

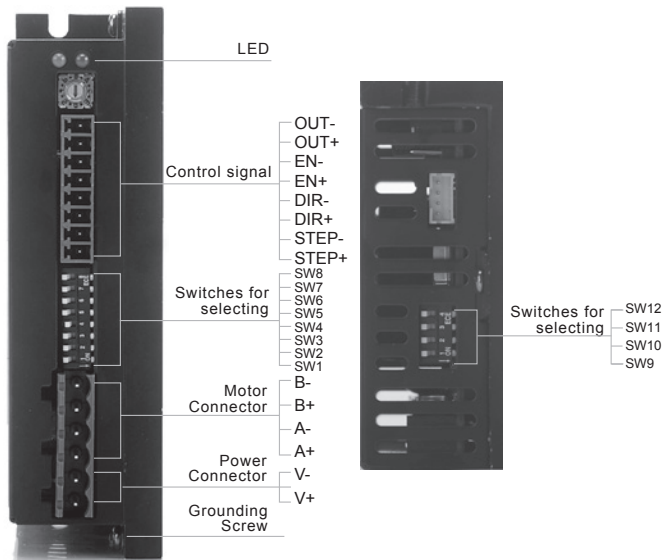
SR4-Plus

Step Motor Drive

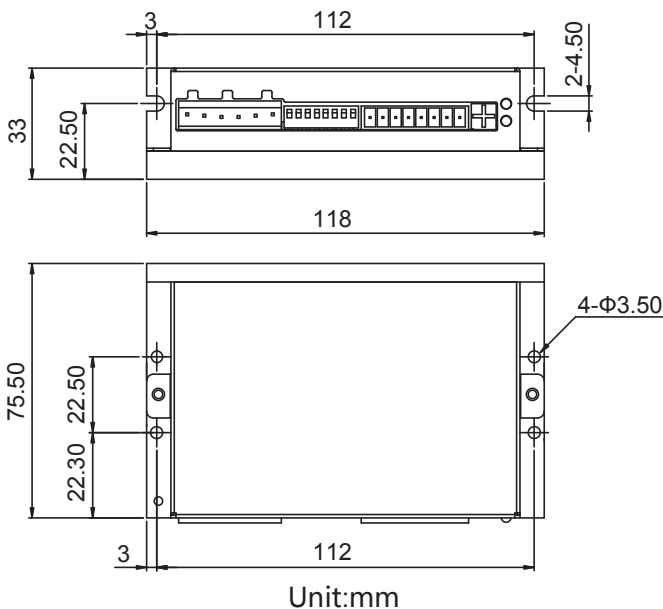
Description

The SR4-Plus series drive is a cost-effective, high performance 2 phase step drive. The design is based on advanced digital current control technology, and features high torque, low noise, and low vibration. The running current and microstep resolution are switch selectable.

Connections - Inputs & Outputs



Mechanical Drawings

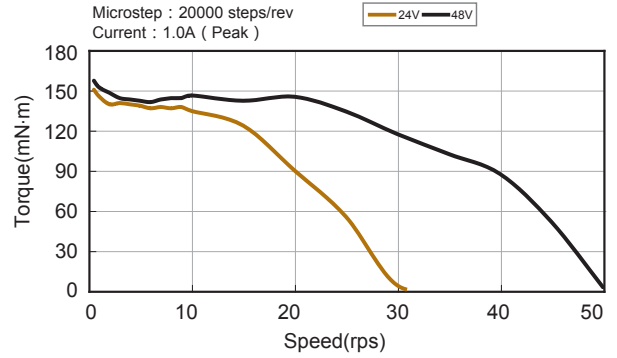


Torque Curves

The torque curves below were generated from some of the recommended motors.

