



GM6 SPINDLE SERVO MOTOR

Version:V2.1 HNC Electric Limited 2020



Contents

By Industry/Feature

GM6 series spindle motor model naming rules

GM6165 Model and specifications

GM 6204 Model and specifications

GM 6265 Model and specifications



BY INDUSTRY

- CNC lathe, lathe-milling machine tool, vertical lathe, heavy horizontal lathe
- CNC milling machine, vertical machining center, horizontal machining center

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- CNC boring machine, gantry planer, gantry milling machine
- CNC grinder, vertical grinder, floor boring and milling machine
- Drilling and tapping center, engraving and milling machine, gear hobbing machine, gear shaping machine, gear milling machine
- Electric vehicle field

FEATURE

- Brand new electromagnetic design scheme, tailor-made for the machine tool industry
- Equipped with high-precision encoder, higher positioning accuracy
- Brand new structure design, using closed heat dissipation channel, lower temperature rise
- High efficiency and energy saving
- The constant power range is wider and the low speed torque is greater
- Using a new manufacturing process, the performance is more stable

GM6 SERIES SPINDLE MOTOR MODEL NAMING RULES

GM6	204-	- 235	С	G	D	12-00B	0	0 0
1,2	3,4,5	6,7,8	9	10	11	12,13 14 15 16	17	18,19

Bit	1,2	Bit 6	,7,8	В	it 9	Bit	10		Bit 12,13	3
Symbol	Specification	Symbol S	Specification	Symbol	Specification	Symbol	Specification	Symbol	Specification	on
GM6	Medium speed asynchronous spindle series	126	12.6N.m	А	500r/min	F	220V	12	2500ppr incr	remental
		150	15N.m	В	1000r/min	G	380V	14	2500ppr incr	emental (saving wires
		A00	100N.m	С	1500r/min			I 5	1024ppr incr	emental
		A18	118N.m	D	2000r/min					
		B00	200N.m	E	2500r/min					
		C00	300N.m	F	3000r/min					
Bit	3,4,5	Bit	11		В	it 16			Е	Bit 14
Symbol	Specification	Symbol	Specification		Symbol	Specification			Symbol	Specification
165	165Flange	D	Tamagawa		А	Smooth shaft			0	No brake
180	180Flange	N	NEMICON		В	Shaft with key			1	With brake
204	204Flange	С	YUHENG		С	Flat shaft				
265	265Flange				D	Conical shaft			В	it 15
									Symbol	Specification
									0	Flange(B5)
									1	Foot(B3)
									2	Foot+Flange(B35)
									В	it 17
									Symbol	Specification
									0	No oil seal
									1	With oil seal
									Bit	18,19
									Symbol	Specification
									00	None
									01	Design No. 01

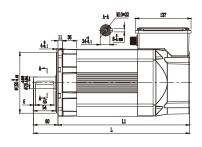
02 Design No. 02

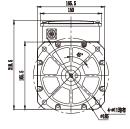


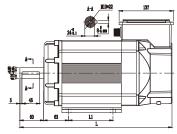
GM6

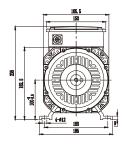
GM6165 SPINDLE SERVO MOTOR

DIMENSION:UNIT=MM









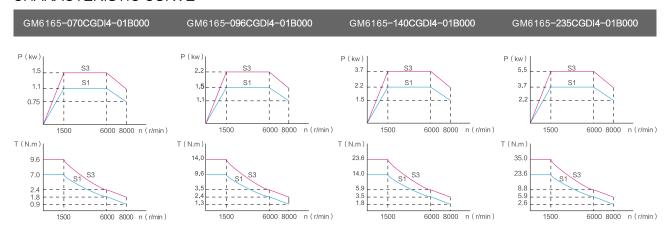
LENGTH	1.1kW	1.5kW	2.2kW	3.7kW
L1	274	294	324	379
L	334	354	384	439

