	3	42,0	50	0,76	0,89	1,18
60	3	43,7	48	0,79	0,92	1,23
67,5	3	49,2	43	0,89	1,04	1,38
72	3	52,5	40	0,95	1,11	1,47
80	3	58,3	36	1,05	1,23	1,64
90	3	65,6	32	1,18	1,39	1,84
96	3	70,0	30	1,26	1,50	1,96
103,7	4	68,0	28	1,21	1,42	1,887
118,2	4	77,6	24	1,383	1,62	2,151
144	4	94,5	20	1,685	1,975	1,621
162	4	106,3	18	1,895	2,222	2,948
180	4	118,1	16	2,106	2,469	3,276
192	4	126,0	15	2,246	2,633	3,494
216	4	141,7	13	2,527	2,962	3,931
240	4	157,5	12	2,808	3,292	4,37
288	4	189,0	10	3,37	3,95	5,24
320	4	210,0	9	3,74	4,389	5,82
384	4	251,9	8	4,49	5,267	6,99
480	5	283,4	6	5,10	5,979	7,93
576	5	340,1	5	6,12	7,171	D= 0,70
640	5	377,9	4,5	6,80	7,967	R= 1,60
720	5	425,2	4	7,65	D= 0,70	BR= 2,28
960	5	566,9	3	D= 0,70	R= 1,66	Ex par/torque máx. 8 N.m
1.440	5	850,3	2	R= 1,40	BR= 2,2	
2.880	6	1530,6	1	BR= 1,7		
5.760	6	3061,1	0,5			

**Ex** Excede el máximo par admisible  
Exceeds maximal admissible torque

**VELOCIDAD EN VACIO/PAR DE ARRANQUE  
NO LOAD SPEED/STARTING TORQUE**

Motor **G620**= 2.700 r.p.m./0,0180 N.m.  
Motor **G630**= 2.750 r.p.m./0,0211 N.m.  
Motor **G640**= 2.850 r.p.m./0,0280 N.m

**BOBINAS ESPECIALES**

**D:** Par debilitado.  
**R:** Par reforzado.  
**BR:** Par bi-reforzado.  
Multiplicar el par por el factor correspondiente.

**SPECIAL WINDINGS**

**D:** Low torque.  
**R:** Extra torque  
**BR:** Super extra torque.  
Multiply torque by the corresponding factor.

**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:**

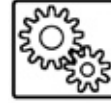
**Noise.** Noise level depends on load symmetry, location (avoid acoustic resonance), and rotation speed; the lower the speed on the input shaft (motor), the lower the noise.  
**Load torque.** Overloading of the output shaft will reduce the gearbox life.  
**Warning.** Impact on the output when engaging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