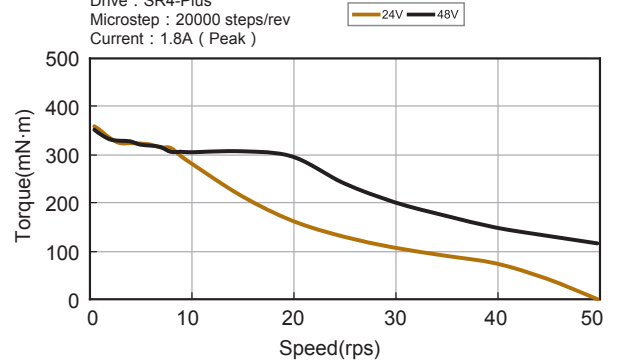
14HYB401

Drive : SR4-Plus
Microstep : 20000 steps/rev
Current : 1.0A (Peak)



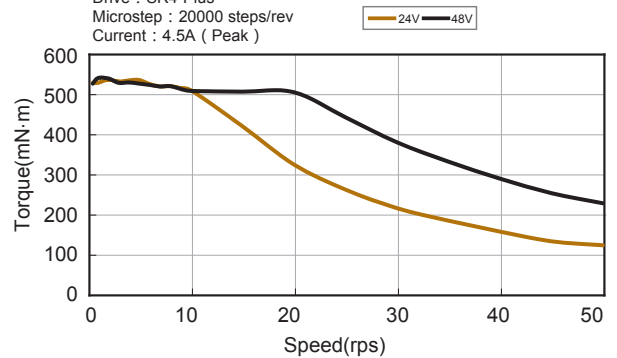
17HD2438N

Drive : SR4-Plus
Microstep : 20000 steps/rev
Current : 1.8A (Peak)



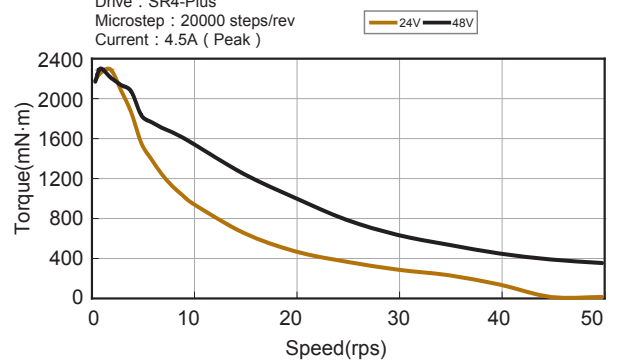
23HS0421

Drive : SR4-Plus
Microstep : 20000 steps/rev
Current : 4.5A (Peak)



24HS5401N

Drive : SR4-Plus
Microstep : 20000 steps/rev
Current : 4.5A (Peak)



Specifications

Electrical Specifications

Parameter	Min.	Typ.	Max.	Unit
Power Supply	24	-	48	VDC
Output Current (Peak)	1	-	4.5	A
Step Frequency	2	-	2M	Hz
STEP Minimum Pulse Width Hi and Low	250	-	-	ns
DIR Minimum Pulse Width	62.5	-	-	us
Under Voltage Protection	-	20	-	VDC
Over Voltage Protection	-	60	-	VDC
STEP/DIR Input Signal Voltage	4.0	-	28	VDC
OUT mximum output current	-	-	100	mA
OUT maximum voltage	-	-	30	VDC

Environmental Specifications

Heat Sinking Method	Natural cooling or fan-forced cooling
Surrounding Air Conditions	Avoid dust, oily mist and corrosive air
Operating Temperature	0 - 40°C (32 - 104°F)
Maximum Ambient Humidity	90% non-condensing
Shock	5.9m/s ² maximum
Storage Temperature	-10 - 70°C (14 - 158°F)

Switch Selections

Running current, idle current, microstep resolution and self test are selectable by a switch or a combination of on/off settings of 2 or more switches.

Running current - 3 switches for a total of 8 settings:

Peak	SW1	SW2	SW3
1.0A	ON	ON	ON
1.5A	OFF	ON	ON
1.8A	ON	OFF	ON
2.2A	OFF	OFF	ON
3.0A	ON	ON	OFF
3.5A	OFF	ON	OFF
4.0A	ON	OFF	OFF
4.5A	OFF	OFF	OFF

Idle Current (**SW4**) - ON for half current, OFF for 90% current

Self test (**SW9**) - ON to enable, OFF to disable

Step Smoothing Filter (**SW10**) - ON to enable, OFF to disable

Load Inertia (**SW11**) - ON to high, OFF to low

Step Noise Filter(**SW12**) - ON for 150 KHz, OFF for 2 MHz

Microstep resolution - 4 switches for a total of 16 settings:

Microstep(steps/rev)	SW5	SW6	SW7	SW8
200	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF