

SERVO MOTORS
40 mm - 130 mm



KAYSER
KAYSER ELECTRIC GMBH



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Model Naming Rule

KSX	60	05	A	-	100	D	30	A	1	-	001
Series	Flange Size	Pole Pairs	Voltage	-	Power	Rotor Inertia	Speed	Encoder	Structure	-	Internal Code

Series	Code	Meaning
	KSX	High efficiency servo motor

Flange Size	Code	Meaning
	40	40 · 40 mm
	60	60 · 60 mm
	80	80 · 80 mm
	130	130 · 130 mm

Pole Pairs	Code	Meaning
	04	8 poles
	05	10 poles

Voltage	Code	Meaning
	A	310 VDC 220 VAC

Power	Code	Meaning
	5	50 W
	10	100 W
	20	200 W
	40	400 W
	75	750 W
	100	1000 W
	150	1500 W
	200	2000 W
	400	4000 W

Rotor Inertia	Code	Meaning
	S	Small Inertia
	D	Medium Inertia
	E	Large Inertia

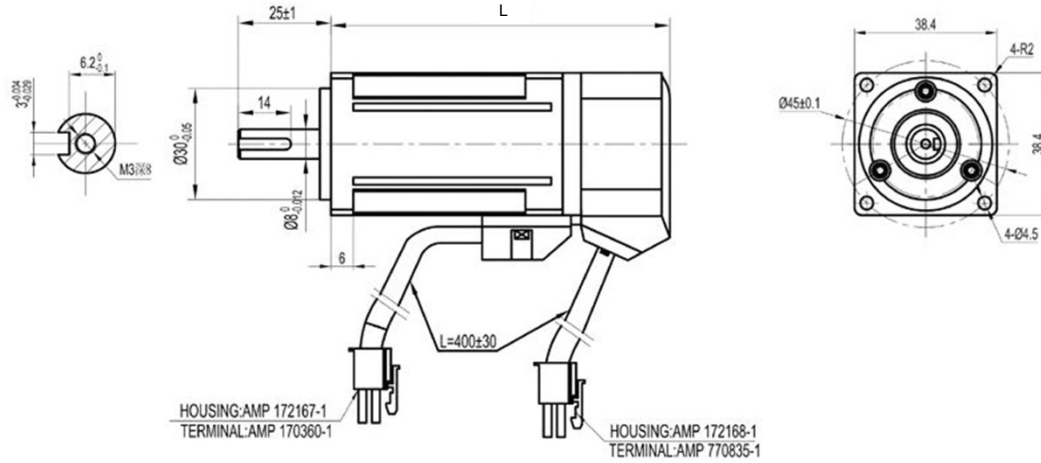
Speed	Code	Meaning
	10	1000 RPM
	20	2000 RPM
	30	3000 RPM

Encoder	Code	Meaning
	A	Tamagawa single ring absolute value 17 bit/turn
	B	Incremental Encoder - 2500ppr
	L	Tamagawa multi ring absolute value 23 bit/turn
	N	Nikon multi ring absolute value 24 bit/turn

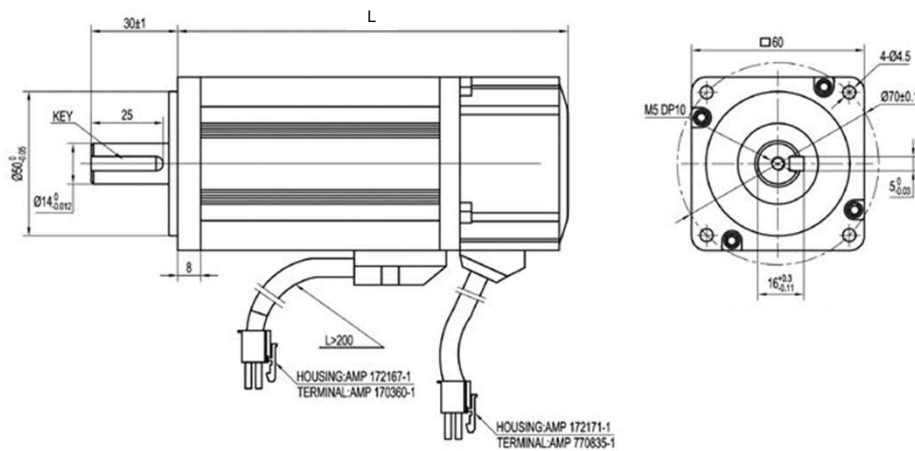
Structure	Code	Meaning
	1	Key shaft, Sealring, No Brake
	2	Key shaft, Sealring, Brake

