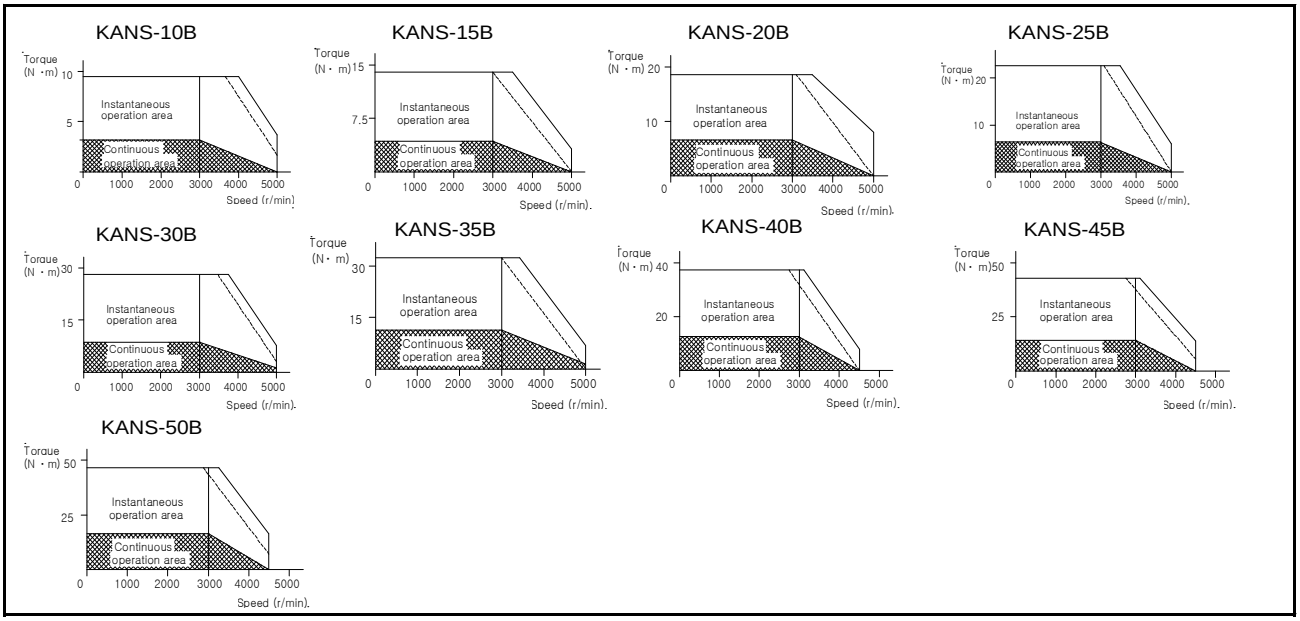
Specifications and Characteristics

KANS series servo motor specifications

Servo motor series		KANS								
Flange size (mm)		100				120		130		
Specifications \ Model		10	15	20	25	30	35	40	45	50
Supply voltage (V_{AC})		200/220V								
Continuous running duty	Rated output (kW)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	Rated torque (N·m)	3.18	4.77	6.37	7.96	9.54	11.14	12.7	14.3	15.9
Maximum torque (N·m)		9.5	14.5	19.24	23.8	28.59	33.3	37.9	42.9	47.6
Rated rotation speed (r/min)		3000								
Maximum rotation speed (r/min)		5000						4500		
Rated power rate (kW/s)		50.08	97.21	136.29	171.16	155.1	183.0	134	154	161
Rated current (Arms)		7.2	9.4	13.0	15.9	20.0	21.6	24.7	28.0	28.5
Momentary maximum current (Arms)		21.6	28.20	39.0	47.7	60.0	64.8	74.2	83.4	84.9
Rotor inertia ($\times 10^{-4}$Kg·m^2)	Standard	2.06	2.39	3.04	3.78	5.99	6.93	12.4	13.6	16.0
	With brake	2.5	2.84	3.49	4.23	6.44	7.38	13.7	14.9	17.3
Encoder		2500 P/R Incremental / 17bit Absolute								
Recommended load/motor inertia ratio		Less than 15-times the servo motor's inertia								
Structure		Totally enclosed non ventilated (protection degree:IP65)								
Environment	Ambient temperature	0 to 40℃ (32 to 104°F) (non freezing), storage: -15 to 70℃(5 to 158°F) (non freezing)								
	Ambient humidity	85% RH max. (non condensing), storage: 90% RH max.(non condensing)								
	Atmosphere	Indoors (no direct sunligt); no corrosive gas, inflammable gas, oil mist, or dust								
	Elevation/Vibration	1000meters or less above sea level, 49 m/s^2 below								
Weight (kg)	Standard	4.5	5.1	6.5	7.5	9.3	10.9	12.9	15.1	17.3
	With brake	5.1	6.4	7.8	8.8	10.6	12.2	14.8	17.0	19.2

