A country without a strong manufacturing capability can never be an economic power. The equipment manufacturing is an important foundation for a country to achieve economic growth and enhance national strength. The high-technology is significant to enhance the competitiveness of traditional industries, and meet the challenges of economic globalization.

Wuhan Huazhong Numerical Control Co. will provide our customers with high-quality services, and make all efforts to bring the CNC industry a better future.

2025: HNC, Powering Your Manufacturing

武汉华中数控股份有限公司
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PRODUCT MANUAL OF HNC-8 CNC SYSTEMS >

武汉华中数控股份有限公司
WUHAN HUAZHONG NUMERICAL CONTROL CO.,LTD

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INTRODUCTION

Introduction to HNC-8 Systems >>

HNC–8 systems, based on NCUC bus structure, use modular and open architecture to ensure high reliability. It supports high–speed and high–precision, multi–axis and multi–channel, turning–milling compound, cloud NC, five–axis machining, and other control functions.

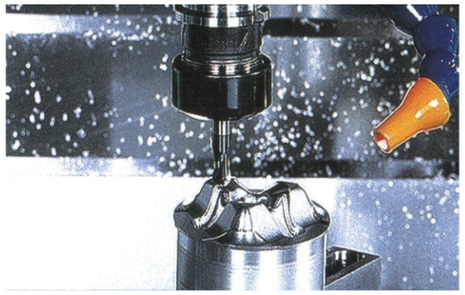
HNC–8 systems support replaceable hardware and cross–platform software with the secondary development function.HNC–8 systems support multiple crafts such as laser machining, EDM, grinding, as well as plastic machinery, printing machinery, etc.HNC–8 system supports customization.

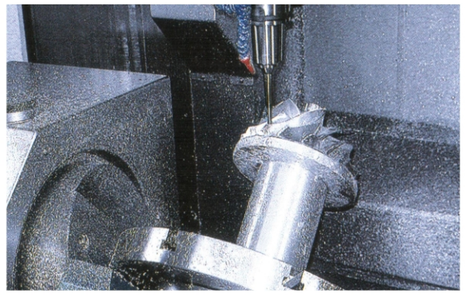
Standard Machines Supported by HNC-8 Systems

Medium and high end CNC machines, which include turning machines, turning centers, milling machines, machining centers, tapping centers, engraving milling machines, turning–milling compound machines, five–axis machines, and multi–axis multi–channel machines.

Customized Machines Supported by HNC-8 Systems

Plane grinding, cylindrical grinding, crankshaft grinding, bending machines, high–speed punch, plate shears, laser machines, stone processing machines, glass processing machines, woodworking machines, etc.

