Kingservo

The Best AC Servo System.

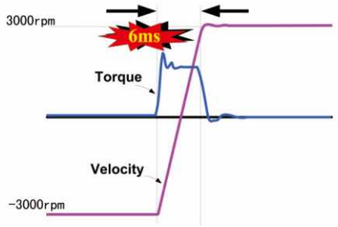
Kingservo G 系列交流伺服系统

Made in Taiwan

DC伺服马达及驱动控制器于2006年开发完成并进行量产，并广泛运用于自动化设备上，但鉴于AC伺服马达市场需求提高，于当年转而投入AC伺服马达及驱动控制器之开发。2007年Kingservo G系列高性能AC伺服马达完全由本公司自行研发、开模、生产、测试，并于2008年2月正式顺利量产出货。

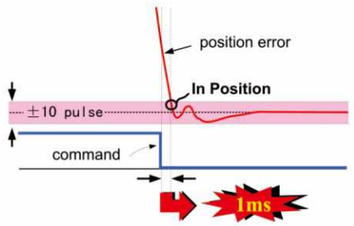
DC servo motor and drive controller developed in 2006 and mass production, and widely used in automation equipment, but in view of AC servo motor to increase the market demand, then turn on the AC input servo drive motor and controller development. 2007 Kingservo G series of high-performance AC servo motor completely from the company's own R & D, open mold, production, testing, and the formally smooth yield takes delivery of goods in February, 2008.

马 达 认 证 测 试 报 告
Servo Motor certificed reports



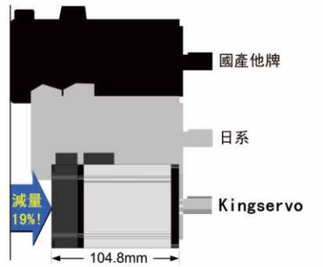
Kingservo G系列高性能AC伺服马达，额定转速-3000rpm至+3000rpm只需6ms加速时间。节省移动时间，提高生产效能。

Servo Motor acceleration/deceleration :
Kingservo G series high performance AC servo motor, it rated -3000 rpm to +3000rpm only 6ms. Saving movement time and increasing productivity.



G系列高性能AC伺服马达命令整定时间可达1ms以下。快速整定时间，反应快、响应高、定位准。

Servo Motor setting time :
G series hight performance AC servo motor command setting time less 1ms. Fast setting time, rapid reaction, high response and accuracy position.



Kingservo G系列高性能AC伺服马达拥有特殊专利，马达做的更小、更轻、不占空间，效能更是媲美日制伺服产品。

Servo Motor length :
Kingservo G series high performance AC servo motor has special patent, we provide small, light and high performance servo motor compared to Japan servo.

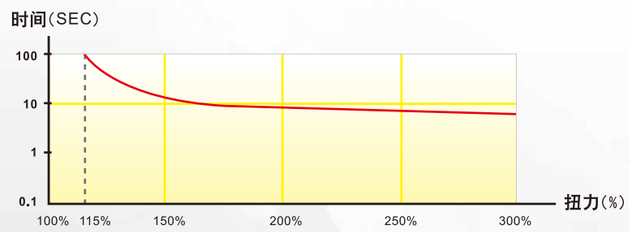
● SGS-CE认证测试报告
SGS-CE certificated test report

