

NPM Nippon Pluse Moter

PF42T-96C4

外径Φ42 ミリ、厚さ L 15 ミリの薄型 2 相ステッピングモータです。
 マグネットにハイトルクが得られるネオジムを採用しています。

小型・薄型・高トルク

ユニポーラ ステッピングモータ

ステップ角 : 3.75°/step (±5%)

1 回転ステップ数 : 96

駆動電圧 : 12V(typ)

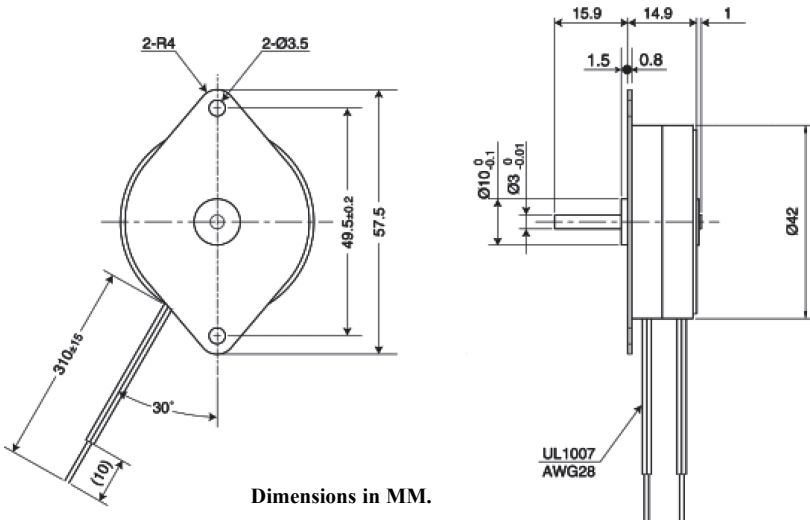
コイル抵抗 : 60Ω (インダクタンス : 25mH)

駆動パルスレート : 590pps(max)

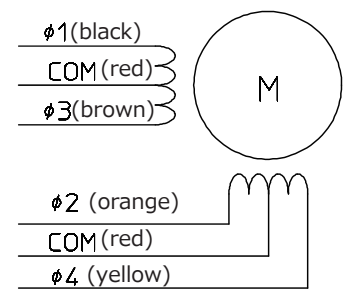
静止保持トルク : 46mN・m

シャフト径 : Φ3.0 ミリ 重量 : 約 110 グラム

Outline Dimension Drawing



参考資料



PF Series Motor Designation

PF x 42 T - 96 C 4

Connector Version

- ★ Blank - Standard
- C - Connector Version (automatic wound motor)

Motor Size (dia. in mm)

- 25
- 35
- ★ 42
- 55

Motor Length or High Torque Version

- Blank - Standard stack & standard torque version
- ★ T - Thin stack & standard torque version (avail. in 35 & 42 sizes)
- H - High torque version (avail. in 42 & 55 sizes)

Magnet Material Type Code

- 1 - Ferrite Anisotropic
- 3 - Ferrite Isotropic
- ★ 4 - Neodymium

Coil Winding code

- (letter: one space, number: two spaces)
- B - 24 volt unipolar
 - ★ C - 12 volt unipolar
 - D - 5 volt unipolar
 - P - 12 volt bipolar
 - Q - 5 volt bipolar
 - Other windings available

Steps/Rev

- 24 (15°/step)
- 48 (7.5°/step)
- ★ 96 (3.75°/step)

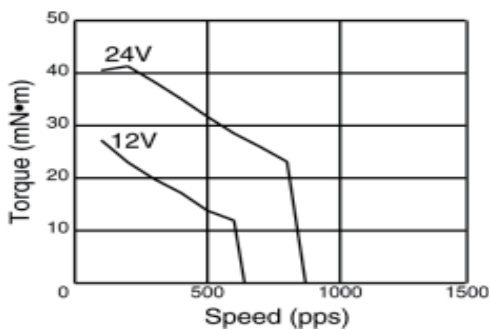
Parameters	Unit	PF42T-48				PF42T-96			
		Unipolar		Bipolar		Unipolar		Bipolar	
Drive mode		Unipolar		Bipolar		Unipolar		Bipolar	
Excitation Mode		Full-step (2-2 ex)				Full-step (2-2 ex)			
Step Angle	°	7.5				3.75			
Step Angle Tolerance	%	± 5				± 5			
Steps per Revolution		48				96			
Voltage	V	12	5	12	5	12	5	12	5
Winding Resistance	Ω/Ø	60	9.5	64	12	60	95	64	12
Winding Inductance	mH/Ø	35	5.6	50	16	25	4	51	17
Holding Torque (1)	mN•m	34	34	42	42	36	36	49	49
Rotor Inertia	kg•m ²	14.3 x10 ⁻⁷				14.3 x10 ⁻⁷			
Starting Pulse Rate, Max	pps	380				540			
Slewing Pulse Rate, Max	pps	520				590			
Ambient Temp. Range, Operating	°C	-10 ~ + 50				-10 ~ + 50			
Temperature rise	K	70				70			
Mass	g	110				110			

Note: Above data is based on Rated Voltage Drive. The magnet type is Ferrite Anisotropic.

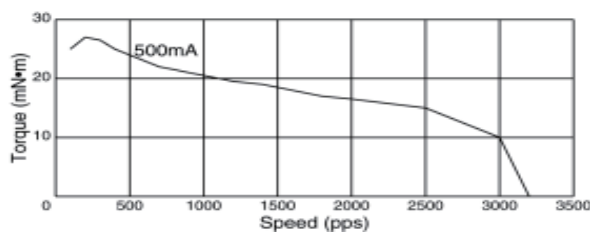
(1): The magnet type is Ferrite Anisotropic.

参考諸特性例 (PF42T シリーズ)

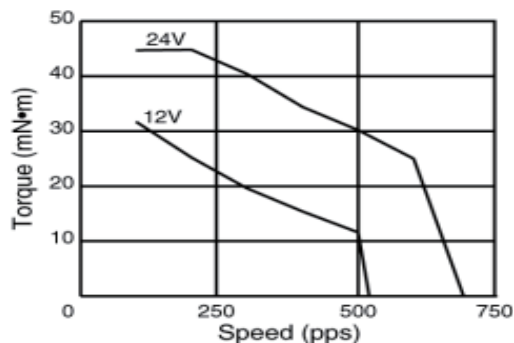
PF42T-96C1 Unipolar Rated / Double Voltage Drive



PF42T-96D1 Unipolar Chopper Drive at 24V



PF42T-96P1 Bipolar Rated / Double Voltage Drive



PF42T-96Q1 Bipolar Chopper Drive at 24V