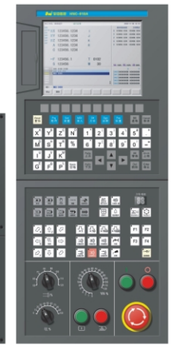




HNC–808e

HNC–808

HNC–818B



HNC–818A

HNC–848

HSV-160U Servo Drivers

–020/030
Compatible motors
1~2Kw

–050/075
Compatible motors
2~5Kw

HSV-180U Servo Drivers

–35/050/075
Compatible motors
1.5~9Kw

–100/150/200
11~37KW
Compatible motors
11~37Kw

–250/300/450

H IO–1000 series

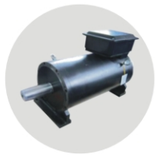
UPS power supply
HPW–145U

伺服电机

ST series

GK8 series

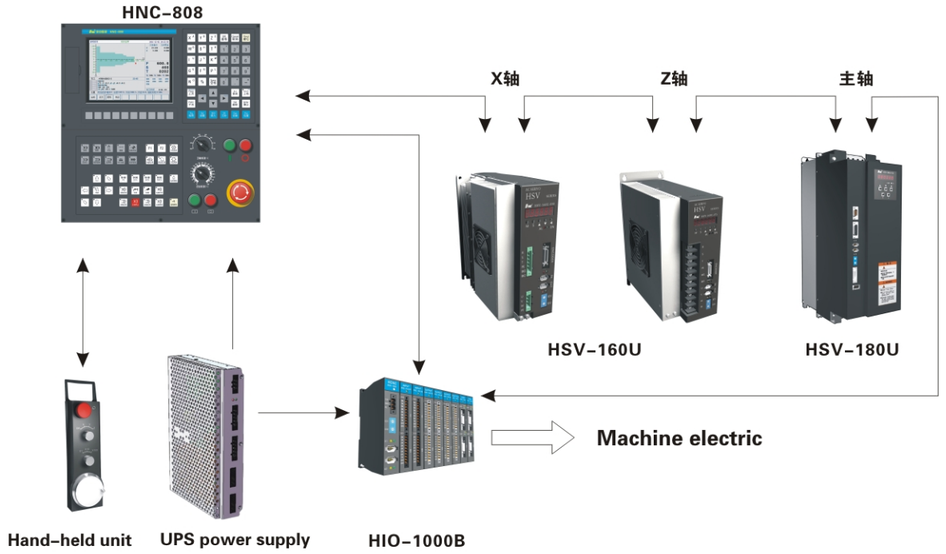
H–GM7 MG8 series



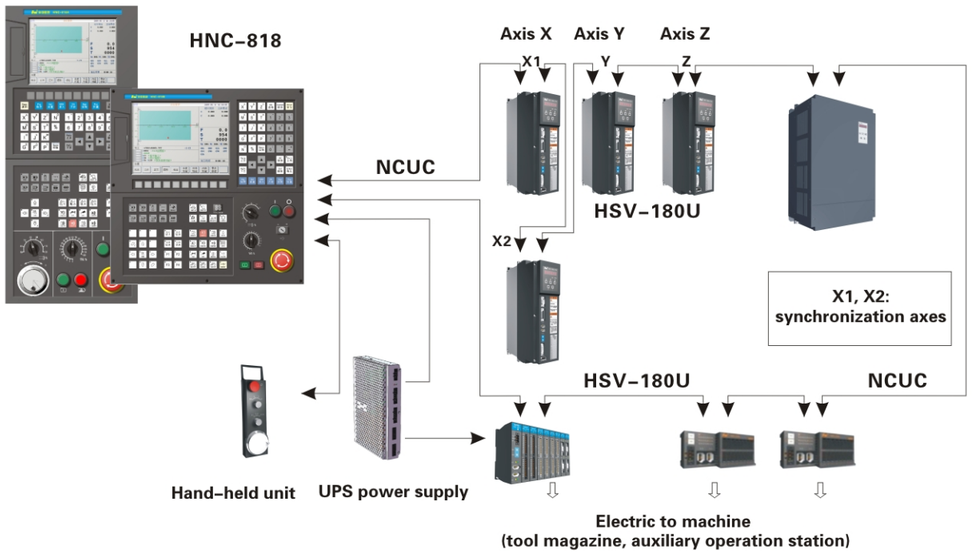
GZ8 series

Connection Diagram ≫

Connection Diagram of HNC–8 Turning Machines



Connection Diagram of HNC–8 Milling Machines and Machining Centers



CNC Specifications ≫

●: Standard ★: Optional –: Not selectable

Item	Description	HNC–808e	HNC–808		HNC–818		HNC–848	
		T	M	T	M	T	M	T
System Control								
Simultaneous axes		3	6	3	10	10	80	80
Channel count		1	1	1	1	1	10	10
Maximum simultaneous axes of channel		2	5	2	5	2	9	9
Maximum feed axes		2	3	2	8	8	64	64
Maximum spindle axes of channel		1	1	1	2	2	4	4
PMC control axes		1	1	1	1	1	32	32
Channel count	Standard	1	1	1	1	1	1	1
	Maximum	1	1	1	2	2	10	10
Spindle/channel	Standard	1	1	1	1	1	1	1
	Maximum	1	1	1	2	2	4	4
Feed Axis/channel	Standard	2	3	2	3	2	5	4
	Maximum	3	4	3	9	9	9	9
Maximum simultaneous axes		2	3	2	8	8	80	20
Maximum feed axes		3	4	3	9	9	64	64
Maximum simultaneous axes/channel		2	3	2	4	2	9	3
PMC control axes		2	3	2	4	4	32	32
Maximum input/output points		128	128/128		2048/2048		4096/4096	
Axis name (single channel)	Three basic axes: X, Y, Z; additional axes: U, V, W, A, B, C	–	●	–	●	–	●	–
	Two basic axes of X, Z, additional axes of Y, U, V, W, A, B, C	●	–	●	–	●	–	●
Axis name (multiple channels)	A maximum of two characters (letter and number, e.g. X1). The first one must be a letter.	–	–	–	●	●	●	●
Gantry axis synchronization		–	–	–	★	★	●	●
Tangent synchronization control		–	–	–	★	★	★	★
Basic shaft coupling control		–	–	–	★	★	★	★
Electronic gear		–	–	–	★	★	★	★
Linear graph		–	–	–	★	★	★	★
Inclination axis control		–	–	–	★	★	★	★
Minimum input unit	mm deg inch	10^{-3}	10^{-3}		10^{-4}		10^{-6}	
Metric/inch input	G20/G21	●	●	●	●	●	●	●
Pulse unit input	G22	●	●	●	●	●	●	●
Machine lock		●	●	●	●	●	●	●
Emergency stop		●	●	●	●	●	●	●
Overtravel		●	●	●	●	●	●	●
Space protection	Provide protection for workpiece and tool	–	–	–	★	★	★	★
Soft limit		●	●	●	●	●	●	●
Release/capture dynamic axis	G101/G102	–	–	–	★	★	●	●
Synchronization between channels	G104.0 ~ G104.7	–	–	–	★	★	●	●
Interpolation function								
Nano interpolation		●	●	●	●	●	★	★
Rapid traverse positioning	G00（linear interpolation）	●	●	●	●	●	●	●
Unidirectional positioning	G60	●	●	●	●	●	●	●
Exact stop mode	G61	●	●	●	●	●	●	●
Cutting mode	G64	●	●	●	●	●	●	●
Exact stop	G09	●	●	●	●	●	●	●
Linear interpolation	G01	●	●	●	●	●	●	●
Circular interpolation	G02/G03（三个坐标平面）	●	●	●	●	●	●	●
Three–dimensional circular interpolation	G02.4	–	–	–	★	–	●	–
Pause	G04	●	●	●	●	●	●	●
Fast coordinate interpolation	G12/G13	–	–	–	–	★	–	●

