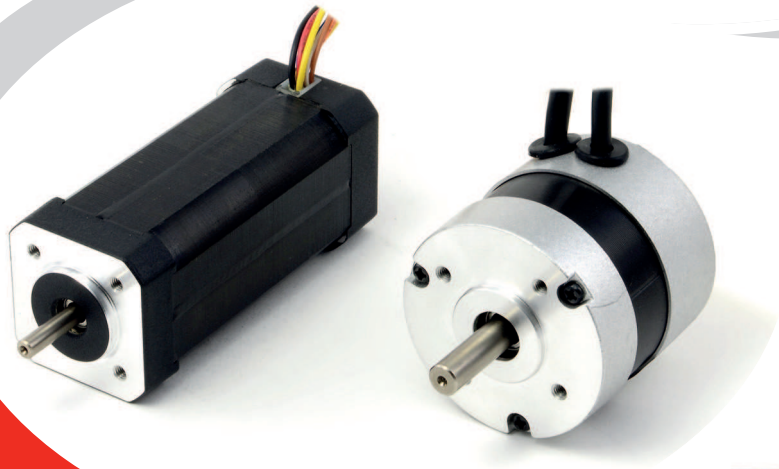
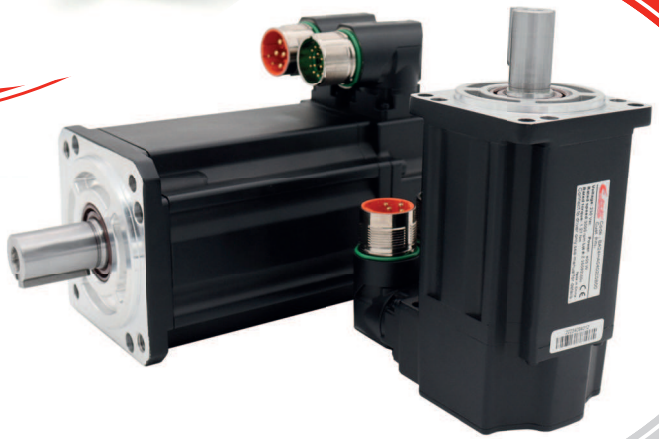
HE Catalogue
High Efficiency Motors

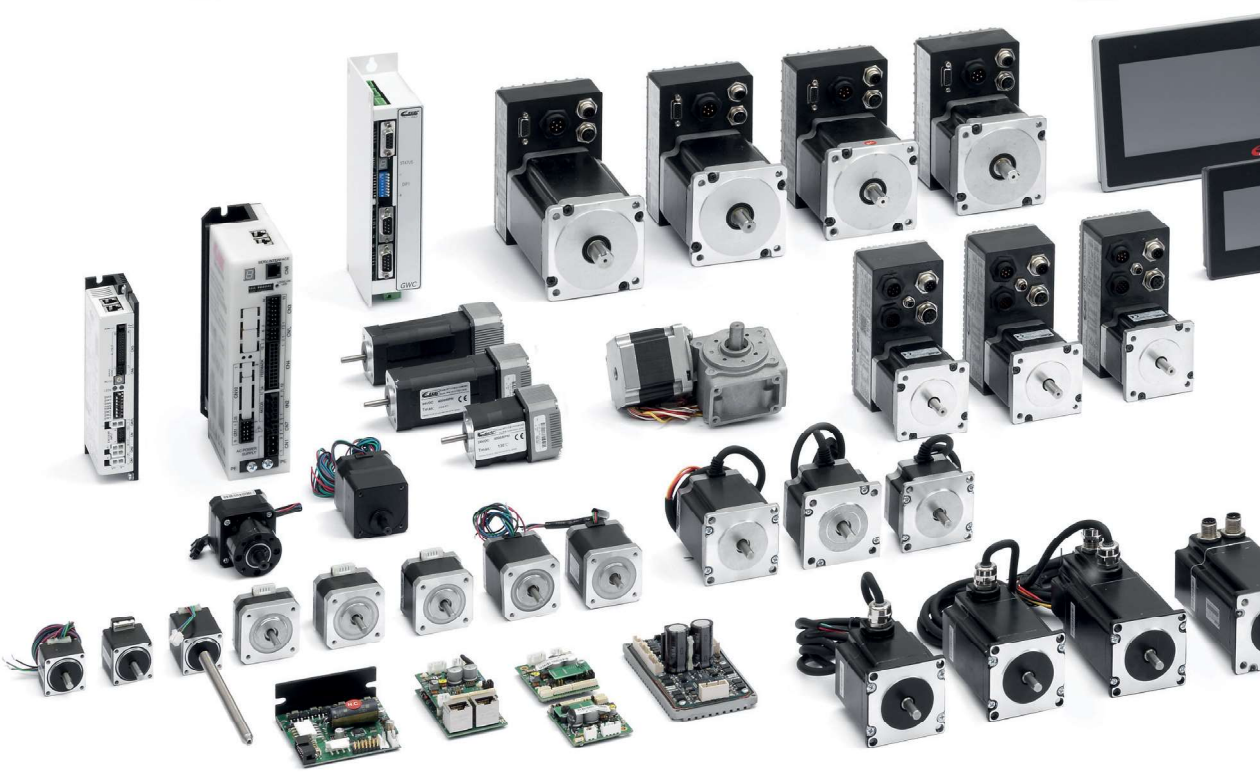




ever
e-MOTION SOLUTIONS

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

Index



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

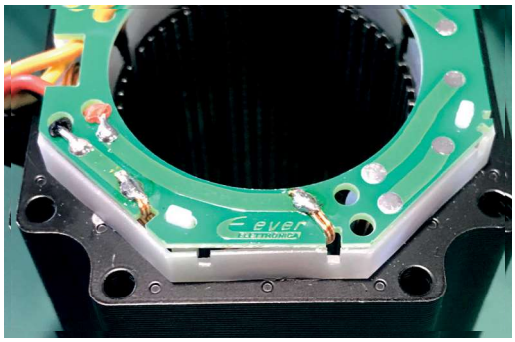
High Efficiency Motors

up to 40% more torque than standard stepper motors

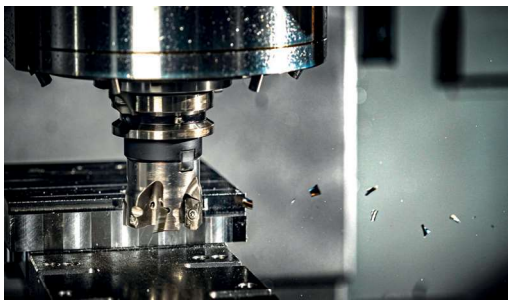
available sizes:
from Nema 08 to Nema 42,
up to 30 Nm

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

High efficiency stepping motor

Ever Motion Solutions 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

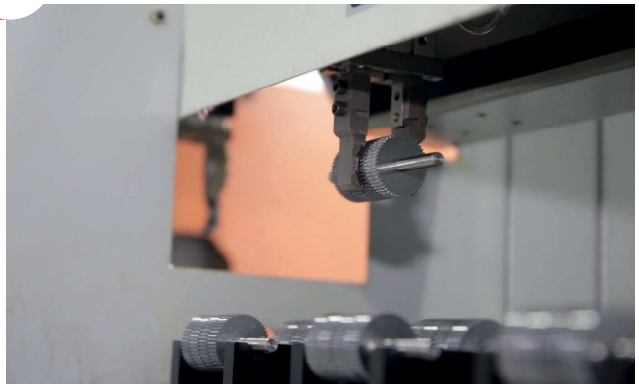
Internal design allows us to create highly customized motors, perfectly in line with customers needs

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 witha utomatic grinding machines and with micrometric precision

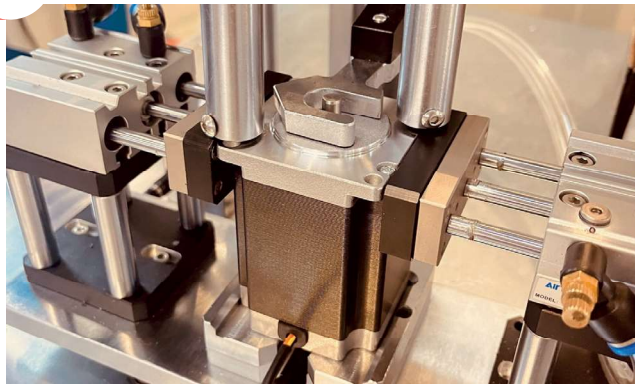
Stators holing

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

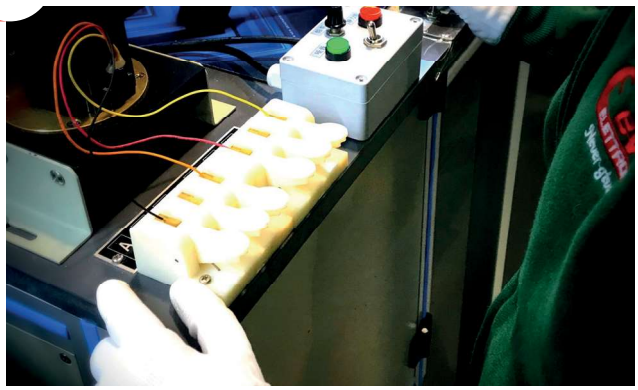


Skilled workers **assemble our motors carefully**, welding the windings to the motor cables with specifically designed PCB and ensuring optimal fixing between axles and bearings

Magnetization

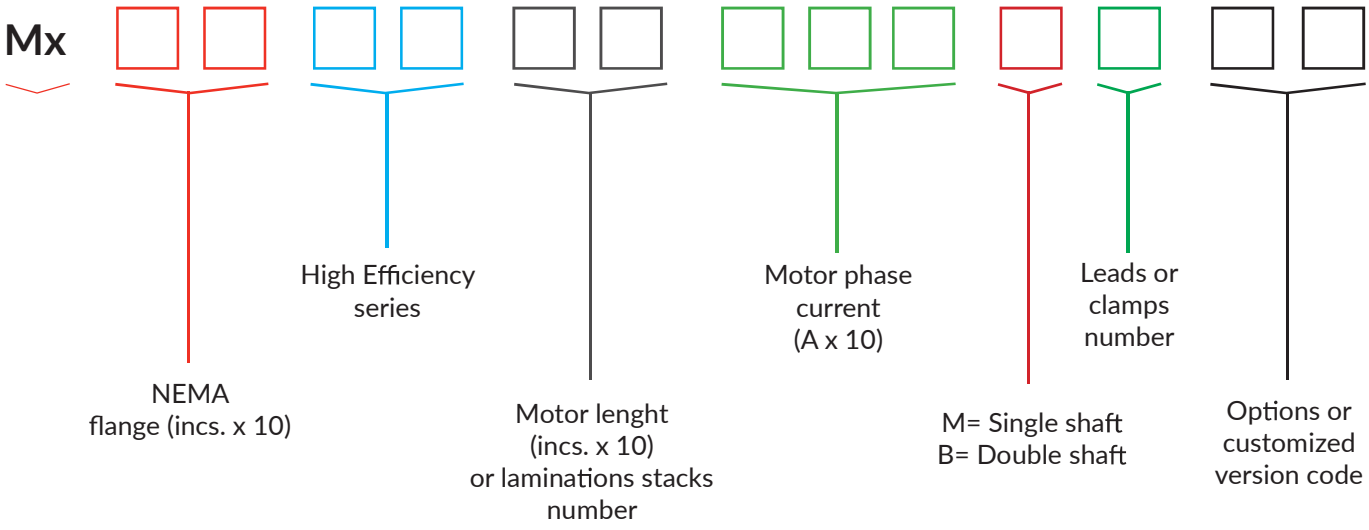
Each motor, once assembled, is magnetized **ensuring high torque performance**

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

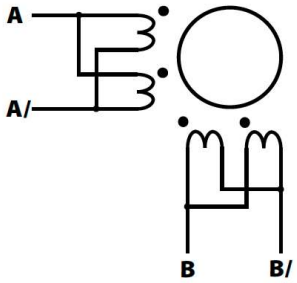
Connection	Resistence (ohms)	Inductance (mH)	Current (Arms)	Holding Torque (Nm)
Unipolar	As in catalog	As in catalog	As in catalog	Catalog x 0.707
Bipolar series	Catalog x 2	Catalog x 4	Catalog x 0.707	As in catalog
Bipolar (half winding)	As in catalog	As in catalog	As in catalog	Catalog x 0.707
Bipolar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

Connection	Resistence (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.

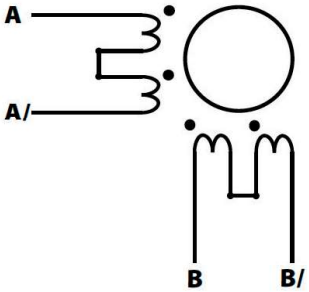
8 leads stepper motor bipolar parallel wiring diagram



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

Stepper MT08HE11004M40V

Motor features

Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +40°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

Other features

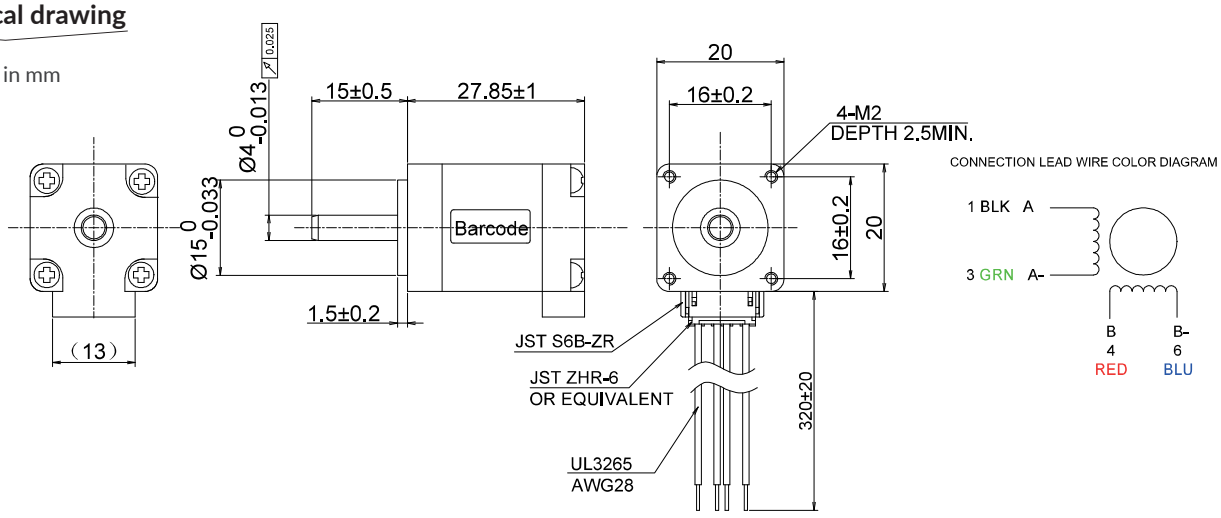
Connector on board with cable

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
4.48 V	0.40 A/ph	11.20 ohm	3.50 mH	0.015 Nm	2.00 g.cm²	40 g.	4

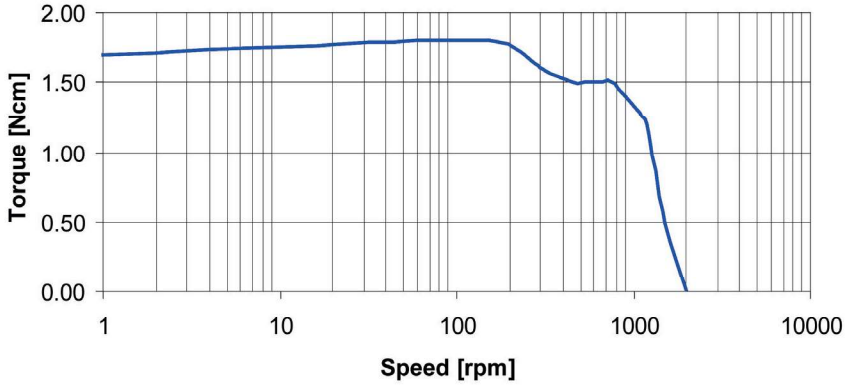
Mechanical drawing

Dimensions in mm



Torque diagram

Drive conditions:
Voltage 24 Vdc
Current 0.4 A/ph
Half step



Stepper MT10HE10007M40C

Motor features

Step angle	1.8°
Step angle accurancy	±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

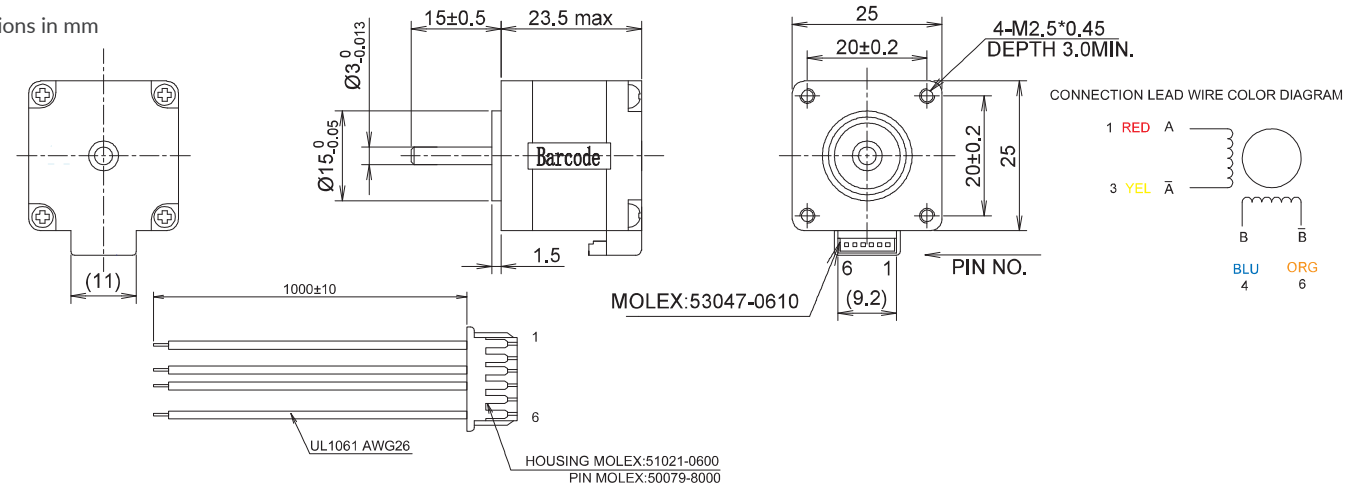
Connector on board with cable

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.cm²	100 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT11HE10007M4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

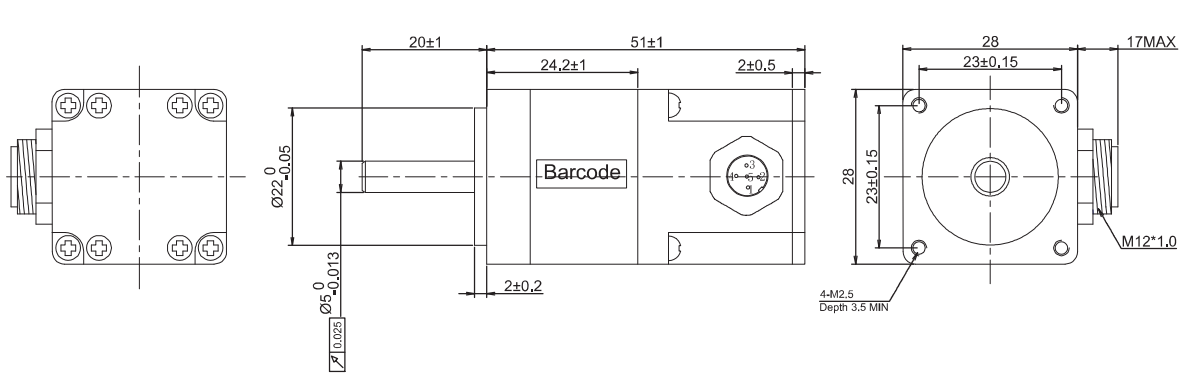
CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

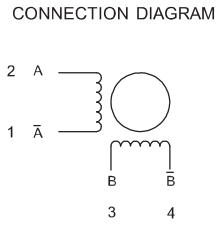
Specification

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.cm²	130 g.	4

Mechanical drawing

Dimensions in mm





Stepper MT11HE12010B401

Motor features

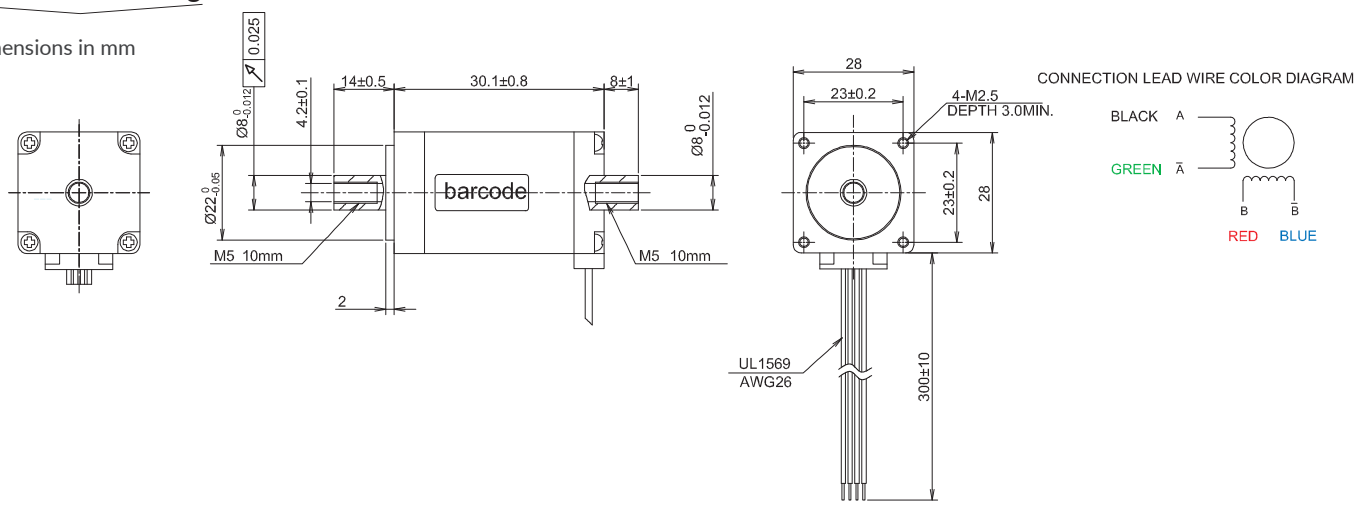
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 14 mm from front flange
Max shaft axial load	10 N
Protection IP	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.cm²	100 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT11HE17007M4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

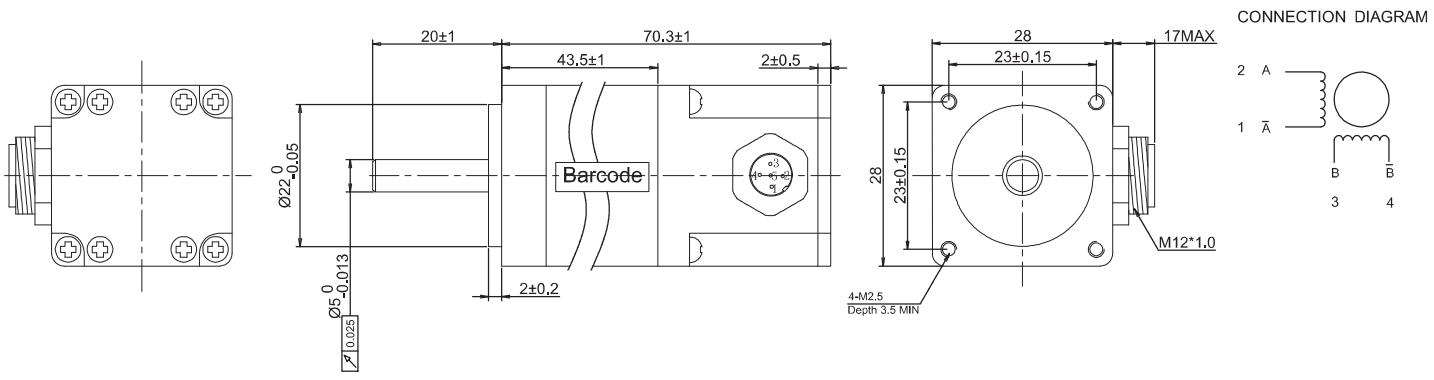
CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

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.cm²	220 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT11HE20010M400

Motor features

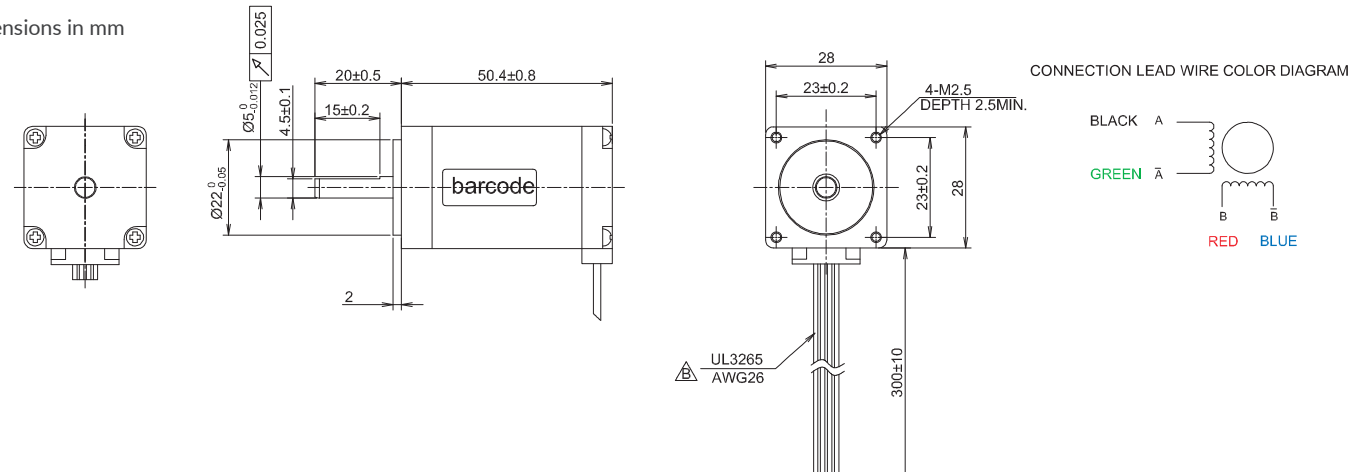
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 20 mm from front flange
Max shaft axial load	10 N
Protection IP	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.cm²	200 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT11HE20015E401

Motor features

Step angle	1.8°
Step angle accurancy	±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

Incremental Encoder

Encoder features

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

Other features

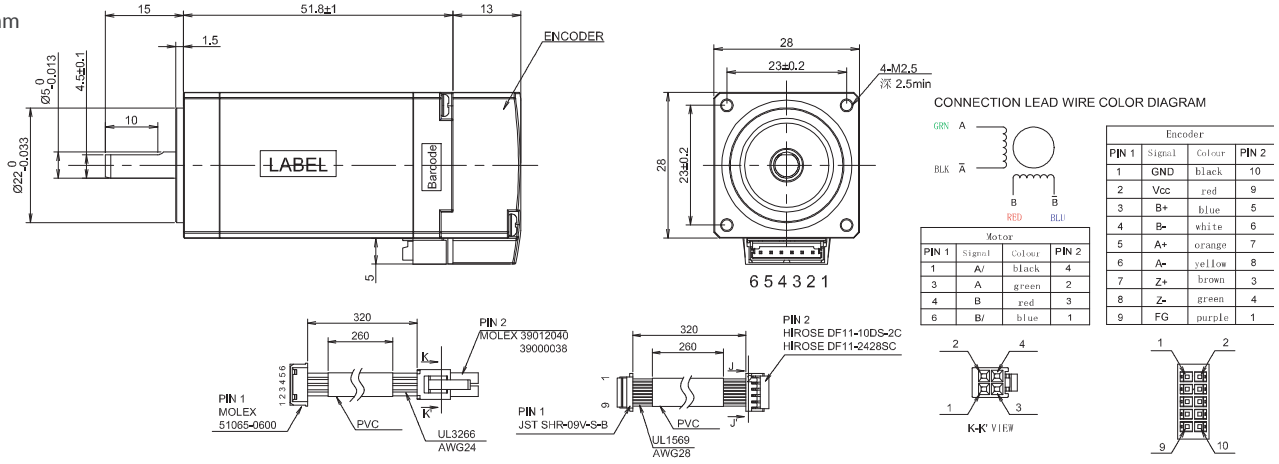
Connectors on board and at the lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.85 V	1.50 A/ph	1.90 ohm	2.10 mH	0.17 Nm	20 g.cm²	200 g.	4

Mechanical drawing

Dimensions in mm



Motor			
PIN 1	Signal	Colour	PIN 2
1	A/	black	4
3	A	green	2
4	B	red	3
6	B/	blue	1

Encoder			
PIN 1	Signal	Colour	PIN 2
1	GND	black	10
2	Vcc	red	9
3	B+	blue	5
4	B-	white	6
5	A+	orange	7
6	A-	yellow	8
7	Z+	brown	3
8	Z-	green	4
9	FG	purple	1

Stepper MT14HE15023M401

Motor features

Step angle	1.8°
Step angle accurancy	±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

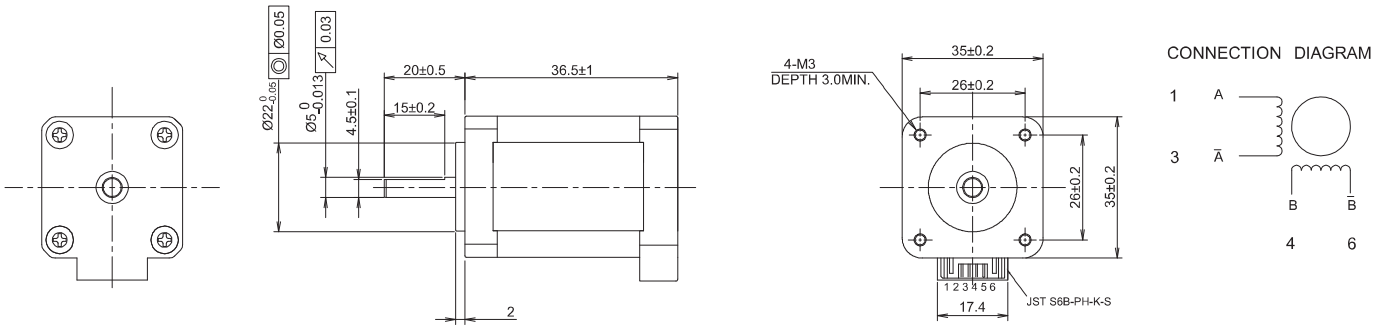
CBL/0096-030: JST femal connector and 30 cm. cable for motor connection

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.cm²	210 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT14HE21007M401

Motor features

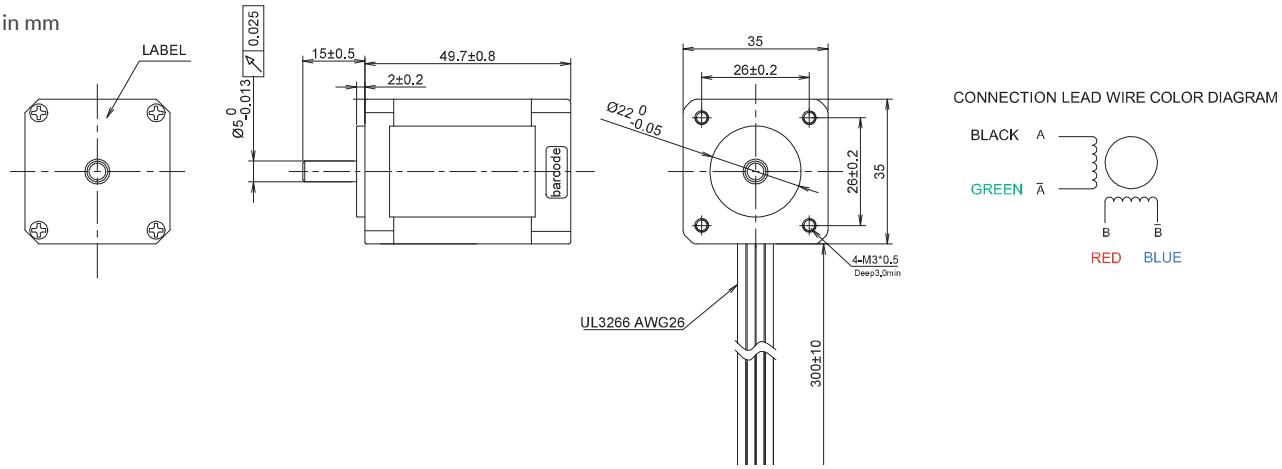
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 15 mm from front flange
Max shaft axial load	10 N
Protection IP	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.cm²	450 g.	4

Mechanical drawing

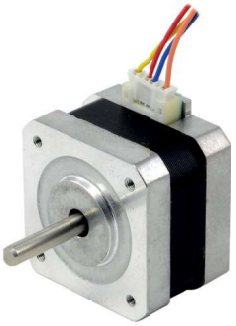
Dimensions in mm



Stepper MT17HE12008M402

Motor features

Step angle	1.8°
Step angle accurancy	±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

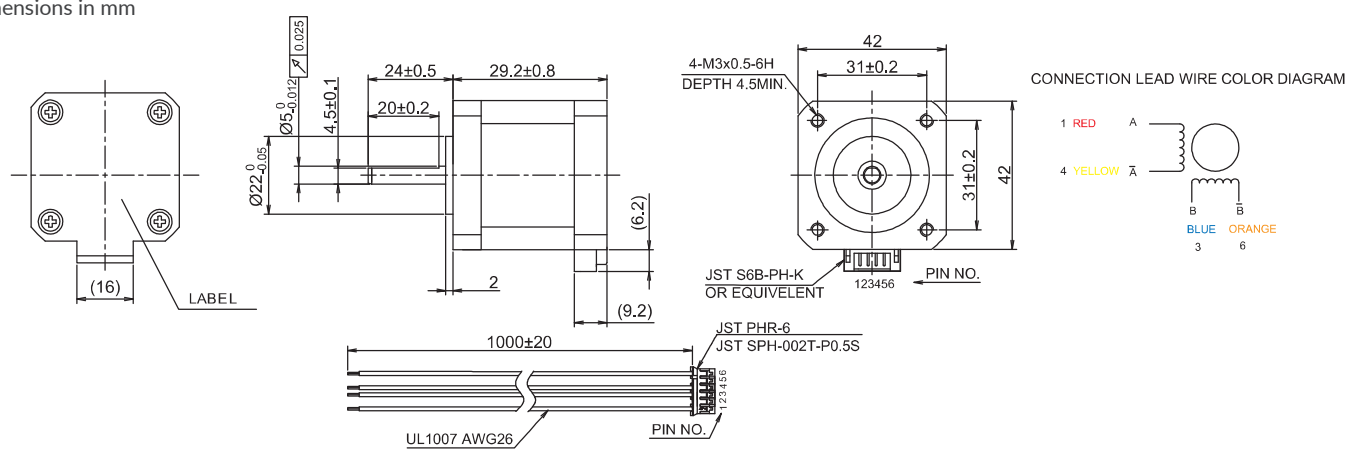
Connector on board with cable

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.cm²	180 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT17HE16017M4

