The 5-phase Stepping Set

BP2 series
AC100V/115V
Micro-step (500 x 1 to 40 divisions)

Configuration of the 5-phase Stepping Motor Set, BP2 Series

Name	Quantity
BP2 Series Instruction Manual	1 pc.
PM Driver	1 pc.
Stepping Motor	1 pc.
Interface Connector (CN1)	1 set
Power Connector (CN2)	1 set
Stepping Motor Power Line Connector (CN3)	1 set
PM Driver Front Surface Metal Fittings	1 set

The standard combination of the 5-phase Stepping Set, BP2 Series lineup applies either STEPSYN M Series stepping motor or STEPSYN F Series stepping motor.

Stepping motor type	Characteristics
STEPSYN M Series	Conforms to UL Standards and CE Marking
STEPSYN F Series	Standard stepping motor for unit

Various sizes of stepping motor are available according to applications and purposes.

Characteristics

- **Conformity to UL Standards and CE Marking**
  The product conforms to UL Standards and CE Marking.
- **Micro-step function available**
  Smooth operation without vibration at low speeds can be realized.
- **Rush current prevention circuit**
  Thanks to the built-in rush current prevention circuit in the power circuit section, stabilized operation is ensured even during switching on.
- **Connector method for PM driver I/O cable**
  The connector method is adopted for the high voltage section terminal, where the terminal base was conventionally used. This method facilitates PM driver installation and maintenance.
- **Alarm output signal logic selectable**
  Logic of signal output during alarm circuit operation can be selected.

Built-in function

- **Auto micro function**
  Even setting division of resolution to a rough one or two divisions, operation can be as smooth and with as low vibration as for micro-step drive. However, the low vibration mode and the micro-step function cannot be adopted at the same time.
- **Micro-step function**
  By manipulating the rotary switch that sets resolution, the micro-step drive may be used. However, the low vibration mode and the micro-step function cannot be adopted at the same time.
- **Pulse input system selection function**
  Either "Pulse and direction mode" or "2-input mode" can be selected, using a dipswitch. Resolution setting function.
- **Resolution setting function**
  Nine types of resolution, ranging from one to 40 divisions, can be set for a standard stepping motor step angle by using rotary switches.
- **Operation current switchover function**
  Regarding operation current of the stepping motor, currents ranging from rated current to 55% of rated current can be set using rotary switches.
- **Current adjustment function during operation halt**
  When operation is halted, operation current for the stepping motor can be set at 40 to 70% of specified operation current by using selection switch.

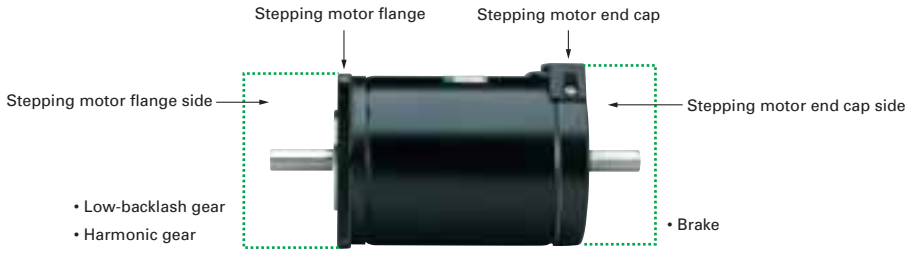
Explanation of set model number

① System on the stepping motor flange side

Code	Flange side	Deceleration ratio
C	Low-backlash gear	1 / 3.6, 1 / 7.2, 1 / 10, 1 / 20, 1 / 30, 1 / 36
H	Harmonic gear	1 / 50, 1 / 100
X	None on flange side	

② System on the stepping motor end cap side

Code	End cap side	Function
B	Brake	Electromagnetic brake
E	Encoder	Please contact us regarding the encoder.
X	None on end cap side	



③ Deceleration ratio of gear system
Example: deceleration ratio 1 / 3.6 → 3.6

Explanation for model number in the combined case:
The set model number of the PMAPA1S6B01 and 103F8581 type stepping motor is as follows when equipped with the system of harmonic gear (1/100) and brake:

BP23F851D – H B 100

Standard set model number

③ Gear deceleration ratio (1/100)
② Brake
① Harmonic gear

How to order

Please use the "Set Model Number" in the List of Combined Stepping Motor Model Number for the 5-phase Stepping Set, BP2 Series.
To order gear, brake, and encoder, put the product code number after the set number according to the "Explanation of combination numbering"①,②, and ③.

PM driver specifications

		Model number	PMAPA1S6B01
Standard specification		Input source	Single-phaseAC100/115V+10, –15% 50/60Hz
		Source current	6A
	Environment	Protection class	Class Ⅰ
		Operating environment	Installation category (overvoltage category): Ⅲ, pollution degree: 2
		Applied standards	EN50178, UL508C
		Operating ambient temperature	0 ~ +50˚C
		Conservation temperature	–20 ~ +70˚C
		Operating ambient humidity	35 ~ 85%RH (no condensation)
		Conservation humidity	10 ~ 90%RH (no condensation)
		Operating altitude	MAX. 1000m above sea level
		Vibration resistance	0.5G Tested under the following conditions, frequency range: 10 to 55Hz, direction: along the X, Y, and Z axes, for 2 hours
		Impact resistance	Considering the NDS-C-0110 standard section 3.2.2 division "C", not influenced.
		Withstand voltage	Not influenced when applying AC1500V between the power input terminal and cabinet for one minute.
		Insulation resistance	10 MΩ MIN. when applying DC500V between the power input terminal and cabinet.
		Mass(Weight)	0.95kg(2.09 lbs)
Function		Protection function	Against PM driver overheat, main circuit power supply error, overcurrent
		Selection function	Input system, auto current down, power down, low vibration mode, alarm output logic, step angle, operating current, non-operating current
		LED indicator	Power supply monitor, phase origin monitor, pulse monitor, alarm display
I/O signals		Command pulse input signal	Photo coupler input method, input resistance 330Ω Input signal voltage "H" level: 4.0 to 5.5V, "L" level: 0 to 0.5V Maximum input frequency 200 kpulse/s
		Power down input signal	Photo coupler input method, input resistance 330Ω Input signal voltage "H" level: 4.0 to 5.5V, "L" level: 0 to 0.5V
		Step angle selection input signal	Photo coupler input method, input resistance 330Ω Input signal voltage "H" level: 4.0 to 5.5V, "L" level: 0 to 0.5V
		FULL/HALF selection input signal	Photo coupler input method, input resistance 330Ω Input signal voltage "H" level: 4.0 to 5.5V, "L" level: 0 to 0.5V
		Phase origin monitor output signal	Open collector output by photo coupler Output signal standard, Vceo: 30V MAX, Ic: 5 mA MAX
		Alarm output signal	Open collector output by photo coupler Output signal standard, Vceo: 30V MAX, Ic: 20 mA MAX

* Refer to pages 145 and after for operation, connection, function, and dimensions of the PM driver.

