

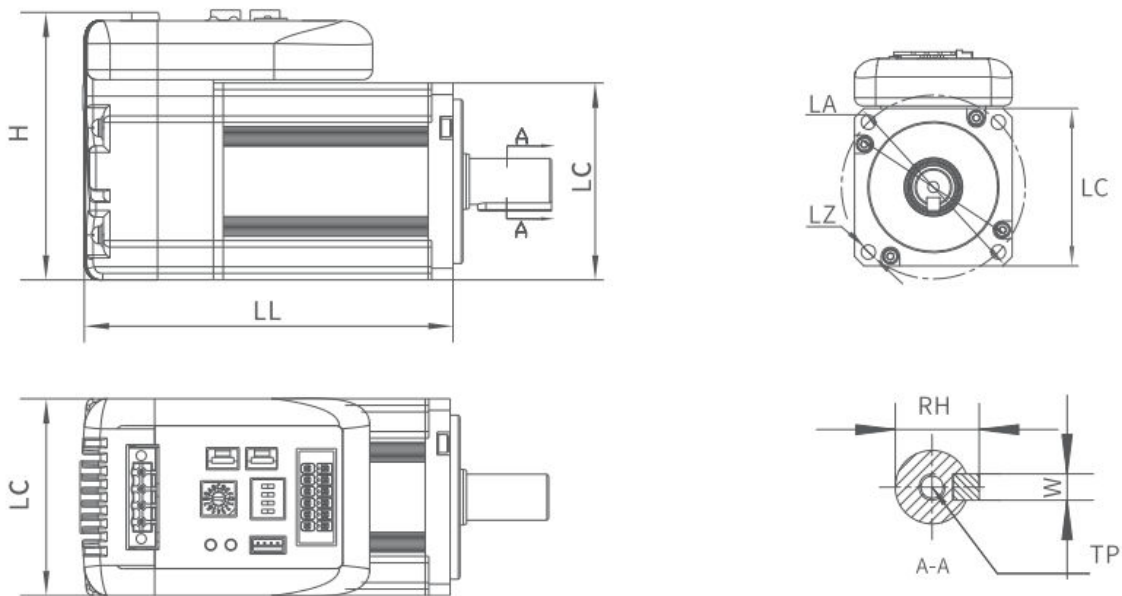
iSV2 Series Integrated Servo Motors

The Leadshine iSV2 series integrated servo motor is a 60mm&80mm frame size low-voltage servomotor integrated with a 17bit encoder and a servo drive, meet the demands in a wide range of applications: AGV, AMR, RGV, Electronics, etc.

Small, easy to install, and cost-effective

- Compact design
The motor, encoder and drive form a compact unit.
- Simple installation
Reduce cables, and easy to wire.
- Open communication with control system
CANopen (CiA 301 CiA402)
Modbus RTU (RS485)
- Simple commissioning
User-friendly GUI software: Motion Studio

Model



Model	LC (mm)	LL (mm)	H (mm)	LA (mm)	LZ (mm)	TP (mm)	RH (mm)	W (mm)
iSV2-CAN6020V24H iSV2-RS6020V24H	60	95.7	79	Φ70	Φ5.5	↓12	16	5
iSV2-CAN6020V24G iSV2-RS6020V24G		124.7						
iSV2-CAN6020V48H iSV2-RS6020V48H		95.7						
iSV2-CAN6020V48G iSV2-RS6020V48G		124.7						
iSV2-CAN6040V48H iSV2-RS6040V48H		112.7						
iSV2-CAN6040V48G iSV2-RS6040V48G		141.7						
iSV2-CAN8075V48H iSV2-RS8075V48H	80	128.8	100	Φ90	Φ6.6		21.5	6
iSV2-CAN8075V48G iSV2-RS8075V48G		160.3						

Technical Specification

Part Number	iSV2-RS6020V24*	iSV2-RS6020V48*	iSV2-RS6040V48*	iSV2-RS8075V48*
	iSV2-CAN6020V24*	iSV2-CAN6020V48*	iSV2-CAN6040V48*	iSV2-CAN8075V48*
Rated Power(W)	200	200	400	750
Rated Torque(Nm)	0.64	0.64	1.27	2.39
Peak Torque(Nm)	1.92	1.92	3.81	7.17
Rated Speed(rpm)	3000	3000	3000	3000
Peak Speed(rpm)	4000	4000	4000	4000
Rated Voltage(VDC)	24	48	48	48
Input Voltage(VDC)	24~60	24~60	24~60	24~60
Continuous Current(Arms)	11	6.5	10	19
Peak Current(Arms)	34	20	28	57
Logic Signal Current(mA)	10	10	10	10
Isolation Resistance(MΩ)	100	100	100	100
Weight(kg)	0.93(1.32)	0.93(1.32)	1.26(1.65)	2.52(3.19)
Encoder	17 bit incremental magnetic encoder			
Motor brake	“*=G” means: motor with brake; “*=H” means: motor without brake.			
Control method	SVPWM sinusoidal Wave Drive			
Overload	300% (3s)			
Regeneration resistor	External connection			

