

PFCL25-48C4C(048)

φ25 type with built-in anti-rotation mechanism

PFCL25 Series Captive (Built-in Anti-Rotation) Type

By incorporating a rotation-preventing function by adding vertical grooves to a portion of the shaft and its holding section, an external anti-rotation mechanism is no longer necessary. Recommended for those who

want to use linear steps but find linear guides or other anti-rotation devices a bit troublesome, or who do not have space to install an anti-rotation device.

[Features]

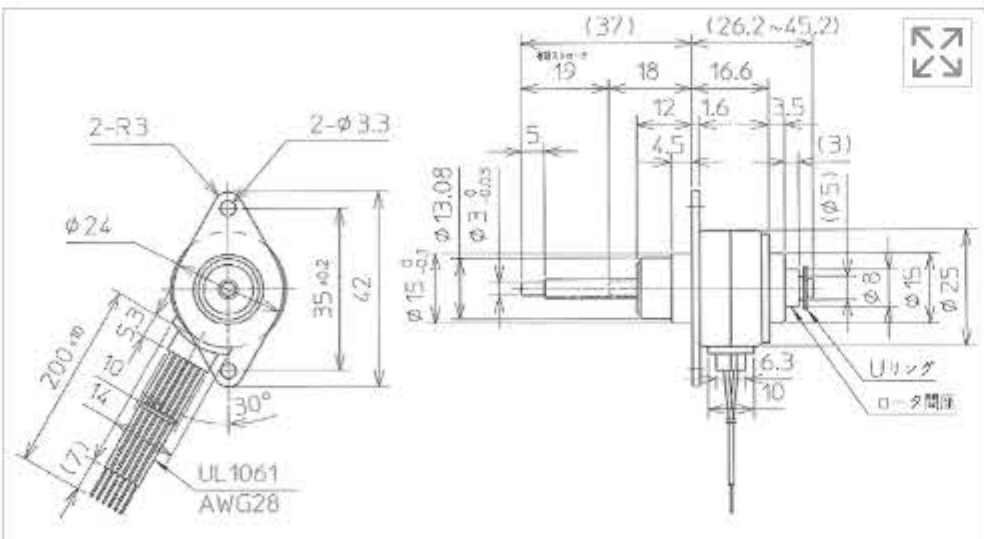
- Rated voltage (coil terminal) 12.5V
- Wound type unipolar
- The shaft itself moves in a linear motion, so it can be directly attached to the object being worked on.
- Built-in anti-rotation mechanism eliminates the need for linear guides or other anti-rotation devices.
- High resolution.



specification

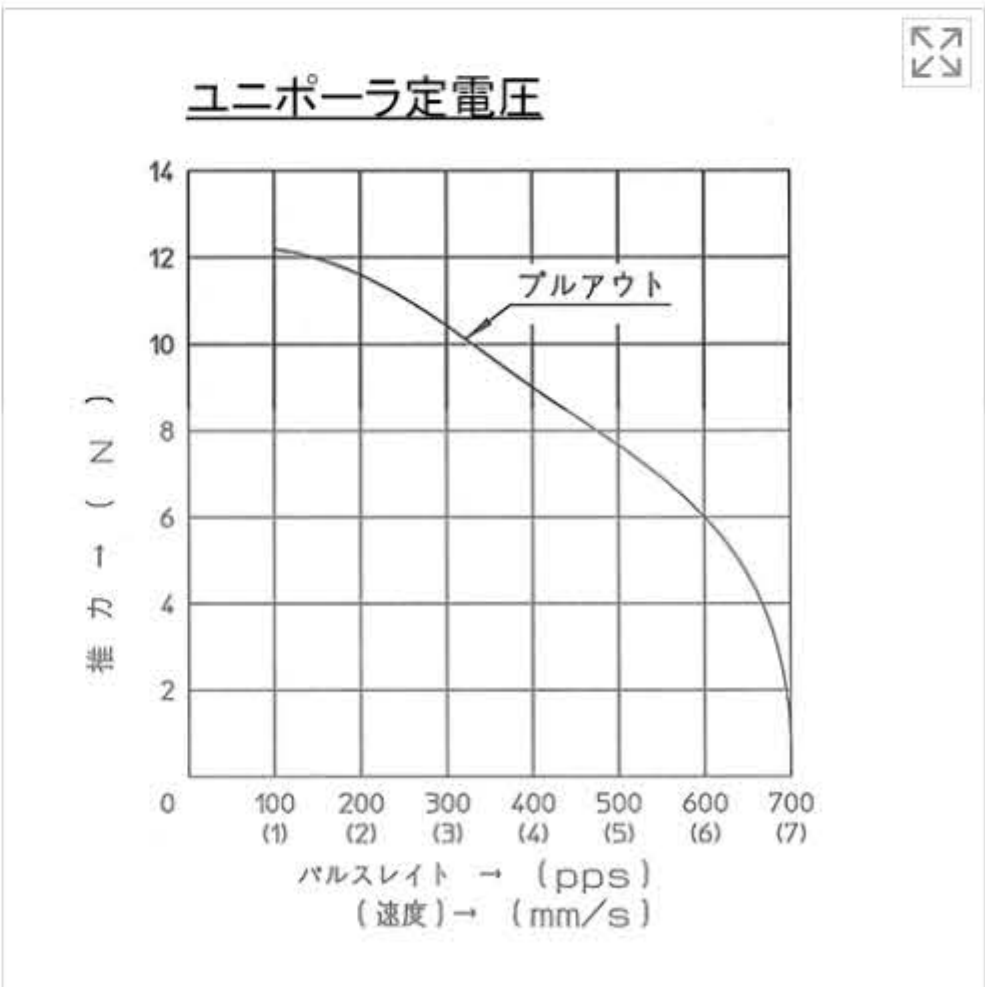
Number of phases		2
Step angle	°	7.5
Number of steps		48
Screw lead	mm	0.48
Resolution (feed rate)	mm	0.010
Effective stroke	mm	19
Excitation method		2-2
Winding specifications		Unipolar
Rated voltage (coil terminals)	V	12.5
Wirewinding resistance	Ω/φ	120
Winding inductance	mH/φ	33
Temperature rise	K	70
Operating temperature range	°C	-10 to +50
Storage temperature range	°C	-30 to +80
Allowable motor temperature	°C	+80 or less (case portion)
Motor outer diameter	mm	twenty five
Motor length	mm	16.6
Shaft length	mm	63.2
mass	g	60
Maximum thrust load	N	50.0
Insulation Classification	seed	Class E (Coil allowable temperature)
Insulation resistance	MΩ	100
Dielectric strength	VAC	500V, 1 min.
RoHS		correspondence

Outline drawing



*Click to enlarge.

Thrust characteristics (pull-out thrust)



*Torque characteristics are for reference only and are not guaranteed values.

*Click to enlarge.

PFCL25 Captive Series

Model number	Resolution (mm)	Rated voltage (coil terminals) (V)	Winding specifications	Stroke length (mm)
▶ PFCL25-48C4C(048)	0.010	12.5	Unipolar	19
▶ PFCL25-48D4C(048)	0.010	4.6	Unipolar	19
▶ PFCL25-48P4C(048)	0.010	12.6	bipolar	19
▶ PFCL25-48Q4C(048)	0.010	4.4	bipolar	19

PFCL25-48D4C(048)

φ25 type with built-in anti-rotation mechanism

PFCL25 Series Captive (Built-in Anti-Rotation) Type

By incorporating a rotation-preventing function by adding vertical grooves to a portion of the shaft and its holding section, an external anti-rotation mechanism is no longer necessary. Recommended for those who

want to use linear steps but find linear guides or other anti-rotation devices a bit cumbersome, or who lack the space to install them.

[Features]

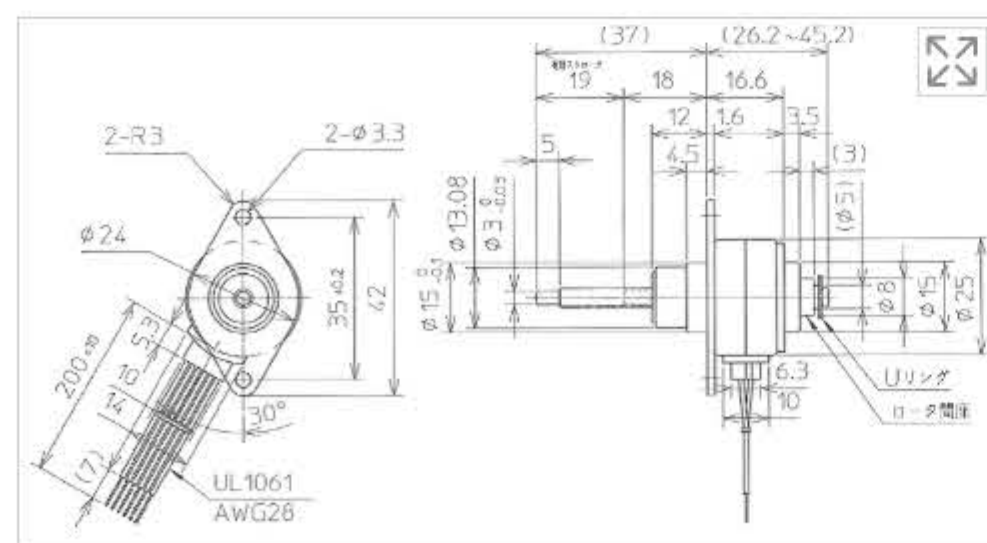
- Rated voltage (coil terminal) 4.6V
- Wound type unipolar
- The shaft itself moves in a linear fashion, so it can be directly attached to the object being worked on.
- Built-in anti-rotation mechanism eliminates the need for linear guides or other anti-rotation devices.
- High resolution.



