

## Product description

HSD2 series synchronous AC servo drive is designed and manufactured based on the market requirements with employing the advanced control algorithm. It can realize both speed and accurate position digital control. With intelligent power module (IPM) and other latest technology design HSD2 servo drive makes simple operation, high reliability, small size and easy to install.

Covering a wide power range of servo motor (up to 5.5KW) HSD2 servo driver has mature servo technology and the highest cost performance.

## At a glance

- Wide Speed Range: 0.1 to 5000rpm
- Strong Overload feature: three times of rated torque
- High dynamic feature: Velocity loop bandwidth up to 300Hz, small speed
- Various I/O functions: opto-coupler isolation and programmable functions
- Three control mode: position / speed / torque
- Three kind of pulse and analog command input
- Various protection functions
- 0.2~5.5KW power range
- 2500PPR encoder, best cost- performance in the market. More encoder type can be customized.

## Customer benefits

- HSD2 servo drive could be used in various industries thanks to the perfect response feature and stability. It can work for plenty of applications like:
- Lathe/Milling machine (cost effective solution combine with HNC602/606(T/M) CNC system)
- Cutter/Turret control of machine tool
- X-Y table control
- Sealing machine
- Feeding machine
- Packaging and printing machine
- Carving machine
- Lathe/Milling machine (cost effective solution combine with HNC602/606(T/M) CNC system)
- High-speed winding machine
- Cutting applications replace stepper motor
- Textile equipment

**HSD2****Specifcaiton**

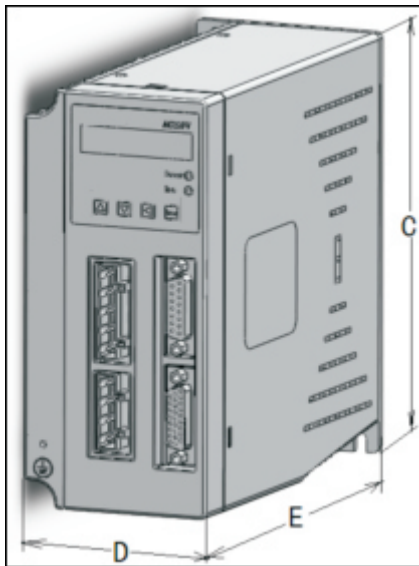
Type		HSD2-020	HSD2-030	HSD2-050	HSD2-065
Power supply		Three-phase: AC220V -15%~+10% 50/60Hz			
Environment	Temperature	Operation: 0~40°C Storage: -40~50°C			
	Humidity	Operation: 40%~80% (non-condensing) Storage: Below 93% (non-condensing)			
IP rating		IP20			
Control of main circuit		SVPWM control			
Regeneration		Built-in			
Feedback type		2500ppr incremental encoder(10000resolution)			
Control mode		Position/Speed/Torque			
Analog input		-10V~+10V, input resistance 10k			
Digital input		Five programmable input terminals (optical isolation). Functions are: Servo-ON, Alarm clear, CCW over-travel inhibition, CW over-travel inhibition, CCW torque limit, CW torque limit, Emergency stop, Electronic gear select 1, Electronic gear select 2, Position deviation clear, Pulse input inhibition.			
Digital outputs		Three programmable output terminals (optical isolation), Functions are: Servo ready, Servo alarm, Positioning complete, At speed reached, Electromagnetic brake release, Torque in-limit.			
Encoder signal outputs		Signal type   A, B, Z(Differential output line driver),Z singal (open collector output)			
Position		Differential input: $\leq 500\text{KHZ}$ (kpps), Single-end input: $\leq 200\text{KHZ}$ (kpps),			
	Command mode	Pulse+Direction; CCW pulse+CW pulse; A phase+B phase (orthogonal)			
	Electronic gear ratio	1~32767/1~32767			
Monitor function		Speed, current, position, position deviation, motor torque, motor current, command pulse frequency, etc.			
Protection function		Over-speed, over-voltage, over-current, over-load, regeneration abnormal, encoder signal abnormal, excess position deviation, etc.			
Characteristic	Frequency response of speed	>300Hz			
	Fluctuation of speed	$< \pm 0.03\%$ (load 0~100%); $< \pm 0.02\%$ (power supply -15~+10%)			
	Speed control range	1:5000			