Mechanical Dimensions – Brakeless Type

KSX40 Series



KSX60 Series

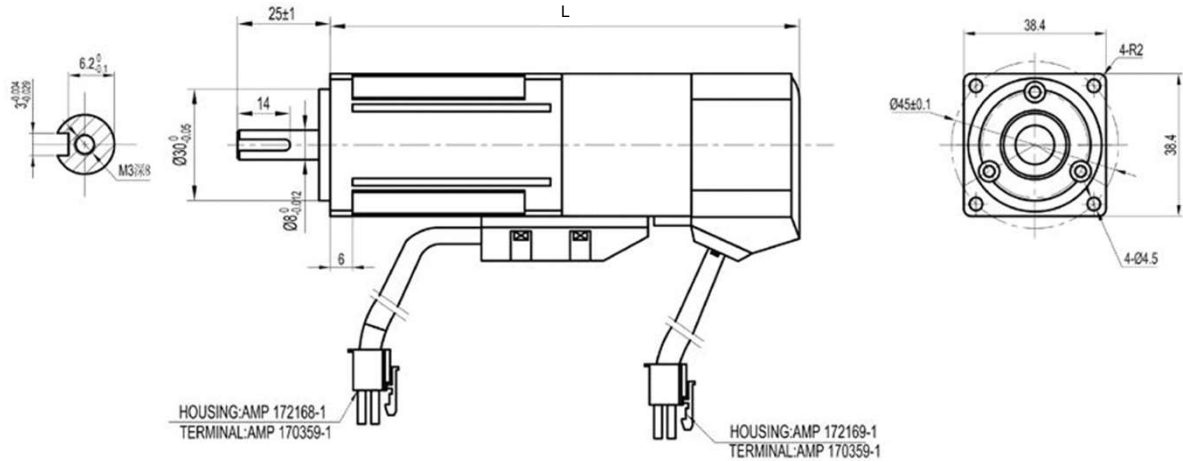


Type		KSX40		KSX60	
Encoder	Power	50 W	100 W	200 W	400 W
	Motor Length L (mm)	-	91,5	101	121
	A	-	91,5	101	121
	B	-	-	-	136
	L	-	97	116	136
	N	65	85	81	

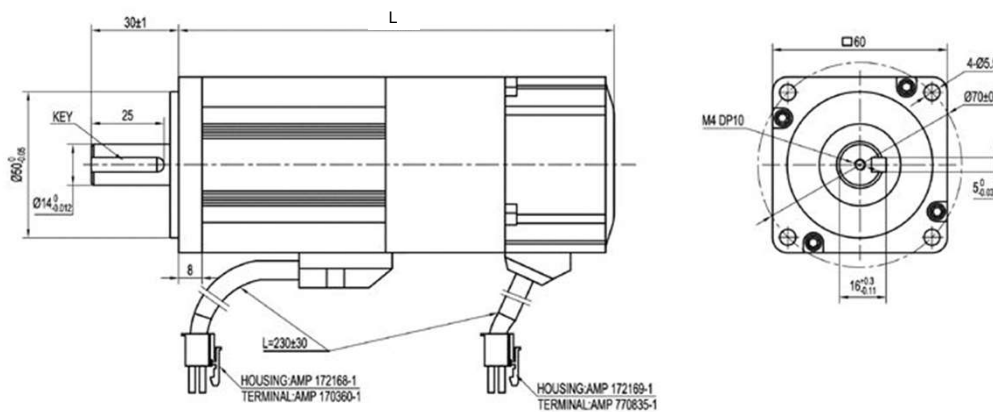
Type		KSX40		KSX60	
Encoder	Power	50 W	100 W	200 W	400 W
	Motor Weight (kg)	-	0.48	0.98	1.28
	A	-	0.48	0.98	1.28
	B	-	-	-	1.35
	L	-	0.52	1.05	1.42
	N	0.34	0.45	0.86	-

