

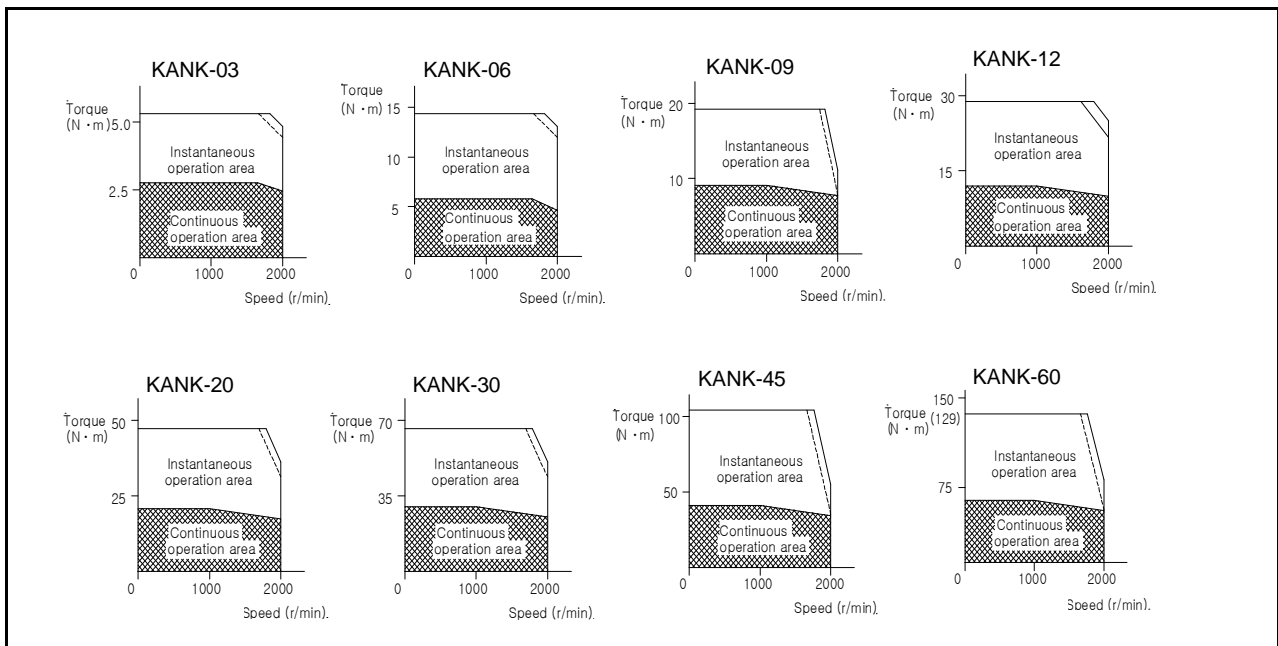
# KANK Series - Specifications and Characteristics

## Servo motor specifications

Servo motor series		KANK							
Flange size (mm)		130			180				
Specifications	Model	03	06	09	12	20	30	45	60
Supply voltage (V <sub>AC</sub> )		200/220V							
Continuous running duty	Rated output (kW)	0.3	0.6	0.9	1.2	2.0	3.0	4.5	6.0
	Rated torque (N·m)	2.84	5.70	8.62	11.50	19.10	28.40	42.90	57.20
Maximum torque (N·m)		6.3	14.4	19.3	28.0	44.0	63.7	107.0	129.0
Rated rotation speed (r/min)		1000							
Maximum rotation speed (r/min)		2000							
Rated power rate (kW/s)		31.2	67.0	108.0	44.0	104.0	147.0	232.0	337.0
Rated current (Arms)		3.5	6.2	7.6	11.6	18.5	24.0	33.0	47.0
Momentary maximum current (Arms)		22.1	15.6	17.0	28.3	42.4	56.6	83.4	109.6
Rotor inertia (kg·m <sup>2</sup> ×10 <sup>-4</sup> )	Standard	2.64	4.90	7.0	30.4	35.5	55.7	80.9	99.0
	With brake	3.84	6.20	8.3	36.2	41.4	61.7	86.9	108.0
Encoder		2500 P/R Incremental / 17bit Absolute							
Recommended load/motor inertia ratio		Less than 10-times the servo motor's inertia							
Structure		Totally enclosed non ventilated (protection degree:IP65)							
Environment	Ambient temperature	0 to 40°C (32 to 104°F) (non freezing), storage: -15 to 70°C (5 to 158°F) (non freezing)							
	Ambient humidity	85% RH max. (non condensing), storage: 90% RH max.(non condensing)							
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust							
	Elevation/Vibration	1000meters or less above sea level, 49 m/s <sup>2</sup> below							
Weight (kg)	Standard	4.8	6.2	8.6	15.5	17.5	25.0	34.0	41.0
	With brake	6.3	8.0	10.1	19.0	21.0	29.0	39.5	47.0