● 金顿-5G振动测试报告
King-Design 5G vibration test report

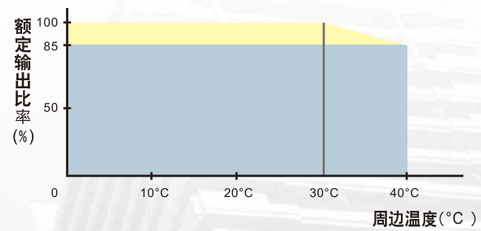
马 达 规 格
Motor Specifications

马达型号 KSMA		01LI*S	01LI*	02LI*	04LI*	08LI*	10MI*	15MI*
额定功率 Power facility capacity	KW	0.1	0.1	0.2	0.4	0.75	1	1.5
额定扭矩 Rated Torque	N.m	0.32	0.32	0.65	1.3	2.4	4.80	7.20
瞬间最大扭矩 Maximum Torque	N.m	0.96	1.44	1.95	3.9	7.2	14.4	21.6
额定转速 Rated rotation speed	rpm	3000	3000	3000	3000	3000	2000	2000
最高转速 Maximum rotation speed	rpm	6000	6000	6000	6000	6000	3000	3000
额定电流 Rated current	A(rms)	1.3	1.4	1.72	2.82	5.4	5.4	8
瞬时最大电流 Maximum current	A(rms)	3.9	6.3	5.16	8.46	16.2	16.2	24
每秒最大功率增加量 Power rate at continuous speed	kW/s	32.8	25.6	24.6	56.3	72.0	19.7	29.5
转子惯量 Moment of inertia	$Kg.m^2$	3.12E-06	4.00E-06	1.72E-05	3.0E-05	8.0E-05	1.17E-03	1.76E-03
机械常数 Mechanical constant	ms	3.95	3.48	5.28	3.95	5.20	16.64	14.96
轴摩擦扭矩 Axle friction torque	N.m	0.02	0.02	0.04	0.04	0.50	0.19	0.17
扭矩常数(KT) Torque constant	N.m/A	0.25	0.23	0.38	0.46	0.44	0.89	0.90
电压常数(KE) Voltage constant	mV/rpm	22.23	19.63	36.37	39.26	38.11	75.93	75.78
电机阻抗 Electric machinery impedance	Ohm	6.92	3.9	4.22	2.38	1.1	0.96	0.58
电机感抗 Electric machinery inductive reactance	mH	10.57	7.3	13.9	7.2	7.75	4.85	3.15
电气常数 Electric constant	ms	1.53	1.87	3.29	3.03	7.05	5.05	5.4.
绝缘等级 Insulation class		F级						
绝缘抗阻 Insulation impedance		>100MΩ，DC 500V						
绝缘耐压 Insulation withstand pressure		AC 1500V，60秒						
使用温度 Operating temperature	˚C	0~40℃						
保存温度 Storing temperature	˚C	-20~80℃						
使用湿度 Operating humidity		20~90%RH(不结露) (No condensation)						
保存湿度 Storing humidity		20~90%RH(不结露) (No condensation)						
耐震动 Withstand vibration		5G						
IP等级 IP class		IP 65						

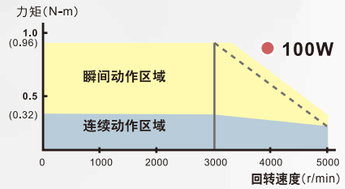
过 载 保 护 时 间 特 性
Overload Protection Timing Characteristic

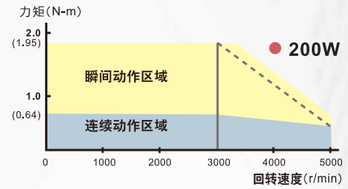


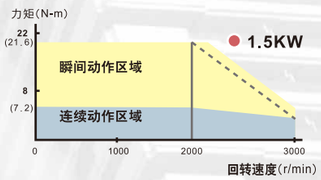
● 连续输出-周边温度(°C)

