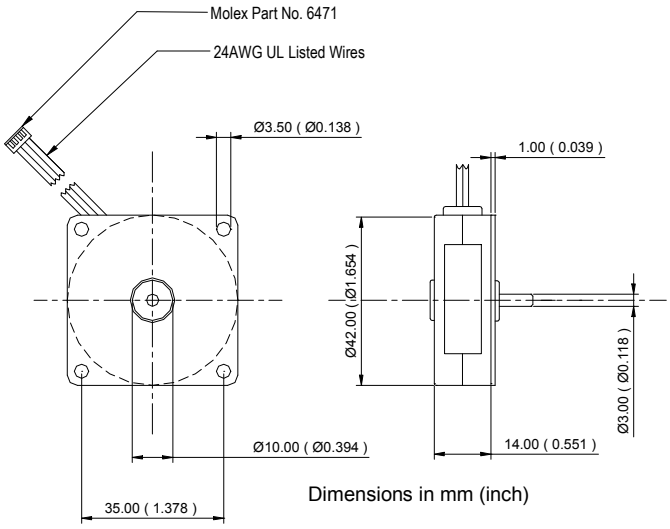
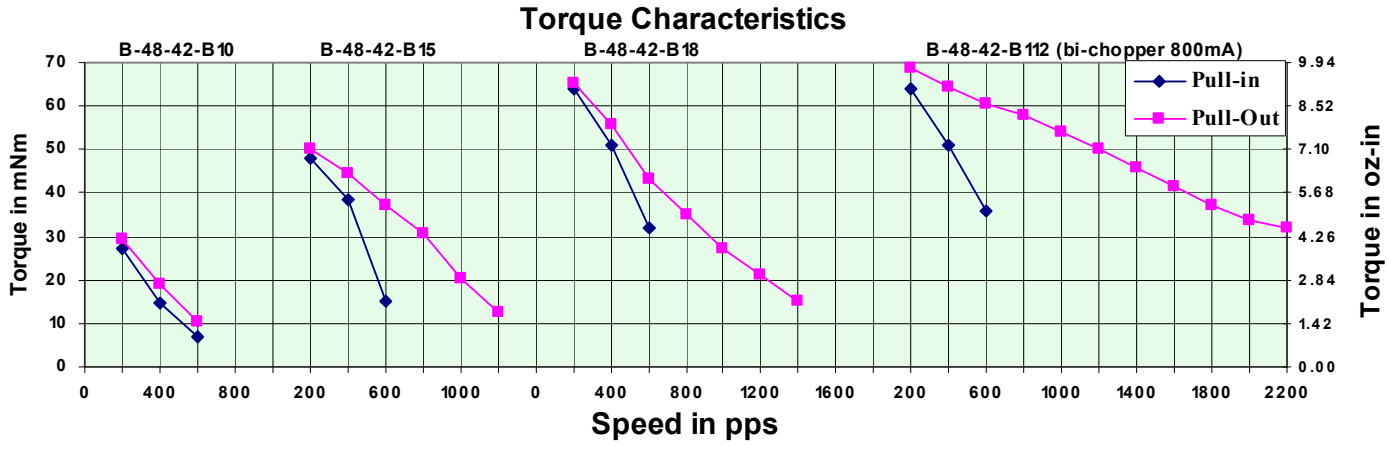
B – 48 – 42 – B..



