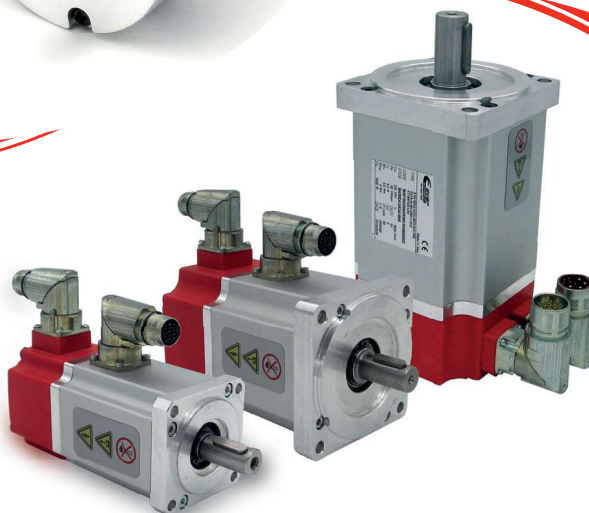


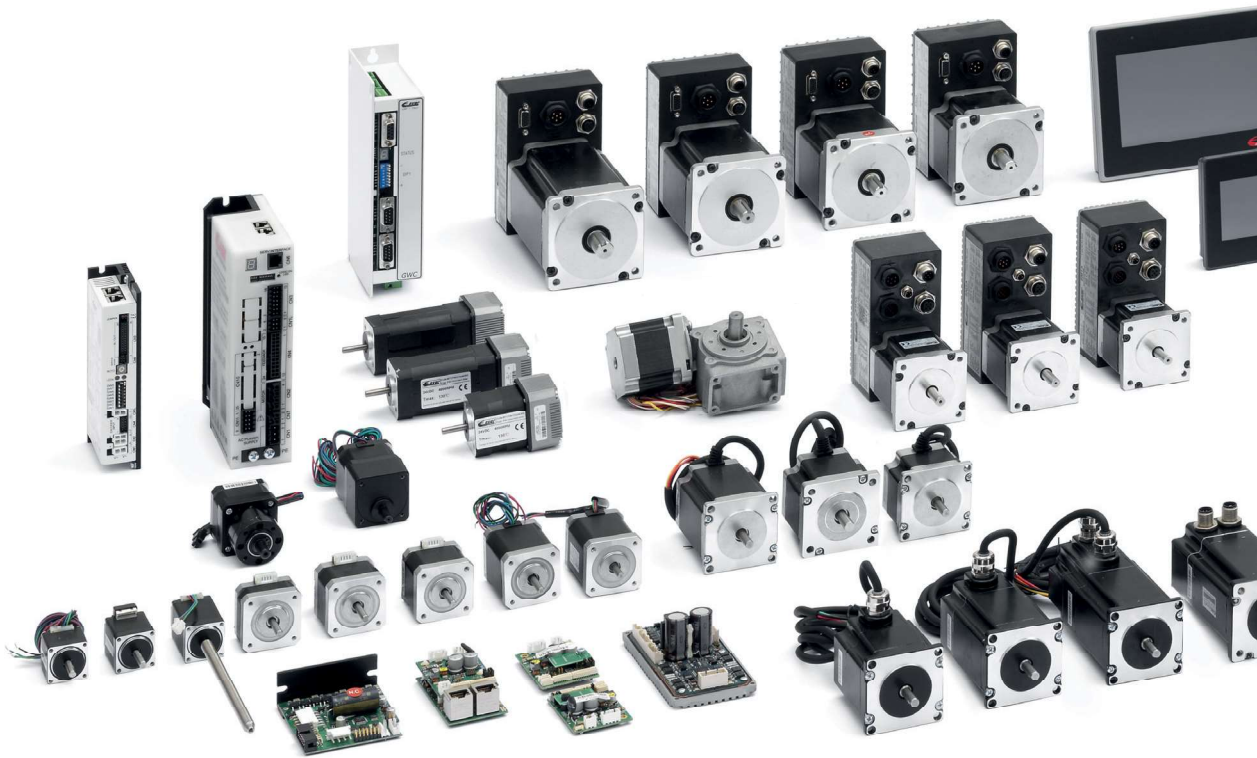
HE Catalogue High Efficiency Motors



*“Quality is not random;
it is always the result
of intelligent effort.”*

Index

Why should you choose EVER?	04	NEMA 08	12
High Efficiency Motors	06	NEMA 10	13
Stepper Motors	07	NEMA 11	from page 14 to page 18
Production Process Phases	08	NEMA 14	from page 19 to page 20
Motors Coding	10	NEMA 17	from page 21 to page 31
Motors Connection Basics	11	NEMA 23	from page 32 to page 46
		NEMA 24	from page 47 to page 52
		NEMA 34	from page 53 to page 69
		NEMA 42	from page 70 to page 71



AC Brushless Motors	72	DC Brushless Motors	91
} Motors Coding	73	} Motors Coding	92
} Rated Power 400 W from page 75 to page 78		} High Voltage Geared DC Brushless Motors	103
} Rated Power 750 W from page 79 to page 82		} Motors Coding	104
} Rated Power 1050 W from page 83 to page 86		} Rated Power 120 W	105
} Rated Power 1400 W from page 87 to page 90		} Rated Power 200 W	108
		} Motors Customizations	109



Why should you choose EVER?



We know the main motion control issues

and we have developed solutions for the automatic machines control through motors and drives with stepper and brushless technology

We develop state-of-the-art motors

Team of experienced electrotechnical engineers develop motors with IP65 protection, special motor shafts, brake, incremental encoder, absolute multiturn encoder, gearbox, custom joints and pulleys and special connectors and wiring

We don't just sell a product, we create it

The perfect synergy between internal design and production ensures the creation of quality products, checked in detail at a competitive price

Quality

3 years warranty after sale

A cutting-edge internal production department

works every day to always ensure products up to the customer expectation, quality and fast delivery times

Always looking at the future

we invest most of the profits in Research and Development and in improving our production lines every year

High Efficiency Motors

up to 40% more torque than standard stepper motors



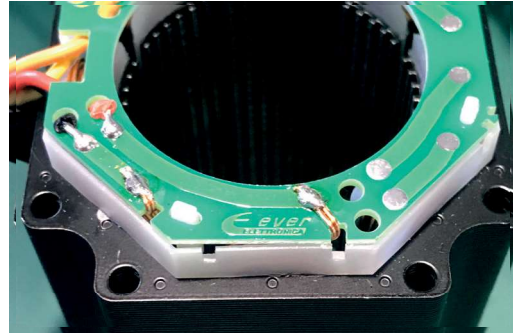
available sizes:
from Nema 08 to Nema 42,
up to 30 Nm



high quality and
dust-shielded bearings



smooth, precise and silent
rotation thanks to
optimized rotor and stator
design



made of high quality
magnetic materials to
ensure long-term maximum
performance durability



mechanically and electrically
customizable to be integrated
in the application requested by
the customer





Ever Elettronica high-efficiency stepper motors are the result of the company's extensive experience in stepper motors. Our high efficiency stepper motors are distinguished from other competitors' motors due to their ability to deliver a much greater torque at the same size.



STEPPER MOTORS



How we produce our motors

Internal design allows us to create highly customized motors, perfectly in line with customers needs

Production process the phases

Endbells machining



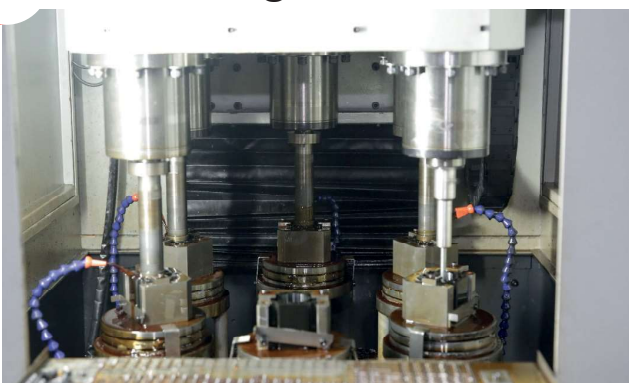
After aluminium die-casting, the flanges are ground and machined **to ensure the precision and the customizations** required by our customers

Rotors grinding



The rotors are first assembled with automatic presses, then are **resinated to ensure greater compactness and rust resistance** and finally are ground with automatic grinding machines and with micrometric precision

Stators holing



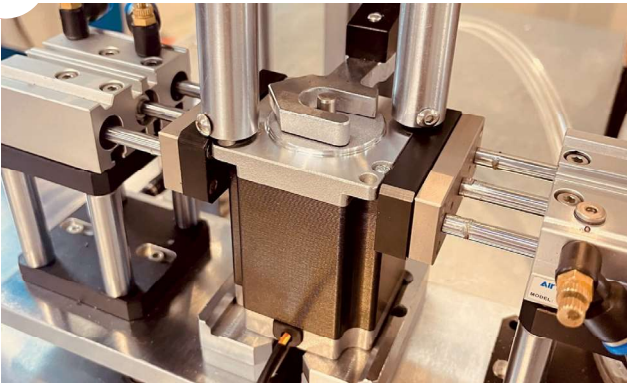
The stators are **lapped and 100% inspected** to ensure an air gap of a few microns

Coils winding



Each motor, whether BLDC or stepper, is wrapped with automatic winders able to guarantee **repeatability and stability in series production**

Mechanical assembling



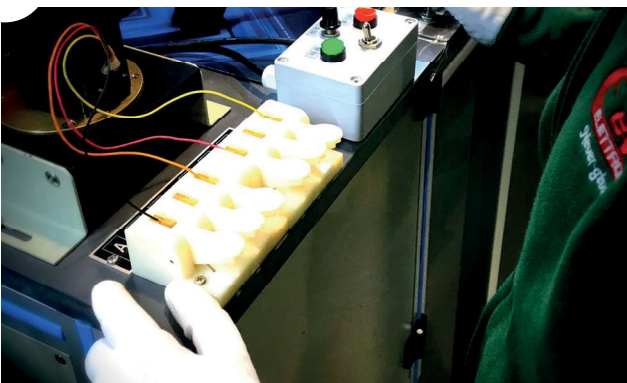
Skilled workers **assemble our motors carefully**, welding the windings to the motor cables with specifically designed PCB and ensuring optimal fixing between axles and bearings

Magnetization



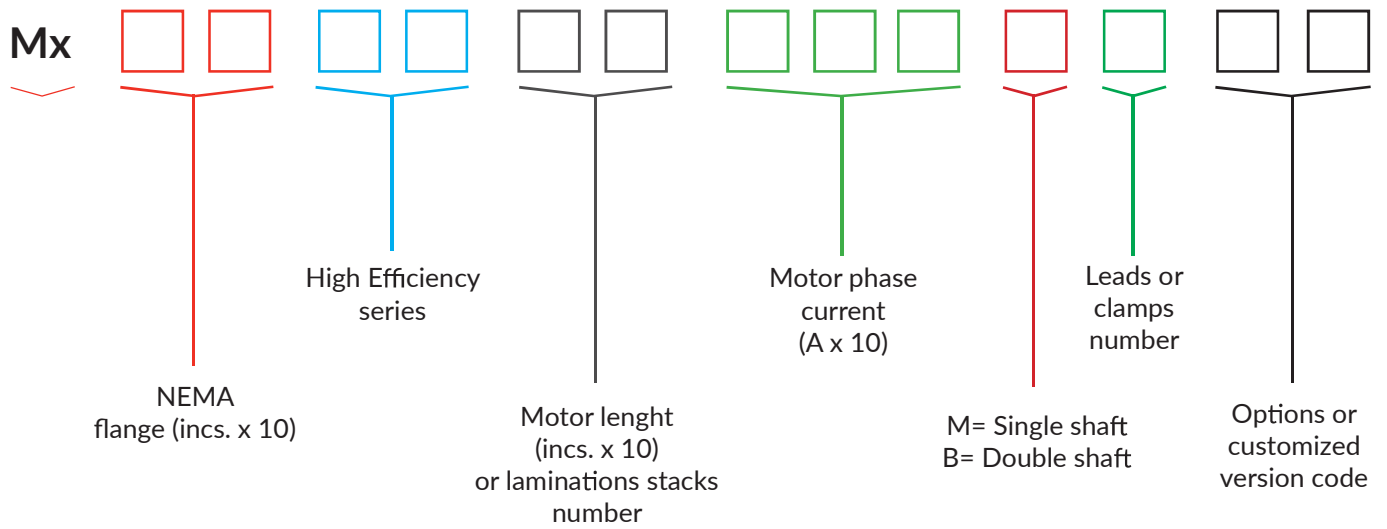
Each motor, once assembled, is magnetized **ensuring high torque performance**

Testing phase



Our motors are **100% inspected**. Motors testing phase is carried out by automatic test machines. **Every data is saved in a database and traceability is guaranteed** thanks to the Serial ID printed on each motor

Motors coding and drive pairing



	Motor models	MT08HE	MT10HE	MT11HE	MT14HE	MT17HE	MT23HE	MT24HE	MT34HE if current <4.2 A	MT34HE if current <7.0 A	MT34HE if current >7.0 A	MT34HE high voltage
Drive model												
LW3D2030		•	•	•	•	•						
LW3D3070							•	•		•		
LW3A9030												•
SW3D2042		•	•	•	•	•	•	•	•			
SW3A9030												•
SN4D2040		•	•	•	•	•	•	•	•			
SB4D2030		•	•	•	•	•	•					
SB4A2042				•	•	•	•	•	•			
SW4D2070		•	•	•	•	•	•	•	•	•		
SW4A3070						•	•	•	•	•		
SW4A4085							•	•	•	•	•	
SW5D3070						•	•	•	•	•		
SW5A4085							•	•	•	•	•	
SW5A5080									• (if voltage < 100 Vac)	• (if voltage < 100 Vac)	• (if voltage < 100 Vac)	•
SW5A9030												•
SW5A9052									• (if voltage < 100 Vdc)			•



Motors electrical specifications, connection modes and protection class

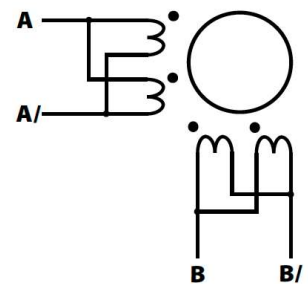
Connection	Resistance (ohms)	Inductance (mH)	Current (Arms)	Holding Torque (Nm)
Unipolar	As in catalog	As in catalog	As in catalog	Catalog x 0.707
Bipolar series	Catalog x 2	Catalog x 4	Catalog x 0.707	As in catalog
Bipolar (half winding)	As in catalog	As in catalog	As in catalog	Catalog x 0.707
Bipolar parallel	Catalog x 0.5	As in catalog	Catalog x 1.414	As in catalog

Connection	Resistance (ohms)	Inductance (mH)	Current (Arms)	Holding Torque (Nm)
Refer to catalog	As in catalog	As in catalog	As in catalog	Catalog x 0.707

Bipolar parallel connection of 8 leads motors.

The bipolar parallel connection, by an higher windings current, results in good torque at low and high speeds and keeping low the winding inductance rating.

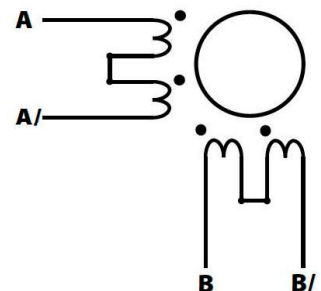
8 leads stepper motor bipolar parallel wiring diagram



Bipolar series connection of 8 leads motors.

The bipolar series connection, with lower windings current, is usefull to obtain the best torque at low speeds. Due to the high inductance rating resulting from windings series, the torque decays rapidly with speed increase. The use of high voltage bus can lower this drawback despite a higher motor temperature rise.

8 leads stepper motor bipolar series wiring diagram



Motor protection class	Protection index against dust	Protection index against liquids	Description of degree motor protection
IP30	3	0	Protected against ingress of solid objects larger than 2.5 mm. No protection against ingress of liquid from humidity or from dripping or splashing liquids and vapors.
IP54	5	4	Total protection against ingress of solid objects. Protection against the ingress of liquid droplets, vapor or spray from any direction.
IP65	6	5	Total protection against ingress of solids and dusts. Protection against the ingress
IP67	6	7	Totally protected against dust. Protected against the effect of liquid immersion



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	25 N at 15 mm from front flange
Max shaft axial load	3 N
Protection IP	IP 40



Other features

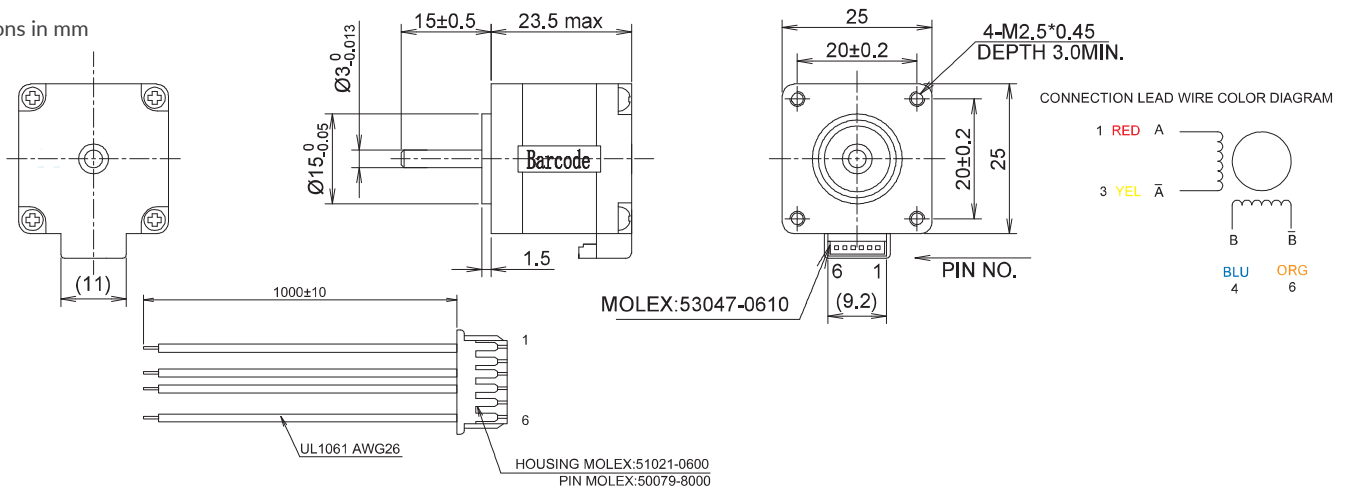
Connector on board with cable

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.66 V	0.70 A/ph	3.80 ohm	2.00 mH	0.033 Nm	2.00 g.cm ²	100 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 65



Other features

Connector on board

Optional

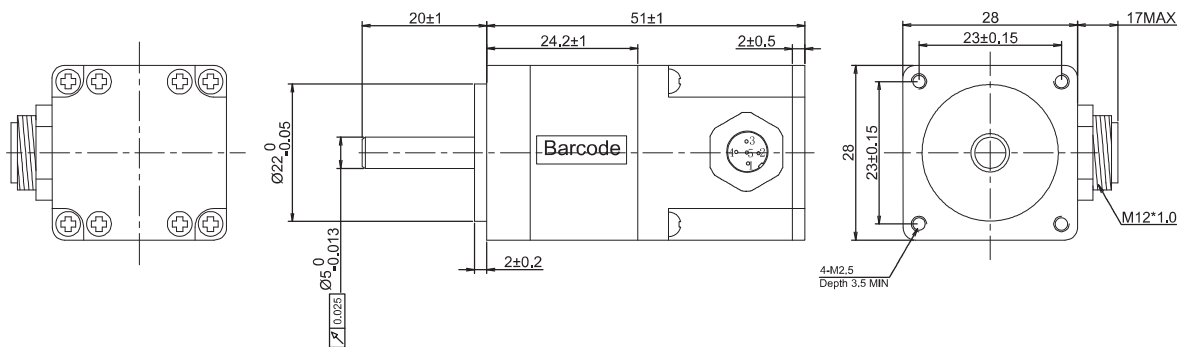
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

Specification

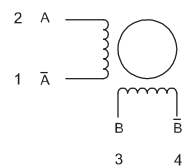
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.75 V	0.67 A/ph	5.60 ohm	4.00 mH	0.071 Nm	9.00 g.cm ²	130 g.	4