specification

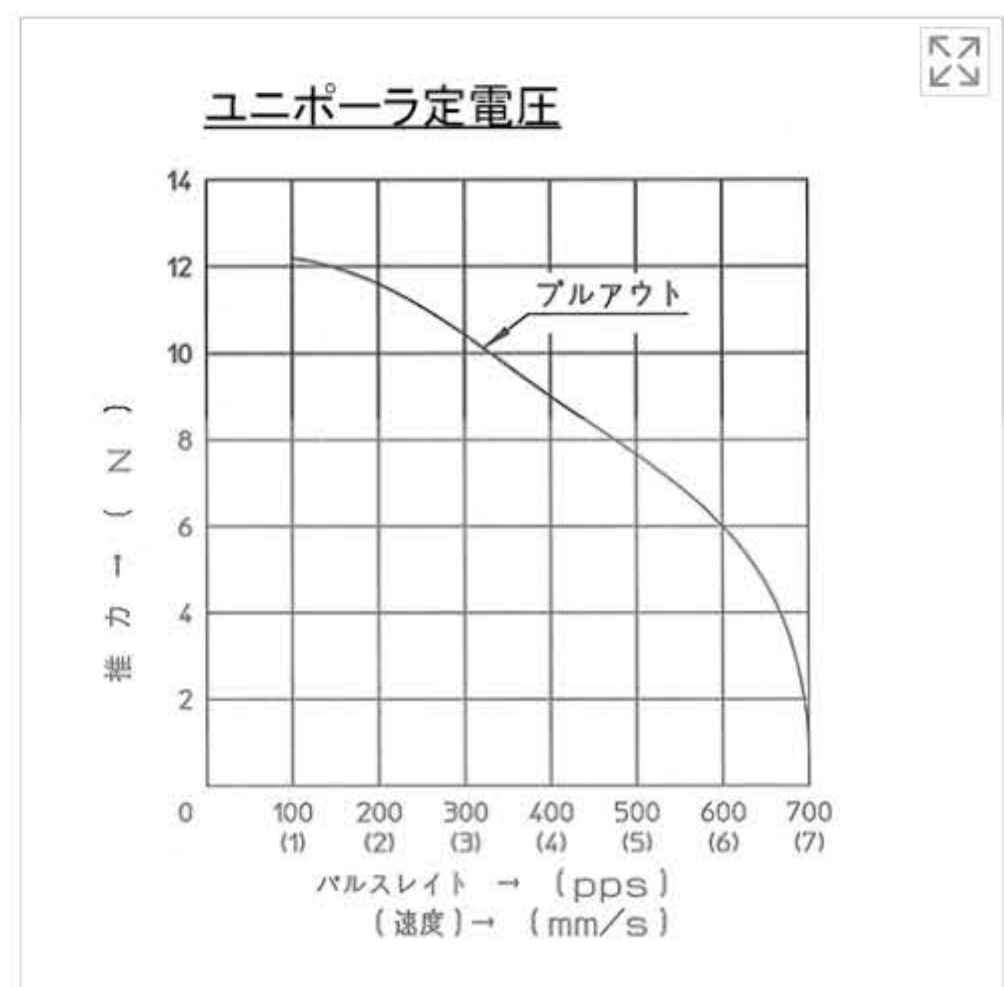
Number of phases		2
Step angle	°	7.5
Number of steps		48
Screw lead	mm	0.48
Resolution (feed rate)	mm	0.010
Effective stroke	mm	19
Excitation method		2-2
Winding specifications		Unipolar
Rated voltage (coil terminals)	V	4.6
Wirewinding resistance	Ω/φ	16
Winding inductance	mH/φ	4.5
Temperature rise	K	70
Operating temperature range	°C	-10 to +50
Storage temperature range	°C	-30 to +80
Allowable motor temperature	°C	+80 or less (case portion)
Motor outer diameter	mm	twenty five
Motor length	mm	16.6
Shaft length	mm	63.2
mass	g	60
Maximum thrust load	N	50.0
Insulation Classification	seed	Class E (Coil allowable temperature)
Insulation resistance	MΩ	100
Dielectric strength	VAC	500V, 1 min.
RoHS		correspondence

Outline drawing



*Click to enlarge.

Thrust characteristics (pull-out thrust)



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*Click to enlarge.

PFCL25-48P4C(048)

φ25 type with built-in anti-rotation mechanism

PFCL25 Series Captive (Built-in Anti-Rotation) Type

By incorporating a vertical groove into a portion of the shaft and its holding section, an anti-rotation function is built in to suppress rotation, eliminating the need for an external anti-rotation mechanism.

Recommended for those who want to use linear steps but find anti-rotation mechanisms such as linear guides a bit troublesome, or who do not have space to install them.

[Features]

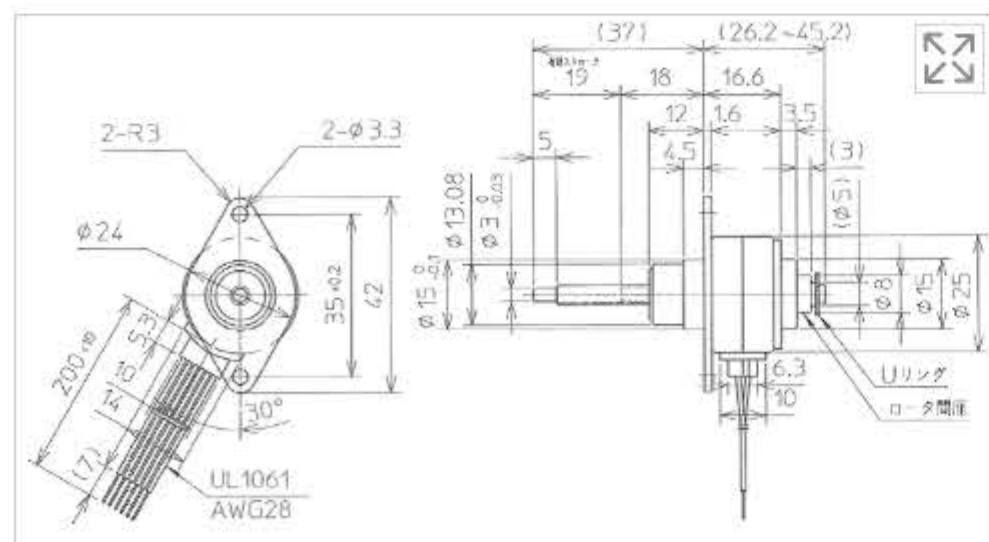
- Rated voltage (coil terminal) 12.6V
- Wound type bipolar
- The shaft itself moves in a linear motion, so it can be directly attached to the object being worked on.
- Built-in anti-rotation mechanism eliminates the need for anti-rotation mechanisms such as linear guides.
- High resolution.