**Model Definition**



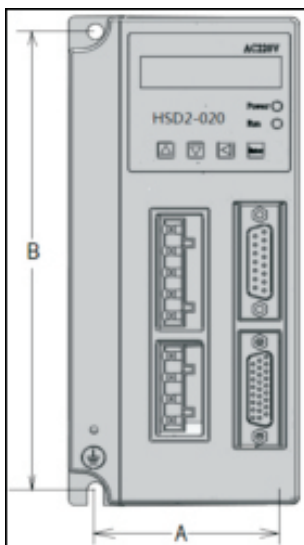
**Dimensional Drawing**

**HSD2 Servo Drive Dimensions**



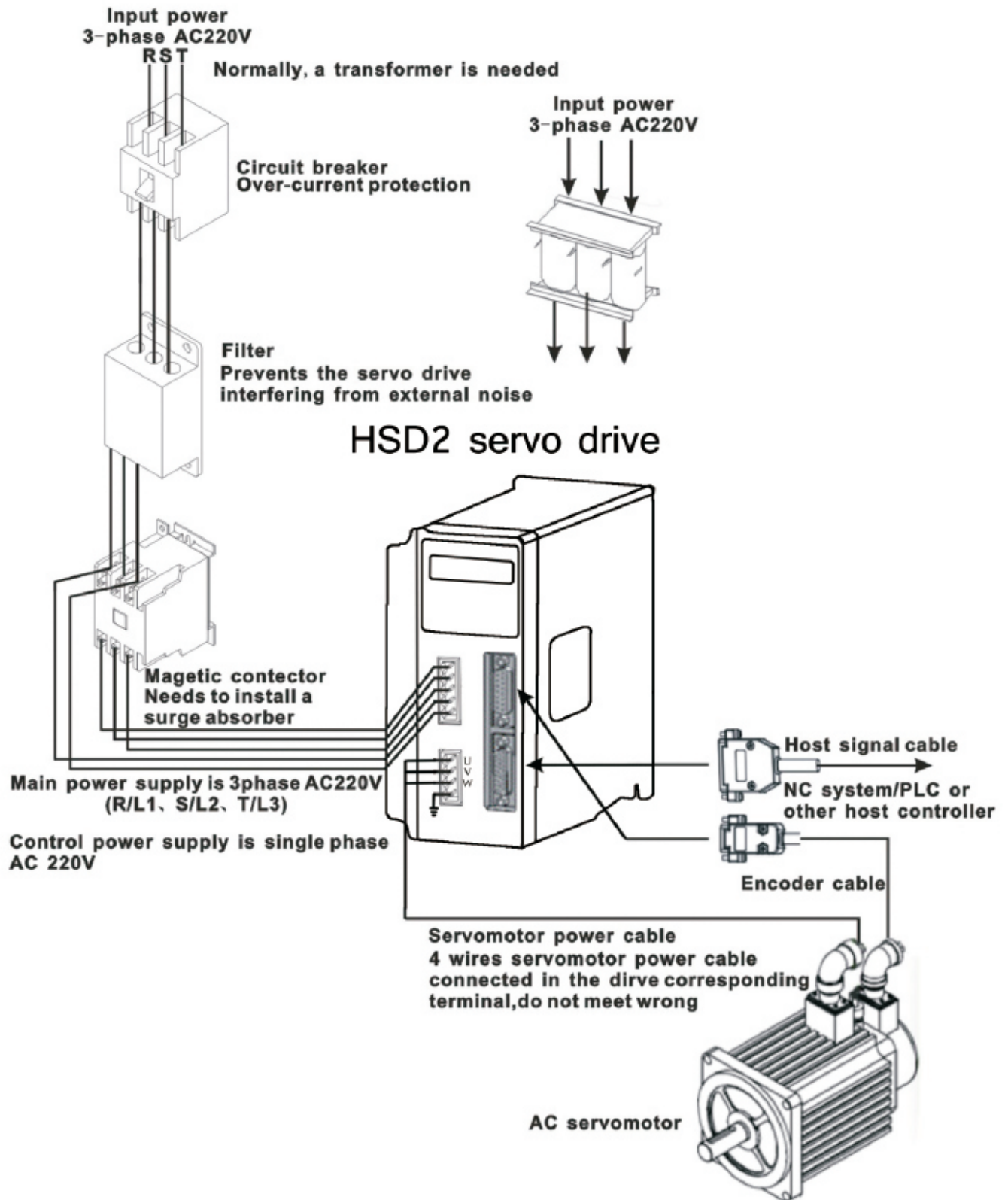
Type	C(mm)	D(mm)	E(mm)
HSD2-020	170	77	172
HSD2-030	185	82	182
HSD2-050	200	92	186
HSD2-065	215	105	207
HSD2-030A	195	97	155