Stepping motor specifications

Stepping motor type	STEPSYN M		STEPSYN F	
Model name	103M785□	103M858□ / 103M8958□	103F785□	103F858□ / 103F8958□
Type	S1 (Continuous rating)		————	
Insulation class	Class B (+130˚C) [105˚C for UL class A]		Class B (+130˚C)	
Withstand voltage	Conditions: AC1500V, 50/60 Hz, and for one minute			
Insulation resistance	100 MΩ MIN. against DC500V			
Protection grade	IP40		————	
Vibration resistance	Conditions: amplitude 1.52 mm (P-P), frequency range 10 to 55 Hz, 5 minutes sweep time, along X, Y, and Z axes, for 2 hours			
Impact resistance	Conditions: 98 m/S^2 acceleration, 11 minutes duration, half-wave / sine wave,three times each along X, Y, and Z axes, 18times in total			
Operating ambient temperature	-10~+50˚C (0 to +40˚C for the one with harmonic gear)			
Operating ambient humidity	20~90%(no condensation)			

Standard combined stepping motors for 5-phase stepping set “BP2” series

PM driver model number : PMAPA1S6B01

Combination Model Number for the STEPSYN M Series (conforming to UL Standards and CE Marking)

System support	Dimensions of stepping motor	Single shaft		Double shaft	
		Set model number	Standard combined stepping motor number	Set model number	Standard combined stepping motor number
Standard type	□ 60mm	**BP23M782S**	103M7852-8041	**BP23M782D**	103M7852-8011
		BP23M783S	103M7853-8041	**BP23M783D**	103M7853-8011
	ø 86mm	**BP23M851S**	103M8581-8041	**BP23M851D**	103M8581-8011
		BP23M852S	103M8582-8041	**BP23M852D**	103M8582-8011
		BP23M853S	103M8583-8041	**BP23M853D**	103M8583-8011
	ø 106mm	**BP23M892S**	103M89582-8041	**BP23M892D**	103M89582-8011
		BP23M893S	103M89583-8041	**BP23M893D**	103M89583-8011

Combination Model Number for the STEPSYN F Series (Motor for a set)

System support	Dimensions of stepping motor	Single shaft		Double shaft	
		Set model number	Standard combined stepping motor number	Set model number	Standard combined stepping motor number
Standard type	□ 60mm	**BP23F782S**	103F7852-8041	**BP23F782D**	103F7852-8011
		BP23F783S	103F7853-8041	**BP23F783D**	103F7853-8011
	ø 86mm	**BP23F851S**	103F8581-8041	**BP23F851D**	103F8581-8011
		BP23F852S	103F8582-8041	**BP23F852D**	103F8582-8011
		BP23F853S	103F8583-8041	**BP23F853D**	103F8583-8011
	ø 106mm	**BP23F892S**	103F89582-8041	**BP23F892D**	103F89582-8011
		BP23F893S	103F89583-8041	**BP23F893D**	103F89583-8011
Low-backlash gear	ø 86mm	**BP23F851S-CX3.6**	103F8581-80CXA4	**BP23F851D-CX3.6**	103F8581-80CXA1
		BP23F851S-CX7.2	103F8581-80CXB4	**BP23F851D-CX7.2**	103F8581-80CXB1
		BP23F851S-CX10	103F8581-80CXE4	**BP23F851D-CX10**	103F8581-80CXE1
		BP23F851S-CX20	103F8581-80CXG4	**BP23F851D-CX20**	103F8581-80CXG1
		BP23F851S-CX30	103F8581-80CXJ4	**BP23F851D-CX30**	103F8581-80CXJ1
		BP23F851S-CX36	103F8581-80CXK4	**BP23F851D-CX36**	103F8581-80CXK1
Harmonic gear	ø 86mm	**BP23F851S-HX50**	103F8581-80HXL4	**BP23F851D-HX50**	103F8581-80HXL1
		BP23F851S-HX100	103F8581-80HXM4	**BP23F851D-HX100**	103F8581-80HXM1
Electromagnetic brake	□ 60mm	**BP23F782S-XB**	103F7852-80XB41		
		BP23F783S-XB	103F7853-80XB41		
	ø 86mm	**BP23F851S-XB**	103F8581-80XB41		
		BP23F852S-XB	103F8582-80XB41		
		BP23F853S-XB	103F8583-80XB41		

Stepping motor data sheet

STEPSYN M Series (Conforming to the UL Standards and CE Marking)

Set model number	Single shaft	BP23M782S	BP23M783S	BP23M851S	BP23M852S	BP23M853S	BP23M892S	BP23M893S
	Double shaft	BP23M782D	BP23M783D	BP23M851D	BP23M852D	BP23M853D	BP23M892D	BP23M893D
Holding torque	N·m(oz·in)	0.93(131.7)	1.79(253.5)	2.06(291.7)	4.02(569.3)	6.17(873.7)	10.8(1529.4)	16(2265.7)
Rotor inertia	$\times10^{-4}$kg·m²(oz·in²)	0.4(2.19)	0.84(4.59)	1.45(7.93)	2.9(15.86)	4.4(24.06)	14.6(79.83)	22(120.28)
Mass(Weight)	kg(lbs)	0.78(1.72)	1.36(3.00)	1.5(3.31)	2.5(5.51)	3.5(7.72)	7.5(16.53)	10.5(23.15)

STEPSYN F Series (Standard)

Set model number	Single shaft	BP23F782S	BP23F783S	BP23F851S	BP23F852S	BP23F853S	BP23F892S	BP23F893S
	Double shaft	BP23F782D	BP23F783D	BP23F851D	BP23F852D	BP23F853D	BP23F892D	BP23F893D
Holding torque	N·m(oz·in)	0.93(13.17)	1.79(253.5)	2.06(291.7)	4.02(569.3)	6.17(873.7)	10.8(1529.4)	16(2265.7)
Rotor inertia	$\times10^{-4}$kg·m²(oz·in²)	0.4(2.19)	0.84(4.59)	1.45(7.93)	2.9(15.86)	4.4(24.06)	14.6(79.86)	22(120.28)
Mass(Weight)	kg(lbs)	0.78(1.72)	1.36(3.00)	1.5(3.31)	2.5(5.51)	3.5(7.72)	7.5(16.53)	10.5(23.15)