Cylindrical interpolation	G07.1	–	–	–	–	★	–	●
Specify imaginary axis	G07	●	●	●	●	●	●	●
Helical interpolation	Two–axis circular interpolation and third–axis linear interpolation	–	●	–	●	–	●	–
Thread cutting	G32/G33	●	–	●	–	●	–	●
Multi–thread cutting	G32/G33	●	–	●	–	●	–	●
Variable–lead thread cutting	G32/G33	–	–	–	–	★	–	★
Arce thread cutting	G35.2/G35.3	–	–	–	–	★	–	★
Tapping cutting	G34	●	●	●	●	●	●	●
Semi–follow tapping	G34.1	–	–	–	★	★	★	★
Jump	G31	●	●	●	●	●	●	●
EGB axis jump	G31.8	–	–	–	–	–	★	★
Return to the reference point	G28	●	●	●	●	●	●	●
Return from the reference point	G29	●	●	●	●	●	●	●
Verification of returning to the reference point	G27	★	★	★	★	★	★	★
Return to the second, third, and fourth reference points	G30	★	★	★	★	★	★	★
High–speed high–precision mode	G05.1	–	–	–	★	–	●	–
Look–ahead control	G08	–	–	–	★	–	●	–
NURBS interpolation	G06.3 / NURBS	–	–	–	★	–	●	–
Craft cycle								
Drilling cycle	G73: high–speed deep hole machining	–	●	–	●	–	●	–
	G74: counter–tapping cycle	–	●	–	●	–	●	–
	G76: Finish–boring cycle	–	●	–	●	–	●	–
	G81: center drilling cycle	–	●	–	●	–	●	–
	G83: deep–hole machining cycle	–	●	–	●	–	●	–
	G84: tapping cycle	–	●	–	●	–	●	–
	G85, G86, G89: Boring cycle	–	●	–	●	–	●	–
	G87: counter–boring cycle							
	G88: manual–boring cycle	–	●	–	●	–	●	–
Drilling cycle	G70: circular drilling	–	●	–	●	–	●	–
	G71: arc drilling	–	●	–	●	–	●	–
	G79: angle linear drilling	–	●	–	●	–	●	–
	G181: grid chess board drilling	–	●	–	●	–	●	–
Milling cycle	G181arc groove (Type 1)	–	★	–	●	–	●	–
	G182: arc groove (Type 2)	–	★	–	●	–	●	–
	G183: circular groove	–	★	–	●	–	●	–
	G184: rectangular groove	–	★	–	●	–	●	–
	G185: circular groove	–	★	–	●	–	●	–
	G186: face milling	–	★	–	●	–	●	–
	G188: rectangular recess	–	★	–	●	–	●	–
	G189: circular bump	–	★	–	●	–	●	–
Simple turning cycle	G80: internal (external) diameter cutting	●	–	●	–	●	–	●
	G81: face turning	●	–	●	–	●	–	●
	G82: thread cutting	●	–	●	–	●	–	●
	G74: face deep–hole drilling	●	–	●	–	●	–	●
	G75: external diameter cutting	●	–	●	–	●	–	●
Complex turning cycle	G71：internal (external) diameter roughing compound cycle	●	–	●	–	●	–	●
	G72: face roughing compound cycle	●	–	●	–	●	–	●
Complex turning cycle	G73: closed turning compound cycle	●	–	●	–	●	–	●
	G76: thread cutting compound cycle	●	–	●	–	●	–	●
Workpiece measurement cycle	G160: workpiece lateral head calibration	–	–	–	★	★	★	★
	G161: workpiece contour measurement	–	–	–	★	★	★	★
	G162: face measurement	–	–	–	★	★	★	★