Dimensions in mm (inch)

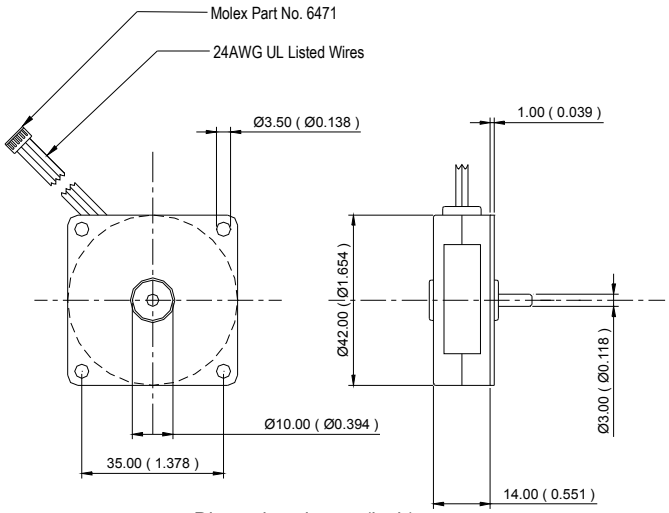
SPECIFICATIONS		B-48-42-B10	B-48-42-B15	B-48-42-B18	B-48-42-B112
	Units	Bipolar Medium Torque	Bipolar High Torque	Bipolar, High Torque High Speed	Bipolar, High Torque High Speed
Operating Voltage	V	6	12	24	25
Resistance per phase	Ω	5.5	12	30	8.5
Inductance per phase	mH	3	6	12	6.5
Holding Torque	mNm(oz-in)	64.5 (9.15)	123 (17.5)	102 (14.5)	113 (16.6)
Detent Torque	mNm(oz-in)	12.25 (1.74)	12.25 (1.74)	12.25 (1.74)	12.25 (1.74)
Rotor Inertia	g-m2	12.8 x 10-4	12.8 x 10-4	12.8 x 10-4	12.8 x 10-4
Weight	gms (oz)	95 (3.35)	95 (3.35)	95 (3.35)	95 (3.35)
Step Angle	degrees	7.5	7.5	7.5	7.5
Step angle accuracy	°	+/- 0.5°	+/- 0.5°	+/- 0.5°	+/- 0.5°
Max. operating temperature	°C	100	100	100	100
Dielectric strength	-	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.
End play	mm (in)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)



****For better torque or for change in resistance or any other specification including mounting plates, gears etc., please contact us. We can customize the motors for your applications.**

PRECISION MOTORS

B – 48 – 42 – U..

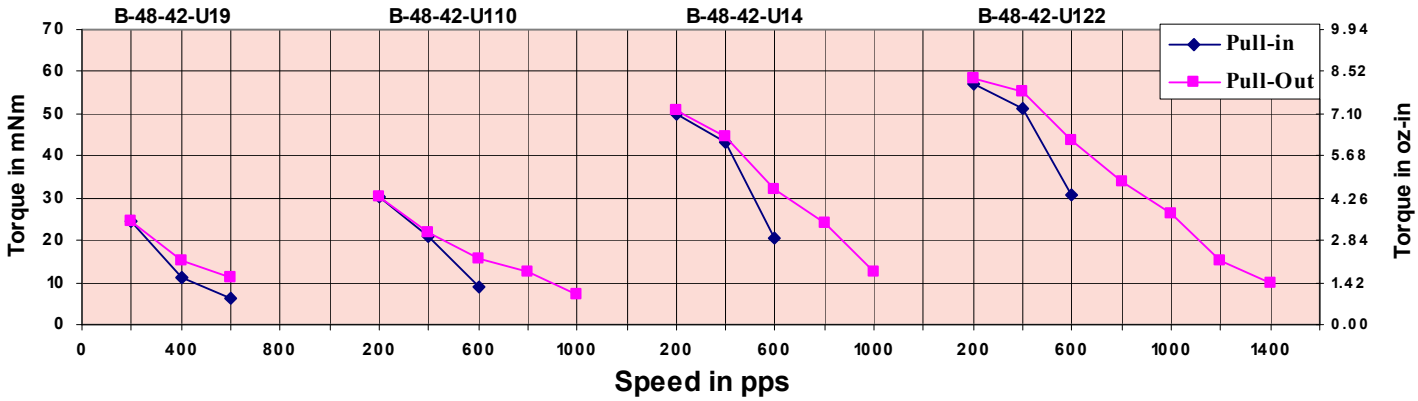


Dimensions in mm (inch)