Motor features

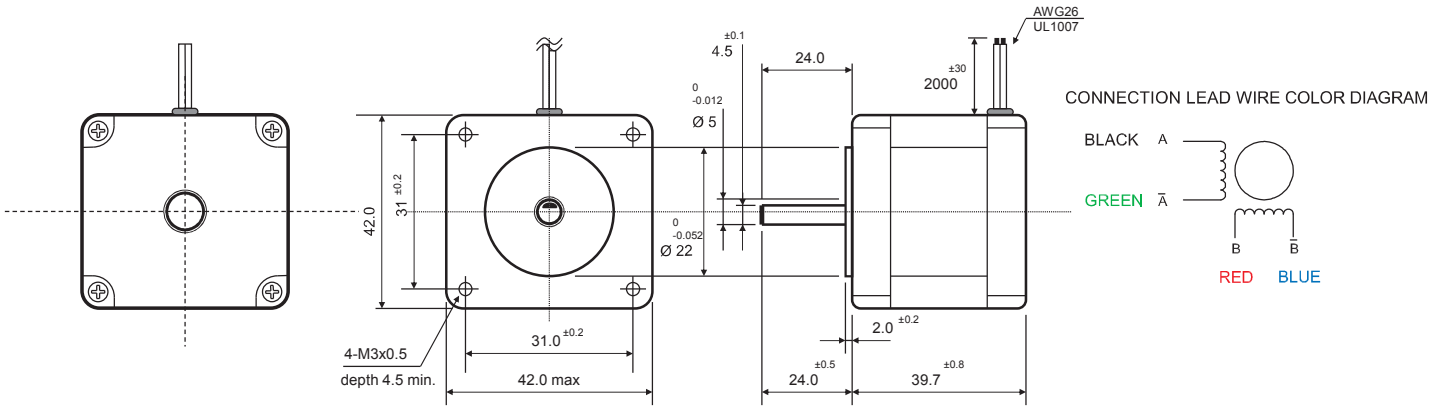
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	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.cm²	270 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT17HE18010M4V

Motor features

Step angle	1.8°
Step angle accurancy	±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

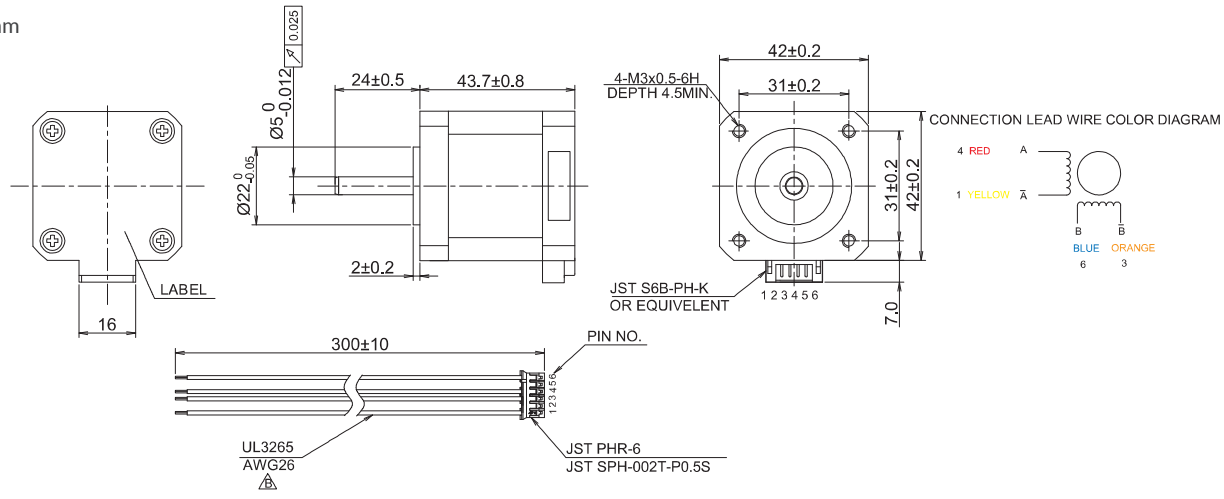
Connector on board

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.cm²	310 g.	4

Mechanical drawing

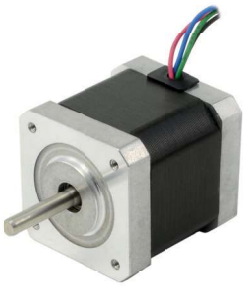
Dimensions in mm



Stepper MT17HE18017B4F1

Motor features

Step angle	1.8°
Step angle accurancy	±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



Brake

Other features

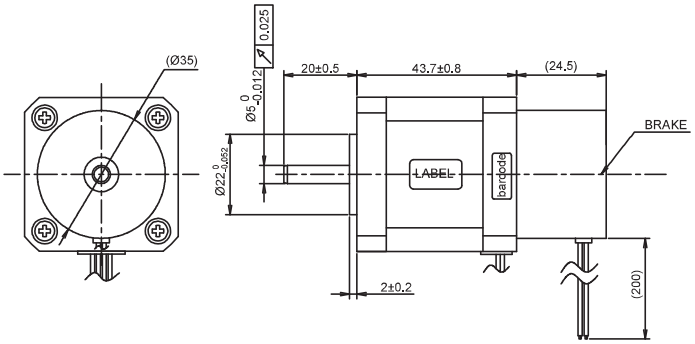
Brake	Power supply 24 Vdc Braking force 0.3 Nm

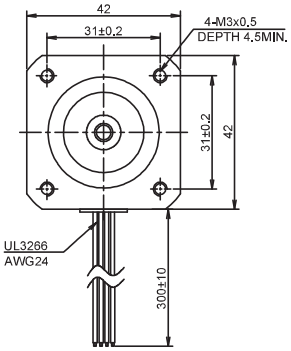
Specification

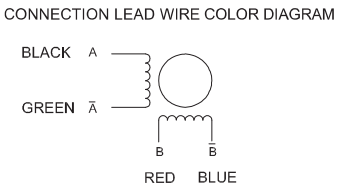
Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
5.10 V	1.70 A/ph	3.00 ohm	7.20 mH	0.45 Nm	69.00 g.cm²	310 g.	4

Mechanical drawing

Dimensions in mm







Stepper MT17HE19020A4L2

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Multiturn
Absolute Encoder

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

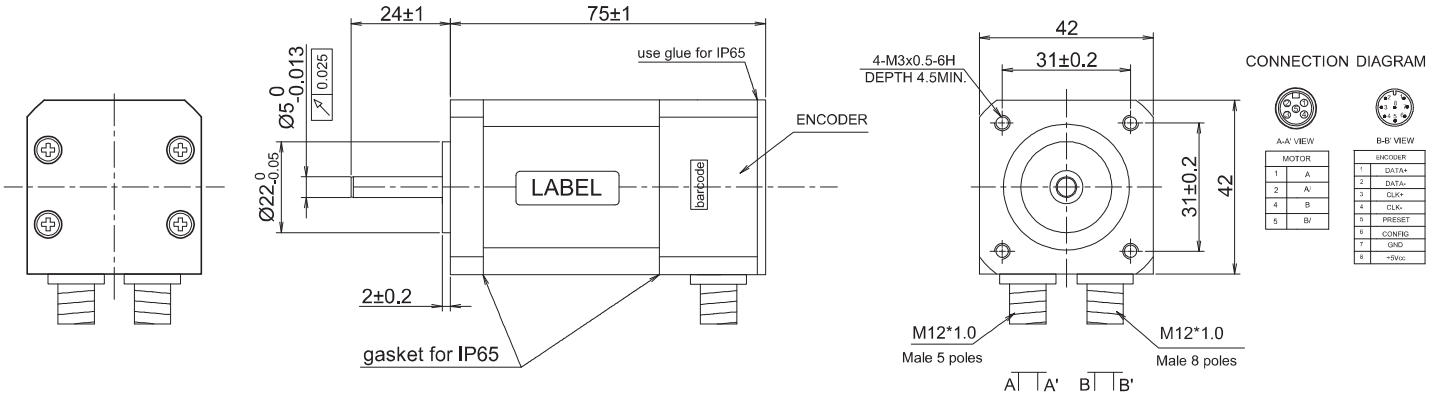
CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

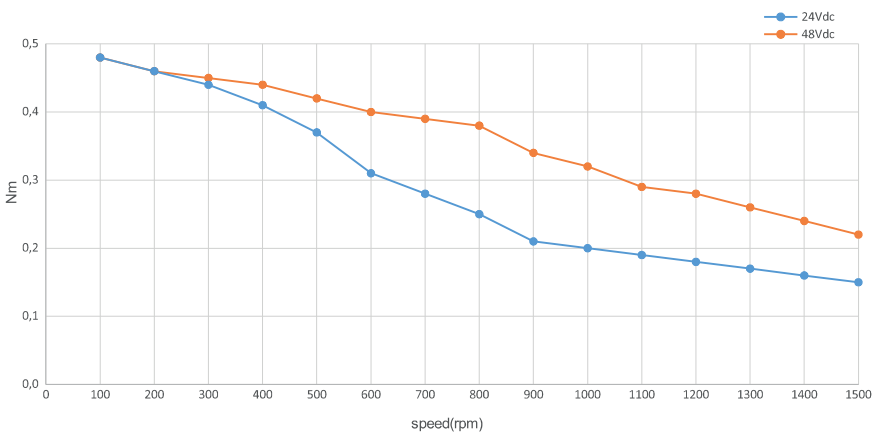
Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.00 V	2.00 A/ph	1.00 ohm	2.00 mH	0.48 Nm	80.00 g.cm²	560 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT17HE19020E403

Motor features

Step angle	1.8°
Step angle accurancy	±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

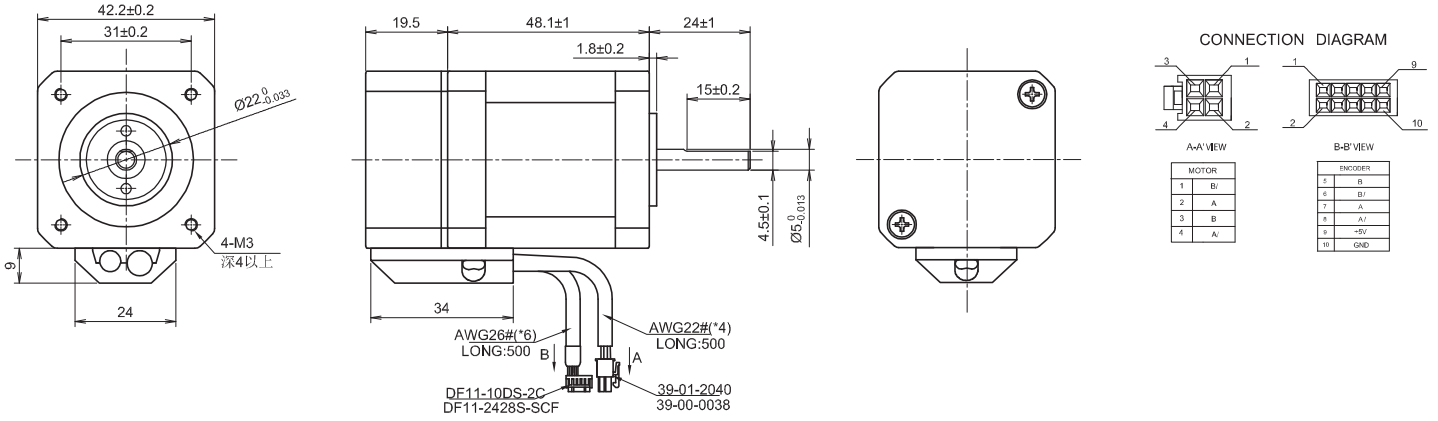
Connectors at lead wires end

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.cm²	360 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT17HE19020H401

Motor features

Step angle	1.8°
Step angle accurancy	±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

Brake

Incremental Encoder

Encoder features

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

Other features

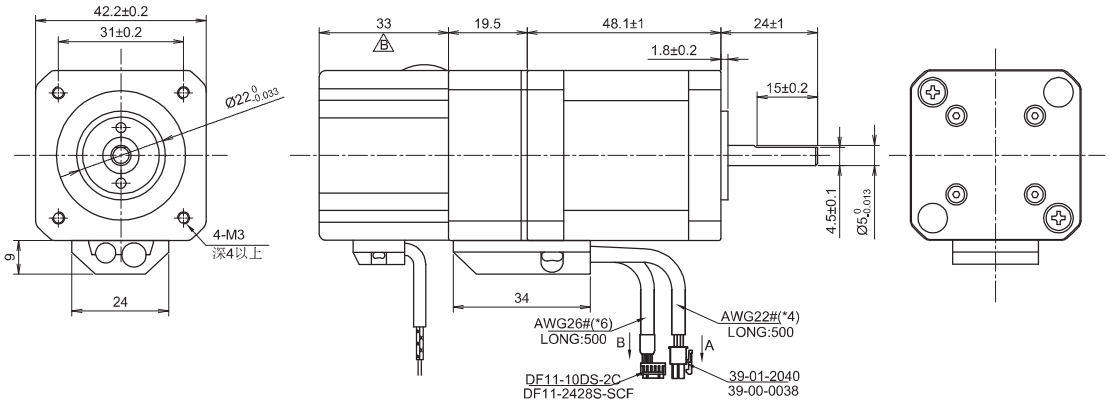
Brake	Power supply 24 Vdc Braking force 0.5 Nm
Connectors at lead wires end	

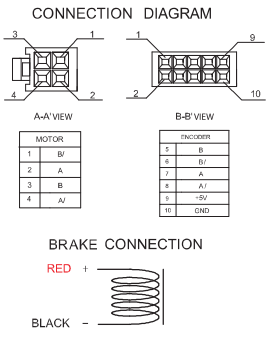
Specification

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.cm²	390 g.	4

Mechanical drawing

Dimensions in mm





Stepper MT17HE24018E4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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)

IP65 Protection

Incremental Encoder

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

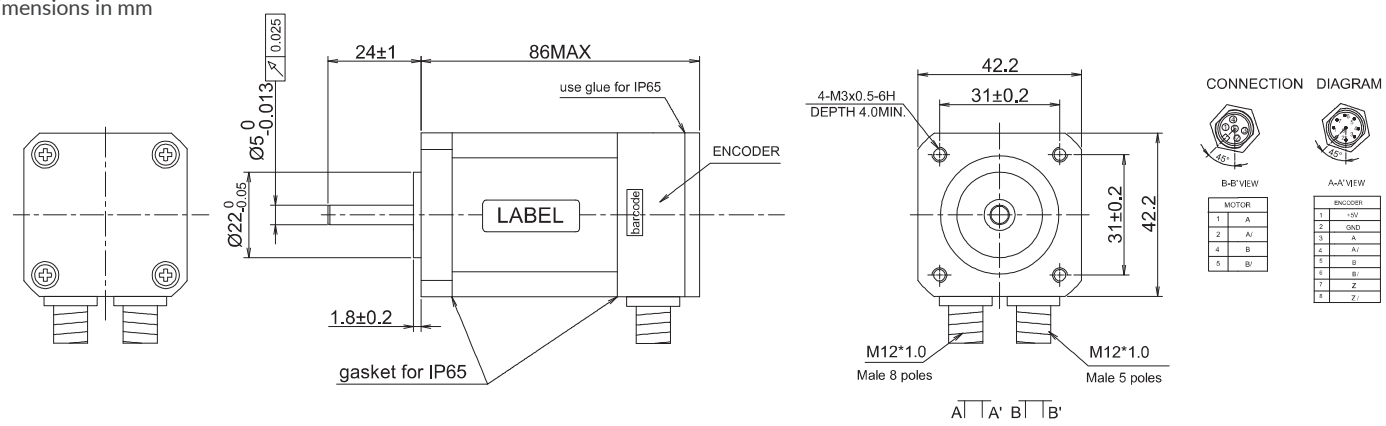
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

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.cm²	700 g.	4

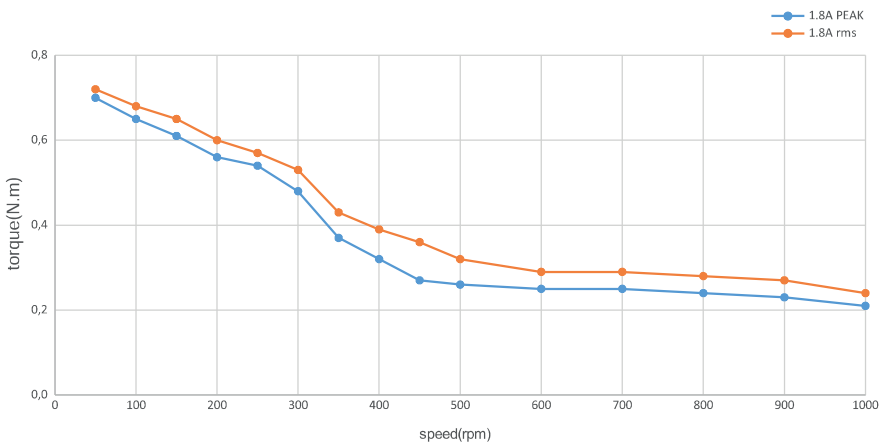
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT17HE24020E401

Motor features

Step angle	1.8°
Step angle accurancy	±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

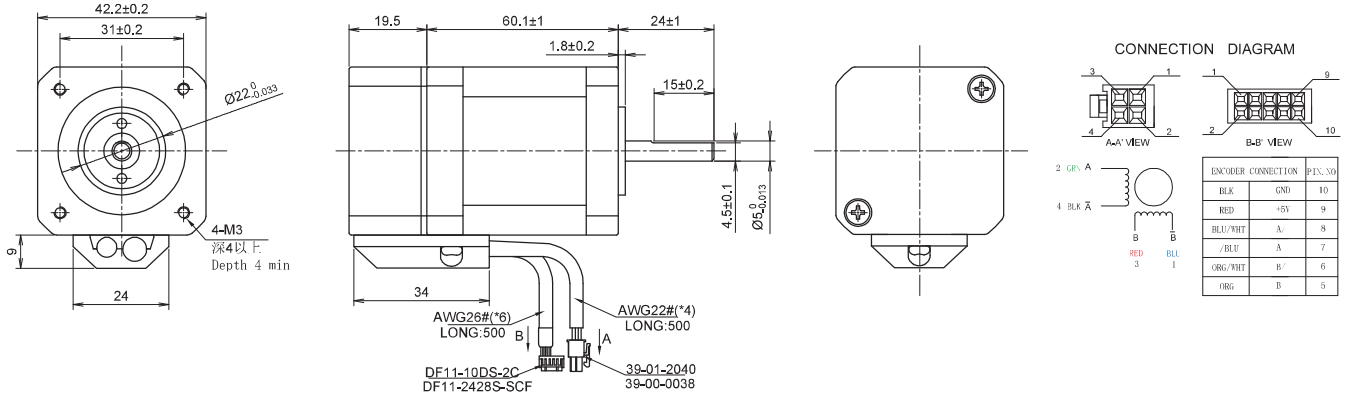
Connectors at lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.50 V	2.00 A/ph	1.75 ohm	4.00 mH	0.72 Nm	110.00 g.cm²	500 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT17HE24028M4

Motor features

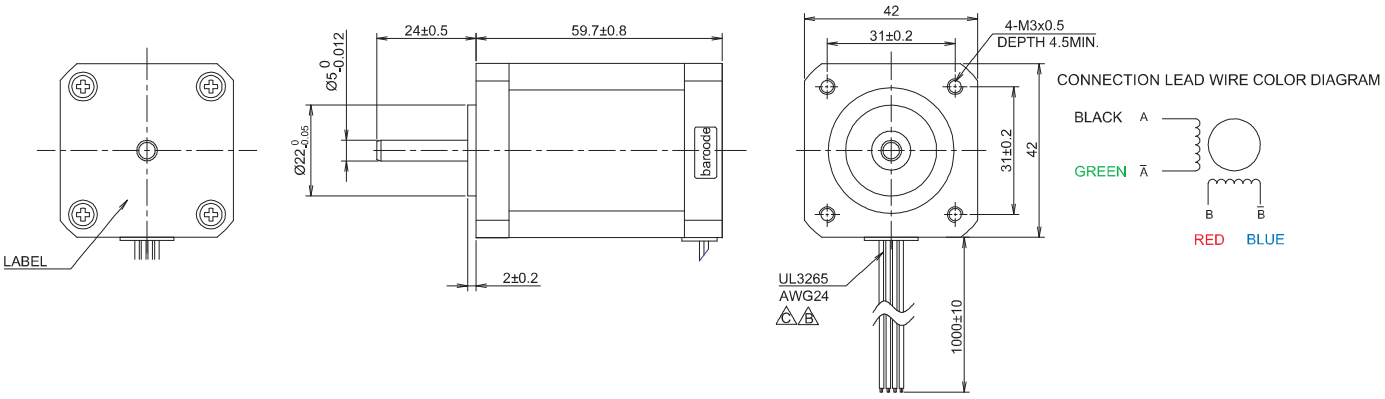
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	21 N at 24 mm from front flange
Max shaft axial load	10 N
Protection IP	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.cm²	600 g.	4

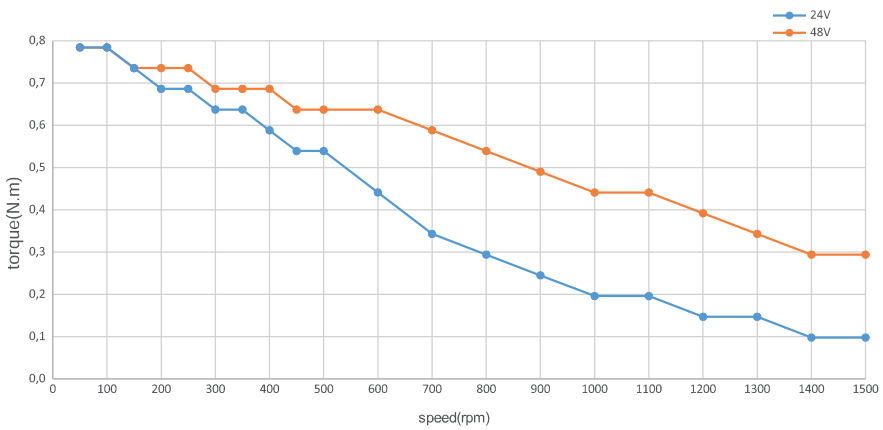
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT17HE24028M4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

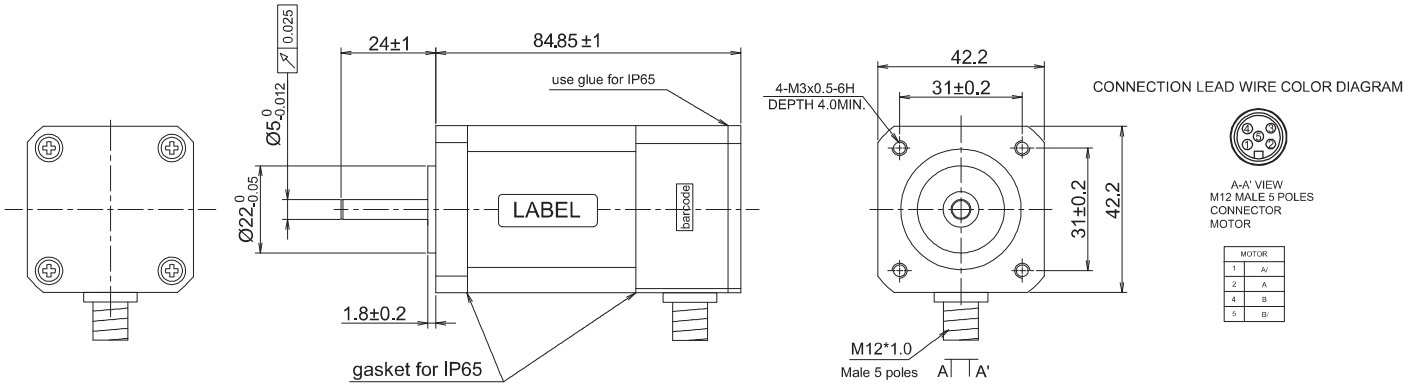
CBCP-00072: M12 5 poles femal connector and 2.5 mt. cable for motor connection

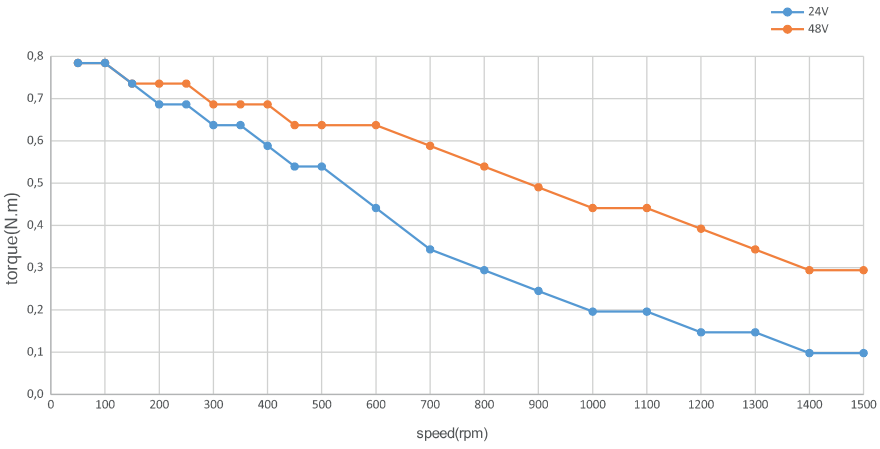
Specification

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.cm²	600 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE20020M41C

Motor features

Step angle	1.8°
Step angle accurancy	±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

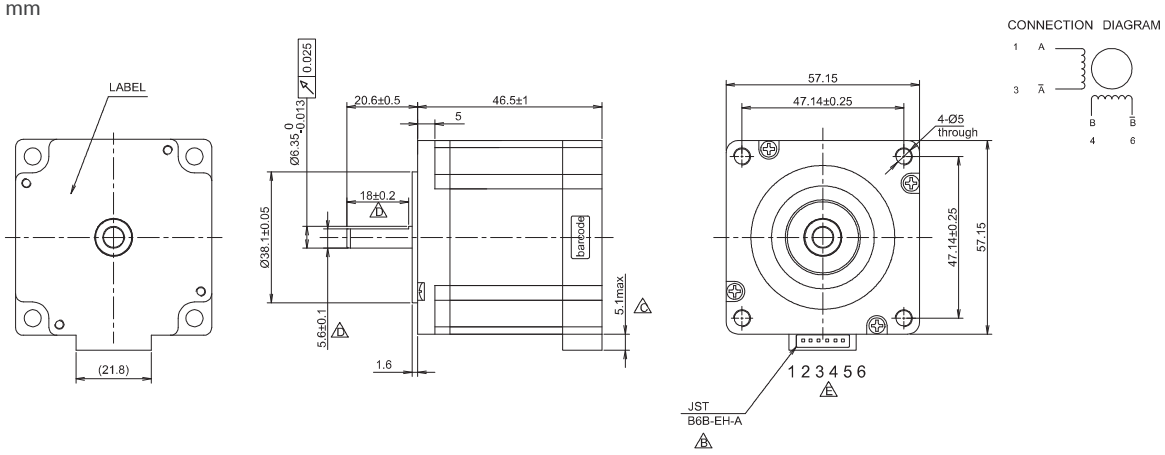
Connector on board

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.cm²	700 g.	4

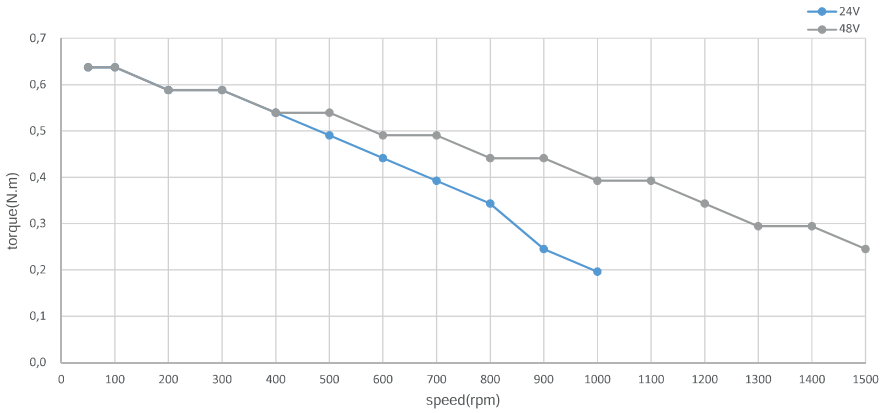
Mechanical drawing

Dimensions in mm



Torque diagram

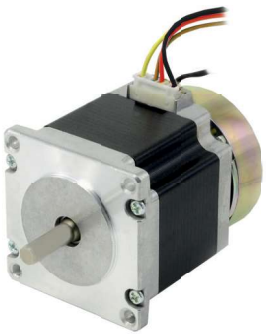
Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 2.0 A/ph
Half step



Stepper MT23HE22015B4F1

Motor features

Step angle	1.8°
Step angle accurancy	±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



Brake

Other features

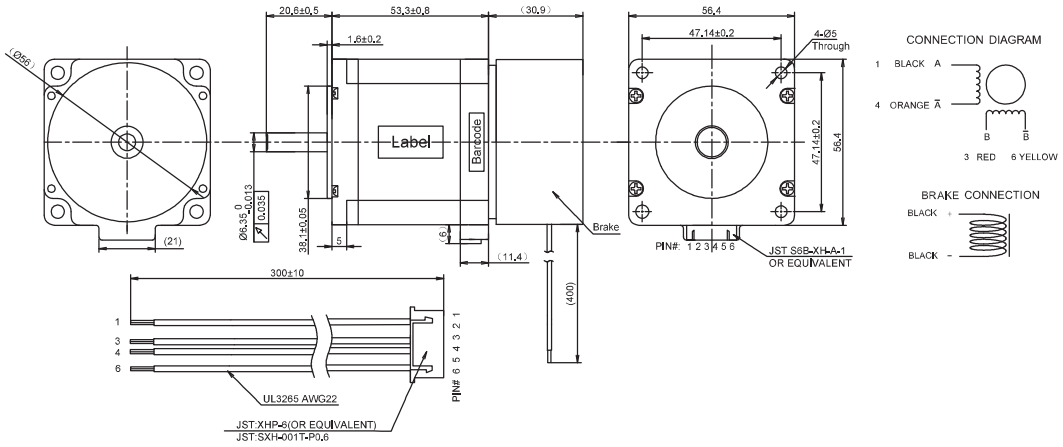
Brake	Power supply 24 Vdc Braking force 1.0 Nm
Connector on board	

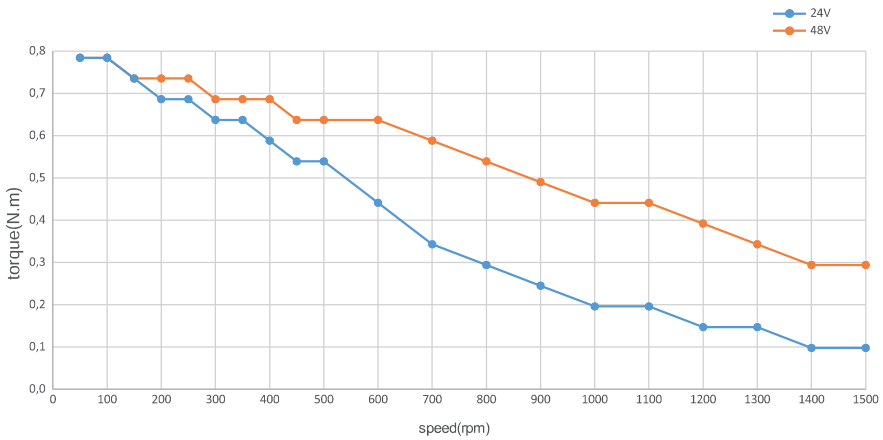
Specification

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.cm²	700 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE22015M402

Motor features

Step angle	1.8°
Step angle accurancy	±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

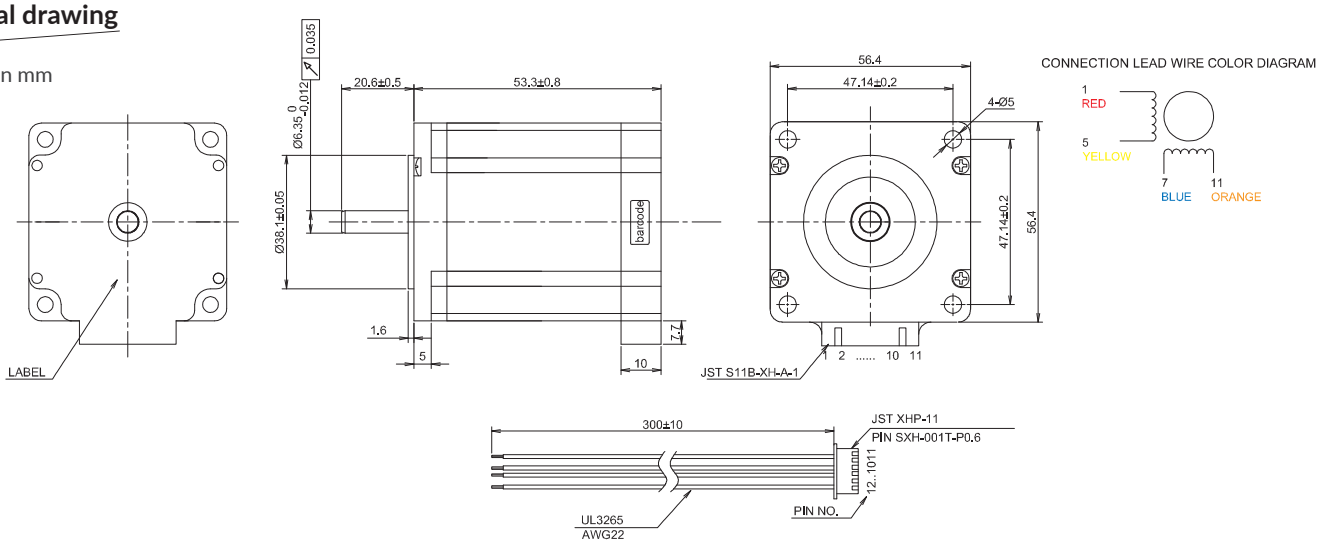
Connector on board with cable

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.cm²	750 g.	4

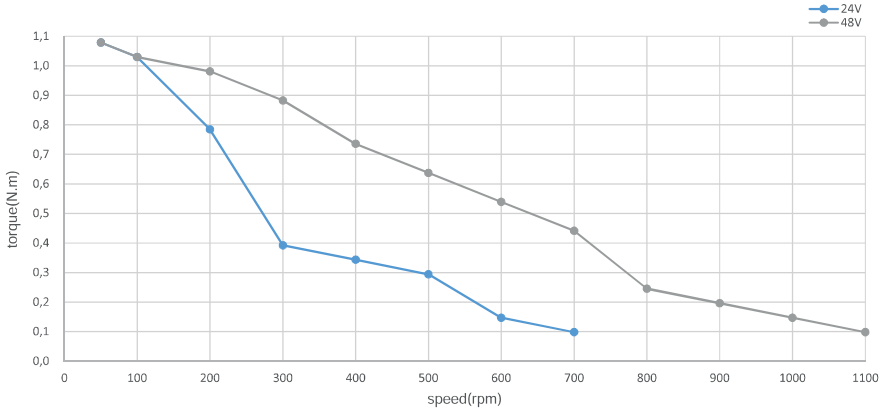
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT23HE22028E4L2

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Incremental Encoder

Encoder features

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

Other features

Connectors on board

Optional

CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

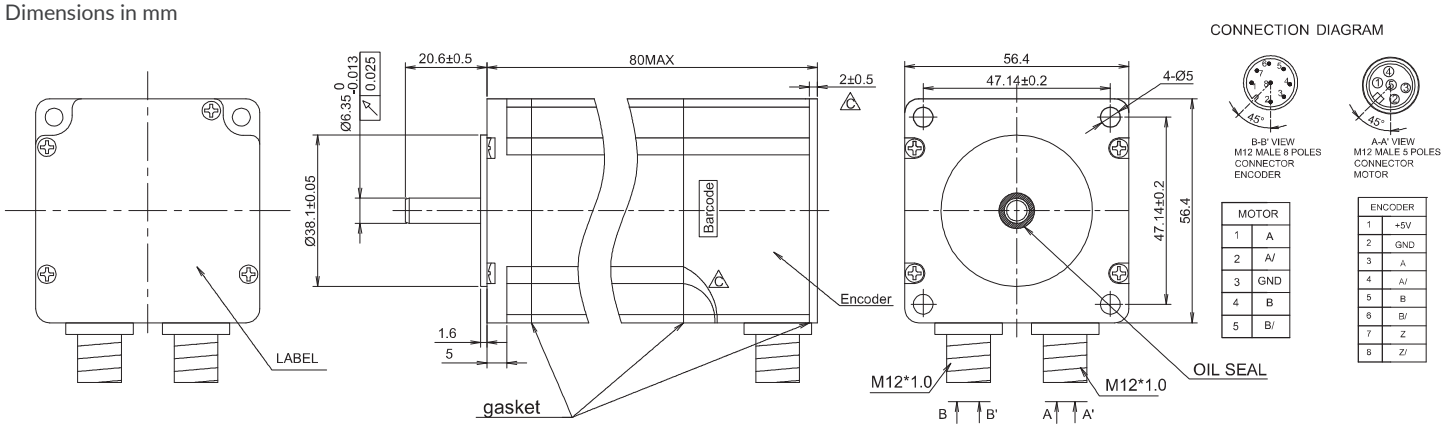
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