STEPSYN F Series (With low-backlash gear)

Set model number	Single shaft	BP23F851S-CX3.6	BP23F851S-CX7.2	BP23F851S-CX10	BP23F851S-CX20	BP23F851S-CX30	BP23F851S-CX36
	Double shaft	BP23F851D-CX3.6	BP23F851D-CX7.2	BP23F851D-CX10	BP23F851D-CX20	BP23F851D-CX30	BP23F851D-CX36
Allowable torque	N·m(oz·in)	4.5(637.2)	9(1274.5)	9(1274.5)	12(1699.3)	12(1699.3)	12(1699.3)
Rotor inertia	$\times10^{-4}$kg·m²(oz·in²)	1.45(7.93)					
Basic step angle	°	0.2	0.1	0.072	0.036	0.024	0.02
Deceleration ratio		1 : 3.6	1 : 7.2	1 : 10	1 : 20	1 : 30	1 : 36
Backlash	°	0.4	0.25	0.25	0.17	0.17	0.15
Allowable number of rotations	min^{-1}	500	250	180	90	60	50
Mass(Weight)	kg(lbs)	2.7(5.95)					
Allowable thrust load	N	60					
Allowable radial load (Note1)	N	300					

* The rotation direction of the motor and the gear output shaft is as follows: when deceleration ratio is 1:3.6 or 1:7.2, both motor and shaft rotate in the same direction, and for 1:10, 1:20, or 1:30 type, the motor and the shaft rotate in opposite direction.

(Note1) When load is applied at 1/3 length from output shaft edge.

STEPSYN F Series (With harmonic gear)

Set model number	Single shaft	BP23F851S-HX50	BP23F851S-HX100
	Double shaft	BP23F851D-HX50	BP23F851D-HX100
Allowable torque	N·m(oz·in)	25(3540.2)	41(5805.9)
Rotor inertia	$\times10^{-4}$kg·m²(oz·in²)	1.65(9.02)	
Basic step angle	°	0.0144	0.0072
Deceleration ratio		1 : 50	1 : 100
Lost motion	Minute	0.4~3 (± 0.28 N·m)(±39.65 oz·in)	0.4~3 (± 0.28 N·m)(±39.65 oz·in)
Allowable number of rotations	min^{-1}	500	250
Mass(Weight)	kg(lbs)	3.3(7.28)	
Allowable thrust load	N	1400	
Allowable radial load (Note1)	N	1400	

* The gear output shaft rotates in the opposite direction of the motor.

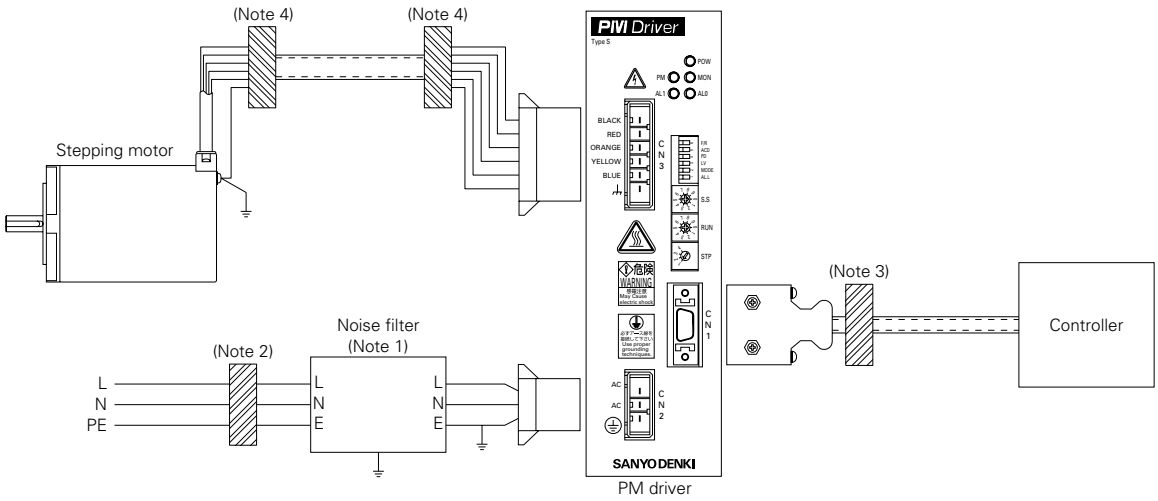
(Note1) When load is applied at 1/3 length from output shaft edge.

STEPSYN F Series (With electromagnetic brake)

Set model number		Single shaft	BP23F782S-XB	BP23F783S-XB	BP23F851S-XB	BP23F852S-XB	BP23F853S-XB
		Double shaft	———	———	———	———	———
Holding torque		N·m(oz·in)	0.93(131.7)	1.79(253.5)	2.06(291.7)	4.02(569.3)	6.17(873.7)
Rotor inertia		$\times10^{-4}$kg·m²(oz·in²)	0.56(3.06)	1(5.47)	2.24(12.25)	3.69(20.17)	5.19(28.38)
Mass(Weight)		kg(lbs)	1.12(2.47)	1.7(3.75)	3.5(7.72)	4.5(9.92)	5.5(12.13)
Electromagnetic brake specification	Brake operation system		Non-excitation operation system		Non-excitation operation system		
	Source voltage	V	DC 24 ± 5%		DC 24 ± 5%		
	Exciting current	A	0.25		0.42		
	Electric power consumption	W	6		10		
	Static friction torque	N·m(oz·in)	0.8(113.3)		7(991.2)		
	Brake operating time	ms	30		50		
	Brake release time	ms	20		20		
	Polarity		Red:⊕,Black:⊖		Red:⊕,Black:⊖		