SPECIFICATIONS		B-48-42-U19	B-48-42-U110	B-48-42-U14	B-48-42-U122
	Units	Unipolar Medium Torque	Unipolar, Medium Torque	Unipolar, High Torque	Unipolar High Torque
Operating Voltage	V	6	12	24	35
Resistance per phase	Ω	6	24	48	68
Inductance per phase	mH	1.5	7	12	24
Holding Torque	mNm(oz-in)	46.6 (6.62)	50.9 (7.23)	75.7 (10.75)	103 (14.6)
Detent Torque	mNm(oz-in)	12.25 (1.74)	12.25 (1.74)	12.25 (1.74)	12.25 (1.74)
Rotor Inertia	g-m2	12.8 x 10-4	12.8 x 10-4	12.8 x 10-4	12.8 x 10-4
Weight	gms (oz)	95 (3.35)	95 (3.35)	95 (3.35)	95 (3.35)
Step Angle	degrees	7.5	7.5	7.5	7.5
Step angle accuracy	°	+/- 0.5°	+/- 0.5°	+/- 0.5°	+/- 0.5°
Max. operating temperature	°C	100	100	100	100
Dielectric strength	-	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.
End play	mm (in)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)

Torque Characteristics

(Constant voltage drive)



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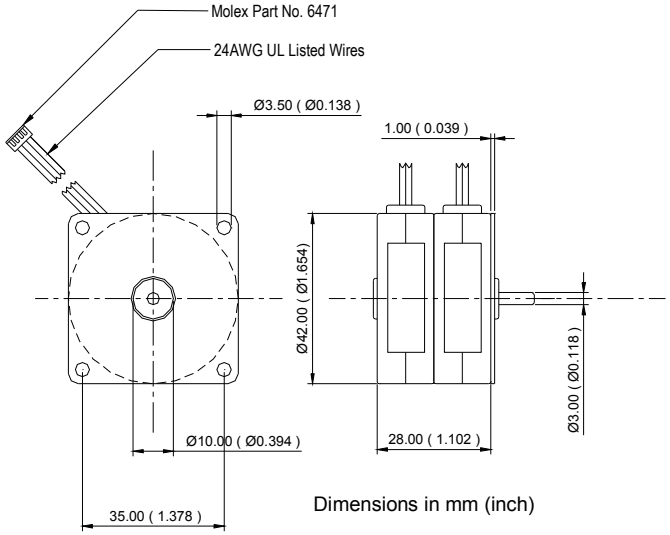
PRECISION MOTORS

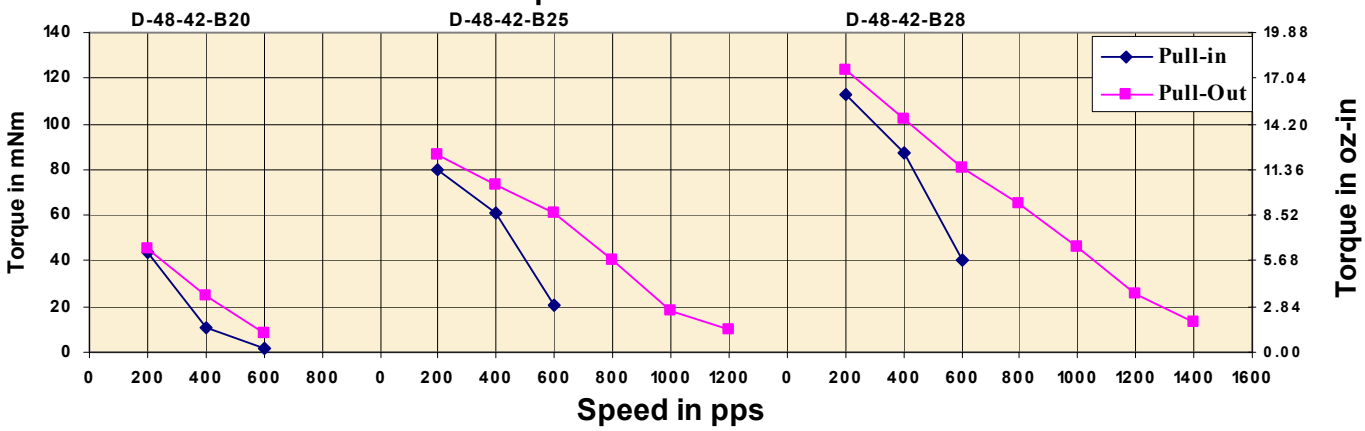
D – 48 – 42 – B..