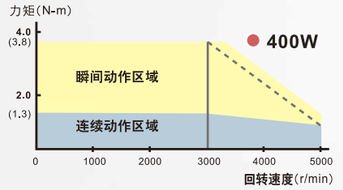


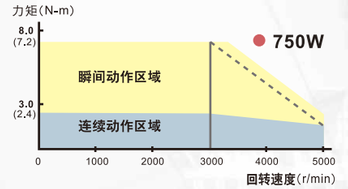
输 出 特 性
Motor Output Characteristic

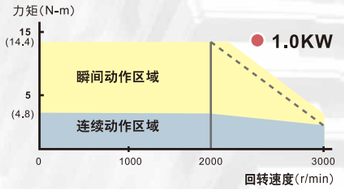












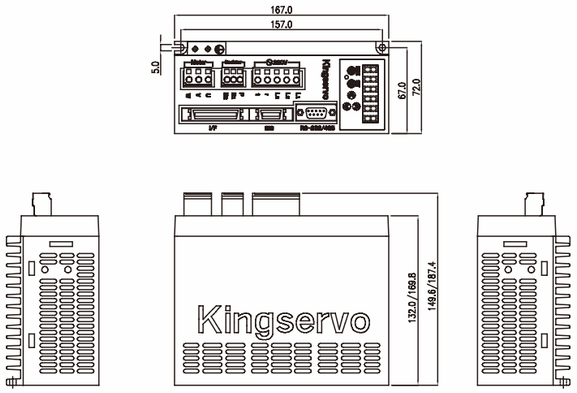
驱 动 器 规 格
Driver Specifications

基本规格	输入电压	主电路	单相／三相，200~255V 50/60Hz
		控制电路	单相，200~255V 50/60Hz
	环境	温度	操作：0~55℃， 储存：-20~+80℃（不可结霜）
		湿度	操作／储存：90%RH以下(不可结露）
		高度	1000m以下
		震动	5.88m/s²以下,10~60Hz (不可在共振频率上连续使用)
	控制方式		IGBT PWM正弦波驱动
	回授编码器		2500P/r (10000分解能)增量型编码器
	控制信号	输入	11个输入 (1)Servo-ON, (2)控制模式切换 (3)增益切换／扭力极限切换 (4)警报清除其他输入会因控制模式不同，而功能不同。
		输出	6个输出 (1)伺服警报 (Servo alarm), (2)Servo ready, (3)刹车释放信号 (4)零速度检出, (5)扭力限制中。其他输出会因控制模式不同，而功能不同。
	类比信号	输入	3个输入(A/D)
		输出	2个输出(监视用) (1)速度监视(可监视马达实际速度，或是命令速度。监控内容及刻度比例是由参数设定来选择) (2)扭力监视(可监控扭力指令(约3/V额定扭力)、偏差计数器或是全闭回路偏差。监控内容及刻度比例是由参数设定来选择)。
	脉波信号	输入	4个输入 可由参数选择由线驱动(Line Driver)介面，或光耦合(Photo-coupler)介面输入脉波
		输出	4个输出 有线驱动器介面输出编码器脉波(A、B、Z相)，Z相则另有开集极介面输出。
	通信功能	RS232	与有RS232C介面的主控制器可做1:1通信
	正面面板		(1)5键(MODE, SET, ←, ↑, ↓), (2)LED(6位数)
	回生		内建回生电阻(50W)。
	动态刹车		可设定电源OFF、Servo OFF、保护功能作动、禁止驱动输入作动时的动态刹车作动程序。
	控制模式		共6种模式，可由参数设定切换 (1)位置控制, (2)速度控制, (3)扭力控制, (4)位置/速度控制, (5)位置/扭力控制, (6)速度/扭力控制

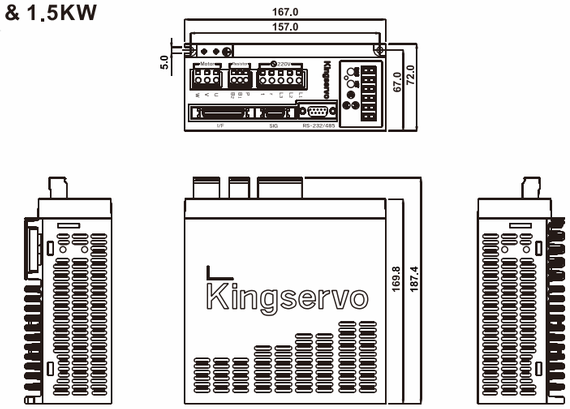
Standard specification	Input voltage	Main circuit	Single phase/3-phase，200~255V 50/60Hz
		Control circuit	Single phase，200~255V 50/60Hz
	Environment	Ambient temperature	Operating：0~55℃, Storing：-20~+80℃(no frosted)
		Ambient humidity	Operating：90%RH max. (no dewed), Storing：90%RH max. (no dewed)
		Elevation	1000m or lower
		Vibration	5.88m/s² max, 10~60Hz (Not continuous use at resonance frequency)
	Control method		IGBT PWM sinusoidal wave driven
	Encoder feedback		2500P/r (10000 resolution) incremental encoder
	Control Signal	Input	11 input (1) Servo-ON (2) Control mode switching (3) Gain switching/Torque limit switching (4) Alarm clear Other inputs vary depending on the control mode
		Output	6 output (1)Servo alarm (2)Servo ready (3)Release signal of external brake (4)Zero speed detection (5)Torque in-limit Other outputs very depending on the control mode
	Analog Signal	Input	3 inputs (A/D)
		Output	2 output (for monitoring) (1)Speed monitor (Monitoring of actual motor speed or command speed is enabled. Select the content and scale with parameter (2)Torque monitor (Monitoring of torque command, approx..3V/rated torque)、deviation counter or full-closed deviation is enabled. Select the content or scale with parameter.
	Pulse Signal	Input	4 inputs Select the exclusive input for line driver or photo-coupler input with parameter
		Output	4 outputs Feed out the encoder pulse (A, B and Z phase). Z-phase pulse is also fed out in open collector.
	Communication Function	RS232	1:1 communication to a host with RS232C interface is enabled
	Front panel		(1)5 Key (MODE, SET, ←, ↑, ↓), (2)LED (6 digit)
	Regeneration		Embedded regeneration resistance (50W).
	Dynamic braking		Set Power OFF、Servo OFF、Protect function、Stopping dynamic braking procedure when driven input.
	Control mode		Switching among the following 6 mode is enabled, (1)Position control (2)Speed control (3)Torque control (4)Position/Speed control (5)Position/Torque control (6)Speed/Torque control