UL Standards and CE Marking

●How to install the products to conform to the EMC Directive



Recommended Component for EMC Conformity

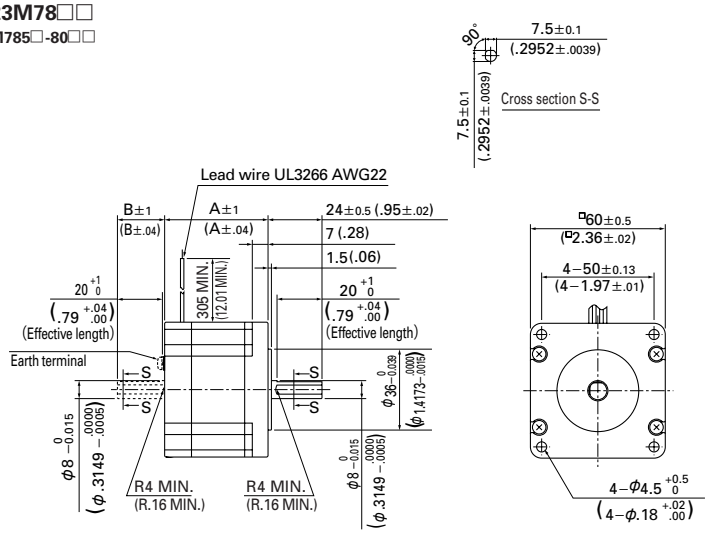
No.	Part Name	Model	Specifications and size	Manufacturer
Note 1	Noise Filter	RF1015-DLC	Rated voltage : AC 250V Rated current : 15A	RASMI ELECTRONICS LTD. ,
Note 2	Toroidal core	T60 × 20 × 36	Core outer diameter : 60mm Core inner diameter : 36mm	TDK
Note 3	Toroidal core	TRCN-40-27-15	Core outer diameter : 40mm Core inner diameter : 27mm	Kitagawa Industry
Note 4	Toroidal core	TRCN-40-27-15	Core outer diameter : 40mm Core inner diameter : 27mm	Kitagawa Industry

Dimensions [Unit: mm (inch)]

STEPSYN M

BP23M78□□

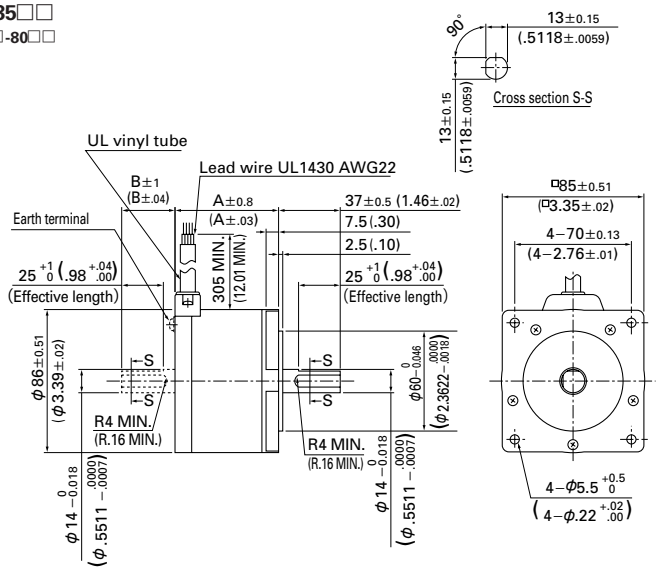
103M785□-80□□



Model name	A	B
BP23M782S (103M7852-8041)	55 (2.17)	—
BP23M782D (103M7852-8011)	55 (2.17)	21 (.83)
BP23M783S (103M7853-8041)	87.5 (3.44)	—
BP23M783D (103M7853-8011)	87.5 (3.44)	21 (.83)

BP23M85□□

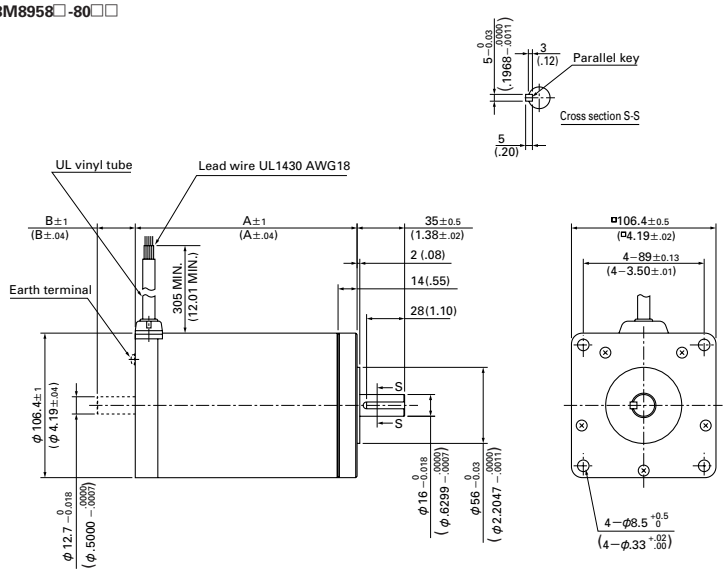
103M858□-80□□



Model name	A	B
BP23M851S (103M8581-8041)	62.15 (2.45)	—
BP23M851D (103M8581-8011)	62.15 (2.45)	32 (1.26)
BP23M852S (103M8582-8041)	92.2 (3.63)	—
BP23M852D (103M8582-8011)	92.2 (3.63)	32 (1.26)
BP23M853S (103M8583-8041)	125.85 (4.95)	—
BP23M853D (103M8583-8011)	125.85 (4.95)	32 (1.26)

BP23M89□□

103M8958□-80□□



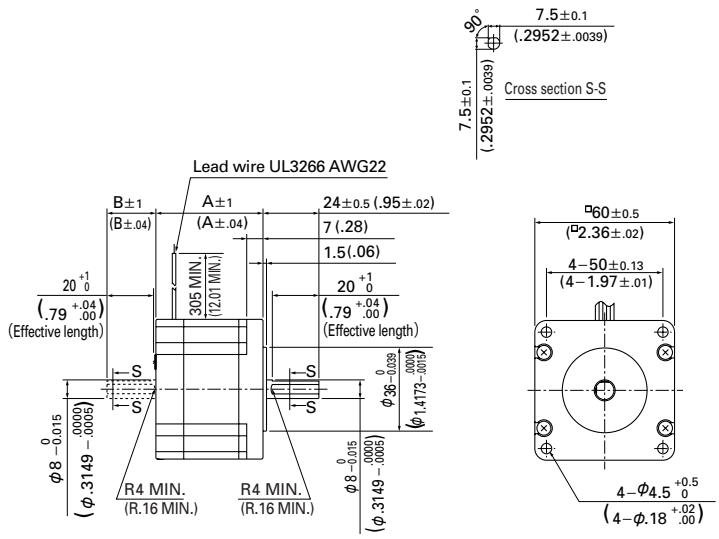
Model name	A	B
BP23M892S (103M89582-8041)	163.3 (6.43)	—
BP23M892D (103M89582-8011)	163.3 (6.43)	28 (1.10)
BP23M893S (103M89583-8041)	221.3 (8.71)	—
BP23M893D (103M89583-8011)	221.3 (8.71)	28 (1.10)