Mechanical drawing

Dimensions in mm



CONNECTION DIAGRAM





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 14 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40

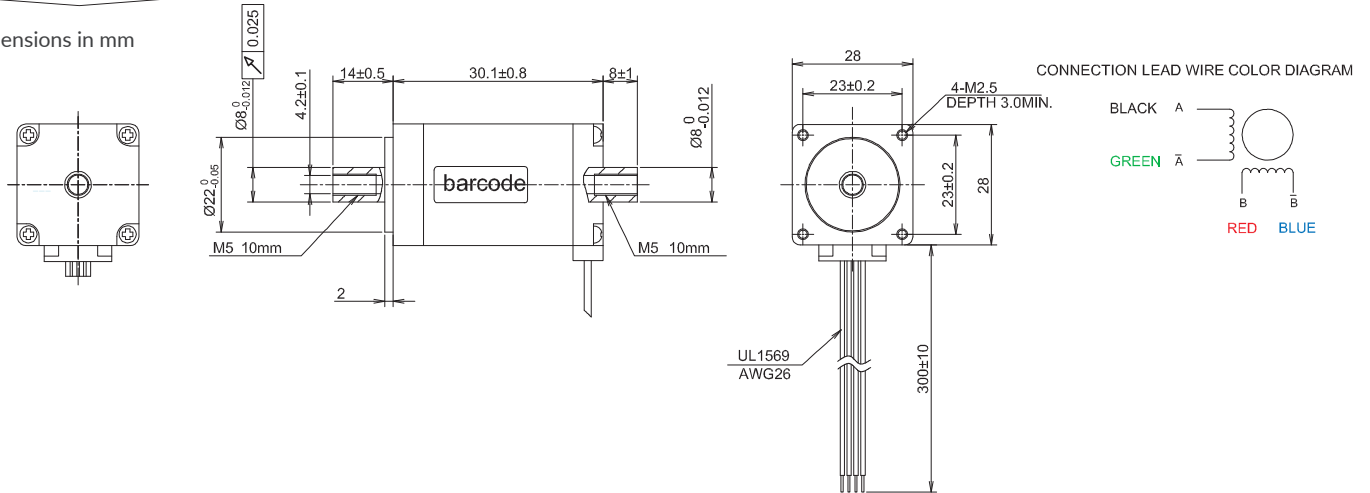


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.50 V	1.00 A/ph	4.50 ohm	4.00 mH	0.07 Nm	9.00 g.cm ²	100 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 65



Other features

Connector on board

Optional

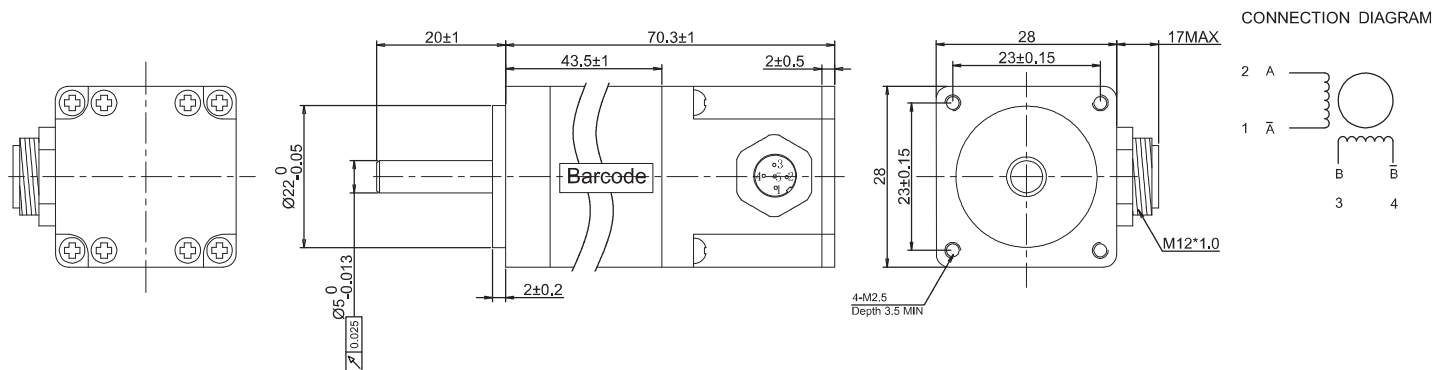
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
6.16 V	0.67 A/ph	9.20 ohm	7.20 mH	0.127 Nm	18.00 g.cm ²	220 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40

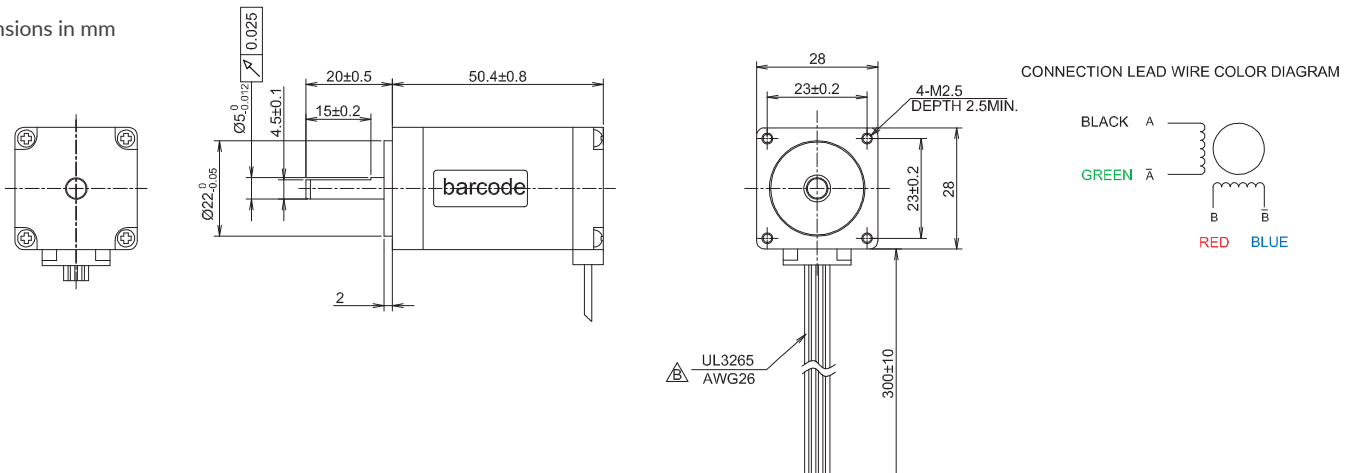


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.50 V	1.00 A/ph	2.50 ohm	2.20 mH	0.14 Nm	20.00 g.cm ²	200 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Other features

Connector on board

Optional

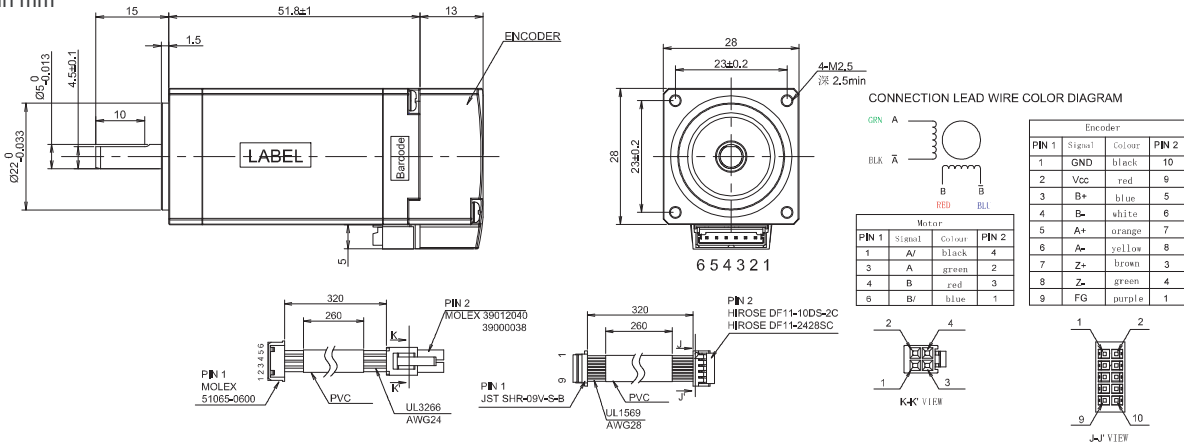
CBL/0096-030: JST femal connector and 30 cm. cable for motor connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
1.61 V	2.30 A/ph	0.70 ohm	0.72 mH	0.16 Nm	20.00 g.cm ²	210 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 15 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40

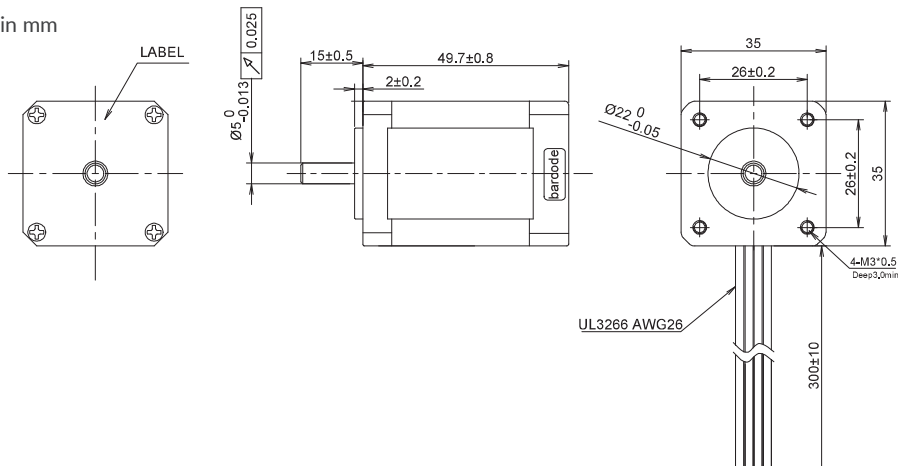


Specification

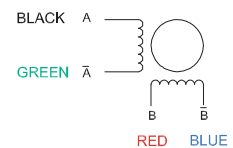
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.48 V	0.70 A/ph	6.40 ohm	7.80 mH	0.27 Nm	55.00 g.cm ²	450 g.	4

Mechanical drawing

Dimensions in mm



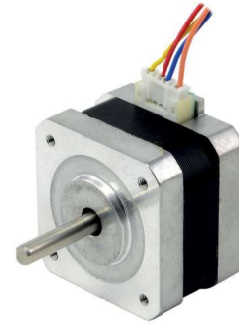
CONNECTION LEAD WIRE COLOR DIAGRAM





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Other features

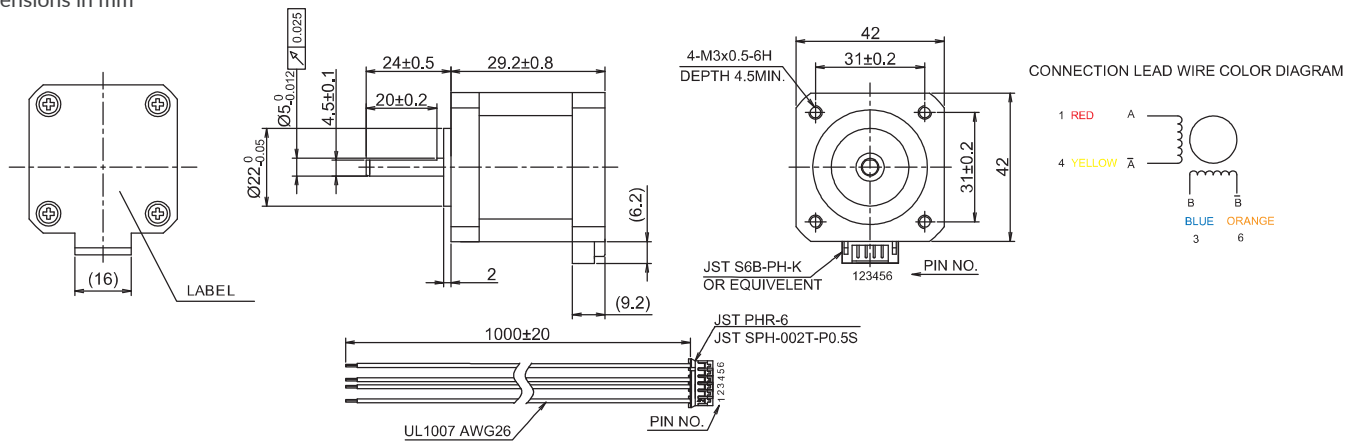
Connector on board with cable

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	0.80 A/ph	3.00 ohm	4.70 mH	0.15 Nm	25.00 g.cm ²	180 g.	4

Mechanical drawing

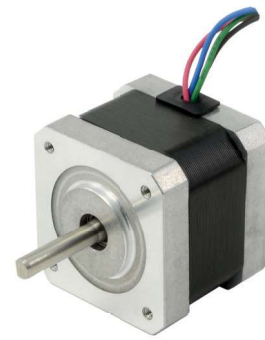
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40

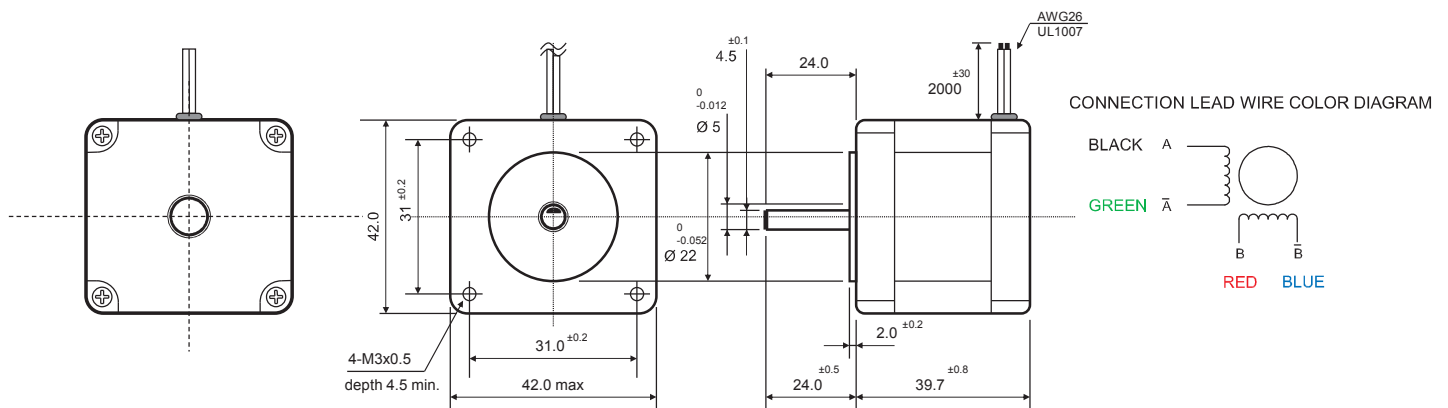


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.23 V	1.70 A/ph	1.90 ohm	2.80 mH	0.41 Nm	57.00 g.cm ²	270 g.	4

Mechanical drawing

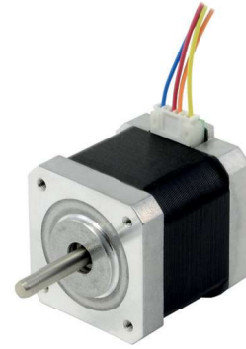
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Other features

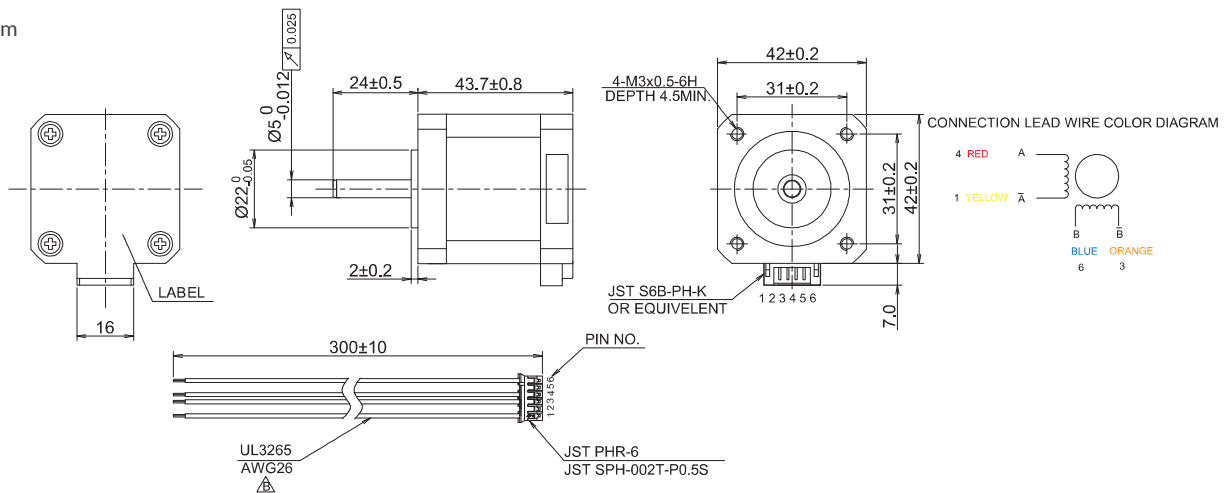
Connector on board

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.30 V	1.00 A/ph	4.30 ohm	10.00 mH	0.50 Nm	77.00 g.cm ²	310 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Other features

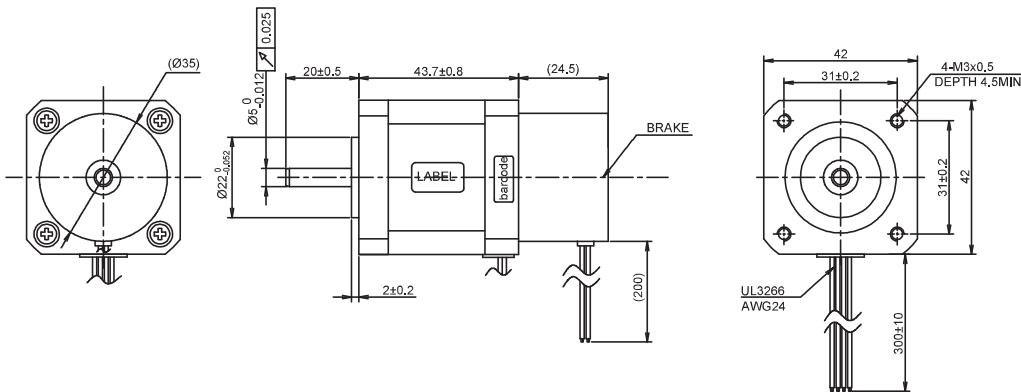
Brake	Power supply 24 Vdc Braking force 0.3 Nm
-------	---

Specification

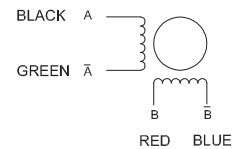
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
5.10 V	1.70 A/ph	3.00 ohm	7.20 mH	0.45 Nm	69.00 g.cm ²	310 g.	4