specification

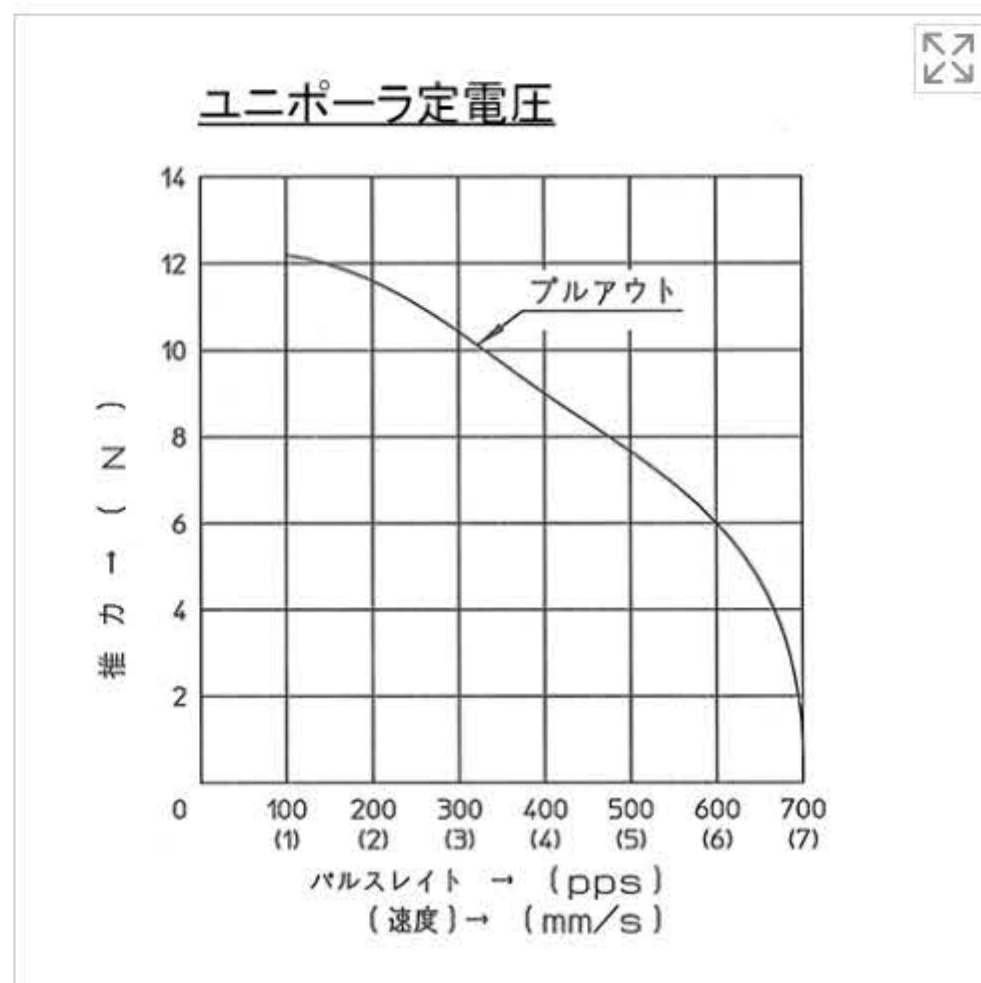
Number of phases		2
Step angle	°	7.5
Number of steps		48
Screw lead	mm	0.48
Resolution (feed rate)	mm	0.010
Effective stroke	mm	19
Excitation method		2-2
Winding specifications		bipolar
Rated voltage (coil terminals)	V	12.6
Wirewinding resistance	Ω/φ	122
Winding inductance	mH/φ	71
Temperature rise	K	70
Operating temperature range	°C	-10 to +50
Storage temperature range	°C	-30 to +80
Allowable motor temperature	°C	+80 or less (case portion)
Motor outer diameter	mm	twenty five
Motor length	mm	16.6
Shaft length	mm	63.2
mass	g	60
Maximum thrust load	N	50.0
Insulation Classification	seed	Class E (Coil allowable temperature)
Insulation resistance	MΩ	100
Dielectric strength	VAC	500V, 1 min.
RoHS		correspondence