LENGTH	1.1kW	1.5kW	2.2kW	3.7kW
L1	45	70	112	159
L	334	354	384	439

SPECIFICATIONS

MOTOR TYPE	RATED POWER (KW)	RATED CURRENT (A)	RATED TORQUE (N.m)	POLES (P)	RATED FREQUENCY (HZ)	RATED SPEED (R/MIN)	CONSTANT POWER MAXIMUM SPEED (R/MIN)	MAXIMUM SPEED (R/MIN)	MOMENT OF INERTIA (KG.M²)	WEIGHT (KG)
GM6165-070CGDI4-01B000	1.1	2.6	7.0	4	52.5	1500	6000	8000	0.0058	14
GM6165-096CGDI4-01B000	1.5	3.4	9.6	4	52.5	1500	6000	8000	0.0066	16
GM6165-140CGDI4-01B000	2.2	4.9	14.0	4	52.5	1500	6000	8000	0.0078	22
GM6165-235CGDI4-01B000	3.7	7.8	23.5	4	52.5	1500	6000	8000	0.0108	30

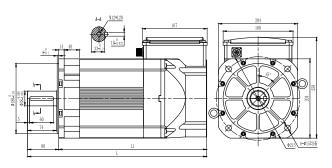
CHARACTERISTIC CURVE

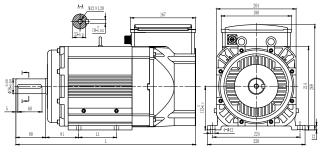


NAME	ENCODER SHAFT EXTENSION MOUNTING PROTECTION INSULATION VIBRATION NOISE AMBIENT ENVIRONMEN (OPTIONAL) STRUCTURE CLASS CLASS CLASS TEMPERATURE HUMIDITY	۱T
	12 2500ppr incremental A: Smooth shaft B3、B35、B5 IP55 F class S ≤70dB −15~45°C ≤95%RH	
	I4 2500ppr incremental B: Shaft with key (saving wires)	
INDEX	15 1024ppr incremental	

GM6204 SPINDLE SERVO MOTOR

DIMENSION:UNIT=MM





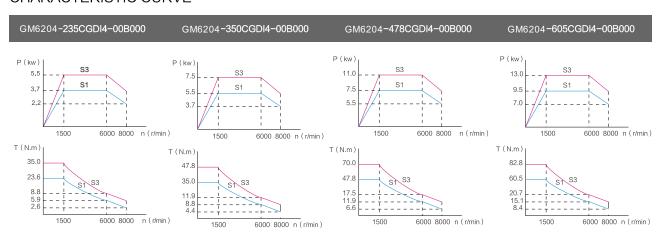
LENGTH	3.7kW	5.5kW	7.5kW	9.5kW	
L1	381	427	482	519	
L	461	507	562	597	

LENGTH	3.7kW	5.5kW	7.5kW	9.5kW
L1	73/97	128/153	178/208	208
L	465	511	566	601

SPECIFICATIONS

MOTOR TYPE	RATED POWER (KW)	RATED CURRENT (A)	RATED TORQUE (N.m)	POLES (P)	RATED FREQUENCY (HZ)	RATED SPEED (R/MIN)	CONSTANT POWER MAXIMUM SPEED (R/MIN)	MAXIMUM SPEED (R/MIN)	MOMENT OF INERTIA (KG.M²)	WEIGHT (KG)
GM6204-235CGDI4-00B000	3.7	9.1	23.5	4	51.5	1500	6000	8000	0.0162	34.6
GM6204-350CGDI4-00B000	5.5	13.0	35.0	4	51.5	1500	6000	8000	0.0210	43.6
GM6204-478CGDI4-00B000	7.5	17.8	47.8	4	51.5	1500	6000	8000	0.0267	54.4
GM6204-605CGDI4-00B000	9.5	23.8	60.5	4	51.5	1500	6000	8000	0.0304	61.2

CHARACTERISTIC CURVE



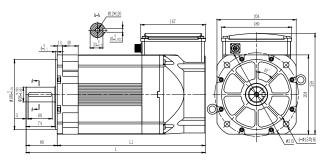
NAME	ENCODER (OPTIONAL)	SHAFT EXTENSIO STRUCTURE	N MOUNTING	PROTECTION CLASS	INSULATION CLASS	VIBRATION CLASS		AMBIENT TEMPERATURE	ENVIRONMENT HUMIDITY
INDEX		ntal A: Smoothshaft ntal B: Shaft with key ntal		5 IP55	F class	S	≤70dB	-15~45℃	≤95%RH