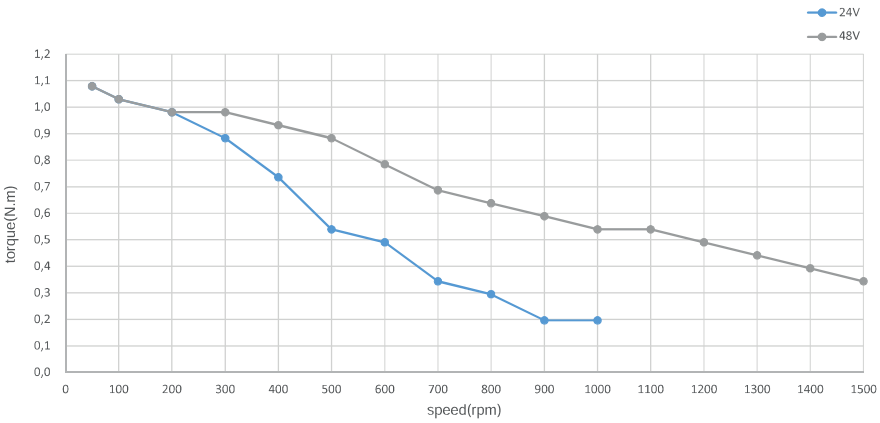
Specification

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.cm²	850 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE22042M403

Motor features

Step angle	1.8°
Step angle accurancy	±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

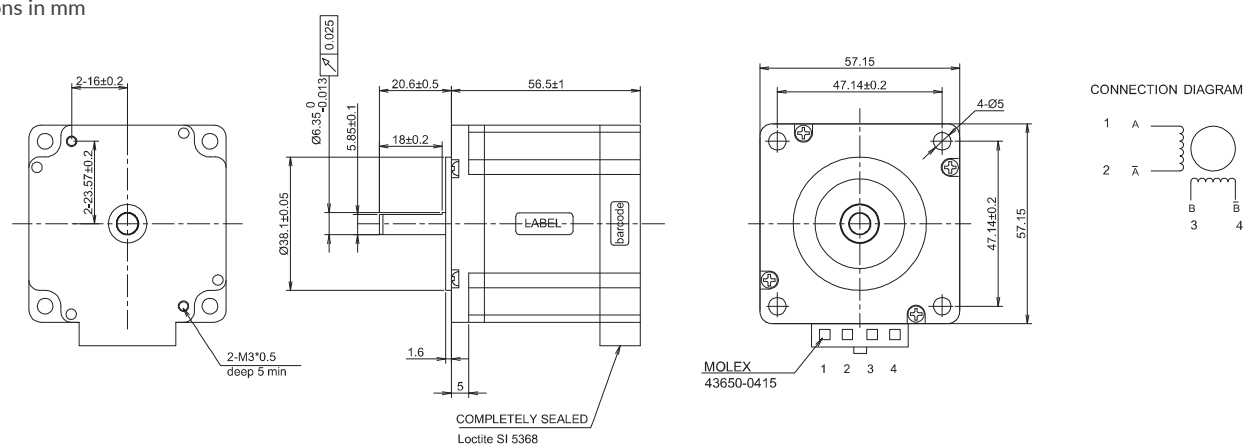
Connector on board

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.cm²	720 g.	4

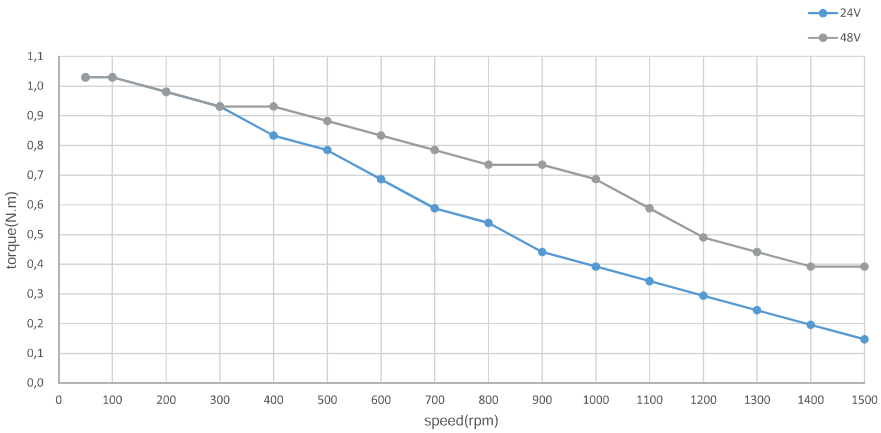
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT23HE22042M4L1

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

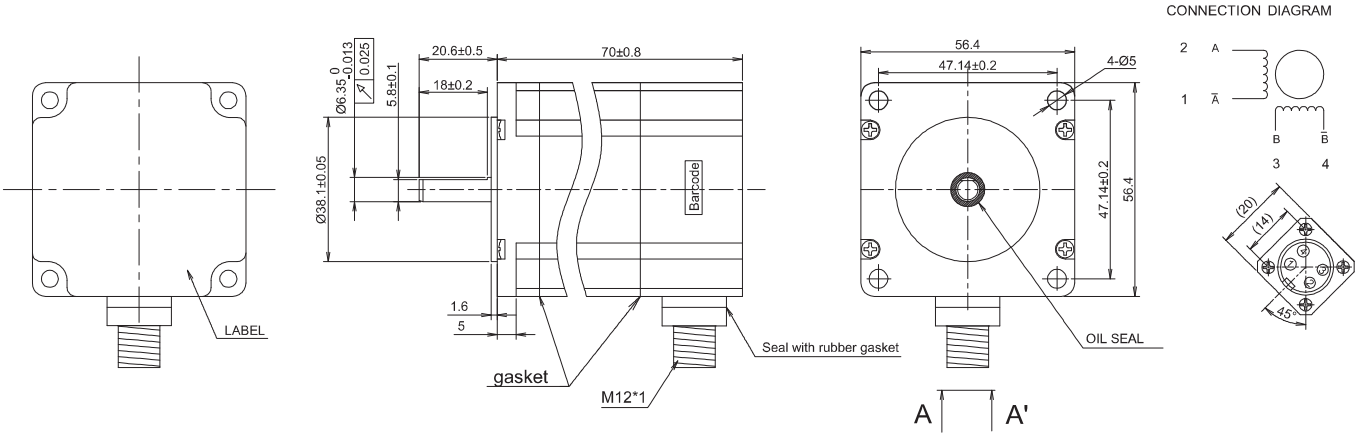
CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

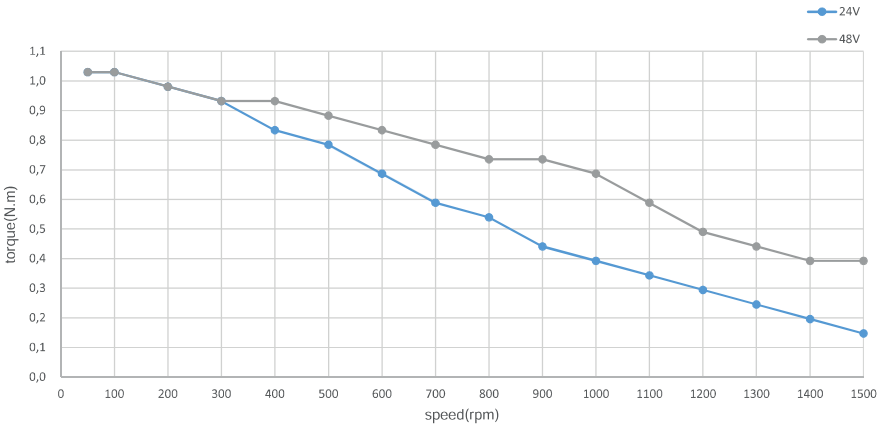
Specification

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.cm²	700 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE26030M40C

Motor features

Step angle	1.8°
Step angle accurancy	±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

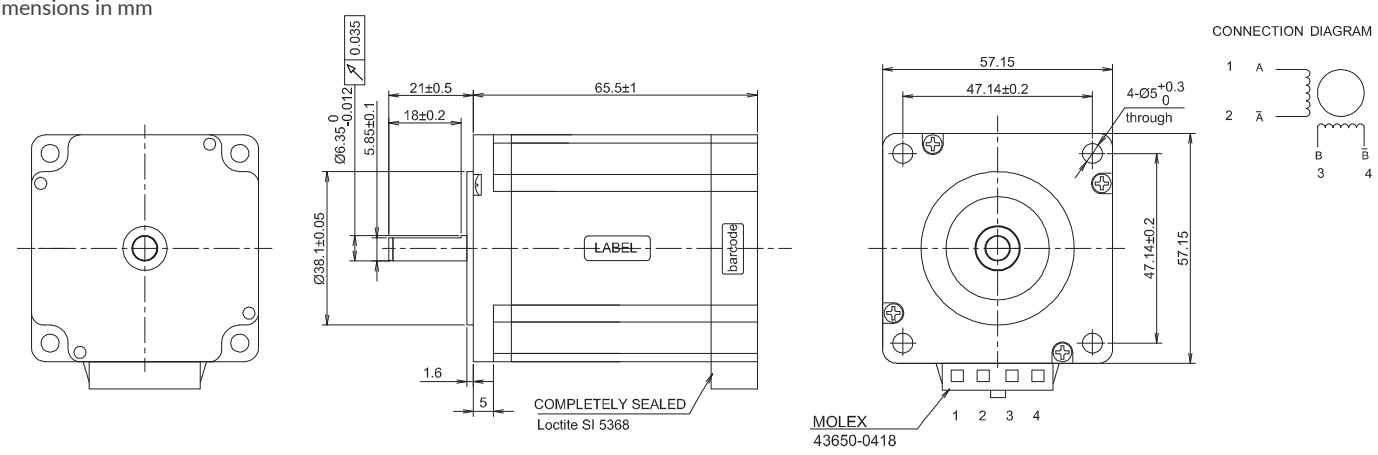
Connector on board

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.cm²	1000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT23HE31028E4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Incremental Encoder

Encoder features

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

Other features

Connectors on board

Optional

CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

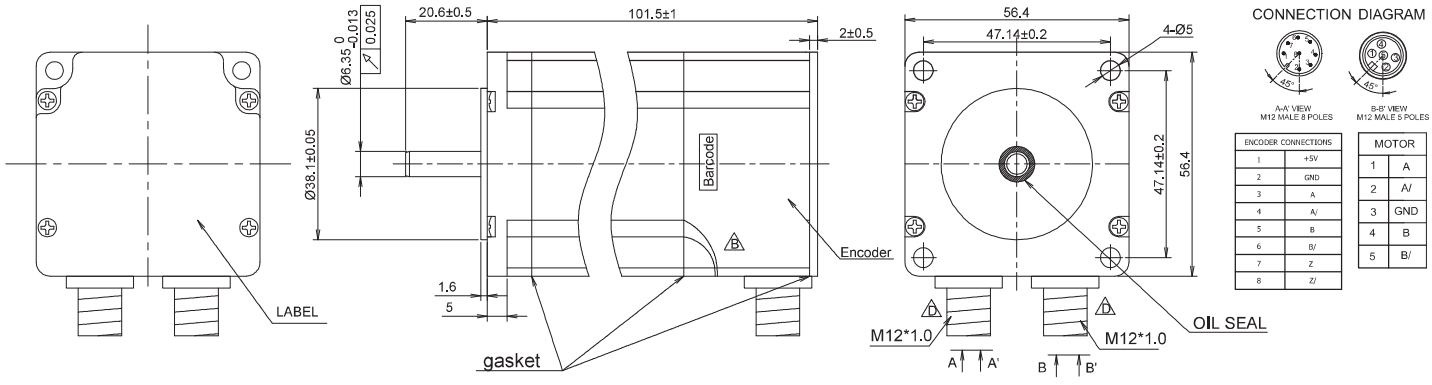
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

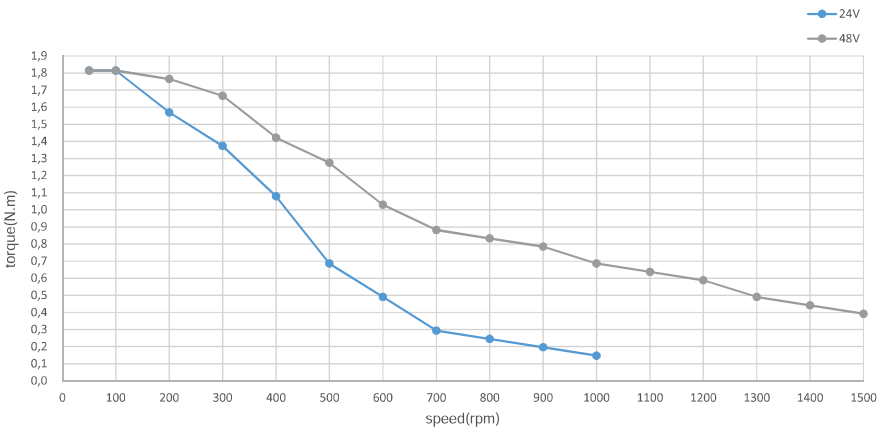
Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.12 V	2.82 A/ph	1.10 ohm	4.40 mH	1.95 Nm	520.00 g.cm²	1000 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE31042A4L1

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Multiturn
Absolute Encoder

Encoder features

Type	Absolute multitun
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

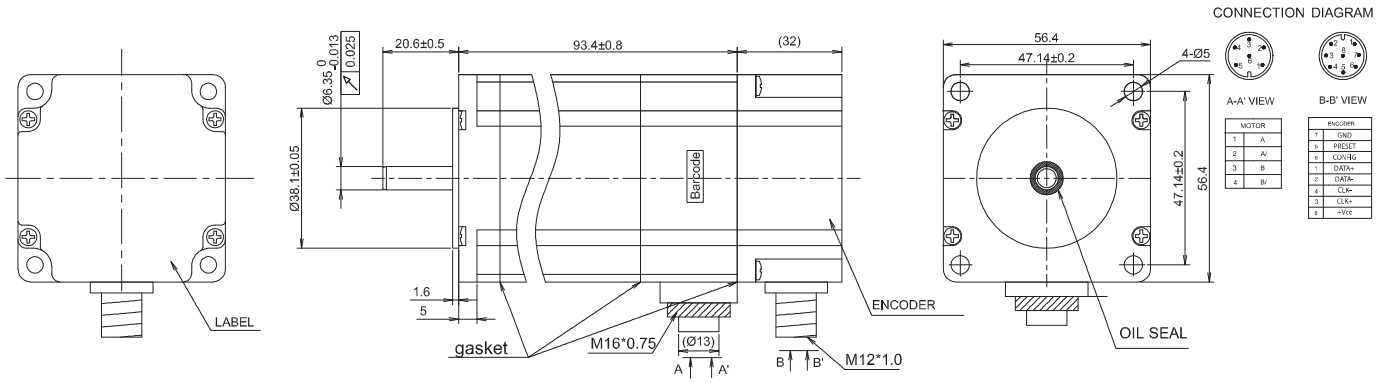
CBCP-00064: M12 8 poles femal connector and 16 mt. cable for encoder connection

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.cm²	2000 g.	4

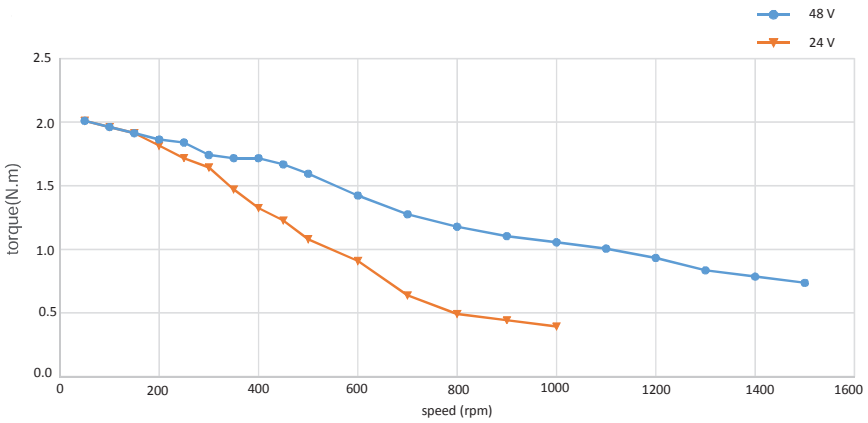
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT23HE31042M4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

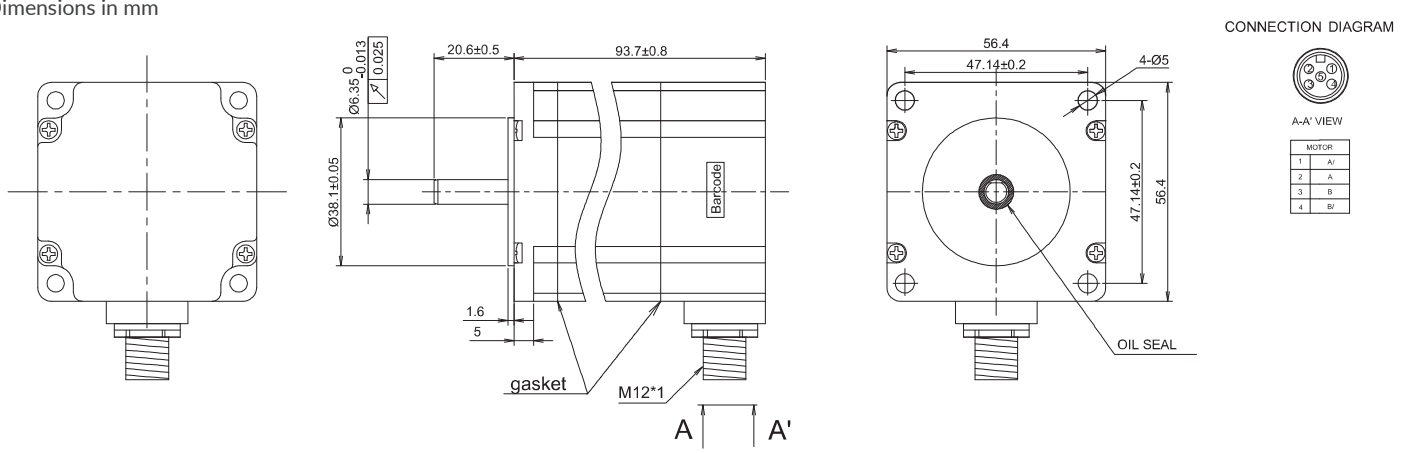
CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

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.cm²	1000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT23HE31050E402

Motor features

Step angle	1.8°
Step angle accurancy	±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

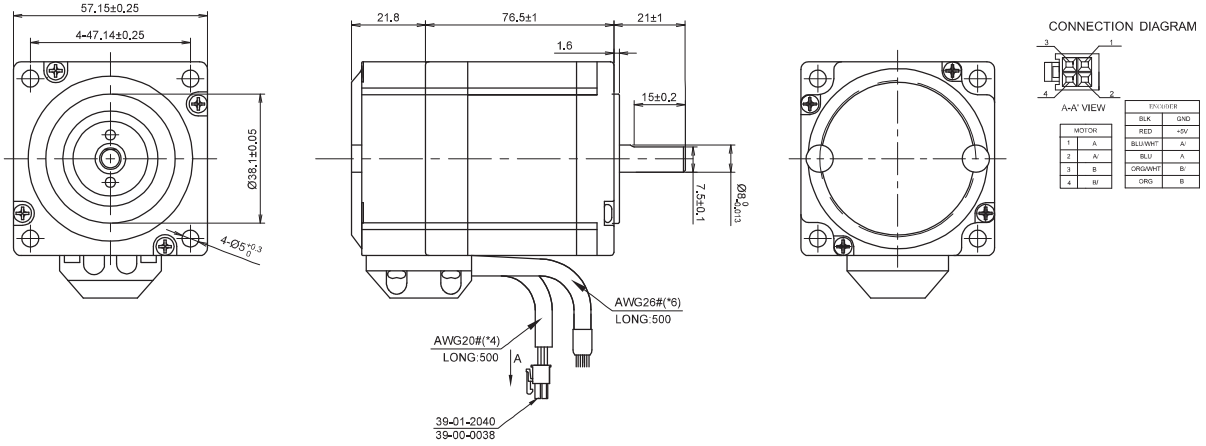
Encoder connector at lead wires end

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.cm²	1300 g.	4

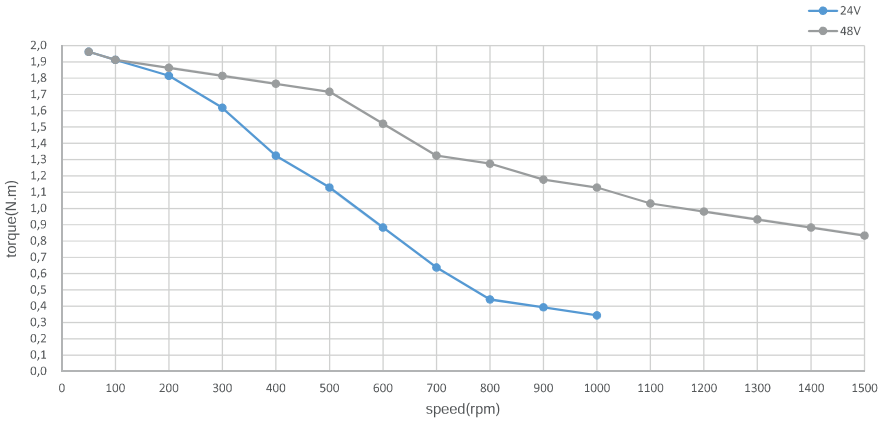
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT23HE31050F401

Motor features

Step angle	1.8°
Step angle accurancy	±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

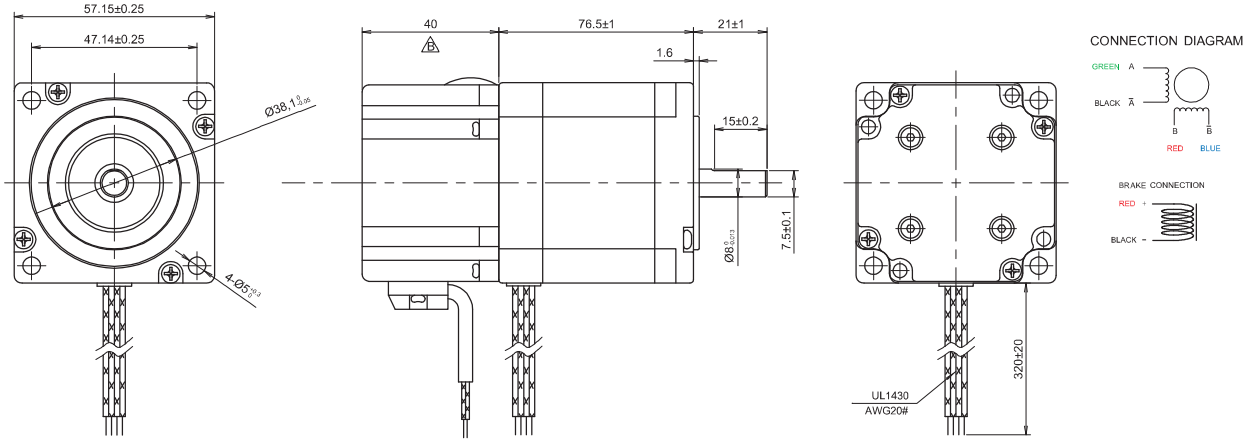
Brake	Power supply 24 Vdc Braking force 2.0 Nm

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.cm²	1000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT23HE31050H401

Motor features

Step angle	1.8°
Step angle accurancy	±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

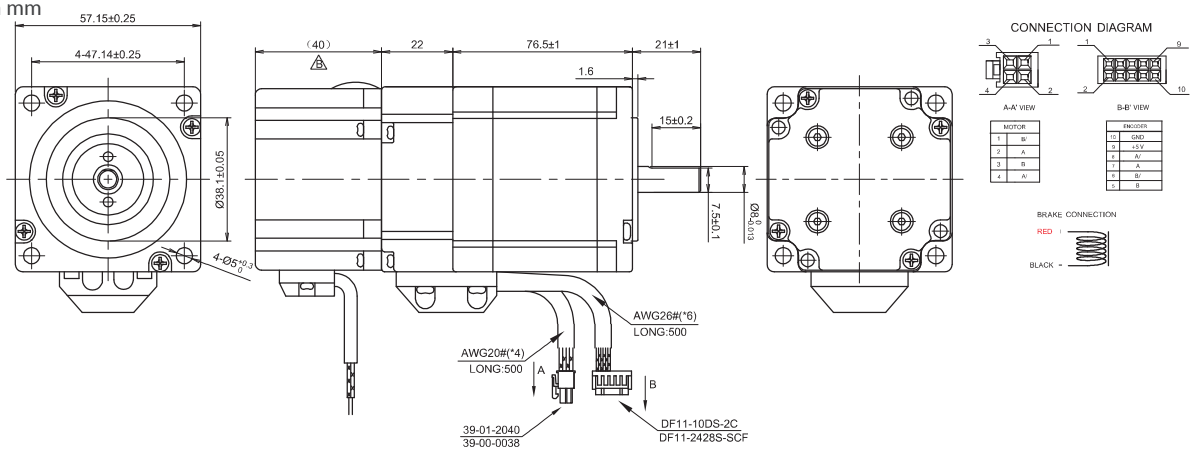
Brake	Power supply 24 Vdc Braking force 2.0 Nm
Connectors at lead wires end	

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.cm²	1000 g.	4

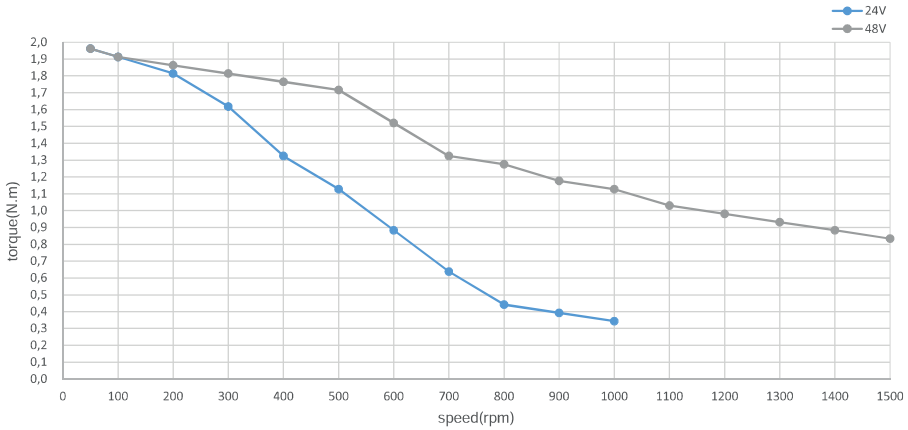
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT23HE31050M401

Motor features

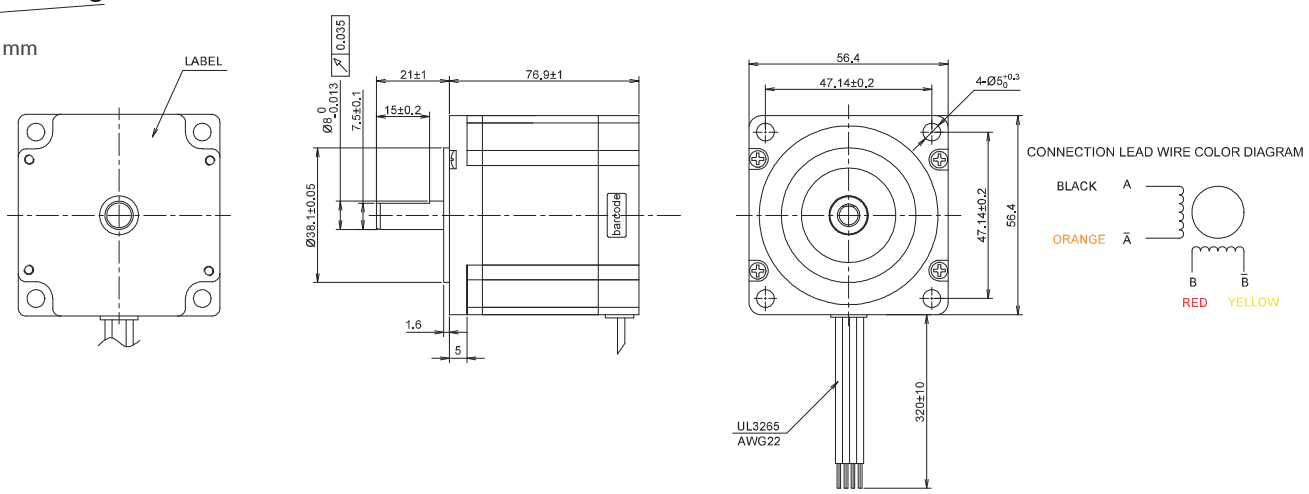
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 21 mm from front flange
Max shaft axial load	15 N
Protection IP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

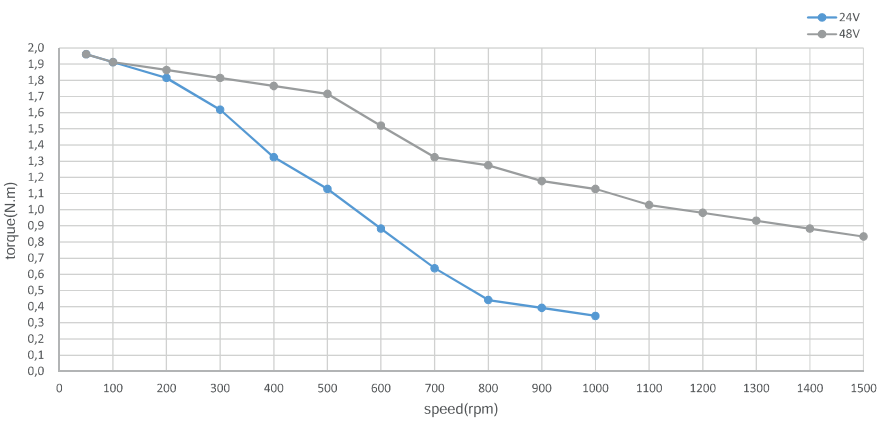
Specification

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.cm²	1300 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT23HE31056M4

Motor features

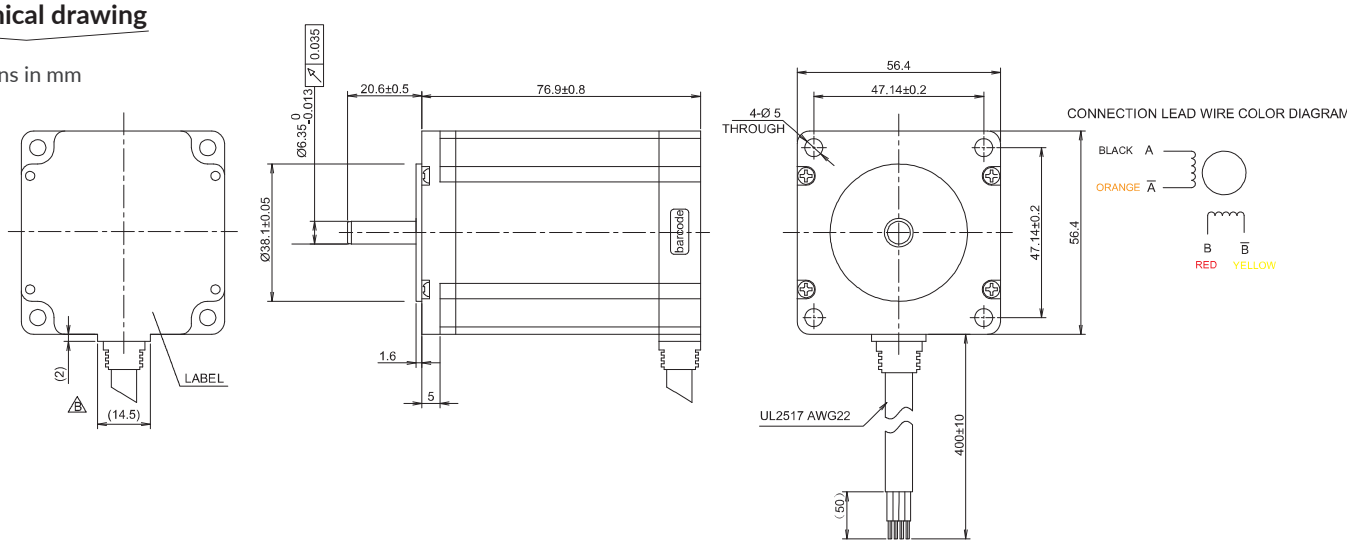
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP	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.cm²	1100 g.	4

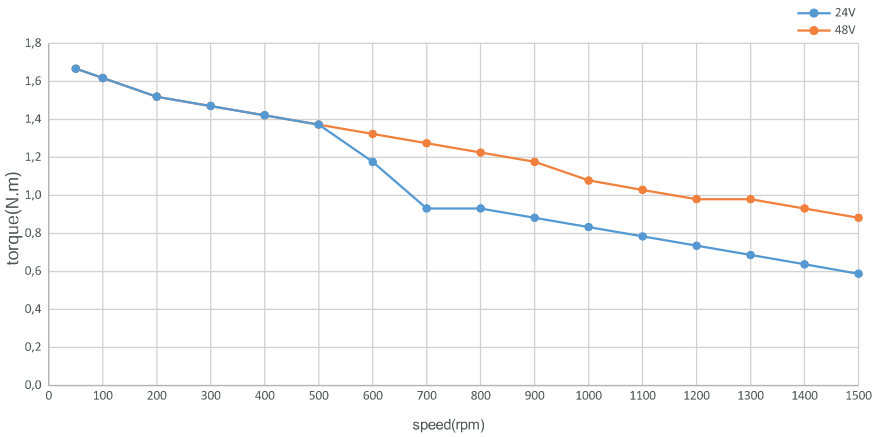
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT24HE22028M402

Motor features

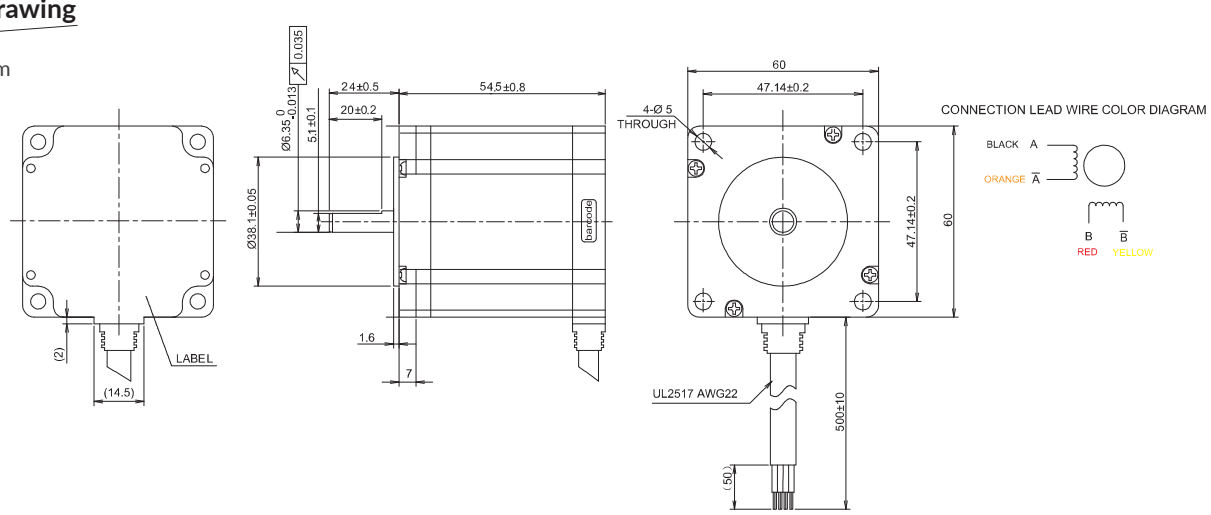
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 24 mm from front flange
Max shaft axial load	15 N
Protection IP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

