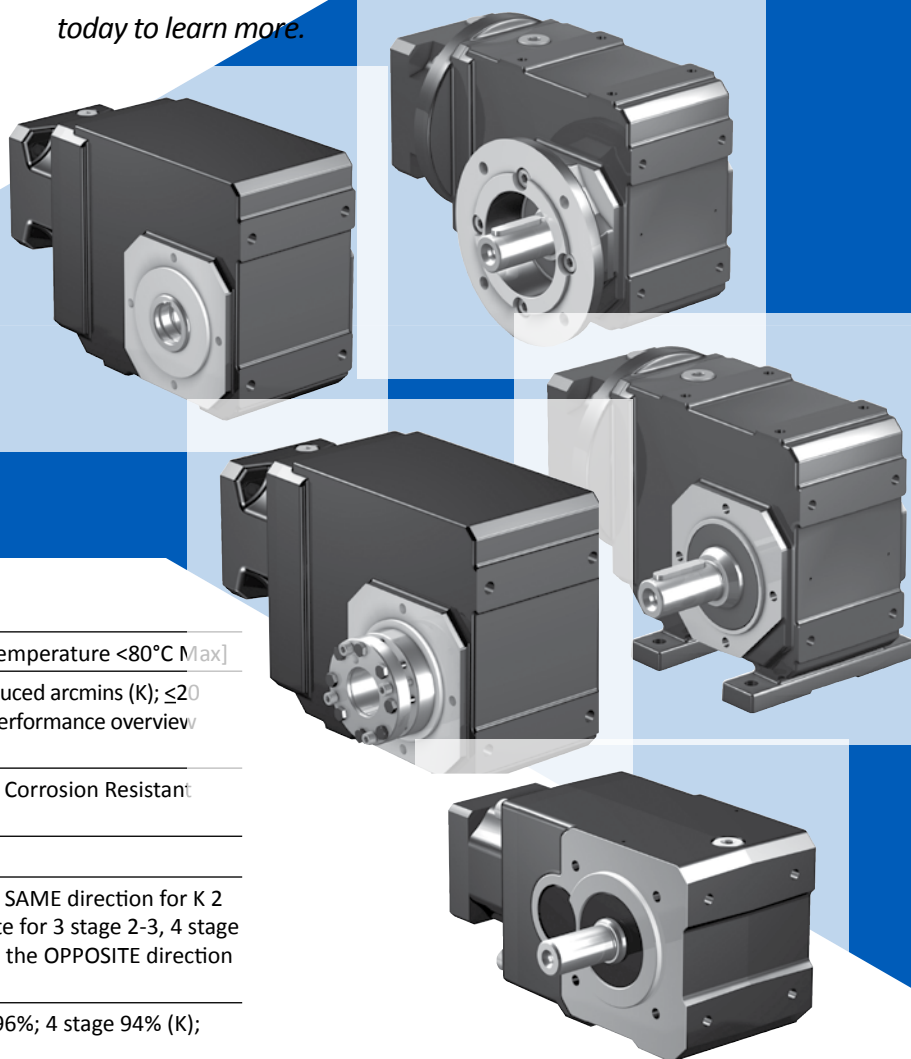


K/KL Series: RIGHT ANGLE — Versatile Outputs

Features

- 4:1 to 381:1 ratios (K) or 4:1 to 32:1 ratios (KL) (higher ratios available. Contact STÖBER.)
- Quiet running (<51dB(A))
- Reduced backlash option for increased precision (K)
- Symmetrical design for universal mounting (KL)
- Mounting flexibility to fit the application
- Adaptability: shafts available in metric or imperial, carbon or stainless steel to meet your requirements
- Optional food and corrosion resistant package
- Dual seals for extreme duty applications
- Error free motor mounting and quick changeover with toleranced pilot on motor plate
- Magnetic oil filtration to remove contaminants to prevent breakdowns
- Build and ship in one day
- Assembled in the USA

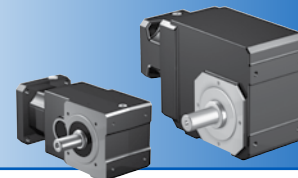
STÖBER K Series helical/bevel gear drives are the most versatile ServoFit® right angle gearheads. With mounting flexibility and a variety of output options, they are the optimal drive when you need configuration choices. The K hollow bore can easily replace a belt and pulley, eliminating additional components and accessories. Every gearbox is made to order. STÖBER will custom whatever you need to fit your application. Contact us today to learn more.



General Specifications

Ambient Temperature	0°C to +40°C (104°F) [Unit temperature <80°C Max]
Backlash	≤10 standard arcmins, ≤4 reduced arcmins (K); ≤20 standard arcmins (KL); (see performance overview chart, (see page 169)
Coating	Standard Black (RAL 790-4), Corrosion Resistant option, Food option
Degree of Protection	IP65
Direction of Rotation	Input and output rotate the SAME direction for K 2 stage, 3 stage, 5-10, opposite for 3 stage 2-3, 4 stage (K); Input and output rotate the OPPOSITE direction (KL); (see page 168)
Efficiency	1 and 2 stage 97%; 3 stage 96%; 4 stage 94% (K); 97% (KL)
Input RPM	Up to 6,000 RPM
Installation	Requires 10.9 fasteners for tapped holes housing. See page 328 for more information
Lubrication	Lubricated for life - standard Mobil 600XP200, option food grade Mobil SHC CIBUS 220 or synthetic Mobil SHC630
Mounting Position	Must be specified, (see page 169) (K); unrestricted (KL)
Warranty	5 Year Limited (2 Years on normal wear items: bearings, seals, etc.)

Overview











Selection Options At-a-Glance

Using the **Selection Data** table later in this section, select the K/KL Series Gearhead with the appropriate performance and design options tailored to your motor choice and exact application requirements. Use the part number guide below as a reference to build a part number for the complete gearhead assembly.

Part Number Examples:

①	②	③	④	⑤	⑥	⑦	⑧	⑨	
K	1	0	2	V	NG	0040	MT10	B	EL1 *
KL	1	0	2	P	N	0040	MQ	F	

Design Option	Part Number Code	Description
① Series	K KL	Right angle helical/bevel Compact right angle helical/bevel (size 1 and 2 only)
② Size	1 2 3 4 5 6 7 8 9 10	10 sizes of gearhead (KL sizes 1 and 2 only)
③ Generation	0 1	Version of gearhead
④ # of Stages	2 3 4	Two stage (determined by ratio) Three stage (determined by ratio) Four stage (determined by ratio)
⑤ Output	 A  S  V, P, G  W	Hollow bore* Shrink ring* — (specify side 3 or 4) Shaft output* — K Series only (specify side 3 and/or 4) Shaft with key* — KL Series only (specify side 3 or 4) Shaft without key* — KL Series only (specify side 3 or 4) — metric only Single or double wobble-free bushing* — KL2 & K1-8 only (If single bushing, specify side 3 or 4)
⑥ Housing	 F  G  GD  N, NG	F Round output flange (side 3 or 4 only, please specify) G Tapped holes on both sides of output GD Torque arm bracket mounting — K Series only (side 1 [shown] or 5 only, also side 2 on size K1 only, please specify) NG Foot mounting — K Series only (side 1 or 5; or side 2 on size K1, please specify) N Foot mounting — KL Series only (side 1 only)
⑦ Ratio	0040	Ratios range from 4:1 to 32:1 for KL Series and 4:1 to 381:1 for K Series (0040=4:1; 0063=6.3:1; 2700=270:1)
⑧ Motor Adapter	MQ MT10 – MT50	MQ input for KL series; 5 MT input sizes for K Series (see also motor mounting plate option, page 170)
⑨ Special Options	B F	Add when ordering Corrosion Resistant Duty Add when ordering Food Duty (size KL1 and 2; K1 thru K9 only)
* Mounting Position	EL1 EL2 EL3 EL4 EL5 EL6	Required special instruction for all K Series units only, see page 169

K/KL Series: RIGHT ANGLE — Versatile Outputs

Special Options

Lubrication Options

Food grade or synthetic optionally available (contact factory)

ATEX — K Series only

- ATmosphere EXplosible — Please allow up to 8 weeks for delivery

Coating Options

- Corrosion Resistant Duty (B special option)
- Food Duty (F special option)

Food and Corrosion Resistant units are lubricated for life with double output seals (where possible), stainless output shaft, bore, or bushing, and heat cured paint.



STÖBER

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series Performance Overview

K/KL Series performance is dependent on several factors including duty cycle, bearing design, gearhead size and stage configuration, among others. Use the chart below for preliminary evaluation, then use the following performance chart and selection information on the following pages for specific performance sizing and selection.

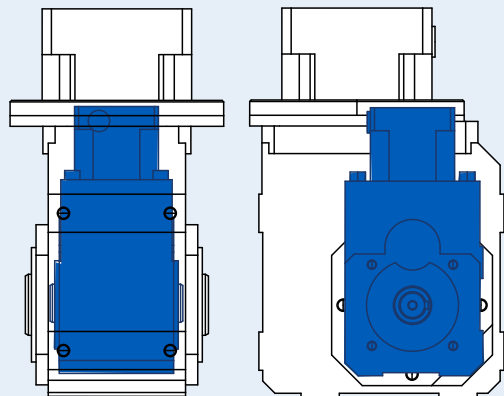
Size/Generation		KL10	KL20	K10	K20		K30		K40	
# of Stages		2	2	2	2	3	2	3	2	3
Permissible Acceleration Torque	M_{2BMAX} Nm	32	65	135	220		385		600	
Output Torque Nom.	M_{2N} Nm	25	50	119	200		350		550	
Torsional Stiffness	C_2 Nm/arcmin	≤1.8	≤3.9	≤5.8	≤8.1	≤8.1	≤9.6	≤9.7	≤19.7	≤19.9
Torsional Backlash ¹⁾ $\Delta\phi$ arcmin	Standard	≤25	≤20	≤12	≤10	≤10	≤10	≤10	≤10	≤10
	Reduced	—	—	≤6	≤5	≤6	≤4	≤5	≤4	≤5
Input Speed Max. n_{1MAX}	Continuous	EL1, 2, 5, 6	4000	4000	4000	4000	3800	3800	3500	3600
		EL3, 4	4000	4000	4000	3900	3900	3500	3500	3300
	Cyclic		6000	6000	6000	5500	5500	5000	5000	5000
Efficiency (@nom torque)	%	97	97	97	97	96	97	96	97	96
Weight	kg	6.3	9.5	14.0	18.1	24.0	30.4	33.1	42.1	45.3
	lbs	14	21	31	40	53	67	73	93	100
Noise ²⁾	dB(A)	≤59	≤65		≤53		≤53		≤51	
Axial Load Max. F_{2AMAX}	Solid Shaft	N	280	560	1900	2100	2400		3500	
	Hollow Bore	N	250	560	1900	2100	2400		3500	
Radial Load Max. ³⁾ F_{2RMAX}		N	1900	2800	5000	6000	7000		11,200	
Tilting Moment Max. ³⁾ M_{2KMAX}	Solid Shaft	Nm	43	118	360	430	525		1050	
	Hollow Bore	Nm	43	118	240	310	380		740	

¹⁾ Tested at 1.5% of nominal torque and recorded on the output side of the gearhead. For lower backlash, contact STÖBER technical support.

²⁾ Measurement at one (1) meter distance with input speed (n_1) of 2000 RPM.

³⁾ Rating based on output speed (n_2) of 20 RPM for K Series, 100 RPM for KL Series. For values at other speeds see page 172.