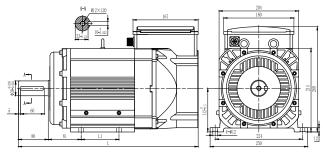


GM6

GM6204 SPINDLE SERVO MOTOR(COMPACT TYPE)

DIMENSION:UNIT=MM





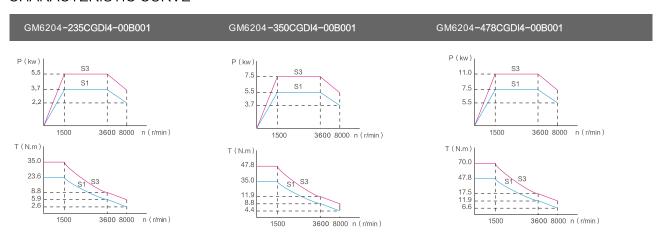
LENGTH	3.7kW	5.5kW	7.5kW
L1	357	402	452
L	437	482	532

LENGTH	3.7kW	5.5kW	7.5kW
L1	73	128	178
L	441	486	536

SPECIFICATIONS

MOTOR TYPE	RATED POWER (KW)	RATED CURRENT (A)	RATED TORQUE (N.m)	POLES (P)	RATED FREQUENCY (HZ)	RATED SPEED (R/MIN)	CONSTANT POWER MAXIMUM SPEED (R/MIN)	MAXIMUM SPEED (R/MIN)	MOMENT OF INERTIA (KG.M²)	WEIGHT (KG)
GM6204-235CGDI4-00B001	3.7	8.9	23.5	4	51.5	1500	3600	8000	0.0134	29.7
GM6204-350CGDI4-00B001	5.5	13.5	35.0	4	51.5	1500	3600	8000	0.0186	38.7
GM6204-478CGDI4-00B001	7.5	17.1	47.8	4	51.5	1500	3600	8000	0.0233	49.5

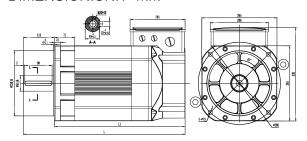
CHARACTERISTIC CURVE

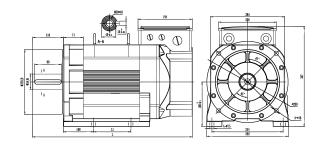


NAME	ENCODER SHAFT EXTENSION MOUNTING PROTECTION INSULATION VIBRATION NOISE AMBIENT ENVIRONMENT (OPTIONAL) STRUCTURE CLASS CLASS CLASS TEMPERATURE HUMIDITY
	12 2500ppr incremental A : Smooth shaft B3、B35、B5 IP55 F class S ≤70dB −15~45°C ≤95%RH
INDEX	I4 2500ppr incremental B: Shaft with key (saving wires)
	I5 1024ppr incremental

GM6265 SPINDLE SERVO MOTOR

DIMENSION:UNIT=MM





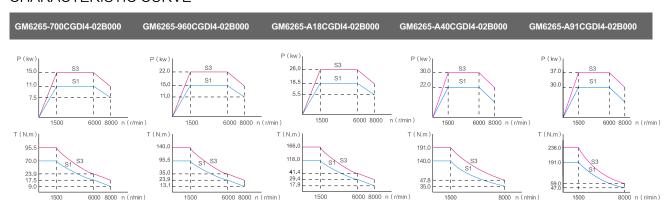
LENGTH	11kW	15kW	18.5kW	22kW	30kW
L1	460	510	565	610	680
L	570	620	675	720	790

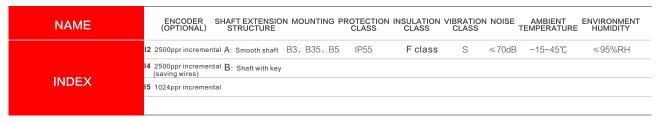
LENGTH	11kW	15kW	18.5kW	22kW	30kW
L1	133	173	218	243	243
L	570	620	675	720	790

