

# LS SERIES

AC SERVO DRIVE

High control servomotors  
Brushless motors, and  
Induction motors



*High cost and performance complex fuctions*

## Optional Mode

Supporting Torque, Velocity or Position mode



- 1) Input Pulse control
- 2) Position digital given
- 3) Position analog given
- 4) Speed digital given
- 5) Speed analog given
- 6) Torque digital given
- 7) Torque analog given

## Complex Functions

Running curves program

## High performance

- Full featured Servo drive
- Front display
- Easy view digital proface
- Fast control acceleration
- Built-in the PID control
- More torque for less money
- Feedforward control function
- Well-matched with any poles motor
- Well-matched with any ppr encoder
- Custom design

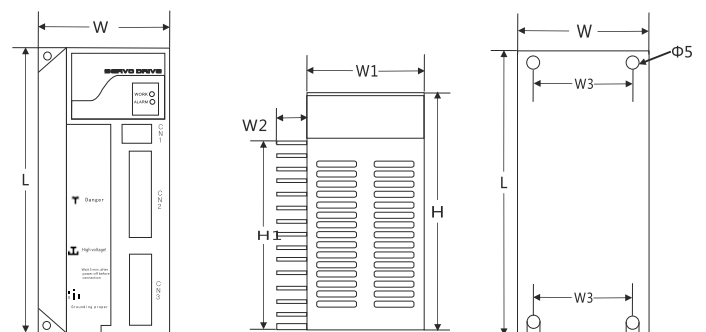
Configure your Drive reference by our nomenclature

Nomenclature	Power (1 -3 Phase AC)	Current
LS1R5__	750W - 1,5kW	5,5 A
LS2R2__	1,5kW - 2,2kW	10 A
LS4R0__	2,2kW - 4kW	15 A

Series Code	Mark	Rated power	Mark	Drive type	Mark	Voltage grade	Mark	Rated power	Mark	Drive type	Structure
LS	1R5	1,5 kW	G	Economical	33	Three phase 380V	B	With Brake	M	Photoelectric encoder	Horizontal
	2R2	2,2 kW	H	Smart	21	Single phase 220V	-	Without Brake	X	Resolver	Vertical
	4R0	4 kW	T	Auto position	23	Three phase 380V					

## Dimensions

W	H	L	W1	W2	W3	H1
83mm	145mm	180mm	65mm	18mm	75mm	120mm



## LS AC servo drive

Basic parameters	Input voltage	Single phase AC 220V or three phase AC 220V or three phase 380V	
	Output power range	750W - 4000W	
	Voltage/Frequency	Voltage $\pm 15\%$ , frequency 50/60Hz	
	Cooling	Natural air cooling	
	Feedback	Incremental photoelectric encoder, resolver	
	Control Method	PWM (Pulse Width Modulation) control, sinewave drive	
	Operate method	Position control; speed control; torque control	
Position control	Input pulse	Pulse + Direction; CCW pulse/ CW pulse; A/B two phase orthogonal pulse	
	Max.Pulse input frequency	< 500k PPS	
	Electronic Gear ratio	A/B (1/9999 < A < B < 9999)	
	Smoothing strategy	Position slope, S curve accelerate and decelerate	
	Width setup	0-9999 pulse	
Speed control	Max Speed	9000 rpm	
	Min Speed	1 rpm	
	Speed accuracy	$\pm 1\%$	
	Soft start time setting	0-650 s (Could set accelerate and decelerate seperately)	
I/O signal	Position output	A phase, B phase, Z phase and differential signaling output	
	Digital input signal	Changeable signal distribution	Ten channels DI Servo enabled, alarm reset, proportional movement reset, running mode switch, forward drive disable, reverse drive disable, forward external torque limit, reverse external torque limit, forward JOG, reverse JOG, position step input, all together 113 control input commands.
	Digital output signal	Changeable signal distribution	Six channels DI Servo ready, motor rotating, zero speed signal, speed arrived, position arrived, analog compare output, torque limiting, rotational speed limiting, brake signal output, alarm, servo fault, alarm code, etc. All together 72 output function.
	Analog input	Changeable signal distribution	Two channels: $\pm 10V$ ; $0\sim+5V$ ; $0\sim+10V$ ; One channel: $0\sim+5V$ , $0\sim+20mA$ or $4\sim+20mA$ Programmable input, input as speed, torque, diameter, analog compare amount
	Analog output	Changeable signal distribution	Two channels: $0\sim\pm 10V$ ; One channel: $0\sim+10V$ / $4\sim+20mA$ Programmable output, PID output as voltage, current, speed, torque, position error.
	Built-in function	Communication function	Connection device
Communication format			1. TG format 2. Modbus (RTU) format
1:N communication			Max N=250 stations
Function			Status display, user parameters setting, monitoring display, alarm tracing, JOG and Auto tuning, Speed, torque instruction signal.
Protection function		Over current, over voltage, low voltage, over load, main circuit check, over heat, over speed, encoder abnormal, CPU abnormal, parameters abnormal.	
LED display		Main power charge, 4 character LED display	
Monitor analog		Built-in high speed D/A switch, could use external oscilloscope to monitor the speed, torque and current.	
Dynamic brake	Internal parameters setting		
Brake resistor	internal/ external		
Ambient conditions	Working temperature	0-40 °C	
	Humidity	Less than 90%	
	Protection class	IP 20	
	Place requirement	Dry and free from dust	
	Mounting	Vertical or horizontal	
	Altitude	Under 1000m	
	Atmospheric pressure	86kpa-106kpa	