Workpiece measurement cycle	G163: plane workpiece alignment	–	–	–	★	★	★	★
	G163: three–dimensional workpiece alignment	–	–	–	★	★	★	★
	G164: corner measurement	–	–	–	★	★	★	★
Tool measurement cycle	G150: tool lateral head calibration	–	–	–	★	★	★	★
	G151: tool length measurement	–	–	–	★	★	★	★
	G152: Tool radius measurement	–	–	–	★	★	★	★
Manual measurement cycle	Requires conversational programming	–	–	–	★	★	★	★
User–defined cycle	Modify the USERDEF.CYC file	●	●	●	●	●	●	●
Tool function/tool compensation function								
Tool function	T + 4 digits	●	●	●	●	●	●	●
Number of tool compensation		100	100		500		1000	
Tool radius compensation (type–C tool compensation)	G40/G41/G42	●	●	●	●	●	●	●
Tool wear compensation		●	●	●	●	●	●	●
Tool length compensation	G49/G43/G44	●	●	●	●	●	●	●
Tool management function		●	●	●	●	●	●	●
Too magazine management function		–	–	–	★	★	●	●
Automatic tool length measurement		–	–	–	★	★	★	★
Automatic tool radius compensation		–	–	–	★	★	★	★
Tool life management		–	–	–	★	★	●	●
Automatic tool offset input		–	–	–	★	★	★	★
Space length compensation		–	–	–	–	–	●	●
Special coordinate system		–	–	–	–	–	●	●
Inclined surface machining	G68.1	–	–	–	–	–	●	●
Tool axis direction control	G53.1	–	–	–	–	–	●	●
Five–axis machining	RTCP	–	–	–	–	–	●	●
Precision compensation								
Backlash compensation		●	●	●	●	●	●	●
Pitch error compensation		●	●	●	●	●	●	●
Thermal error compensation		★	★	★	★	★	●	●
Deflection error compensation		–	–	–	★	★	●	●
Space error compensation		–	–	–	★	★	●	●
Editing								
Part program storage capacity		400M	400M		400M		400M	
Program foreground editing		●	●	●	●	●	●	●
Program protection		–	–	–	●	●	●	●
Conversational programming		★	★	★	●	●	●	●
Program index		–	–	–	★	★	●	●
		●	●	●	●	●	●	●
Others (hardware)								
Spindle control and encoder interface	Resolution: 12 bit; Output voltage: DA 0 to 10 V or –10V to10V square wave differential receiver	●	●	●	●	●	●	●
User I/O	Expandable up to 4096/4096	●	●	●	●	●	●	●
Display screen size		8.4″ color display	8.4″ color display		10.4″ color display		15″ color display	
Display resolution		640×480	640×480		800×600		1024×768	
Standard PC keyboard interface		●	●	●	●	●	●	●
DNC unit		★	★	★	★	★	★	★
RS232 interface		●	●	●	●	●	●	●
USB interface		●	●	●	●	●	●	●
CF card interface		●	●	●	●	●	●	●
Ethernet interface	10MB, 100MB; support NT/NOVELL; support file transmission through internet	★	★	★	★	★	★	★
Manual pulse generator	Consists of manual pulse generator (TTL level input), coordinate selection, override selection, emergency stop button, handheld enabling button	★	★	★	★	★	★	★
Input terminal board	Support 20–channel PNP and NPN digital input	★	★	★	★	★	★	★
Output terminal board	Support 16–channel NPN digital output	★	★	★	★	★	★	★

HNC-808e Turning System

HNC-808 series are digital bus-based high-end CNC systems. Based on NCUC structure, HNC-808 system uses modular and open architecture.HNC-808e system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. The system uses 9-inch LED screen.

