

SANMOTION

2-PHASE STEPPING SYSTEMS

F2

42 mm sq. 2-Phase Stepping Motors

DC input



Flange size : 42mm

Motor length : 33mm, 39mm, 48mm, 59.5mm

Unipolar winding / Bipolar winding

Single shaft / Dual shaft

Shortens positioning time

Holding torque* has been increased approximately by 10% compared with our current model.** This enables precise positioning and thereby shortens positioning time as well.

Reduced noise

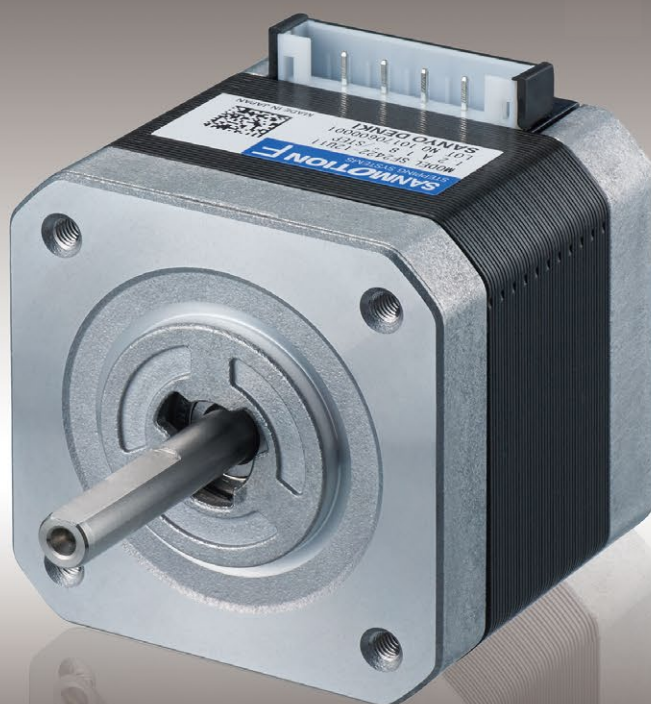
These motors have noise levels approximately 3 dB(A) lower than the current model.**

Energy-saving

Motor efficiency has been improved by 2.4% compared with the current model.** This contributes to reducing power consumption of devices and the motors' heat dissipation.

*The maximum amount of torque generated when a stepping motor is excited by its rated current.

** A comparison between our current model 103H5208-0440 and new model SF2422-12U41.



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Lineup

Model number		winding	Flange size xMotor length [mm]	Holding torque at 2-phase excitation [N·m]	Rated current [A/phase]	Mass [kg]
Single shaft	Dual shaft					
SF2421-12U41	SF2421-12U11	Unipolar	42×33	0.22	1.2	0.23
SF2422-12U41	SF2422-12U11		42×39	0.33	1.2	0.3
SF2423-12U41	SF2423-12U11		42×48	0.4	1.2	0.38
SF2424-12U41	SF2424-12U11		42×59.5	0.58	1.2	0.51
SF2421-10B41	SF2421-10B11	Bipolar	42×33	0.29	1	0.23
SF2422-10B41	SF2422-10B11		42×39	0.43	1	0.3
SF2423-10B41	SF2423-10B11		42×48	0.56	1	0.38
SF2424-10B41	SF2424-10B11		42×59.5	0.8	1	0.51

Compatible drivers (Source voltage: 24 VDC / 36 VDC)

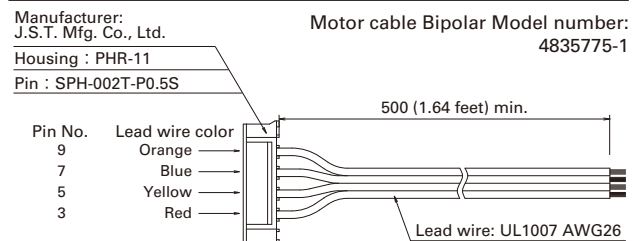
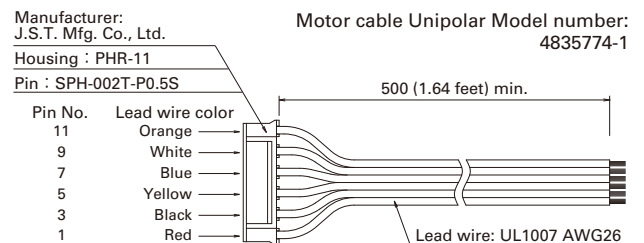
Motor	winding	Driver number
SF242□-12U□1	Unipolar	US1D200P10
SF242□-10B□1	Bipolar	BS1D200P10

See SANMOTION F2 catalog for specifications

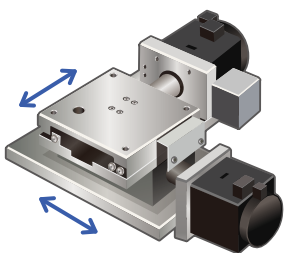
Motor cable

Motor	winding	Motor number
SF242□-12U□1	Unipolar	4835774-1
SF242□-10B□1	Bipolar	4835775-1

Motor cable: Dimensions



Application examples



XY stages



semiconductor manufacturing equipment



medical devices



Monitoring cameras

Precautions For Adoption

⚠ Cautions

Failure to follow the precautions on the right may cause moderate injury and property damage, or in some circumstances, could lead to a serious accident. Always follow all listed precautions.

⚠ Cautions

- Read the accompanying Instruction Manual carefully prior to using the product.
- If applying to medical devices and other equipment affecting people's lives, please contact us beforehand and take appropriate safety measures.
- If applying to equipment that can have significant effects on society and the general public, please contact us beforehand.
- Do not use this product in an environment where vibration is present, such as in a moving vehicle or shipping vessel.
- Do not perform any retrofitting, re-engineering, or modification to this equipment.
- The products presented in this catalog are meant to be used for general industrial applications. If using for special applications related to aviation and space, nuclear power, electric power, submarine repeaters, etc., please contact us beforehand.

*For any question or inquiry regarding the above, contact our Sales Department.

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CATALOG No.S1047B001 '18.5