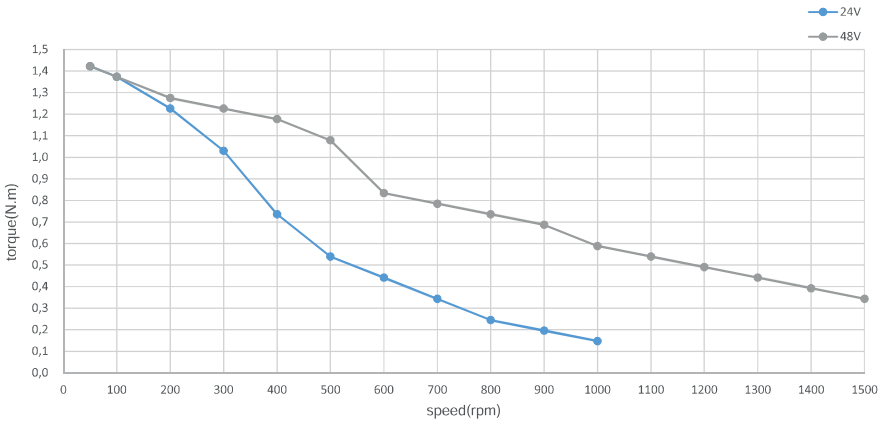
Specification

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.cm²	550 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT24HE35030M4F1

Motor features

Step angle	1.8°
Step angle accurancy	±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

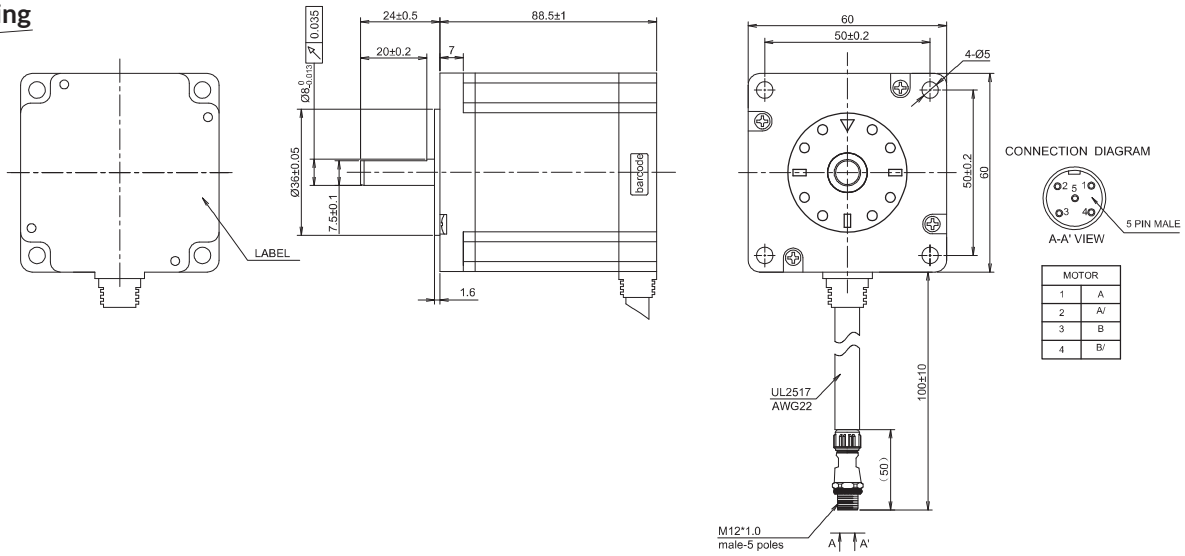
Connector at lead wires end

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.cm²	1800 g.	4

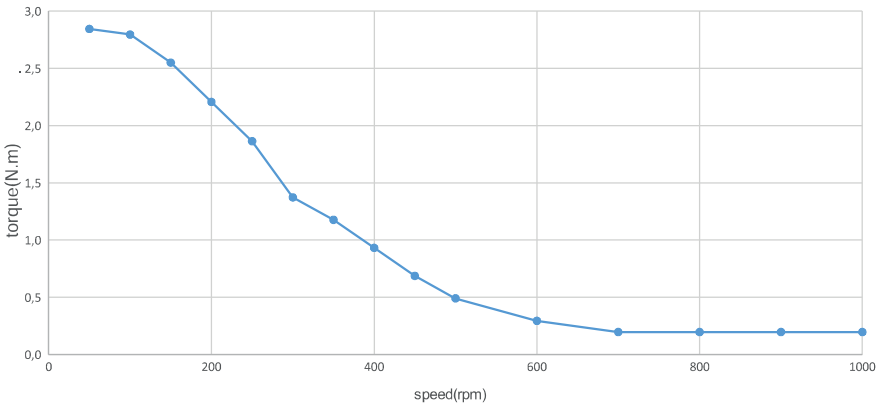
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT24HE35040M401

Motor features

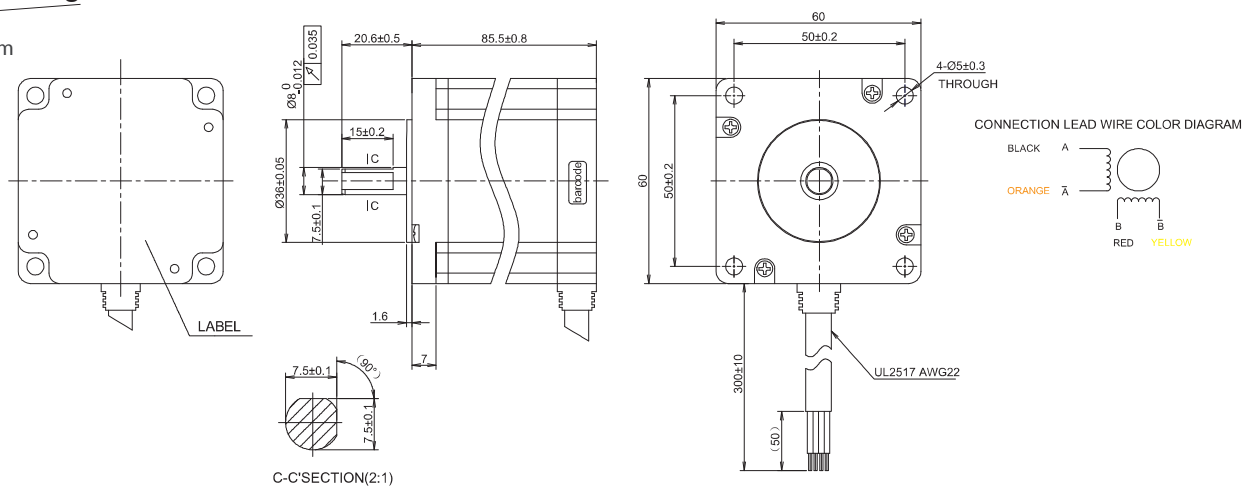
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	75 N at 20 mm from front flange
Max shaft axial load	15 N
Protection IP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

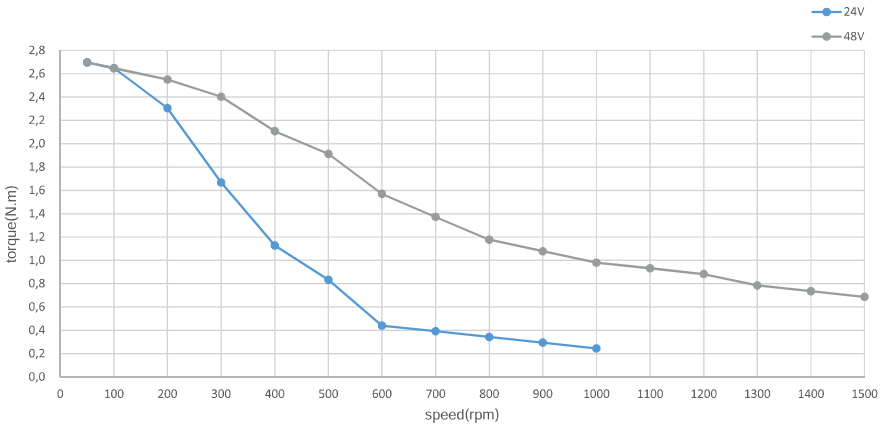
Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
2.80 V	4.00 A/ph	0.70 ohm	2.40 mH	2.70 Nm	922.00 g.cm²	1300 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

Drive conditions:
Voltage 24 Vdc / 48 Vdc
Current 4.0 A/ph
Half step

Stepper MT24HE35042A4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

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

Optional

CBCP-00191: M12 5 poles femal connector and 2.5 mt. cable for motor connection

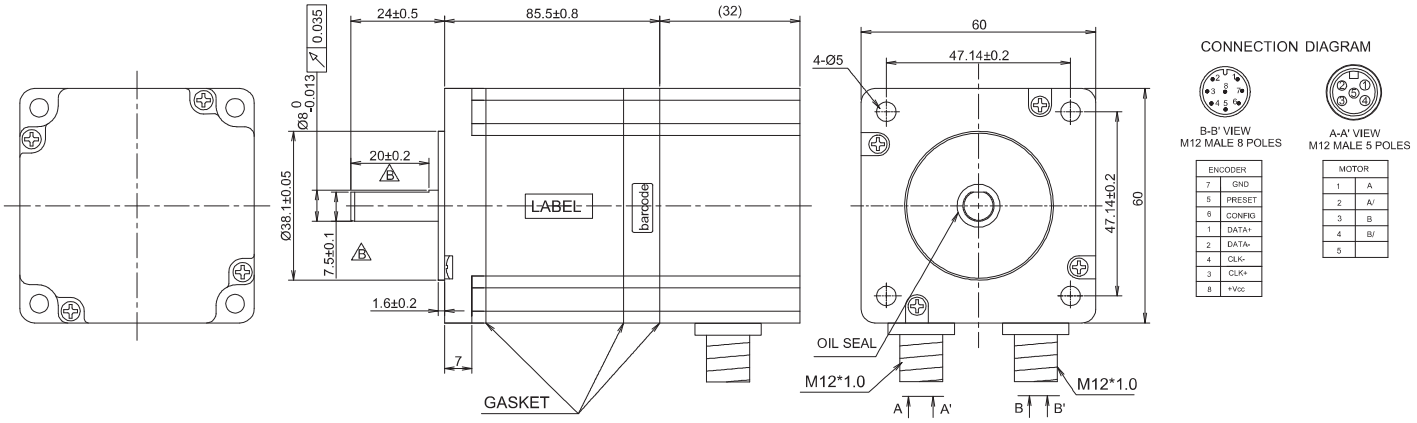
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

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.cm²	2000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT24HE35050E402

Motor features

Step angle	1.8°
Step angle accurancy	±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

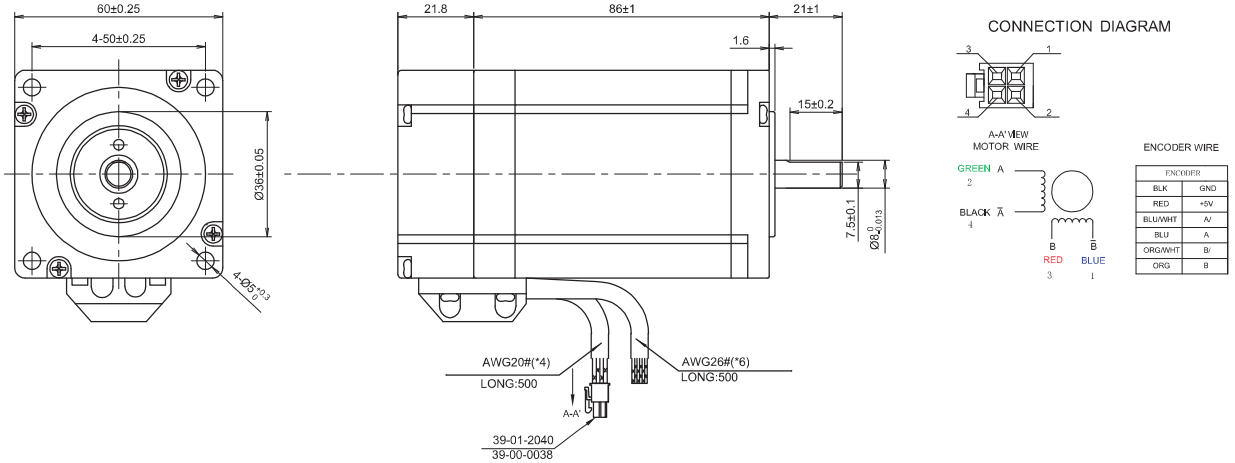
Connectors at lead wires end

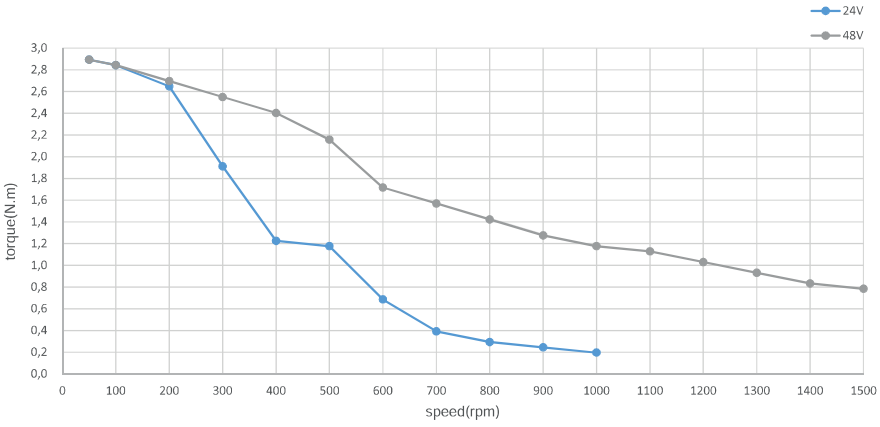
Specification

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.cm²	1500 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT24HE35050H403

Motor features

Step angle	1.8°
Step angle accurancy	±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

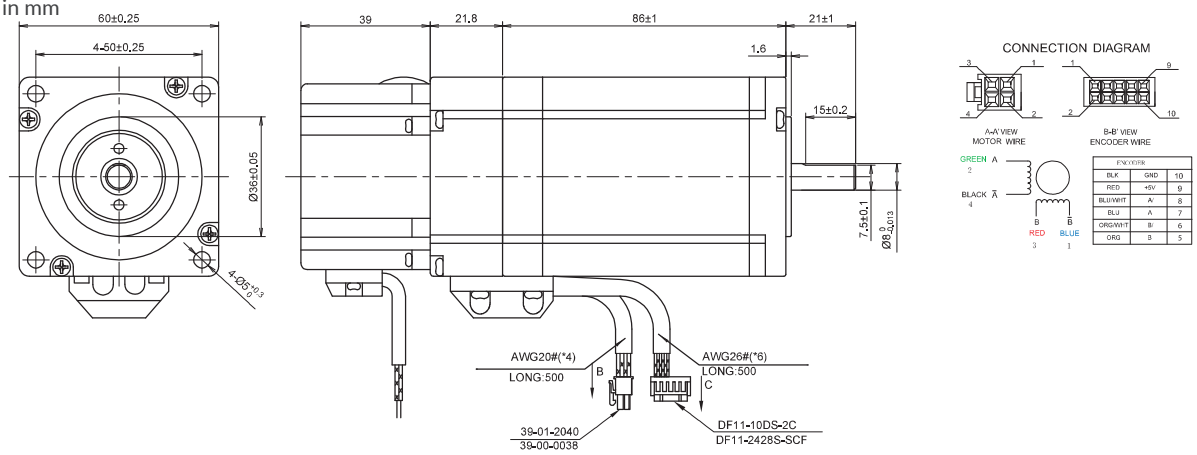
Brake	Power supply 24 Vdc Braking force 2.0 Nm
Connectors at the lead wires end	

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.cm²	1500 g.	4

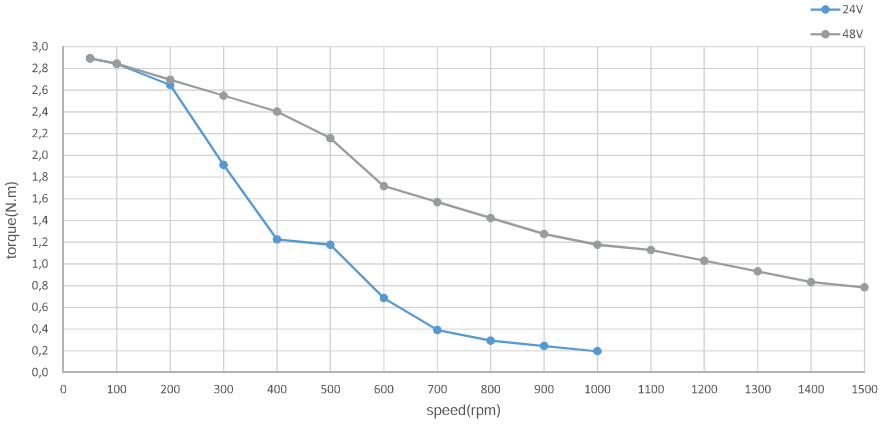
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT34HE26060M4K1

Motor features

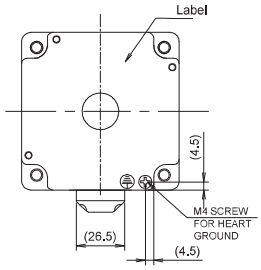
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP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

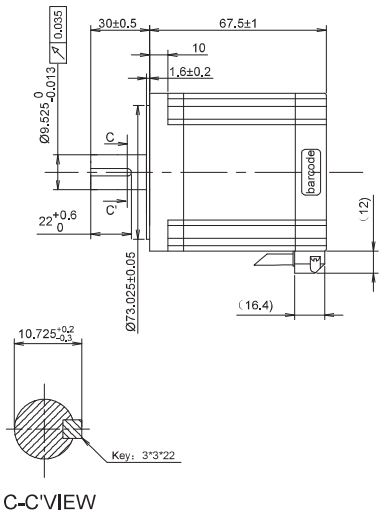
Specification

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.cm²	1800 g.	4

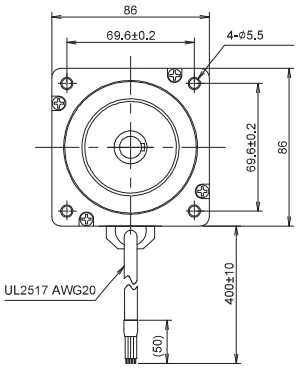
Mechanical drawing

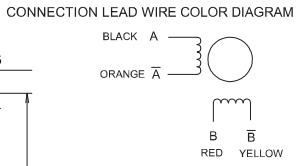
Dimensions in mm





C-C'VIEW





Stepper MT34HE29060E401

Motor features

Step angle	1.8°
Step angle accurancy	±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

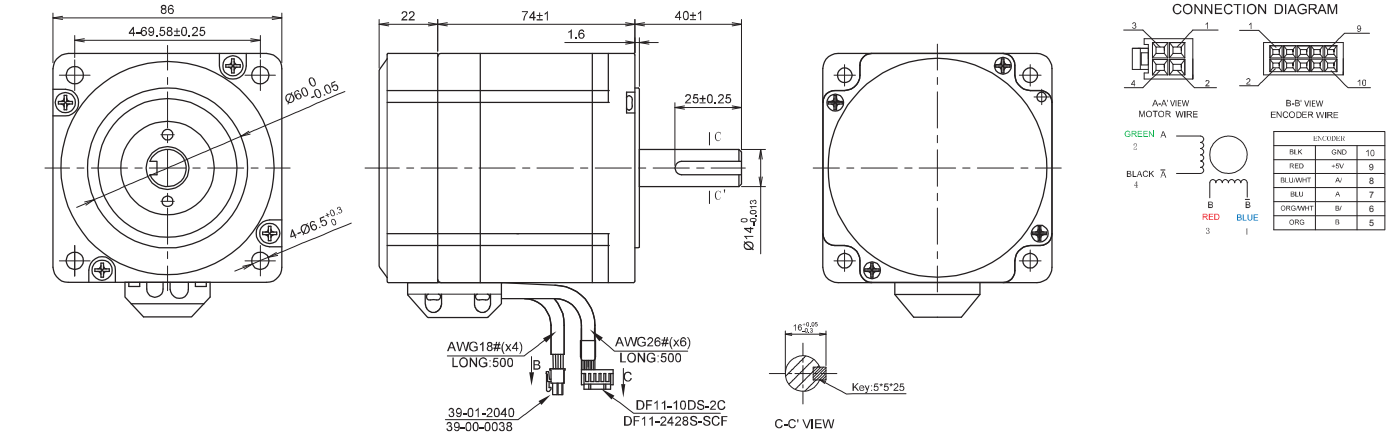
Connectors at the lead wires end

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.cm²	2300 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE31060M4K2

Motor features

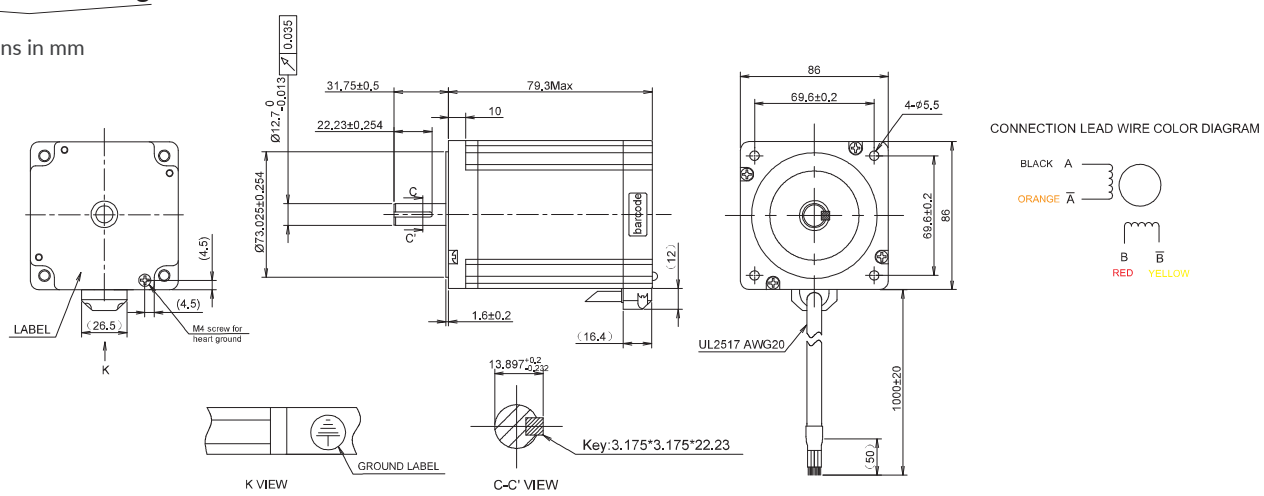
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP	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.cm²	2300 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE38020E4VK

Motor features

Step angle	1.8°
Step angle accurancy	±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

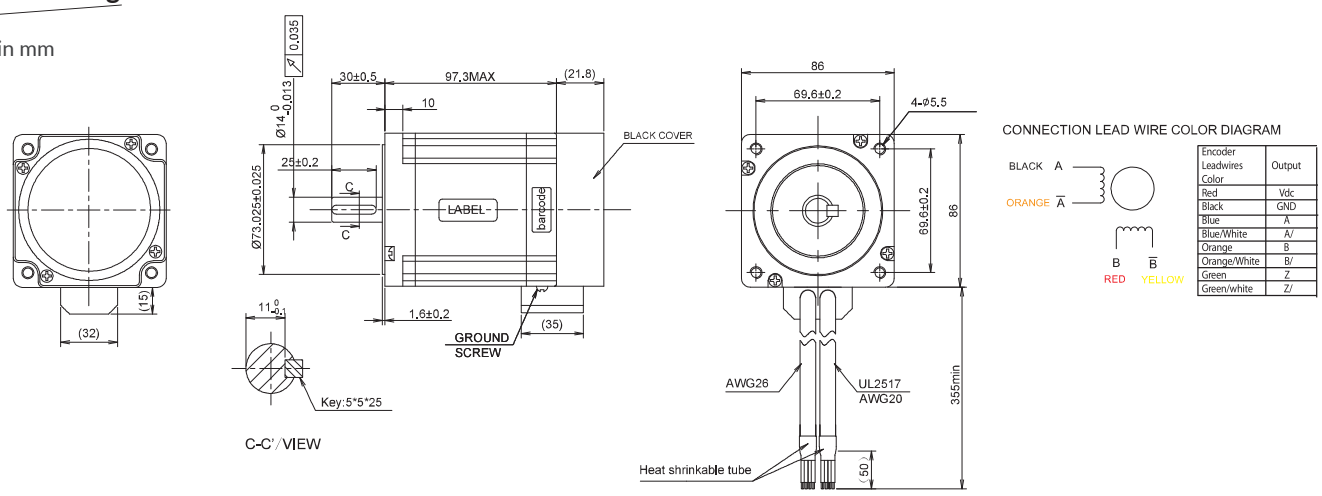
Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

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.cm²	2900 g.	4

Mechanical drawing

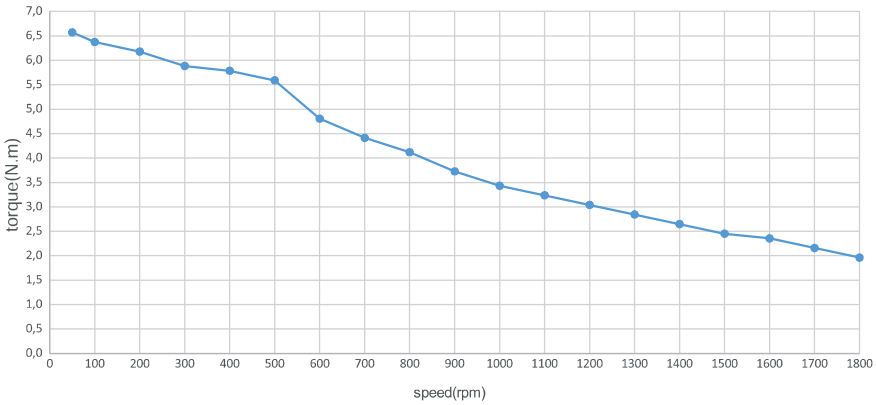
Dimensions in mm



Encoder Leadwires Color	Output
Red	Vdc
Black	GND
Blue	A
Blue/White	A/
Orange	B
Orange/White	B/
Green	Z
Green/white	Z/

Torque diagram

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



Stepper MT34HE38040M4VK

Motor features

Step angle	1.8°
Step angle accurancy	±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

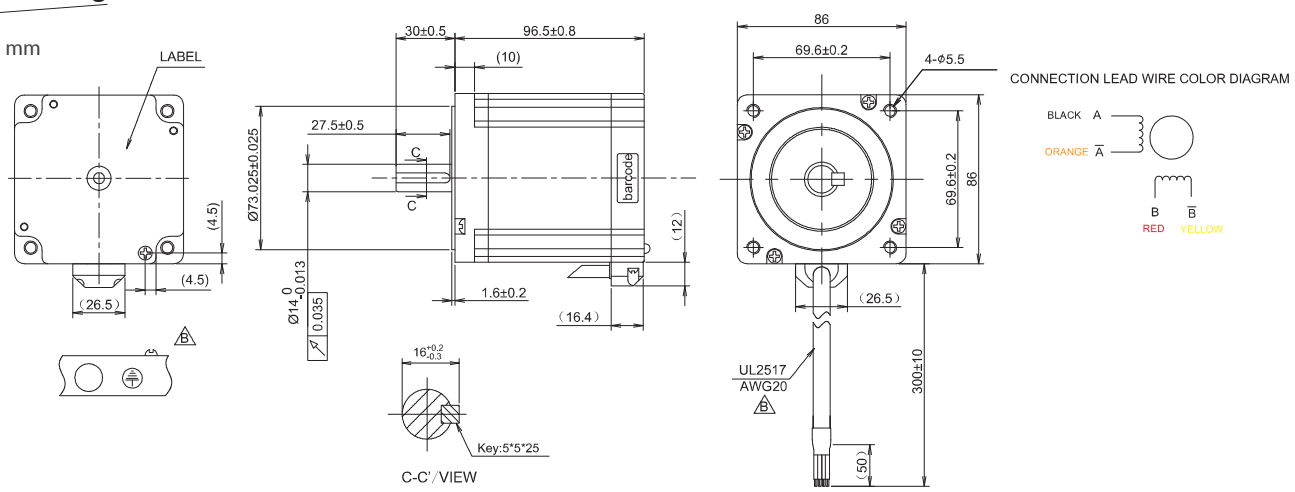
115/230 Vac
High Voltage

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.cm²	3000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE38060M4K1

Motor features

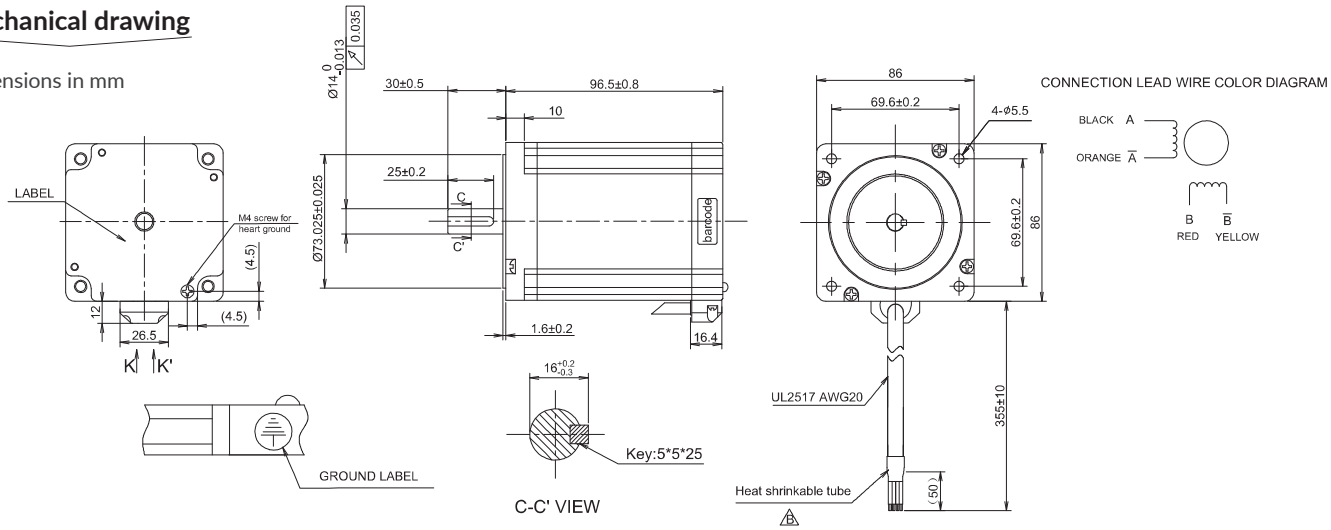
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP	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.cm²	2900 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE38060E404

Motor features

Step angle	1.8°
Step angle accurancy	±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

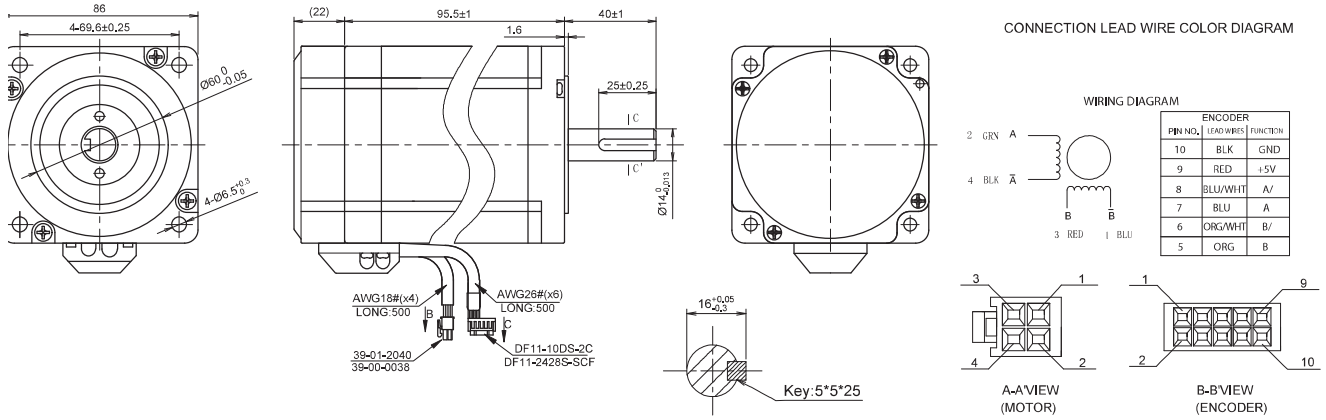
Connectors at the lead wires end

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.cm²	2900 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE44060E401

Motor features

Step angle	1.8°
Step angle accurancy	±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

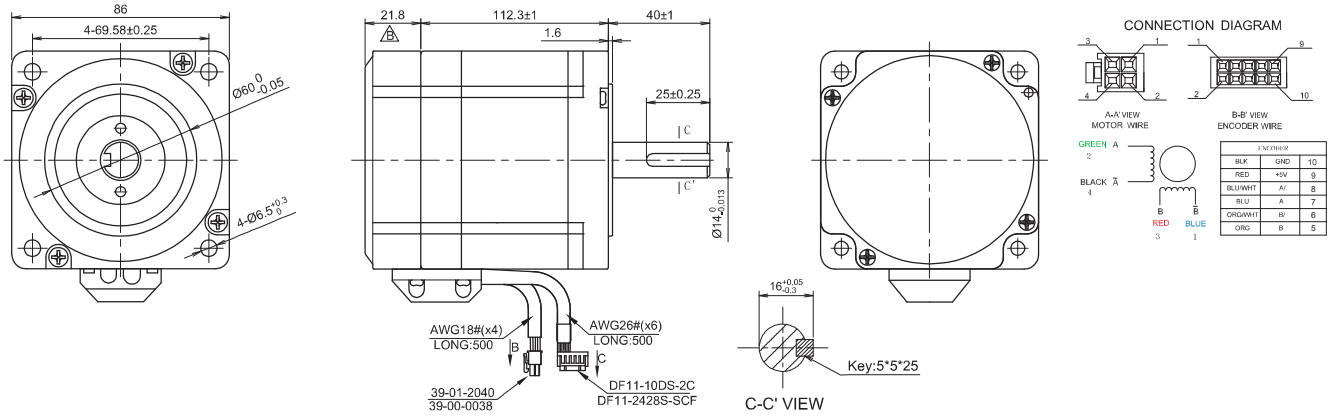
Connectors at the lead wires end

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.12 V	6.00 A/ph	0.54 ohm	5.20 mH	8.20 Nm	3800 g.cm²	4000 g.	4

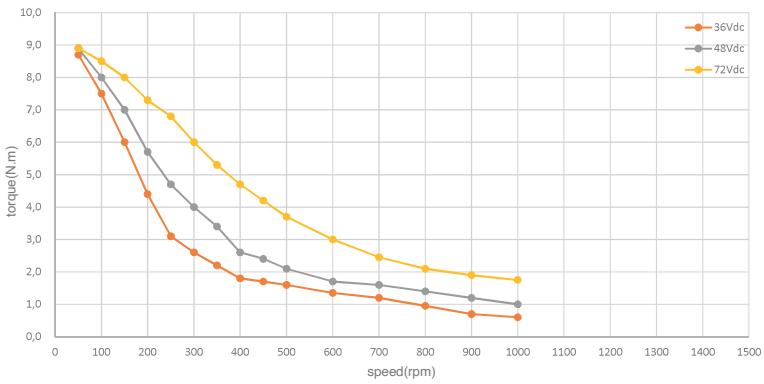
Mechanical drawing

Dimensions in mm



Torque diagram

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



Stepper MT34HE44060H401

Motor features

Step angle	1.8°
Step angle accurancy	±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