Mechanical Dimensions – Brake Type

KSX40 Series



KSX60 Series

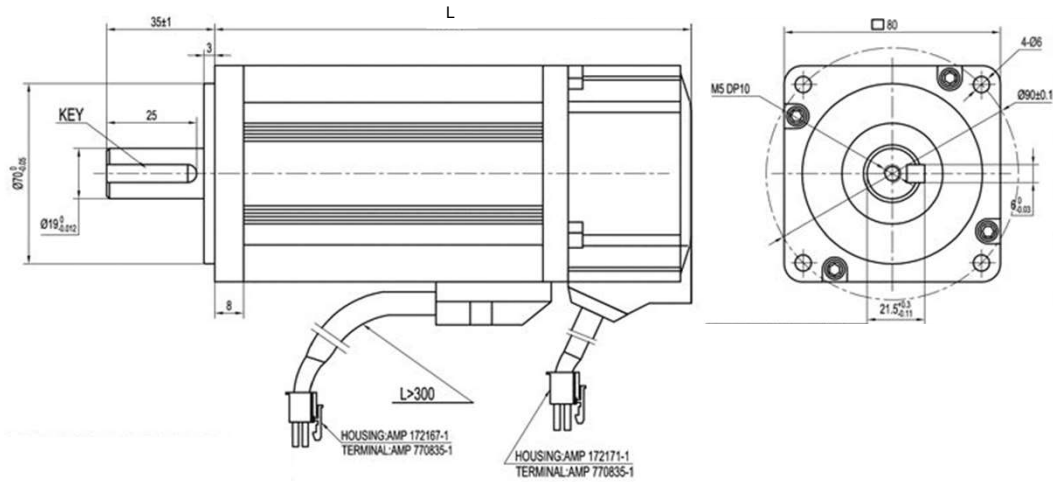


Type		KSX40		KSX60	
Encoder	Power	50 W	100 W	200 W	400 W
	A	-	127	135	155
Motor Length L (mm)	B	-	-	-	169
	L	-	127	150	170
	N	95	115	113	-

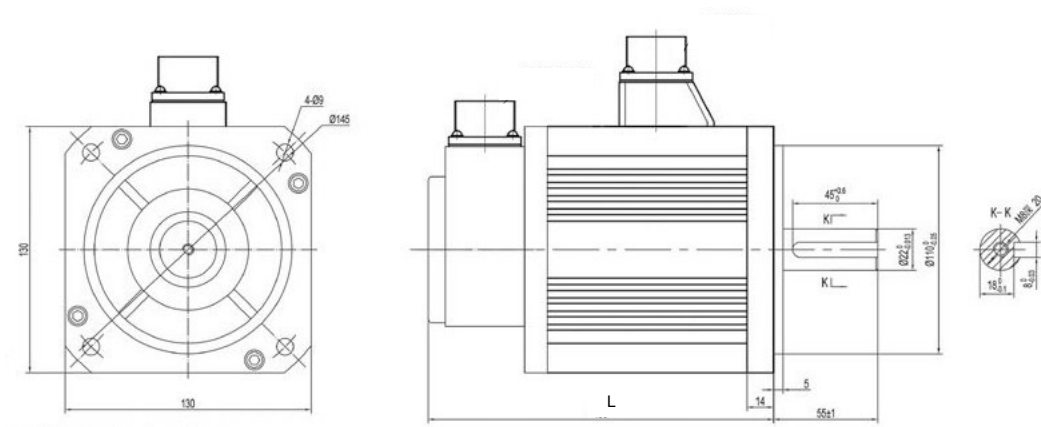
Type		KSX40		KSX60	
Encoder	Power	50 W	100 W	200 W	400 W
	A	-	0.72	1.46	1.85
Motor Weighth (kg)	B	-	-	-	1.80
	L	-	0.72	1.47	1.86
	N	0.58	0.76	1.23	-