Dimensions [Unit: mm (inch)]

STEPSYN F

BP23F78□□

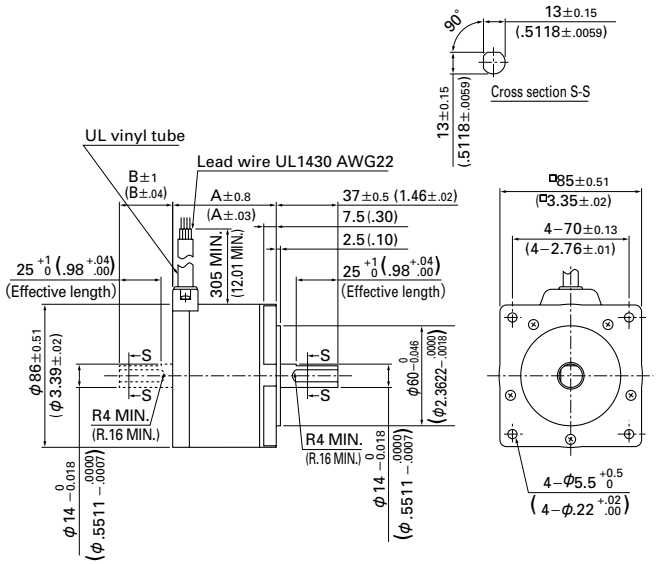
103F785□-80□□



Model name	A	B
BP23F782S (103F7852-8041)	55 (2.17)	—
BP23F782D (103F7852-8011)	55 (2.17)	21 (.83)
BP23F783S (103F7853-8041)	87.5 (3.44)	—
BP23F783D (103F7853-8011)	87.5 (3.44)	21 (.83)

BP23F85□□

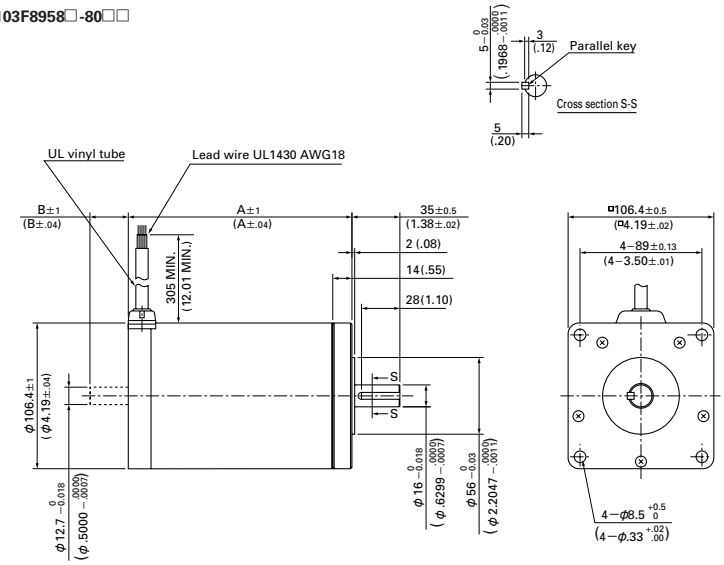
103F858□-80□□



Model name	A	B
BP23F851S (103F8581-8041)	62.15 (2.45)	—
BP23F851D (103F8581-8011)	62.15 (2.45)	32 (1.26)
BP23F852S (103F8582-8041)	92.2 (3.63)	—
BP23F852D (103F8582-8011)	92.2 (3.63)	32 (1.26)
BP23F853S (103F8583-8041)	125.85 (4.95)	—
BP23F853D (103F8583-8011)	125.85 (4.95)	32 (1.26)

BP23F89□□

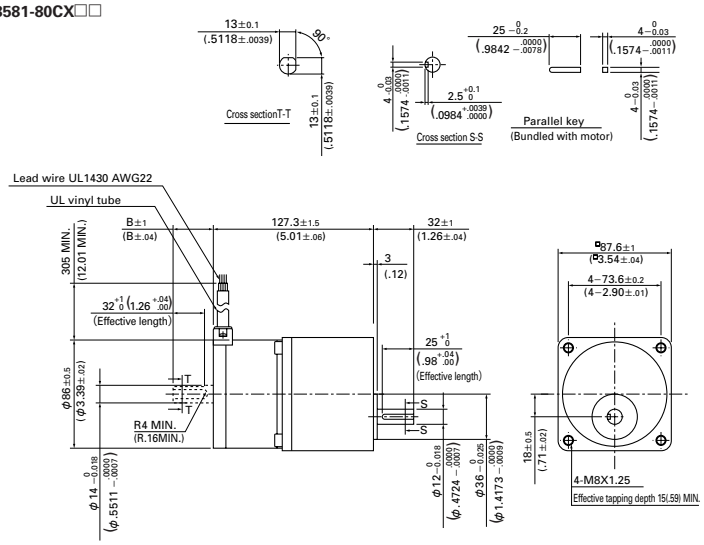
103F8958□-80□□



Model name	A	B
BP23F892S (103F89582-8041)	163.3 (6.43)	—
BP23F892D (103F89582-8011)	163.3 (6.43)	28 (1.10)
BP23F893S (103F89583-8041)	221.3 (8.71)	—
BP23F893D (103F89583-8011)	221.3 (8.71)	28 (1.10)

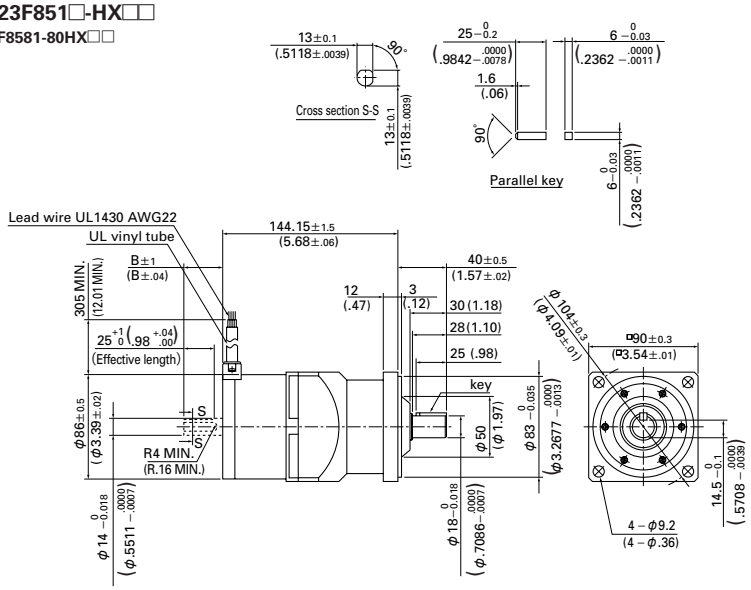
Dimensions [Unit: mm (inch)]