Mechanical drawing

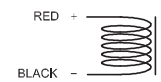
Dimensions in mm



CONNECTION LEAD WIRE COLOR DIAGRAM



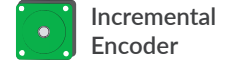
BRAKE CONNECTION





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

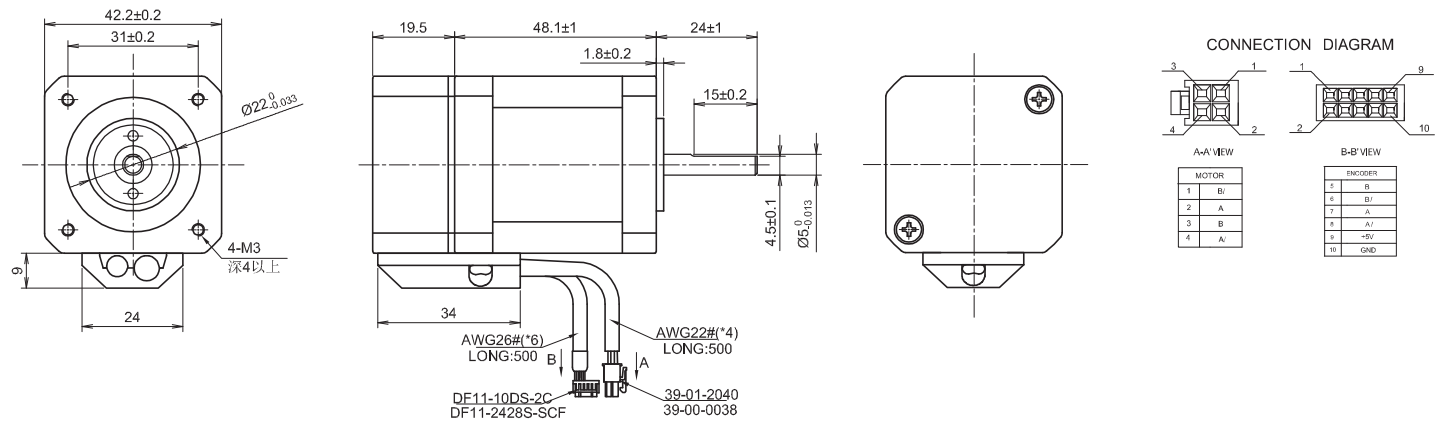
Connectors at lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.70 V	2.00 A/ph	1.35 ohm	2.80 mH	0.48 Nm	77.00 g.cm ²	360 g.	4

Mechanical drawing

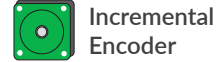
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

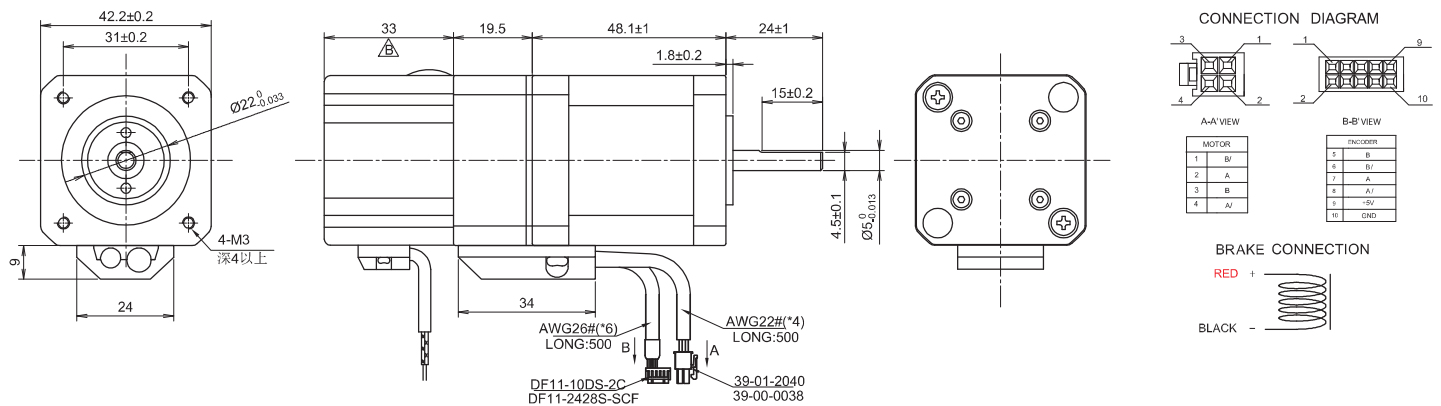
Brake	Power supply 24 Vdc
Connectors at lead wires end	Braking force 0.5 Nm

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.70 V	2.00 A/ph	1.35 ohm	2.80 mH	0.48 Nm	77.00 g.cm ²	390 g.	4

Mechanical drawing

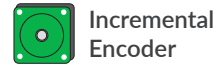
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 65 (except the front shaft)



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

Connectors on board

Optional

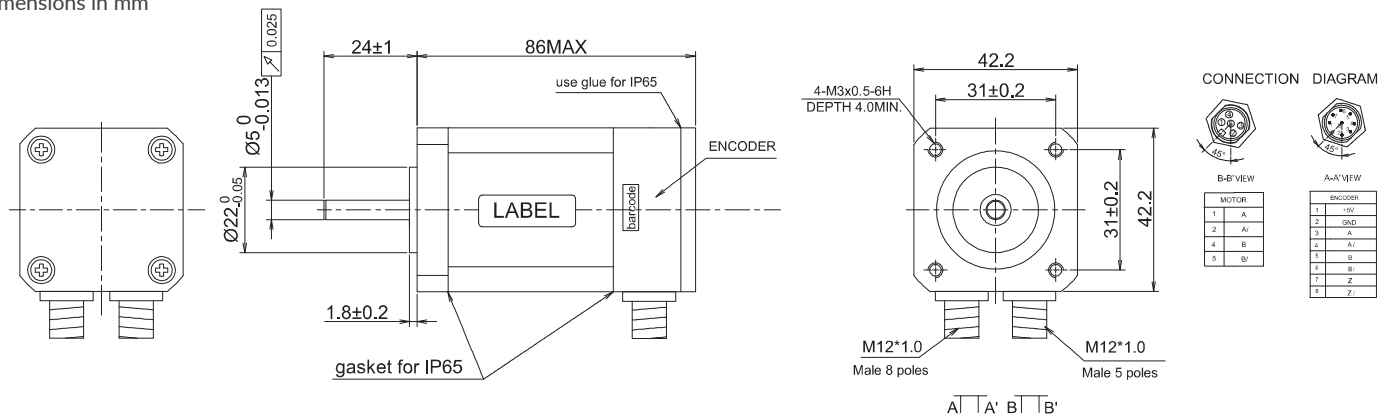
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.60 V	1.80 A/ph	2.00 ohm	5.00 mH	0.72 Nm	115.00 g.cm ²	700 g.	4

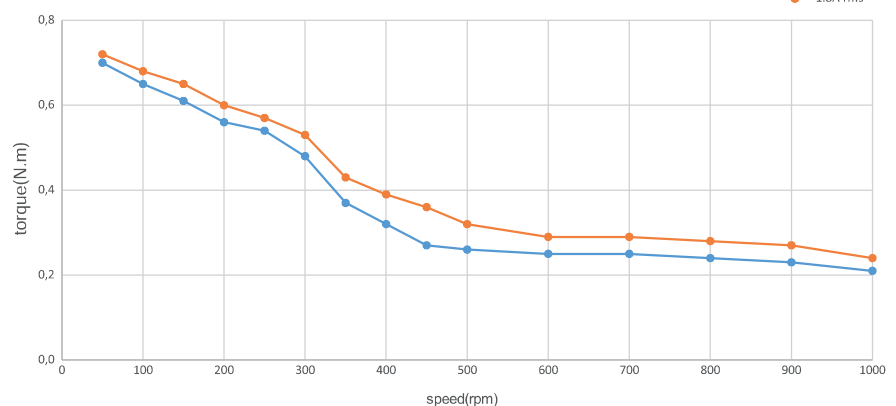
Mechanical drawing

Dimensions in mm



Torque diagram

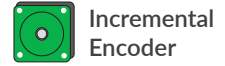
Drive conditions:
Voltage 24 Vdc
Current 1.8 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

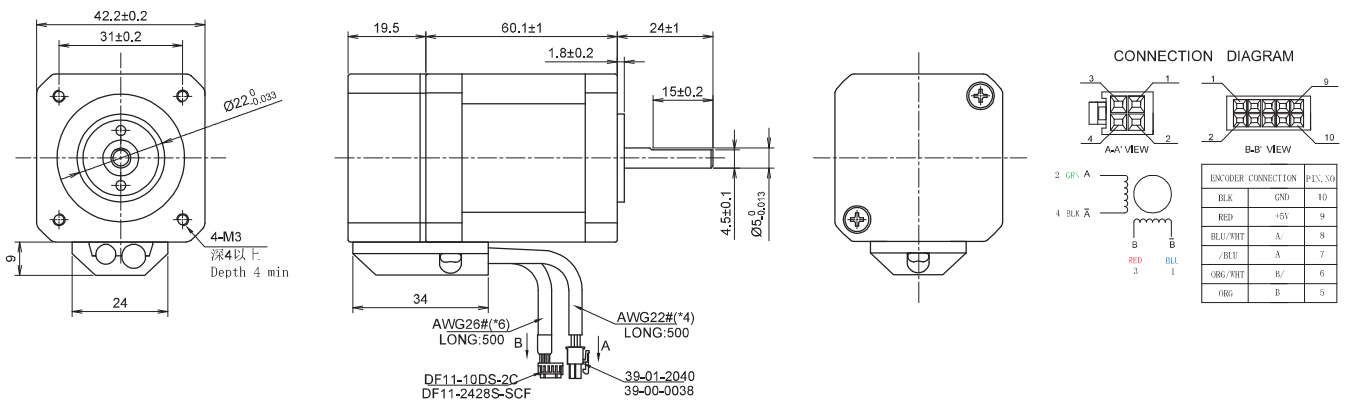
Connectors at lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.50 V	2.00 A/ph	1.75 ohm	4.00 mH	0.72 Nm	110.00 g.cm ²	500 g.	4

Mechanical drawing

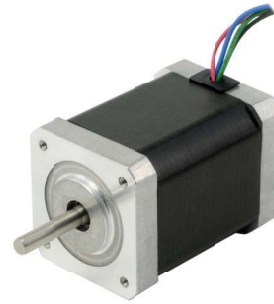
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 40

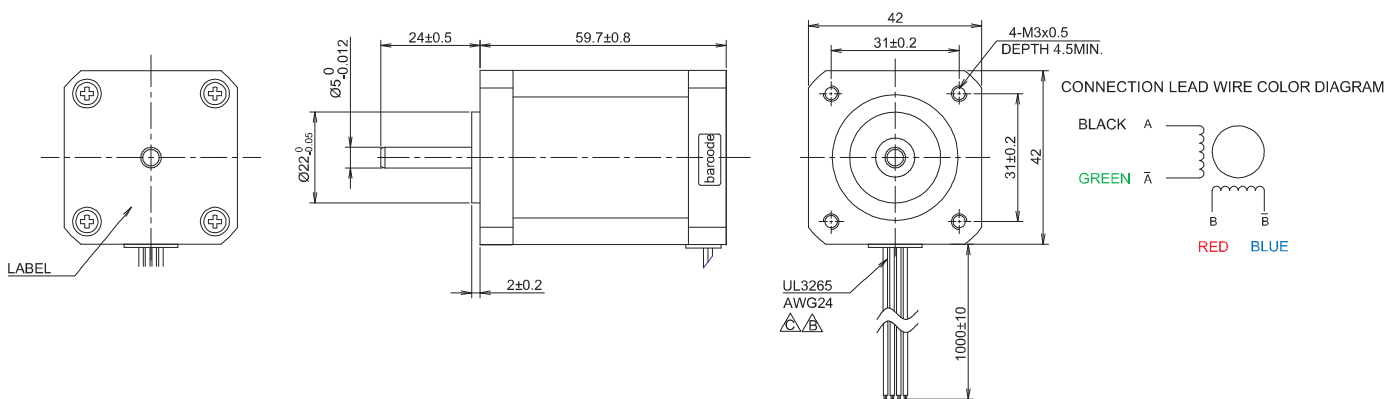


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.36 V	2.80 A/ph	1.20 ohm	2.10 mH	0.86 Nm	115.00 g.cm ²	600 g.	4

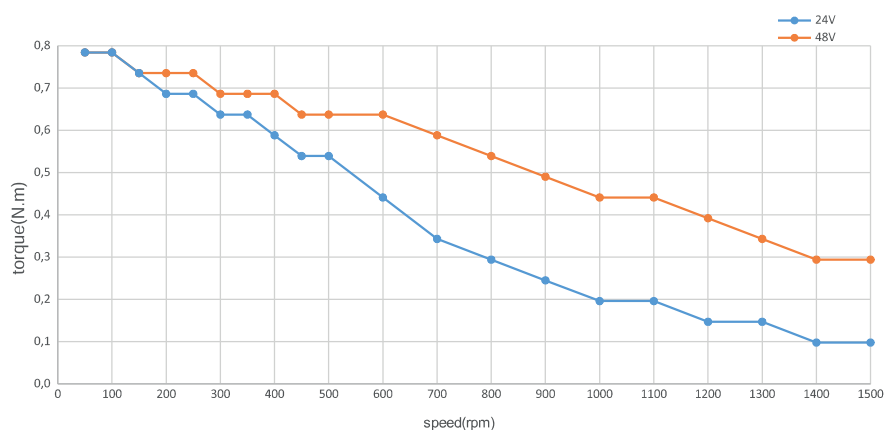
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.8 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	IP 65



Other features

Connector on board

Optional

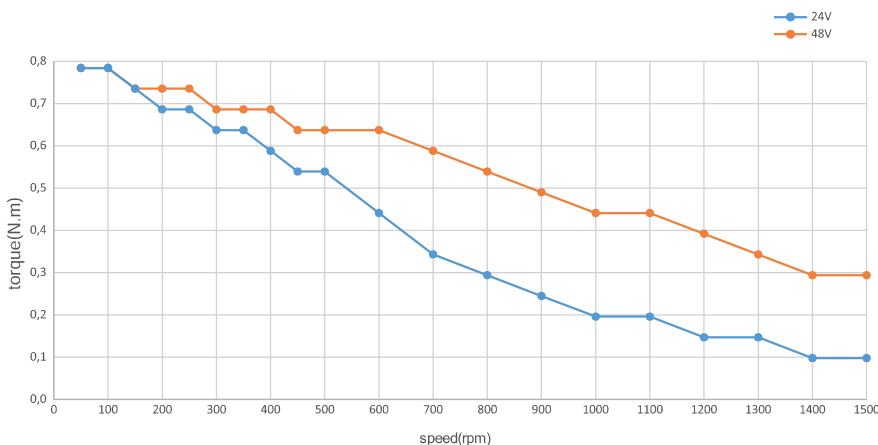
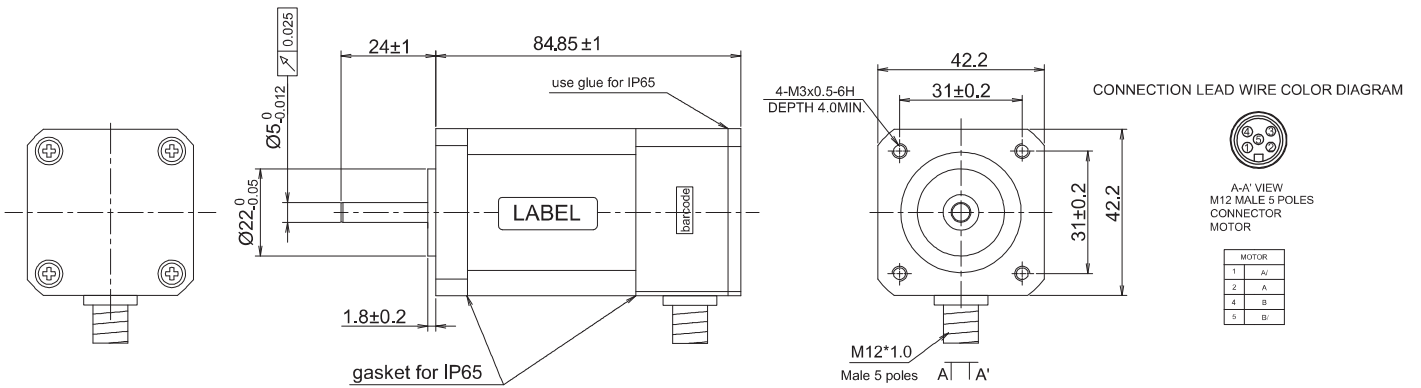
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.36 V	2.80 A/ph	0,90 ohm	2.30 mH	0.86 Nm	115.00 g.cm ²	600 g.	4

Mechanical drawing

Dimensions in mm



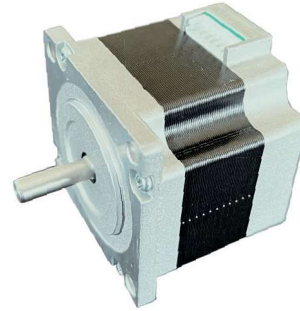
Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.8 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

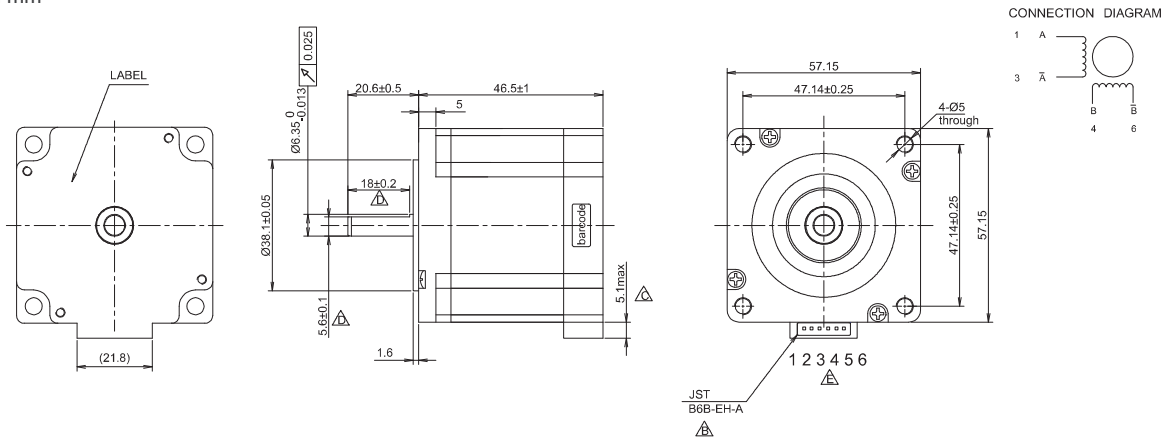
Connector on board

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.60 V	2.00 A/ph	1.20 ohm	2.30 mH	0.72 Nm	180.00 g.cm ²	700 g.	4

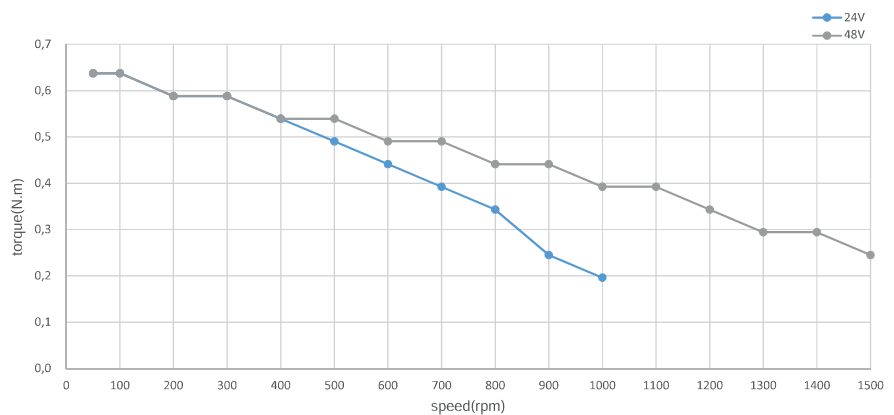
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