**HSD2 Servo Drive Installation Dimensions**

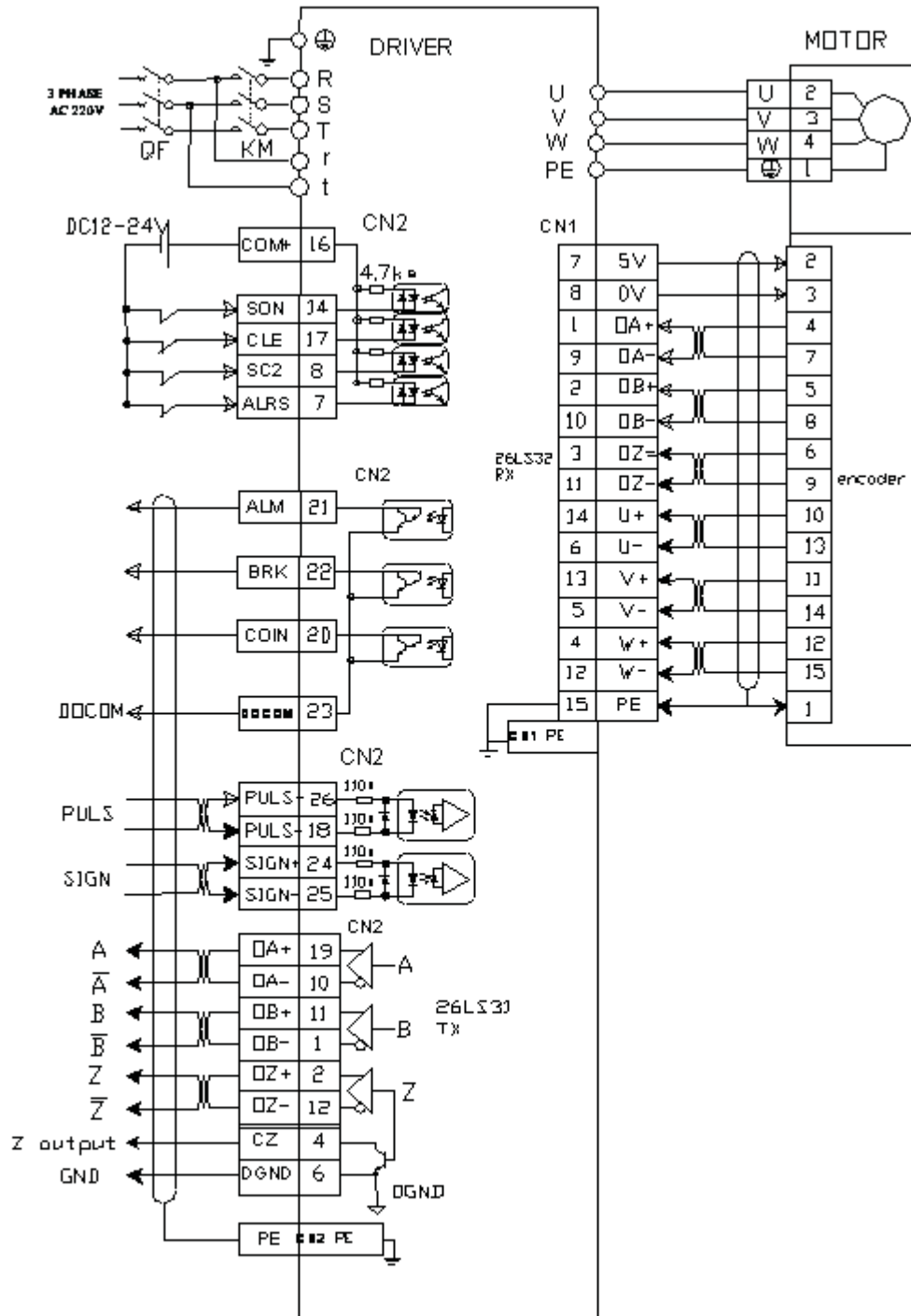


Size data of installation		
Type	A(mm)	B(mm)
HSD2-020	60	160
HSD2-030	65	175
HSD2-050	75	189.3
HSD2-065	88	203.5
HSD2-030A	25	208

# HSD2



**HSD2**



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## Speed / torque control mode