KL Series for a Compact Fit



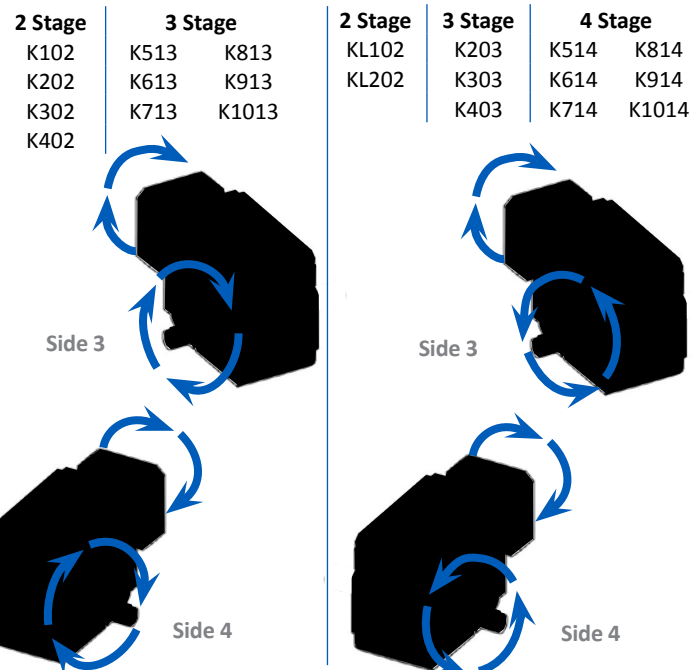
Size comparison of KL102 with K102

The STÖBER KL Series is a much more compact version of the K Series. Available in 4:1 to 32:1 ratios with backlash of <16 arcmins, the KL Series offers an alternative right angle helical/bevel gearhead for smaller gearhead size applications. Like the K Series, the KL is available in hollow, solid shaft, and wobble free bushing output options.

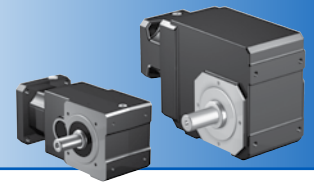
All units are lubricated for life with synthetic oil. Food grade oil available.

K/KL Series Direction of Rotation

Output available on side 3, 4 or both. Note: With a double output, the shaft rotation of Side 3 will be the OPPOSITE direction of Side 4 when viewed from Side 5.



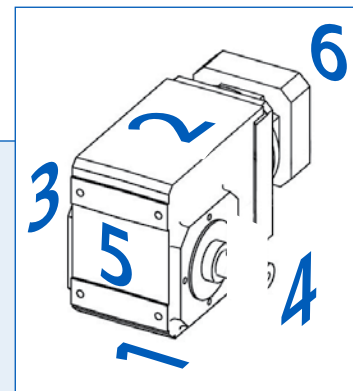
Overview



K/KL Series: RIGHT ANGLE — Versatile Outputs

K51		K61		K71		K81		K91		K101	
3	4	3	4	3	4	3	4	3	4	3	4
1000		1600		2600		4650		7700		13,200	
900		1450		2400		4200		7000		11,893	12,000
≤30.4	≤30.5	≤44.9	≤45.1	≤80.9	≤81.1	≤140.9	≤141.3	≤209.6	≤210.0	≤461.7	≤464.5
≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10
≤5	≤6	≤5	≤6	≤5	≤6	≤5	≤6	≤5	≤5	≤5	≤5
3400	3400	3100	3100	2900	2900	2800	2800	2600	2600	2500	2500
3000	3000	2800	2800	2600	2600	2500	2500	2500	2500	2300	2300
4500	4500	4000	4000	3800	3800	3600	3600	3400	3400	3000	3200
96	94	96	94	96	94	96	94	96	94	96	94
48.0	49.4	77.0	80.2	100.1	106.0	140.0	149.9	230.1	240.1	477.9	488.8
106	109	170	177	221	234	309	331	508	530	1055	1079
≤61		≤61		≤59		≤65		≤65		≤65	
3500		4000		5500		7250		16,500		25,000	
2500		3000		4100		5300		7000		9000	
13,450		16,000		22,000		29,000		65,000		80,000	
1580		1960		3200		3800		11,200		15,200	
1000		1300		2100		2600		3600		5000	

K units have the shaft on Side 3 and/or Side 4 (shown).
IMPORTANT: Shaft side must be specified when ordering.

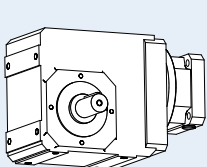


K Series Mounting Position Options

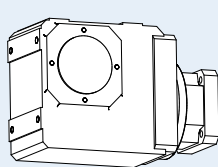
(KL units have unrestricted positioning)

When ordering, the Mounting Position **MUST BE SPECIFIED** using one of the Mounting Position order codes below.

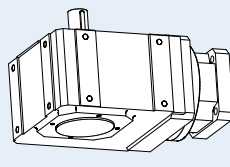
Note: the code relates to the orientation side that faces down. For example, EL1 has side 1 facing down, EL2 has side 2 facing down, etc.



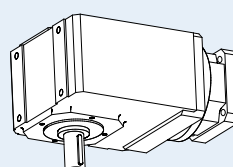
EL1



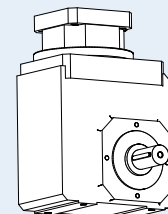
EL2



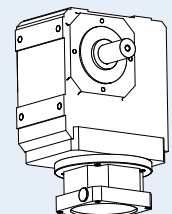
EL3



EL4



EL5



EL6

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series Motor Mounting Plate Option (Motor information required with Motor Adapter option)

STOBER ServoFit Gearheads fit the motor of your choice with the appropriate motor mounting plate assembled between the motor and the gearhead.

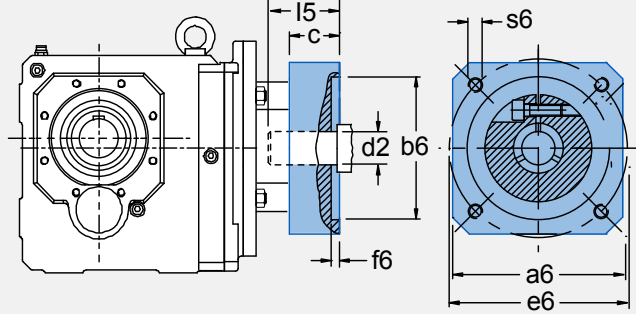
NOTE: When ordering a gearhead:

- Specify the motor manufacturer and part number
- Provide the motor drawing with dimensions, or specify the motor mounting dimensions (per the list shown at right)

For a precise dimension on a specific motor, or for general assistance, we recommend you contact STOBER Technical Support.

Customer Required Dimensions for Properly Sized Motor Mounting Plate

d2	Motor Shaft Diameter (If an adapter bushing is required it will be supplied with the motor plate.)
b6	Pilot Diameter
e6	Bolt Circle Diameter
s6	Bolt Diameter
l5	Motor Shaft Length
f6	Pilot Length
a6	Square Flange (Optional – motor plate will typically be made to match this dimension.)



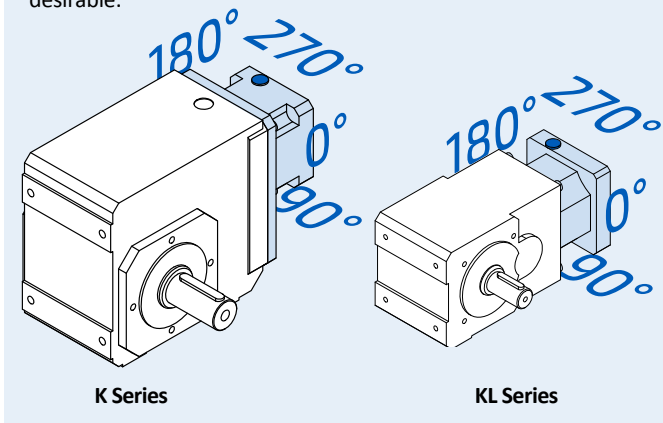
Motor Mounting Plate Dimensions — mm (Gearhead Part Number Specific)

	KL1_MQ	KL2_MQ MT10	MT20	MT30	MT40	MT50
Maximum Allowed Motor Shaft Dia. d2	16	19	24	38	48	60
Minimum Allowed Motor Plate Thickness c *	15	21	24	25	33	43

* Note that the c motor plate thickness is determined by the motor shaft length. The minimum motor plate thickness is the value listed.

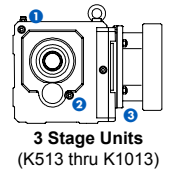
K/KL Series Motor Mounting Plate Access Hole

Access to the clamping screw for the motor coupling is located on the 270° side of the motor mounting plate at the location shown. If necessary, the motor mounting plate can be rotated in the field, if a 0°, 90° or 180° orientation for the access hole is desirable.

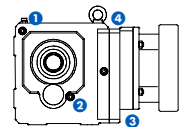


K/KL Series Lubrication Maintenance

With STOBER reducers very little maintenance is required under normal operating conditions. Units K102 thru K403 are supplied without breathers and are lubricated for life and maintenance free. Breathers are provided on standard units K513 thru K1014, located as shown to the right. STOBER recommends changing the lubrication in breather supplied units after 10,000 hours for normal operating conditions or every 5000 hours for wet operating conditions.



3 Stage Units
(K513 thru K1013)



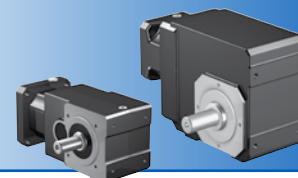
4 Stage Units
(K514 thru K1014)

Drain Plug and Vent Location

Mounting Position	1	2 *	2a *	3	4
EL1	Vent			Drain	
EL2	Drain			Vent	
EL3		Vent	Drain		
EL4		Drain	Vent		
EL5	K513-K1013	Drain		Vent	
	K514-K1014	Drain			Vent
EL6	K513-K1013	Vent		Drain	
	K514-K1014	Vent			Drain

* Position 2a is on the opposite side of 2.

Overview



K/KL Series Output Options

Diameters in **BOLD BLUE** are configurations readily available from inventory. Contact STÖBER for delivery on other output sizes.

			KL1	KL2	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10
Solid Shaft	Carbon Steel	Inches	—	3/4*	1	1-1/4	1-1/4	1-3/8	1-3/4	1-3/4	2-3/8	2-7/8	3-5/8	4-3/8
		Metric	16	20	25	30	30	40	45	50	60	70	90	110
	Stainless Steel	Inches	—	3/4	1	1-1/4	1-1/4	1-3/8	1-3/4	1-3/4	2-3/8	2-7/8	3-5/8	—
		Metric	16	20	25	30	—	—	45	—	—	—	—	—
Hollow Bore	Carbon Steel	Inches	5/8	3/4	1	1-3/16 1-1/4	1-3/8 1-7/16	1-7/16 1-1/2	2	2	2-3/8	2-3/4	3-1/4	4
		Metric	16	20	25	30	30 35	40	40 50	50	60	70	70	—
	Stainless Steel	Inches	5/8	3/4	1	1-1/8 1-1/4	1 1-1/4 1-3/8 1-7/16	1-1/2	1-1/2 2	2	—	—	2-15/16 3 3-7/16	—
		Metric	16	20	25	30	35	40	40 50	—	60	70	75	—
	Wobble Free Bushing (Stainless Steel except where noted)	Inches	—	3/4	1	1 1-3/16 1-1/4	1** 1-3/16** 1-1/4** 1-3/8** 1-7/16** 1-1/2**	1 1-3/16 1-1/4 1-3/8 1-7/16 1-1/2	1-7/16 1-1/2 1-5/8 1-11/16 1-3/4 1-7/8 1-15/16 2	1-7/16 1-1/2 1-5/8 1-11/16 1-3/4 1-15/16 2 2-3/16	1-15/16 2 2-3/16	2-3/16 2-3/8 2-7/16 2-3/4	—	—
		Metric	—	—	25	30	30 35	—	—	—	—	—	—	—
Shrink Ring	Carbon Steel	Single	—	—	25	30	30 35	—	—	—	—	—	—	—
		Double	—	—	25	30	30 35	40	40	40	—	—	—	—
	Carbon Steel	Metric	16	20	25	30	35	40	50	50	60	70	90	100

* Shaft with key only (part number code P)

**Also available in carbon steel

K/KL Series: RIGHT ANGLE — Versatile Outputs

K Series Standard & Optional Output Flange Sizes

Base Module	Flange Size
K1	140, 160*
K2	160, 200*
K3	160, 200* , 250
K4	250*
K5	250*
K6	300*
K7	300, 350*
K8	350 400* 450
K9	450*
K10	550*

* This is the standard flange size shipped with the unit unless otherwise specified. Optional flanges are not available for all sizes.

Overhung Load Calculations

Pulling forces or overhung load of pulleys, sheaves, sprockets, etc. on the reducer output shaft must not exceed the allowable limits shown in the load/life/speed calculations below.

Note: Overhung load is measured at the center of the shaft extension. No overhung load is encountered when a reducer is flange mounted and/or coupling connected to another unit. However, the shafts of all components must be accurately aligned and secured to prevent pre-loading of the bearings and premature bearing failure.