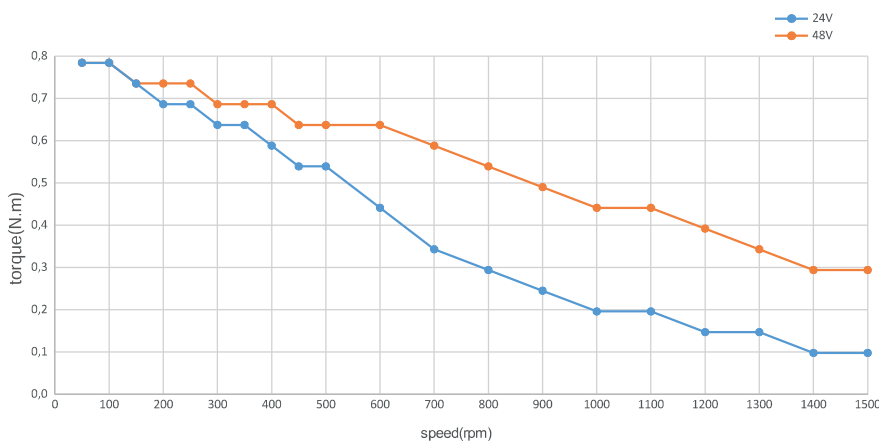
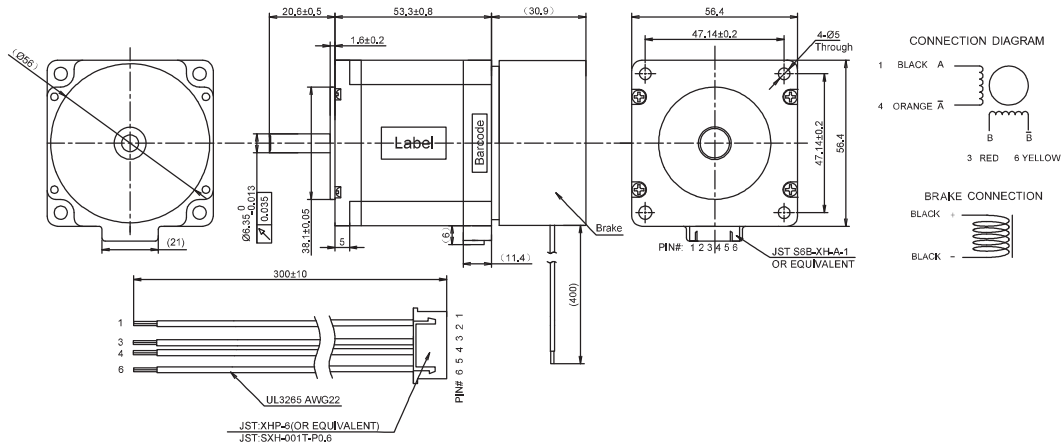
Brake	Power supply 24 Vdc Braking force 1.0 Nm
Connector on board	

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.35 V	1.50 A/ph	2.90 ohm	9.20 mH	1.00 Nm	290.00 g.cm ²	700 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 1.5 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

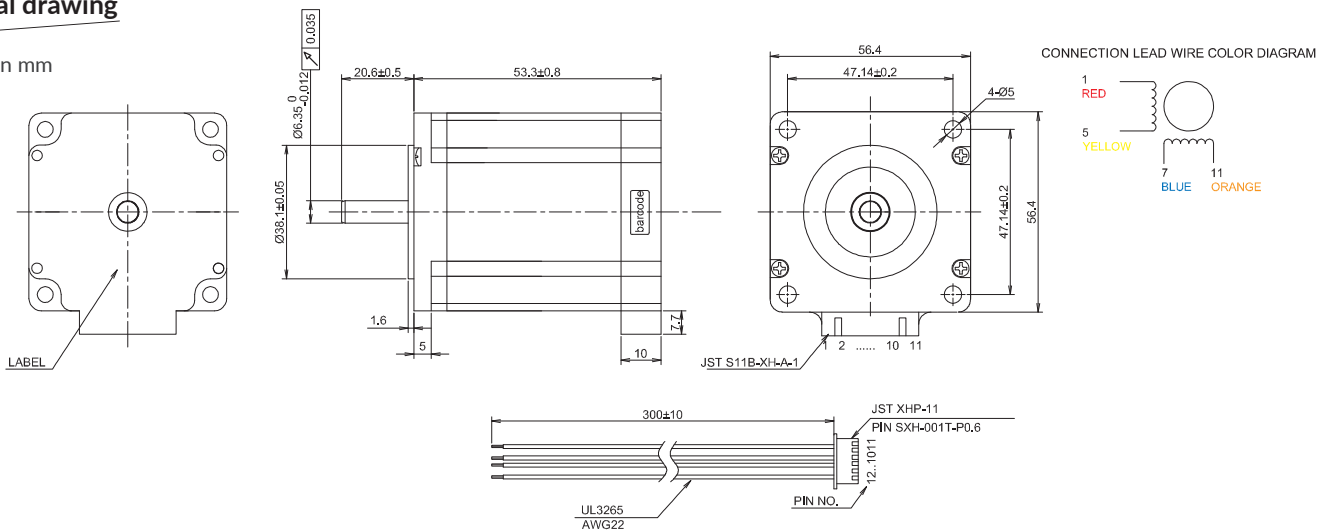
Connector on board with cable

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.36 V	1.50 A/ph	3.40 ohm	9.20 mH	1.00 Nm	286.00 g.cm ²	750 g.	4

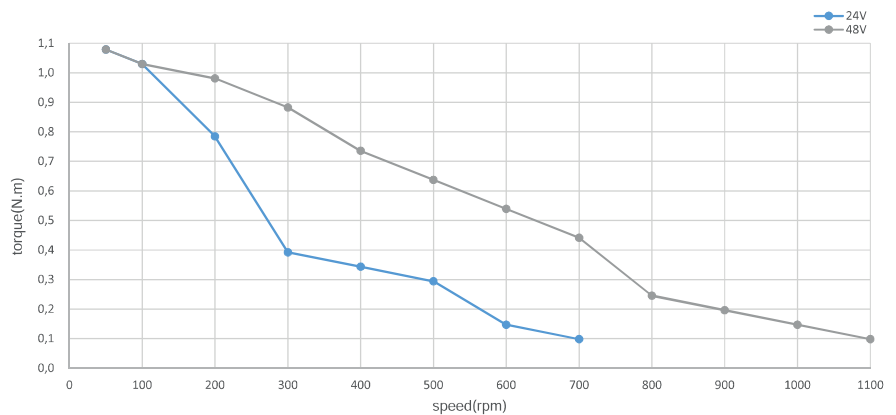
Mechanical drawing

Dimensions in mm



Torque diagram

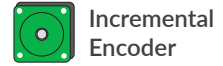
Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 1.5 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 65



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	500 ppr
Output type	Line driver

Other features

Connectors on board

Optional

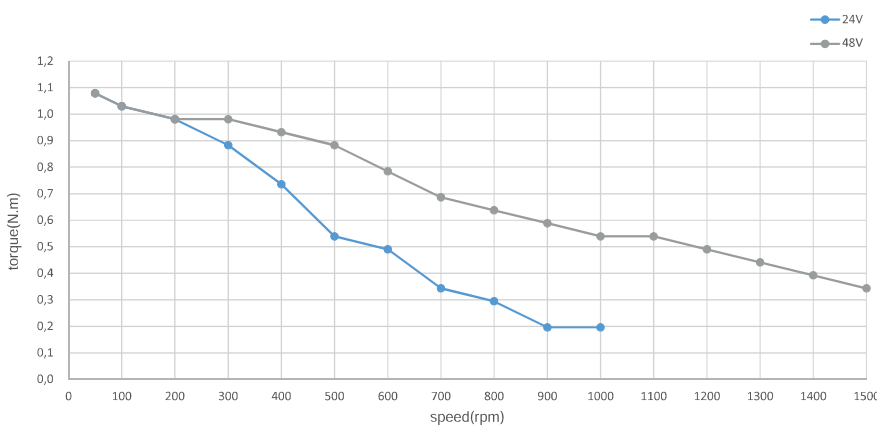
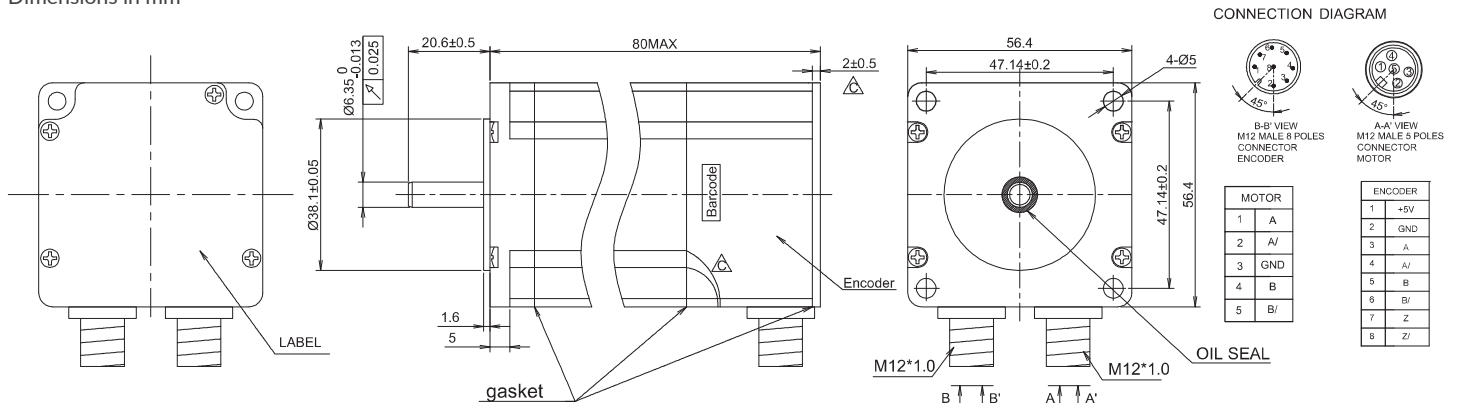
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	2.82 A/ph	0.85 ohm	2.50 mH	1.10 Nm	280.00 g.cm ²	850 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.8 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

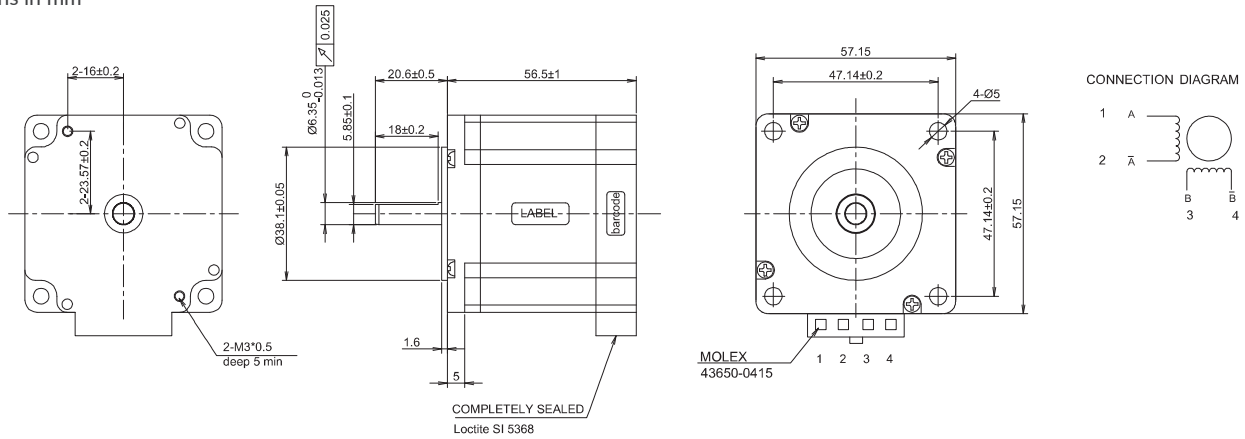
Connector on board

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
1.68 V	4.20 A/ph	0.40 ohm	1.30 mH	1.15 Nm	280.00 g.cm ²	720 g.	4

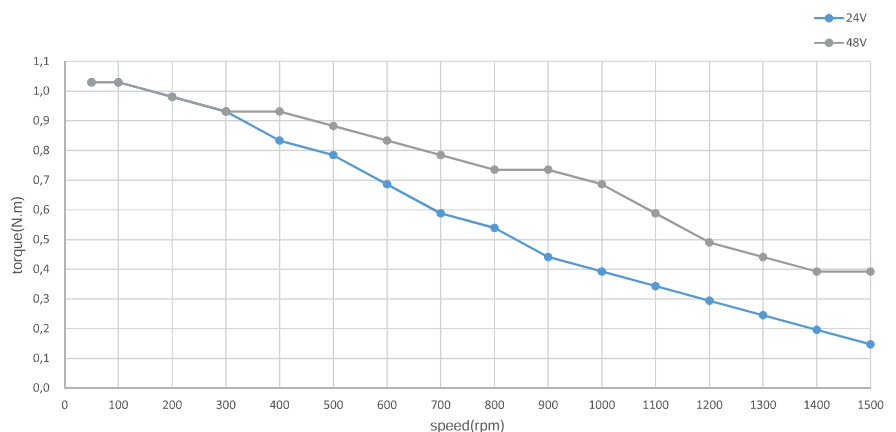
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 4.2 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 65



Other features

Connector on board

Optional

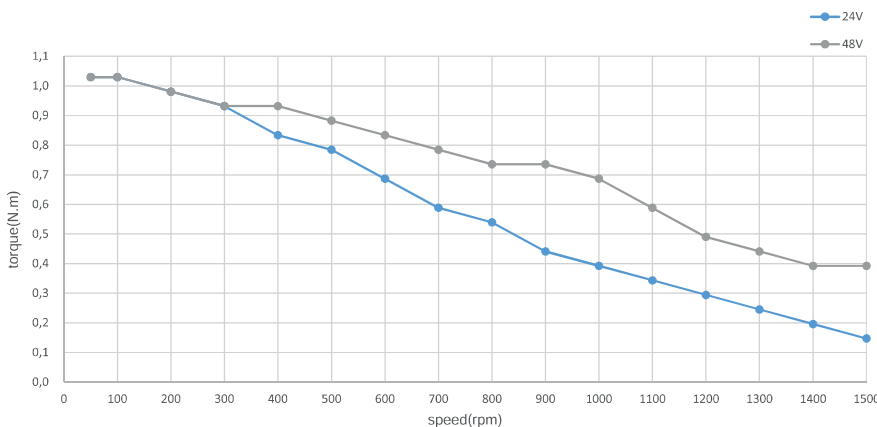
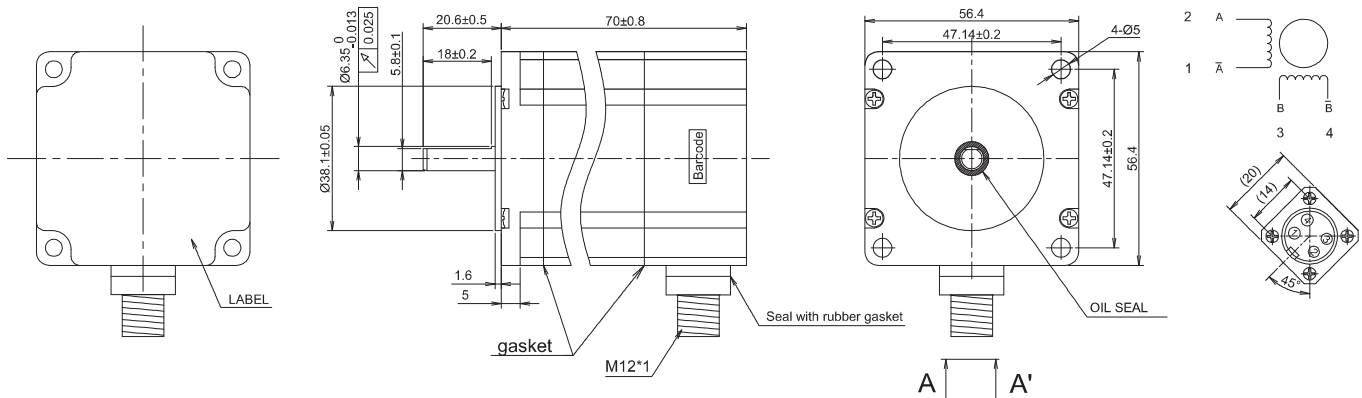
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.35 V	4.20 A/ph	0.40 ohm	1.20 mH	1.20 Nm	300.00 g.cm ²	700 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 4.2 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

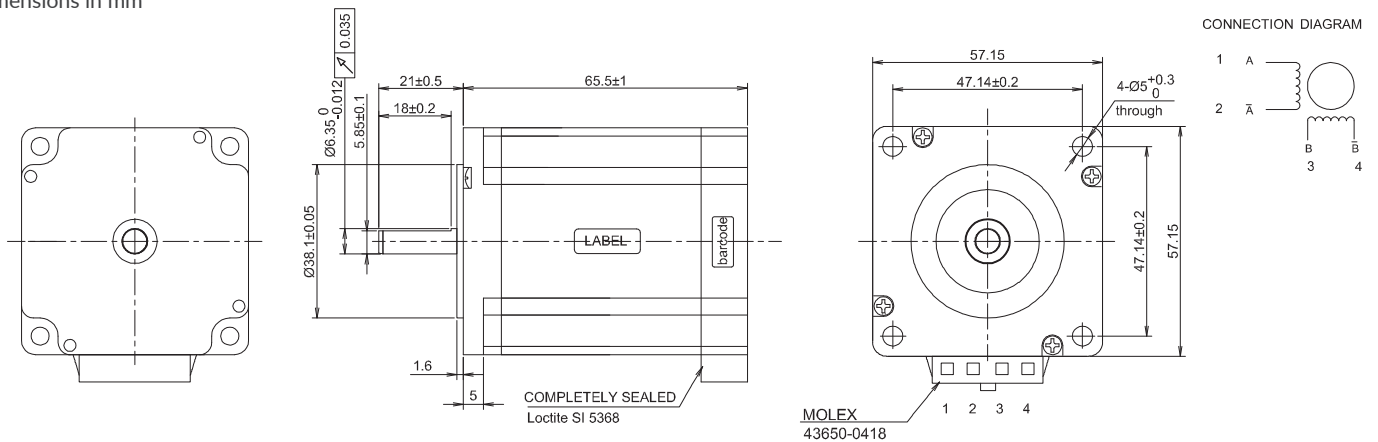
Connector on board

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.91 V	3.00 A/ph	0.97 ohm	3.10 mH	1.70 Nm	516.00 g.cm ²	1000 g.	4

Mechanical drawing

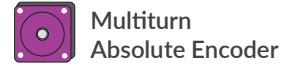
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 65



Encoder features

Type	Absolute multiturn
Power supply	5.00 Vdc
Single turn resolution	17 bits
Multiturn resolution	16 bits
Output type	BiSS-C

Other features

Connectors on board

Optional

CBCP-00065: M16 6 poles femal connector and 16 mt. cable for motor and brake connection

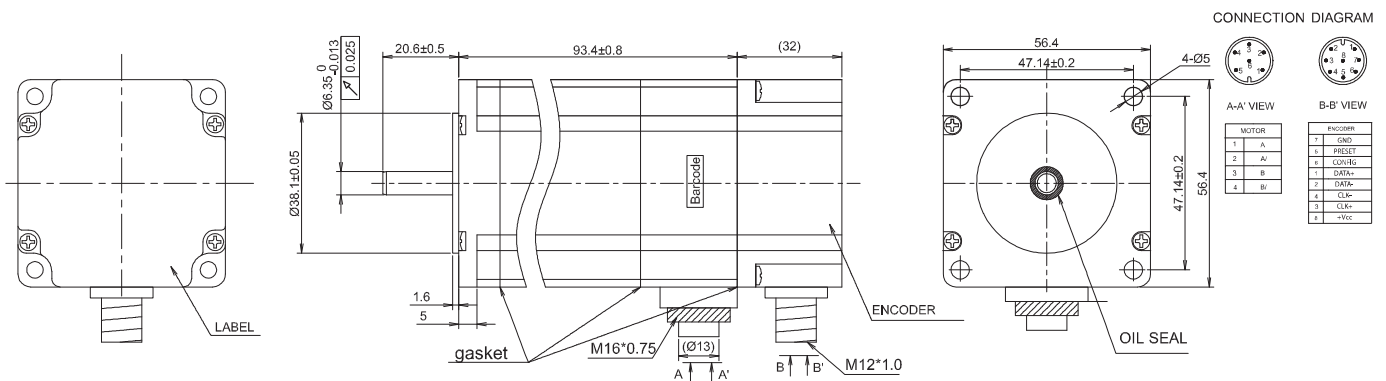
CBCP-00064: M12 8 poles femal connector and 16 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.10 V	4.20 A/ph	0.50 ohm	1.77 mH	2.00 Nm	520.00 g.cm ²	2000 g.	4

