New Integrated Servo Motor *iSV2-RS*** Series*

Integrated Servo Motor, 24-70VDC, Frame 60mm,80mm,200W-750W

Leadshine iSV2-RS series integrated servo motor is a 60mm&80mm frame size low-voltage servomotor integrated with a 17bit encoder and a servo drive. At very compact size and with all components integrated, the iSV2-RS series can save mounting space, eliminate encoder connection & motor wiring time, reduce interference, and cut/reduce cable and labor costs.

Main Application :

AGV   AGC   Electronics   Shuttle

◆ **Basic specification**

  ◇ Up to 750watt
  ◇ Frame size : 60mm, 80mm
  ◇ Voltage input: 20-70vdc
  ◇ Encoder : 17bit incremental
  ◇ Motor with or without brake
  ◇ 2.5 – 3 times overload
  ◇ 4 programmable input
  ◇ 2 programmable output
  ◇ RS232 for configuration

◆ **Modbus Communication**

  ◇ Up to 32 axes supported in one network
  ◇ Modbus RTU based on RS485 communication
  ◇ Built-in indexer , Programmable 16-segment position table, positioning/homing/ limit/ quick stop/ JOG… supported
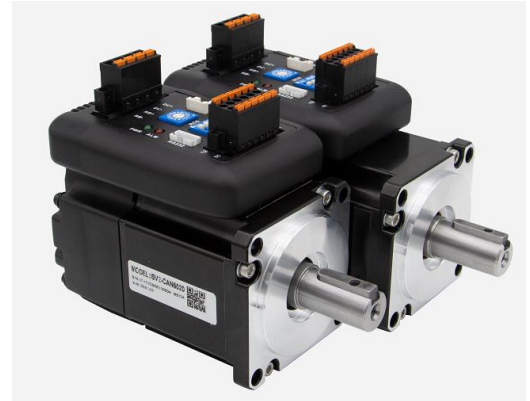
Part Number	iSV2-RS6020V24*	iSV2-RS6020V48*	iSV2-RS6040V48*	iSV2-RS8075V48*
Rated Power(W)	200	200	400	750
Rated Torque(Nm)	0.64	0.64	1.27	2.4
Peak Torque(Nm)	1.92	1.92	3.81	7.2Nm
Rated Speed(rpm)	3000	3000	3000	3000
Peak Speed(rpm)	4000	4000	4000	4000
Rated Voltage(Vdc)	24	48	48	48
Weight(kg)	0.95	0.95	1.25	-
Inertia(Kg.cm^2)	0.29	0.29	0.58	-
Torque(Nm/A)	0.058	0.1	0.127	-
Input Voltage(V)	24~50	24~70	24~70	24 -70
Continuous Current(Arms)	11	6.5	10	19
Peak Current(A)	34	20	28	57
Logic Signal Current(mA)	10	10	10	10
Isolation Resistance(MΩ)	100	100	100	-
Protection Level	IP54 for motor IP20 for drive	IP54 for motor IP20 for drive	IP54 for motor IP20 for drive	IP54 for motor IP20 for drive

Connectors and Pin Assignment

Pin	Name	Description
1	DC+	Power Supply Input (Positive)24-70VDC recommended. Please leave reasonable reservation for voltage fluctuation and back-EMF during deceleration.
2	DC-	Power Ground (Negative)
3	RBR+	Regenerative resistor +
4	RBR-	Regenerative resistor -

| RS232 Communication Connector			
Pin	Name	I/O	Description
1	+5V	O	+5V power output (Note: Do not connect it to PC's serial port)
2	TxD	O	RS232 transmit.
3	GND	GND	Ground.
4	RxD	I	RS232 receive.

Control Signal Connector			
Pin	Name	I/O	Description
1	DI1+	I	High speed digital differential input ,0~ 5V signal, MAX 500KHz, default pulse signal input
2	DI1-	I	
3	DI2+	I	High speed digital differential input , 0~5V signal, MAX 500KHz,default direction signal input
4	DI2-	I	
5	COMI	I	Positive terminal of the external input control signal, 12V ~ 24V
6	DI3	I	Digital input signal 3, default value is E-STOP signal, low level available in default , max voltage : 24V input 20KHz
7	DI4	I	Digital input signal 4, default value is homing switch signal (Home switch) , low level available in default , max voltage: 24V input 20KHz
8	DI5	I	Digital input signal 5, default value is Positive limit switch signal(POT), low level available in default , max voltage is 24V input 20KHz
9	DI6	I	Digital input signal 6, default value is Negative limit switch signal (NOT), low level available in default , max voltage is 24V input 20KHz
10	DO1	O	Digital output signal 1 , default value is alarm output，24V, <100mA
11	DO2	O	Digital output signal 2 , default value is servo-ready output，24V, <100mA
12	COMO	O	Digital output signal commonality ground, 24V
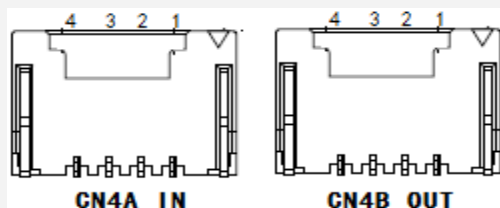
RS485 Connector		
	Pin	Name
	1	RS485+
	2	RS485-
	3	RS485_GND
	4	NC