Outline drawing



*Click to enlarge.

Thrust characteristics (pull-out thrust)



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*Click to enlarge.

PFCL25-48Q4C(048)

φ25 type with built-in anti-rotation mechanism

PFCL25 Series Captive (Built-in Anti-Rotation) Type

By incorporating a rotation-preventing function by adding longitudinal grooves to a portion of the shaft and its holding section, an external anti-rotation mechanism is no longer necessary. Recommended for those who

want to use linear steps but find linear guides or other anti-rotation devices a bit cumbersome, or who lack the space to install them.

[Features]

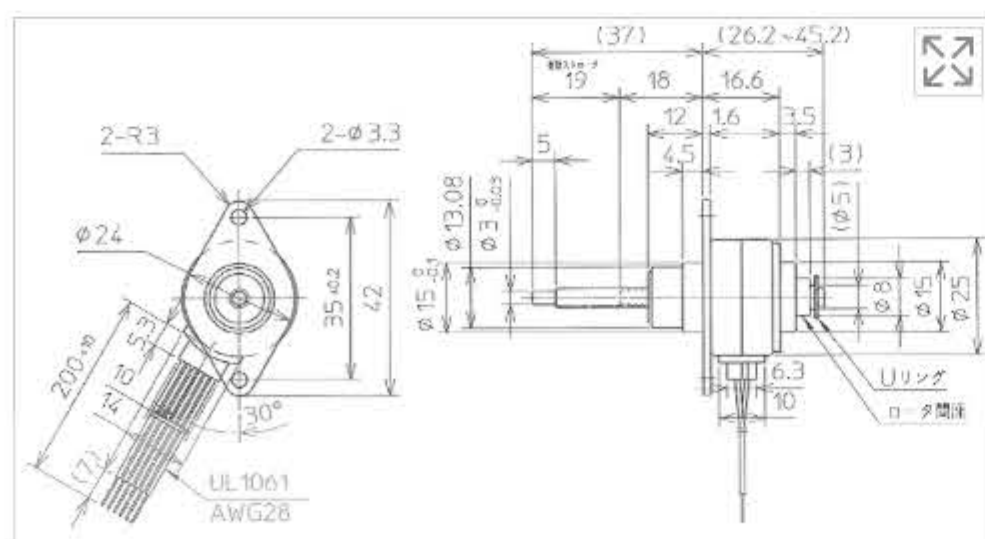
- Rated voltage (coil terminal) 4.4V
- Wound type bipolar
- The shaft itself moves in a linear motion, so it can be directly attached to the object being worked on.
- Built-in anti-rotation mechanism eliminates the need for linear guides or other anti-rotation devices.
- High resolution.