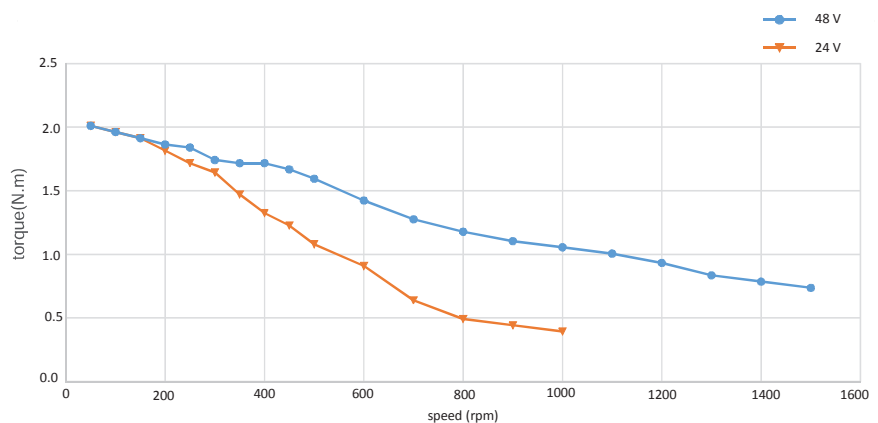
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 4.2 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 65



Other features

Connector on board

Optional

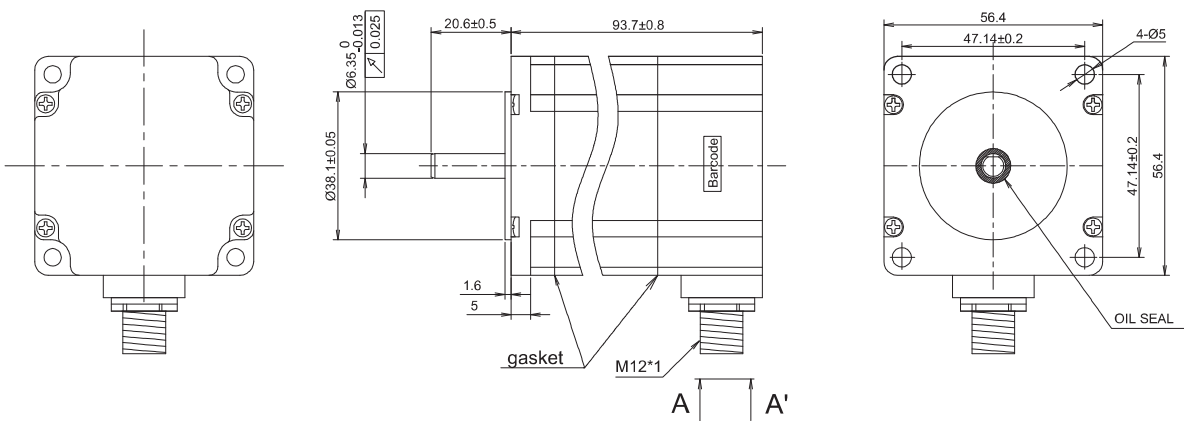
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

Specification

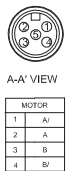
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.10 V	4.20 A/ph	0.50 ohm	1.80 mH	2.20 Nm	516.00 g.cm ²	1000 g.	4

Mechanical drawing

Dimensions in mm



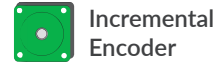
CONNECTION DIAGRAM





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

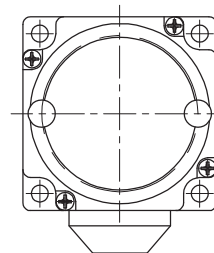
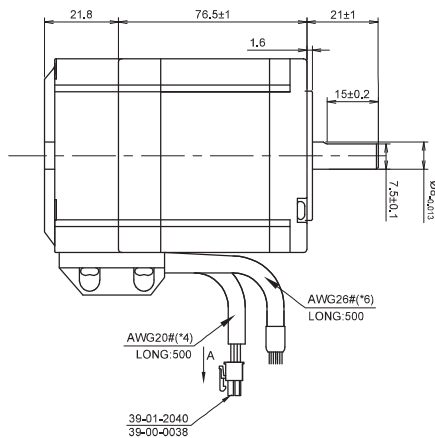
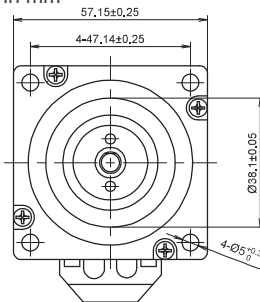
Encoder connector at lead wires end

Specification

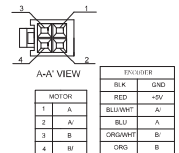
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.00 V	5.00 A/ph	0.40 ohm	1.70 mH	2.00 Nm	520.00 g.cm ²	1300 g.	4

Mechanical drawing

Dimensions in mm

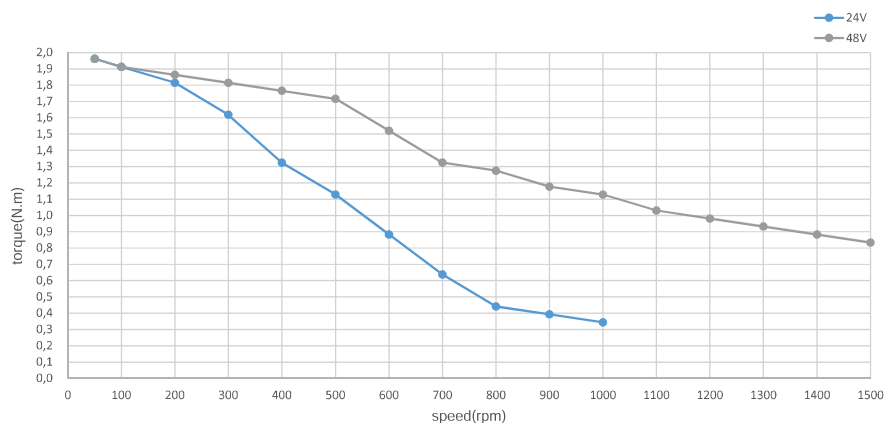


CONNECTION DIAGRAM



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Brake

Other features

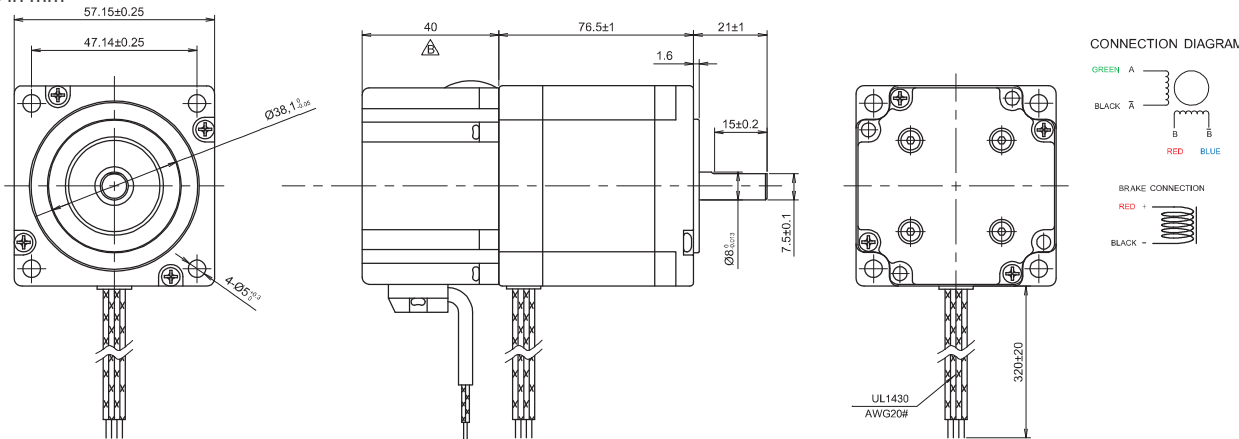
Brake	Power supply 24 Vdc Braking force 2.0 Nm
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Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.00 V	5.00 A/ph	0.40 ohm	1.80 mH	2.00 Nm	480.00 g.cm ²	1000 g.	4

Mechanical drawing

Dimensions in mm



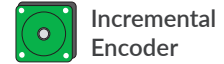


Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Brake



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

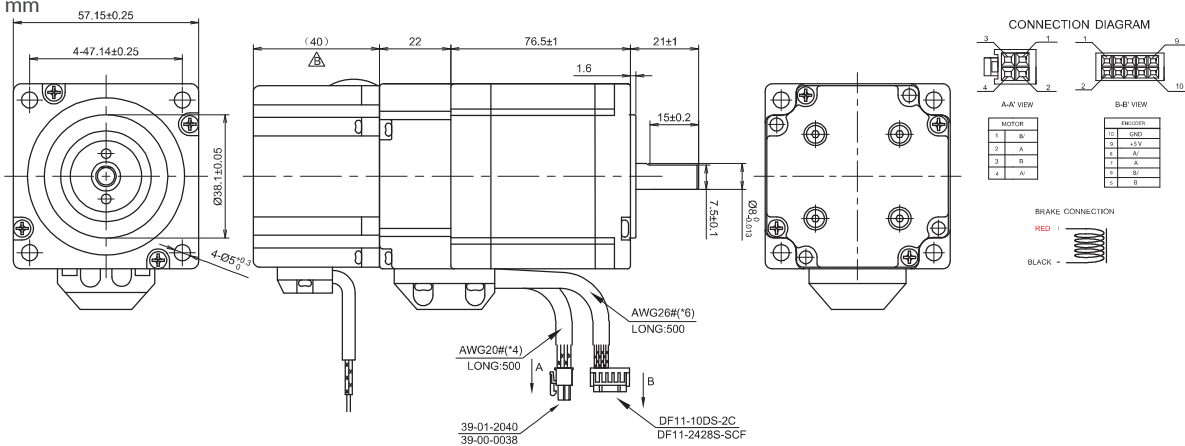
Brake	Power supply 24 Vdc Braking force 2.0 Nm
Connectors at lead wires end	

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
1.90 V	5.00 A/ph	0.38 ohm	1.70 mH	2.00 Nm	480.00 g.cm ²	1000 g.	4

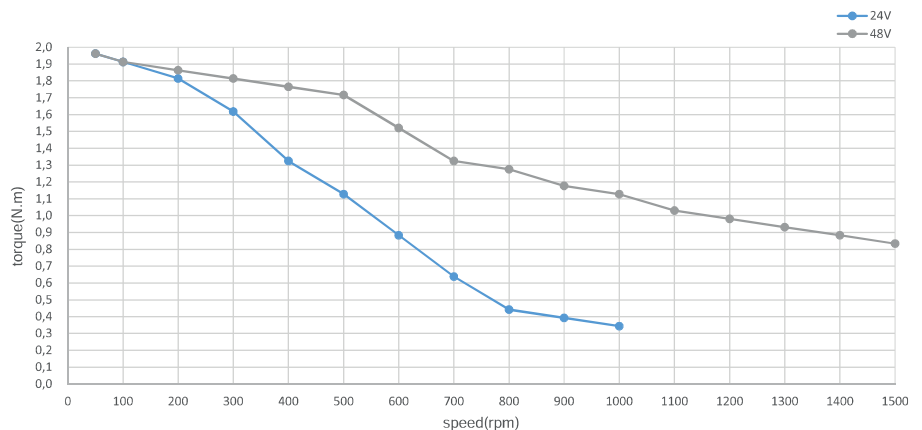
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40

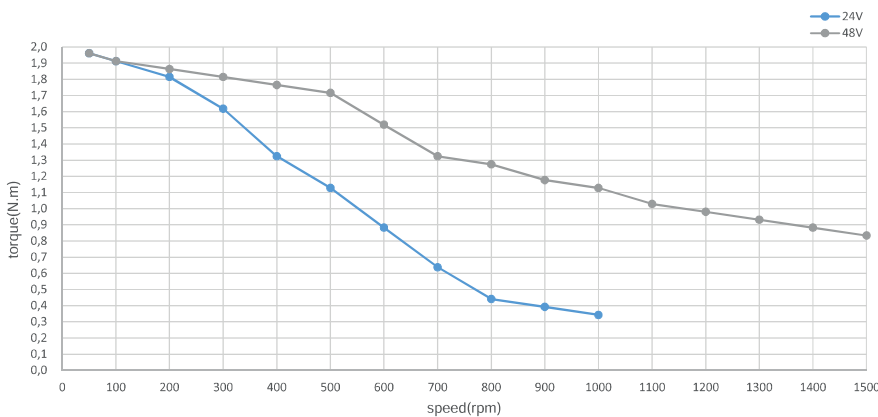
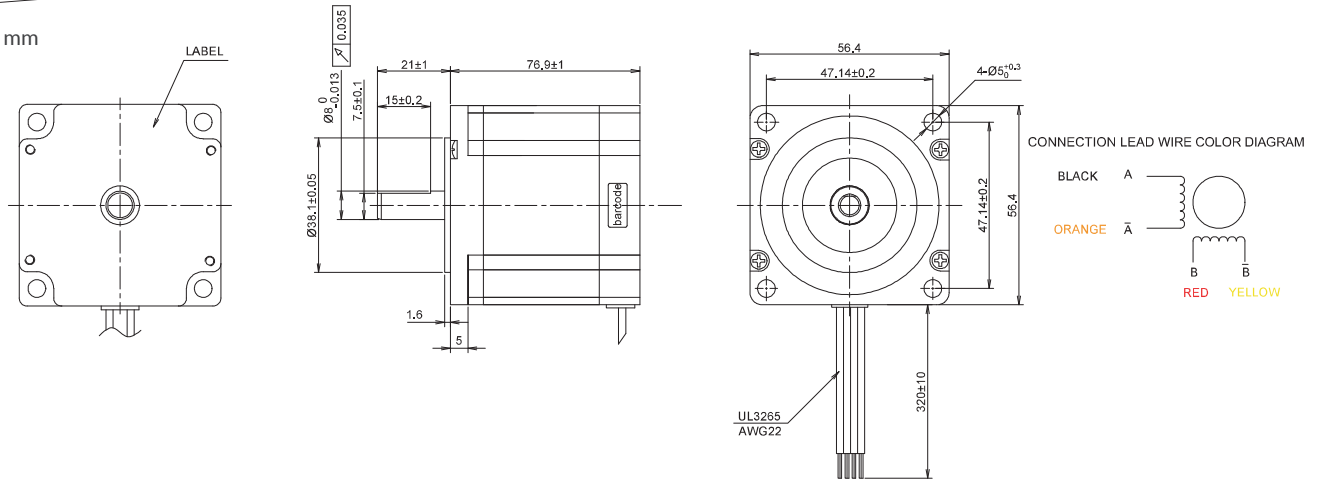


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.30 V	5.00 A/ph	0.46 ohm	1.83 mH	2.20 Nm	600.00 g.cm ²	1300 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.0 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40

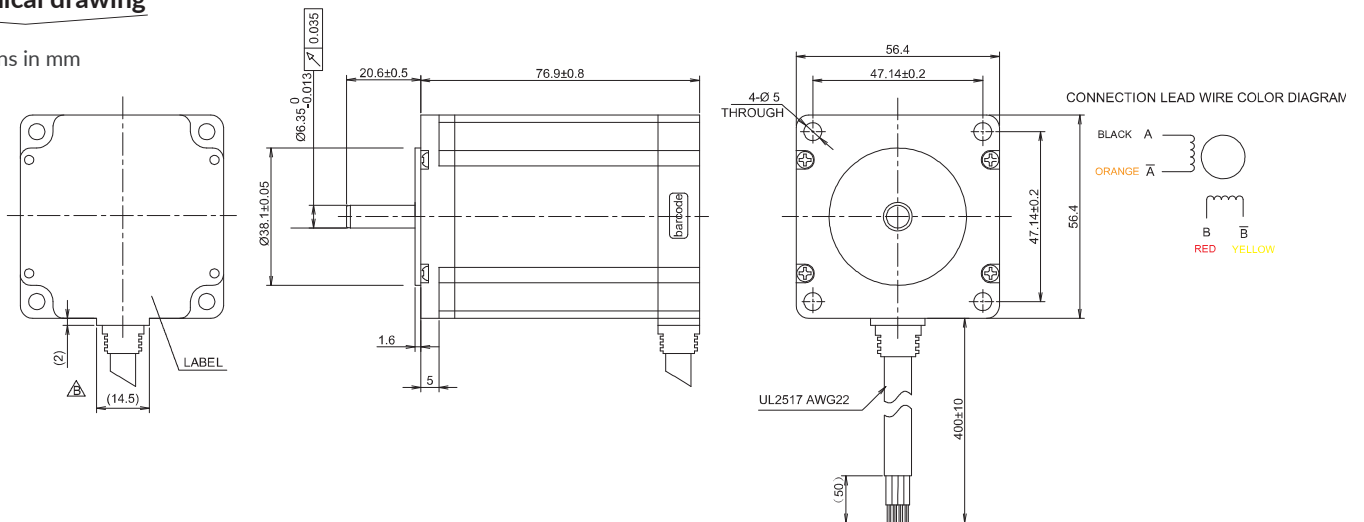


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
1.85 V	5.60 A/ph	0.33 ohm	0.80 mH	1.87 Nm	516.00 g.cm ²	1100 g.	4

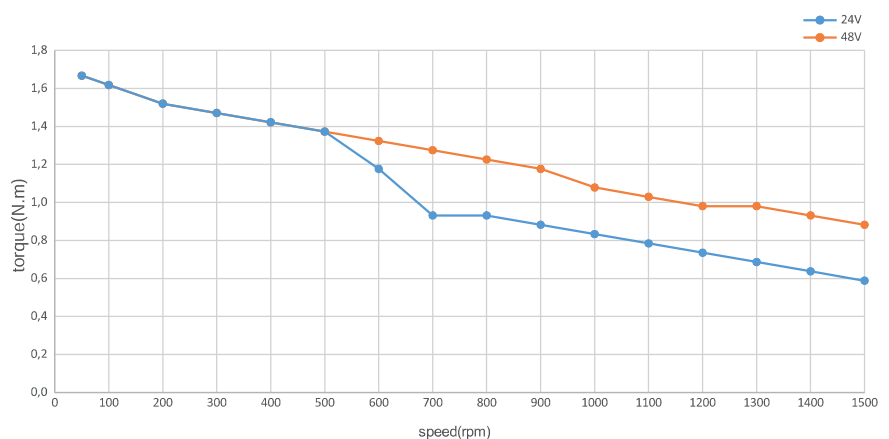
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.6 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 24 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40

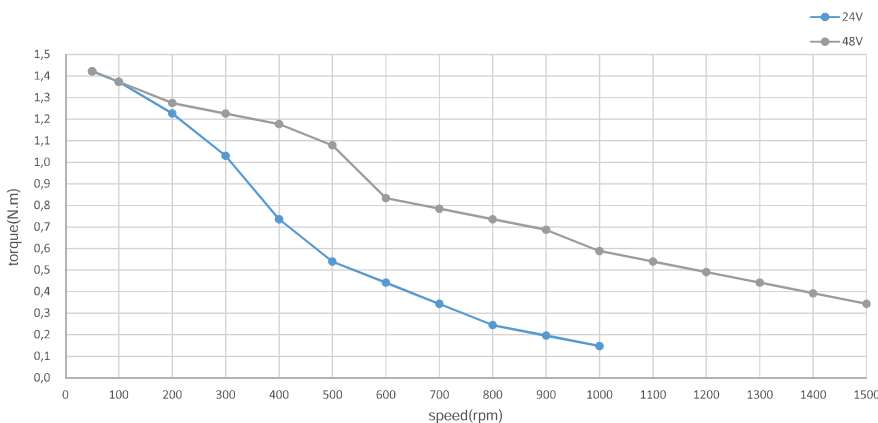
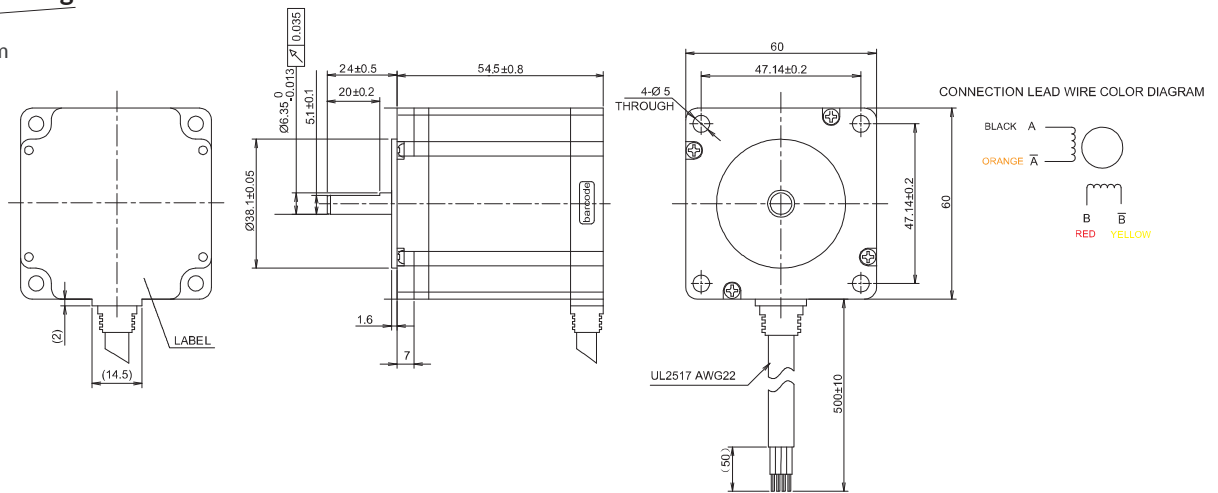