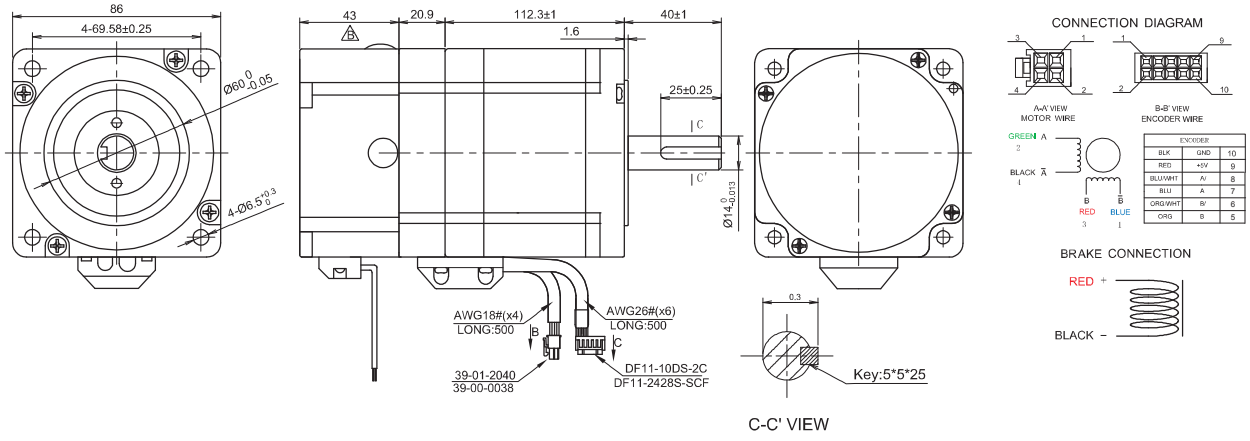
Brake	Power supply 24 Vdc Braking force 5.0 Nm
Connectors at the lead wires end	

Specification

Rated voltage	Rated current	Phase resistance	Phase inductance	Holding torque	Rotor Inertia	Approx weight	Number of leads
3.24 V	6.00 A/ph	0.54 ohm	5.20 mH	8.20 Nm	3800 g.cm²	4000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE47060E4L2

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Incremental Encoder

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

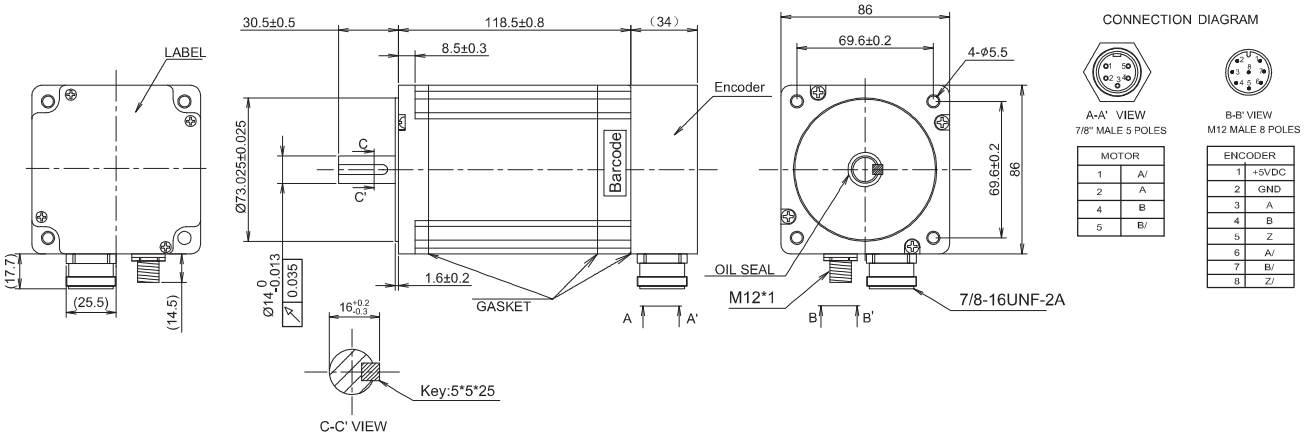
CBCP-00093: M12 8 poles femal connector and 4.0 mt. cable for encoder connection

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.cm²	4000 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE47060M4LC

Motor features

Step angle	1.8°
Step angle accurancy	±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

IP65 Protection

Other features

Connector on board

Optional

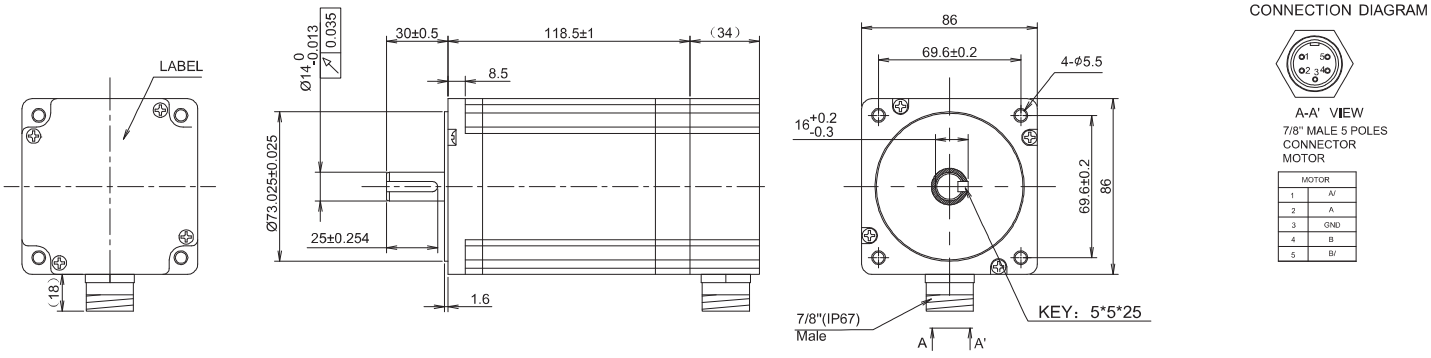
CBCP-00092: 7/8' 5 poles femal connector and 4.0 mt. cable for motor connection

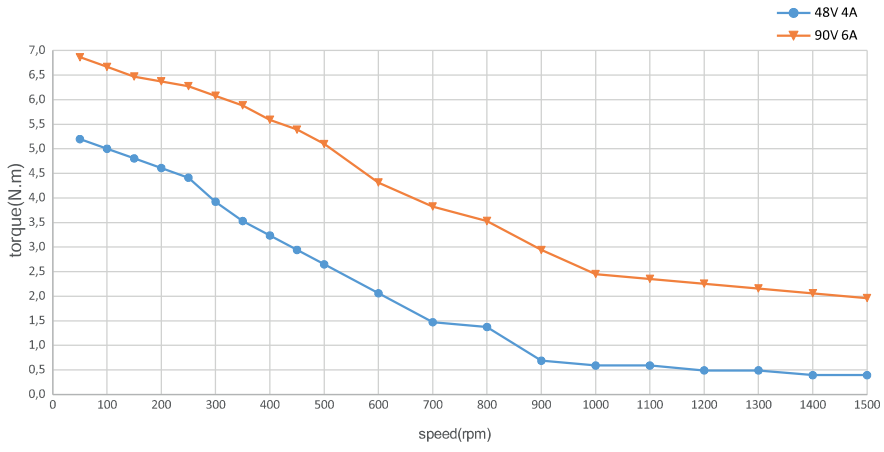
Specification

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.cm²	4000 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT34HE47060M8K

Motor features

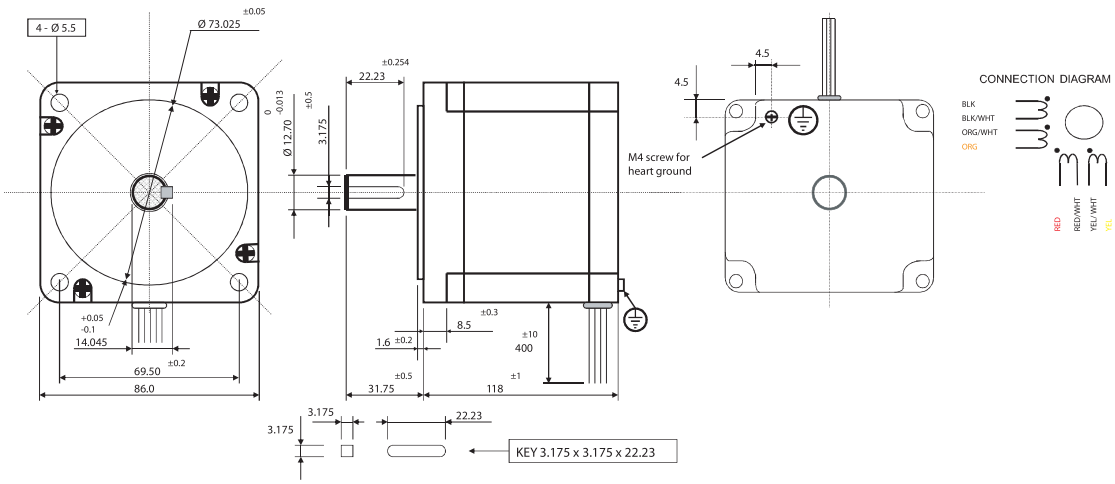
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP	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.cm²	4000 g.	8

Mechanical drawing

Dimensions in mm



Stepper MT34HE47095R4L1

Motor features

Step angle	1.8°
Step angle accurancy	±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

Brake — Power supply 24 Vdc
Braking force 5.0 Nm

Optional

CBCP-00051: 7/8' 6 poles femal connector and 2.5 mt. cable for motor connection

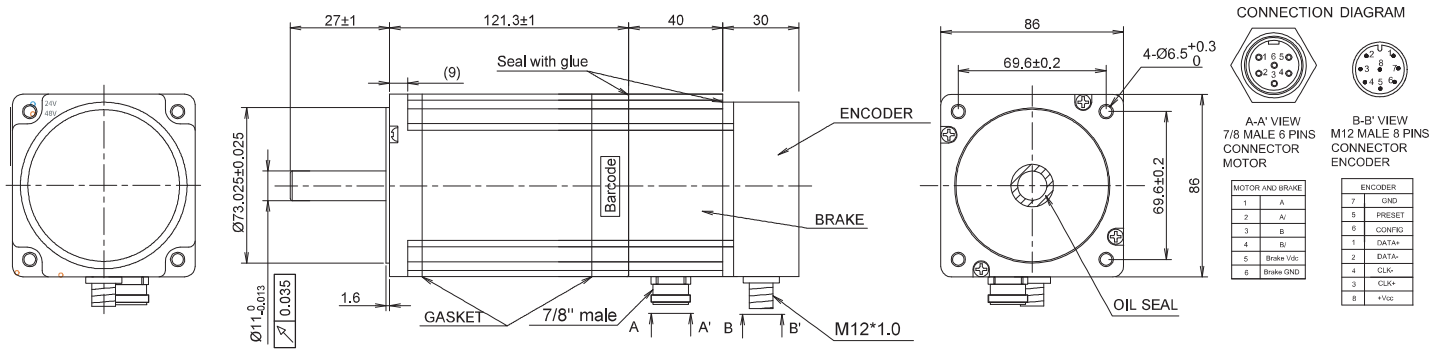
CBCP-00071: M12 8 poles femal connector and 2.5 mt. cable for encoder connection

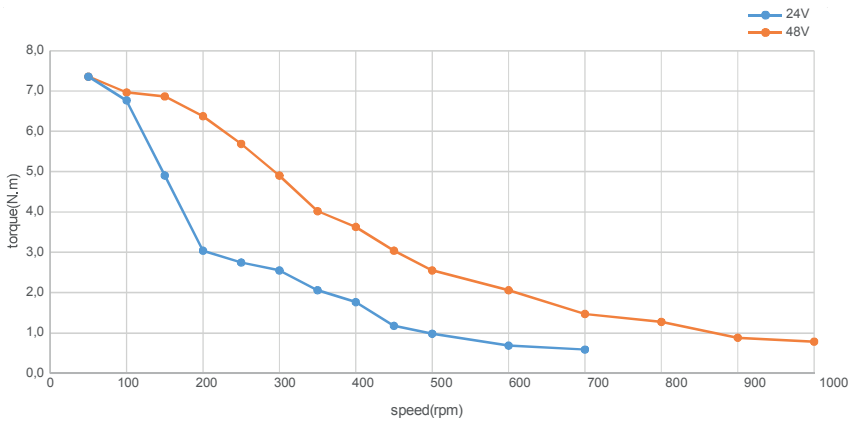
Specification

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.cm²	5000 g.	4

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT34HE47100M4R1

Motor features

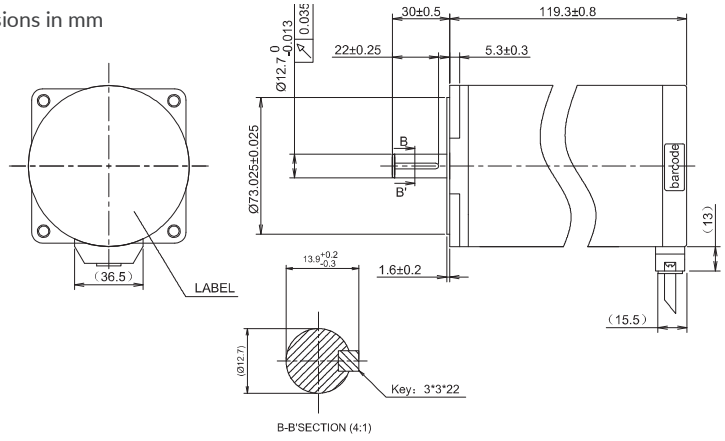
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 30 mm from front flange
Max shaft axial load	60 N
Protection IP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

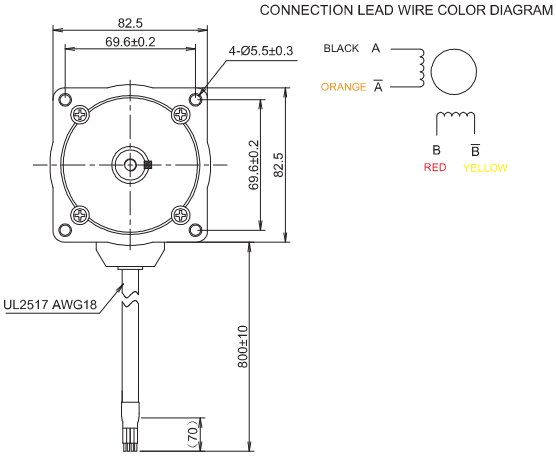
Specification

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.cm²	4000 g.	4

Mechanical drawing

Dimensions in mm





Stepper MT34HE50040E4VK

Motor features

Step angle	1.8°
Step angle accurancy	±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

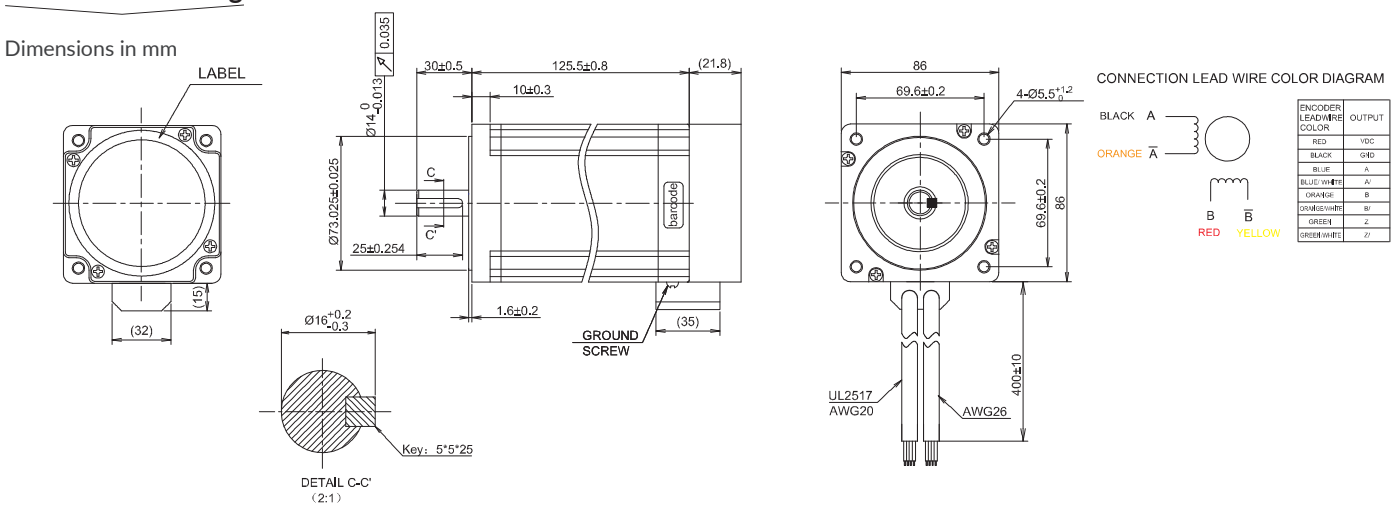
Type	Incremental quadrature
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line driver

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.cm²	4250 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE50040M4VK

Motor features

Step angle	1.8°
Step angle accurancy	±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

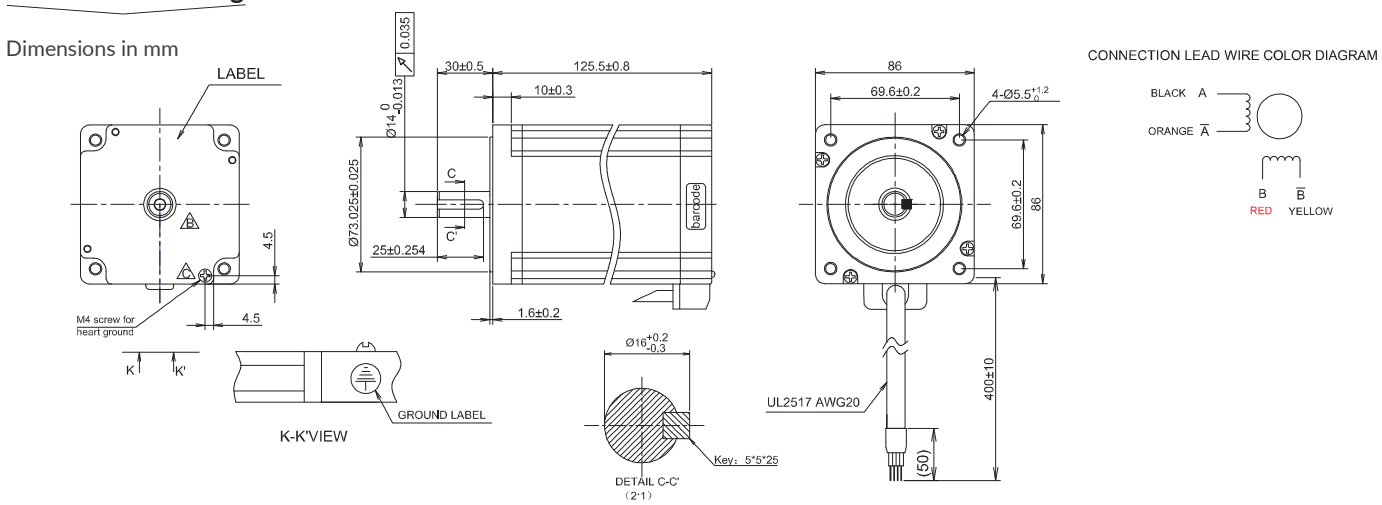
115/230 Vac
High Voltage

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.cm²	4250 g.	4

Mechanical drawing

Dimensions in mm



Stepper MT34HE62060M8K

Motor features

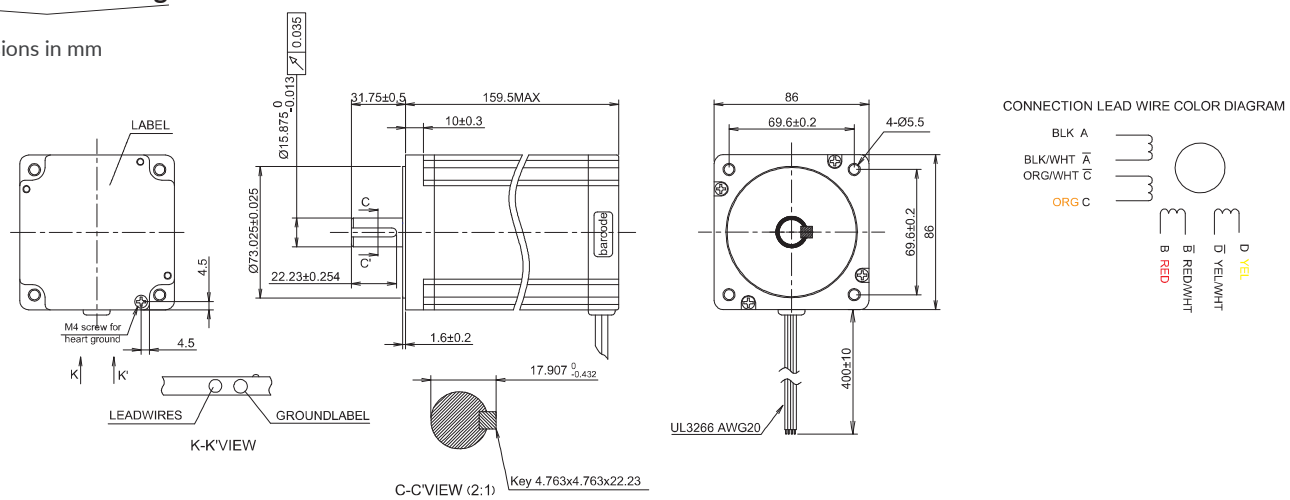
Step angle	1.8°
Step angle accurancy	±5%
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ +50°C
Max temperature rise	80K
Insulation resistance	100 Mohm min. 500 Vdc
Dielectric strength	500 Vac, 1 minute
Max shaft radial load	220 N at 31 mm from front flange
Max shaft axial load	60 N
Protection IP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

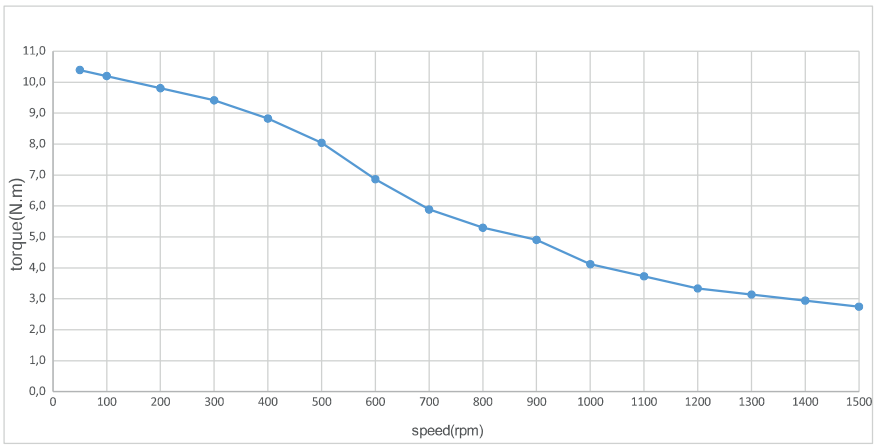
Specification

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.cm²	5500 g.	8

Mechanical drawing

Dimensions in mm





Torque diagram

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

Stepper MT42HE39075M8K

Motor features

Step angle	1.8°
Step angle accurancy	±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

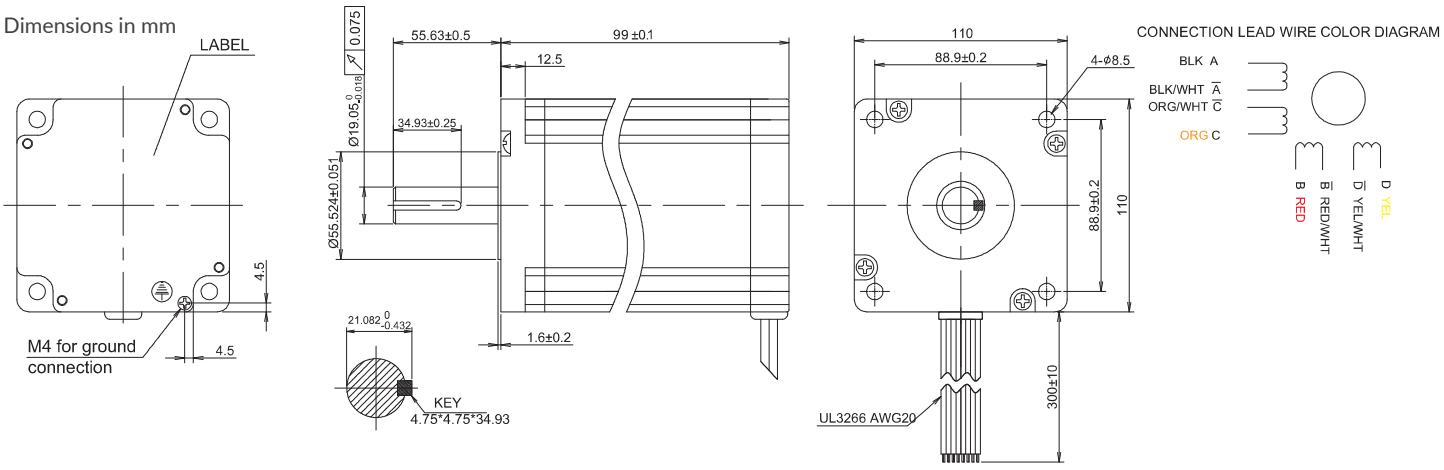
115/230 Vac
High Voltage

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.cm²	6000 g.	8

Mechanical drawing

Dimensions in mm



Stepper MT42HE59110M8K

Motor features

Step angle	1.8°
Step angle accurancy	±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

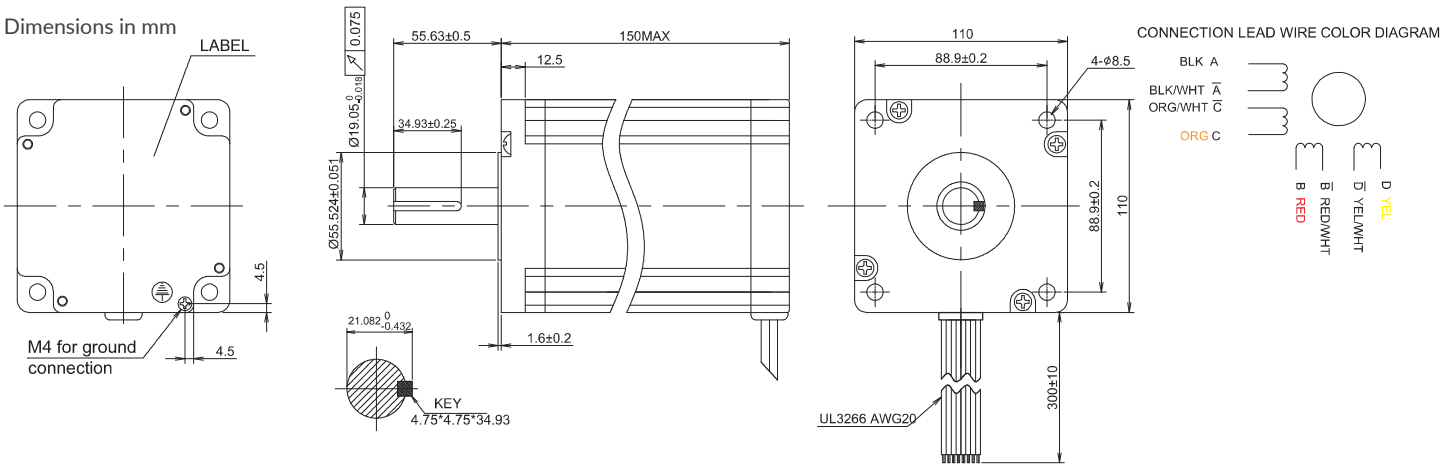
115/230 Vac
High Voltage

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.cm²	8700 g.	8

Mechanical drawing

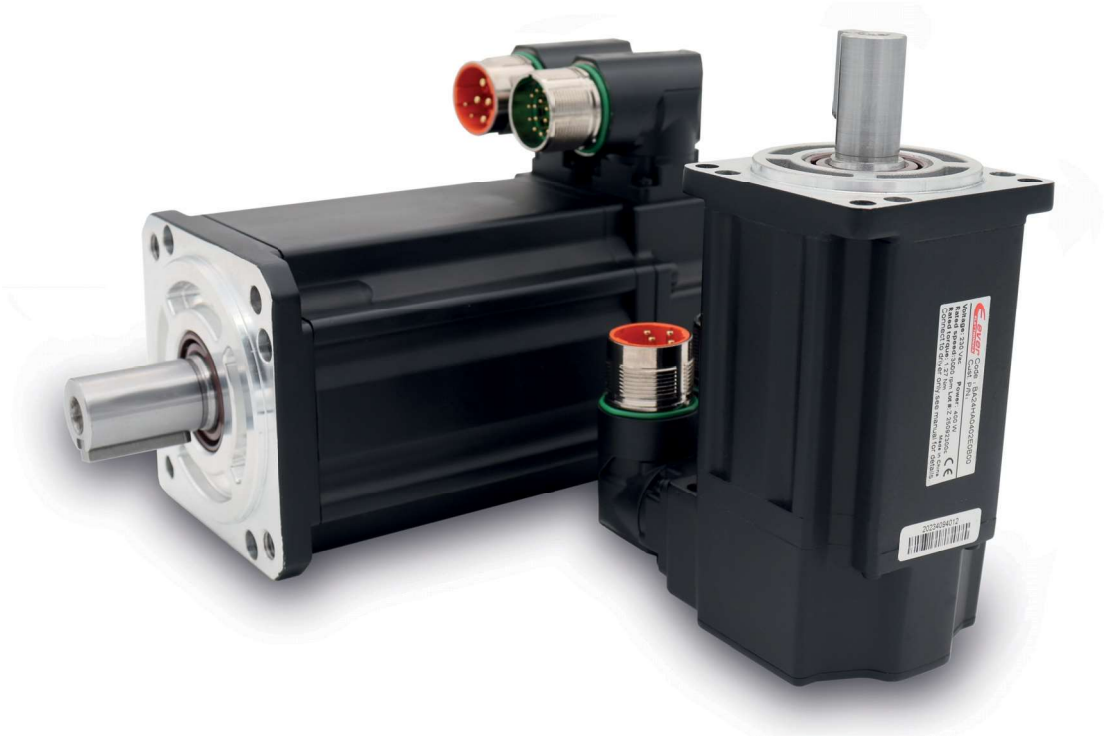
Dimensions in mm



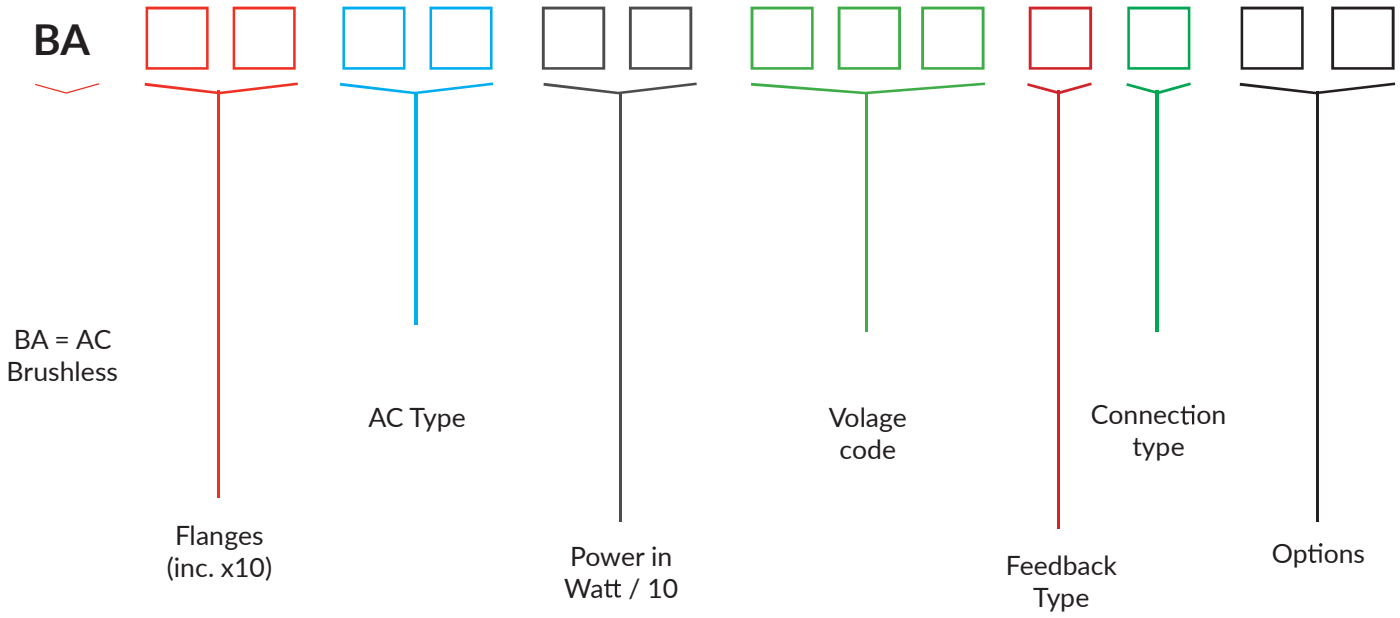
High efficiency AC brushless

Ever Motion Solutions brushless AC motors are high-performance actuators equipped with the best features and all the other options of the standard specifications.