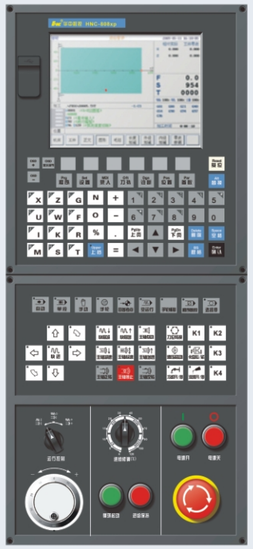
HNC-808e

HNC-808XP Turning System

HNC-808XP CNC system uses advanced open architecture and built-in industrial PC, and is configured with 8-inch color LCD screen and general engineering panel. HNC-808XP system integrates feed-axis interface, spindle interface, hand-held unit interface, and built-in PLC interface, and uses electronic disk for program storage. This system features low price, high performance, compact design, easy operation, and high reliability.

Applicable machines: All kinds of economic CNC machines

HNC-808XP horizontal panel



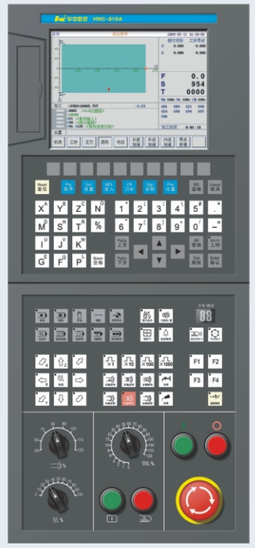
HNC-808XP vertical panel

HNC-808 Turning System

HNC-808 turning system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-808 system uses modular and open architecture.HNC-808 system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. This system uses LED display screen, including 8.0 " and 8.4 " models.

Applicable machines: All kinds of CNC turning machines

HNC-808T



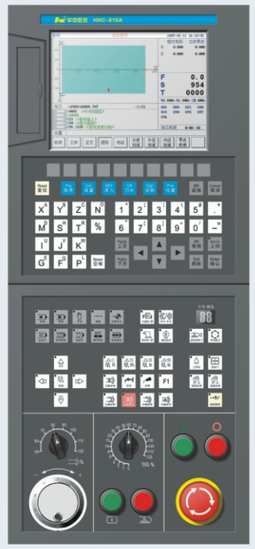
HNC-808AT

HNC-818 Turning System

HNC-818 turning system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-818 system uses modular and open architecture. This system supports digital servo drivers and absolute servo motors. HNC-818 system also supports TTL square wave, 1Vpp sine and cosine, heidenhain absolute and other types of closed-loop. It supports bus-based remote I/O unit and integrates hand-held unit interface. In addition, this system supports turning centers, dual-channel dual-spindle/dual tool turret turning machines, and slant-bed machines with truss manipulator control.

Applicable machines: Turning centers, dual-channel dual-spindle/dual turret turning machines, slant-bed machines, etc.

HNC-818BT



HNC-818AT

HNC-808MEB Milling System

HNC-808MEB milling system uses advanced open architecture and built-in industrial PC, and is configured with high-performance 32-bit CPU, 8-inch LCD screen, and standard machine engineering panel. HNC-808MEB system integrates feed-axis interface, spindle interface, hand-held unit interface, built-in PLC interface, and uses large capacity of electronic disk for program storage. It supports CF card, DNC, Ethernet, and USB for program exchange.

Applicable machines: CNC milling machines and simple machining centers

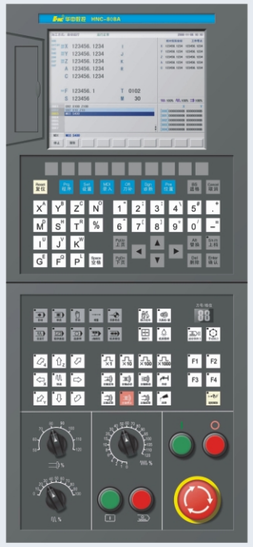
HNC-808MEB

HNC-808 Milling System

HNC-808 milling system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-808 system uses modular and open architecture. HNC-808 milling system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. This system uses LED display screen, including 8.0 " and 8.4 " models.

Applicable machines: three-axis vertical/horizontal milling machine, three-axis vertical/horizontal machining center. A maximum of one additional non-simultaneous axis (e.g. indexing table, servo tool magazine, etc.) can be configured, but full-closed loop grating is not supported.

HNC-808BM



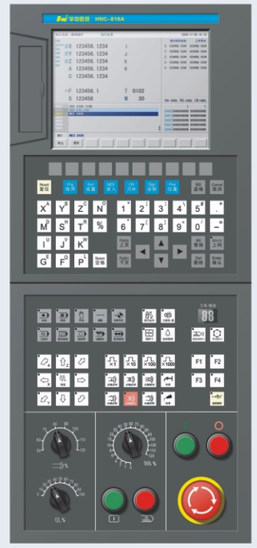
HNC-808AM

HNC-818 Milling System

HNC-818 milling system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-818 system uses modular and open architecture. HNC-818 milling system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. This system uses LED display screen, including 10.4 " and 8.4 " models.