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.12 V	2.80 A/ph	1.20 ohm	4.00 mH	1.60 Nm	450.00 g.cm ²	550 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.8 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 24 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Other features

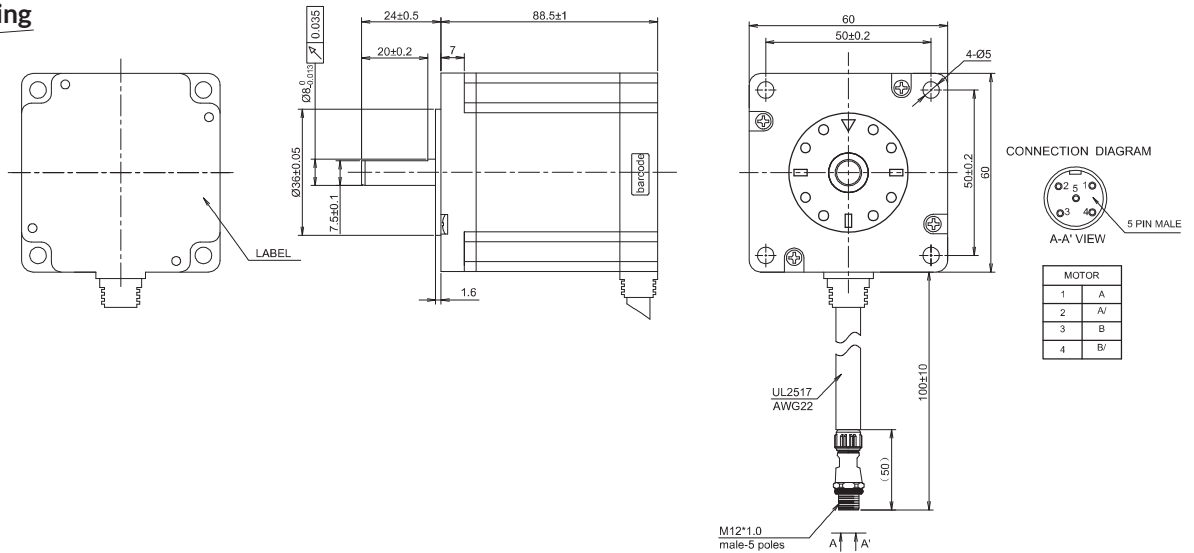
- UL certification
- Connector at lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.90 V	3.00 A/ph	1.30 ohm	5.10 mH	3.00 Nm	922 g.cm ²	1800 g.	4

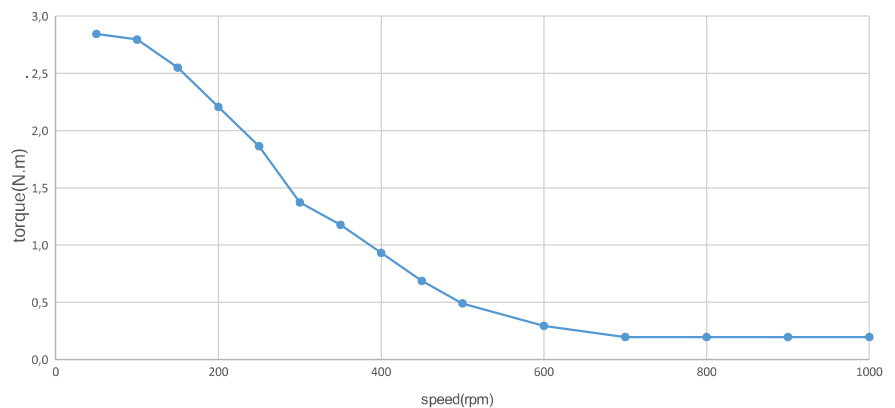
Mechanical drawing

Dimensions in mm



Torque diagram

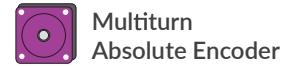
Drive conditions:
Voltage 24 Vdc
Current 3.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 24 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 65



Encoder features

Type	Absolute multiturn
Power supply	5.00 Vdc
Single turn resolution	17 bits
Multi turn resolution	16 bits
Output type	Biss-C

Other features

Connectors on board

Optional

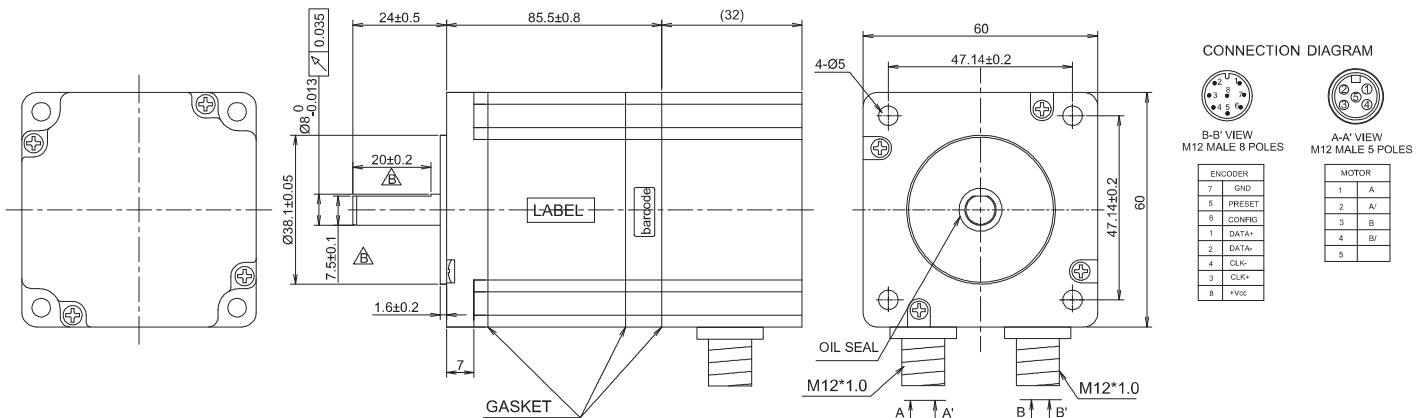
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.15 V	4.20 A/ph	0.75 ohm	3.00 mH	3.00 Nm	920.00 g.cm ²	2000 g.	4

Mechanical drawing

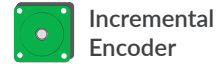
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Driver

Other features

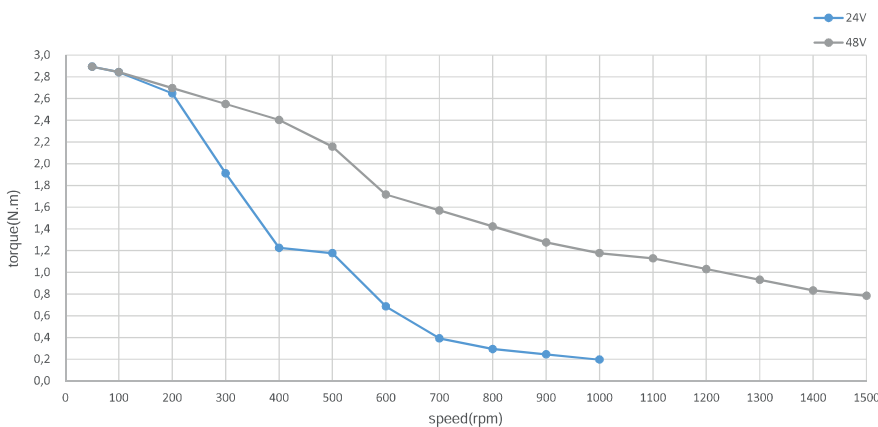
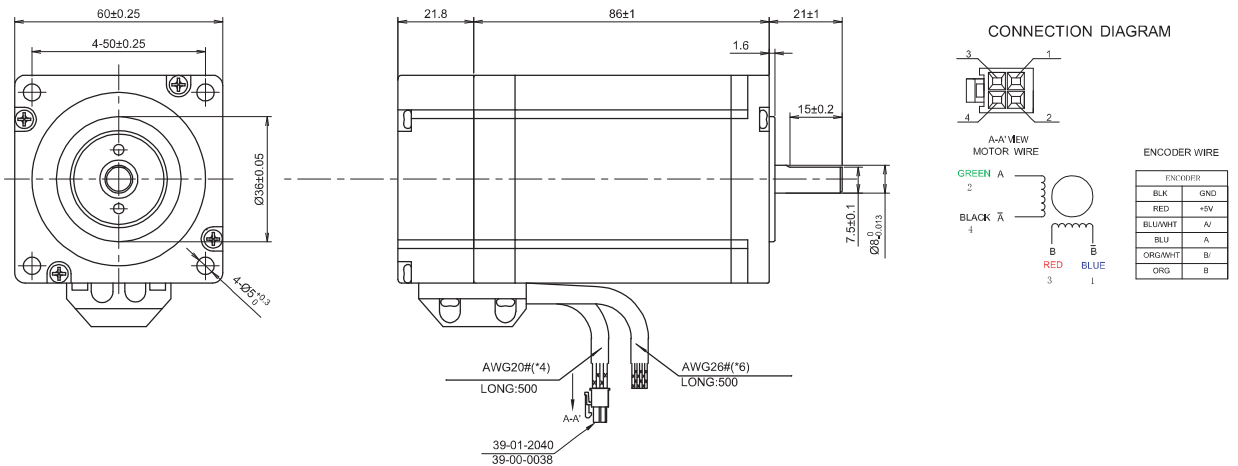
Connectors at lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.25 V	5.00 A/ph	0.45 ohm	1.80 mH	3.00 Nm	900.00 g.cm ²	1500 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.0 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP	IP 40



Brake



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Driver

Other features

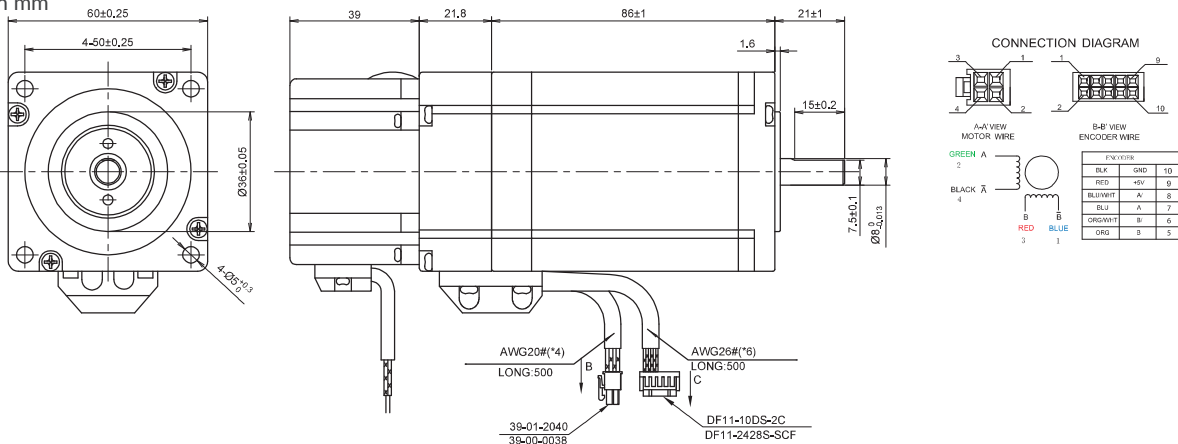
Brake	Power supply 24 Vdc
Connectors at the lead wires end	Braking force 2.0 Nm

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.30 V	5.00 A/ph	0.46 ohm	2.00 mH	3.00 Nm	900.00 g.cm ²	1500 g.	4

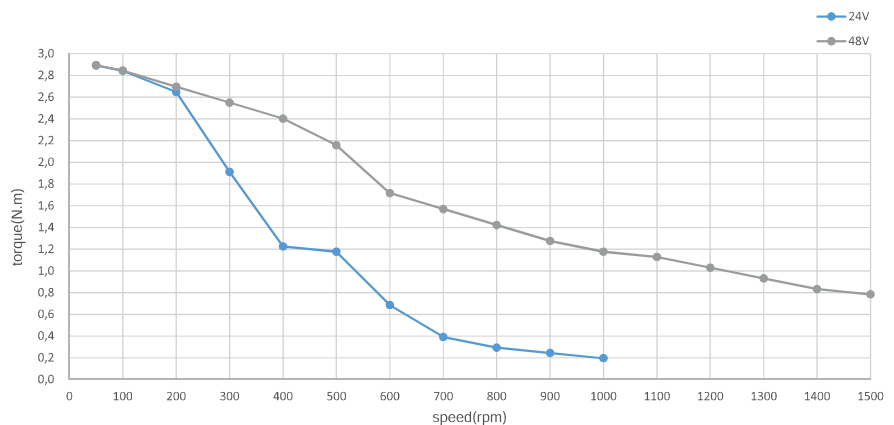
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 5.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40

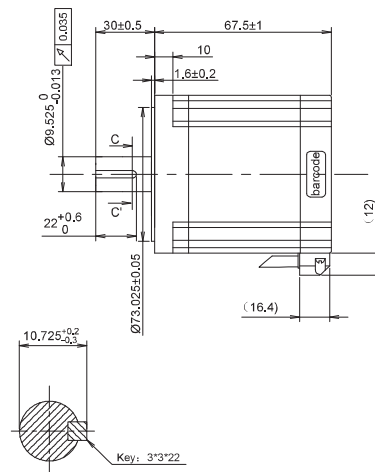
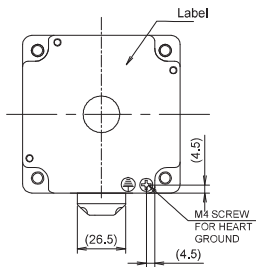


Specification

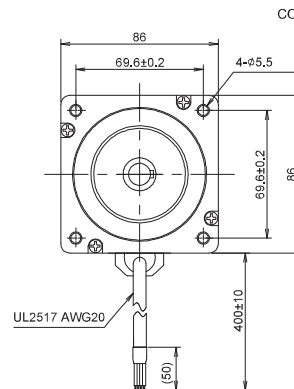
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
1.38 V	6.00 A/ph	0.23 ohm	1.72 mH	3.60 Nm	1100 g.cm ²	1800 g.	4

Mechanical drawing

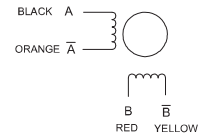
Dimensions in mm



C-C'VIEW



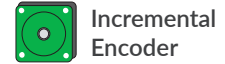
CONNECTION LEAD WIRE COLOR DIAGRAM





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 40 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

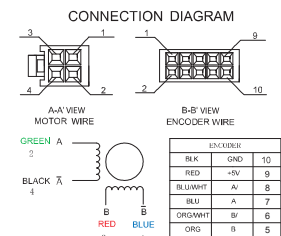
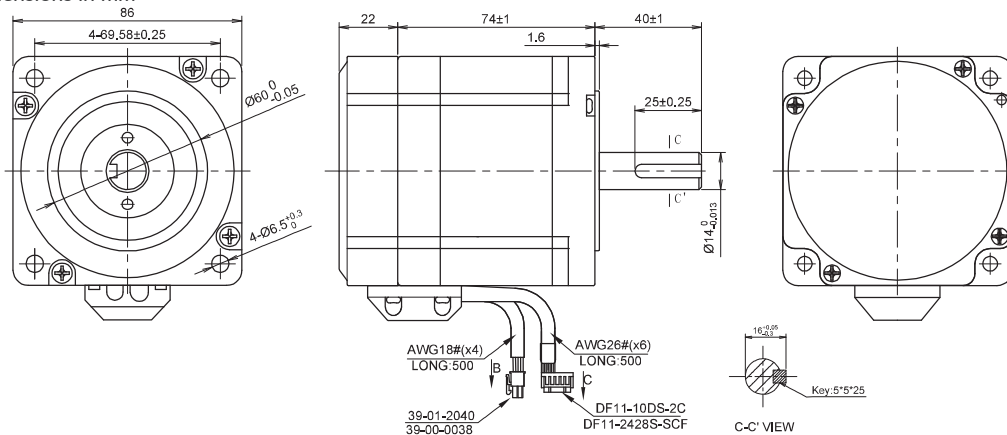
Connectors at the lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.04 V	6.00 A/ph	0.34 ohm	2.70 mH	4.20 Nm	1900 g.cm ²	2300 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP	IP40

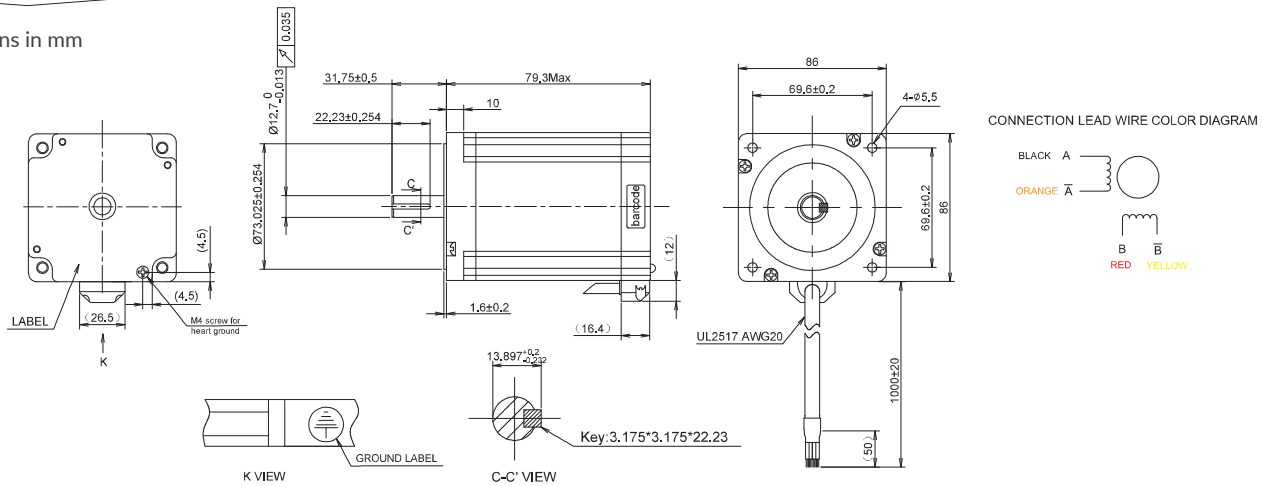


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	6.00 A/ph	0.40 ohm	3.30 mH	5.36 Nm	1878 g.cm ²	2300 g.	4