AC BRUSHLESS MOTORS



Motors coding AC Brushless



	Motor model	BA24SA022	BA24SA040	BA32SA075	BA39SA105	BA55SA140
Drive model						
AW5A6750		•	•	•		
AW5A9750		•	•	•		
AW5A91K5		•	•	•	•	•

Brushless AC BA24HA0402E0B00

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2500 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Optional

CBCP-00158	M23 female connector and 5 mt. cable for motor connection with our drives SW5A91K5
CBCP-00159	M23 female connector and 5.0 mt. cable for signals connection with our drives SW5A91K5

Other features

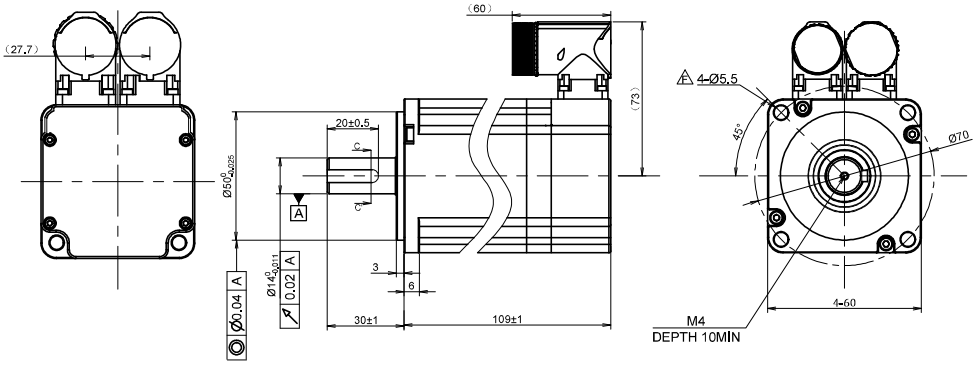
No others features

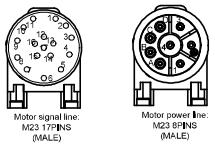
Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400 W	1.28 Nm	3000 rpm	2.95 A	-	-	9.90 A	4.0 Nm	4.18 ohm ±5%	8.03 mH ±5%	0.43 Nm/Arms ±5%	30.10 Vrms/ Krpm	6000 rpm	0.370 Kg.cm²x10-4	1.60 Kg. approx

Mechanical drawing

Dimensions in mm





Motor power line:

P/N NO.	1	2	3	4	A	B	C	D
Signal	U	Ground	V	W	---	---	---	---

Motor signal line:

P/N NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Signal	+5 VDC	GND	A	A/	B	B/	Z	Z/	---	---	Hall HA+	Hall HA-	Hall HB+	Hall HB-	Hall HC+	Hall HC-	---

Brushless AC BA24HA0402A0B0F

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply 24 Vdc

Breaking force 1.5 Nm

Optional

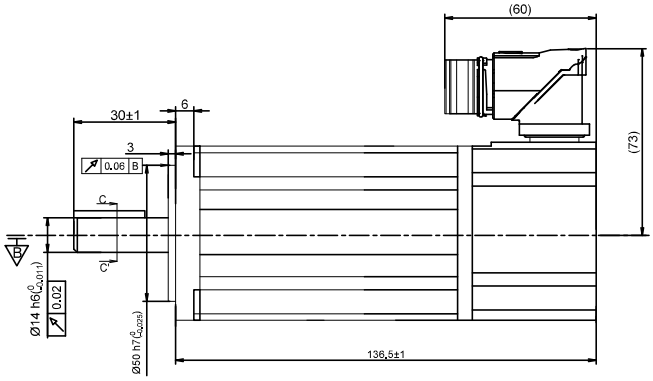
CBCP-00182	M23 female connector and 1,5 mt. cable for motor and brake connection with our drives SW5A91K5
CBCP-00173	M23 female connector and 5 mt. cable for signals connection with our drives SW5A91K5

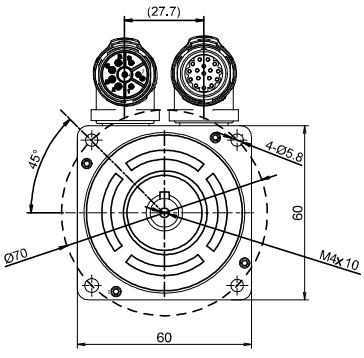
Specification

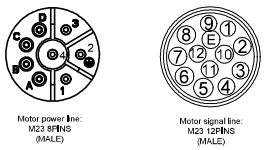
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400 W	1.27 Nm	3000 rpm	2.60 A	-	-	7.70 A	3.81 Nm	4.20 ohm ±5%	6.80 mH ±5%	0.49 Nm/Arms ±5%	35.00 Vrms/ Krpm	6000 rpm	0.520 Kg.cm²x10-4	2.00 Kg. approx

Mechanical drawing

Dimensions in mm







Motor power line: M23 8PINS (MALE)

Motor signal line: M23 12PINS (MALE)

Motor power line:

PIN NO.	A	B	C	D	1	⏚	3	4
Signal	Brake+	Brake-	---	---	U	PE	V	W

Motor signal line:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12
Signal	5V	0V	DATA+	DATA-	CLOCK-	CLOCK+	SENSOR 5V	SENSOR 0V	---	---	---	---

Brushless AC BA32HA0752A0B0F

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	12 bits multiturn, 24 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply 24 Vdc

Breaking force 4.8 Nm

Optional

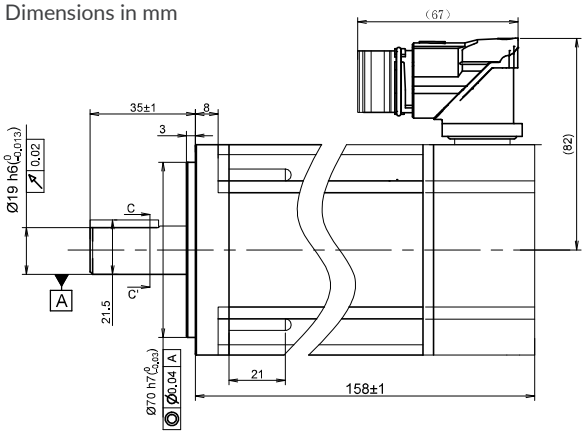
CBCP-00182	M23 female connector and 1.5 mt. cable for motor and brake connection with our drives SW5A91K5
CBCP-00173	M23 female connector and 5 mt. cable for signals connection with our drives SW5A91K5

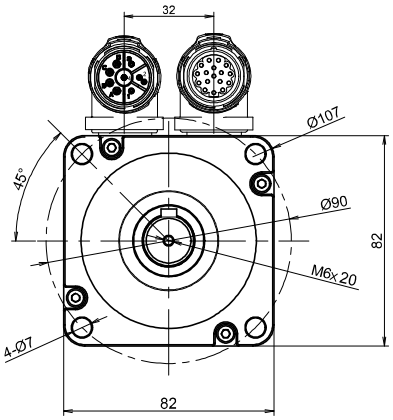
Specification

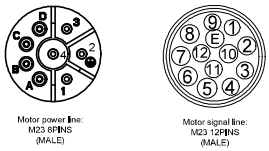
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	5.16 A	-	-	18.10 A	8.40 Nm	1.50 ohm ±5%	3.73 mH ±5%	0.46 Nm/Arms ±5%	31.60 Vrms/ Krpm	6000 rpm	1.500 Kg.cm²x10-4	3.20 Kg. approx

Mechanical drawing

Dimensions in mm







Motor power line:

P/N NO.	A	B	C	D	1	⏚	3	4
Signal	Brake+	Brake-	---	---	U	PE	V	W

Motor signal line:

P/N NO.	1	2	3	4	5	6	7	8	9	10	11	12
Signal	5V	0V	DATA+	DATA-	CLOCK+	CLOCK-	SENSOR 5V	SENSOR 0V	---	---	---	---

Brushless AC BA32HA0752E0B00

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2500 ppr
Output Interface	Line Driver
Power supply	5.00 Vdc

Optional

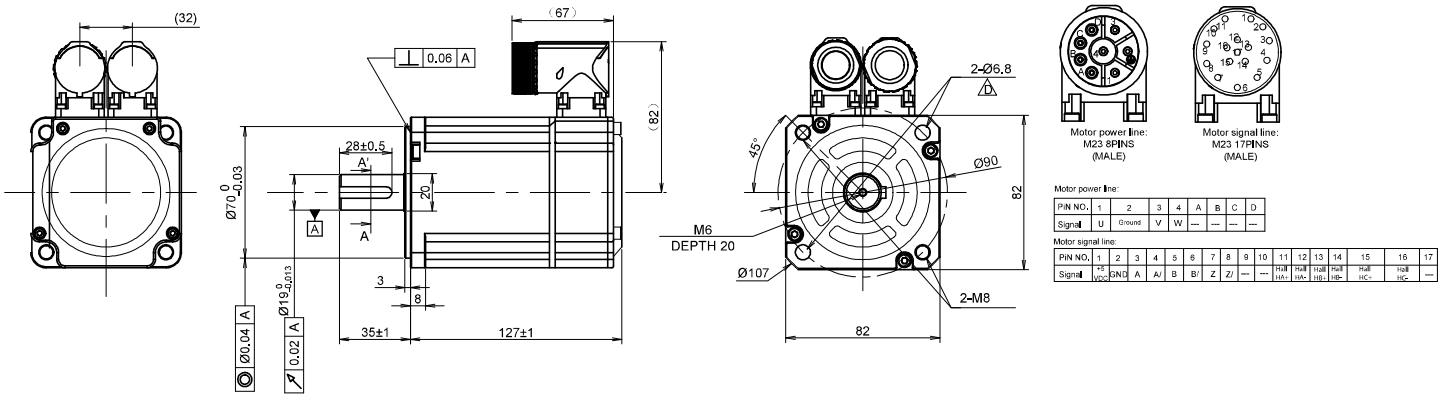
CBCP-00158	M23 female connector and 1.5 mt. cable for motor and brake connectio with our drives SW5A91K5
CBCP-00159	M23 female connector and 5 mt. cable for signals connection with our drives SW5A91K5

Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	5.16 A	-	-	18.10 A	8.40 Nm	1.50 ohm ±5%	3.73 mH ±5%	0.46 Nm/Arms ±5%	31.60 Vrms/ Krpm	6000 rpm	1.500 Kg.cm²x10-4	2.60 Kg. approx

Mechanical drawing

Dimensions in mm



Brushless AC BA32HA0752E0B0F

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Brake

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2500 ppr
Output Interface	Line drive
Power supply	5.00 Vdc

Other features

Brake: Power supply 24 Vdc

Breaking force 4.8 Nm

Optional

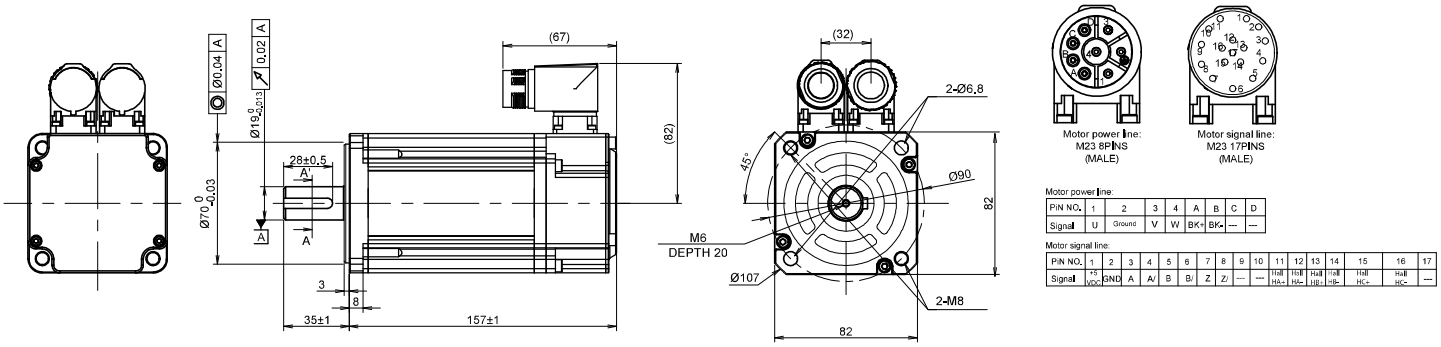
CBCP-00182	M23 female connector and 1.5 mt. cable for and brake connection with our drives SW5A91K5
CBCP-00159	M23 female connector and 5 mt. cable for signals connection with our drives SW5A91K5

Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	5.16 A	-	-	18.10 A	8.40 Nm	1.50 ohm ±5%	3.73 mH ±5%	0.46 Nm/Arms ±5%	31.60 Vrms/ Krpm	6000 rpm	1.500 Kg.cm²x10-4	2.60 Kg. approx

Mechanical drawing

Dimensions in mm



Motor power line:

PIN NO.	1	2	3	4	A	B	C	D
Signal	U	Ground	V	W	BK+	BK-	---	---

Motor signal line:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Signal	+5 VDC	GND	A	A/	B	B/	Z	Z/	---	---	Hall HA+	Hall HA-	Hall HB+	Hall HB-	Hall HC+	Hall HC-	---

Brushless AC BA39HA1102A0B0F

Motor features

Pole pairs	5
Insulation class	Class F, 155°C
Temperature rise	105K
Protection IP	IP65
Cooling method	Totally enclosed, self cooled

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	12 bits multiturn, 24 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply 24 Vdc

Breaking force 8.2 Nm

Optional

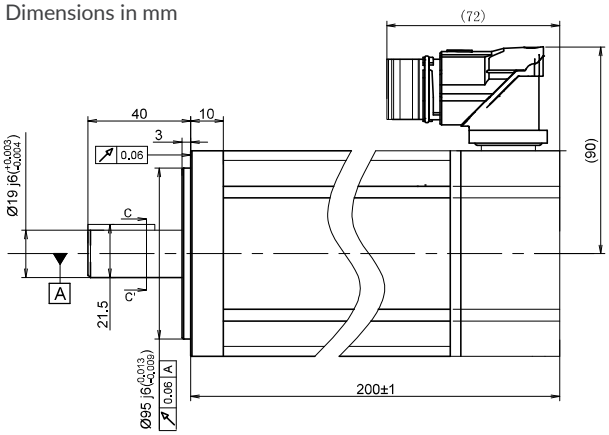
CBCP-00182	M23 female connector and 1.5 mt. cable for motor and brake connection with our drives SW5A91K5
CBCP-00173	M23 female connector and 5 mt. cable for signals connection with our drives SW5A91K5

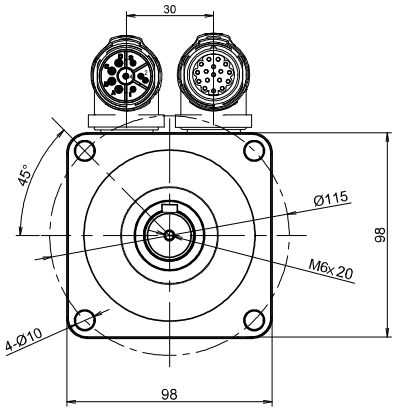
Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1100 W	3.50 Nm	3000 rpm	4.50 A	-	-	20.70 A	16.00 Nm	1.93 ohm ±5%	10.10 mH ±5%	0.78 Nm/Arms ±5%	55.00 Vrms/ Krpm	6000 rpm	2.680 Kg.cm²x10-4	4.50 Kg. approx

Mechanical drawing

Dimensions in mm





Motor power line:

PIN NO.	A	B	C	D	1	⏚	3	4
Signal	Brake+	Brake-	---	---	U	PE	V	W

Motor signal line:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12
Signal	5V	0V	DATA+	DATA-	CLOCK+	CLOCK-	SENSOR 5V	SENSOR 0V	---	---	---	---

Brushless AC BA24SA0402E1010

Motor features

Pole pairs	4
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	250 N
Max shaft axial load	80 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

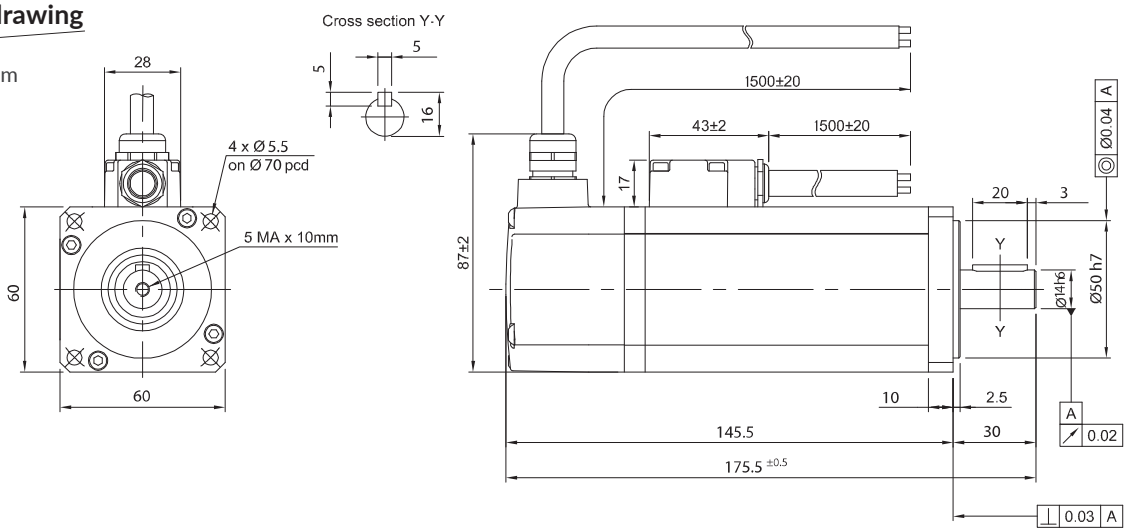
Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Specification

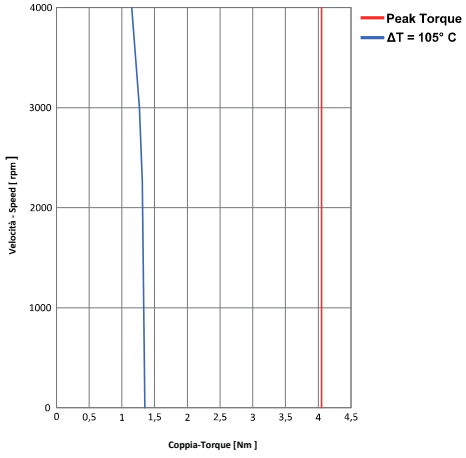
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400W	1.27 Nm	3000 rpm	2.0 A	2.12 A	1.35 Nm	8.5 A	4.05 Nm	7.15 ohm ±5%	21.0 mH ±5%	0.635 Nm/ Arms ±5%	40.7 Vrms/Krpm	4000 rpm	0.228 Kg.m²x10-4	2.0 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA24SA0402E101F

Motor features

Pole pairs	4
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	250 N
Max shaft axial load	80 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Other features

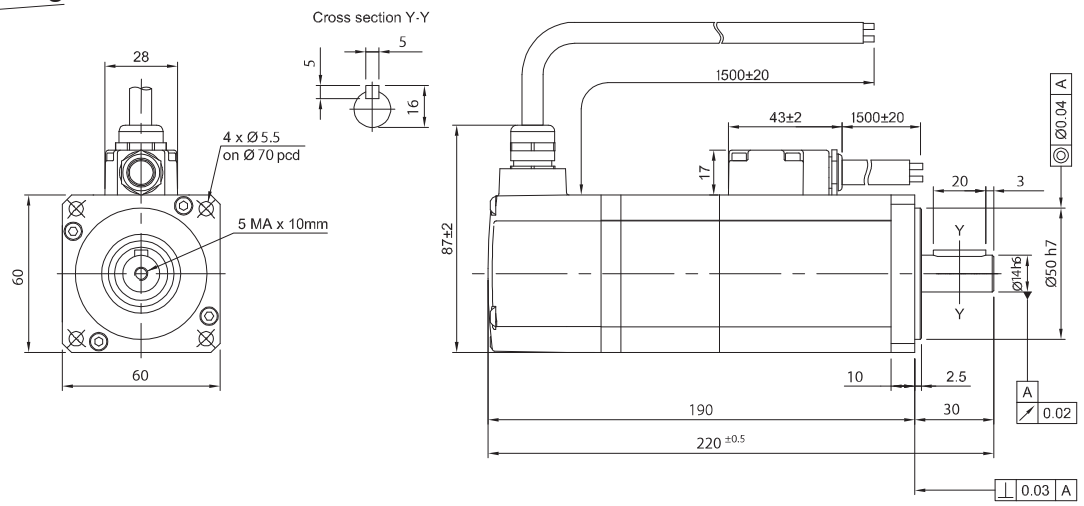
Brake: Power supply	24 Vdc
Rated current	0.46 A
Breaking force	2 Nm

Specification

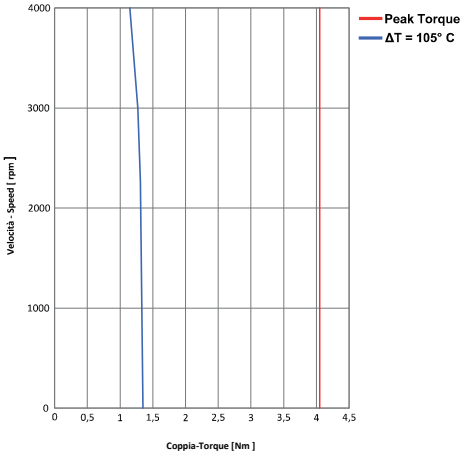
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400 W	1.27 Nm	3000 rpm	2.00 A	2.12 A	1.35 Nm	8.5 A	4.05 Nm	7.15 ohm ±5%	21.0 mH ±5%	0.635 Nm/ Arms ±5%	40.7 Vrms/Krpm	4000 rpm	0.228 Kg.m²x10-4	2.0 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA24SA0402A0010

Motor features

Pole pairs	4
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	250 N
Max shaft axial load	80 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

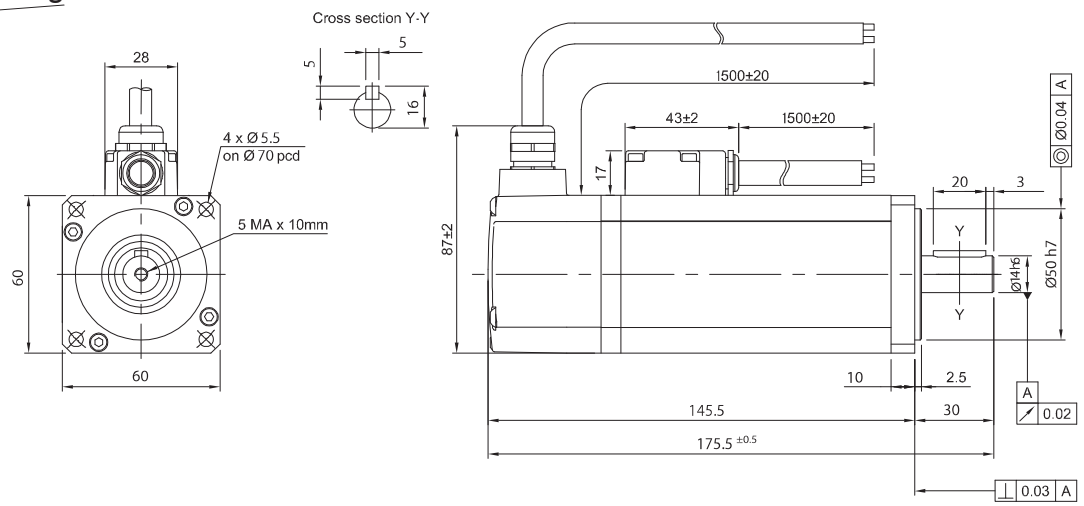
Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Specification

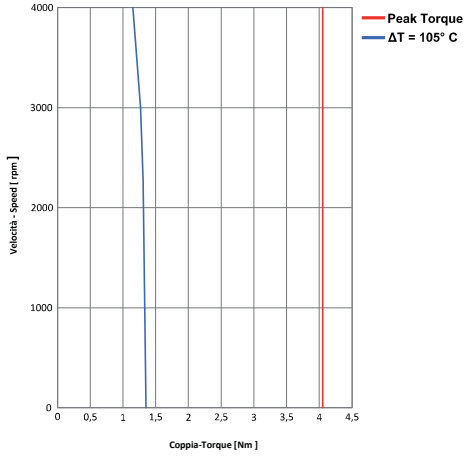
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400 W	1.27 Nm	3000 rpm	2.00 A	2.12 A	1.35 Nm	8.5 A	4.05 Nm	7.15 ohm ±5%	21.0 mH ±5%	0.635 Nm/ Arms ±5%	40.7 Vrms/Krpm	4000 rpm	0.228 Kg.m²x10-4	2.0 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA24SA0402A001F

Motor features

Pole pairs	4
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	250 N
Max shaft axial load	80 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

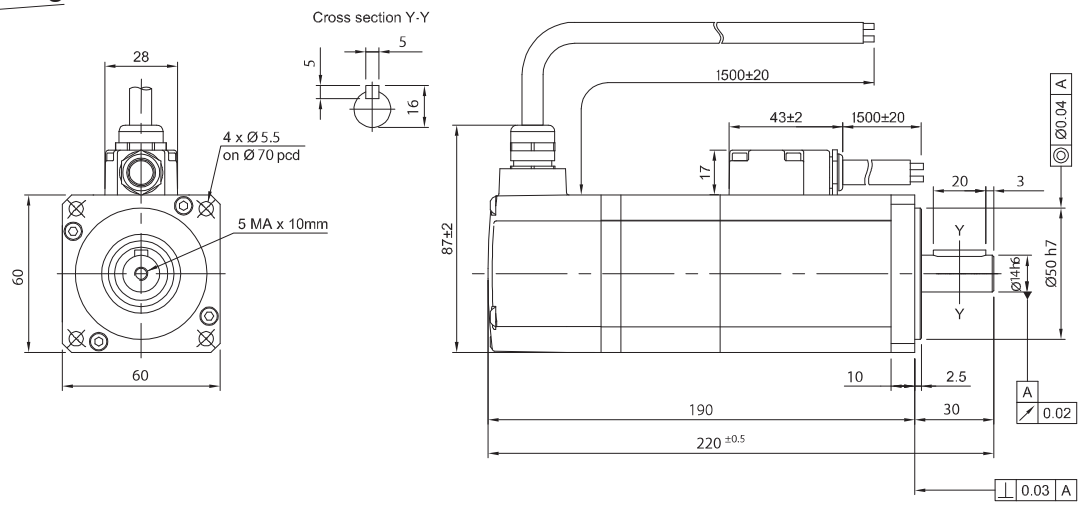
Brake: Power supply	24 Vdc
Rated current	0.46 A
Breaking force	2 Nm

Specification

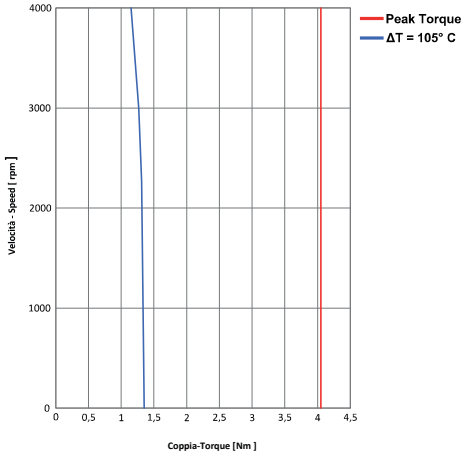
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	400 W	1.27 Nm	3000 rpm	2.00 A	2.12 A	1.35 Nm	8.5 A	4.05 Nm	7.15 ohm ±5%	21.0 mH ±5%	0.635 Nm/ Arms ±5%	40.7 Vrms/Krpm	4000 rpm	0.228 Kg.m²x10-4	2.0 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA32SA0752E1B00

Motor features

Pole pairs	3
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	420 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Optional

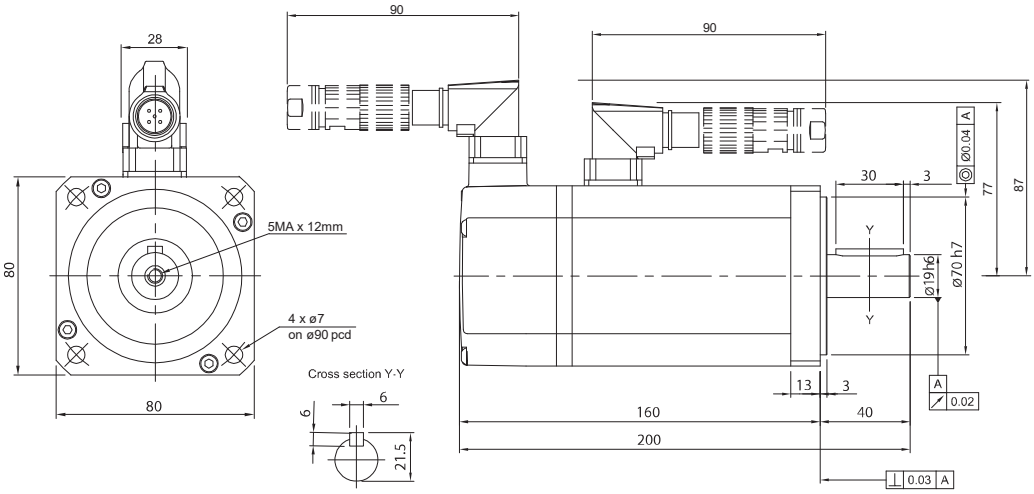
CBL/0276-150: M17 female connector and 1.5 mt. cable for motor connection
CBL/0276-500: M17 female connector and 5.0 mt. cable for motor connection
CBL/0287-150: M17 female connector and 1.5 mt. cable for encoder connection
CBL/0287-500: M17 female connector and 5.0 mt. cable for encoder connection

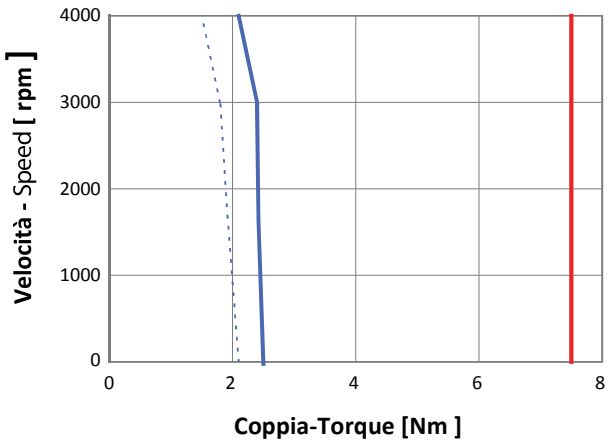
Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	3.75 A	2.90 A	2.50 Nm	8.70 A	7.50 Nm	3.95 ohm ±5%	29.5 mH ±5%	0.85 Nm/Arms ±5%	51.4 Vrms/Krpm	4000 rpm	0.614 Kg.m²x10-4	3.6 Kg. approx

Mechanical drawing

Dimensions in mm





Torque diagram

Brushless AC BA32SA0752E1B0F

Motor features

Pole pairs	3
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	420 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Other features

Brake: Power supply	24 Vdc
Rated current	0.50 A
Breaking force	4,5 Nm

Optional

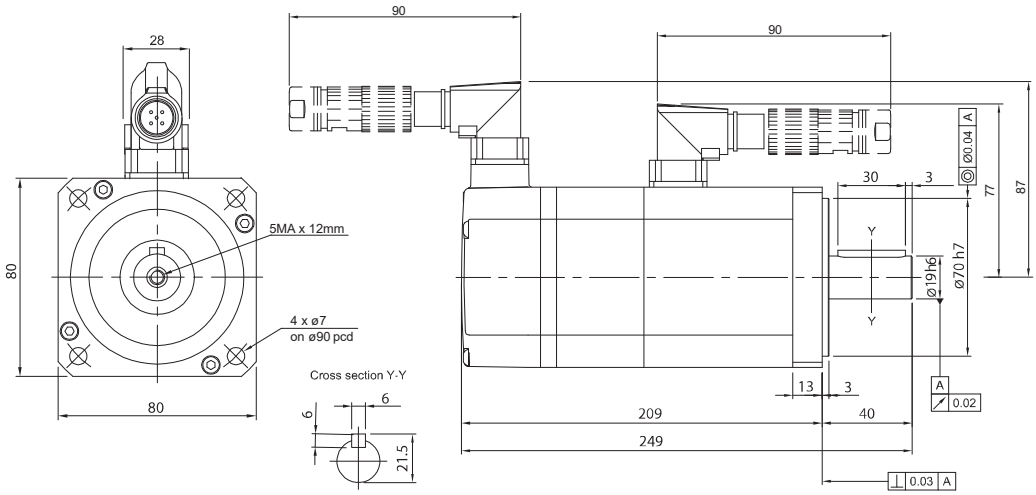
CBL/0260-150: M17 female connector and 1.5 mt. cable for motor connection
CBL/0260-500: M17 female connector and 5.0 mt. cable for motor connection
CBL/0287-150: M17 female connector and 1.5 mt. cable for encoder connection
CBL/0287-500: M17 female connector and 5.0 mt. cable for encoder connection

Specification

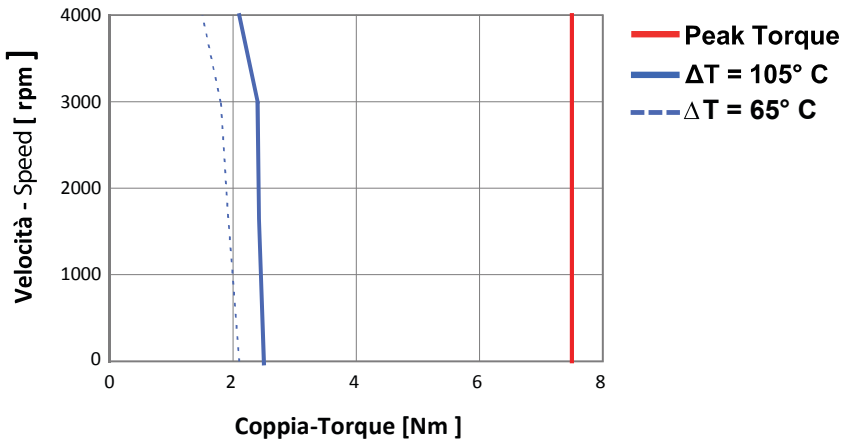
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	3.75 A	2.90 A	2.50 Nm	8.70 A	7.50 Nm	3.95 ohm ±5%	29.5 mH ±5%	0.85 Nm/Arms ±5%	51.4 Vrms/Krpm	4000 rpm	0.614 Kg.m²x10-4	3.6 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA32SA0752A0B00

Motor features

Pole pairs	3
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	420 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Optional

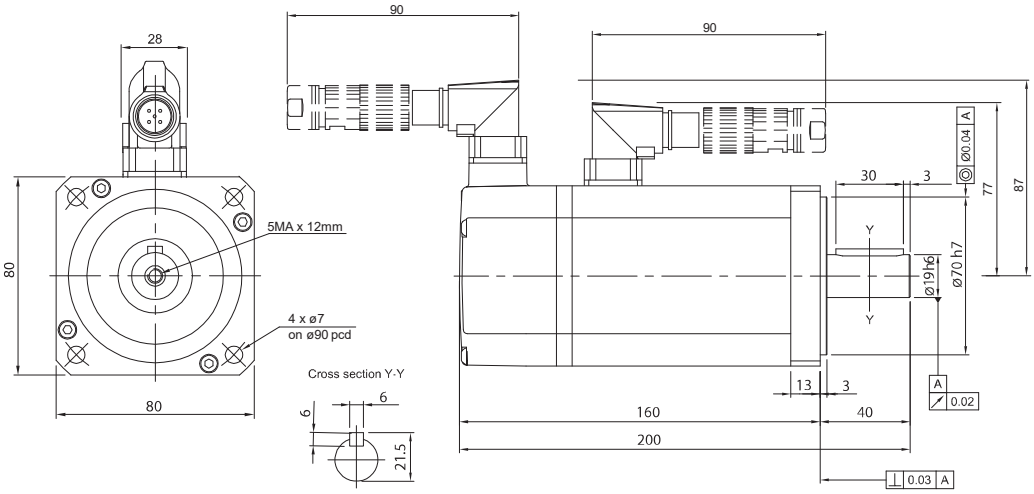
CBL/0276-150: M17 female connector and 1.5 mt. cable for motor connection
CBL/0276-500: M17 female connector and 5.0 mt. cable for motor connection
CBL/0261-150: M17 female connector and 1.5 mt. cable for encoder connection
CBL/0261-500: M17 female connector and 5.0 mt. cable for encoder connection

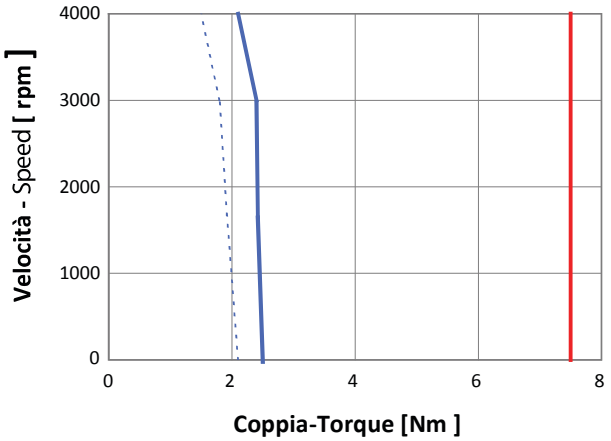
Specification

Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	3.75 A	2.90 A	2.50 Nm	8.70 A	7.50 Nm	3.95 ohm ±5%	29.5 mH ±5%	0.85 Nm/Arms ±5%	51.4 Vrms/Krpm	4000 rpm	0.614 Kg.m²x10-4	3.6 Kg. approx

Mechanical drawing

Dimensions in mm





Torque diagram

Brushless AC BA32SA0752A0B0F

Motor features

Pole pairs	3
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	420 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply	24 Vdc
Rated current	0.50 A
Breaking force	4,5 Nm

Optional

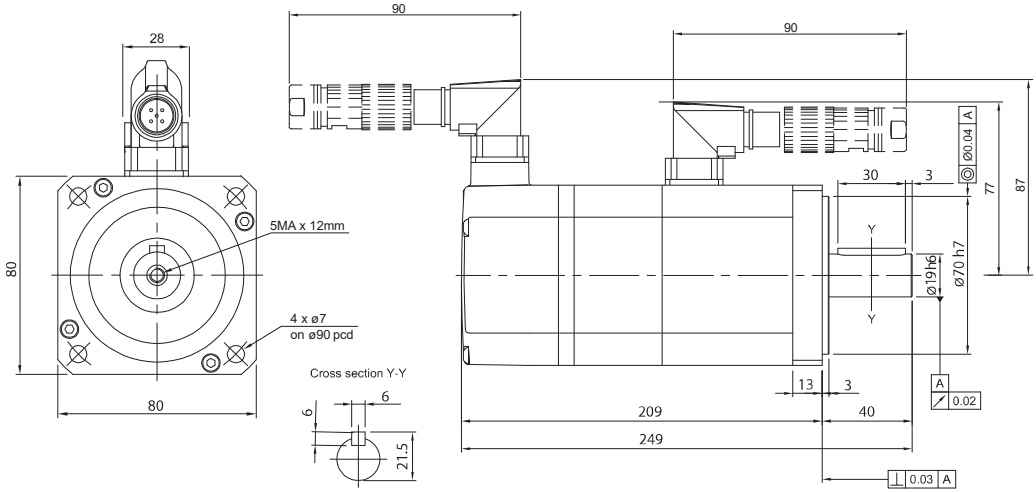
CBL/0260-150: M17 female connector and 1.5 mt. cable for motor connection
CBL/0260-500: M17 female connector and 5.0 mt. cable for motor connection
CBL/0261-150: M17 female connector and 1.5 mt. cable for encoder connection
CBL/0261-500: M17 female connector and 5.0 mt. cable for encoder connection