CN4A IN   CN4B OUT

Hex Rotary switch Settings
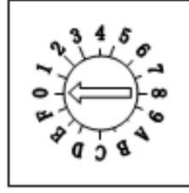
Set 0 : ID = PR5.31,default 16;
Set 1~F : ID = 1~15;

DIP Switch Settings

SW1 and SW2 : setting for RS485 baudrate

RS485 baudrate	SW1	SW2
Pr5.03 Default setting 9600（Hz）	off	off
19200	on	off
38400	off	on
57600	on	on

SW3 : setting for terminal resistor

SW3=off , RS485 cut off terminal resistor ;
SW3=on , RS485 connect terminal resistor ;

SW4 : Motor rotation direction OR RS485 MSB of slave address

if PR6.33=0,the fuction of SW4 is **Motor rotation direction**
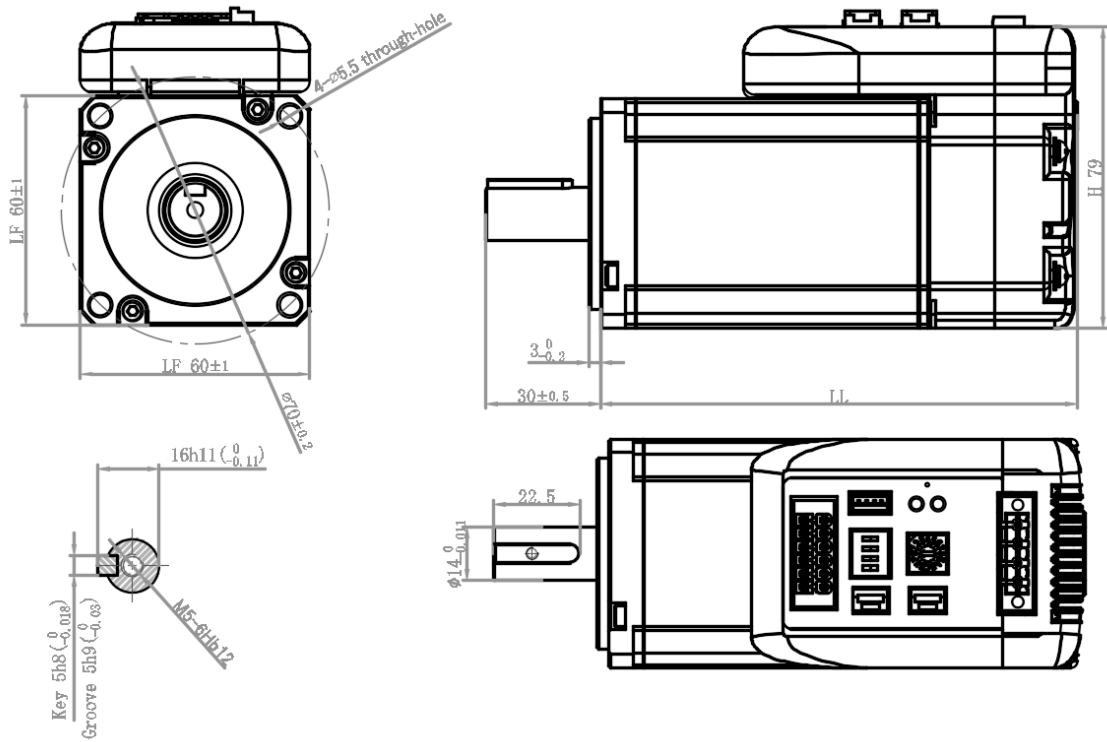SW4=off, Default Motor rotation direction is **CCW（Face the motor shaft,counterclockwise）;**
SW4=on, Default Motor rotation direction is **CW（clockwise）;**
if PR6.33=8,the fuction of SW4 is **RS485 MSB of slave address**
SW4=off , MSB is 0，RS485 slave ID = Hex Rotary switch Setting;
SW4=on , MSB is 1，RS485 slave ID = 16+ Hex Rotary switch Setting；

Mechanical Specifications

Mechanical Specification of iSV2-RS60******

Model	Frame size (LF) (mm)	Long（LL） （mm）	High（H） （mm）
iSV2-RS6020V24H iSV2-RS6020V48H	60	95.7	79
iSV2-RS6020***G		129.7	
iSV2-RS6040V48H		112.7	
iSV2-RS6040***G		146.7	

Note : "H" is meaning the Motor without brake.　　"G" is meaning the Motor with brake.