Mechanical drawing

Dimensions in mm







Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



-  115/230 Vac High Voltage
-  Incremental Encoder

Encoder features

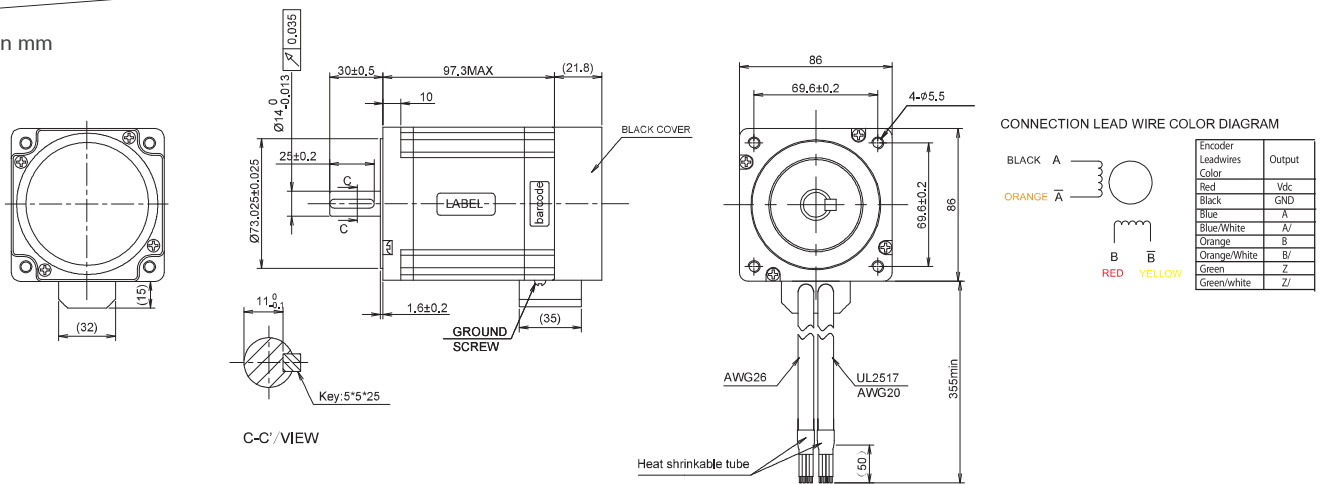
Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.04 V	2.00 A/ph	3.50 ohm	30.00 mH	7.00 Nm	2700 g.cm ²	2900 g.	4

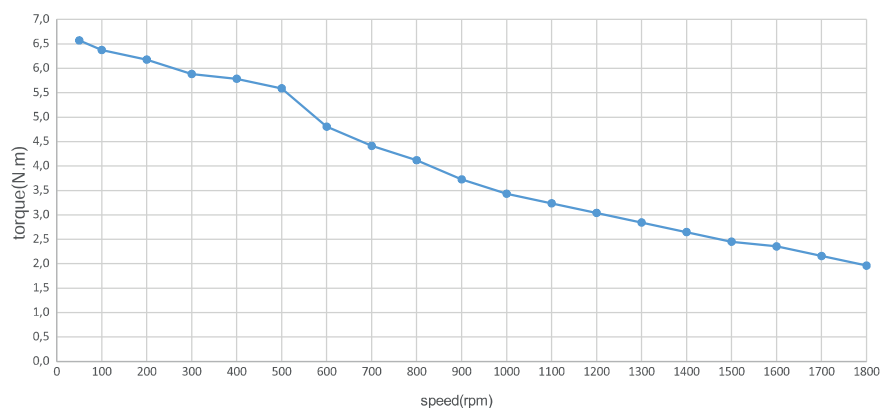
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 230 Vac
Current 2.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 43



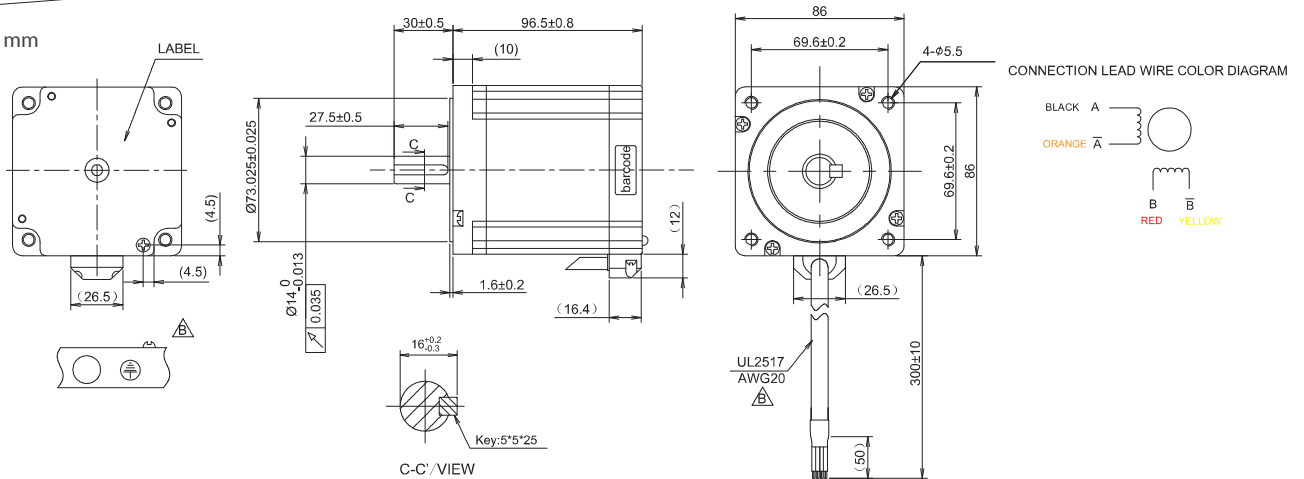
115/230 Vac
High Voltage

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.00 V	4.00 A/ph	1.00 ohm	8.00 mH	7.00 Nm	2700 g.cm ²	3000 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40

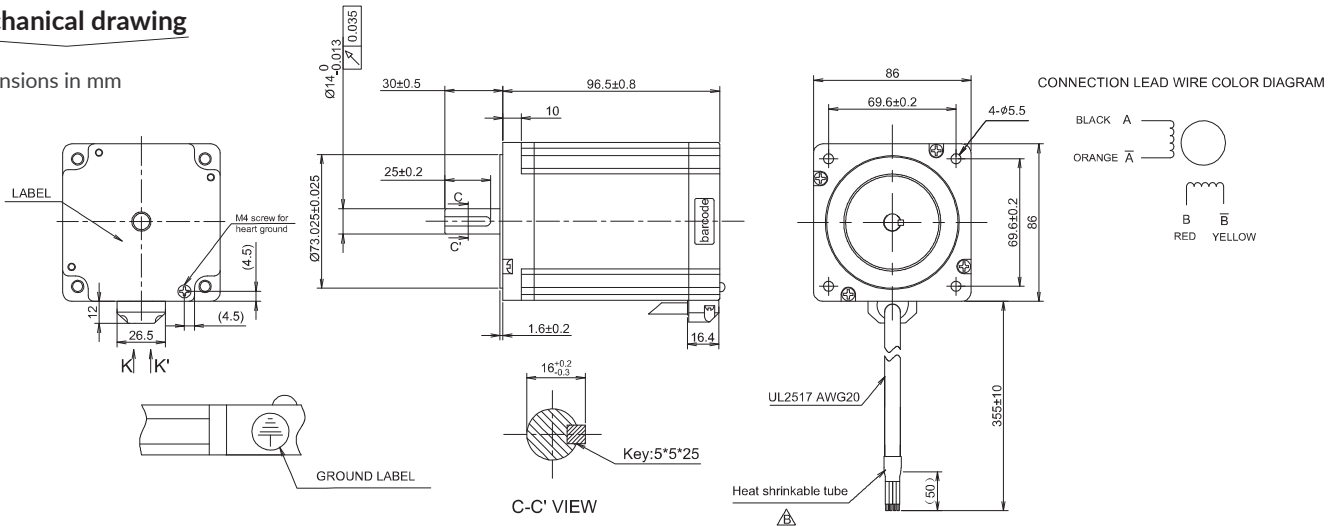


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	6.00 A/ph	0.40 ohm	3.40 mH	7.00 Nm	2692 g.cm ²	2900 g.	4

Mechanical drawing

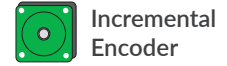
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 40 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

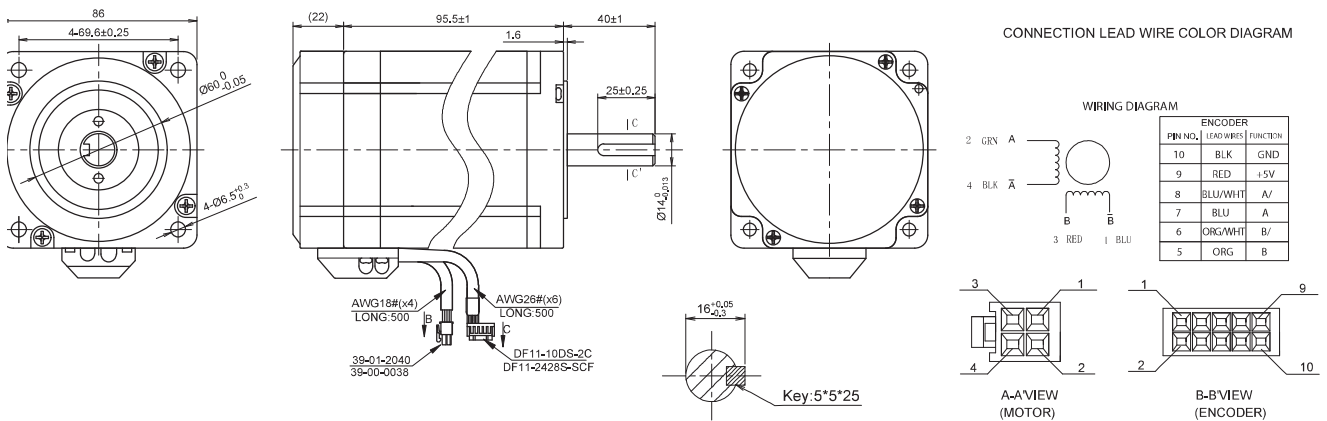
Connectors at the lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.04 V	6.00 A/ph	0.46 ohm	3.80 mH	7.00 Nm	2800 g.cm ²	2900 g.	4

Mechanical drawing

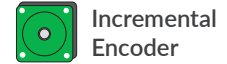
Dimensions in mm





Motor features

Step angle	1,8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 40 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

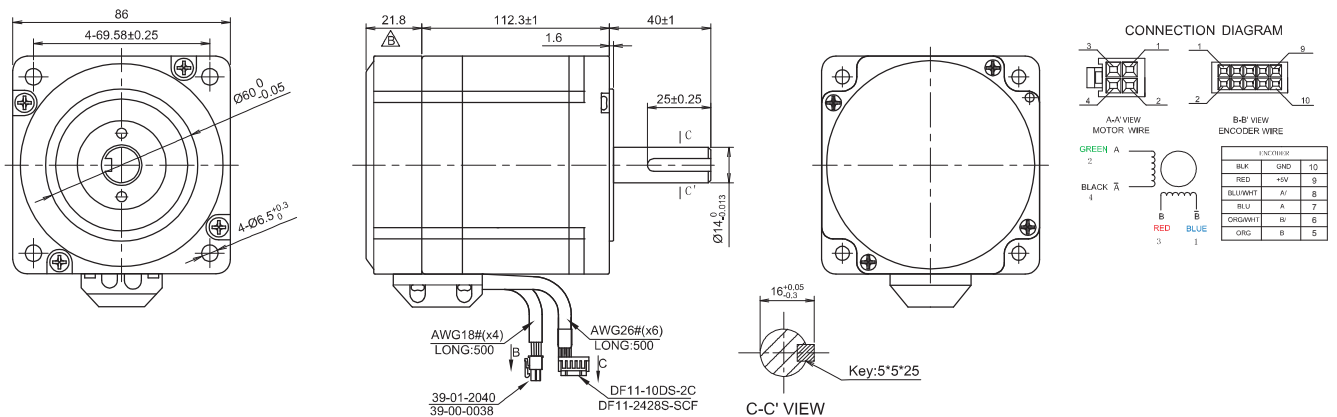
Connectors at the lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.12 V	6.00 A/ph	0.54 ohm	5.20 mH	8.20 Nm	3800 g.cm ²	4000 g.	4

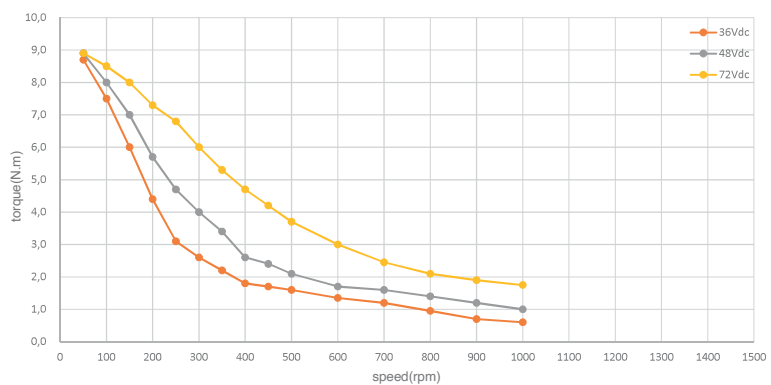
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 38 Vdc / 47 Vdc / 72 Vdc
Current 6.0 A/ph
Half step





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 40 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



Brake



Incremental Encoder

Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Other features

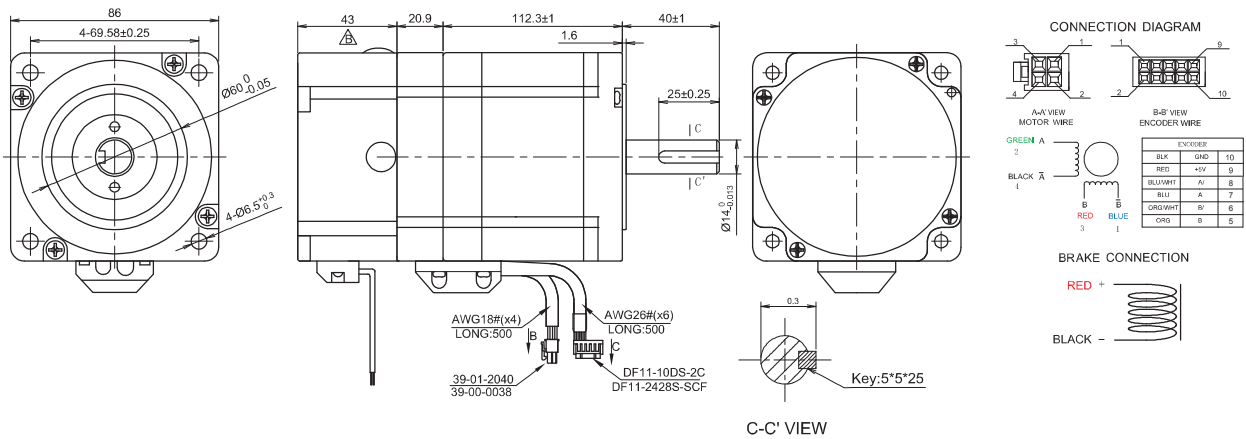
Brake	Power supply 24 Vdc
Connectors at the lead wires end	Braking force 5.0 Nm

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.24 V	6.00 A/ph	0.54 ohm	5.20 mH	8.20 Nm	3800 g.cm ²	4000 g.	4

Mechanical drawing

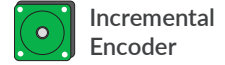
Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 65



Encoder features

Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Driver

Other features

Connectors on board

Optional

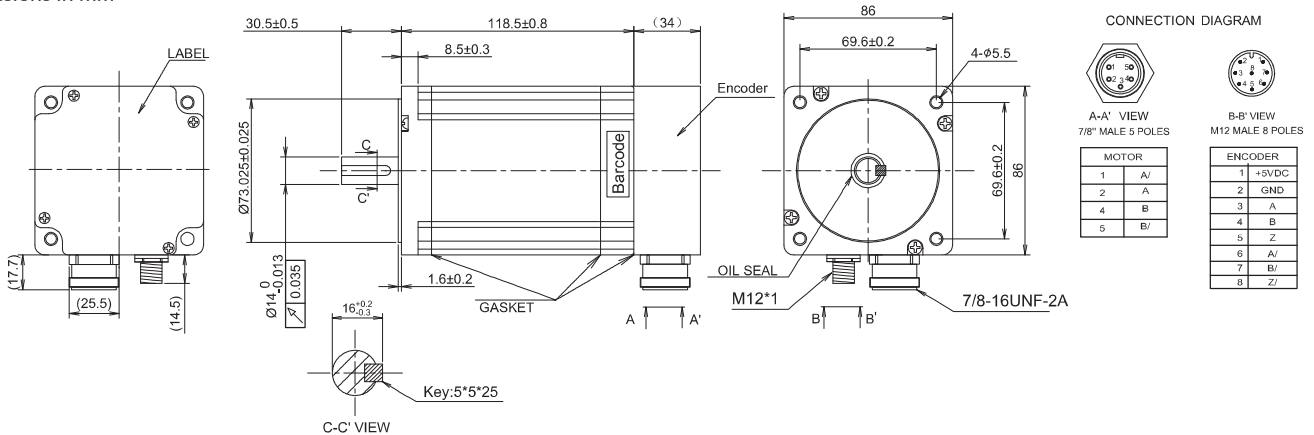
CBCP-00092: 7/8" 5 poles femal connector and 4.0 mt. cable for motor connection
CBCP-00093: M12 8 poles femal connector and 4.0 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	6.00 A/ph	0.40 ohm	4.20 mH	8.50 Nm	3800 g.cm ²	4000 g.	4

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 65



Other features

Connector on board

Optional

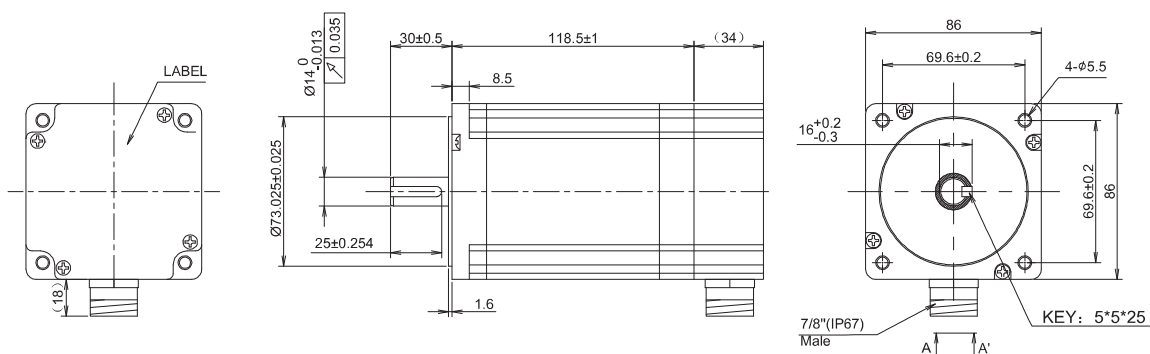
CBCP-00092: 7/8" 5 poles femal connector and 4.0 mt. cable for motor connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.40 V	6.00 A/ph	0.40 ohm	4.20 mH	8.50 Nm	3800 g.cm ²	4000 g.	4

Mechanical drawing

Dimensions in mm

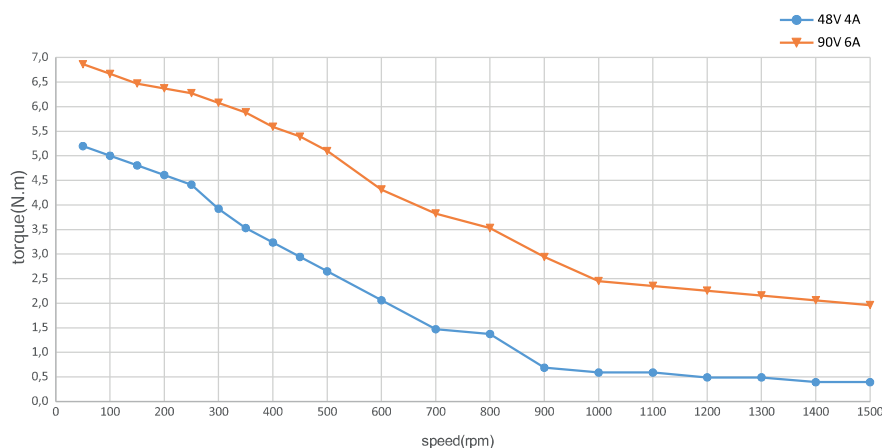


CONNECTION DIAGRAM



A-A' VIEW
7/8" MALE 5 POLES
CONNECTOR
MOTOR

MOTOR	
1	V
2	A
3	GND
4	B
5	B'



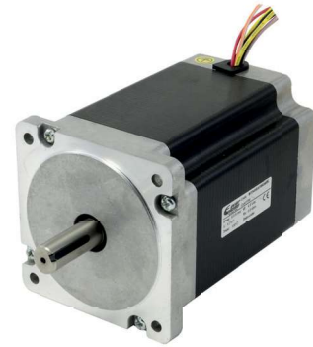
Torque diagram

Drive conditions:
Voltage 48 Vdc / 90 Vdc
Current 4.0 A/ph and 6.0 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40

