

3-Phase Hybrid Stepping Motor Driver

HIGH TORQUE, SILENT ROTATION

SERVEX FTD3S2P22-01 DC24V

Features

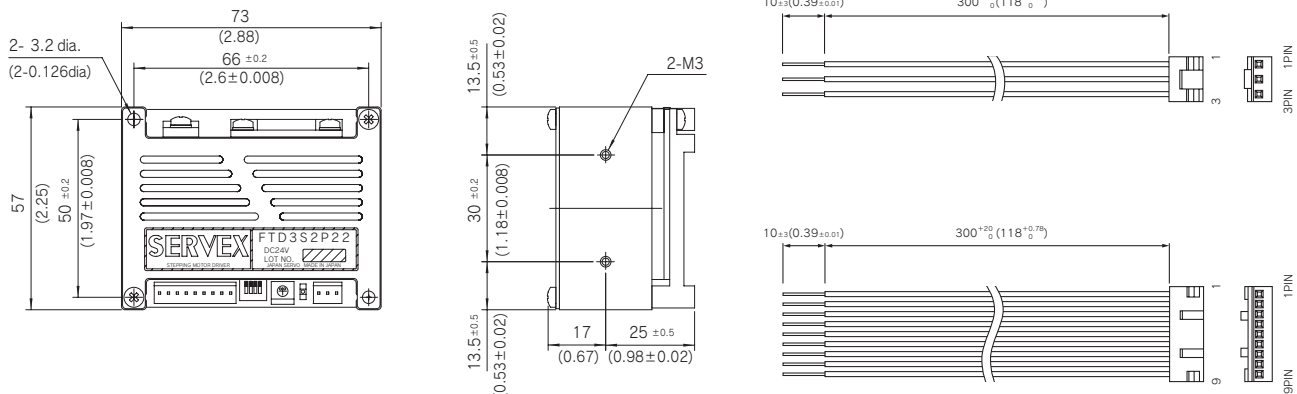
1. The micro step driver operates with low noise.
2. Step angles of 1/8, 1/4, 1/2 and 1/1 can be chosen.
3. High torque and high speed response achieved using constant current driver.
4. Input commands may be selected from either direction-of-rotation separate serial pulse signals or a combination of directional signals and pulse signals.
5. Reduced current (40 to 60%) function to prevent overheating during holding.

Applicable motors

See page 29



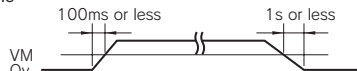
Dimensions Unit = mm(inch)



Power supply specifications

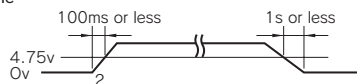
Motor power supply voltage(VM) : 10.8~26.4V

Start up time



Logic power supply voltage(5VDC):5V±5%

Start up time



Motor output current; About 2A max.(different depending on the drive parameters of the motor being used)

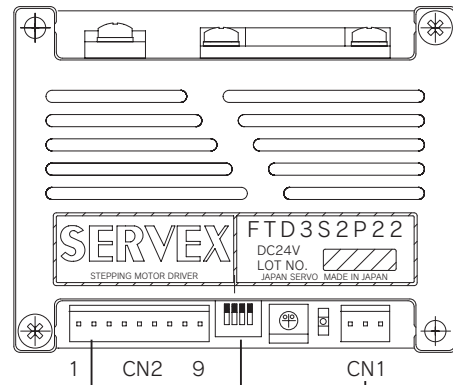
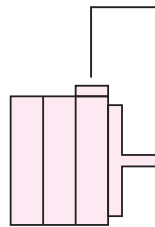
Connector specifications

	FTD3S2P11-01side	User side		
	Model	Applicable housing	Applicable terminal (real)	Maker
CN ₂	IL-G-9P-S3T2-SA	IL-G-9S-S3C2-SA	IL-G-2C-SC-10000	J·A·E
CN ₁	IL-G-3P-S3T2-SA	IL-G-3S-S3C2-SA	IL-G-2C-SC-10000	J·A·E

Functions, Setting and Connections

Switch No.	Name	Function	Setting and operation				
1	SEL	Drive pulse format	OFF	CW/CCW pulse input			
			ON	Serial pulse/rotational direction CCW terminal= "H," Rotation in CCW direction CCW terminal= "L," Rotation in CW direction			
2	SAVE	Automatic power saving	OFF	ENABLE about 0.28 to 0.39 seconds after input pulses stop, the output current drops to 40-60%			
			ON	NOT ENABLE			
3	MS1	Micro step Number of divisions	Number of divisions	1/8	1/4	1/2	1/1
			MS1	ON	ON	OFF	OFF
4	MS0		MS0	ON	OFF	ON	OFF

Motor cable (attached)



Connector No.	Terminal No.	Name	Function
CN1	1	MOTOR W	To Motor phase - W
	2	MOTOR V	To Motor phase - V
	3	MOTOR U	To Motor phase - U

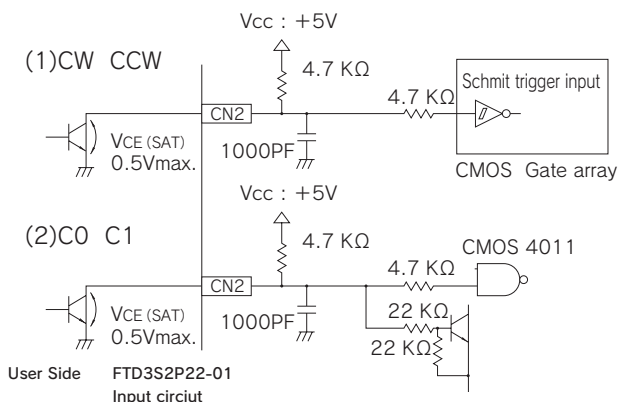
Power source connector

Connector No.	Terminal No.	Name	Function
CN2	1	VM	Motor power supply 12-24 Vdc
	2	COM	Motor power supply GND
	3	5VDC	Logic circuit power supply +5V
	4	GND	Logic circuit GND

Signal input connector

Connector No.	Terminal No.	Name	Function
CN2	5	CW	The CW direction drive pulse or the serial pulse signal input
	6	CCW	The CCW direction drive pulse or the direction signal input
	Current%		120~150 100 50~80 0
	7	C0	L L H H
	8	C1	L H L H
	9	GND	Signal GND

Input circuit



Input signal specifications

Item	Signal	Specification	
		MIN	MAX
High level input voltage	V _{ih} (V)	4.0	V _{cc} +0.3
Low level input voltage	V _{il} (V)	-0.3	0.8
Rise time	T _r (μS)	2.0	9.5
Fall time	T _f (μS)	-	2.0
Input pulse range	T _{wi} (μS)	10	-
Direction of rotation change timing	T _{wh} (μS)	3.0	-

Note) Specified the voltage waveform between the user circuit ground and the FTD3S2P22-01 terminal.