Dimensions in mm (inch)

SPECIFICATIONS		D-48-42-B20	D-48-42-B25	D-48-42-B28
	Units	Bipolar Medium Torque	Bipolar High Torque	Bipolar High Torque
Operating Voltage	V	6	12	24
Resistance per phase	Ω	2.7	6	15
Inductance per phase	mH	3	6	12
Holding Torque	mNm(oz-in)	94.9 (13.47)	148 (21.1)	164 (23.3)
Detent Torque	mNm(oz-in)	18.5 (2.67)	18.5 (2.67)	18.5 (2.67)
Rotor Inertia	g-m2	25.6 x 10-4	25.6 x 10-4	25.6 x 10-4
Weight	gms (oz)	185 (6.52)	185 (6.52)	185 (6.52)
Step Angle	degrees	7.5	7.5	7.5
Step angle accuracy	°	+/- 0.5°	+/- 0.5°	+/- 0.5°
Max. operating temperature	°C	100	100	100
Dielectric strength	-	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.
End play	mm (in)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)

Torque Characteristics



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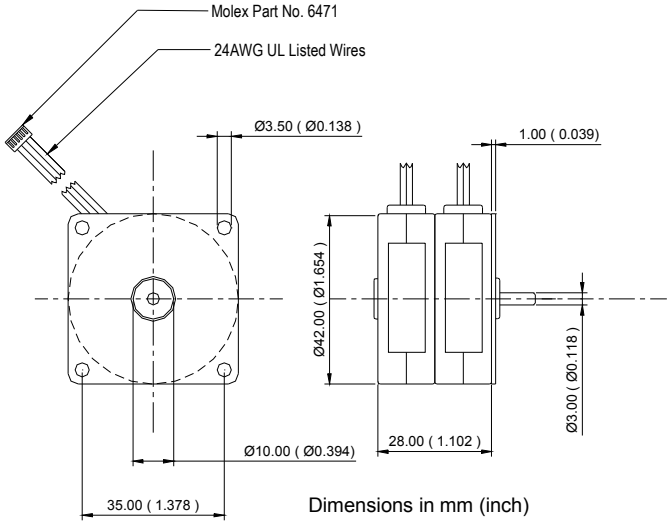
PRECISION MOTORS

D – 48 – 42 – U..