Specification

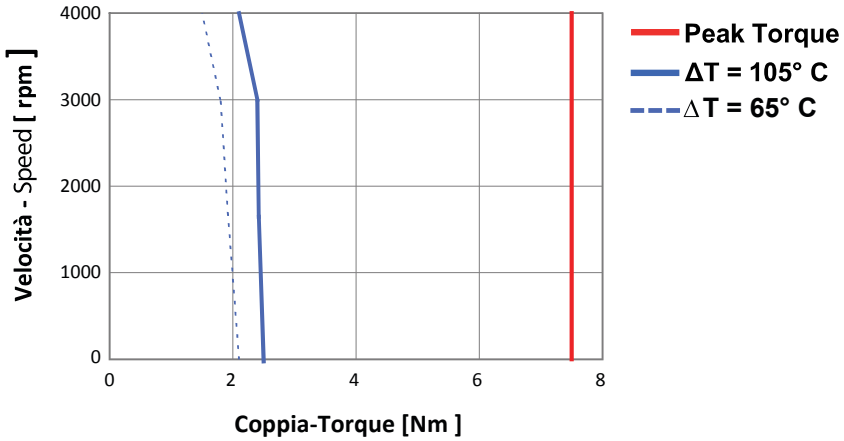
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	750 W	2.39 Nm	3000 rpm	3.75 A	2.90 A	2.50 Nm	8.70 A	7.50 Nm	3.95 ohm ±5%	29.5 mH ±5%	0.85 Nm/Arms ±5%	51.4 Vrms/Krpm	4000 rpm	0.614 Kg.m²x10-4	3.6 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA39SA1052E1B00

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Optional

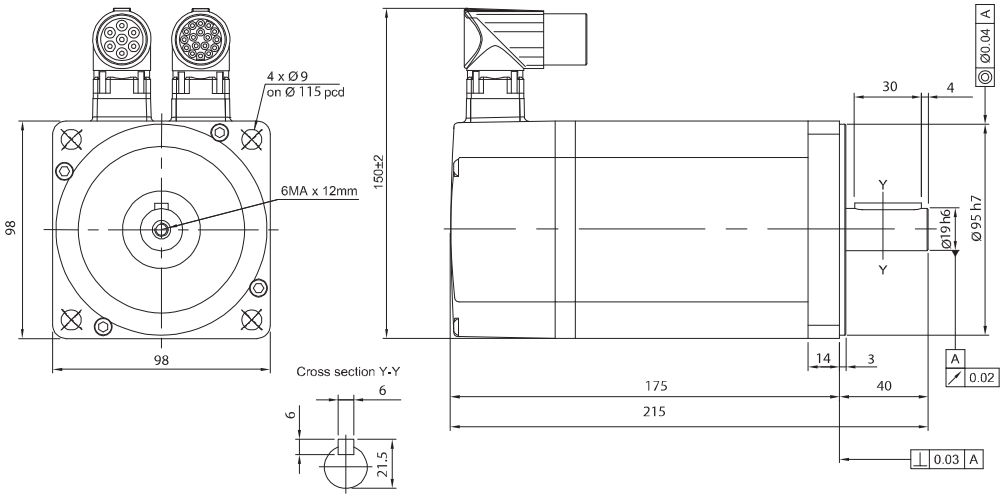
CBL/0262-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0262-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0263-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0263-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

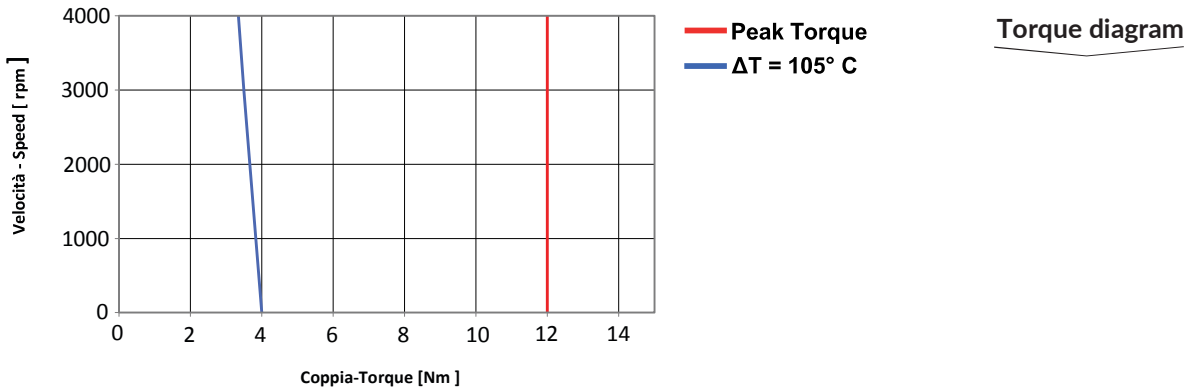
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1050 W	3.50 Nm	3000 rpm	4.50 A	5.10 A	4.00 Nm	16.30 A	12.0 Nm	1.40 ohm ±5%	13.5 mH ±5%	0.82 Nm/Arms ±5%	50.0 Vrms/Krpm	4000 rpm	2.70 $Kg.m^2x10-4$	5.46 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA39SA1052E1B0F

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Other features

Brake: Power supply	24 Vdc
Rated current	0,75 A
Breaking force	9 Nm

Optional

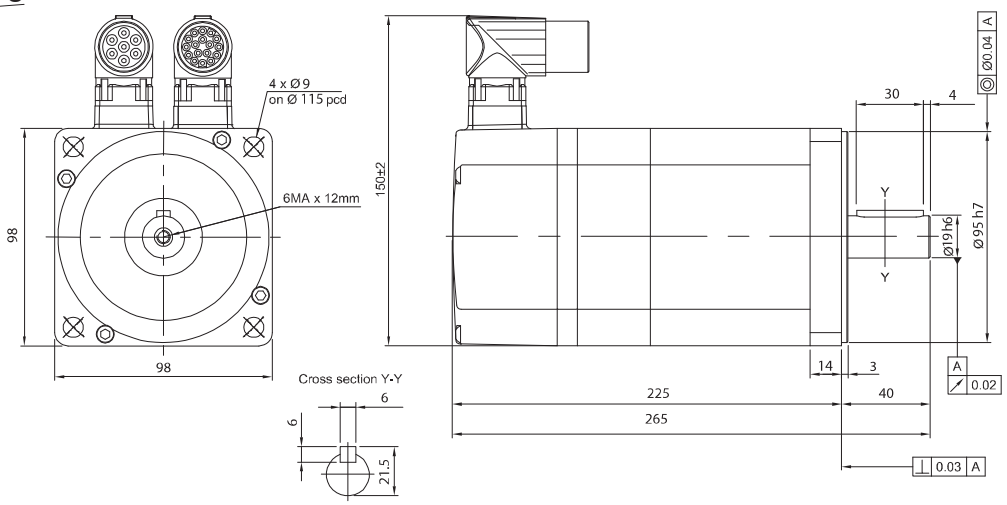
CBL/0266-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0266-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0263-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0263-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

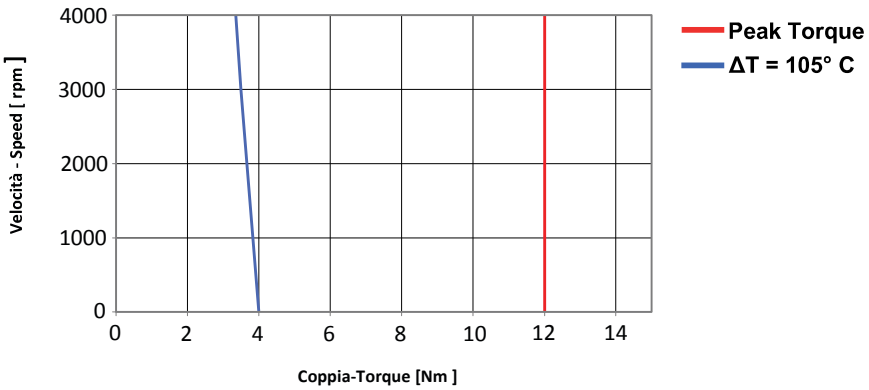
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1050 W	3.50 Nm	3000 rpm	4.50 A	5.10 A	4.00 Nm	16.30 A	12.0 Nm	1.40 ohm ±5%	13.5 mH ±5%	0.82 Nm/Arms ±5%	50.0 Vrms/Krpm	4000 rpm	2.70 Kg.m²x10-4	5.46 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA39SA1052A0B00

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Optional

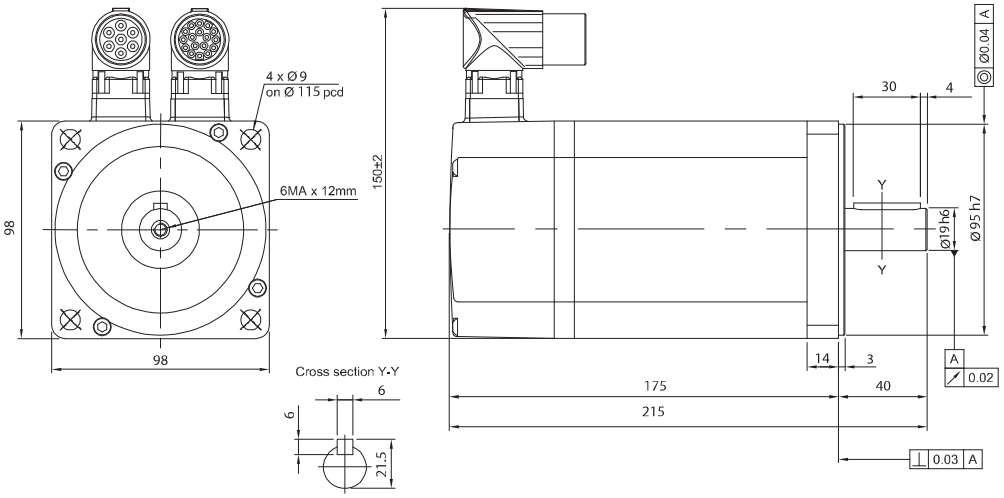
CBL/0262-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0262-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0267-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0267-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

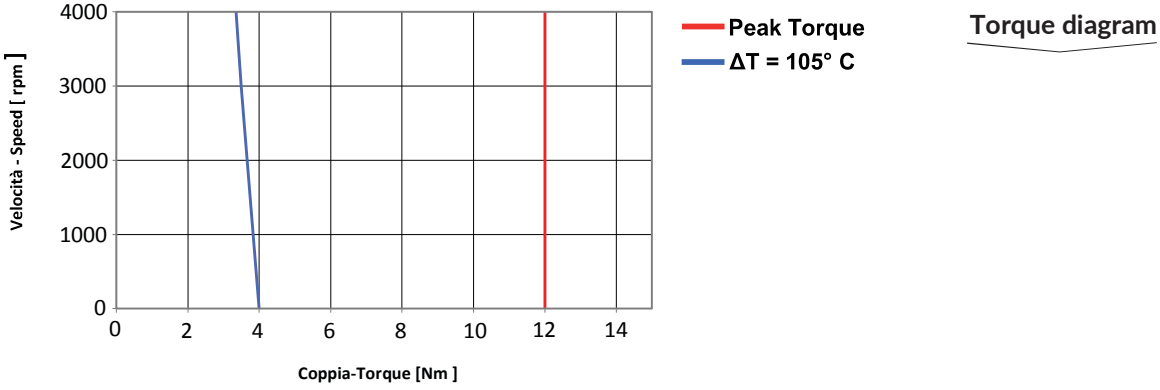
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1050 W	3.50 Nm	3000 rpm	4.50 A	5.10 A	4.00 Nm	16.30 A	12.0 Nm	1.40 ohm ±5%	13.5 mH ±5%	0.82 Nm/Arms ±5%	50.0 Vrms/Krpm	4000 rpm	2.70 Kg.m²x10-4	5.46 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA39SA1052A0B0F

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Absolute Multiturn Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply	24 Vdc
Rated current	0,75 A
Breaking force	9 Nm

Optional

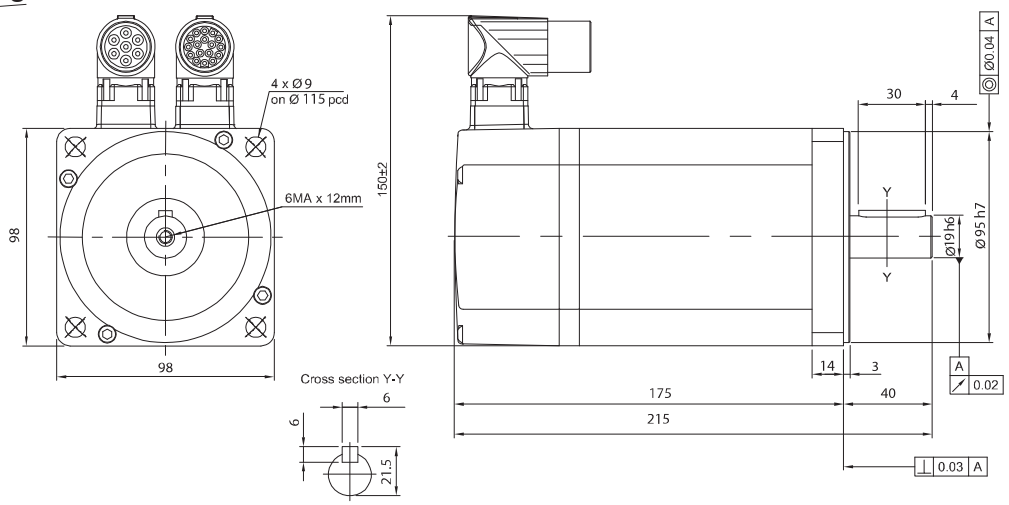
CBL/0266-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0266-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0267-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0267-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

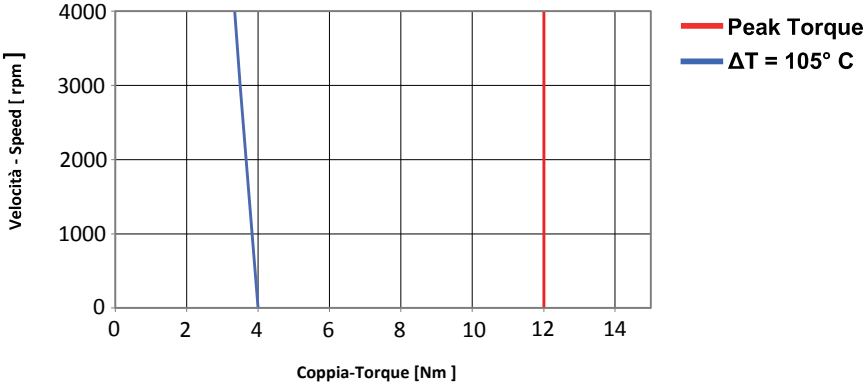
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1050 W	3.50 Nm	3000 rpm	4.50 A	5.10 A	4.00 Nm	16.30 A	12.0 Nm	1.40 ohm ±5%	13.5 mH ±5%	0.82 Nm/Arms ±5%	50.0 Vrms/Krpm	4000 rpm	2.70 Kg.m²x10-4	5.46 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA55SA1402E1B00

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	1200 N
Max shaft axial load	600 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Optional

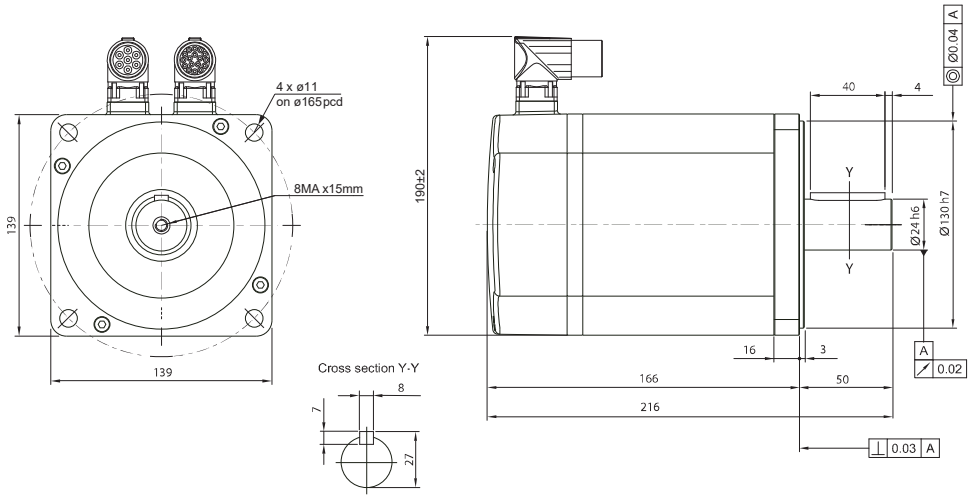
CBL/0262-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0262-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0263-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0263-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

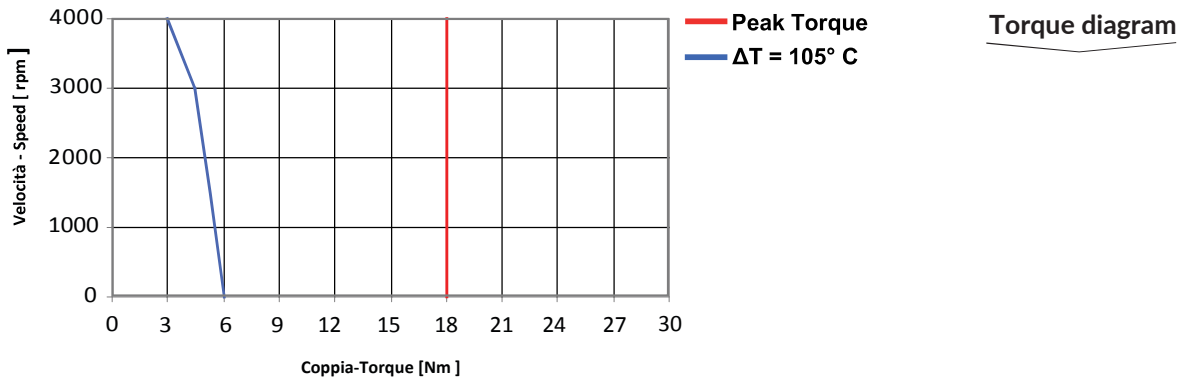
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1400 W	4.50 Nm	3000 rpm	5.20 A	6.80 A	20.5 Nm	20.5 A	18.0 Nm	8.70 ohm ±5%	47.0 mH ±5%	0.87 Nm/Arms ±5%	49.5 Vrms/Krpm	4000 rpm	6.10 Kg.m²x10-4	5.50 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA55SA1402E1B0F

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Incremental Encoder

115/230 Vac High Voltage

Encoder features

Type	Incremental
Resolution	2048 ppr
Output Interface	Line driver
Power supply	5.00 Vdc

Other features

Brake:	Power supply	24 Vdc
	Rated current	1.00 A
	Breaking force	18 Nm

Optional

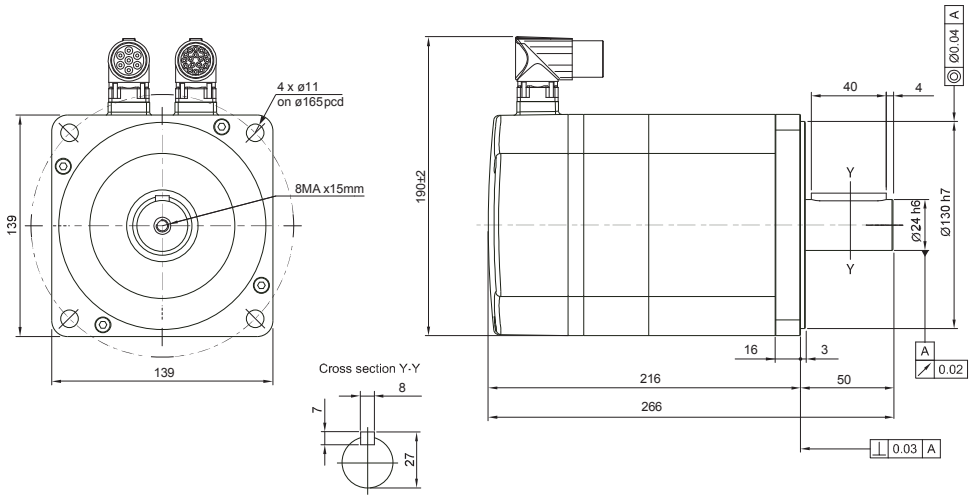
CBL/0266-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0266-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0263-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0263-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

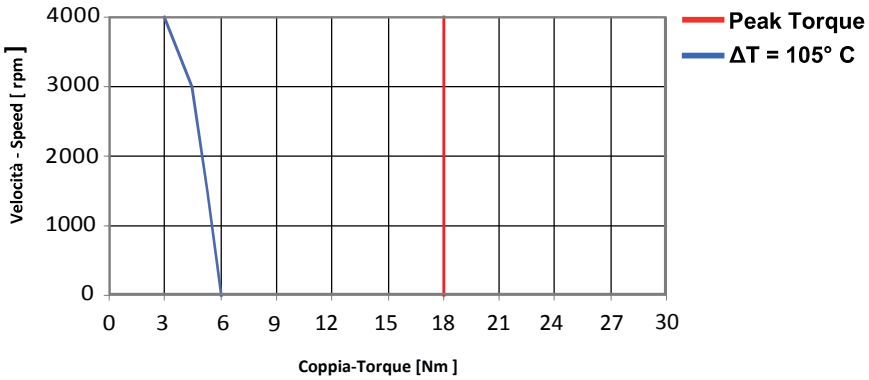
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1400 W	4.50 Nm	3000 rpm	5.20 A	6.80 A	6.00 Nm	20.50 A	18.0 Nm	8.7 ohm ±5%	47 mH ±5%	0.87 Nm/Arms ±5%	49.50 Vrms/ Krpm	4000 rpm	6.10 Kg.m²x10-4	5.50 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA55SA1402A0B00

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	1200 N
Max shaft axial load	600 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Optional

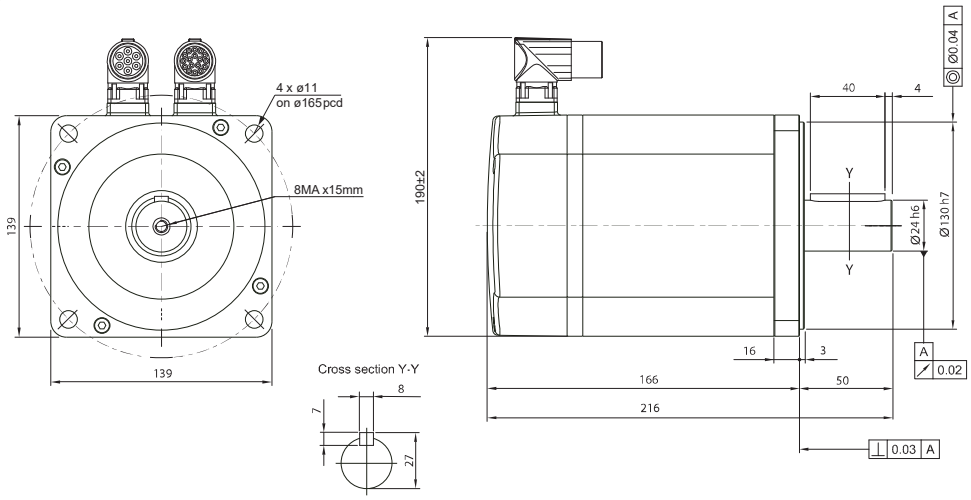
CBL/0262-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0262-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0267-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0267-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

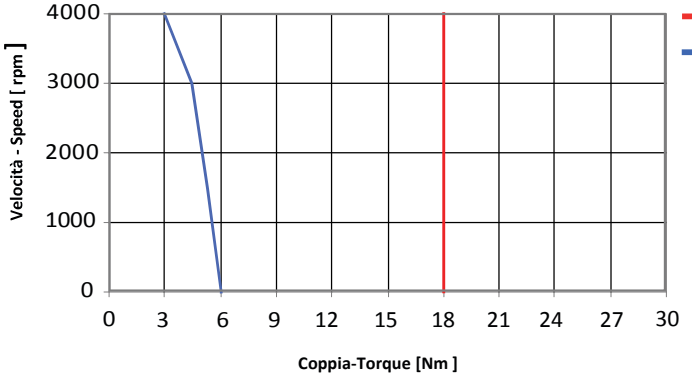
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1400 W	4.50 Nm	3000 rpm	5.20 A	6.80 A	20.5 Nm	20.5 A	18.0 Nm	8.70 ohm ±5%	47.0 mH ±5%	0.87 Nm/Arms ±5%	49.5 Vrms/Krpm	4000 rpm	6.10 Kg.m²x10-4	5.50 Kg. approx

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless AC BA55SA1402A0B0F

Motor features

Pole pairs	5
Thermic sensor	Included
Insulation class	F, 155°C
Ambient temperature	0°C ÷ +40°C
Max temperature rise	105K
Max shaft radial load	600 N
Max shaft axial load	150 N
Protection IP	IP 65
Cooling method	Totally enclosed, self cooled
Environment	far from any activa gas, combustible gas, oil drop, ash

IP65 Protection

Brake

Multiturn Absolute Encoder

115/230 Vac High Voltage

Encoder features

Type	Multiturn absolute encoder
Resolution	16 bits multiturn, 17 bits single turn
Output Interface	Biss-C
Power supply	5.00 Vdc

Other features

Brake: Power supply	24 Vdc
Rated current	1.0 A
Breaking force	18 Nm

Optional

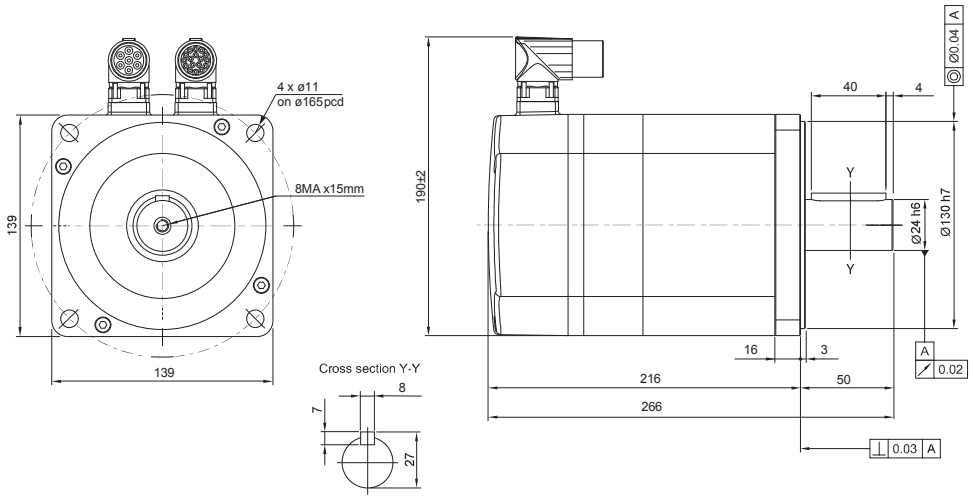
CBL/0266-150: M23 female connector and 1.5 mt. cable for motor connection
CBL/0266-500: M23 female connector and 5.0 mt. cable for motor connection
CBL/0267-150: M23 female connector and 1.5 mt. cable for encoder connection
CBL/0267-500: M23 female connector and 5.0 mt. cable for encoder connection

Specification

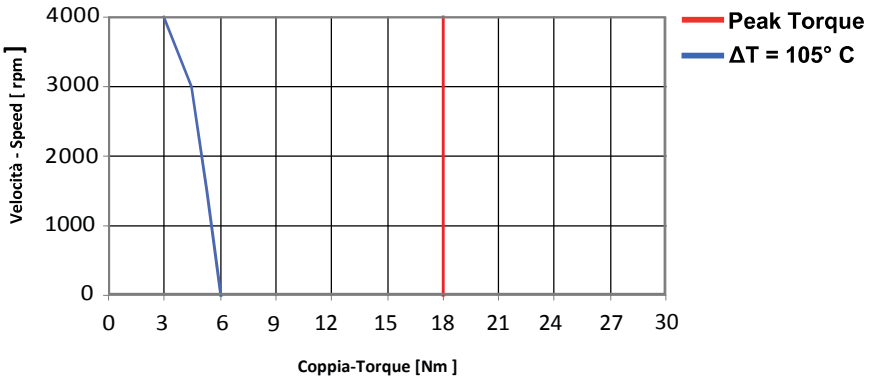
Voltage	Rated power	Rated torque	Rated speed	Rated current	Stall current	Stall torque	Peak current	Peak torque	Winding resistance	Winding inductance	Torque constant	Voltage constant	Max speed	Rotor inertia	Weight
230 Vac	1400 W	4.50 Nm	3000 rpm	5.20 A	6.80 A	6.00 Nm	20.50 A	18.0 Nm	8.7 ohm ±5%	47 mH ±5%	0.87 Nm/Arms ±5%	49.50 Vrms/ Krpm	4000 rpm	6.10 Kg.m²x10-4	5.50 Kg. approx

Mechanical drawing

Dimensions in mm



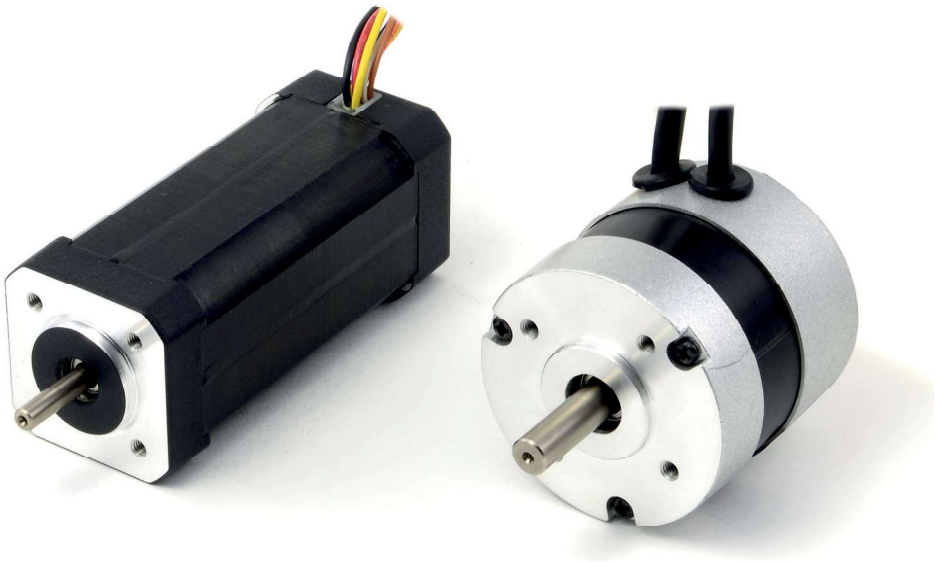
Torque diagram



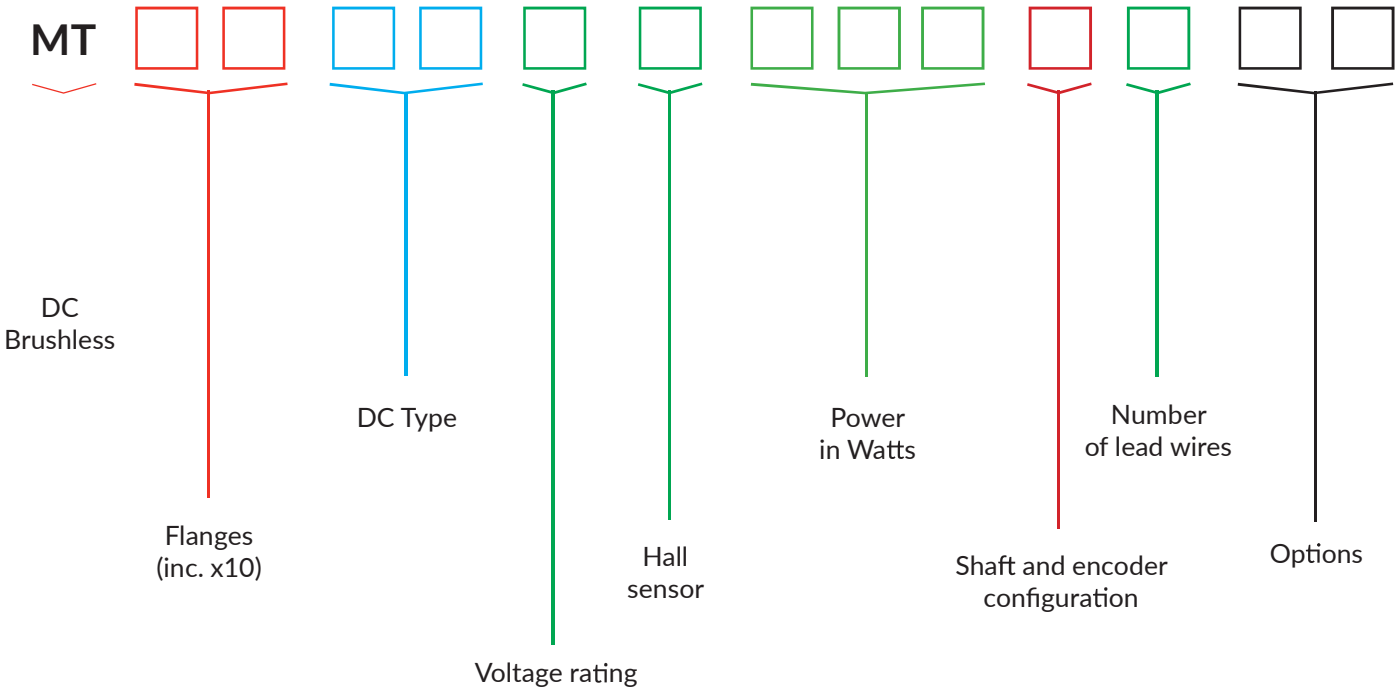
High efficiency DC brushless

The new series of brushless DC motors has been designed not only to be more efficient and save energy, but also to optimize overall size and operating costs. The brushless DC motors, which are more powerful compared to asynchronous induction motors, are ideally suited to use for textile, packaging and food-related machinery.

DC BRUSHLESS MOTORS



Motors coding DC Brushless



Brushless DC MT17HB2H026M300

Motor features

Phases	3
Poles	8
Rated speed	4000 rpm
No load speed	5700 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 50°C
Max temperature rise	80K
Dielectric strength	60 / 2mA / 1s
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 40

Encoder features

No encoder

Other features

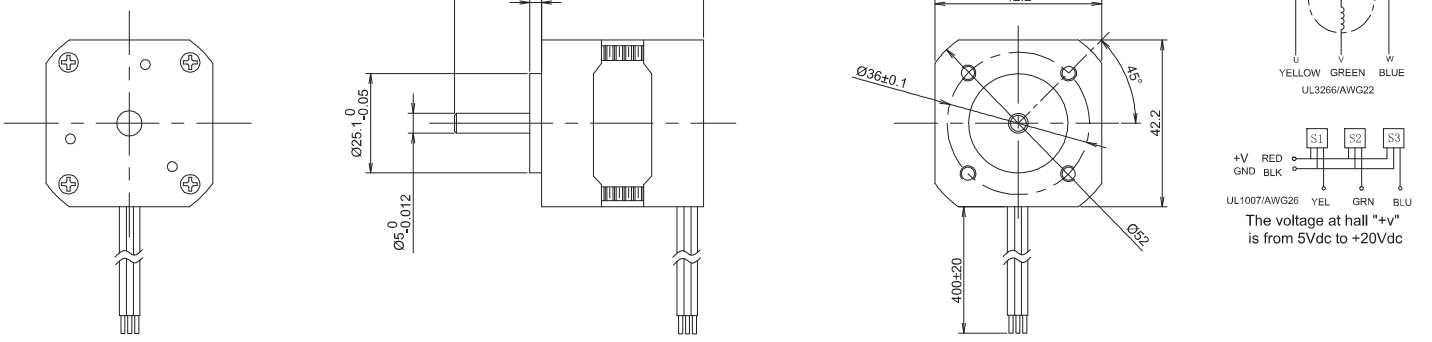
Hall sensor

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
24.0 V	26.3 W	1.60 A	--	0.063 Nm	--	3.20 ohm	2.50 nH	--	--	TBD

Mechanical drawing

Dimensions in mm



Brushless DC MT17HB2H070E3L1

Motor features

Phases	3
Poles	10
Rated speed	3000 rpm
No load speed	--- rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 54

Encoder features

Type	Incremental encoder
Power supply	5.00 Vdc
Resolution	1024 ppr
Output type	Line Drive

Other features

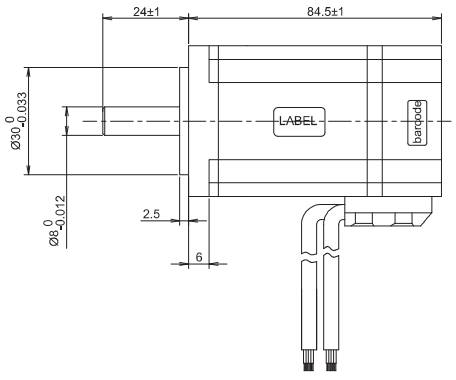
Hall sensor

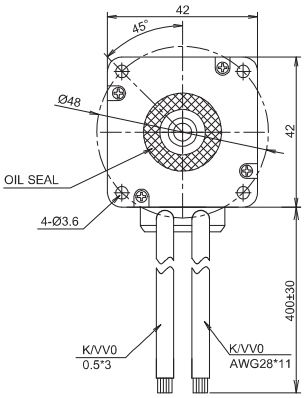
Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
24.0 V	70.0 W	4.50 A	13.5 A	0.22Nm	0.66 Nm	--	--	1.7 Vrms/ Krpm	40 g.cm^2	400 g.