Use the following formula to determine actual overhung load for a given drive:

$$\text{Imperial OHL (lbs)} = \frac{126,000 \times \text{HP} \times K}{D \times n}$$

$$\text{Metric OHL (N)} = \frac{19,100 \times \text{kW} \times K}{D \times n}$$

Where:

OHL Overhung load (N or lbs)

HP Horsepower

kW Transmitted Kilowatt

D Pitch Diameter (inches or meters) of Sprocket, Gear, Sheave, Pulley, etc.

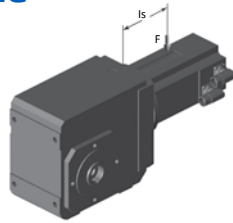
n Maximum Shaft RPM

K 1.00 Single Chain Drive; 1.25 Timing Belt Drive;
1.25 Spur or Helical Gear Drive; 1.50 V-Belt Drive; 2.50 Flat Belt Drive

K/KL Series: RIGHT ANGLE — Versatile Outputs

Permissible Motor Tilting Torque

The permissible tilting torque of the motor attached to the gear unit is a result of the static and dynamic load “F” from the motor weight, mass acceleration, and vibration multiplied by the distance from the center of gravity “ l_s ” of the motor.



$$M_{1k} = F \times l_s \leq M_{1K}$$

M_{1K}	MT10	MT20	MT30	MT40	MT50
Nm	25	60	125	250	600

Permissible Output Shaft Load and Tilting Moments*

Unit	P, G, V Solid Shaft Output ¹⁾				A, S, W Hollow Output ²⁾		
	Z_2	F_{2A}	F_{2R}	M_{2K}	Z_2	F_{2A}	M_{2K}
	mm	N	N	Nm	mm	N	Nm
KL1	20	380	1900	68	18.5	250	43
KL2	22	560	2800	118	22	560	118
K1	40	1900	5000	360	40	1900	240
K2	42	2100	6000	430	42	2100	310
K3	45	2400	7000	525	45	2400	380
K4	52	3500	11,200	1050	52	3500	740
K5	72	3500	13,450	1580	39	2500	1000
K6	72	4000	16,000	1960	42	3000	1300
K7	85	5500	22,000	3200	45	4100	2100
K8	60	7250	29,000	3800	50	5300	2600
K9	87	16,500	65,000	11,200	56	7000	3600
K10	84 ³⁾	25,000	80,000 ³⁾	15,200	56	9000	5000

* Refer to illustration and definitions below.

¹⁾ For DOUBLE output shaft: $F_{2R} \times 0.7$

²⁾ Values shown for “W” Style are for double bushings. For single bushings use value $M_{2K} \times 0.5$ and $F_{2A} \times 0.5$

³⁾ Solid Shaft unit with a Flange – z_2 value is 132mm/5.20”; F_{2R} value is 64,000N/14,400 lbs.

K/KL Series Load/Life/Speed Calculations

The permissible load and tilting moment values are based on an output speed of 20 RPM (K Series) or 100 RPM (KL Series). For higher speeds the following applies, where n_2 is the desired speed:

K Series

$$F_{2AX} = \frac{F_{2A}}{\sqrt[3]{\frac{n_2}{20}}}, \quad F_{2RX} = \frac{F_{2R}}{\sqrt[3]{\frac{n_2}{20}}}, \quad M_{2KX} = \frac{M_{2K}}{\sqrt[3]{\frac{n_2}{20}}}$$

KL Series

$$F_{2AX} = \frac{F_{2A}}{\sqrt[3]{\frac{n_2}{100}}}, \quad F_{2RX} = \frac{F_{2R}}{\sqrt[3]{\frac{n_2}{100}}}, \quad M_{2KX} = \frac{M_{2K}}{\sqrt[3]{\frac{n_2}{100}}}$$

The application input tilting moment should be determined by the following formula:

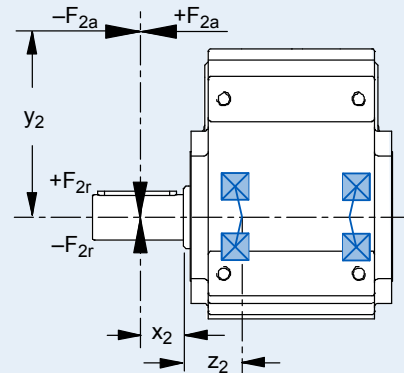
$$M_{2A} = \frac{2 \cdot F_{2a} \cdot y_2 + F_{2rb} \cdot (x_2 + z_2)}{1000} \leq M_{2K}$$

Where:

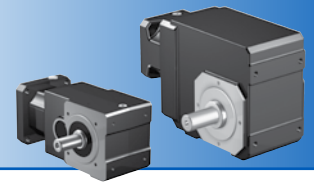
F_{2a} Axial Load at Output Shaft
 F_{2A} Permissible Axial Load
 F_{2r} Radial Load at Output Shaft
 F_{2R} Permissible Radial Load
 F_{2RB} Acceleration Permissible Radial Load

M_{2K} Rated Tilting Torque
 M_{2k} Equivalent Tilting Load
 M_{2KB} Acceleration Tilting Torque
 z_2 Distance Factor

All formulas shown are based on METRIC values
 Upper case letters are permissible values. Lower case letters are for existing values.



Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins)	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
		Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		
Nom.	Exact										

KL1

4.000	4/1	15	22	29	25	KL102_0040 MQ	3500	3500	5000	0.38	1.0
8.000	8/1	23	30	58	20	KL102_0080 MQ	3500	3500	5000	0.35	1.6
16.00	16/1	25	30	60	20	KL102_0160 MQ	4000	4000	6000	0.29	1.8
32.00	32/1	25	32	64	20	KL102_0320 MQ	4000	4000	6000	0.28	1.7

KL2

4.000	4/1	32	47	58	20	KL202_0040 MQ	3500	3500	5000	0.89	1.8
8.000	8/1	45	60	116	16	KL202_0080 MQ	3500	3500	5000	0.77	3.5
16.00	16/1	50	60	120	16	KL202_0160 MQ	4000	4000	6000	0.54	3.9
32.00	32/1	50	65	130	16	KL202_0320 MQ	4000	4000	6000	0.52	3.2

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

* Square motor adapter code (shaft diameter max - mm): For KL102 MQ (16), For KL202 MQ (19)

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K1

4.000	4/1	42	42	52	12/6	K102_0040 MT10	3300	2800	4500	1.4	2.8
		58	78	98		K102_0040 MT20				2.0	2.9
5.568	1520/273	58	58	72	12/6	K102_0056 MT10	3300	2800	4500	1.3	4.3
		65	109	136		K102_0056 MT20				1.9	4.5
6.000	6/1	59	59	74	12/6	K102_0060 MT10	3300	2800	4500	1.1	3.4
		66	111	139		K102_0060 MT20				1.7	
6.644	299/45	64	64	80	12/6	K102_0066 MT10	3600	3300	5000	1.0	3.5
		69	116	151		K102_0066 MT20	3500			1.6	
8.309	1911/230	74	77	97	12/6	K102_0083 MT10	3600	3300	5000	0.9	3.7
			125	182		K102_0083 MT20	3500			1.5	
9.249	1748/189	76	90	112	12/6	K102_0092 MT10	3600	3300	5000	0.9	5.2
			129	211		K102_0092 MT20	3500			1.5	
10.14	507/50	79	91	114	12/6	K102_0100 MT10	4000	3800	5500	0.8	3.8
			125	214		K102_0100 MT20	3500	3500	5000	1.4	
11.57	266/23	82	108	134	12/6	K102_0115 MT10	3600	3300	5000	0.8	5.4
			135	240		K102_0115 MT20	3500			1.4	
12.62	429/34	85	109	136	12/6	K102_0125 MT10	4000	3800	5500	0.7	3.9
			125	220		K102_0125 MT20	3500	3500	5000	1.3	
14.11	494/35	88	127	158	12/6	K102_0140 MT10	4000	3800	5500	0.8	5.5
			135	240		K102_0140 MT20	3500	3500	5000	1.4	5.6
16.71	117/7	93	125	172	12/6	K102_0165 MT10	4000	4000	6000	0.7	4.0
						K102_0165 MT20	3500	3500	5000	1.3	
17.56	2090/119	95	135	189	12/6	K102_0175 MT10	4000	3800	5500	0.7	5.6
				240		K102_0175 MT20	3500	3500	5000	1.3	
20.15	403/20	99	125	199	12/6	K102_0200 MT10	4000	4000	6000	0.7	4.0
						K102_0200 MT20	3500	3500	5000	1.3	
23.27	1140/49	104	135	239	12/6	K102_0230 MT10	4000	4000	6000	0.7	5.7
						K102_0230 MT20	3500	3500	5000	1.3	
25.22	1261/50	96	115	192	12/6	K102_0250 MT10	4000	4000	6000	0.7	4.0
						K102_0250 MT20	3500	3500	5000	1.3	
28.05	589/21	111	135	240	12/6	K102_0280 MT10	4000	4000	6000	0.7	5.7
						K102_0280 MT20	3500	3500	5000	1.3	5.8
33.71	4719/140	73	88	146	12/6	K102_0340 MT10	4000	4000	6000	0.6	4.0
35.11	3686/105	119	135	240	12/6	K102_0350 MT10	4000	4000	6000	0.6	5.8
						K102_0350 MT20	3500	3500	5000	1.2	
40.30	403/10	61	74	96	12/6	K102_0400 MT10	4000	4000	6000	0.6	4.1
46.92	2299/49	102	122	203	12/6	K102_0470 MT10	4000	4000	6000	0.6	5.8
50.31	5031/100	50	60	100	12/6	K102_0500 MT10	4000	4000	6000	0.6	4.1
56.10	1178/21	86	103	133	12/6	K102_0560 MT10	4000	4000	6000	0.6	5.8
70.03	2451/35	70	83	139		K102_0700 MT10	4000	4000	6000	0.6	5.8

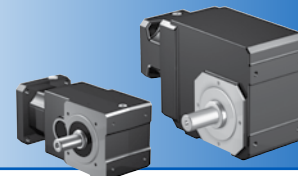
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K2 (continued next page)

4.000	4/1	44	44	55	10/5	K202_0040 MT10	3000	2600	4000	3.1	3.8
		103	171	245		K202_0040 MT20				3.7	3.9
						K202_0040 MT30				8.5	4.7
4.364	48/11	48	48	59	10/5	K202_0044 MT10	3000	2600	4000	2.7	4.1
		106	180	263		K202_0044 MT20				3.3	4.2
						K202_0044 MT30				8.1	4.9
5.177	2107/407	113	190	308	10/5	K202_0052 MT20	3000	2600	4000	2.9	4.7
						K202_0052 MT30				7.7	5.3
6.000	6/1	65	65	82	10/5	K202_0060 MT10	3000	2600	4000	2.3	5.8
		118	200	361		K202_0060 MT20				2.9	5.9
						K202_0060 MT30				7.7	6.6
6.683	2279/341	69	69	86	10/5	K202_0067 MT10	3500	3100	4500	1.7	5.2
		123	207	380		K202_0067 MT20			4000	2.3	5.3
						K202_0067 MT30				7.1	5.8
7.118	2107/296	125	211	400	10/5	K202_0071 MT20	3000	2600	4000	2.6	6.4
						K202_0071 MT30				7.4	7.0
8.397	2494/297	83	83	104	10/5	K202_0084 MT10	3500	3100	4500	1.4	5.7
		132	220	400		K202_0084 MT20			4000	2.0	
						K202_0084 MT30				6.8	6.1
9.190	2279/248	95	95	118	10/5	K202_0092 MT10	3500	3100	4500	1.5	6.9
		136	220	400		K202_0092 MT20			4000	2.1	7.0
						K202_0092 MT30				6.9	7.4
10.07	2881/286	97	97	121	10/5	K202_0100 MT10	3900	3500	5000	1.2	5.9
		141	220	400		K202_0100 MT20	3500		4000	1.8	6.0
						K202_0100 MT30				6.6	6.2
11.55	1247/108	115	115	143	10/5	K202_0115 MT10	3500	3100	4500	1.3	7.3
		147	220	400		K202_0115 MT20			4000	1.9	7.4
						K202_0115 MT30					6.7
12.71	559/44	117	117	146	10/5	K202_0125 MT10	3900	3500	5000	1.0	6.2
		152	220	400		K202_0125 MT20	3500		4000	1.6	
						K202_0125 MT30				6.4	6.4
13.85	2881/208	133	133	166	10/5	K202_0140 MT10	3900	3500	5000	1.1	7.6
		156	220	400		K202_0140 MT20	3500		4000	1.7	
						K202_0140 MT30				6.5	7.8
16.86	2967/176	147	147	184	10/5	K202_0170 MT10	4000	3900	5500	0.9	6.4
		167	220	400		K202_0170 MT20	3500	3500	5000	1.5	
						K202_0170 MT30			4000	6.3	6.5
17.47	559/32	161	161	201	10/5	K202_0175 MT10	3900	3500	5000	1.0	7.8
		169	220	400		K202_0175 MT20	3500		4000	1.6	
						K202_0175 MT30					6.4