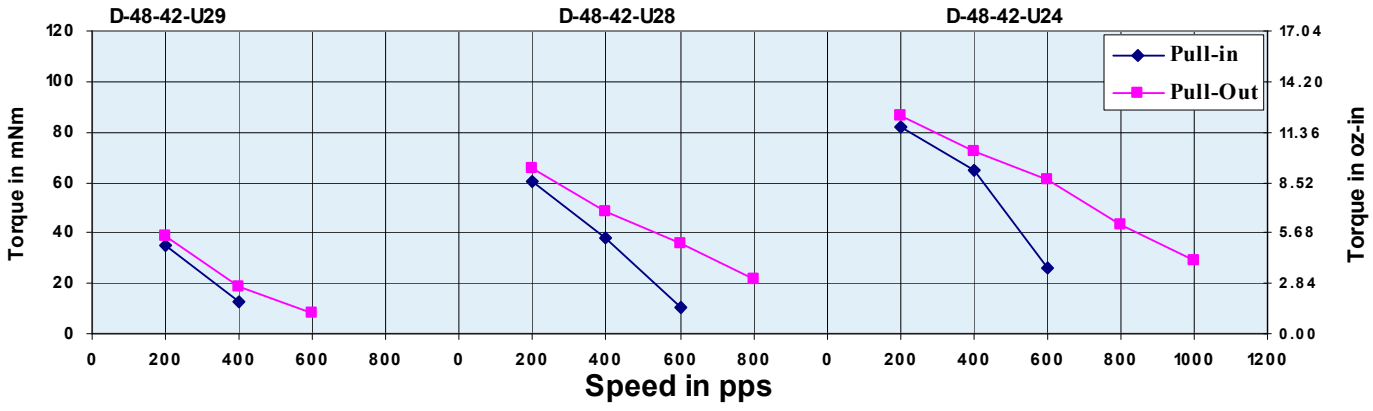


Dimensions in mm (inch)

SPECIFICATIONS		D-48-42-U29	D-48-42-U28	D-48-42-U24
	Units	Unipolar Medium Torque	Unipolar High Torque	Unipolar High Torque
Operating Voltage	V	6	12	24
Resistance per phase	Ω	3	11	24
Inductance per phase	mH	1.5	6	12
Holding Torque	mNm(oz-in)	80.0 (11.36)	107.8 (15.31)	114.7 (16.3)
Detent Torque	mNm(oz-in)	18.5 (2.67)	18.5 (2.67)	18.5 (2.67)
Rotor Inertia	g-m2	25.6 x 10-4	25.6 x 10-4	25.6 x 10-4
Weight	gms (oz)	185 (6.52)	185 (6.52)	185 (6.52)
Step Angle	degrees	7.5	7.5	7.5
Step angle accuracy	°	+/- 0.5°	+/- 0.5°	+/- 0.5°
Max. operating temperature	°C	100	100	100
Dielectric strength	-	1000 VAC for 1 min.	1000 VAC for 1 min.	1000 VAC for 1 min.
End play	mm (in)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)

Torque Characteristics

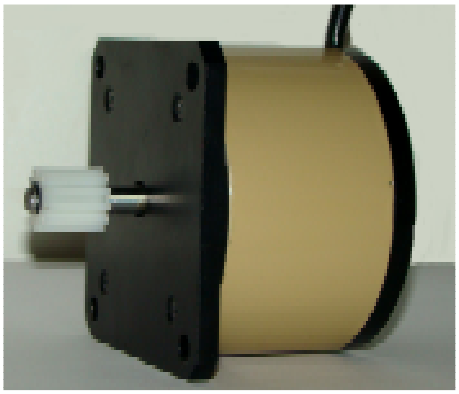
(Constant voltage drive)