specification

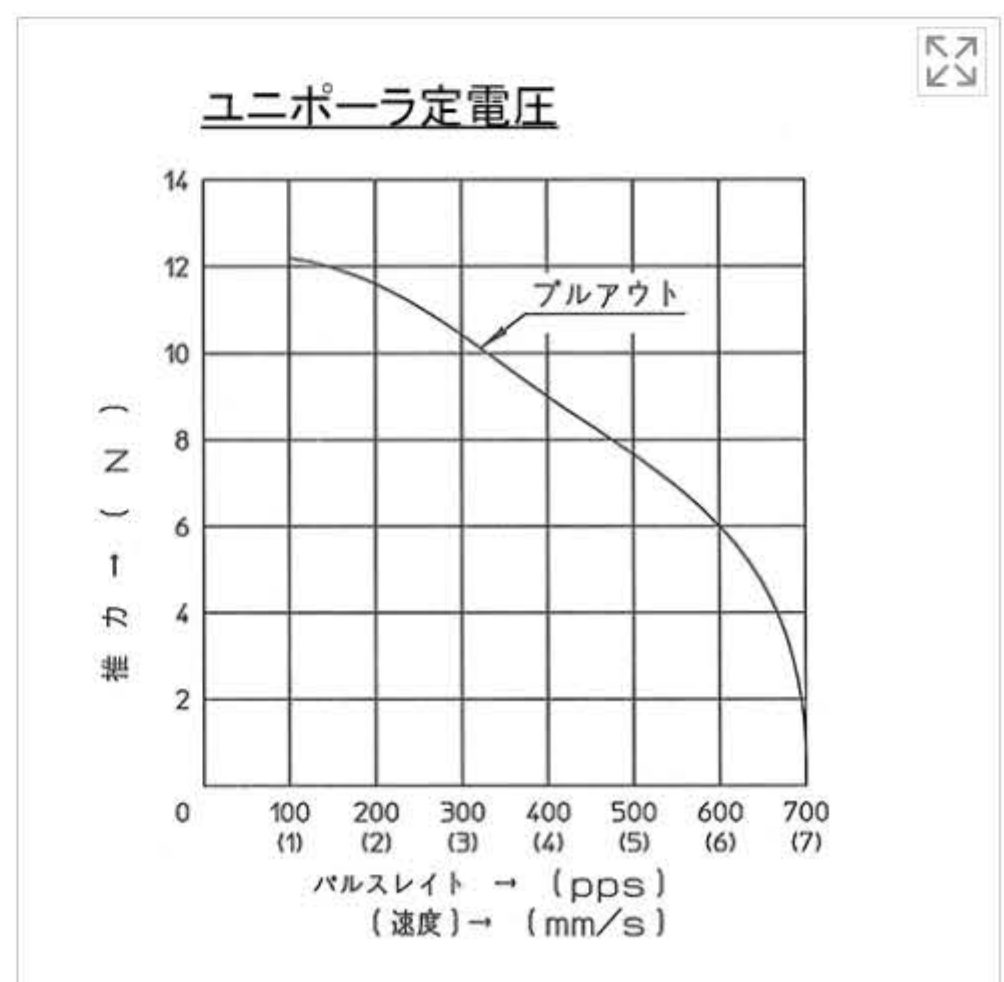
Number of phases		2
Step angle	°	7.5
Number of steps		48
Screw lead	mm	0.48
Resolution (feed rate)	mm	0.010
Effective stroke	mm	19
Excitation method		2-2
Winding specifications		bipolar
Rated voltage (coil terminals)	V	4.4
Wirewinding resistance	Ω/φ	15
Winding inductance	mH/φ	8.5
Temperature rise	K	70
Operating temperature range	°C	-10 to +50
Storage temperature range	°C	-30 to +80
Allowable motor temperature	°C	+80 or less (case portion)
Motor outer diameter	mm	twenty five
Motor length	mm	16.6
Shaft length	mm	63.2
mass	g	60
Maximum thrust load	N	50.0
Insulation Classification	seed	Class E (Coil allowable temperature)
Insulation resistance	MΩ	100
Dielectric strength	VAC	500V, 1 min.
RoHS		correspondence

Outline drawing



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Thrust characteristics (pull-out thrust)



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