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K2 (continued from previous page)

20.33	1118/55	170	170	212	10/5	K202_0200 MT10	4000	3900	5500	0.8	6.4
		178	220	400		K202_0200 MT20	3500	3500	5000	1.4	6.5
						K202_0200 MT30			4000	6.2	
	2967/128	186	202	253	10/5	K202_0230 MT10	4000	3900	5500	0.8	7.9
			220	400		K202_0230 MT20	3500	3500	5000	1.4	
						K202_0230 MT30			4000	6.2	8.0
25.13	1935/77	191	200	250	10/5	K202_0250 MT10	4000	3900	5500	0.7	6.5
			220	400		K202_0250 MT20	3500	3500	5000	1.3	
						K202_0250 MT30			4000	6.1	6.6
27.95	559/20	197	220	292	10/5	K202_0280 MT10	4000	3900	5500	0.8	8.0
				400		K202_0280 MT20	3500	3500	5000	1.4	
						K202_0280 MT30			4000	6.2	8.1
33.62	1849/55	154	185	308	10/5	K202_0340 MT10	4000	3900	5500	0.7	6.6
						K202_0340 MT20	3500	3500	5000	1.3	
34.55	1935/56	200	220	344	10/5	K202_0350 MT10	4000	3900	5500	0.7	8.0
				400		K202_0350 MT20	3500	3500	5000	1.3	8.1
						K202_0350 MT30			4000	6.1	
40.39	1333/33	116	139	191	10/5	K202_0400 MT10	4000	3900	5500	0.7	6.6
46.23	1849/40	200	220	400	10/5	K202_0460 MT10	4000	3900	5500	0.7	8.1
						K202_0460 MT20	3500	3500	5000	1.3	
50.49	6665/132	96	116	193	10/5	K202_0500 MT10	4000	3900	5500	0.6	6.6
55.54	1333/24	159	191	262	10/5	K202_0560 MT10	4000	3900	5500	0.7	8.1
69.43	6665/96	132	159	265	10/5	K202_0690 MT10	4000	3900	5500	0.6	8.1
39.45	135,407/3432	162	162	202	10/6	K203_0390 MT10	4000	3900	5500	0.7	6.6
45.22	58,609/1296	185	185	231	10/6	K203_0450 MT10	4000	3900	5500	0.7	8.1
49.76	26,273/528	200	204	255	10/6	K203_0500 MT10	4000	3900	5500	0.7	6.6
54.25	135,407/2496	200	220	278	10/6	K203_0540 MT10	4000	3900	5500	0.7	8.1
66.03	46,483/704	200	220	338	10/6	K203_0660 MT10	4000	3900	5500	0.7	6.6
68.42	26,273/384	200	220	350	10/6	K203_0680 MT10	4000	3900	5500	0.7	8.1
79.62	26,273/330	200	220	400	10/6	K203_0800 MT10	4000	3900	5500	0.7	6.6
90.79	46,483/512	200	220	400	10/6	K203_0910 MT10	4000	3900	5500	0.7	8.1
109.5	26,273/240	200	220	400	10/6	K203_1090 MT10	4000	3900	5500	0.7	8.1
135.3	30,315/224	200	220	400	10/6	K203_1350 MT10	4000	3900	5500	0.7	8.1
181.0	86,903/480	200	220	400	10/6	K203_1810 MT10	4000	3900	5500	0.7	8.1
217.5	62,651/288	159	191	262	10/6	K203_2180 MT10	4000	3900	5500	0.6	8.1
271.9	313,255/1152	132	159	265	10/6	K203_2720 MT10	4000	3900	5500	0.7	8.1

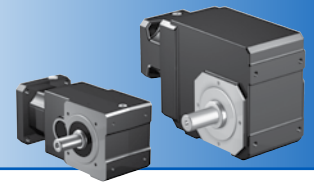
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K3 (continued next page)

4.000	4/1	155	171	253	10/4	K302_0040 MT20	2700	2300	3800	6.4	4.5
		181	306	652		K302_0040 MT30				11.2	5.5
4.364	48/11	169	186	273	10/4	K302_0044 MT20	2700	2300	3800	5.7	4.9
		186	315	700		K302_0044 MT30				10.5	5.8
5.375	43/8	200	229	326	10/4	K302_0054 MT20	2700	2300	3800	4.5	5.7
			260			K302_0054 MT30				9.3	6.5
6.000	6/1	207	256	376	10/4	K302_0060 MT20	2700	2300	3800	4.8	6.7
			350	700		K302_0060 MT30				9.6	7.6
6.740	2150/319	215	288	397	10/4	K302_0067 MT20	3200	2800	4200	3.5	6.5
			317			K302_0067 MT30			4000	8.3	7.1
7.391	473/64	222	315	448	10/4	K302_0074 MT20	2700	2300	3800	3.9	7.5
			358			K302_0074 MT30				8.7	8.2
8.444	2322/275	232	360	479	10/4	K302_0084 MT20	3200	2800	4200	2.9	7.1
			383			K302_0084 MT30			4000	7.7	7.5
9.267	1075/116	239	385	546	10/4	K302_0093 MT20	3200	2800	4200	3.2	8.2
						K302_0093 MT30			4000	8.0	8.7
10.14	3010/297	247	385	554	10/4	K302_0100 MT20	3500	3100	5000	2.4	7.4
						K302_0100 MT30			4000	7.2	7.8
11.61	1161/100	258	385	659	10/4	K302_0115 MT20	3200	2800	4200	2.6	8.6
						K302_0115 MT30			4000	7.4	9.0
12.58	3182/253	120	120	150	10/4	K302_0125 MT10	3500	3100	5000	1.5	7.7
		265	385	661		K302_0125 MT20			2.1	7.8	
13.94	1505/108	274	385	700	10/4	K302_0125 MT30	3500	3100	4000	6.9	8.0
						K302_0140 MT20			5000	2.3	8.9
16.94	559/33	152	152	189	10/4	K302_0140 MT30	3500	3100	4000	7.1	9.2
		293	385	700		K302_0170 MT10			3800	3500	5000
17.29	1591/92	164	164	206	10/4	K302_0170 MT20	3500	3100	4000		1.8
		295	385	700		K302_0170 MT30			6.6	8.2	
20.28	3569/176	176	176	219	10/4	K302_0175 MT10	3500	3100	5000	1.4	9.1
		311	385	700		K302_0175 MT20			2.0	9.2	
23.29	559/24	208	208	260	10/4	K302_0175 MT30	3500	3100	4000	6.8	9.4
		325	385	700		K302_0200 MT10			3800	3500	5000
25.26	3612/143	176	176	219	10/4	K302_0200 MT20	3500	3100	4000		1.6
		311	385	700		K302_0200 MT30			6.4	8.3	
27.88	3569/128	208	208	260	10/4	K302_0230 MT10	3500	3100	5000	1.1	9.4
		325	385	700		K302_0230 MT20			1.7		
25.26	3612/143	208	208	259	10/4	K302_0230 MT30	3500	3100	4000	6.5	9.5
		334	385	700		K302_0250 MT10			3800	3500	5000
27.88	3569/128	241	241	302	10/4	K302_0250 MT20	3500	3100	4000		1.5
		346	385	700		K302_0250 MT30			3500	4000	6.3

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K3 (continued from previous page)

32.65	44,892/1375	350	383	479	10/5	K303_0330 MT20	3500	3500	5000	1.5	8.3
33.62	1849/55	250	260	324	10/4	K302_0340 MT10	3800	3500	5000	0.8	8.3
			300	501		K302_0340 MT20	3500		4000	1.4	
						K302_0340 MT30				6.2	
34.73	903/26	285	285	357	10/4	K302_0350 MT10	3800	3500	5000	0.9	9.5
		350	385	672		K302_0350 MT20	3500		4000	1.5	
						K302_0350 MT30				6.3	
35.83	215/6	350	385	546	10/5	K303_0360 MT20	3500	3500	5000	1.5	9.5
39.19	34,916/891	350	385	554	10/5	K303_0390 MT20	3500	3500	5000	1.4	8.4
40.51	4902/121	193	231	376	10/4	K302_0410 MT10	3800	3500	5000	0.7	8.4
						K302_0410 MT20	3500			1.3	
44.89	11,223/250	350	385	659	10/5	K303_0450 MT20	3500	3500	5000	1.4	9.6
46.23	1849/40	344	357	446	10/4	K302_0460 MT10	3800	3500	5000	0.8	9.6
			385	688		K302_0460 MT20	3500		5000	1.4	
						K302_0460 MT30			4000	6.2	
48.63	184,556/3795	350	385	661	10/5	K303_0490 MT20	3500	3500	5000	1.4	8.4
49.26	74,777/1518	202	202	252	10/5	K303_0490 MT10	3800	3500	5000	0.7	8.4
50.49	6665/132	154	185	234	10/4	K302_0500 MT10	3800	3500	5000	0.7	8.4
53.88	8729/162	350	385	700	10/5	K303_0540 MT20	3500	3500	5000	1.4	9.6
54.58	70,735/1296	223	223	279	10/5	K303_0550 MT10	3800	3500	5000	0.7	9.6
55.71	2451/44	265	318	517	10/4	K302_0560 MT10	3800	3500	5000	0.7	9.6
						K302_0560 MT20	3500			1.3	
65.50	32,422/495	350	385	700	10/5	K303_0650 MT20	3500	3500	5000	1.4	8.4
66.35	26,273/396	272	272	340	10/5	K303_0660 MT10	3800	3500	5000	0.7	8.4
66.87	46,139/690	350	385	700	10/5	K303_0670 MT20	3500	3500	5000	1.4	9.6
67.73	74,777/1104	277	277	347	10/5	K303_0680 MT10	3800	3500	5000	0.7	9.6
69.43	6665/96	212	254	322	10/4	K302_0690 MT10	3800	3500	5000	0.7	9.6
78.41	103,501/1320	350	385	700	10/5	K303_0780 MT20	3500	3500	5000	1.4	8.4
79.42	167,743/2112	320	325	406	10/5	K303_0790 MT10	3800	3500	5000	0.7	8.4
90.06	16,211/180	350	385	700	10/5	K303_0900 MT20	3500	3500	5000	1.4	9.6
91.23	26,273/288	350	373	467	10/5	K303_0910 MT10	3800	3500	5000	0.7	9.6
107.8	103,501/960	350	385	700	10/5	K303_1080 MT20	3500	3500	5000	1.4	9.6
109.2	167,743/1536	350	385	559	10/5	K303_1090 MT10	3800	3500	5000	0.7	9.6
134.3	8729/65	350	385	672	10/5	K303_1340 MT20	3500	3500	5000	1.4	9.7
136.0	14,147/104	350	385	672	10/5	K303_1360 MT10	3800	3500	5000	0.7	9.7
178.7	53,621/300	344	385	688	10/5	K303_1790 MT20	3500	3500	5000	1.4	9.7
181.0	86,903/480	344	385	688	10/5	K303_1810 MT10	3800	3500	5000	0.7	9.7
218.2	38,399/176	265	318	517	10/5	K303_2180 MT10	3800	3500	5000	0.7	9.7
271.9	313,255/1152	212	254	322	10/5	K303_2720 MT10	3800	3500	5000	0.7	9.7

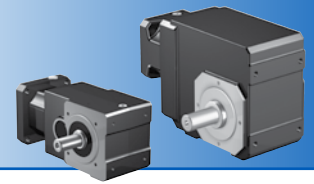
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



K/KL Series: RIGHT ANGLE – Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K4 (continued next page)