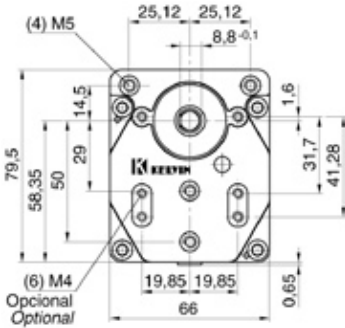
# serie **K80**

8 Nm

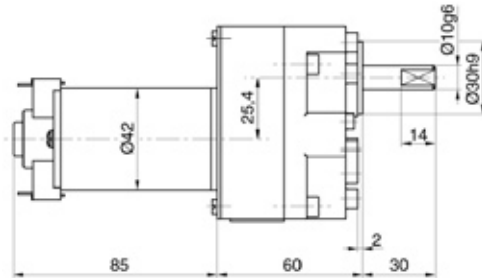
# REDUCTOR



## CON MOTORES DE CC.



**K80-Fijación**

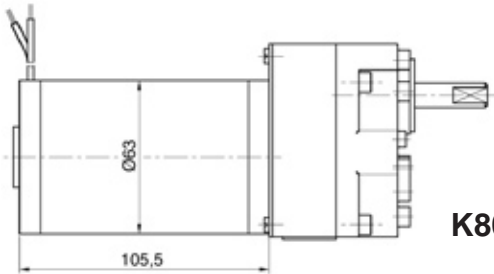


**K80-42.85**

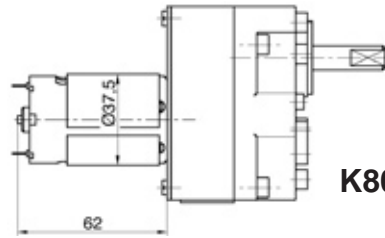


**K80-32.00-60.00**

DIMENSIONES DIMENSIONS			
Tipo. Type	L	LD	LE
K80-32.00	57,0	81	77
K80-60.00	86,5	106	116



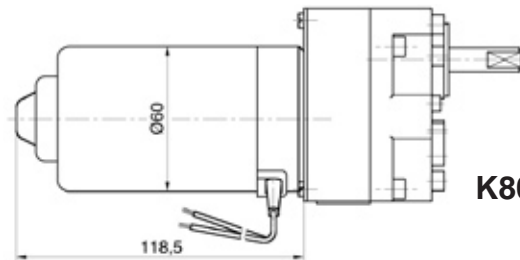
**K80-63.105**



**K80-37.62**

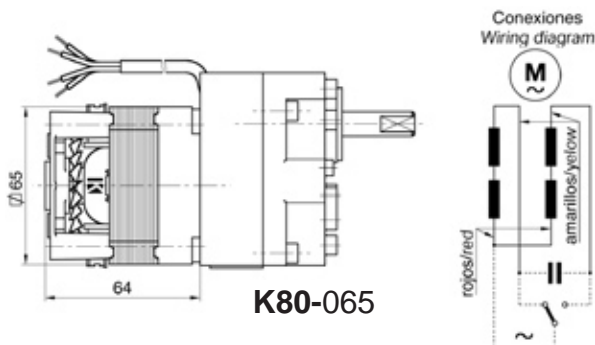


**K80-BL24/30**

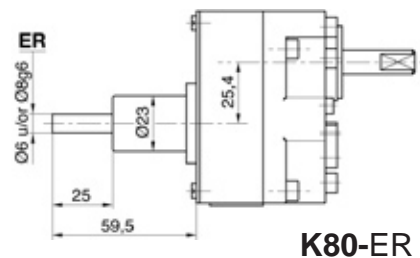


**K80-60.120**

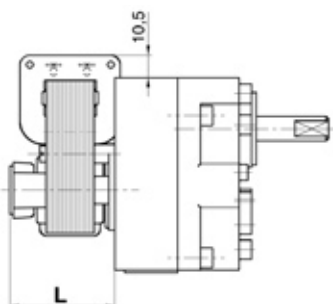
## CON MOTORES DE CA.



**K80-065**

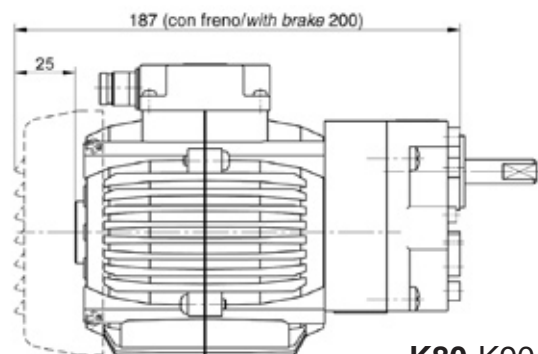


**K80-ER**



**K80-G620-G630-G640**

DIMENSIONES DIMENSIONS	
Tipo. Type	L
K80-G620	43,5
K80-G630	53,5
K80-G640	63,5



**K80-K90**

## CARACTERISTICAS TECNICAS

Reductor de gran resistencia mecánica, para trabajo duro e intensivo en cualquier posición, a temperatura ambiente, de -15 a 50°C, con **par de utilización hasta 8 Nm**.

- **Caja.** De fundición inyectada en Zamak, con fijación frontal por cuatro taladros roscados a M5.
- **Reducción.** De engranajes rectos, con piñones y ruedas de acero con tratamiento térmico superficial. El rodaje intermedio gira en ejes de acero tratado y rectificadas fijos en la caja.
- **Eje de salida.** De acero, de Ø10 x 30 mm. de longitud útil, con rebaje plano, gira en rodamientos de bolas.
- **Carga axial:**
  - A la tracción. 500 N ≈ 50 Kg.
  - Al empuje. 500 N ≈ 50 Kg.
  - Radial, a 15 mm. de la salida del eje. 400 N ≈ 40 Kg.
- **Engrase.** Grasa al litio, grado 2.
- **Peso neto.** Con máximo número de pasos: 0,8 Kg.