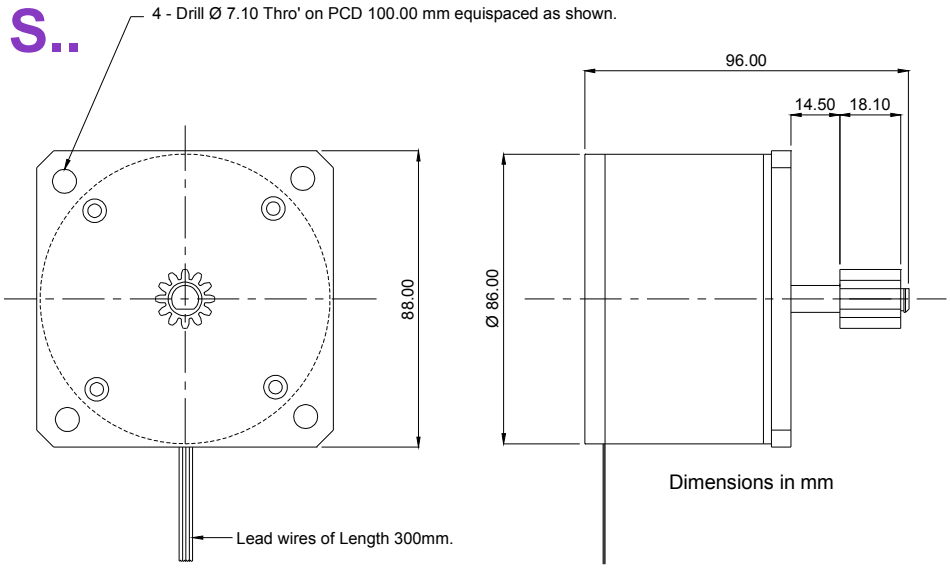


****For better torque or for change in resistance or any other specification including mounting plates, gears etc., please contact us. We can customize the motors for your applications.**

PRECISION MOTORS

H10 – 200 – 86 – S..





Features

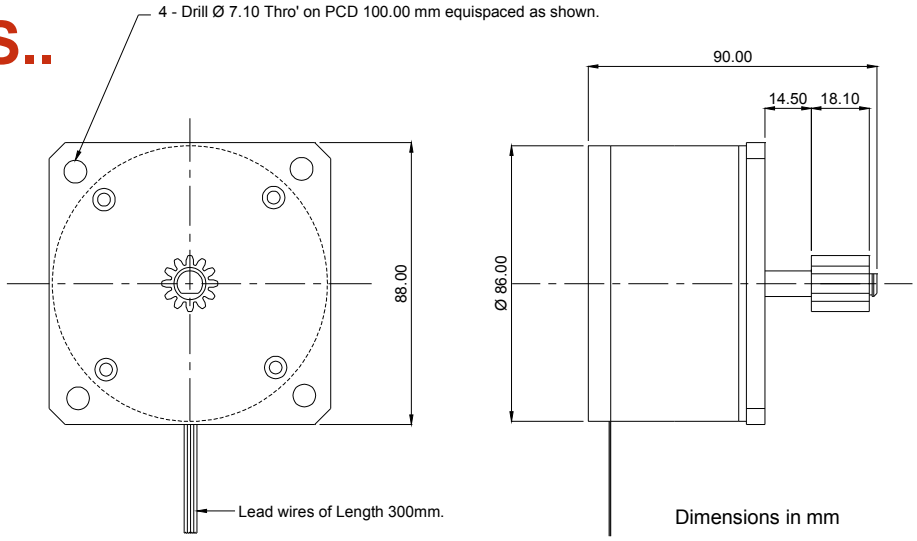
- **Pure Aluminium outer body for light weight**
- **UL approved insulations and winding wires for high reliability**
- **Superior bearings for long life**
- **High quality steel laminations for less power loss**
- **Higher torque in its class**
- **Class F insulation for better temperature control**
- **Reliability tested for longer life**

SPECIFICATIONS		H10-200-86-S03
	Units	AC Synchronous Very high Torque
Operating Voltage	VAC	230
Resistance per phase	Ω	575
Inductance per phase	H	3.0
Power	W	38
Torque	Kgcm(oz-in)	> 10.5 (145.81)
Detent Torque	gcm(oz-in)	410 (5.69)
Rotor Inertia	g-m2	68.5 x 10^{-3}
Weight	Kgs (oz)	1.30 (45.84)
Step Angle	degrees	1.8
Step angle accuracy	°	+/- 0.5°
Max. operating temperature	°C	90
Dielectric strength	-	< 10mA for 3000V for 1 min.
Insulation Resistance	MΩ	>1000 @ 1000V
Resistance for RC Phase Shifter	Ω	1K - 30W(40W for continuous operation)
Capacitance for RC Phase Shifter	µF	1.25 440VAC PP

****For better torque or for change in resistance or any other specification including mounting plates, gears etc., please contact us. We can customize the motors for your applications.**

PRECISION MOTORS

H7 – 200 – 86 – S..