4.000	4/1	155	171	261	10/4	K402_0040 MT20	2600	2200	3500	11.4	6.2	
		271	405	673		K402_0040 MT30				16.2	8.2	
			459			K402_0040 MT40				20.2	11.2	
4.364	48/11	169	186	283	10/4	K402_0044 MT20	2600	2200	3500	10.1	6.9	
		279	442	729		K402_0044 MT30				14.9	8.9	
						K402_0044 MT40				18.9	11.8	
5.422	1849/341	210	231	341	10/4	K402_0054 MT20	2600	2200	3500	7.5	8.7	
		300	508	880		K402_0054 MT30				12.3	10.7	
						K402_0054 MT40				16.3	13.2	
6.000	6/1	233	256	389	10/4	K402_0060 MT20	2600	2200	3500	8.4	10.4	
		311	525	1002		K402_0060 MT30				13.2	12.8	
						K402_0060 MT40				17.2	15.7	
6.719	215/32	261	287	407	10/4	K402_0067 MT20	3000	2600	4000	5.6	10.5	
		323	545	1050		K402_0067 MT30			3500	10.4	12.2	
						K402_0067 MT40			14.4	14.3		
7.456	1849/248	289	318	469	10/4	K402_0075 MT20	2600	2200	3500	6.4	12.5	
		334	564	1100		K402_0075 MT30				11.2	14.6	
						K402_0075 MT40				15.2	17.0	
8.377	645/77	325	358	491	10/4	K402_0084 MT20	3000	2600	4000	4.3	12.1	
		347	587	1100		K402_0084 MT30			3500	9.1	13.6	
						K402_0084 MT40			13.1	15.1		
9.238	2365/256	358	394	560	10/4	K402_0092 MT20	3000	2600	4000	4.9	14.4	
		359	600	1100		K402_0092 MT30			3500	9.7	16.1	
						K402_0092 MT40			13.7	17.9		
10.10	1333/132	370	431	569	10/4	K402_0100 MT20	3400	3000	4500	3.5	13.3	
			600	1100		K402_0100 MT30			3000	4000	8.3	14.5
						K402_0100 MT40			3500	12.3	15.6	
11.52	645/56	386	492	675	10/4	K402_0115 MT20	3000	2600	4000	3.9	16.0	
			600	1100		K402_0115 MT30			3500	8.7	17.3	
						K402_0115 MT40			12.7	18.6		
12.66	2924/231	399	540	690	10/4	K402_0125 MT20	3400	3000	4500	2.8	14.4	
			600	1100		K402_0125 MT30			3000	4000	7.6	15.2
						K402_0125 MT40			3500	11.6	16.1	
13.89	1333/96	411	593	783	10/4	K402_0140 MT20	3400	3000	4500	3.2	17.0	
			600	1100		K402_0140 MT30			3000	4000	8.0	18.0
						K402_0140 MT40			3500	12.0	19.0	
16.94	559/33	432	600	867	10/4	K402_0170 MT20	3500	3300	5000	2.2	15.4	
				1100		K402_0170 MT30			4000	7.0	15.9	
						K402_0170 MT40			3000	3000	3500	11.0

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K4 (continued next page)

17.41	731/42	443	600	949	10/4	K402_0175 MT20	3400	3000	4500	2.6	18.0
				1100		K402_0175 MT30			4000	7.4	18.7
						K402_0175 MT40			3500	11.4	19.3
20.20	1333/66	447	600	998	10/4	K402_0200 MT20	3500	3300	5000	2.0	15.8
		466				K402_0200 MT30			4000	6.8	16.2
						K402_0200 MT40			3500	10.8	16.5
23.29	559/24	488	600	1100	10/4	K402_0230 MT20	3500	3300	5000	2.1	18.8
						K402_0230 MT30			4000	6.9	19.2
						K402_0230 MT40			3500	10.9	19.6
25.28	4171/165	460	600	1001	10/4	K402_0250 MT20	3500	3300	5000	1.7	16.2
		501				K402_0250 MT30			4000	6.5	16.4
						K402_0250 MT40			3500	10.5	16.7
27.77	1333/48	518	600	1100	10/4	K402_0280 MT20	3500	3300	5000	1.9	19.1
						K402_0280 MT30			4000	6.7	19.4
						K402_0280 MT40			3500	10.7	19.7
32.39	2494/77	393	393	491	10/5	K403_0320 MT20	3500	3300	5000	1.6	16.4
33.68	4816/143	389	467	634	10/4	K402_0340 MT20	3500	3300	5000	1.5	16.5
						K402_0340 MT30			4000	6.3	16.6
34.76	4171/120	550	600	1100	10/4	K402_0350 MT20	3500	3300	5000	1.7	19.4
						K402_0350 MT30			4000	6.5	19.6
						K402_0350 MT40			3500	10.5	19.7
35.72	13,717/384	448	448	560	10/5	K403_0360 MT20	3500	3300	5000	1.6	19.4
39.05	38,657/990	455	455	569	10/5	K403_0390 MT20	3500	3300	5000	1.5	16.6
40.51	4902/121	308	370	616	10/4	K402_0410 MT20	3500	3300	5000	1.4	16.6
						K402_0410 MT30			4000	6.2	16.7
44.54	1247/28	540	540	675	10/5	K403_0450 MT20	3500	3300	5000	1.5	19.6
46.31	602/13	535	600	872	10/4	K402_0460 MT20	3500	3300	5000	1.5	19.6
						K402_0460 MT30			4000	6.3	19.7
48.94	169,592/3465	550	552	690	10/5	K403_0490 MT20	3500	3300	5000	1.5	16.7
50.43	5547/110	270	323	459	10/4	K402_0500 MT20	3500	3300	5000	1.4	16.7

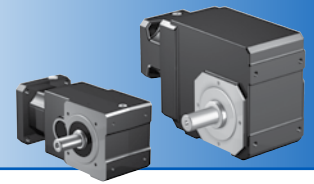
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K4 (continued from previous page)

53.69	38,657/720	550	600	783	10/5	K403_0540 MT20	3500	3300	5000	1.5	19.7
55.71	2451/44	424	508	847	10/4	K402_0560 MT20	3500	3300	5000	1.4	19.7
						K402_0560 MT30			4000	6.2	19.8
65.50	32,422/495	550	600	867	10/5	K403_0650 MT20	3500	3300	5000	1.4	16.8
66.35	26,273/396	272	272	340	10/5	K403_0660 MT10	3600	3300	5000	0.7	16.8
67.30	21,199/315	550	600	949	10/5	K403_0670 MT20	3500	3300	5000	1.4	19.8
68.17	34,357/504	279	279	349	10/5	K403_0680 MT10	3600	3300	5000	0.7	19.7
69.34	5547/80	371	445	631	10/4	K402_0690 MT20	3500	3300	5000	1.3	19.8
78.10	38,657/495	550	600	998	10/5	K403_0780 MT20	3500	3300	5000	1.4	16.8
79.11	62,651/792	324	324	405	10/5	K403_0790 MT10	3600	3300	5000	0.7	16.8
90.06	16,211/180	550	600	1100	10/5	K403_0900 MT20	3500	3300	5000	1.4	19.8
91.23	26,273/288	373	373	467	10/5	K403_0910 MT10	3600	3300	5000	0.7	19.8
107.4	38,657/360	550	600	1100	10/5	K403_1070 MT20	3500	3300	5000	1.4	19.8
108.8	62,651/576	445	445	557	10/5	K403_1090 MT10	3600	3300	5000	0.7	19.8
134.4	120,959/900	550	600	1100	10/5	K403_1340 MT20	3500	3300	5000	1.4	19.9
136.1	196,037/1440	517	557	697	10/5	K403_1360 MT10	3600	3300	5000	0.7	19.9
179.1	34,916/195	535	600	872	10/5	K403_1790 MT20	3500	3300	5000	1.4	19.9
181.4	14,147/78	535	600	872	10/5	K403_1810 MT10	3600	3300	5000	0.7	19.9
215.4	23,693/110	424	508	847	10/5	K403_2150 MT20	3500	3300	5000	1.4	19.9
218.2	38,399/176	424	508	847	10/5	K403_2180 MT10	3600	3300	5000	0.7	19.9
271.6	86,903/320	371	445	631	10/5	K403_2720 MT10	3600	3300	5000	0.7	19.9

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		Nm
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K5 (continued next page)

7.347	551/75	617	734	1258	10/5	K513_0073 MT30	1900	1800	3000	23.1	19.4
			1000			K513_0073 MT40				27.1	24.0
8.134	17,081/2100	638	813	1393	10/5	K513_0081 MT30	1900	1800	3000	21.2	20.8
			1000			K513_0081 MT40				25.2	25.0
9.168	1421/155	664	916	1523	10/5	K513_0092 MT30	1900	1800	3000	18.2	22.3
			1000			K513_0092 MT40				22.2	26.0
10.15	203/20	687	1000	1686	10/5	K513_0100 MT30	1900	1800	3000	17.0	23.5
						K513_0100 MT40				21.0	26.7
11.57	10,759/930	717	1000	1800	10/5	K513_0115 MT30	2300	2200	3600	14.5	24.8
						K513_0115 MT40			3500	18.5	27.5
12.81	1537/120	742	1000	1800	10/5	K513_0130 MT30	2300	2200	3600	13.7	25.7
						K513_0130 MT40			3500	17.7	28.0
14.54	5887/405	556	611	867	10/5	K513_0145 MT20	2300	2200	3600	7.2	24.7
		774	1000	1800		K513_0145 MT30			3500	12.0	26.6
						K513_0145 MT40			3500	16.0	28.6
16.09	26,071/1620	615	677	960	10/5	K513_0160 MT20	2300	2200	3600	6.7	25.6
		801	1000	1800		K513_0160 MT30			3500	11.5	27.3
						K513_0160 MT40			3500	15.5	28.9
17.48	6293/360	668	735	1013	10/5	K513_0175 MT20	2800	2500	4000	5.8	26.2
		823	1000	1800		K513_0175 MT30			3500	10.6	27.7
						K513_0175 MT40			3500	14.6	29.1
19.35	27,869/1440	740	814	1121	10/5	K513_0195 MT20	2800	2500	4000	5.4	26.9
		851	1000	1800		K513_0195 MT30			3500	10.2	28.2
						K513_0195 MT40			3500	14.2	29.4
21.99	2639/120	800	925	1217	10/5	K513_0220 MT20	2800	2500	4000	4.4	27.7
		888	1000	1800		K513_0220 MT30			3500	9.2	28.7
						K513_0220 MT40			3500	13.2	29.6
24.35	11,687/480	886	1000	1348	10/5	K513_0240 MT20	2800	2500	4000	4.2	28.2
		900		1800		K513_0240 MT30			3500	9.0	29.0
						K513_0240 MT40			3500	13.0	29.8
29.18	4669/160	850	1000	1527	10/5	K513_0290 MT20	3400	3000	4500	3.3	28.8
		900		1800		K513_0290 MT30			4000	8.1	29.5
						K513_0290 MT40			3000	3500	12.1
32.31	20,677/640	900	1000	1691	10/5	K513_0320 MT20	3400	3000	4500	3.2	29.1
				1800		K513_0320 MT30			4000	8.0	29.7
						K513_0320 MT40			3000	3500	12.0
34.80	174/5	886	1000	1762	10/5	K513_0350 MT20	3400	3000	4500	2.8	29.3
		900				K513_0350 MT30			4000	7.6	29.8
						K513_0350 MT40			3000	3500	11.6

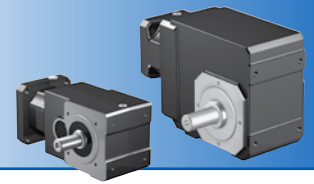
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K5 (continued from previous page)

