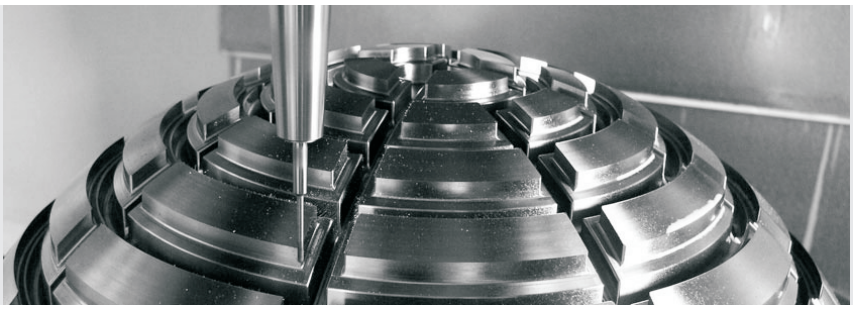


N

Product description

Series HSV-180AD AC Servo Amplifier is a new generation of full digital AC servo amplifier developed by HNC Electric Limited.This product features high performance, compact structure, easy-to-use operation, and high reliability.
Series HSV-180AD AC Servo Amplifier adopts the latest technologies such as special motion control digital signal processor (DSP), and intelligent power module (IPM), and achieves the closed-loop servo control of servo motor. It has various specifications such as035、050、075、100、150、200、300、450A and different ranges of power options. Users can configure various types of Servo Amplifier and AC servo motor to form high reliability and performance AC Servo Amplifier systems.

At a glance

- Easy and flexible operation
- Full display of status
  Various interfaces, and flexible control methods(Pulse/Analog /Feedback interface of encoder/Serial communication/ Programmable I/O)
- Servo orientation function

Customer benefits

- Can support various control modes for various applications (Position control/ External Sseed control/ Internal speed control)
- Support from 3.7kW up to 51kW power range which can meet different machine requirements
- Suitable for CNC machine tools, production machines and other servo related applications as well as supporting 3rd party servo motor by supporting various encoder types.

Additional information

www.hncelectric.com/HSV-180AD
For more information, please enter the link or scan the code via mobile devices and get direct access to technical date,manual,application examples and much more.

Specificaiton

Items		Description
Input power	Rated voltage、Range of voltage fluctuation Frequency	150A and below specifications：Three-phase AC380V -15%～+10% 50/60Hz 200A and above Specifications： 1.Single phase AC220V control power -15%～+10% 50/60Hz 2.Three-phase AC380V strong power -15%～+10% 50/60Hz
Control modes		Position control、External speed control、JOG control、Internal speed control
Characteristic	Speed frequency response	300Hz or higher
	Speed fluctuation	Lower than±0.1 (load 0%～100%); Lower than±0.2(power supply -15%～+10%)
	Speed range	1:10000
Position control	Types of pulse command	① Direction + pulse train ②CCW pulse +CW pulse ③Two-phase A / B quadrature pulse
	Form of pulse command	Non-insulated wire drive（about +5V）
	Frequency of pulse command	⩽500kHz
Speed control	Types of pulse command	① Direction + pulse train ②CCW pulse +CW pulse ③Two-phase A / B quadrature pulse
	Form of pulse command	Non-insulated wire drive（about +5V）
	Frequency of pulse command	⩽500kHz
	Electronic gear ratio	$1 \leqslant \alpha / \beta \leqslant 32767$
	Analog command	DC 0～+10V or DC -10V～+10V
	Acceleration and deceleration function	1～32000ms (0~1000r/min or 1000~0r/min)
Type of servo motor encoder		TTL composite incremental photoelectric encoder:1024line、2048line、2500 line、6000 line
Servo encoder encoder type		Optical encoder (TTL) Sine and cosine analog signal（1Vpp）
Input and output signal	Control input	Run enable Alarm clear Forward and reverse running enable Servo orientation ready Control modes switch Indexing incremental orientation ratio input selection
	Control output	Servo ready Servo alarm Servo orientation-finished Speed-reached Zero-speed reached
Servo function	Servo orientation	Accuracy：±1pulse；Position adjustment：Parameter setting
	Rigid tapping	Tapping deviation：±2%
	Other function	C-axis control，Thread cutting
Communication function		RS232 use MODBUS protocol
Monitoring function		Speed Flux current Torque current Motor load current Switch-value input status display Switch-value output status display Control mode display
Protecting function		Over speed Main power over-voltage and under-voltage Over current Overload Motor over heat Big speed error IPM fault etc.