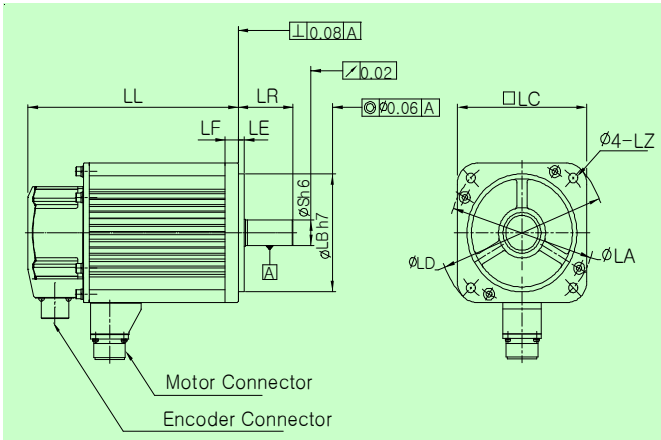
1. If used in location such as actual site of machinery where oil or water may influence the product, special specifications apply, contact KOMOTEK.
2. This specification is guaranteed after combining and adjusting with the driver.
3. All ratings typical and at 20°C unless otherwise noted.
4. Contact KOMOTEK if the load/motor of inertia moment ratio exceeds the figure in the table.

## Servo motor torque characteristics



1. Dotted lines show torque characteristics for 10% derated voltage operation.

## Motor dimensions



Motor connector (MS 3102A~)

Series	KANK	
Rated power [kW]	0.3~0.9	1.2~6.0
Standard	20-4P	22-22P
With brake	20-18P	24-11P

Specifications of motor/brake connector

Brake	Standard		Brake	
Part no.	MS 3102A 20-4P MS 3102A 22-22P		MS 3102A 20-18P	MS 3102A 24-11P
Pin spec.	Pin no.	Signal	Pin no.	Signal
	A	U	G	A
	B	V	H	B
	C	W	A	C
	D	FG	F	D
			I	E
			B	F
			E	G
			D	H
			C	I
Outlines	MS 3102A 20-4P, 22-22P		MS 3102A 20-18P	MS 3102A 24-11P

Series	KANK								
Rated power [kW]	0.3	0.6	0.9	1.2	2.0	3.0	4.5	6.0	
LL	Standard	133	158	183	183	203	243	298	343
	With brake	158	183	208	208	228	268	323	368
LR	70	70	70	80	80	80	113	113	
S	22	22	22	35	35	35	40	40	
LA	145	145	145	200	200	200	200	200	
LB	110	110	110	114.3	114.3	114.3	114.3	114.3	
LC	130	130	130	180	180	180	180	180	
LD	165	165	165	230	230	230	230	230	
LE	6	6	6	3.2	3.2	3.2	3.2	3.2	
LF	12	12	12	18	18	18	18	18	
LZ	9	9	9	13.5	13.5	13.5	13.5	13.5	

## Special specifications

### Electromagnetic brake specifications

Series	KANK								
Rated power [kW]		0.3	0.6	0.9	1.2	2.0	3.0	4.5	6.0
Static friction torque	Nm	16.5	16.5	16.5	25	25	25	25	25
Rotor inertia	kg·m <sup>2</sup> × 10 <sup>-4</sup>	1.2	1.2	1.2	4.7	4.7	4.7	4.7	4.7
Response time	ms	110	110	110	160	160	160	160	160
Release time	ms	50	50	50	75	75	75	75	75
Rated voltage	V <sub>DC</sub>	24	24	24	24	24	24	24	24
Rated current (A) at 20°C		0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.3
Permissible braking work	J(1time)	1470	1470	1470	1800	1800	1800	1800	1800
Brake life	times	20000	20000	20000	20000	20000	20000	20000	20000

## Special shaft end specifications

### key

Series	KANK		
Rated power (W)	0.3~0.9	1.2~3.0	4.5~6.0
LW/LN(D-cut)	45	55	95
LK	41	50	90
KW	8h9	10h9	10h9
KH	7	8	8
RH/LP(D-cut)	18	30	35

Key

## Connector pin arrangement

### Encoder connectors

Model		Part no.	Pin specifications										Outlines
KANK-03-60	Inc.	MS 3102A 20-29P	Pin	A	B	C	D	E	F	G	H	J	
			Signal	A	$\overline{A}$	B	$\overline{B}$	Z	$\overline{Z}$	0V	+5V	FG	
			Pin	K	L	M	N	P	R	S	T		
			Signal	U	$\overline{U}$	V	$\overline{V}$	W	$\overline{W}$				
	Abs.(17bit)	MS 3102A 20-29P	Pin	A	B	C	D	E	F	G	H	J	
			Signal							0V	+5V	FG	
			Pin	K	L	M	N	P	R	S	T		
			Signal	SD	$\overline{SD}$					BAT -	BAT +		
	Abs.(11bit)	MS 3102A 20-29P	Pin	A	B	C	D	E	F	G	H	J	
			Signal	A	$\overline{A}$	B	$\overline{B}$	Z	$\overline{Z}$	0V	+5V	FG	
			Pin	K	L	M	N	P	R	S	T		
			Signal	RX	$\overline{RX}$					RST	BAT -	BAT +	