STEPSYN F with low-backlash gear
BP23F851□CX□□
103F8581-80CX□□



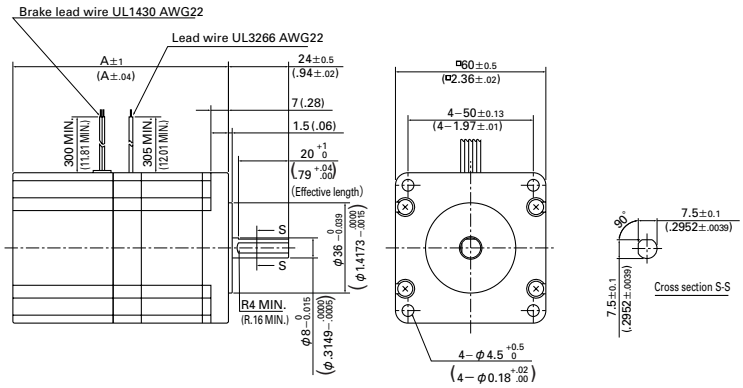
Model name	B
BP23F851S-CX3.6 (103F8581-80CXA4)	—
BP23F851D-CX3.6 (103F8581-80CXA1)	32 (1.26)
BP23F851S-CX7.2 (103F8581-80CXB4)	—
BP23F851D-CX7.2 (103F8581-80CXB1)	32 (1.26)
BP23F851S-CX10 (103F8581-80CXE4)	—
BP23F851D-CX10 (103F8581-80CXE1)	32 (1.26)
BP23F851S-CX20 (103F8581-80CXG4)	—
BP23F851D-CX20 (103F8581-80CXG1)	32 (1.26)
BP23F851S-CX30 (103F8581-80CXJ4)	—
BP23F851D-CX30 (103F8581-80CXJ1)	32 (1.26)
BP23F851S-CX36 (103F8581-80CXK4)	—
BP23F851D-CX36 (103F8581-80CXK1)	32 (1.26)

STEPSYN F with harmonic gear
BP23F851□-HX□□
103F8581-80HX□□



Model name	B
BP23F851S-HX50 (103F8581-80HXL4)	—
BP23F851D-HX50 (103F8581-80HXL1)	32 (1.26)
BP23F851S-HX100 (103F8581-80HXM4)	—
BP23F851D-HX100 (103F8581-80HXM1)	32 (1.26)

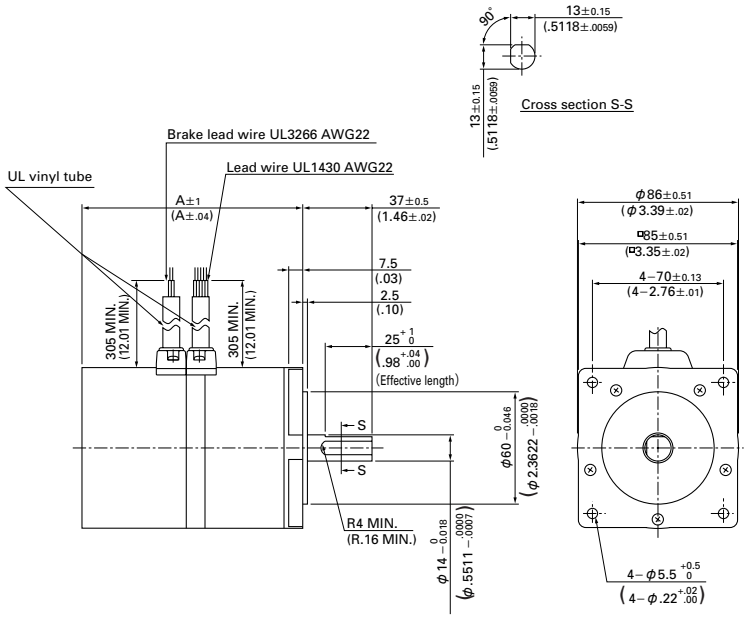
STEPSYN F with electromagnetic brake
BP23F78□S-XB
103F785□-80XB41



Model name	A
BP23F782S-XB (103F7852-80XB41)	94.5 (3.72)
BP23F783S-XB (103F7853-80XB41)	126.7 (4.99)

Dimensions [Unit: mm (inch)]

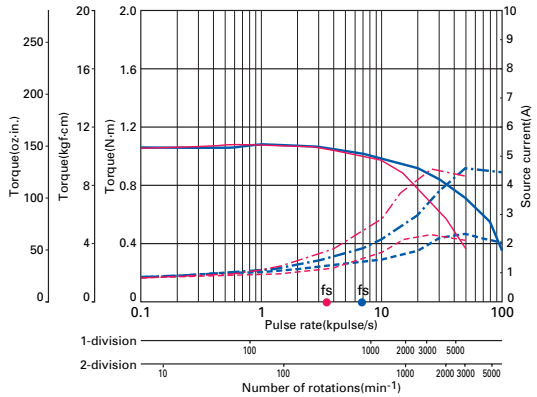
STEPSYN F with electromagnetic brake
BP23F85□S-XB
103F858□-80XB41



Model name	A
BP23F851S-XB (103F8581-80XB41)	116.7 (4.59)
BP23F852S-XB (103F8582-80XB41)	146.8 (5.78)
BP23F853S-XB (103F8583-80XB41)	180.4 (7.10)

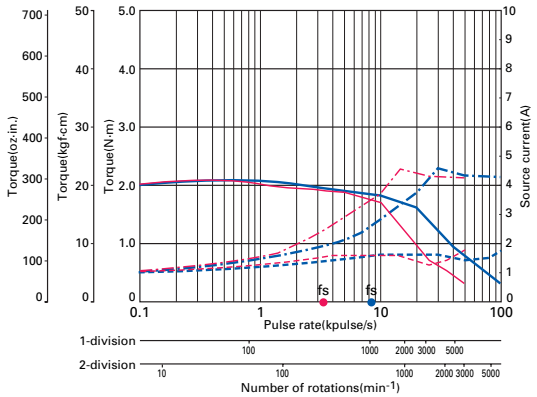
Pulse rate-torque characteristics/pulse rate-source current characteristics

