GGM GEARED MOTOR

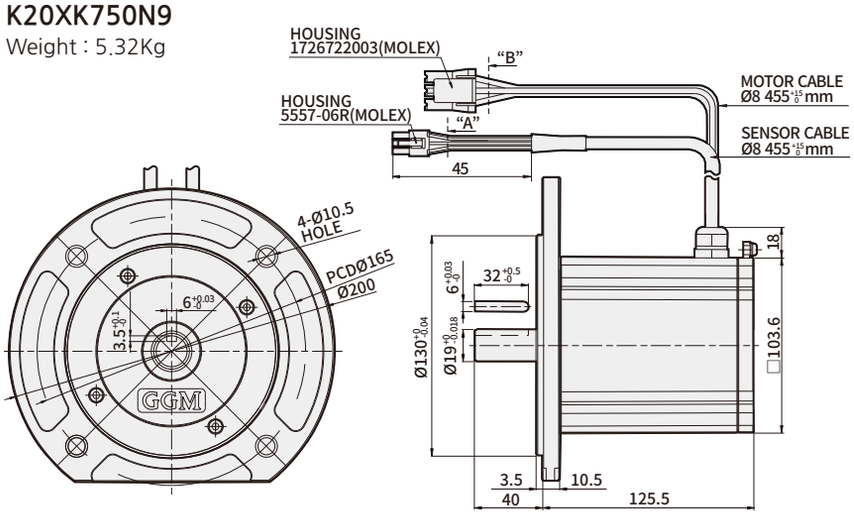
BRUSHLESS DC MOTOR UNIT - X Series

IEC 750W

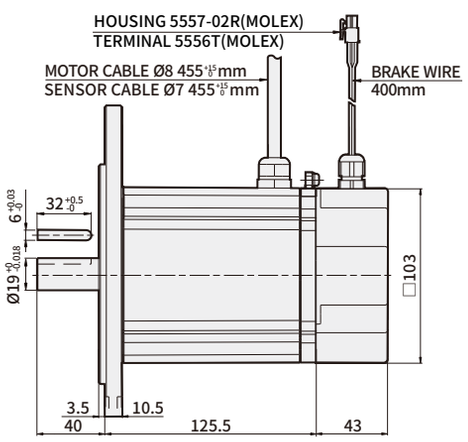
Ø200, □104mm
DC 48V Input

DIMENSIONS

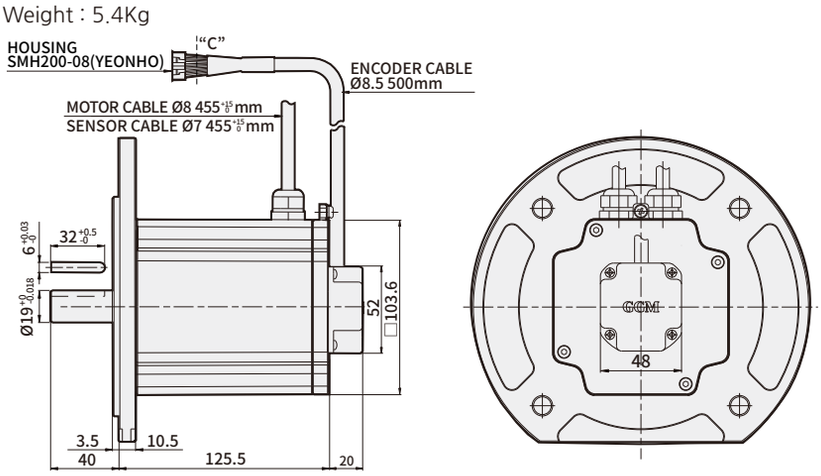
K20XK750N9
Weight : 5.32Kg



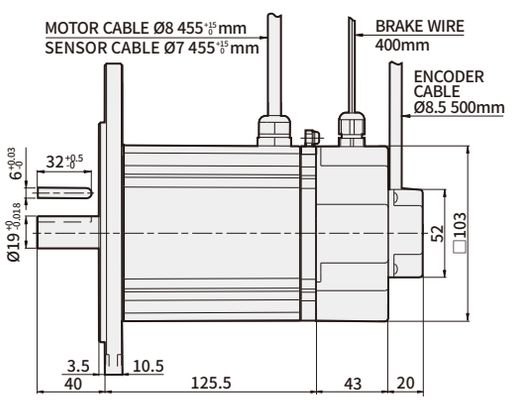
K20XK750N9-B (Brake type)
Weight : 5.9Kg



K20XK750N9-E (Encoder type)
Weight : 5.4Kg



K20XK750N9-BE (Brake Encoder type)
Weight : 6Kg



			Timing diagram CW
Resolution	1,000PPR		A, B, Z
Output Type	Output Form	Power Supply	
	Line Driver	+5Vdc ±10% 150mA below	

CONNECTOR HOUSING		
MOTOR VIEW "A" / "B"		ENCODER VIEW "C"
A	B	C
6 5 4 3 2 1	U V W	8 7 6 5 4 3 2 1

ENCODER PIN MAP "C"		
PIN No.	COLOR	SIGNAL
1	BLUE	Vcc(5Vdc)
2	BROWN	A
3	WHITE	/A
4	ORANGE	B
5	YELLOW	/B
6	GREEN	Z
7	PURPLE	/Z
8	GRAY	Ground