Applicable machines: vertical/horizontal machining centers and gantry machines (less than five axes). It can be configured with full-closed loop grating, and supports gantry axis synchronization.

HNC-818BM



HNC-818AM

HNC-848M Five-axis System

HNC-848M five-axis system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-848M five-axis system uses modular and open architecture. HNC-848M five-axis system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. This system uses LED display screen, including 15 " and 10.4 " models.

Applicable machines: Various types of multi-channel multi-axis machines, e.g. turning-milling compound machines, milling-turning compound machines, vertical-horizontal milling machines

HNC-848BM（10.4"）

HNC-848CM（15"）

HNC-180GSE Grinding System

HNC-180GSE grinding system uses advanced open architecture and built-in industrial PC, and is configured with 7-inch LCD screen and general grinding machine panel. HNC-180GSE system integrates feed-axis interface, spindle interface, hand-held unit interface, built-in PLC interface, and uses large capacity of electronic disk for program storage. It supports CF card and USB for program extension and exchange. This system uses international G-code for machining program creation, and um-level precision control and display. It features low price, high performance, compact design, easy operation, and high reliability.

Applicable machines: Plane grinding machines and specialized grinding machines

HNC-180GSE

HNC-180GCE Grinding System

HNC-180GCE grinding system uses advanced open architecture and built-in industrial PC, and is configured with 7-inch LCD screen and general grinding engineering panel.HNC-180GCE system integrates feed-axis interface, spindle interface, hand-held unit interface, built-in PLC interface, and uses large capacity of electronic disk for program storage. It supports CF card and USB for program extension and exchange. This system uses international G-code for machining program creation, and um-level precision control and display. It features low price, high performance, compact design, easy operation, and high reliability.

Applicable machines: Cylindrical grinding machines, internal grinding machines, internal thread grinding machines

HNC-180GCE

HNC-808GCE Grinding System

HNC-808GCE grinding system is a digital bus-based high-end CNC system. Based on NCUC structure, HNC-808GCE grinding system uses modular and open architecture.HNC-808GCE grinding system supports digital servo drivers, absolute servo motors, and bus-based remote I/O unit. It integrates hand-held unit interface, uses electronic disk for program storage, and supports USB and Ethernet for program extension and data exchange. This system uses 8.0-inch LCD screen.

Applicable machines: Medium and high end cylindrical grinding machines, internal grinding machines, plane grinding machines, and cam grinding machines

HNC-808GCE

HSV–120 Digital Bus Modular Servo Driver Unit

HSV–120 digital bus modular servo driver unit has separate power module and driver module. The power module supports non–controllable rectification and controllable rectification. It may change the three–phase AC power into 550V or 600V DC power, and connect multiple driver modules to the DC bus in turns through the bus bar. It is especially applicable to multi–axis control.HSV–120 servo driver is compact, and may share energy among motor shafts, with easy and simple connection. It can be widely used with turning machines, milling machines, machining centers in the machining, paper manufacturing, packaging, textiles, printing industries.

HSV–120

HSV–180U Digital Bus Modular Servo Driver Unit

HSV–180U series AC servo driver is the new generation of digital AC servo driver launched by Wuhan Huazhong Numerical Control Co., Ltd (hereinafter referred to as HNC), which is mainly used in the CNC field requiring high accuracy and quick response.

HSV–180U uses high–speed industrial Ethernet bus interface and NCUC bus protocol to achieve high–speed data exchange with the CNC device. It has a high–resolution absolute encoder interface that can be compatible with incremental, Sin–Cos, and digital absolute encoders, with position feedback resolution up to 23–bit. It also supports dual encoder interfaces to achieve closed–loop control.

HSV–180U series AC servo driver has eight models, ranging from 035 to 450. The maximum power output of the power circuits is 100 kw. This has significantly broadened the power output range of servo driver products.

35A–450A

HSV–160U Digital Bus Modular Servo Driver Unit

HSV–160U series AC servo driver is the new generation of digital AC servo driver launched by HNC, which is mainly used in the CNC field requiring high accuracy and quick response.

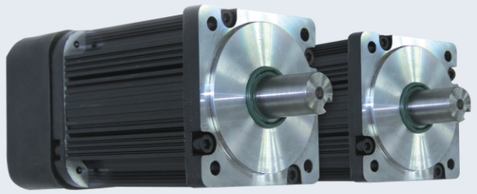
HSV–160U uses high–speed industrial Ethernet bus interface and NCUC bus protocol to achieve high–speed data exchange with the CNC device. It has a high–resolution absolute encoder interface that can be compatible with incremental, Sin–Cos, and digital absolute encoders, with position feedback resolution up to 23–bit. It also supports dual encoder interfaces to achieve closed–loop control.