38.53	2697/70	900	1000	1800	10/5	K513_0390 MT20	3400	3000	4500	2.7	29.5
						K513_0390 MT30			4000	7.5	29.9
						K513_0390 MT40	3000		3500	11.5	30.2
43.50	87/2	900	1000	1,800	10/5	K513_0440 MT20	3400	3000	4500	2.3	29.8
						K513_0440 MT30			4000	7.1	30.1
						K513_0440 MT40	3000		3500	11.1	30.3
48.16	2697/56	900	1000	1,800	10/5	K513_0480 MT20	3400	3000	4500	2.2	29.9
						K513_0480 MT30			4000	7.0	30.1
						K513_0480 MT40	3000		3500	11.0	30.3
58.30	11,368/195	900	1000	1,800	10/5	K513_0580 MT20	3400	3000	4500	1.9	30.1
						K513_0580 MT30			4000	6.7	30.3
						K513_0580 MT40	3000		3500	10.7	30.4
64.54	12,586/195	900	1000	1,800	10/5	K513_0650 MT20	3400	3000	4500	1.8	30.2
						K513_0650 MT30			4000	6.6	30.3
						K513_0650 MT40	3000		3500	10.6	30.4
70.08	841/12	821	985	1,291	10/5	K513_0700 MT20	3400	3000	4500	1.7	30.2
						K513_0700 MT30			4000	6.5	30.3
77.59	26,071/336	900	1000	1,430	10/5	K513_0780 MT20	3400	3000	4500	1.7	30.3
						K513_0780 MT30			4000	6.5	30.4
85.03	76,531/900	900	974	1,217	10/6	K514_0850 MT20	3400	3000	4500	1.6	30.3
87.29	8729/100	689	827	1,378	10/5	K513_0870 MT20	3400	3000	4500	1.5	30.3
						K513_0870 MT30			4000	6.3	30.4
94.15	338,923/3600	900	1000	1,347	10/6	K514_0940 MT20	3400	3000	4500	1.6	30.4
96.64	38,657/400	763	916	1,527	10/5	K513_0970 MT20	3400	3000	4500	1.5	30.4
						K513_0970 MT30			4000	6.3	30.4
112.8	135,401/1200	900	1000	1,527	10/6	K514_1130 MT20	3400	3000	4500	1.5	30.4
124.9	599,633/4800	900	1000	1,691	10/6	K514_1250 MT20	3400	3000	4500	1.5	30.4
134.6	3364/25	900	1000	1,762	10/6	K514_1350 MT20	3400	3000	4500	1.5	30.5
149.0	26,071/175	900	1000	1,800	10/6	K514_1490 MT20	3400	3000	4500	1.5	30.5
168.2	841/5	900	1000	1,800	10/6	K514_1680 MT20	3400	3000	4500	1.4	30.5
186.2	26,071/140	900	1000	1,800	10/6	K514_1860 MT20	3400	3000	4500	1.4	30.5
225.4	659,344/2925	900	1000	1,800	10/6	K514_2250 MT20	3400	3000	4500	1.4	30.5
249.6	729,988/2925	900	1000	1,800	10/6	K514_2500 MT20	3400	3000	4500	1.4	30.5
271.0	24,389/90	821	985	1,291	10/6	K514_2710 MT20	3400	3000	4500	1.4	30.5
300.0	756,059/2520	900	1000	1,430	10/6	K514_3000 MT20	3400	3000	4500	1.4	30.5
337.5	253,141/750	689	827	1,378	10/6	K514_3380 MT20	3400	3000	4500	1.4	30.5
373.7	1,121,053/3000	763	916	1,527	10/6	K514_3740 MT20	3400	3000	4500	1.4	30.5

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE – Versatile Outputs

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		Nm

K6 (continued next page)

7.323	19,215/2624	665	732	1,296	10/5	K613_0073 MT30	1800	1700	2900	37.9	24.4
		814	1037			K613_0073 MT40				41.9	32.2
			1375			2,476				K613_0073 MT50	51.9
8.107	85,095/10,496	736	810	1,434	10/5	K613_0081 MT30	1800	1700	2900	34.9	26.6
		842	1148			K613_0081 MT40				38.8	33.9
			1422			2,741				K613_0081 MT50	48.9
9.081	20,923/2304	825	907	1561	10/5	K613_0091 MT30	1800	1700	2900	28.8	29.0
		874	1248			K613_0091 MT40				32.8	35.7
			1477			2900				K613_0091 MT50	42.8
10.05	92,659/9216	904	1004	1728	10/5	K613_0100 MT30	1800	1700	2900	26.8	31.1
			1382			K613_0100 MT40				30.8	37.2
			1528			2900				K613_0100 MT50	40.8
11.41	22,631/1984	943	1140	1895	10/5	K613_0115 MT30	2200	2000	3200	22.1	33.4
			1516			K613_0115 MT40			26.1	38.7	
										K613_0115 MT50	3000
12.63	3233/256	976	1262	2098	10/5	K613_0125 MT30	2200	2000	3200	20.9	35.1
			1600			K613_0125 MT40			24.9	39.7	
										K613_0125 MT50	3000
14.33	12,383/864	1018	1432	2301	10/5	K613_0145 MT30	2200	2000	3200	17.4	36.9
			1600			K613_0145 MT40			21.4	40.8	
										K613_0145 MT50	3000
15.87	54,839/3456	1053	1585	2547	10/5	K613_0160 MT30	2200	2000	3200	16.6	38.2
			1600			K613_0160 MT40			20.6	41.5	
										K613_0160 MT50	3000
17.16	549/32	656	722	1029	10/5	K613_0170 MT20	2600	2300	3600	9.7	36.0
		1081	1600	2655		K613_0170 MT30			14.5	39.0	
						K613_0170 MT40			3500	18.5	42.0
						K613_0170 MT50	2500	3000	28.5	44.1	
18.99	17,019/896	726	799	1140	10/5	K613_0190 MT20	2600	2300	3600	9.2	37.4
		1118	1600	2900		K613_0190 MT30			14.0	40.0	
						K613_0190 MT40			3500	18.0	42.5
						K613_0190 MT50	2500	3000	28.0	44.2	
21.68	5551/256	829	912	1252	10/5	K613_0220 MT20	2600	2300	3600	7.3	39.0
		1169	1600	2900		K613_0220 MT30			12.1	41.1	
						K613_0220 MT40			3500	16.1	43.1
						K613_0220 MT50	2500	3000	26.1	44.4	
24.01	24583/1024	918	1010	1386	10/5	K613_0240 MT20	2600	2300	3600	6.9	40.0
		1209	1600	2900		K613_0240 MT30			11.7	41.8	
						K613_0240 MT40			3500	15.7	43.5
						K613_0240 MT50	2500	3000	25.7	44.6	

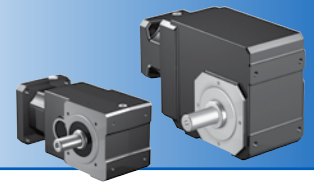
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K6 (continued next page)

28.77	29463/1024	992	1210	1571	10/5	K613_0290 MT20	3100	2800	4000	5.1	41.4
						K613_0290 MT30				9.9	42.7
		1284	1600	2900		K613_0290 MT40	3000			13.9	43.9
						K613_0290 MT50	2500	2500	3000	23.9	44.7
31.86	130,479/4096	1098	1340	1739	10/5	K613_0320 MT20	3100	2800	4000	4.9	42.0
						K613_0320 MT30				9.7	43.2
		1328	1600	2900		K613_0320 MT40	3000		3500	13.7	44.2
						K613_0320 MT50	2500	2500	3000	23.7	44.8
34.61	35,441/1024	1008	1449	1812	10/5	K613_0350 MT20	3100	2800	4000	4.1	42.5
						K613_0350 MT30				8.9	43.4
		1366	1600	2900		K613_0350 MT40	3000		3500	12.9	44.3
						K613_0350 MT50	2500	2500	3000	22.9	44.8
38.32	156,953/4096	1116	1600	2006	10/5	K613_0380 MT20	3100	2800	4000	3.9	42.9
						K613_0380 MT30				8.7	43.7
		1413		2900		K613_0380 MT40	3000		3500	12.7	44.4
						K613_0380 MT50	2500	2500	3000	22.7	44.9
43.11	8967/208	1035	1600	2150	10/5	K613_0430 MT20	3100	2800	4000	3.2	43.4
						K613_0430 MT30				8.0	44.0
		1450				K613_0430 MT40	3000		3500	12.0	44.6
47.73	39,711/832	1146	1600	2381	10/5	K613_0480 MT20	3100	2800	4000	3.1	43.7
						K613_0480 MT30				7.9	44.2
		1450				K613_0480 MT40	3000		3500	11.9	44.7
57.55	29,463/512	1077	1600	2697	10/5	K613_0580 MT20	3100	2800	4000	2.4	44.1
						K613_0580 MT30				7.2	44.5
		1450				K613_0580 MT40	3000		3500	11.2	44.8
63.71	130,479/2048	1193	1600	2900	10/5	K613_0640 MT20	3100	2800	4000	2.4	44.3
						K613_0640 MT30				7.2	44.6
		1450				K613_0640 MT40	3000		3500	11.2	44.9
68.77	28,609/416	1101	1577	2628	10/5	K613_0690 MT20	3100	2800	4000	2.1	44.4
						K613_0690 MT30				6.9	44.7
		1314				K613_0690 MT40			3500	10.9	44.9
76.14	126,697/1664	1219	1600	2900	10/5	K613_0760 MT20	3100	2800	4000	2.1	44.5
						K613_0760 MT30				6.9	44.7
		1450				K613_0760 MT40	3000		3500	10.9	44.9
83.84	160,979/1920	1001	1001	1252	10/6	K614_0840 MT20	3100	2800	4000	1.8	44.6
86.18	66,185/768	971	1165	1568	10/5	K613_0860 MT20	3100	2800	4000	1.8	44.6
						K613_0860 MT30				6.6	44.8
92.83	712,907/7680	1109	1109	1386	10/6	K614_0930 MT20	3100	2800	4000	1.7	44.7
95.41	293,105/3072	1075	1290	1736	10/5	K613_0950 MT20	3100	2800	4000	1.8	44.7
						K613_0950 MT30				6.6	44.9

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K6 (continued from previous page)

111.3	284,809/2560	1257	1257	1571	10/6	K614_1110 MT20	3100	2800	4000	1.6	44.8
123.2	1,261,297/10,240	1391	1391	1739	10/6	K614_1230 MT20	3100	2800	4000	1.6	44.9
133.8	1,027,789/7680	1449	1449	1812	10/6	K614_1340 MT20	3100	2800	4000	1.6	44.9
148.2	4,551,637/30,720	1450	1600	2006	10/6	K614_1480 MT20	3100	2800	4000	1.6	44.9
166.7	86,681/520	1450	1600	2150	10/6	K614_1670 MT20	3100	2800	4000	1.5	45.0
184.6	383,873/2080	1450	1600	2381	10/6	K614_1850 MT20	3100	2800	4000	1.5	45.0
222.5	284,809/1280	1450	1600	2697	10/6	K614_2230 MT20	3100	2800	4000	1.5	45.0
246.3	1,261,297/5120	1450	1600	2900	10/6	K614_2460 MT20	3100	2800	4000	1.4	45.0
265.9	829,661/3120	1314	1577	2628	10/6	K614_2660 MT20	3100	2800	4000	1.4	45.0
294.4	3,674,213/12,480	1450	1600	2900	10/6	K614_2940 MT20	3100	2800	4000	1.4	45.1
333.2	383,873/1152	971	1165	1568	10/6	K614_3330 MT20	3100	2800	4000	1.4	45.1
368.9	1,700,009/4608	1075	1290	1736	10/6	K614_3690 MT20	3100	2800	4000	1.4	45.1

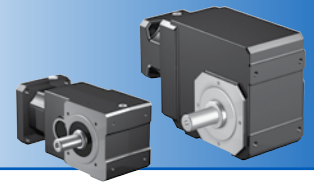
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K7 (continued next page)