Mechanical Dimensions – Brakeless Type

KSX80 Series



KSX130 Series

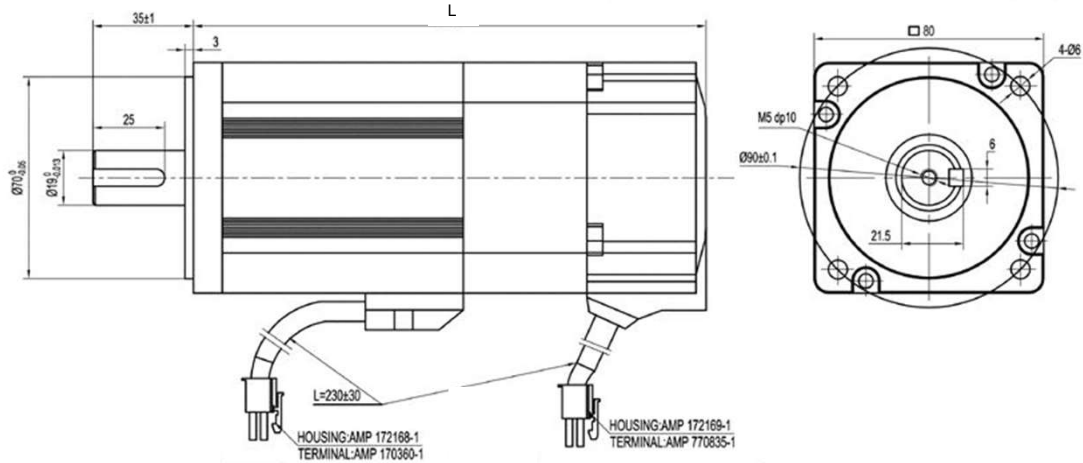


Type		KSX80	KSX130			
Encoder	Power	0.75 kW	1.0 kW	1.5 kW	2.0 kW	4.0 kW
	Motor Length L (mm)	125	-	-	-	-
Motor Length L (mm)	A	125	-	-	-	-
	B	141	-	-	-	-
	L	141	143.5	157	171	226
	N	-	-	-	-	-

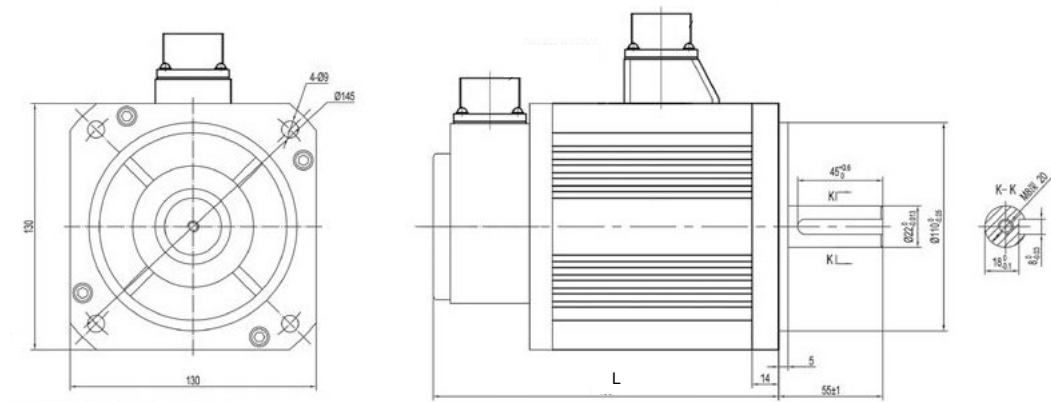
Type		KSX80	KSX130			
Encoder	Power	0.75 kW	1.0 kW	1.5 kW	2.0 kW	4.0 kW
	Motor Weight (kg)	2.42	-	-	-	-
Motor Weight (kg)	A	2.42	-	-	-	-
	B	2.43	-	-	-	-
	L	2.43	5.0	6.1	7.2	11.4
	N	-	-	-	-	-

Mechanical Dimensions – Brake Type

KSX80 Series



KSX130 Series



Type		KSX80	KSX130			
Encoder	Power	0.75 kW	1.0 kW	1.5 kW	2.0 kW	4.0 kW
	Motor Length L (mm)	125.5	-	-	-	-
	A	172	-	-	-	-
	B	179	182.5	196	210	262
	L	-	-	-	-	-
	N	-	-	-	-	-

Type		KSX80	KSX130			
Encoder	Power	0.75 kW	1.0 kW	1.5 kW	2.0 kW	4.0 kW
	Motor Weight (kg)	3.5	-	-	-	-
	A	2.5	-	-	-	-
	B	3.5	7.3	8.3	9.5	13.6
	L	-	-	-	-	-
	N	-	-	-	-	-

KSX40 Series



General Specifications

Insulation Class	F
Protection Degree	IP65
Environmental Conditions	Work: 0 °C ~ 55 °C Preserve: 20 °C ~ 80 °C Work or Preserve: 90 % RH (No Condensation) Above Sea Level 1000 m Vibration : 5.88/S 2.10-60Hz

Technical Specifications

Model	KSX4004A-10D30A1 KSX4004A-10D30N1 KSX4004A-10D30A2	KSX4004A-10D30N2-001 KSX4004A-10D30L1 KSX4004A-10D30L2	KSX4005A-05S30N1-001 KSX4005A-05S30N2-001
Rated Power (W)	100		50
Rated Voltage (VDC)	310		
Rated Current (A)	1.2		0.56
Rated Speed (RPM)	3000		
Rated Torque (Nm)	0.32		0.16
Peak Torque (Nm)	0.96		0.48
Phase-to-Phase Resistance (Ω)	11.0		23.0
Phase-to-Phase Inductance (mH)	8.0		16.0
BEMF Constant (V/kRPM)	16.0		
Torque Constant (Nm/A)	0.265		
Rotor Inertia (kg·cm ²)	0.045		0.03

* Motors can be customized by request.