HSV–160U series AC servo driver has four models, ranging from 20A, 30A, 50A, and 75A. The maximum power output of the power circuits is 5.5 kw.

20A–75A

ST Series AC Permanent Magnet Servo Motors

ST Series AC permanent magnet synchronous servo motor can be compatible with domestic and international servo drivers, widely used in the machinery, textile, printing, packaging and automation industries. It is your best choice for numerical control systems and automatic control devices.



ST Series AC Permanent Magnet Servo Motors

ST Series AC Permanent Magnet Servo Motors

LB Series Features

Base (mm): 80, 110, 130, 150
Rated Speed (rpm): 1500, 2000, 2500, 3000
Standard feedback component: incremental encoder (2500C/T)
Insulation grade: B
Pole pairs: 4
Environmental temperature: 0–55℃ centigrade
Excitation mode: permanent magnet
Rated torque: (Nm): 1.3–27
Rated power (Kw): 0.4–5.5
Power–off brake: optional
Protection class: Closed self–cooling IP65
Installation: Flange
Environmental humidity: less than 90% (non–condensing)
Operating voltage of compatible drivers (VAC): 220

LBB Series Features

Base (mm): 80, 110, 130, 150
Rated speed (rpm): 1500, 2000, 2500, 3000
Rated power (Kw): 0.4–3.0
Power–off brake: optional
Protection class: Closed self–cooling IP65
Installation: Flange
Environmental temperature: 0–55℃ centigrade
Operating voltage of compatible drivers (VAC): 220
Rated torque: (Nm): 1.3–19.1
Maximum speed (rpm): 3000, 5000
Standard feedback components: Bus encoder (131072C/T)
Insulation grade: B
Pole pairs: 4
Excitation mode: permanent magnet
Environmental humidity: less than 90% (non–condensing)

HBB Series Features

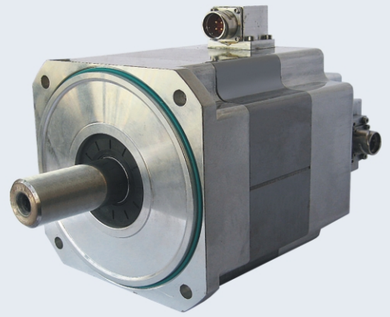
Base (mm): 180
Rated speed (rpm): 1500, 2000
Rated power (Kw): 3.6–8.6
Power–off brake: 选配
Protection class: Closed self–cooling IP65
Installation: Flange
Environmental temperature: 0–55℃ centigrade
Operating voltage of compatible drivers (VAC): 380
Rated torque: (Nm): 18–55
Maximum speed (rpm): 3000
Standard feedback components: incremental/absolute encoder
Insulation grade: F
Pole pairs: 4
Excitation mode: permanent magnet
Environmental humidity: less than 90% (non–condensing)

LDD Series Features

Base (mm): 130
Rated speed (rpm): 1500
Rated power (Kw): 0.65–2.3
Insulation grade: F
Operating voltage of compatible drivers (VAC): 220
Environmental humidity: less than 90% (non–condensing)
Rated torque: (Nm): 4.2–14.6
Maximum speed (rpm): 200, 3000
Pole pairs: 5
Installation: Flange
Environmental temperature: 0–55℃ degrees
Protection class: Closed self–cooling IP65

GK6 AC Permanent Magnet Synchronous Servo Motors

Used with compatible servo drivers, GK6 AC permanent magnet synchronous servo motor can be widely used in various fields, e.g. machinery, textile, printing, and construction, etc.
This motor uses the self–cooling mode, with the protection class IP64–IP67.GK6 motor is a three–phase AC permanent magnet synchronous servo motor, which uses high–performance rare earth permanent magnetism to provide an air–gap magnetic field. It is controlled by a pulse width modulation (PWM) converter., and has good torque performance and wide speed range.GK6 motor has a temperature sensor mounted on the stator windings, with overheating protection output.GK6 AC servo motor consists of stator, rotor, high accuracy feedback component (e.g. optical encoders, rotary transformer, etc.).