7.563	19,845/2624	687	756	1374	10/5	K713_0076 MT30	1700	1600	2700	71.2	33.4
		1111	1111	1388		K713_0076 MT40				75.2	48.3
		1346	2122	2653		K713_0076 MT50				85.2	66.7
8.373	87,885/10,496	760	836	1521	10/5	K713_0084 MT30	1700	1600	2700	66.4	37.4
		1230	1230	1537		K713_0084 MT40				70.4	52.2
		1393	2349	2937		K713_0084 MT50				80.4	68.9
9.188	147/16	834	918	1639	10/5	K713_0092 MT30	1700	1600	2700	54.4	41.2
		1311	1311			K713_0092 MT40				58.4	55.6
		1436	2427	3131		K713_0092 MT50				68.4	70.7
10.17	651/64	924	1016	1814	10/5	K713_0100 MT30	1700	1600	2700	51.2	45.3
		1451	1451			K713_0100 MT40				55.2	59.0
		1486	2510	3467		K713_0100 MT50				65.2	72.4
11.78	23,373/1984	1070	1177	2024	10/5	K713_0120 MT30	2000	1900	3000	39.2	51.0
		1561	1619			K713_0120 MT40				43.2	63.4
			2600	3868		K713_0120 MT50				53.2	74.5
13.04	3339/256	1185	1303	2241	10/5	K713_0130 MT30	2000	1900	3000	37.2	54.8
		1614	1793			K713_0130 MT40				41.2	66.1
			2600	4282		K713_0130 MT50				51.2	75.6
14.80	1421/96	1344	1479	2457	10/5	K713_0150 MT30	2000	1900	3000	29.8	59.1
		1684	1965			K713_0150 MT40				33.8	68.9
			2600	4694		K713_0150 MT50				43.8	76.8
16.39	6293/384	1488	1637	2720	10/5	K713_0165 MT30	2000	1900	3000	28.5	62.2
		1742	2176			K713_0165 MT40				32.5	70.9
			2600	4800		K713_0165 MT50				42.5	77.6
18.28	26,901/1472	1660	1826	2914	10/5	K713_0185 MT30	2400	2200	3400	23.8	65.2
		1806	2331			K713_0185 MT40				27.8	72.7
			2600	4800		K713_0185 MT50				37.8	78.2
20.23	119,133/5888	1838	2021	3226	10/5	K713_0200 MT30	2400	2200	3400	23.0	67.6
		1869	2581			K713_0200 MT40				27.0	74.1
			2600	4800		K713_0200 MT50				37.0	78.8
22.74	14,553/640	1828	2272	3476	10/5	K713_0230 MT30	2400	2200	3400	18.8	70.1
		1943	2600			K713_0230 MT40				22.8	75.5
				4800		K713_0230 MT50				32.8	79.3
25.18	64,449/2560		2515	3849	10/5	K713_0250 MT30	2400	2200	3400	18.2	71.9
		2010	2600			K713_0250 MT40				22.2	76.5
				4800		K713_0250 MT50				32.2	79.6
29.29	7497/256	1937		4264	10/5	K713_0290 MT30	2900	2600	3800	14.5	74.1
		2114	2600			K713_0290 MT40				18.5	77.6
				4800		K713_0290 MT50				28.5	80.0

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		Nm

K7 (continued next page)

32.42	33,201/1024	2145	2600	4721	10/5	K713_0320 MT30	2900	2600	3800	14.2	75.3
		2187		4800		K713_0320 MT40			3500	18.2	78.3
						K713_0320 MT50			3000	28.2	80.2
35.44	567/16	1994	2600	4800	10/5	K713_0350 MT30	2900	2600	3800	12.2	76.2
		2253				K713_0350 MT40			3500	16.2	78.7
						K713_0350 MT50			3000	26.2	80.4
39.23	2511/64	2208	2600	4800	10/5	K713_0390 MT30	2900	2600	3800	12.0	77.1
		2330				K713_0390 MT40			3500	16.0	79.2
						K713_0390 MT50			3000	26.0	80.5
45.05	37,485/832	2060	2600	4800	10/5	K713_0450 MT30	2900	2600	3800	10.2	78.0
		2400				K713_0450 MT40			3500	14.2	79.6
						K713_0450 MT50			3000	24.2	80.7
49.88	166,005/3328	2281	2600	4800	10/5	K713_0500 MT30	2900	2600	3800	10.1	78.6
		2400				K713_0500 MT40			3500	14.1	79.9
						K713_0500 MT50			3000	24.1	80.8
58.57	7497/128	2148	2600	4800	10/5	K713_0590 MT30	2900	2600	3800	8.7	79.3
		2400				K713_0590 MT40			3500	12.7	80.3
						K713_0590 MT50			3000	22.7	80.9
64.85	33,201/512	2378	2600	4800	10/5	K713_0650 MT30	2900	2600	3800	8.6	79.6
		2400				K713_0650 MT40			3500	12.6	80.4
						K713_0650 MT50			3000	22.6	80.9
71.20	4557/64	2173	2600	3314	10/5	K713_0710 MT30	2900	2600	3800	7.9	79.9
						K713_0710 MT40			3500	11.9	80.5
78.83	20,181/256	2400	2600	3669	10/5	K713_0790 MT30	2900	2600	3800	7.8	80.1
						K713_0790 MT40			3500	11.8	80.7
89.00	22,785/256	1671	2005	3342	10/5	K713_0890 MT30	2900	2600	3800	7.3	80.3
						K713_0890 MT40			3500	11.3	80.8
89.06	227,997/2560	2400	2600	3476	10/6	K714_0890 MT30	2900	2600	3800	7.3	80.3
98.54	100,905/1024	1851	2221	3701	10/5	K713_0990 MT30	2900	2600	3800	7.2	80.5
						K713_0990 MT40			3500	11.2	80.8
98.60	1,009,701/10,240	2400	2600	3849	10/6	K714_0990 MT30	2900	2600	3800	7.2	80.5

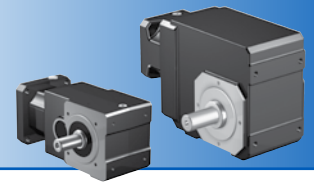
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J1 kgcm ²	Torsional Stiffness C2 (per arcmin)
		Nominal ¹⁾ M2N ≤ 2000 RPM	Acceleration M2B	Peak ²⁾ M2PEAK			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm					EL 1,2		EL 3,4,5,6

K7 (continued from previous page)

113.2	72,471/640	1323	1323	1653	10/6	K714_1130 MT20	2900	2600	3800	1.9	80.3
114.7	117,453/1024	2400	2600	4264	10/6	K714_1150 MT30	2900	2600	3800	7.0	80.7
125.4	320,943/2560	1464	1464	1830	10/6	K714_1250 MT20	2900	2600	3800	1.9	80.5
127.0	520,149/4096	2400	2600	4721	10/6	K714_1270 MT30	2900	2600	3800	7.0	80.8
137.0	5481/40	1537	1537	1921	10/6	K714_1370 MT20	2900	2600	3800	1.8	80.6
138.8	8883/64	2400	2600	4800	10/6	K714_1390 MT30	2900	2600	3800	6.9	80.8
151.7	24,273/160	1702	1702	2127	10/6	K714_1520 MT20	2900	2600	3800	1.8	80.7
153.7	39,339/256	2400	2600	4800	10/6	K714_1540 MT30	2900	2600	3800	6.8	80.9
174.2	72,471/416	1855	1855	2319	10/6	K714_1740 MT20	2900	2600	3800	1.7	80.8
176.5	587,265/3328	2400	2600	4800	10/6	K714_1760 MT30	2900	2600	3800	6.7	80.9
192.9	320,943/1664	2054	2054	2567	10/6	K714_1930 MT20	2900	2600	3800	1.6	80.9
195.4	2,600,745/13,312	2400	2600	4800	10/6	K714_1950 MT30	2900	2600	3800	6.7	81.0
226.5	72,471/320	2009	2282	2853	10/6	K714_2260 MT20	2900	2600	3800	1.5	81.0
229.4	117,453/512	2400	2600	4800	10/6	K714_2290 MT30	2900	2600	3800	6.6	81.0
250.7	320,943/1280	2225	2527	3159	10/6	K714_2510 MT20	2900	2600	3800	1.5	81.0
254.0	520,149/2048	2400	2600	4800	10/6	K714_2540 MT30	2900	2600	3800	6.6	81.1
275.3	44,051/160	2073	2600	3314	10/6	K714_2750 MT20	2900	2600	3800	1.5	81.0
304.8	195,083/640	2295	2600	3669	10/6	K714_3050 MT20	2900	2600	3800	1.5	81.0
344.1	44051/128	1671	2005	3342	10/6	K714_3440 MT20	2900	2600	3800	1.5	81.1
381.0	195,083/512	1851	2221	3701	10/6	K714_3810 MT20	2900	2600	3800	1.4	81.1

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K8 (continued next page)

7.445	3127/420	676	744	1352	10/5	K813_0074 MT30	1600	1500	2600	161.2	39.5
		1147	1147	1434		K813_0074 MT40				165.2	63.7
		2192	2192	2740		K813_0074 MT50				175.2	101.6
8.243	96,937/11,760	749	823	1497	10/5	K813_0082 MT30	1600	1500	2600	142.9	45.6
		1270	1270	1588		K813_0082 MT40				146.9	70.8
		2398	2427	3034		K813_0082 MT50				156.9	107.2
9.284	11,977/1290	843	927	1686	10/5	K813_0093 MT30	1600	1500	2600	115.5	53.2
		1385	1385	1731		K813_0093 MT40				119.5	79.2
		2495	2646	3308		K813_0093 MT50				129.5	113.0
10.28	53,041/5160	934	1027	1867	10/5	K813_0105 MT30	1600	1500	2600	103.7	60.1
		1533	1533	1916		K813_0105 MT40				107.7	86.2
		2581	2930	3662		K813_0105 MT50				117.7	117.3
11.91	6608/555	1081	1189	2138	10/5	K813_0120 MT30	1900	1800	2900	80.6	70.4
		1710	1710			K813_0120 MT40				84.6	95.7
		2711	3268	4085		K813_0120 MT50				94.6	122.6
13.18	7316/555	1197	1317	2367	10/5	K813_0130 MT30	1900	1800	2900	73.4	77.6
		1894	1894			K813_0130 MT40				77.4	101.8
		2804	3619	4523		K813_0130 MT50				87.4	125.7
14.84	9499/640	1348	1483	2570	10/5	K813_0150 MT30	1900	1800	2900	59.2	85.8
		2056	2056			K813_0150 MT40				63.2	108.2
		2917	3929	4911		K813_0150 MT50				73.2	128.7
16.43	42,067/2560	1492	1642	2845	10/5	K813_0165 MT30	1900	1800	2900	54.6	92.5
		2276	2276			K813_0165 MT40				58.6	113.1
		3018	4350	5437		K813_0165 MT50				68.6	130.9
17.33	30,149/1740	1574	1731	2928	10/5	K813_0175 MT30	2300	2100	3300	48.4	95.8
		2342	2342			K813_0175 MT40				52.4	115.4
		3072	4475	5594		K813_0175 MT50			3000	62.4	131.8
19.18	133,517/6960	1742	1916	3241	10/5	K813_0190 MT30	2300	2100	3300	45.1	101.8
		2593	2593			K813_0190 MT40				49.1	119.4
		3178	4650	6193		K813_0190 MT50			3000	59.1	133.5
23.04	31,801/1380	2093	2302	3674	10/5	K813_0230 MT30	2300	2100	3300	33.8	111.4
		2939	2939			K813_0230 MT40				37.8	125.4
		3378	4650	7021		K813_0230 MT50			3000	47.8	135.8
25.51	140,833/5520	2317	2549	4068	10/5	K813_0260 MT30	2300	2100	3300	31.9	115.9
		3254	3254			K813_0260 MT40				35.9	128.1
		3495	4650	7773		K813_0260 MT50			3000	45.9	136.8
29.25	7021/240	2352	2923	4473	10/5	K813_0290 MT30	2800	2500	3600	24.9	121.2
		3578	3578			K813_0290 MT40			3500	28.9	131.0
		3658	4650	8400		K813_0290 MT50			3000	38.9	137.9

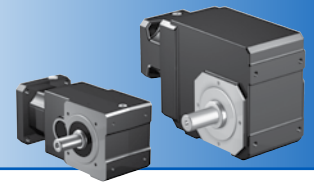
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin) Nm
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm			EL 1,2	EL 3,4,5,6	All		

K8 (continued next page)

