

3-Phase Hybrid Stepping Motor Driver

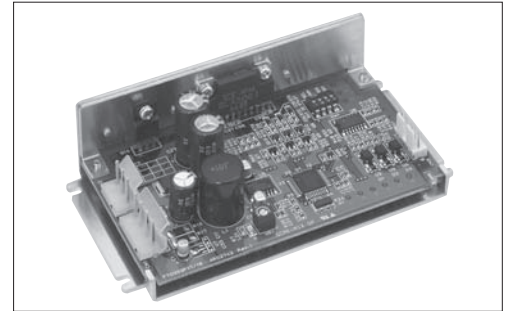
HIGH TORQUE, SILENT ROTATION
SERVEX FTD3S3P17-01 DC24V

Features

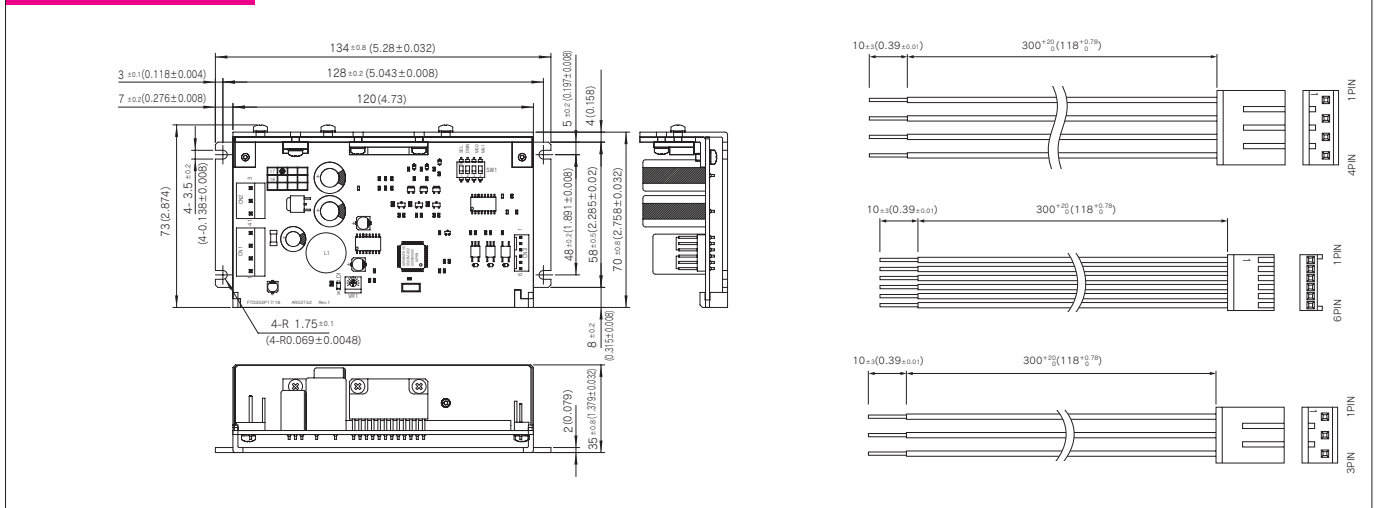
1. The micro step driver operates with low noise.
2. Step angles of 1/8, 1/4, 1/2 and 1/1 can be chosen.
3. High torque and high speed response achieved using constant current driver.
4. Input commands may be selected from either direction-of-rotation separate serial pulse signals or a combination of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

Applicable motors

See page 29



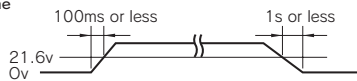
Dimensions Unit = mm(inch)



Power supply specifications

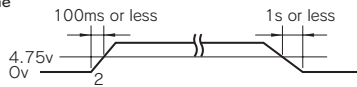
Motor power supply voltage(VM) : 21.6V~26.4V

Start up time



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

Start up time



Motor output current; About 3A max.(different depending on the drive parameters of the motor being used)