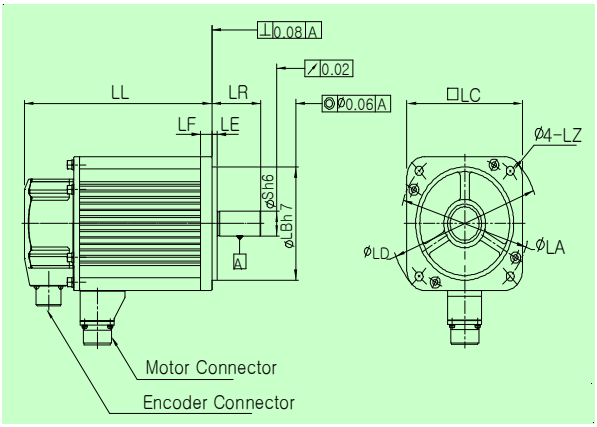
1. If used in location such as actual site of machinery where oil or water may influence the product, special specifications apply, contact KOMOTEK.
2. This specification is guaranted after combining and adjusting with the driver.
3. All ratings typical and at 20℃ unless otherwise noted.
4. Contact KOMOTEK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

KANS series servo motor torque characteristics



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

Motor dimensions



Specifications of motor/brake connector

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

Motor connector (MS 3102A~)

Series	KANS	
Model	15~25	30~50
Standard	20-4P	22-22P
With brake	20-18P	24-11P

Series		KANS								
Model		10	15	20	25	30	35	40	45	50
LL	Standard	147.5	172.5	195.5	220.5	209.5	229.5	248	268	288
	With brake	167.5	192.5	215.5	240.5	234.5	254.5	273	293	313
LR		55	55	55	55	55	55	65	65	65
S		19	19	19	19	22	22	24	24	24
LA		115	115	115	115	130/145	130/145	145	145	145
LB		95	95	95	95	110	110	110	110	110
LC		100	100	100	100	120	120	130	130	130
LD		135	135	135	135	162	162	165	165	165
LE		3	3	3	3	3	3	6	6	6
LF		10	10	10	10	12	12	12	12	12
LZ		9	9	9	9	9	9	9	9	9

Special specifications

Electromagnetic brake specifications

Series		KANS								
Model		10	15	20	25	30	35	40	45	50
Static friction torque	Nm	12	12	12	12	12	12	16.1	16.1	16.1
Response time	ms	100	100	100	100	100	100	110	110	110
Release time	ms	20	20	20	20	20	20	50	50	50
Rated voltage	V_{DC}	24	24	24	24	24	24	24	24	24
Rated current	A (at 20℃)	0.81	0.81	0.81	0.81	0.81	0.81	0.9	0.9	0.9

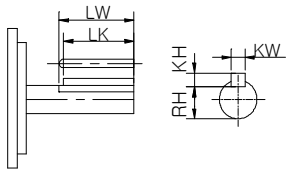
The electromagnetic brake is for holding. It cannot be used for braking applications.

Special shaft end specifications

key

Series	KANS		
Model	10~25	30~35	40~50
LW	45	45	55
LK	42	41	51
KW	6h9	8h9	8h9
KH	6	7	7
RH	15.5	18	20

Key



Connector pin arrangement

Encoder connectors

Model	Encoder Type	Part no.	Pin specifications										Outlines
KANS-15~50	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)		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)		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 +		