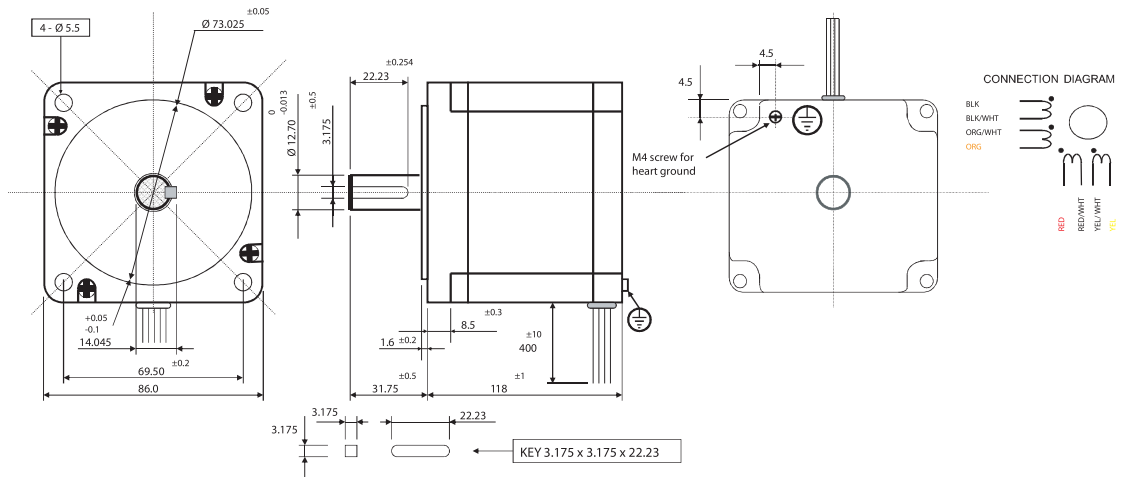


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.12 V	6.00 A/ph	0.60 ohm	3.20 mH	11.80 Nm	3800 g.cm ²	4000 g.	8

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 27 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 65



- IP65 Protection
- Brake
- Multiturn Absolute Encoder

Encoder features

Type	Absolute multiturn
Power supply	5.00 Vdc
Single turn resolution	17 bits
Multi turn resolution	16 bits
Output type	BISS-C

Other features

Connectors on board	Power supply 24 Vdc
Brake	Braking force 5.0 Nm

Optional

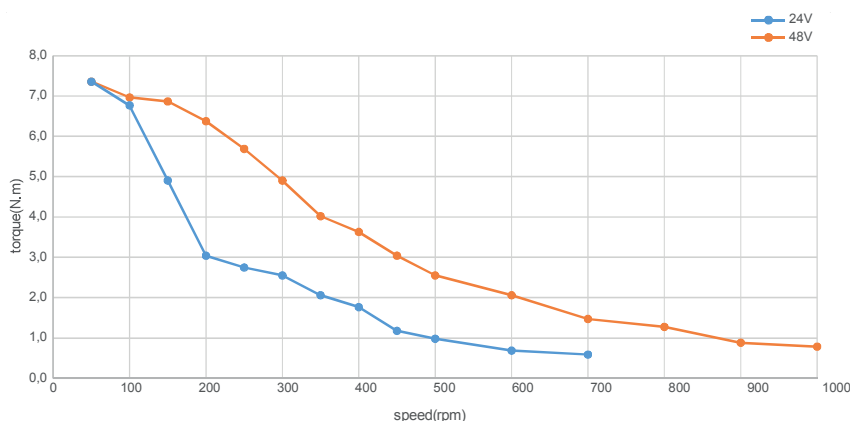
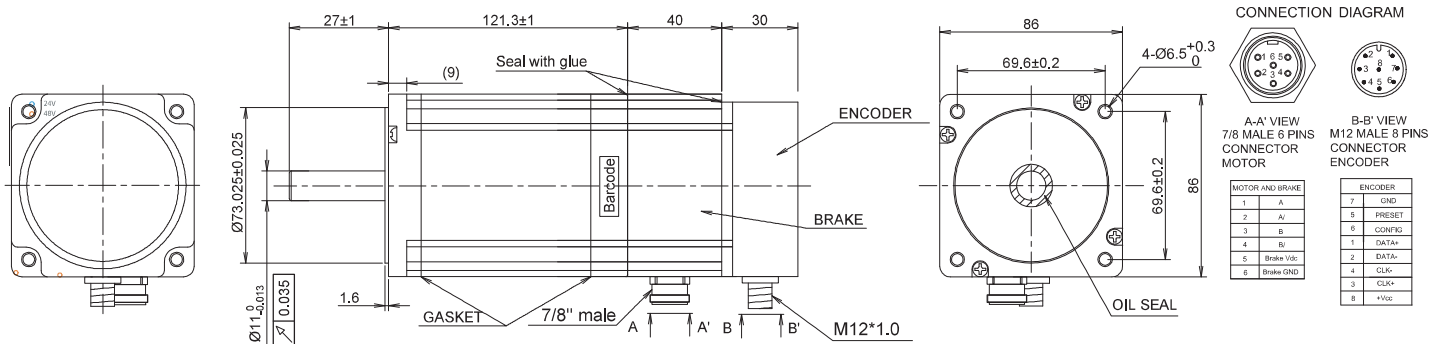
CBCP-00051: 7/8" 6 poles femal connector and 2.5 mt. cable for motor connection
 CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.24 V	9.50 A/ph	0.43 ohm	3.16 mH	10.50 Nm	3800 g.cm ²	5000 g.	4

Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
 Voltage 24 Vdc / 48 Vdc
 Current 9,5 A/ph
 Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40

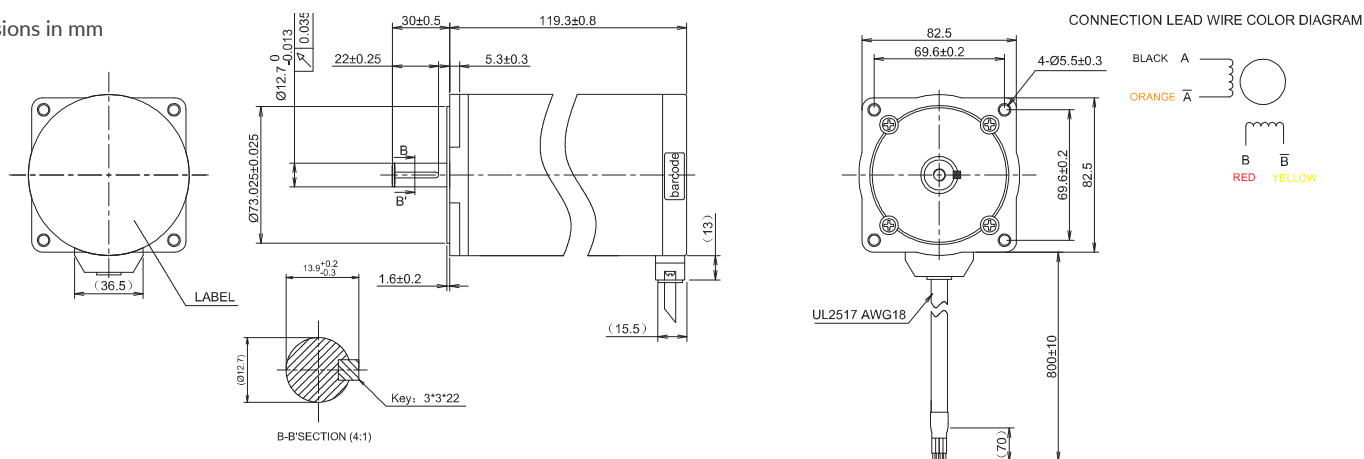


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.60 V	10.00 A/ph	0.26 ohm	2.20 mH	10.00 Nm	3700 g.cm ²	4000 g.	4

Mechanical drawing

Dimensions in mm







Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



-  115/230 Vac High Voltage
-  Incremental Encoder

Encoder features

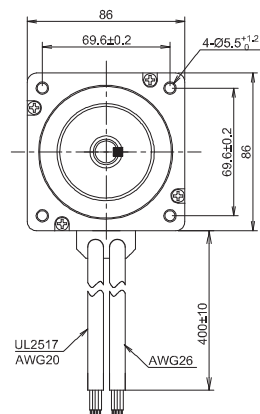
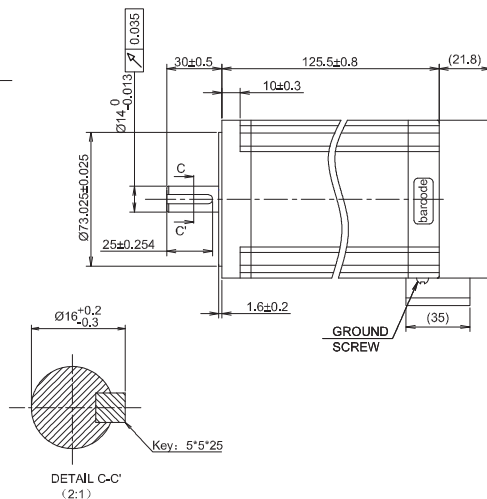
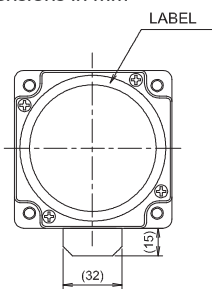
Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

Specification

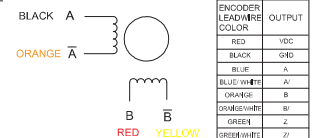
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.80 V	4.00 A/ph	1.20 ohm	11.00 mH	10.00 Nm	4000 g.cm ²	4250 g.	4

Mechanical drawing

Dimensions in mm



CONNECTION LEAD WIRE COLOR DIAGRAM




ENCODER LEAD WIRE COLOR	OUTPUT
RED	VDC
BLACK	GND
BLUE	A
ORANGE	B
ORANGE/WHITE	A'
GREEN	Z
GREEN/WHITE	Z'



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40



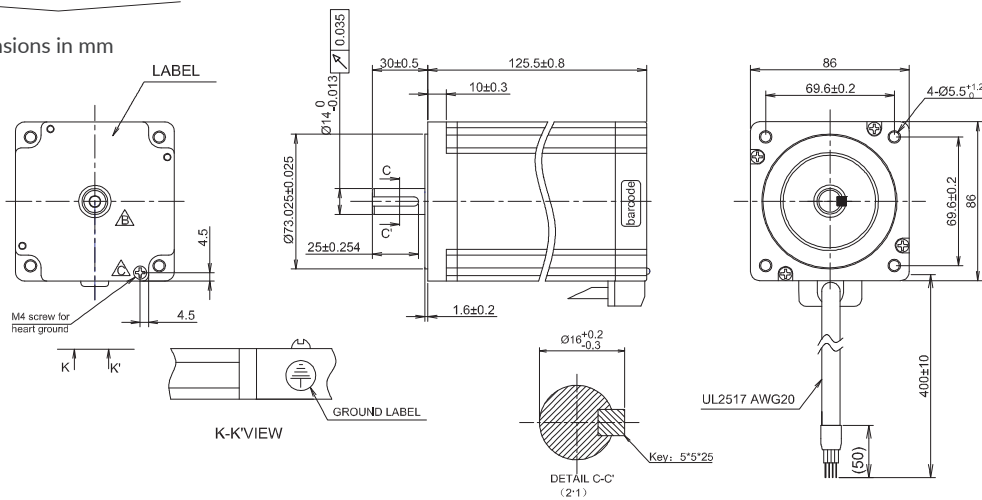
 115/230 Vac
High Voltage

Specification

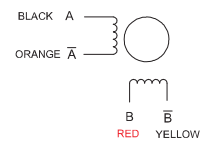
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.24 V	4.00 A/ph	1.20 ohm	11.00 mH	10.00 Nm	4000 g.cm ²	4250 g.	4

Mechanical drawing

Dimensions in mm



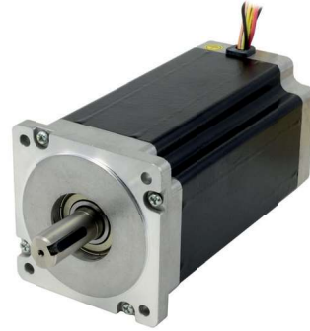
CONNECTION LEAD WIRE COLOR DIAGRAM





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP	IP 40

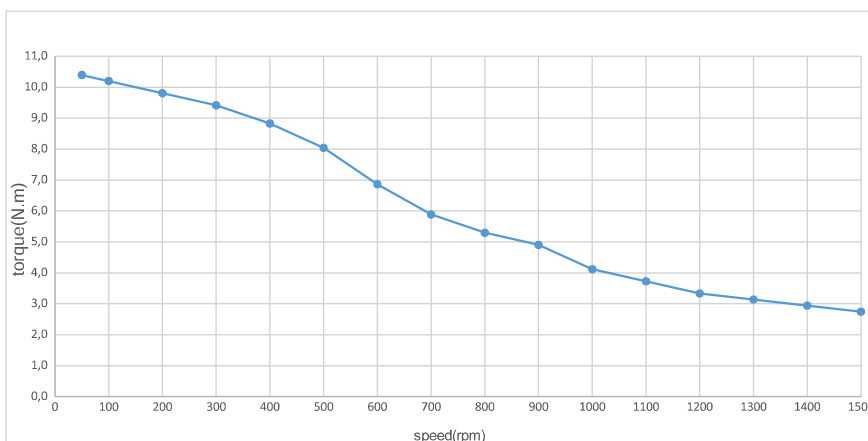
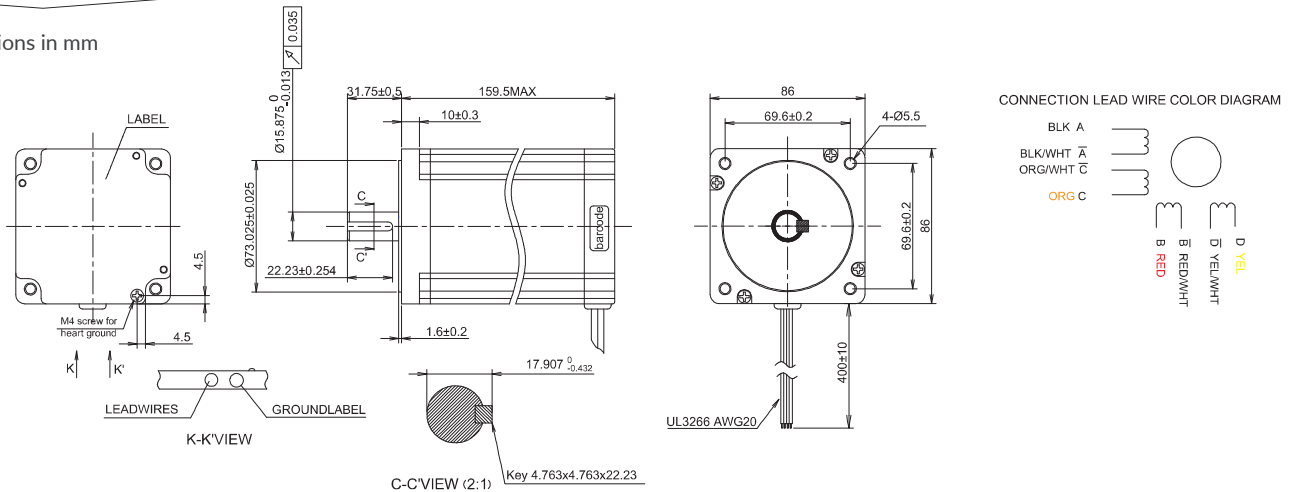


Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.80 V	6.00 A/ph	0.65 ohm	3.40 mH	12.20 Nm	5677 g.cm ²	5500 g.	8

Mechanical drawing

Dimensions in mm



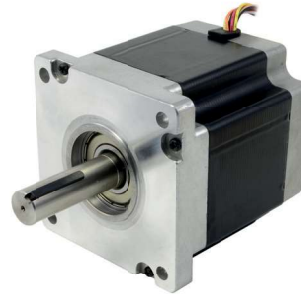
Torque diagram

Drive conditions:
Voltage 100 Vdc
Current 6.0 A/ph
Half step



Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	360 N at 55 mm from front flange
Max shaft axial load	100 N
Protection IP	IP 40



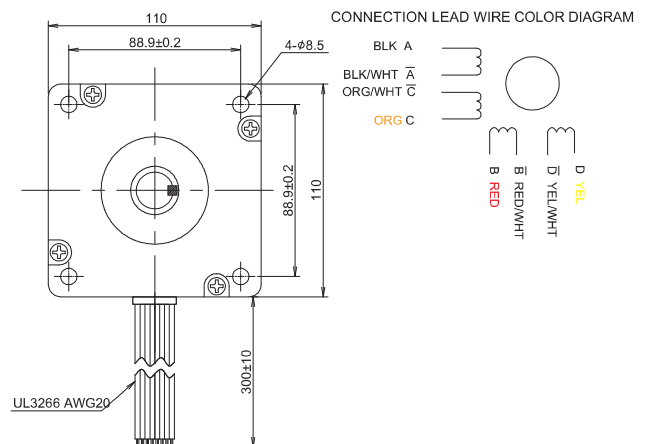
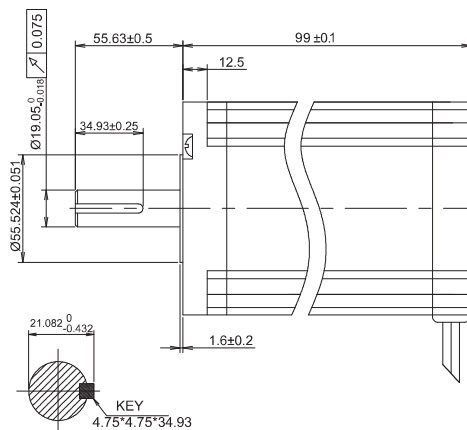
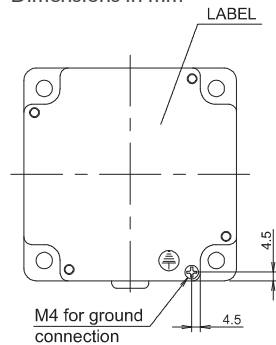
115/230 Vac
High Voltage

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.30 V	7.50 A/ph	0.487 ohm	2.70 mH	12.00 Nm	5600 g.cm ²	6000 g.	8

Mechanical drawing

Dimensions in mm





Motor features

Step angle	1.8°
Step angle accuracy	±5%
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	105K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	1500 Vac, 1 minute
Max shaft radial load	360 N at 55 mm from front flange
Max shaft axial load	100 N
Protection IP	IP 40



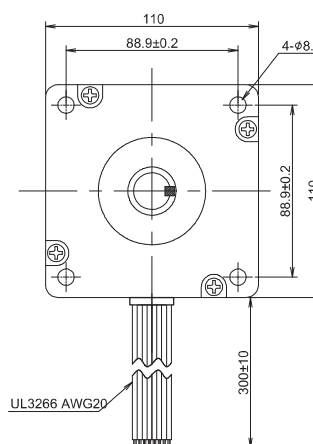
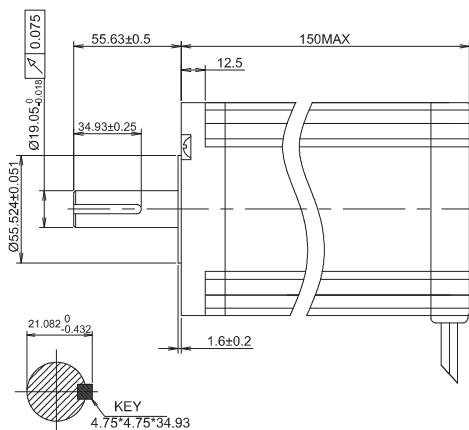
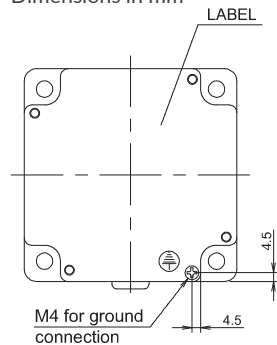
115/230 Vac
High Voltage

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.80 V	11.00 A/ph	0.26 ohm	1.75 mH	22.00 Nm	11100 g.cm ²	8700 g.	8

Mechanical drawing

Dimensions in mm



CONNECTION LEAD WIRE COLOR DIAGRAM