### ■ MOTOR TIPO.

- **ASÍNCRONOS CA. 230 V. 50 Hz:**
  - Con dos sentidos de giro tipo K90 **230/400 V**.

### ■ OPCIONES.

- **Otros motores con PLACA PORTAMOTOR intermedia:**  
De diámetro exterior de 30 a Ø65 mm y eje de 3 a Ø7 mm.  
Velocidad máxima recomendada 4.000 r.p.m.
- **Fijación frontal:** 4 ó 6 taladros roscados a M4.
- **VERSION K80 ER:** Sin motor, con eje receptor de entrada de 6 u Ø8 mm. en el lado opuesto al del eje de salida, montado en rodamientos de bolas.

**Otras ejecuciones especiales, consultar.**

			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 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)
3,7	2	3,00	403	366	1,05	403	338	1,65	805	747	1,35	805	749	1,95
4,5	2	3,65	331	301	1,28	331	278	2,00	662	614	1,64	662	586	2,37
6,0	2	4,86	248	226	1,70	248	208	2,67	497	461	2,19	497	439	3,16
9,9	2	8,02	151	137	2,81	151	126	4,41	301	279	3,61	301	266	5,21
12,0	2	9,72	124	113	3,40	124	104	5,35	248	230	4,37	248	220	6,32
16,0	2	12,96	93	85	4,54	93	78	7,13	186	173	5,83	186	165	
23,6	3	17,20	63	57	6,02	63	53		126	117	7,74	126	112	
28,8	3	21,00	52	47	7,35	52	43		103	96		103	91	
36,9	3	26,90	40	37		40	34		81	75		81	71	
40,0	3	29,16	37	34		37	31		75	69		75	66	
45,0	3	32,81	33	30		33	28		66	61		66	59	
53,3	3	38,86	28	25		28	23		56	52		56	49	
60,0	3	43,74	25	23		25	21		50	46		50	44	
64,0	3	46,66	23	21		23	20		47	43		47	41	
69,1	4	45,34	22	20		22	18		43	40		43	38	
86,4	4	56,69	17	16	Ex par/torque máx. 8 N.m	17	14,5	Ex par/torque máx. 8 N.m	34	32	Ex par/torque máx. 8 N.m	34	30	Ex par/torque máx. 8 N.m
92,2	4	60,49	16,2	15		16,2	13,6		32	30		32	29	
96,0	4	62,99	15,5	14		15,5	13		31	29		31	27	
108,0	4	70,86	14	13		14	12		28	26		28	24	
120,0	4	78,73	12,4	11,3		12,4	10,4		25	23		25	22	
128,0	4	83,98	11,6	10,6		11,6	9,8		23	22		23	21	
135,0	4	88,57	11	10		11	9,3		22	20		22	20	
144,0	4	94,48	10	9		10	8,7		21	19		21	18	
160,0	4	104,98	9	8,5		9	8		19	17		19	16	
180,0	4	118,10	8	7,5		8	7		17	15		17	15	
200,0	4	131,22	7	7		7	6		15	14		15	13	
240,0	4	157,46	6,2	6		6,2	5,2		12	12		12	11	
259,2	5	153,06	5,7	5		5,7	4,8		11	11		11	10	
360,0	5	212,58	4,1	4		4,1	3,5		8	8		8	7,3	
400,0	5	236,20	3,7	3		3,7	3,1		7	7		7	6,6	
600,0	5	354,29	2,5	2,3		2,5	2,1		5	5		5	4	
800,0	5	472,39	1,9	1,7	1,9	1,6	4	3,5	4	3,3				
960,0	5	566,87	1,6	1,4	1,6	1,3	3,1	2,9	3,1	2,7				
1.152,0	6	612,22	1,3	1,2	1,3	1,1	2,6	2	2,6	2				
2.250,0	6	1195,74	0,7	0,6	0,7	0,6	1,3	1,2	1,3	1,2				
2.880,0	6	1530,55	0,5	0,5	0,5	0,4	1	1	1	0,9				

**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.