32.39	31,093/960	2604	3236	4952	10/5	K813_0320 MT30	2800	2500	3600	23.7	124.4
		3784	3961			K813_0320 MT40			3500	27.7	132.8
			4650			8400			K813_0320 MT50	2500	3000
36.14	2891/80	2391	3610	5262	10/5	K813_0360 MT30	2800	2500	3600	19.4	127.4
		3925	4210			K813_0360 MT40			3500	23.4	134.4
			4650			8400			K813_0360 MT50	2500	3000
40.01	12,803/320	2647	3997	5826	10/5	K813_0400 MT30	2800	2500	3600	18.6	129.8
		4060	4650			K813_0400 MT40			3500	22.6	135.6
			8400						K813_0400 MT50	2500	3000
44.25	177/4	2490	4421	6188	10/5	K813_0440 MT30	2800	2500	3600	15.5	131.8
		4199	4650			K813_0440 MT40			3500	19.5	136.6
									K813_0440 MT50	2500	3000
48.99	5487/112	2757	4650	6851	10/5	K813_0490 MT30	2800	2500	3600	15.0	133.4
		4200				K813_0490 MT40			3500	19.0	137.5
									K813_0490 MT50	2500	3000
59.08	42,539/720	2565	4650	7743	10/5	K813_0590 MT30	2800	2500	3600	11.8	135.8
		4200				K813_0590 MT40			3500	15.8	138.7
									K813_0590 MT50	2500	3000
65.41	188,387/2880	2840	4650	8400	10/5	K813_0650 MT30	2800	2500	3600	11.5	136.8
		4200				K813_0650 MT40			3500	15.5	139.2
									K813_0650 MT50	2500	3000
66.83	38,763/580	4200	4476	5594	10/6	K814_0670 MT40	2800	2500	3500	14.5	139.3
71.70	10,325/144	2629	4326	7210	10/5	K813_0720 MT30	2800	2500	3600	10.1	137.5
		3605				K813_0720 MT40			3500	14.1	139.5
									K813_0720 MT50	2500	3000
73.99	1,201,653/16,240	4200	4650	6194	10/6	K814_0740 MT40	2800	2500	3500	14.3	139.6
79.38	45725/576	2911	4650	7985	10/5	K813_0790 MT30	2800	2500	3600	9.9	138.2
		3992				K813_0790 MT40			3500	13.9	139.9
									K813_0790 MT50	2500	3000
87.76	7021/80	2682	3268	4085	10/5	K813_0880 MT30	2800	2500	3600	8.9	138.8
		2804				K813_0880 MT40			3500	12.9	140.1
88.89	40,887/460	4200	4650	7021	10/6	K814_0890 MT40	2800	2500	3500	13.5	140.2
97.17	31,093/320	2969	3618	4522	10/5	K813_0970 MT30	2800	2500	3600	8.7	139.3
		3105				K813_0970 MT40			3500	12.7	140.4
98.41	181,071/1840	4200	4650	7774	10/6	K814_0980 MT40	2800	2500	3500	13.4	140.4

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		Nm
Nom.	Exact	Nm	Nm	Nm					EL 1,2		EL 3,4,5,6

K8 (continued from previous page)

112.8	9027/80	4200	4650	8400	10/6	K814_1130 MT40	2800	2500	3500	12.9	140.6
114.6	329,987/2880	3282	3578	4472	10/6	K814_1150 MT30	2800	2500	3600	7.7	139.8
124.9	279,837/2240	4200	4650	8400	10/6	K814_1250 MT40	2800	2500	3500	12.8	140.8
126.9	1,461,371/11,520	3634	3961	4951	10/6	K814_1270 MT30	2800	2500	3600	7.7	140.1
139.4	11,151/80	4200	4650	8400	10/6	K814_1390 MT40	2800	2500	3500	12.5	140.9
141.5	135,877/960	3402	4209	5262	10/6	K814_1420 MT30	2800	2500	3600	7.4	140.4
154.3	49,383/320	4200	4650	8400	10/6	K814_1540 MT40	2800	2500	3500	12.5	141.0
156.7	601,741/3840	3767	4650	5825	10/6	K814_1570 MT30	2800	2500	3600	7.3	140.6
170.7	4779/28	4200	4650	6188	10/6	K814_1710 MT40	2800	2500	3500	12.3	141.0
173.3	2773/16	3602	4650	6188	10/6	K814_1730 MT30	2800	2500	3600	7.1	140.7
189.0	148,149/784	4200	4650	6851	10/6	K814_1890 MT40	2800	2500	3500	12.2	141.1
191.9	85,963/448	3988	4650	6851	10/6	K814_1920 MT30	2800	2500	3600	7.1	140.8
227.9	18,231/80	4200	4650	7744	10/6	K814_2280 MT40	2800	2500	3500	12.0	141.2
231.4	1,999,333/8640	3807	4650	7743	10/6	K814_2310 MT30	2800	2500	3600	6.9	141.0
252.3	565,161/2240	4200	4650	8400	10/6	K814_2520 MT40	2800	2500	3500	12.0	141.2
256.2	8,854,189/34,560	4200	4650	8400	10/6	K814_2560 MT30	2800	2500	3600	6.9	141.1
276.6	4425/16	3605	4326	7210	10/6	K814_2770 MT40	2800	2500	3500	11.9	141.2
280.8	485,275/1728	3605	4326	7210	10/6	K814_2810 MT30	2800	2500	3600	6.8	141.1
306.2	137,175/448	3992	4650	7985	10/6	K814_3060 MT40	2800	2500	3500	11.9	141.3
310.9	2,149,075/6912	3992	4650	7985	10/6	K814_3110 MT30	2800	2500	3600	6.8	141.2

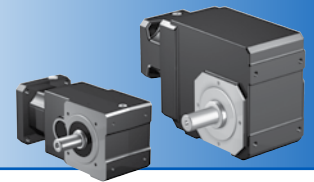
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		Nm
Nom.	Exact	Nm	Nm	Nm					EL 1,2		EL 3,4,5,6

K9 (continued next page)

7.934	54,839/6912	2456	2456	3070	10/5	K913_0079 MT50	1500	1500	2500	351.2	139.1
10.12	119,133/11,776	3020	3020	3775	10/5	K913_0100 MT50	1500	1500	2500	248.9	159.9
12.53	73,749/5888	3631	3631	4538	10/5	K913_0125 MT50	1800	1800	2800	186.8	174.4
15.91	13,237/832	4425	4425	5532	10/5	K913_0160 MT50	1800	1800	2800	135.0	186.5
19.06	305/16	5137	5137	6421	10/5	K913_0190 MT50	2200	2100	3000	108.9	193.2
23.94	88,877/3712	3236	3236	4045	10/5	K913_0240 MT40	2200	2100	3100	73.1	178.9
		6184	6184	7730		K913_0240 MT50			3000	83.1	199.1
32.12	47,275/1472	4097	4097	5121	10/5	K913_0320 MT40	2600	2500	3400	50.5	191.6
		6849	7700	9785		K913_0320 MT50	2500		3000	60.5	203.9
38.04	194,773/5120	4686	4686	5857	10/5	K913_0380 MT40	2600	2500	3400	40.9	196.6
		7000	7700	11,193		K913_0380 MT50	2500		3000	50.9	205.7
48.94	100,223/2048	5675	5701	7126	10/5	K913_0490 MT40	2600	2500	3400	30.6	201.8
		7000	7700	13,617		K913_0490 MT50	2500		3000	40.6	207.5
63.07	209,901/3328	5855	6950	8687	10/5	K913_0630 MT40	2600	2500	3400	23.5	205.1
		7000	7700	14,000		K913_0630 MT50	2500		3000	33.5	208.6
75.00	62,403/832	6011	7700	9958	10/5	K913_0750 MT40	2600	2500	3400	19.9	206.6
		7000				K913_0750 MT50	2500		3000	29.9	209.1
92.35	2,399,679/25,984	6184	6184	7730	10/5	K914_0920 MT40	2600	2500	3400	15.9	207.9
93.78	4,177,219/44,544	2862	3236	4045	10/5	K914_0940 MT30	2600	2500	3400	10.6	205.3
95.41	293,105/3072	5376	6451	10,752	10/5	K913_0950 MT40	2600	2500	3400	16.4	208.0
						K913_0950 MT50	2500		3000	26.4	209.6

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs

Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J ₁ kgcm ²	Torsional Stiffness C ₂ (per arcmin)
		Nominal ¹⁾ M _{2N} ≤ 2000 RPM	Acceleration M _{2B}	Peak ²⁾ M _{2PEAK}			Continuous		Cyclic		Nm
Nom.	Exact	Nm	Nm	Nm					EL 1,2		EL 3,4,5,6

K9 (continued from previous page)

123.9	1,276,425/10,304	6882	7700	9785	10/5	K914_1240 MT40	2600	2500	3400	14.4	208.9
125.8	2,221,925/17,664	3840	4096	5120	10/5	K914_1260 MT30	2600	2500	3400	9.1	207.5
146.7	5,258,871/35,840	7000	7700	11,193	10/5	K914_1470 MT40	2600	2500	3400	13.7	209.3
149.0	9,154,331/61,440	4378	4685	5857	10/5	K914_1490 MT30	2600	2500	3400	8.5	208.3
188.8	2,706,021/14,336	7000	7700	13,617	10/5	K914_1890 MT40	2600	2500	3400	13.0	209.7
191.7	4,710,481/24,576	4607	5700	7125	10/5	K914_1920 MT30	2600	2500	3400	7.8	209.1
243.3	5,667,327/23,296	7000	7700	14,000	10/5	K914_2430 MT40	2600	2500	3400	12.5	210.0
247.0	3,288,449/13,312	4861	6949	8687	10/5	K914_2470 MT30	2600	2500	3400	7.4	209.6
293.8	977,647/3328	5064	7700	9,957	10/5	K914_2940 MT30	2600	2500	3400	7.1	209.8
373.7	13,775,935/36,864	5281	6451	10,752	10/5	K914_3740 MT30	2600	2500	3400	6.9	210.0

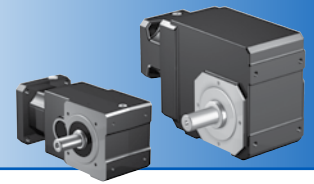
¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

Selection Data



Reducer Ratio (i)		Output Torque			Backlash (arcmins) ³⁾	Part Number* (Gearhead + Input)	Maximum Input Speed RPM			Input Inertia J1 kgcm ²	Torsional Stiffness C2 (per arcmin)
		Nominal ¹⁾ M2N ≤ 2000 RPM	Acceleration M2B	Peak ²⁾ M2PEAK			Continuous		Cyclic		
Nom.	Exact	Nm	Nm	Nm					EL 1,2		EL 3,4,5,6

K10

31.5	144,305/4576	8038	8038	10,047	10/5	K1013_0320 MT50	2500	2300	3000	117.3	434.2
38.6	8029/208	9437	9437	11,796	10/5	K1013_0390 MT50	2500	2300	3000	90.1	444.1
48.5	171,647/3536	11299	11,299	14,123	10/5	K1013_0490 MT50	2500	2300	3000	68.2	451.7
61.6	12803/208	11893	13,200	16,997	10/5	K1013_0620 MT50	2500	2300	3000	52.2	456.8
75.3	101,773/1352	11336	13,200	19,813	10/5	K1013_0750 MT50	2500	2300	3000	42.6	459.6
93.3	252,399/2704	10806	12,786	15,983	10/5	K1014_0930 MT50	2500	2300	3000	32.7	461.6
94.3	235,445/2496	9352	9890	12,363	10/5	K1013_0940 MT50	2500	2300	3000	35.1	461.7
121.6	556,605/4576	7937	8038	10,047	10/5	K1014_1220 MT40	2500	2300	3200	18.4	458.5
123.7	7,359,555/59,488	12000	13,200	20,036	10/5	K1014_1240 MT50	2500	2300	3000	29.3	463.3
148.9	30,969/208	8361	9437	11,797	10/5	K1014_1490 MT40	2500	2300	3200	16.5	460.8
151.4	409,479/2704	12000	13,200	23,524	10/5	K1014_1510 MT50	2500	2300	3000	27.5	464.0
187.2	662,067/3536	8811	11,299	14,124	10/5	K1014_1870 MT40	2500	2300	3200	15.1	462.5
190.4	514,941/2704	12000	13,200	24,000	10/5	K1014_1900 MT50	2500	2300	3000	26.1	464.5
237.4	49,383/208	9256	13,200	16,998	10/5	K1014_2370 MT40	2500	2300	3200	14.0	463.6
290.4	392,553/1352	9525	13,200	19,813	10/5	K1014_2900 MT40	2500	2300	3200	13.3	464.2

¹⁾ Maximum torque for continuous input RPM - horizontal output position.

²⁾ Maximum momentary torque for emergency stops or heavy shock load. (Admissible stops per life of gearhead = 1,000 stops maximum.)

³⁾ Backlash shown standard/reduced

* Motor adapter order code (shaft diameter max - mm): MT10 (19), MT20 (24), MT30 (38), MT40 (48), MT50 (42)

K/KL Series: RIGHT ANGLE — Versatile Outputs