75Nm–1000Nm servo motor

6Nm–70Nm servo motor

0.64Nm–6Nm servo motor

Model Description

GK6 06 1 – 6 A C 3 1 – F B Y1 Z---- Special description

- Y: non–standard shaft extension and installation dimensions, followed by sequence number
- b: b–type shaft extension with standard keys

Brake: B: with brake; E: without brake

Feedback component: E: 2000 p/r, F: 25000 p/r, R: a pair of pole rotary transformer N: 2048p/r sin–cos encoder J: absolute encoder

Installation mode 1:IMB5 2:IMV1 3:IMV3 4:IMB3 6:IMB35

Compatible DC bus voltage 2:210V 3:300V 6:600V

Rated speed A:1200 r/min B:1500r/min C:2000r/min F:3000r/min ……

Cooling: A: Natural cooling S: forced cooling

Motor poles: 4: 4–pole, 6: 6–pole, 8: 8–pole

Motor model code

Center height (the integral part of the center height divided by 10)

Gk6 AC permanent magnet servo motor

Main features

Torque: 0.1Nm to 1000Nm
Rated speed (rpm): 1200, 1500, 2000, 3000 rpm
Optical encoder: 2500 lines
Power–off brake: DC24V
Overheat protection: thermistor output
Base: multiple installation dimensions

Sine AC servo motor
Compact design with high power density
Small rotor inertia with fast response
Ultra–high coercivity rare earth permanent magnet
Strong anti–magnetic capability

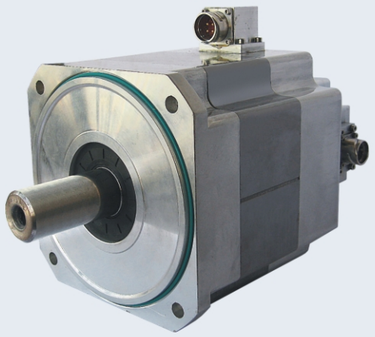
Main technical parameters

Output torque	0.1Nm~1000Nm
Rated speed	1200 r/min, 1500r/min, 2000r/min, 3000r/min
Installation mode	IM5. Options: IMV1, IMV3, IMV35
Protection grade	IP64. Options: IP65, IP67
Insulation grade	Under the environmental temperature plus 40 centigrade, the temperature rise of stator winding can reach △T =100K; When users select H–class or C–class insulation, the temperature rise of stator winding can reach 125K and 145K respectively.

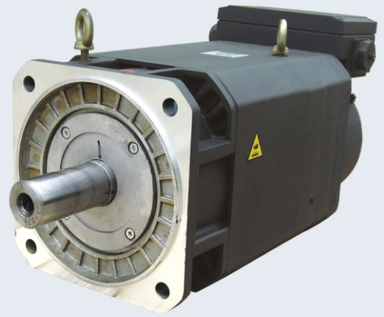
GM7 AC Permanent Magnet Synchronous Servo Motors

GM7 AC servo converter (spindle) motor is compatible with domestic and international high/medium/low end converter or spindle converter. It supports open–loop or closed–loop control operations, to achieve excellent performance that is completely different from common AC converter motors. It is widely used in CNC machines, construction, textiles, light industrial machinery, metallurgy, transportation, and other occasions that require speed governing.

Gm7 AC servo converter (spindle) motor consists of stator, rotor, low–noise fan, high–precision encoder (not required for open–loop control). Based on the structural optimization and magnetic circuit optimization, it uses the F–class insulation and machine processing and high–precision balancing craft.



11kw–200KW spindle motor



2.2kw–11KWspindle motor

Model Description

GM7 10 1 – 4 S B 6 1 – O Y

- Shaft extension: other special requirements
- Feedback components: O: 1204 p/r (square–wave encoder); H: 1204 p/r (for high–speed motor); N: 2048 p/r (sin–cos encoder); R: rotary transformer; W: without feedback
- Installation mode: 1--IMB5 3--MB3 6--IMB35
- DC bus voltage 3: 300 V (three–phase AC 220 V power supply); 6: 600 V (three–phase AC 380 V power supply)
- Rated speed: W--500r/min A:1000r/min B:1500r/min C:2000r/min
- Cooling: A: Natural cooling S: forced cooling
- Motor poles: 4: 4–pole
- Motor model code
- Center height (the integral part of the center height divided by 10)
- Gm7 Series AC Servo Converter (Spindle) Motors

Main features

Compact, small, and light design with high power density
Special design, small electromagnetic vibration, low noise, high rotation precision, constant torque and constant power speed range
Small rotor inertia with fast response
Uniform air gap, high precision, and low torque ripple
Closed design, with IP54 protection class
Special F–class insulation, anti–surge current and anti–corona
Impact resistance, long life and reliable operation
High cost performance

Made in China, Model of 2025
3C intelligent processing factory