● BP23M782□ / BP23F782□ / BP23F782S-XB : 100V



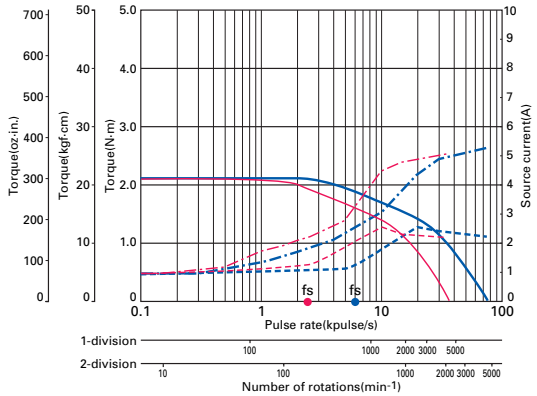
103M7852-80□□ / 103F7852-80□□ / 103F7852-80XB41
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=2.6×10^{-4}kg·m^2 [14.22 oz·in^2] Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

● BP23M783□ / BP23F783 / BP23F783S-XB : 100V



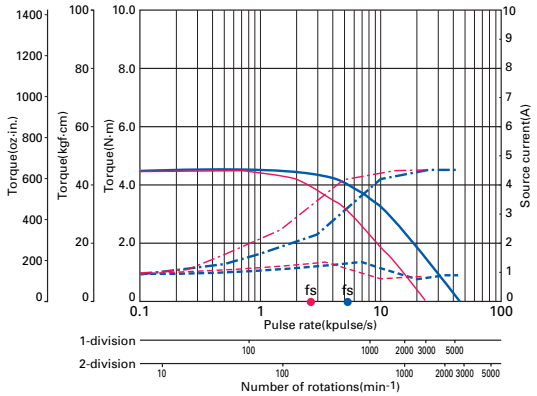
103M7853-80□□ / 103F7853-80□□ / 103F7853-80XB41
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=7.4×10^{-4}kg·m^2 [40.46 oz·in^2] Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

● BP23M851□ / BP23F851□ / BP23F851S-XB : 100V



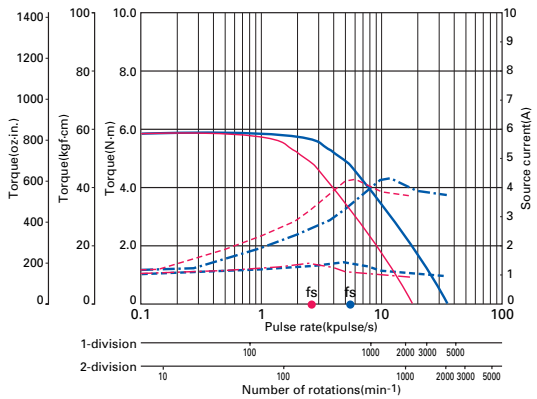
103M8581-80□□ / 103F8581-80□□ / 103F8581-80XB41□□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=7.4×10^{-4}kg·m^2 [40.46 oz·in^2] Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

● BP23M852□ / BP23F852□ / BP23F852S-XB : 100V



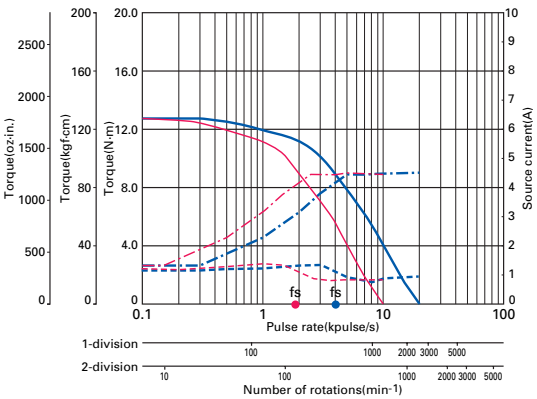
103M8582-80□□ / 103F8582-80□□ / 103F8582-80XB41
Source voltage : AC100V·Operating current : 15.3A/phase
—— Pull-out torque(J_{L1}=15.3×10^{-4}kg·m^2 [83.65 oz·in^2] Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

● BP23M853□ / BP23F853□ / BP23F853S-XB : 100V



103M8583-80□□ / 103F8583-80□□ / 103F8583-80□□XB41
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2]Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

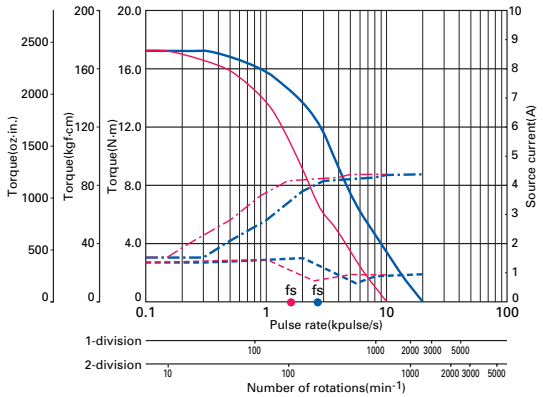
● BP23M892□ / BP23F892□ : 100V



103M89582-80□□ / 103F89582-80□□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
–·– Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

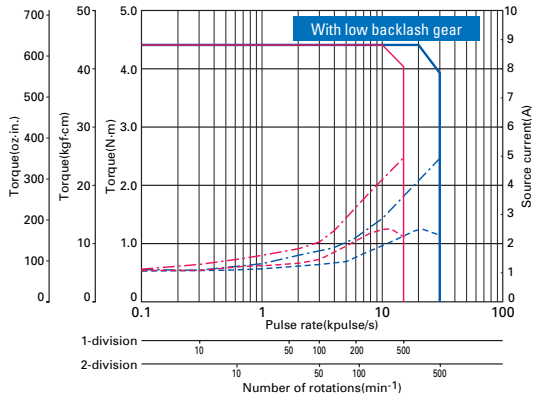
Pulse rate-torque characteristics/pulse rate-source current characteristics