N

Items		Description
Operation		Six LED digital tubes, two light-emitting diodes(LED), five bottoms
Adaptive motor		2.2kW～51kW AC servo motor
Use Environment	Use place	Non-corrosive, flammable gas, prevent conductive objects, metal dust, oil mist and liquid from entering inside the drive unit.
	Use Temperature Storage Temperature	Use temperature :0℃～+40℃, More than 40 ℃ shall be derated Storage temperature : -20℃～+60℃
	Use humidity Storage humidity	Below 90% RH, non-condensing.
	Altitude	Below 1000m, Altitude above 1000m shall be derated
	Vibration / impact resistance	Vibration Resistance 4.9m/S², Impact resistance 19.6m/S²

Model Definition

N

HSV-180AD -035

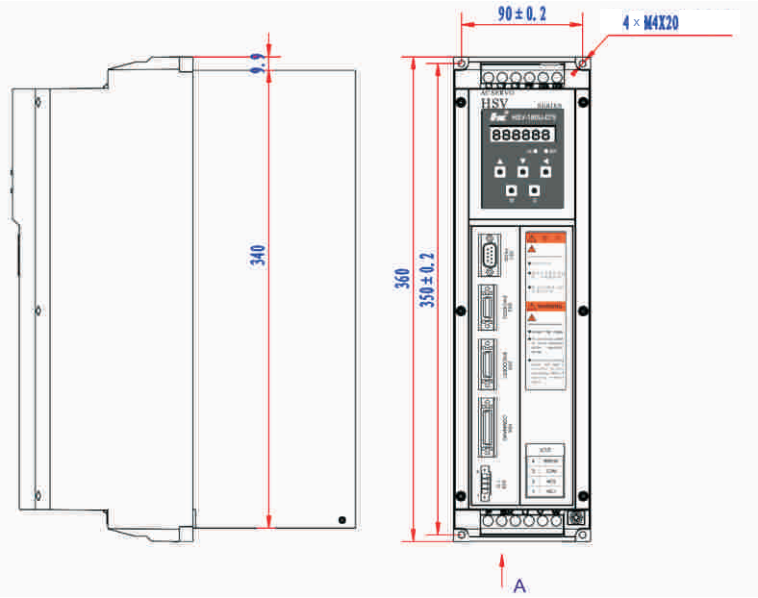
Code	Current
035	35A
050	50A
075	75A
100	100A
150	150A
200	200A
300	300A
450	450A

