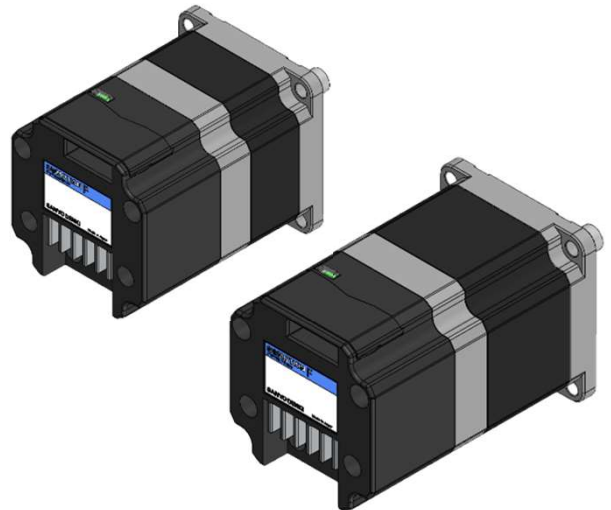


SANMOTION

SANMOTION F

STEPPING SYSTEMS

56 mm sq. Stepping Motor with Integrated Driver



Features

- **Space saving and wire saving**

Motor wirings are reduced by integrating motor and driver. The motor can be controlled with as few as five wires for power and communication.

Additionally, signals such as limit sensors and homing can be connected directly to the motor, further reducing internal wiring within the equipment.

- **Accurate movement trajectory**

The use of a stepping motor ensures precise motion along defined trajectories, regardless of load conditions. It reliably stops at accurate positions, making it ideal for applications like conveyor belts.

- **Simple design**

The new product supports operation commands including positioning, continuous rotation, and homing.

It allows for easy operation through simple parameter settings such as position, speed, acceleration, and command selection.

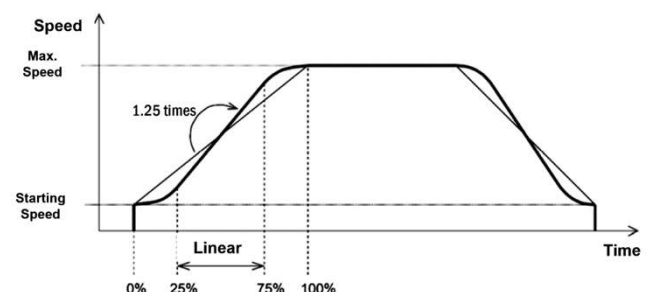
- **Smooth movement**

In addition to linear acceleration/deceleration, two types of S-curve acceleration and deceleration mode are available. By using S-curve acceleration and deceleration, shocks at the end of acceleration and deceleration phases are reduced.

Type 1 (including linear acceleration/deceleration mode)

The peak of the acceleration/deceleration is applied uniformly within the 25% to 75% range of the total acceleration/deceleration time.

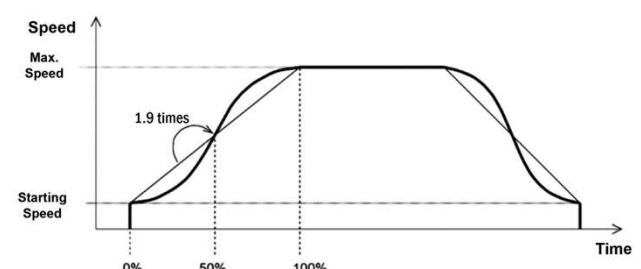
Maximum acceleration/deceleration: 1.25 times that of linear acceleration/deceleration.



Type 2 (excluding linear acceleration/deceleration mode)

The peak of acceleration and deceleration occurs at the midpoint (50%) of the total acceleration/deceleration duration.

The maximum acceleration/deceleration is 1.9 times greater than that of a linear acceleration/deceleration profile.

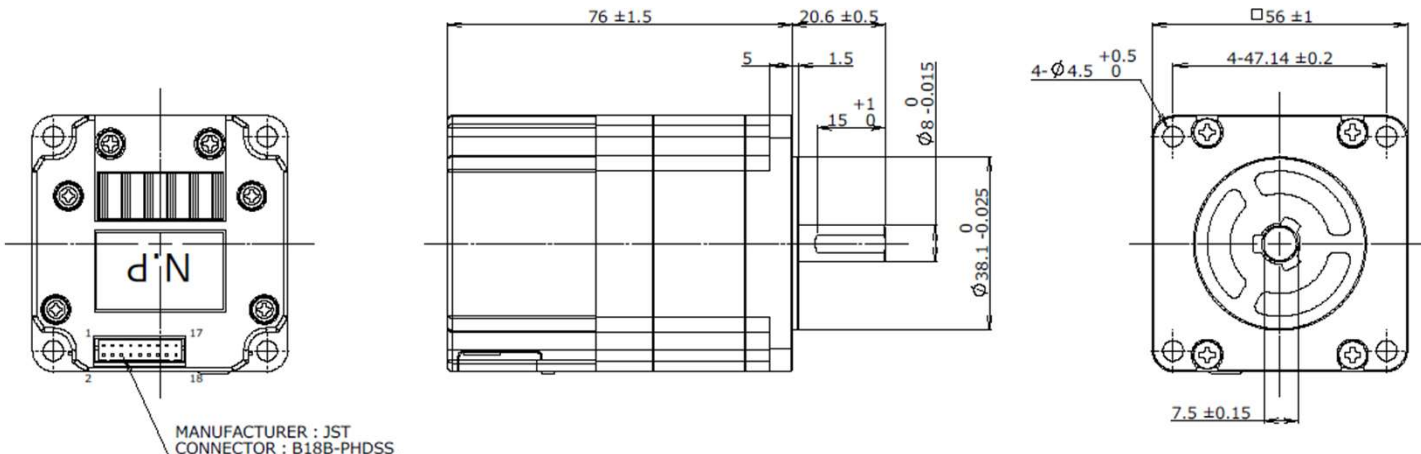


Specifications

Item		Short type	Long type
Model no.		DB31F561S-50	DB31F562S-50
Basic specifications	Input voltage, current	24 VDC ±10%, 2A	
	Operating temp./humidity	0~+50℃, 20~90%RH (non-condensing)	
	Operating altitude	Up to 1000 m above sea level	
	Vibration resistance	20m/s ² , freq. range 10 to 2000 Hz tested for 2 hours in X-, Y- and Z-axis directions	
	Dimension (mm)	□56 x 76	□56 x 88
	Mass (kg)	0.57	0.79
	Control method	Open-loop control, 1/8 Micro-step	
Functions	Protective function	Main circuit voltage monitoring, fuse protection, CPU fault	
	LED indicator	Power display, alarm display	
	Communication	RS-485 compliant baud rate 38400 bps, can connect up to 16 axes	
	Operation commands	Homing, continuous rotation, relative/absolute positioning	
I/O signal	Input	5 points (homing signal, ±limit sensor signal, rotation direction definition signal, emergency stop signal) Photocoupler input method (input resistance 5.6kΩ) 4mA typ. 24 VDC±10%	
	Output	2 points (Operating signal, alarm signal) Photocoupler input method (Open collector) 30V 10mA max.	

Dimensions [Unit: mm]

Short Type



Long Type