● BP23M893□ / BP23F893□ : 100V



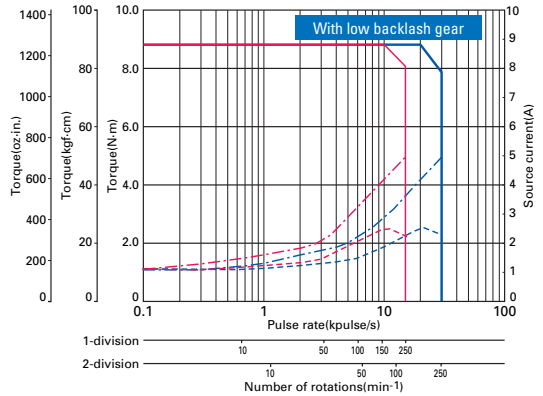
103M89583-80□□ / 103F89583-80□□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Pull-out torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
fs : No load maximum starting pluse rate
■ 1-division is specified ■ 2-division is specified

● BP23F851□-CX3.6 : 100V



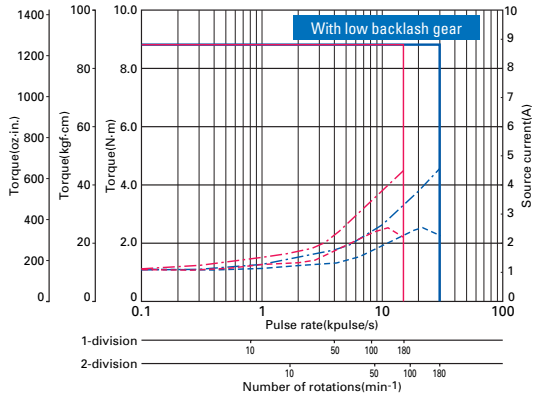
103F8581-80CXA□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=15.3×10^{-4}kg·m^2 [83.65 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

● BP23M851□-CX7.2 : 100V



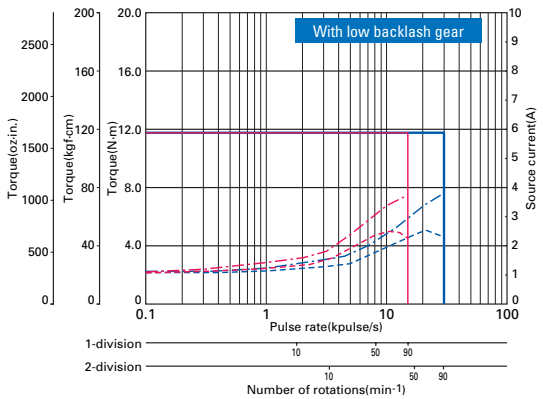
103F8581-80CXB□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

● BP23F851□-CX10 : 100V



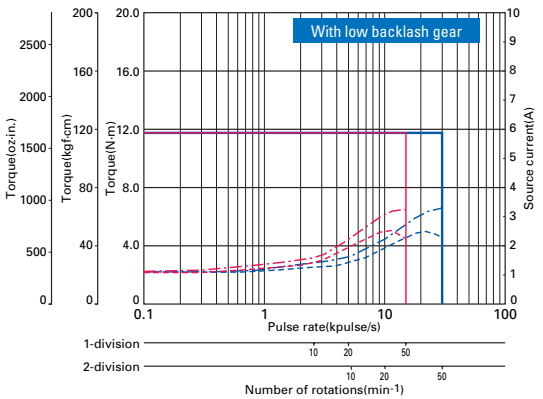
103F8581-80CXE□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

● BP23F851□-CX20 : 100V



103F8581-80CXG□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

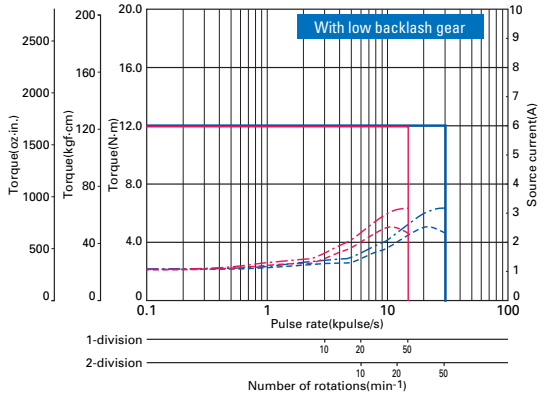
● BP23F851□-CX30 : 100V



103F8581-80CXJ□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

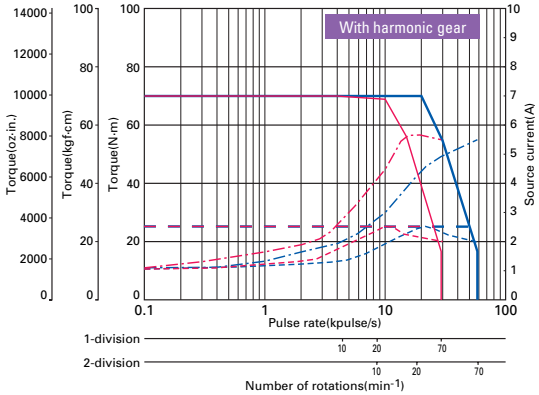
Pulse rate-torque characteristics/pulse rate-source current characteristics

● BP23F851□-CX36 : 100V



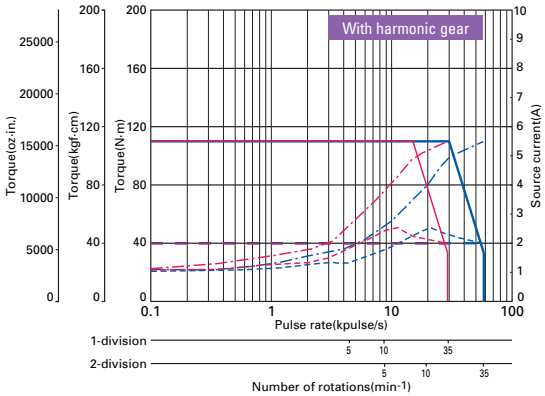
103F8581-80CXK□
Source voltage : AC100V·Operating current : 1.5A/phase
—— Allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)
■ 1-division is specified ■ 2-division is specified

● BP23F851□-HX50 : 100V



103F8581-80HXL□ ■ 1-division is specified ■ 2-division is specified
Source voltage : AC100V·Operating current : 1.5A/phase
—— Instantaneous allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
— — Allowable torque (J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)

● BP23F851□-HX100 : 100V



103F8581-80HXM□ ■ 1-division is specified ■ 2-division is specified
Source voltage : AC100V·Operating current : 1.5A/phase
—— Instantaneous allowable torque(J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
— — Allowable torque (J_{L1}=43×10^{-4}kg·m^2 [235.10 oz·in^2] Use the rubber coupling)
– · – Source current(T_L=MAX) – – – Source current(T_L=0)