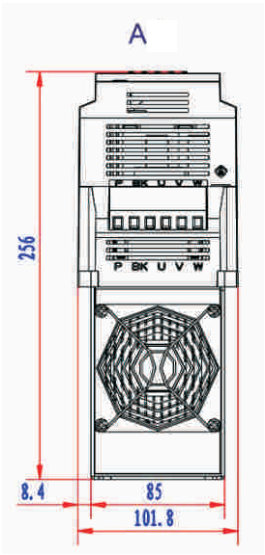
HSV180-AD series servo drive

Type		HSV-180AD-035	HSV-180AD-050	HSV-180AD-075	HSV-180AD-100	HSV-180AD-150	HSV-180AD-200	HSV-180AD-300	HSV-180AD-450
Maximum power of applicable Motor（KW）		3.7KW	5.5KW	7.5KW	11KW	15KW	30KW	37KW	51KW
Rated output current (A)		12.5	16	23.5	32	47	64.3	94	128
Short-time Peak Current (A)		22	28	42	56	84	110	168	224
Circuit breaker（A）		25	32	40	63	100	125	200	400
Connector（A）		18	25	32	40	63	95	150	250
Input exchange reactor	Current (A)	10	15	20	30	50	80	150	250
	Inductance (mH)	1.4	0.93	0.7	0.47	0.28	0.17	0.095	0.056
Input filter(A)		10	15	20	30	50	80	150	250
Maximum braking resistor (A)		25	25	40	50	75	100	100	150
Recommended Braking resistor	Resistor (Ω)	51Ω	51Ω	27Ω	33Ω	27Ω	30Ω	30Ω	30Ω
	Power (W)	1500W	1500W	2000W	1500W	2000W	2500W	2500W	2500W
	Quanlity	1	1	1	2	2	3	4	6
Recommended value of main circuit cable （mm²）		4	4	4	10	16	35	70	120

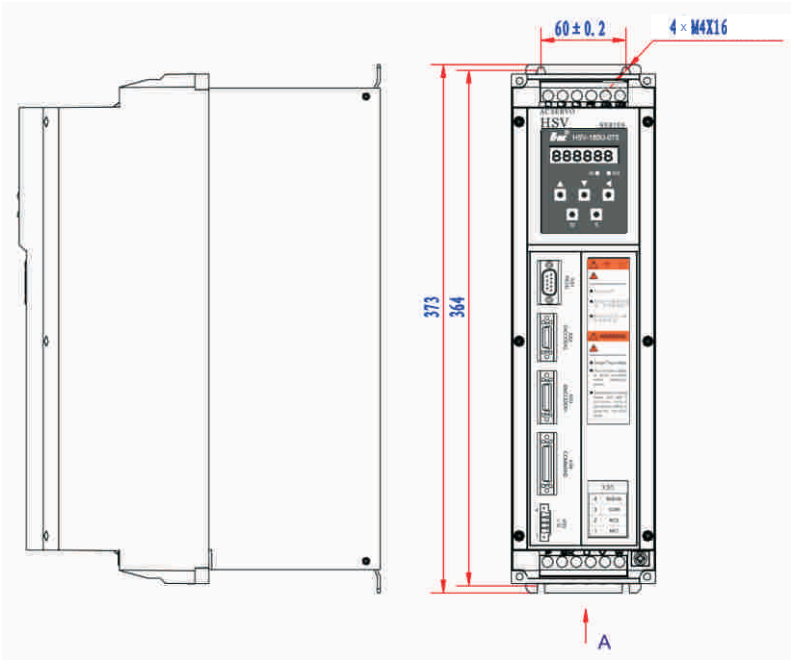
Dimensional Drawing

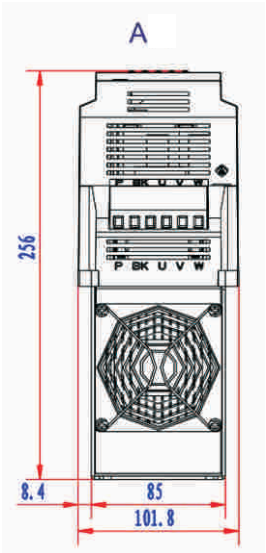
1、 HSV-180AD-, 035, 050, 075 (without auxiliary devices Unit: mm)