Communication & Connection		
Model	iSV2-RS ****	iSV2-CAN****
Pulse input	2 fast pulse input, 5V only	---
Digital input/output	4programmable OC inputs, 24V 2 programmable OC outputs, 24V	
Communication interface	RS485	CAN
	RS-232 for tuning	

Environment

Item	Storage	Installation
Temperature	-10-35℃	0-45℃
Humidity	Under 80%RH (free from condensation)	
Atmospheric environment	Indoor(no exposure)no corrosive gas or flammable gas, no oil or dust	
Altitude	Lower than 1000m	
Vibration	Less than 0.5G (4.9m/s ²) 10-60Hz (non-continuous working)	
Protection level	IP20	

Connectors and Pin Assignment

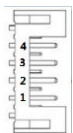
Power terminal

Pin	Signal	Details
1	DC+	Power + for integrated servo motor
2	DC-	Power - for integrated servo motor
3	RB+	Regeneration resistor +
4	RB-	Regeneration resistor -

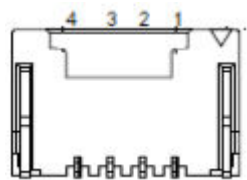
Signal Explanation of Control Signal Port -I/O

Pin	Signal	IO	Detail	
			iSV2-RS****	iSV2-CAN****
1	DI1+	Input	Differential pulse input , 5V, 500KHz, Default pulse	NA
2	DI1-	Input		
3	DI2+	Input	Differential pulse input , 5V, 500KHz, Default direction	NA
4	DI2-	Input		
5	COM_IN	Input	Power supply positive terminal of the external input control signal, 12 ~ 24VDC	
6	DI3	Input	Digital input signal 3, default value is E-STOP signal , low level available in default , max voltage is 24V input 20KHz	
7	DI4	Input	Digital input signal 4, default value is homing switch signal(HOME-SWITCH) , low level available in default , max voltage is 24VDC input 20KHz	
8	DI5	Input	Digital input signal 5, default value is forward run prohibited (POT)signal in position mode , low level available in default , max voltage is 24VDC input 20KHz	
9	DI6	Input	Digital input signal 6, default value is reverse run prohibited (NOT) signal in position mode , low level available in default , max voltage is 24VDC input 20KHz	
10	DO1	Output	Digital output signal 1 , (ALARM) , 24VDC, < 100mA	
11	DO2	Output	Digital output signal 2 , (Servo-Ready) , 24V, < 100mA	
12	COM_OUT	Output	Digital output signal commonality ground, 12 ~ 24VDC	

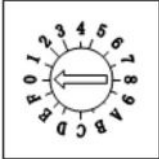
RS232 Communication port- GUI software

RS232		Pin	Detail
RS232		1	5V
		2	TX
		3	GND
		4	RX

Datasheet of iSV2 Series Integrated Servo Motors
Bus connector- IN or OUT

BUS		Pin	Modbus(RS485)	CANopen
Modbus (RS485) / CANopen		1	485 data+	CAN_H
		2	485 data-	CAN_L
		3	GND	GND
		4	PE	PE

Switch
Rotary Code Switch - Slave Node-ID

RCS		NO	Slave ID	NO	Slave ID
RCS 		0	Modbus: Default Pr5.31=16 CANopen: Default Pr0.23=16	8	8
		1	1	9	9
		2	2	A	10
		3	3	B	11
		4	4	C	12
		5	5	D	13
		6	6	E	14
		7	7	F	15

Dip Switch

Pin	Detail			
SW1	Modbus RTU / CANopen baud rate. "Default" is valid only if SW1 and SW2 are "off".			
	SW3	SW4	Modbus Baud rate	CANopen Baud rate
SW2	off	off	Default Pr5.30=9600Hz	Default Pr0.24=1M Hz
	on	off	19200Hz	500K
	off	on	38400Hz	250K
	on	on	57600Hz	125K
SW3	Terminal resistor OFF: Null; ON : 120Ω			

Pin	Modbus RTU	CANopen
SW4	When PR6.33=0, this switch is defined as Rotation direction SW4=off: CCW; SW4=on: CW When PR6.33=8, this switch is defined as Modbus RTU Slave ID (High Bit) SW4=off, High Bit =0, Modbus RTU Slave ID=RCS_ID SW4=on, High Bit =1, Modbus RTU Slave ID=16+RCS_ID	CANopen Node-ID selection (High Bit) SW4=off, High Bit =0, CAN Node-ID=RCS_ID SW4=on, High Bit =1, CAN Node-ID =16+RCS_ID