MOTOR PIN MAP "A"		
PIN No.	COLOR	SIGNAL
1	YELLOW	VCC
2	BLACK	DRAIN
3	GREEN	Ground
4	BROWN	Hu
5	WHITE	Hv
6	ORANGE	Hw
MOTOR PIN MAP "B"		
1	BLACK	U
2	RED	V
3	WHITE	W

Specification

Product name	GEAR TYPE		K6XH30N2	K8XH50N2	K9XH100N2	K10XH200N2	K10XH400N9	-
	STRAIGHT TYPE		K6XS30N2	K8XS50N2	K9XS100N2	K10XS200N2	K10XS400N9	-
	KEY TYPE		K6XK30N2	K8XK50N2	K9XK100N2	K10XK200N2	K10XK400N9	K10XK750N9
Rating output (continuous)		W	30	50	100	200	400	750 (IEC)
Power input	Rating voltage	V	DC24				DC 48	
	Rating voltage allowance		±10%					
	Rating input current	A	2.1	3.1	6	13	11	18
	Maximum input current	A	3.7	5.4	9.8	25	18	30
Rating torque		N·m	0.12	0.2	0.4	0.65	1.3	2.4
Starting torque		N·m	0.15	0.24	0.5	1.15	1.8	3.5
Rating rotation speed		r/min	2500			3000		
Speed control range		r/min	100~3000			100~4000		100~3000
Speed change rate	Load		Less than or equal to ±1% : condition 0-rated torque, rated rotation speed, rated voltage, room temperature					
	Voltage		Less than or equal to ±1% : condition rating voltage ±10%, rating rotation speed, no load, room temperature					
	Temperature		Less than or equal to ±1% : condition surrounding temperature 0~+40℃, rating rotation speed, no load, rating voltage					

※ -B (BRAKE), -E (ENCODER) or -BE (BRAKE+ENCODER) can be added to end of the motor model name.
※ The usage duration for starting torque is within 5 seconds at less than 2000 r/min.
※ Each specification value is the characteristic of motor by itself.
※ IEC Type is same as K10BK750NC specification.

Common specifications

Product name	Specification
Rotation speed setting method	● Set up by external potentiometer ● Set up by external DC 0~5V
Acceleration time deceleration time	0.5~10 seconds : set at 2000 r/min when there is no load (it may change depending on the size of the load) Accleration time and deceleration control equipment to control at the same time
Input signal	Internal full-up input method, external input voltage read as greater than 2v high(off) same at all input ports
Protection function	If the following protection mode comes on, cotrol unit alarm signal is shown. Motor stops automatically. ● Overload protection mode : If torque that is greater than the rating is applied to the motor for more than 5 seconds ● Overvoltage protection : If voltage applied to the control unit goes over the upper bound of the rating allowance ● Open phase protection : If cable sensor line gets disconnected during motor operation ● Undervoltage protection : If voltage applied to the control unit is less than the lower bound of th rating voltage allowance ● Over speed protection : If motor rotation speed is faster than 2500 r/min
Motor insulation class	E TYPE(120℃)
Maximum extension distance	MOTOR - CONTROL UNIT 2m
Rated time	Continuous

※ Like weight carried being downwards, X SERIES cannot control motor speed through weight.
Motor gets stopped automatically through overvoltage protection of load is being carried downwards or it is heavier than allowed load inertia.