SPECIFICATIONS

RATED POWER (KW)	RATED CURRENT (A)	RATED TORQUE (N.m)	POLES (P)	RATED FREQUENCY (HZ)	RATED SPEED (R/MIN)	CONSTANT POWER MAXIMUM SPEED (R/MIN)	MAXIMUM SPEED (R/MIN)	MOMENT OF INERTIA (KG.M²)	WEIGHT (KG)
11	21.5	70	4	51.5	1500	6000	8000	0.0491	87
15	29.0	96	4	51.5	1500	6000	8000	0.0603	101
18.5	35.2	118	4	51.5	1500	6000	8000	0.0715	137
22	42.3	140	4	51.5	1500	6000	8000	0.0824	150
30	51.0	191	4	51.5	1500	6000	8000	0.0930	163
	11 15 18.5 22	POWER (KW) 11 21.5 15 29.0 18.5 35.2 22 42.3	POWER (KW) CURRENT (A) TORQUE (N.m.) 11 21.5 70 15 29.0 96 18.5 35.2 118 22 42.3 140	POWER (KW) CURRENT TORQUE (P) 11 21.5 70 4 15 29.0 96 4 18.5 35.2 118 4 22 42.3 140 4	POWER (KW) CURRENT (A) TORQUE (N.m) (P) FREQUENCY (HZ) 11 21.5 70 4 51.5 15 29.0 96 4 51.5 18.5 35.2 118 4 51.5 22 42.3 140 4 51.5	POWER (KW) CURRENT (A) TORQUE (N.m) (P) FREQUENCY (HZ) SPEED (R/MIN) 11 21.5 70 4 51.5 1500 15 29.0 96 4 51.5 1500 18.5 35.2 118 4 51.5 1500 22 42.3 140 4 51.5 1500	POWER (KW) CURRENT (A) TORQUE (N.m.) (P) FREQUENCY (HZ) SPEED (R/MIN) MAXIMUM SPEED (R/MIN) 11 21.5 70 4 51.5 1500 6000 15 29.0 96 4 51.5 1500 6000 18.5 35.2 118 4 51.5 1500 6000 22 42.3 140 4 51.5 1500 6000	POWER (KW) CURRENT (A) TORQUE (N.m) (P) FREQUENCY (HZ) SPEED (R/MIN) MAXIMUM SPEED (R/MIN) SPEED (R/MIN) 11 21.5 70 4 51.5 1500 6000 8000 15 29.0 96 4 51.5 1500 6000 8000 18.5 35.2 118 4 51.5 1500 6000 8000 22 42.3 140 4 51.5 1500 6000 8000	POWER (KW) CURRENT (A) TORQUE (N.m) (P) FREQUENCY (HZ) SPEED (R/MIN) MAXIMUM SPEED (R/MIN) SPEED (R/MIN) INERTIA (KG.M) 11 21.5 70 4 51.5 1500 6000 8000 0.0491 15 29.0 96 4 51.5 1500 6000 8000 0.0603 18.5 35.2 118 4 51.5 1500 6000 8000 0.0715 22 42.3 140 4 51.5 1500 6000 8000 0.0824

CHARACTERISTIC CURVE



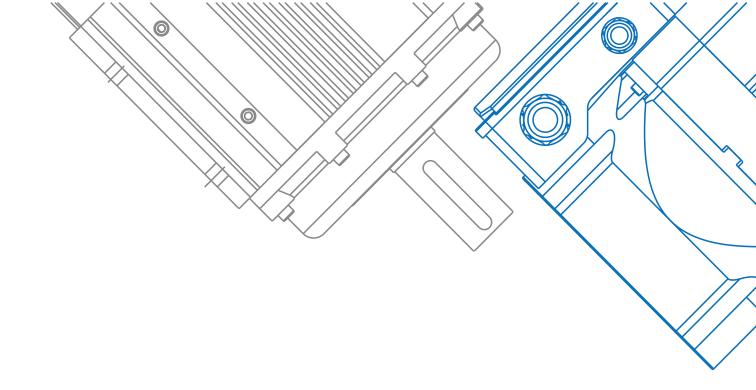






HNC ELECTRIC LIMITED is a company dedicated to the development and production of intelligent industrial automation solutions based on national strategic needs. Supported by its outstanding electrical and electronic technology and strong control technology, it provides control, display, drive and system solutions and other related products and services to customers worldwide.

With 25 years of hard work, we have developed and produced professional CNC systems, industrial robots, servo drives, servo motors, reducers, inverters, PLCs, HMIs, etc. In more than 50 countries and regions around the world, we have established a comprehensive agent system and after-sales service system. In the future, we will, as always, provide more professional services for global industrial automation.











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Any technique support, please feel to contact our support team

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