Features

- **Pure Aluminium outer body for light weight**
- **UL approved insulations and winding wires for high reliability**
- **Superior bearings for long life**
- **High quality steel laminations for less power loss**
- **Higher torque in its class**
- **Class F insulation for better temperature control**
- **Reliability tested for longer life**

SPECIFICATIONS		H7-200-86-S01
	Units	AC Synchronous Very high Torque
Operating Voltage	VAC	230
Resistance per phase	Ω	1010
Inductance per phase	H	1.5
Power	W	30
Torque	Kgcm(oz-in)	> 8.1 (112.48)
Detent Torque	gcm(oz-in)	305 (4.1)
Rotor Inertia	g-m2	55.03 x 10-3
Weight	Kgs (oz)	1.12 (39.5)
Step Angle	degrees	1.8
Step angle accuracy	°	+/- 0.5°
Max. operating temperature	°C	80
Dielectric strength	-	< 10mA for 3000V for 1 min.
Insulation Resistance	MΩ	>1000 @ 1000V
Resistance for RC Phase Shifter	Ω	1K - 30W(40W for continuous operation)
Capacitance for RC Phase Shifter	µF	1.0 440VAC PP

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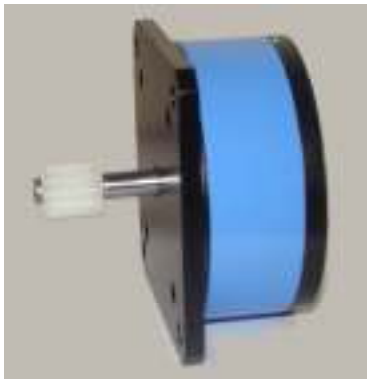
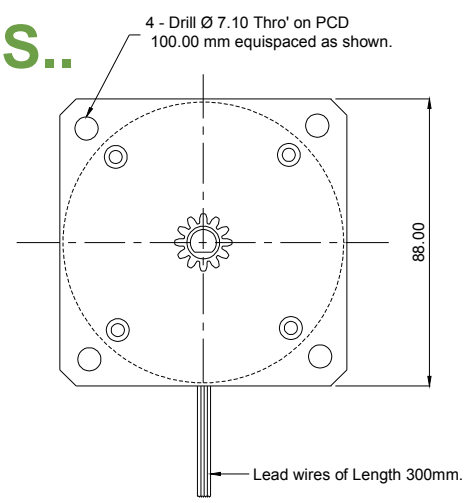
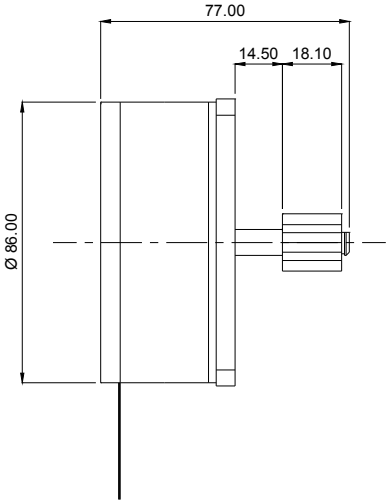
PRECISION MOTORS

H3 – 200 – 86 – S..







Features

- **Pure Aluminium outer body for light weight**
- **UL approved insulations and winding wires for high reliability**
- **Superior bearings for long life**
- **High quality steel laminations for less power loss**
- **Higher torque in its class**
- **Class F insulation for better temperature control**
- **Reliability tested for longer life**

SPECIFICATIONS		H3-200-86-S22
	Units	AC Synchronous Very high Torque
Operating Voltage	VAC	230
Resistance per phase	Ω	1050
Inductance per phase	H	1.6
Power	W	25
Torque	Kgcm(oz-in)	> 3.7 (51.38)
Detent Torque	gcm(oz-in)	200 (2.7)
Rotor Inertia	g-m2	26.8 x 10^{-3}
Weight	Kgs (oz)	0.7 (24.7)
Step Angle	degrees	1.8
Step angle accuracy	°	+/- 0.5°
Max. operating temperature	°C	80
Dielectric strength	-	< 10mA for 3000V for 1 min.
Insulation Resistance	MΩ	>1000 @ 1000V
Resistance for RC Phase Shifter	Ω	1K - 30W (40W for continuous operation)
Capacitance for RC Phase Shifter	µF	1.0 440VAC PP