驱动器尺寸规格
Driver Dimension

● 100W & 200W & 400W



● 750W & 1.0KW & 1.5KW

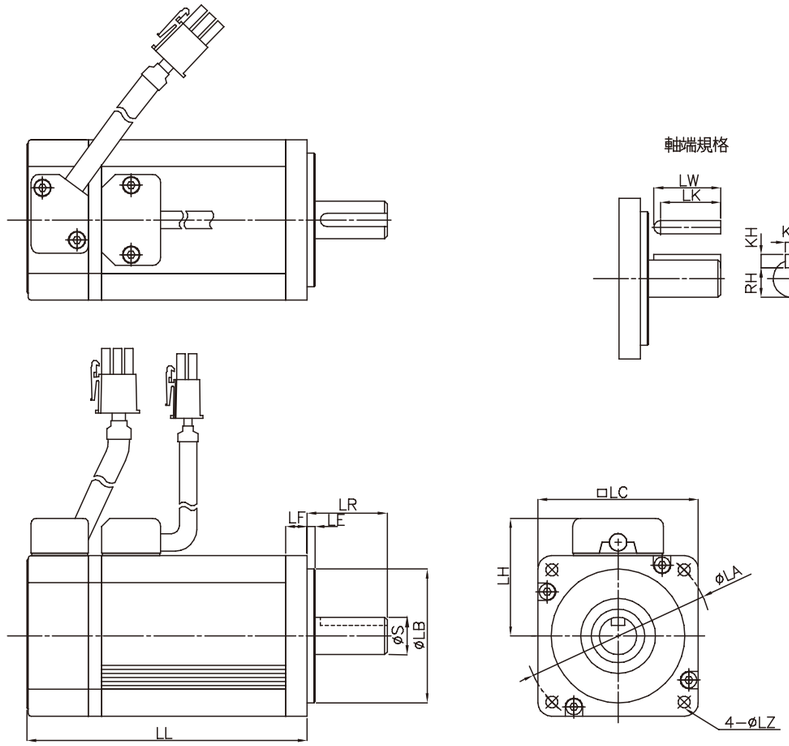


馬達外形尺寸附表
Dimension

		100W(超小型)	100W	200W	400W	750W	1kW	1.5kW
LL	无刹车 without bra	97.5	107.5	82.4	104.8	108.6	159.8	182.8
	有刹车 with brake			118.4	140.8	147.8		
LF		9	9	8	8	8	14	14
LE		2.5	2.5	3	3	3	7	7
LR		25	25	30	30	35	55.1	55.1
LB		30h7	30h7	50h7	50h7	50h7	110h7	110h7
S		8h6	8h6	14h6	14h6	19h6	22h6	22h6
S1		-	-	-	-	-	30e7	30e7
Q		-	-	-	-	-	40	40
LH		36	36	44	44	53	108.6	108.6
LC		40	40	60	60	80	130	130
LA		46	46	70	70	90	145	145
LZ		4.5	4.5	4.5	4.5	6.6	9	9
键槽尺寸 Key size	LW	15	15	25	25	25	25	25
	LK	13.5	13.5	22.5	22.5	22	22	22
	KW	3h9	3h9	5h9	5h9	6h9	6h9	6h9
	KH	3	3	5	5	6	6	6
	RH	6.2	6.2	11	11	15.5	18.5	18.5

马达尺寸规格
Motor Dimension

● 100W & 200W & 400W & 750W



● 1.0KW & 1.5KW