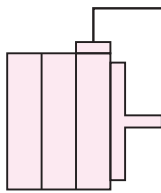
Connector specifications

	FTD3S3P17-01 side		User side		Maker
	Model	Applicable housing	Applicable terminal	(real)	
CN1	5281-04A	5258-04	5168T or 5168TL		Molex
CN2	5281-03A	5258-03	5168T or 5168TL		Molex
CN3	5045-06A	5051-06	5159T or 5159TL		Molex

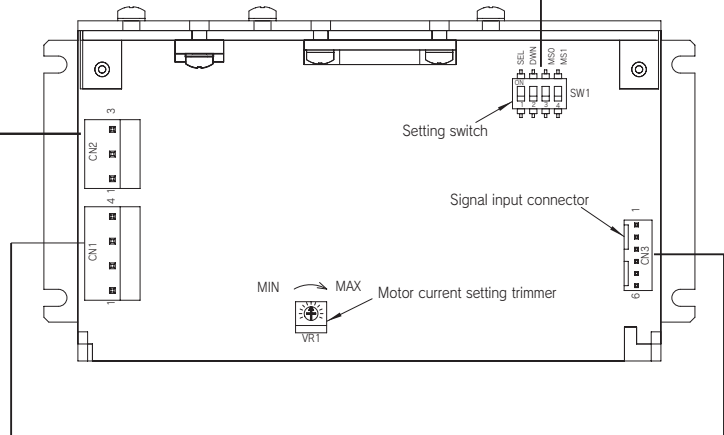
Functions, Setting and Connections

Switch No.	Name	Function	Setting and operation					
1	SEL	Pulse input direction	OFF	CW/CCW pulse input				
			ON	Serial pulse/rotational direction	CCW terminal= "H," Rotation in CCW direction CCW terminal= "L," Rotation in CW direction			
3	DWN	Selection of automatic motor current save function	OFF	ENABLE After the time set by To and T1 elapsed, motor output is reduced to 70% of the VR1.				
			ON	NOT ENABLE				
4	MS0	Setting for the number of microstep divisions	Number of divisions	1/8	1/4	1/2	1/1	
			MS0	ON	OFF	ON	OFF	
5	MS1	Setting for the number of microstep divisions	MS1	ON	ON	OFF	OFF	

Motor connector wire(accessory)



Connector No.	Terminal No.	Name	Function
CN2	1	MOTOR W	To be connected W phase of 3-phase motor
	2	MOTOR V	To be connected V phase of 3-phase motor
	3	MOTOR U	To be connected U phase of 3-phase motor



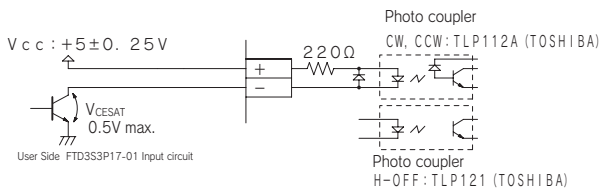
Power source connector

Connector No.	Terminal No.	Name	Function
CN1	1	5VDC	Logic circuit power supply +5V
	2	GND	Logic circuit GND
	3	VM	Motor power supply 24V
	4	COM	Motor power supply GND (connected to GND within board)

Signal input connector

Connector No.	Terminal No.	Name	Function
CN3	1	CW	CW direction drive pulse or serial pulse signal input
	2	GND	Ground for CW
	3	CCW	CCW direction drive pulse or direction signal input
	4	GND	Ground for CCW
	5	H.OFF	Motor output off(motor free)
	6	GND	Ground for H.OFF56

Input circuit



Input signal specifications

Item	Signal	Specification	
		MIN	MAX
High level input voltage	Vih(V)	4.0	Vcc
Low level input voltage	Vil(V)	0.0	0.5
Rise time	Tr(μs)	—	5.0
Fall time	Tf(μs)	—	5.0
Low level maintenance	Tw(μs)	10	—
High level maintenance	Twh(μs)	10	—

Note)Specified the voltage waveform between the user circuit ground and theFSD3S3P17-01terminal