KSX60 Series



General Specifications

Insulation Class	F
Protection Degree	IP65
Environmental Conditions	Work: 0 °C ~ 55 °C Preserve: 20 °C ~ 80 °C Work or Preserve: 90 % RH (No Condensation) Above Sea Level 1000 m Vibration : 5.88/S 2.10-60Hz

Technical Specifications

Model	KSX6004A-40S30B1 KSX6004A-40S30B2	KSX6005A-40D30A2 KSX6005A-40D30L1	KSX6005A-40D30L2 KSX6005A-40D30A1	KSX6005A-20S30N1-T KSX6005A-20S30N2-T KSX6005A-20D30L1	KSX6005A-20D30L2 KSX6005A-20D30A1 KSX6005A-20D30A2
Rated Power (W)	400			200	
Rated Voltage (VDC)	310				
Rated Current (A)	2.65			1.6	
Rated Speed (RPM)	3000				
Rated Torque (Nm)	1.27			0.64	
Peak Torque (Nm)	3.81			1.91	
Phase-to-Phase Resistance (Ω)	3.5	3.7		8.8	
Phase-to-Phase Inductance (mH)	8.0	12.0		24.0	
BEMF Constant (V/kRPM)	32.0				
Torque Constant (Nm/A)	0.48			0.45	
Rotor Inertia (kg·cm²)	0.67			0.42	

* Motors can be customized by request.

KSX80 Series**SERVO MOTOR****General Specifications**

Insulation Class	F
Protection Degree	IP65
Environmental Conditions	Work: 0 °C ~ 55 °C Preserve: 20 °C ~ 80 °C Work or Preserve: 90 % RH (No Condensation) Above Sea Level 1000 m Vibration : 5.88/S 2.10-60Hz

Technical Specifications

Model	KSX8004A-75D30B1	KSX8005A-75D30A1	KSX8005A-75D30A2	KSX8005A-75D30B2	KSX8005A-75D30L1	KSX8005A-75D30L2
Rated Power (W)	750					
Rated Voltage (VDC)	310					
Rated Current (A)	4.0					
Rated Speed (RPM)	3000					
Rated Torque (Nm)	2.4					
Peak Torque (Nm)	7.2					
Phase-to-Phase Resistance (Ω)	1.4	1.5				
Phase-to-Phase Inductance (mH)	9.0	11.0				
BEMF Constant (V/kRPM)	39.0					
Torque Constant (Nm/A)	0.6					
Rotor Inertia (kg·cm²)	1.51					

* Motors can be customized by request.

KSX130 Series



General Specifications

Insulation Class	F
Protection Degree	IP65
Environmental Conditions	Work: 0 °C ~ 55 °C Preserve: 20 °C ~ 80 °C Work or Preserve: 90 % RH (No Condensation) Above Sea Level 1000 m Vibration : 5.88/S 2.10-60Hz

Technical Specifications

Model	KSX13005A-100D20L1	KSX13005A-100D20L2	KSX13005A-150D20L1	KSX13005A-150D20L2	KSX13005A-200D20L1	KSX13005A-200D20L2	KSX13005A-400E10L1	KSX13005A-400E10L2
Rated Power (W)	1000		1500		2000		4000	
Rated Voltage (VDC)	310							
Rated Current (A)	5.5		8.8		12.0		9.5	
Rated Speed (RPM)	2000						1000	
Rated Torque (Nm)	4.7		8.8		9.55		20.0	
Peak Torque (Nm)	14.7		21.6		28.65		40.0	
Phase-to-Phase Resistance (Ω)	1.2		0.8		0.5	0.46	1.1	
Phase-to-Phase Inductance (mH)	12.0		8.4		5.4	6.5	13.7	
BEMF Constant (V/kRPM)	55.0		62.0		80.0	55.0	153.0	
Torque Constant (Nm/A)	0.6				0.79	0.6	1.5	
Rotor Inertia (kg·cm²)	4.5		6.7		8.9		17.8	

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