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Options Available with the Motors:

As all end applications are not the same, we are equipped to provide you with a stepper or synchronous motor that best meets your requirements, without requiring any modification to your design and manufacturing processes. Among the options we provide are custom mounting plates, suitable gears, desired shaft lengths, required torque, suitable connectors and wires. Currently available mounting plates are shown below. You can choose any mounting plate to go along with our permanent magnet motors.

Our Motor Model Number incorporates these options and its description is given below.

B = Permanent Magnet Slim
D = PM Double Stack
H = Hybrid

Can Size in mm

Length of Shaft Code

Winding / Voltage Details

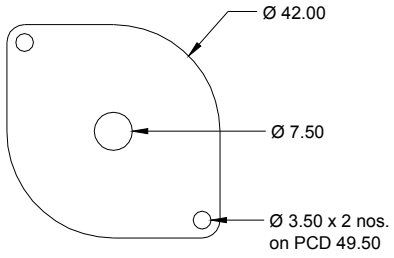
B – 48 – 42 – U00 – 00

Number of steps per revolution

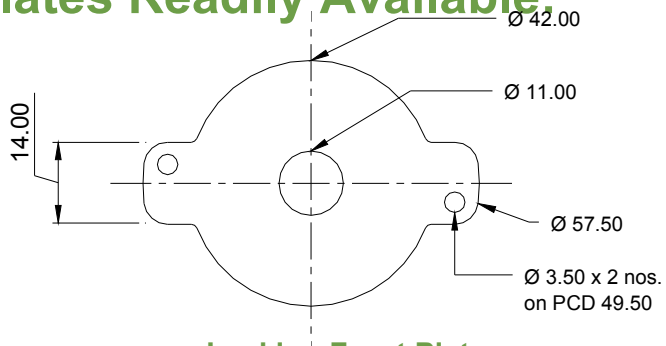
U = Unipolar
B = Bipolar
S = Synchronous

Special Features
These two digits stand for other features like gear, connector, front plate etc.

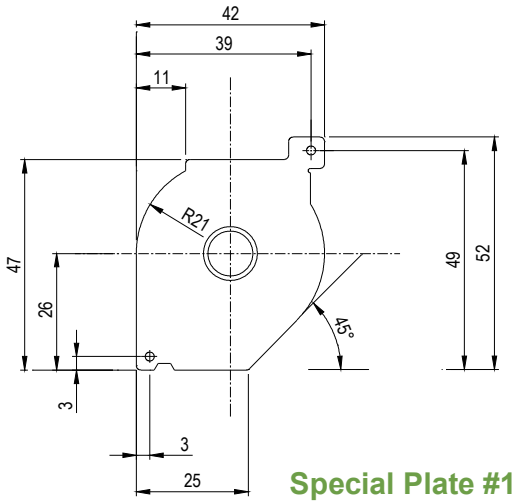
Choice of Mounting Plates Readily Available:



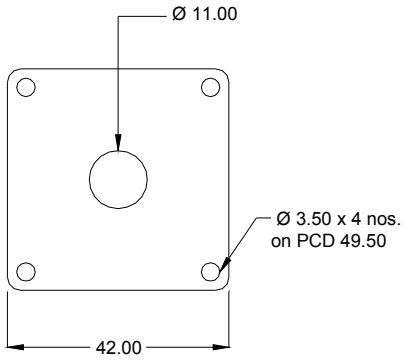
Regular Front Plate



Locking Front Plate



Special Plate #1



Square Front Plate