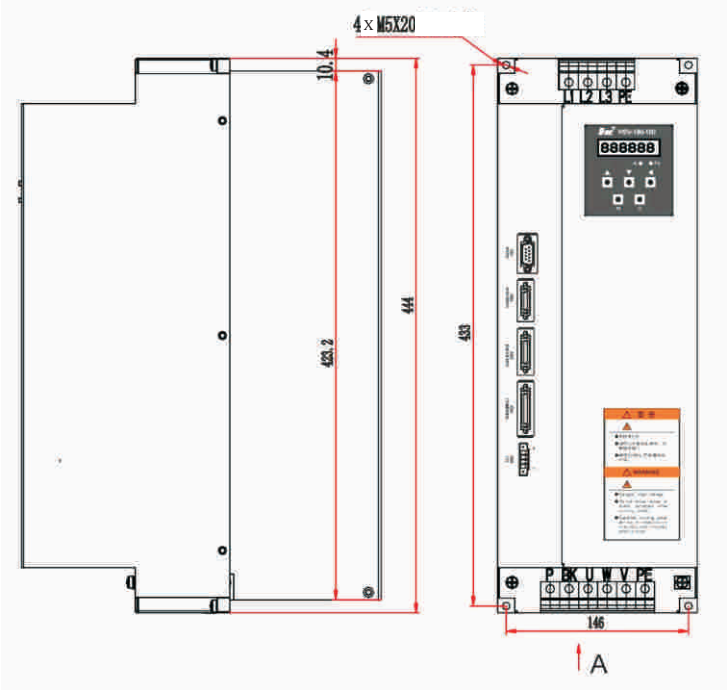


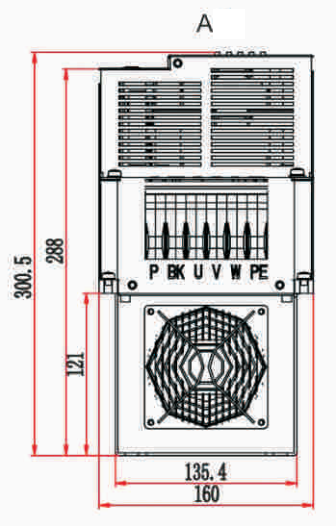
2、 HSV-180AD-035, 050, 075 (with auxiliary devices Unit: mm)



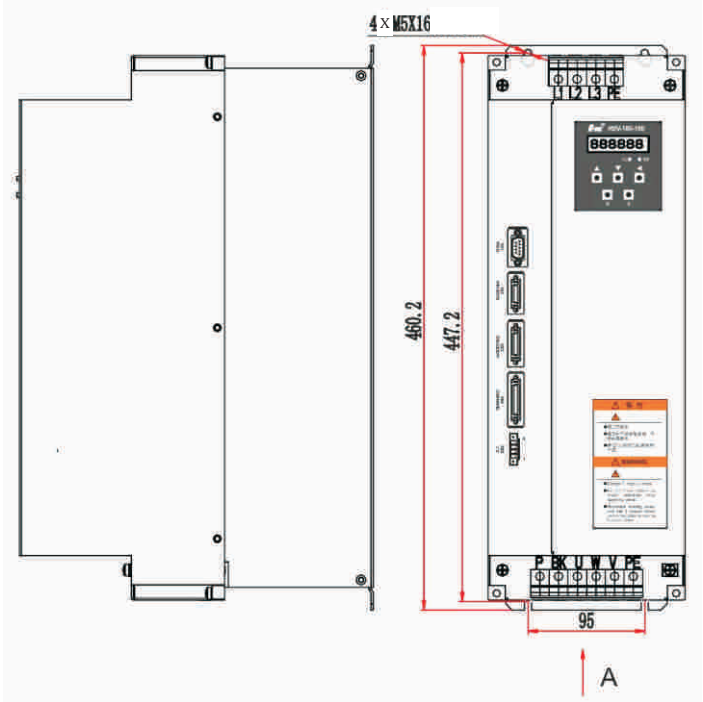


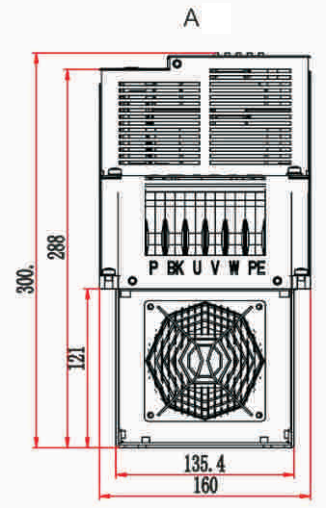
3、 HSV-180AD-,100, 150 (without auxiliary devices Unit: mm)