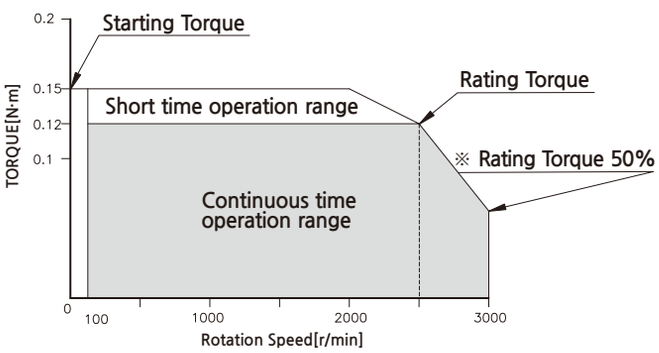
Normal specifications

Item		Motor	Control unit
Insulation Resistance		After being operated continuously at room temperature and humidity, the value measured between coil and vase by DC 500V MEGA is greater than or equal to 100㏁	After being operated continuously at room temperature and humidity, the value measured between heatproof plate and power input is greater than or equal to 100㏁
Dielectric Strength		After being operated continuously at room temperature and humidity, there shouldn't be any problem between coil and case even when AC 0.5kV is applied for 1 minute	No problem when 50Hz, AC 0.5kV is applied for one minute No problem when AC 0.5kV is applied for one minute
Used environment	Used Ambient temperature	0℃~+50℃ (should not freeze)	
	Used Ambient Humidity	less than or equal to 85% (not from dews)	
	Vibration	Altitude less than 1000m	
	Ambient environment	Cannot be used under special circumstances such as withcorrosive gas, dust, radioactive material, magnetic and vacuum	
	Vibration	Should not apply constant vibration or huge impact according to the JIS C 60068-2-6 sine wave vibration test method Frequency range : 10~55Hz, peak amplitude : 0.15mm, sweet direction : 3 direction(X,Y,Z), number of sweeps : 20 times	
Conservation environment	Ambient temperature	-25 ~ +70℃ (should not freeze)	
	Ambient Humidity	less than or equal to 85% (not form dews)	
	Altitude	Altitude less than 3000m	
Insulation class		UL, CSA STANDARD A TYPE(105℃), EN STANDARD E TYPE(120℃)	
Protection class		IP65	IP00

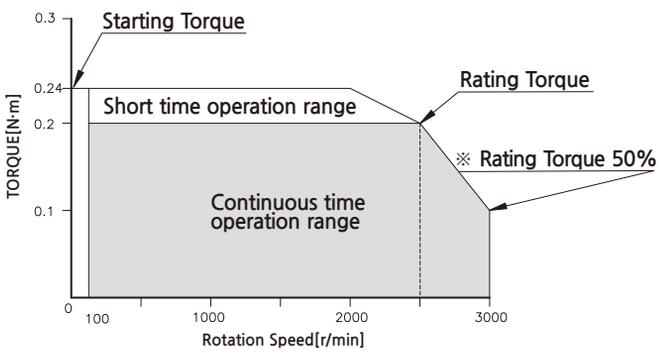
※ Preservation environment is a short-term value, which includes transportation.
※ Do not measure insulation resistance and pressure resistance while motor and driver are connected.

Rotation speed- torque characteristic

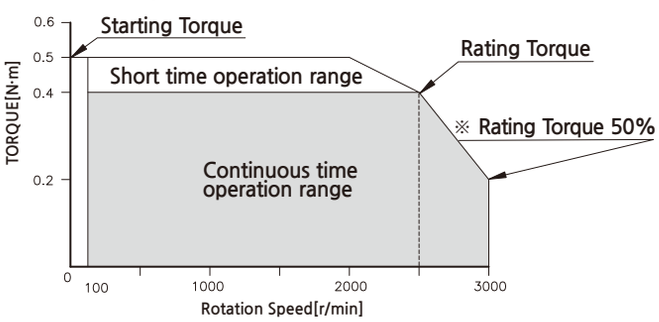
K6XS30N2 / K6XH30N2



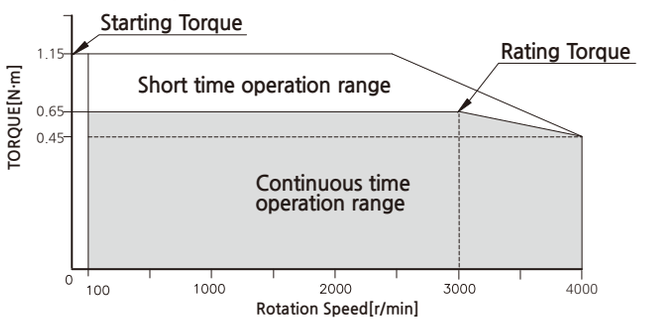
K8XS50N2 / K8XH50N2



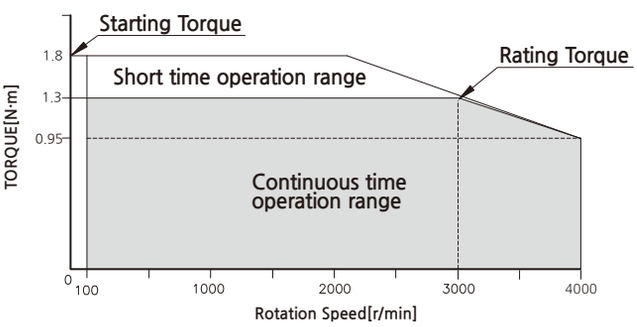
K9XS100N2 / K9XH100N2



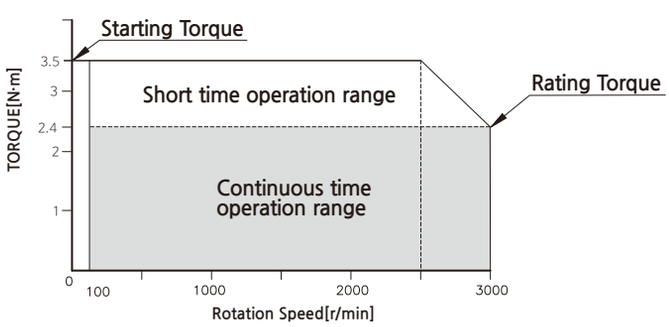
K10XS200N2/K10XH200N2



K10XS400N9/K10XH400N9



K10XK750N9 (IEC)



※ -B (BRAKE), -E (ENCODER) or -BE (BRAKE+ENCODER) can be added to end of the motor model name.
※ DC24V is the value without cable extension.