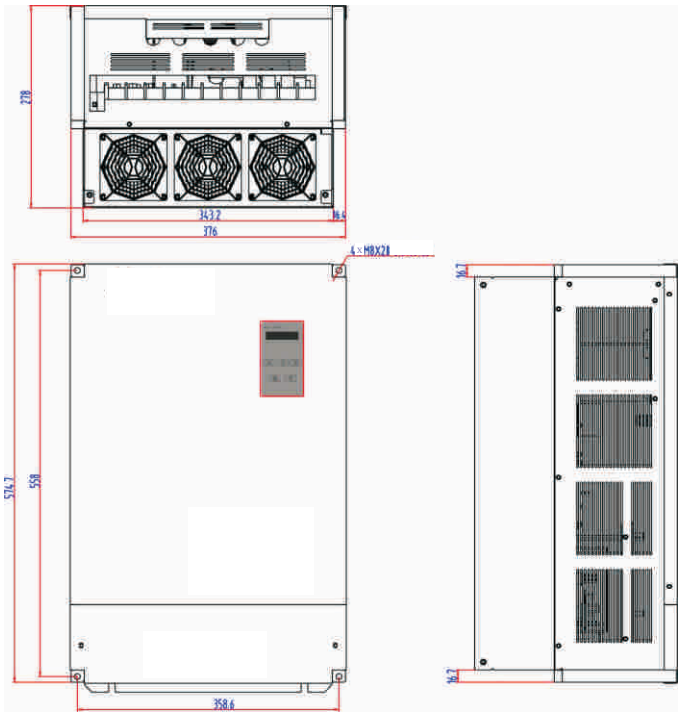


4、HSV-180AD-100,150 (with auxiliary devices Unit: mm)

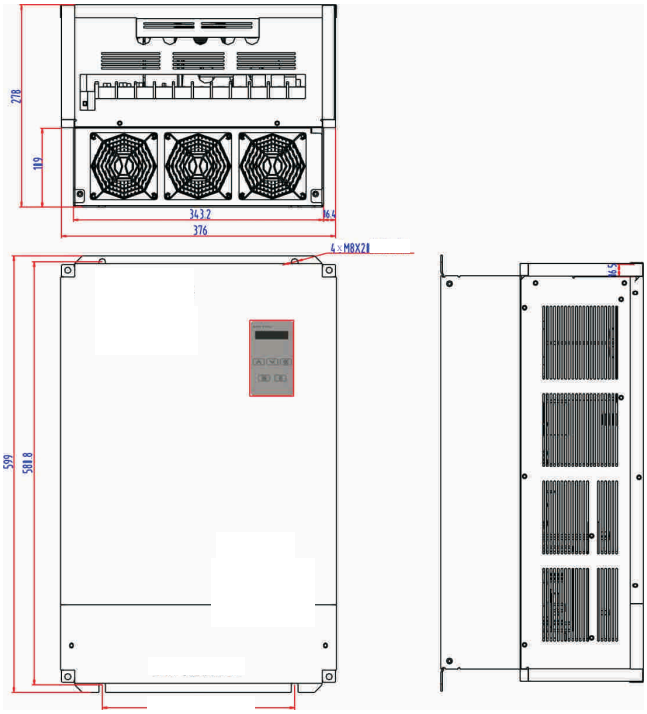




5、HSV-180AD-,200, 300,450 (without auxiliary devices Unit: mm)



6、 HSV-180AD-,200, 300,450 (with auxiliary devices Unit: mm)



Connection Diagram

Power 3 phase AC 380V

Circuit breaker

Contactor

Line choke

Input filter(optional)