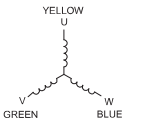
Mechanical drawing

Dimensions in mm





CONNECTION DIAGRAM



HALL AND ENCODER SIGNAL	
SIGNAL	COLOUR
GND	BLK
HALL C	GRG
HALL B	GRY
HALL A	BRN
Z	YEL
B	WHT
A	GRN
Z-	YEL/BLK
B-	WHT/BLK
A-	GRN/BLK
+5V	RED

Brushless DC MT17HB2H130E301

Motor features

Phases	3
Poles	8
Rated speed	5000 rpm
No load speed	7400 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	10 N
Max shaft radial load	28 N
Protection IP	IP 40

Encoder features

Type	Incremental encoder
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Drive

Other features

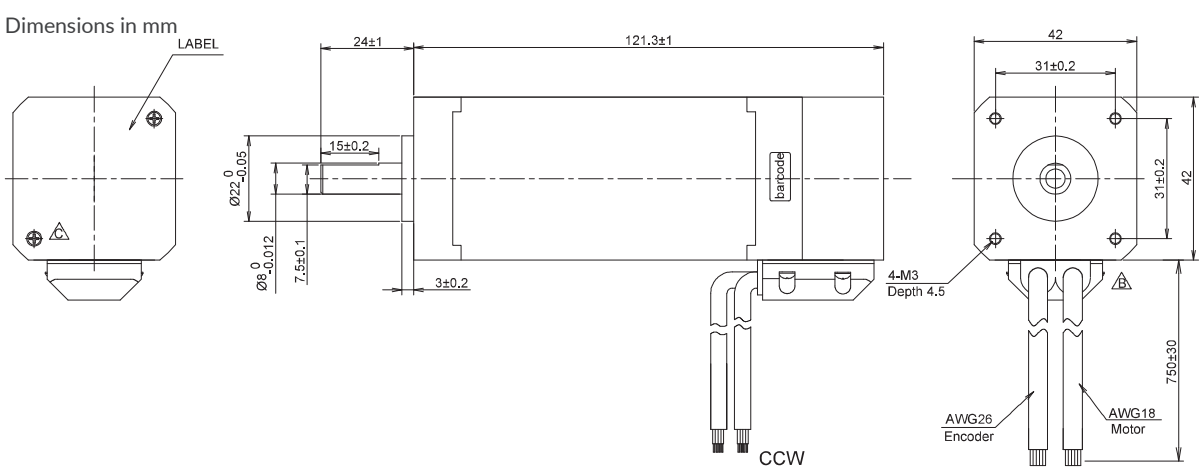
Hall sensor

Specification

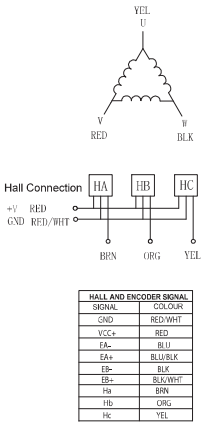
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
24.0 V	130.0 W	8.0 A	24.0 A	0.25 Nm	0.75 Nm	0.25 ohm	0.38 mH	2.28 Vrms/ Krpm	96 g.cm²	800 g.

Mechanical drawing

Dimensions in mm



CONNECTION DIAGRAM



HALL AND ENCODER SIGNAL	
SIGNAL	COLOUR
GND	RED/WHT
VCC+	RED
EA-	BLU
EA+	BLU/BLK
EB-	BLK
EB+	BLK/WHT
Ha	BRN
Hb	ORG
Hc	YEL

Brushless DC MT17HB4H060M300

Motor features

Phases	3
Poles	8
Rated speed	4400 rpm
No load speed	6000 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 40

Encoder features

No encoder

Other features

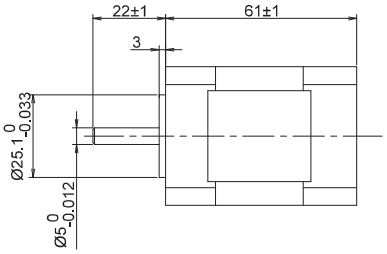
Hall sensor

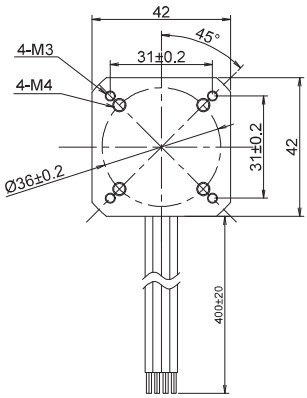
Specification

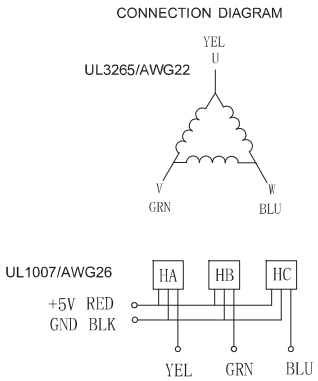
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
48.0 V	60.0 W	1.5 A	4.5 A	0.13 Nm	0.39 Nm	3.00 ohm	1.75 nH	4.50 Vrms/ Krpm	48 g.cm²	500 g.

Mechanical drawing

Dimensions in mm







Brushless DC MT23HB2H200M301

Motor features

Phases	3
Poles	4
Rated speed	6000 rpm
No load speed	8000 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	600 Vac / 2mA / 1s
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 40

Encoder features

No encoder

Other features

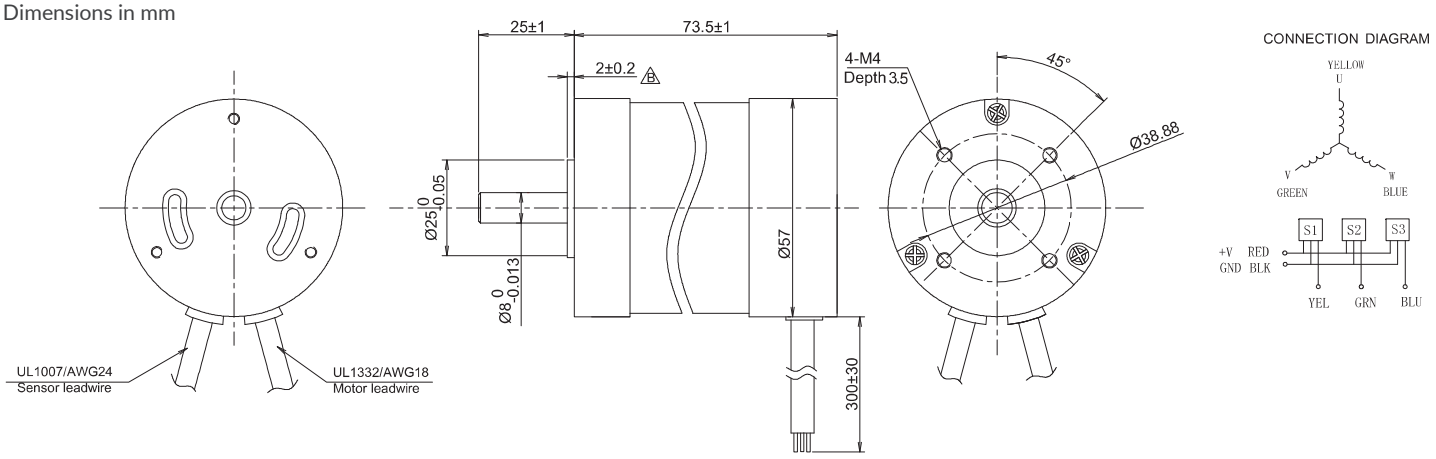
Hall sensor

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
24.0 V	200.0 W	12.0 A	-- A	0.32 Nm	0.96 Nm	0.11 ohm	0.30 mH	2.50 Vrms/ Krpm	-- g.cm²	730 g.

Mechanical drawing

Dimensions in mm



Brushless DC MT23HB2H250M302

Motor features

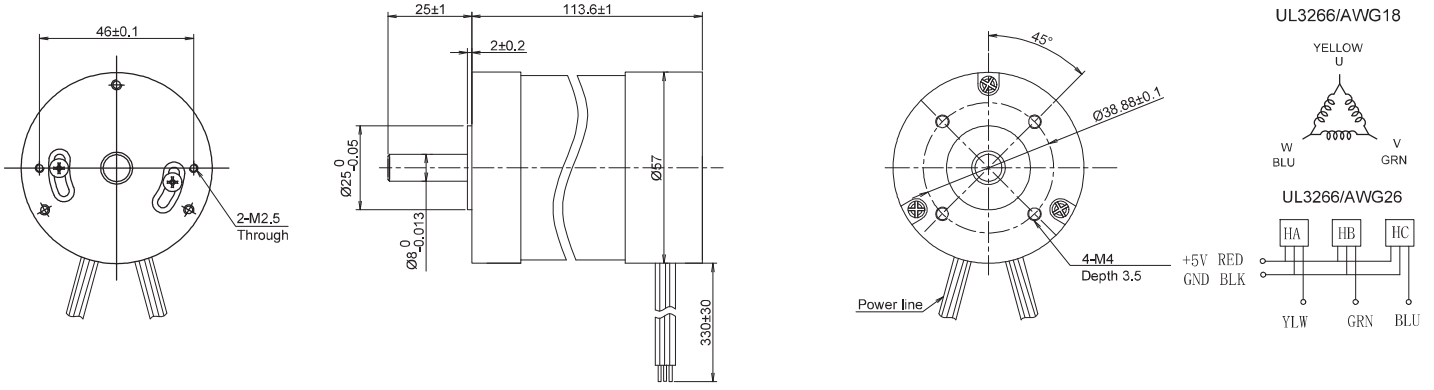
Phases	3
Poles	4
Rated speed	3000 rpm
No load speed	3700 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 40

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
24.0 V	250.0 W	11.5 A	-- A	0.80 Nm	-- Nm	0.14 ohm	0.20 nH	4.70 Vrms/ Krpm	230 g.cm^2	1200 g.

Mechanical drawing

Dimensions in mm



Brushless DC MT23HB3H188E301

Motor features

Phases	3
Poles	8
Rated speed	3000 rpm
No load speed	4400 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 40

Encoder features

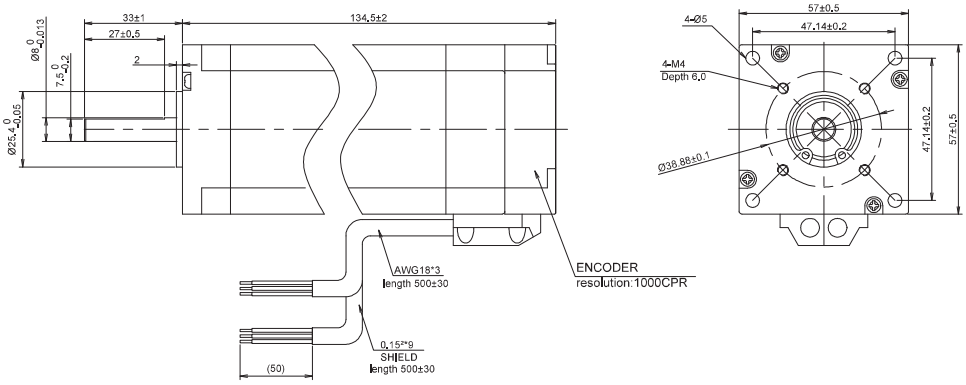
Encoder type	Incremental encoder
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Drive

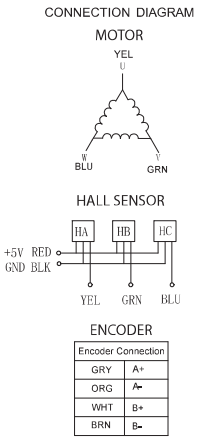
Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
36.0 V	188.0 W	7.5 A	19 A	0.60 Nm	1.50 Nm	0.53 ohm	0.58 mH	5.70 Vrms/ Krpm	460 g.cm²	2000 g.

Mechanical drawing

Dimensions in mm

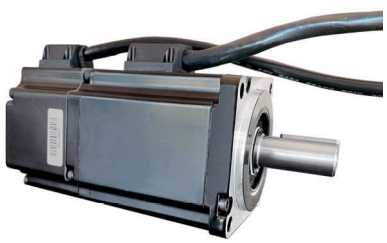




Brushless DC MT24HB4N200E3L1

Motor features

Phases	3
Poles	8
Rated speed	3000 rpm
No load speed	5000 rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	80K
Dielectric strength	--
Max shaft axial load	--
Max shaft radial load	--
Protection IP	IP 65



IP65 Protection

Encoder features

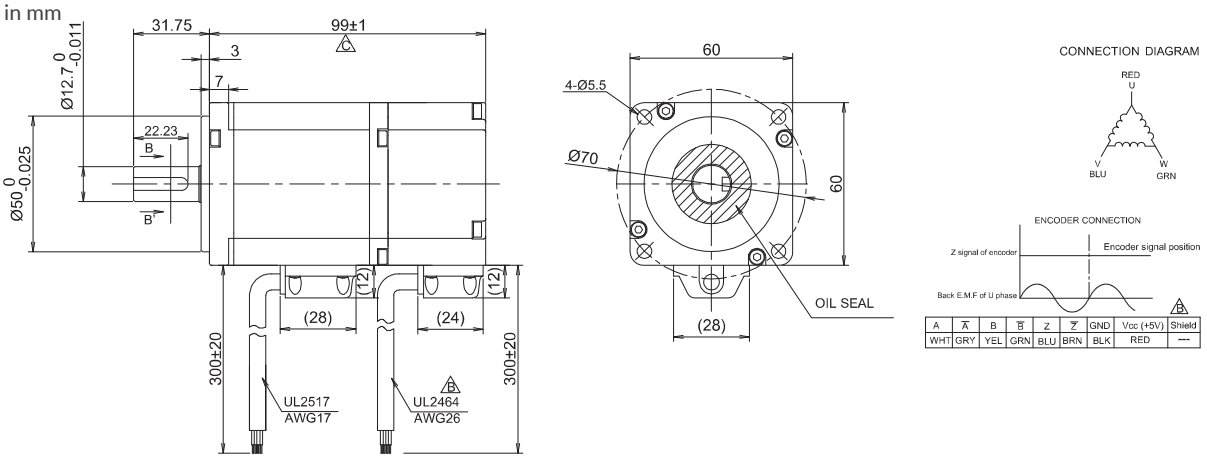
Encoder type	Incremental encoder
Power supply	5.00 Vdc
Resolution	1000 ppr
Output type	Line Drive

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
48.0 V	200.0 W	6.1 A	18.3 A	0.64 Nm	1.92 Nm	0.80 ohm	1.60 nH	-- Vrms/ Krpm	200 g.cm²	1000 g.

Mechanical drawing

Dimensions in mm



Brushless DC MT24HB4N400D301

Motor features

Phases	3
Poles	10
Rated speed	3000 rpm
No load speed	--
Insulation class	F, 155°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	105K
Dielectric strength	600 Vac / 5 mA / 1s
Max shaft axial load	60 N
Max shaft radial load	220 N
Protection IP	IP 54

Encoder features

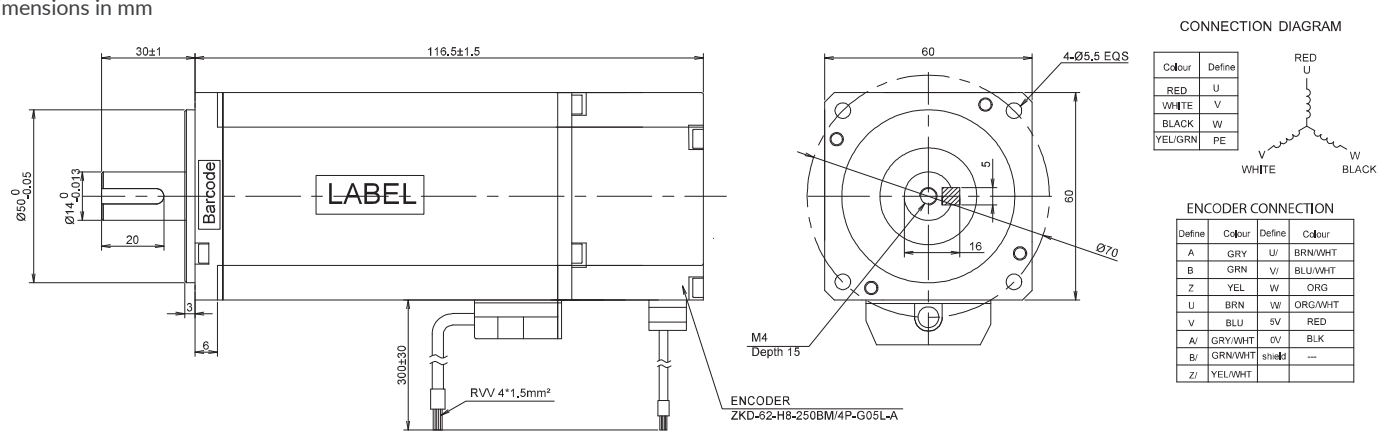
Encoder type	Incremental encoder
Power supply	5.00 Vdc
Resolution	2500 ppr
Output type	Line Drive

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
48.0 V	400.0 W	12.0 A	25.0 A	1.27 Nm	2.54 Nm	0.18 ohm	0.75 mH	7.40 Vrms/ Krpm	210 g.cm²	1400 g.

Mechanical drawing

Dimensions in mm



Colour	Define
RED	U
WHITE	V
BLACK	W
YEL/GRN	PE

Define	Colour	Define	Colour
A	GRY	U/	BRN/WHT
B	GRN	V/	BLU/WHT
Z	YEL	W	ORG
U	BRN	W/	ORG/WHT
V	BLU	5V	RED
A/	GRY/WHT	0V	BLK
B/	GRN/WHT	shield	---
Z/	YEL/WHT		

Brushless DC MT34HB4H660M302

Motor features

Phases	3
Poles	8
Rated speed	3000 rpm
No load speed	rpm
Insulation class	B, 130°C
Ambient temperature	-20°C ÷ + 55°C
Max temperature rise	--
Dielectric strength	500 Vac / 5 mA /1 min.
Max shaft axial load	60 N
Max shaft radial load	220 N
Protection IP	IP 40

Encoder features

No encoder

Other features

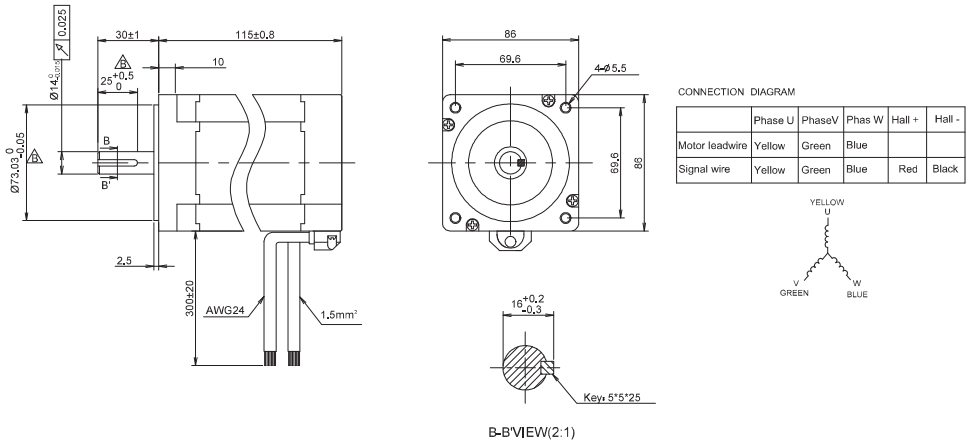
Hall sensor

Specification

Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
48.0 V	660.0 W	14.7 A	44.1 A	2.10 Nm	6.30 Nm	0.12 ohm	0.29 nH	9.7 Vrms/ Krpm	2660 g.cm²	3800 g.

Mechanical drawing

Dimensions in mm



	Phase U	PhaseV	Phas W	Hall +	Hall -
Motor leadwire	Yellow	Green	Blue		
Signal wire	Yellow	Green	Blue	Red	Black

High Voltage DC brushless

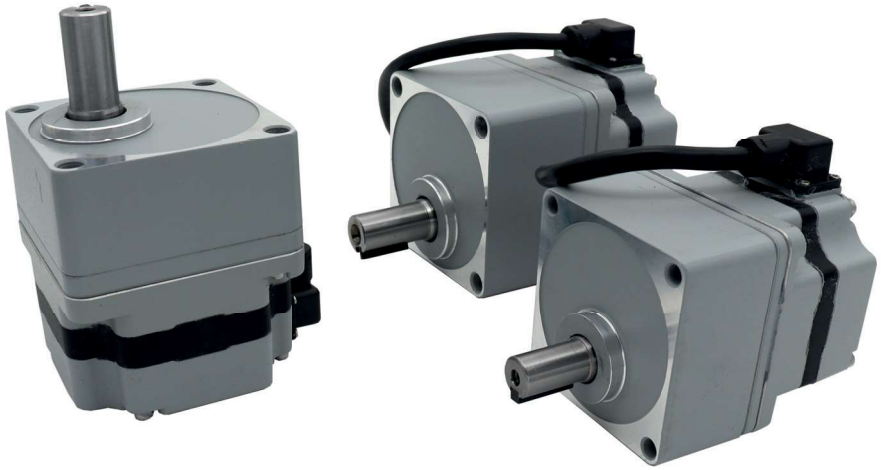
Ever Motion Solutions has designed and produced a new series of high-efficiency, high-voltage 3-phase brushless DC motors with integrated gearbox. With a power range from 30 to 750 Watts, this motor series is ideal for high-dynamic applications in compact dimensions - for example in conveyor and roller systems, or in automated warehouses. It has a high torque-to-size ratio and offers significantly reduced power consumption.

The main features of the new high efficiency brushless DC motor series are:

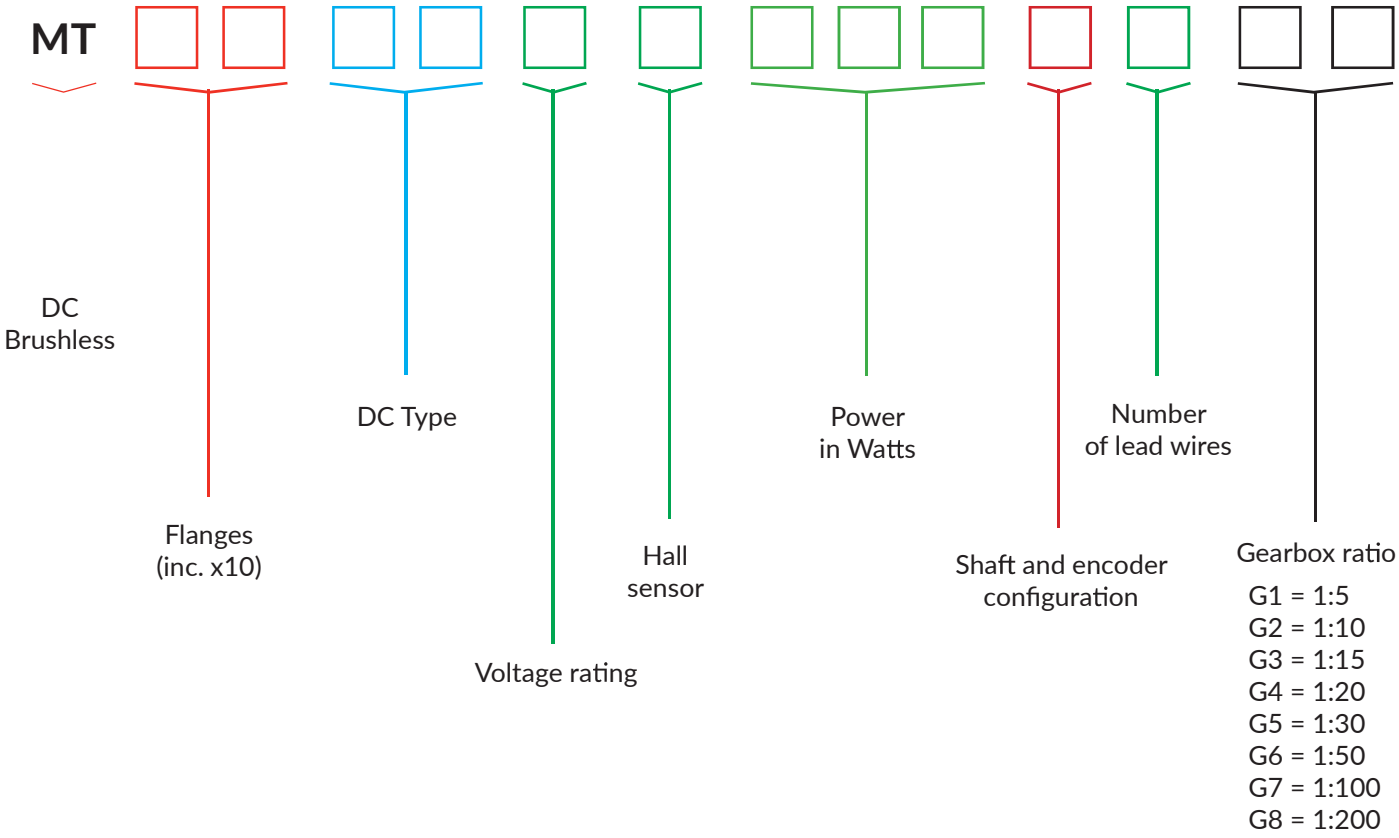
- availability from 30 to 750 Watts
- integrated gearbox with different reduction ratios available
- high IP54 protection against dust and water
- high-strength bearings
- protected motor housing with plastic shell for high corrosion resistance
- low-vibration and low-resonance rotors.

Our in-house production also allows Ever Motion Solutions to fully customise products according to customer needs.

HIGH VOLTAGE GEARED DC BRUSHLESS MOTORS



Motors coding High Voltage Geared DC Brushless



Brushless DC MT31ZBVH120M3G3

Motor features

Phases	3
Poles	
Rated speed	3000 rpm ± 10%
No load speed	4000 rpm ± 10%
Insulation class	B, 130°C
Ambient temperature	-10°C ÷ + 40°C
Max temperature rise	80K
Dielectric strength	1800 V/S
Max shaft axial load	100 N
Max shaft radial load	400 N 20mm from the front end of the shaft
Protection IP	IP 54

IP54 Protection

Hall Sensor

Gearbox

230 Vac High Voltage

Encoder features

No encoder

Other features

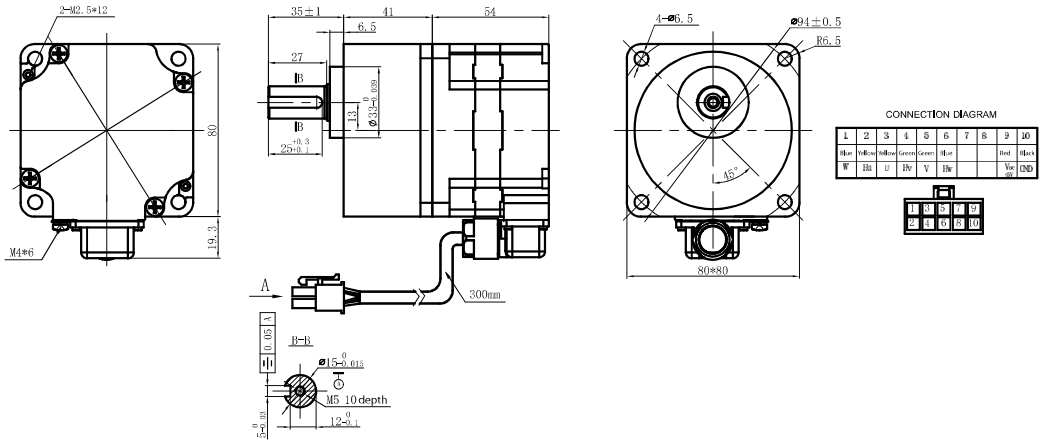
Hall sensor
Gearbox 1:5 ratio

Specification

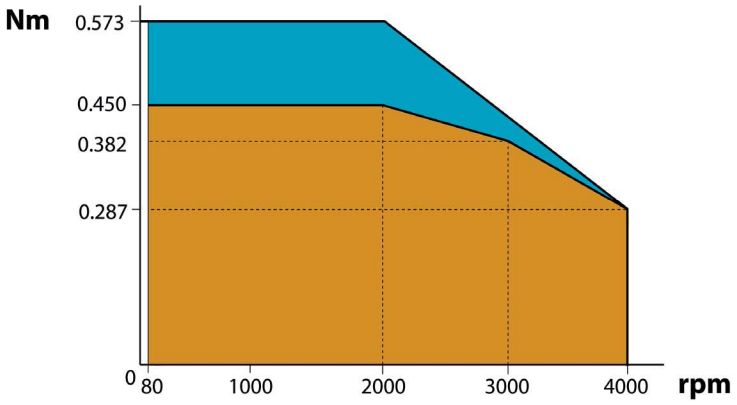
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
220 Vac	120 W	2.00 A	--	0.382 Nm	-- Nm	-- ohm	-- mH	-- Vrms/ Krpm	-- g.cm²	-- g.

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless DC MT36ZBVH120M3G1

Motor features

Phases	3
Poles	
Rated speed	3000 rpm ± 10%
No load speed	4000 rpm ± 10%
Insulation class	B, 130°C
Ambient temperature	-10°C ÷ + 40°C
Max temperature rise	80K
Dielectric strength	1800 V/S
Max shaft axial load	100 N
Max shaft radial load	400 N 20mm from the front end of the shaft
Protection IP	IP 54

IP54 Protection

Hall Sensor

Gearbox

230 Vac High Voltage

Encoder features

No encoder

Other features

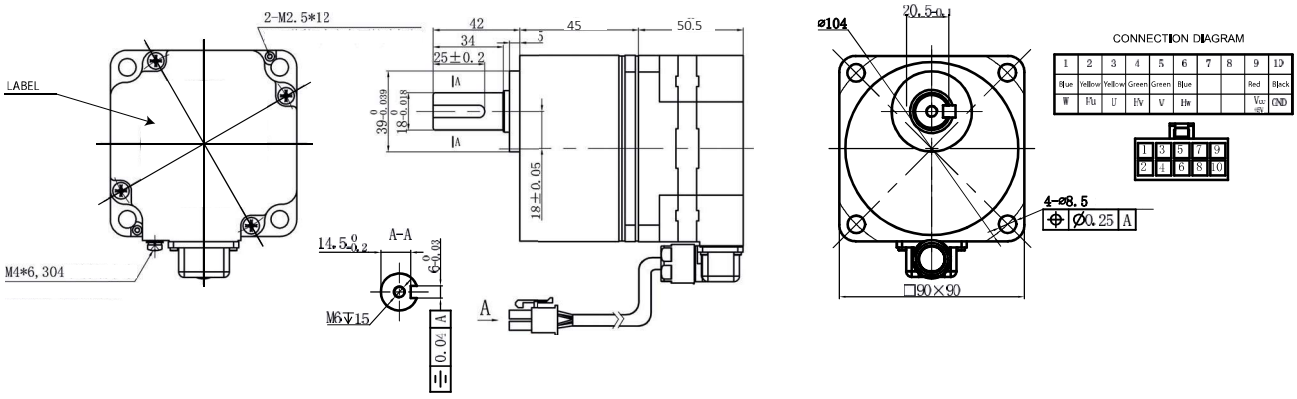
Hall sensor
Gearbox 1:5 ratio

Specification

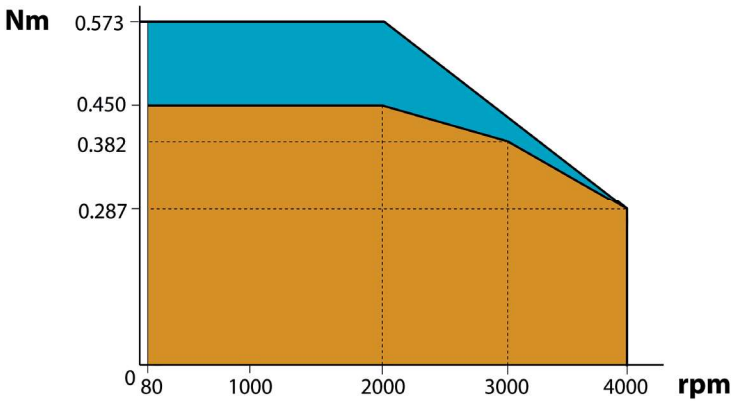
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
220 Vac	120 W	1.20 A	--	0.382 Nm	-- Nm	-- ohm	-- mH	-- Vrms/ Krpm	-- g.cm²	-- g.

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless DC MT36ZBVH120M3G6

Motor features

Phases	3
Poles	
Rated speed	3000 rpm ± 10%
No load speed	4000 rpm ± 10%
Insulation class	B, 130°C
Ambient temperature	-10°C ÷ + 40°C
Max temperature rise	80K
Dielectric strength	1800 V/S
Max shaft axial load	100 N
Max shaft radial load	400 N 20mm from the front end of the shaft
Protection IP	IP 54

IP54 Protection

Hall Sensor

Gearbox

230 Vac High Voltage

Encoder features

No encoder

Other features

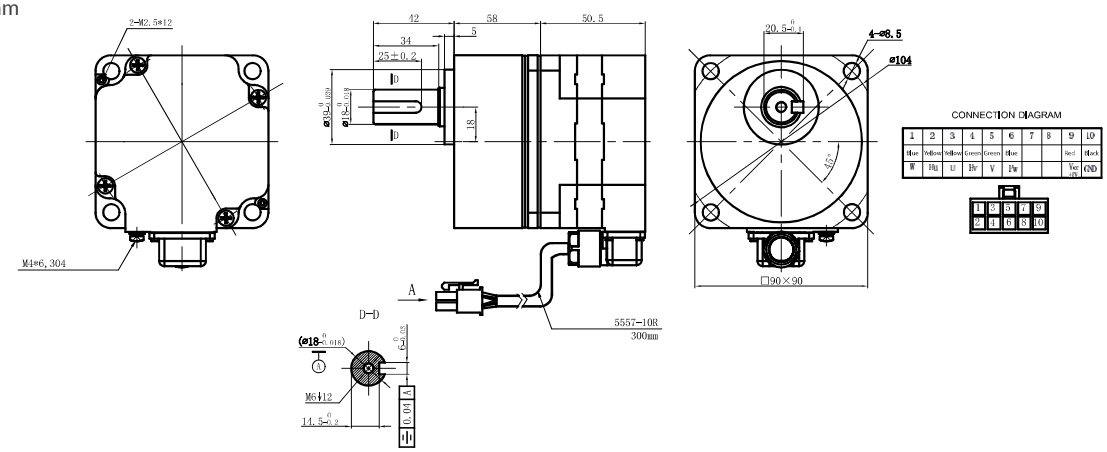
Hall sensor
Gearbox 1:5 ratio

Specification

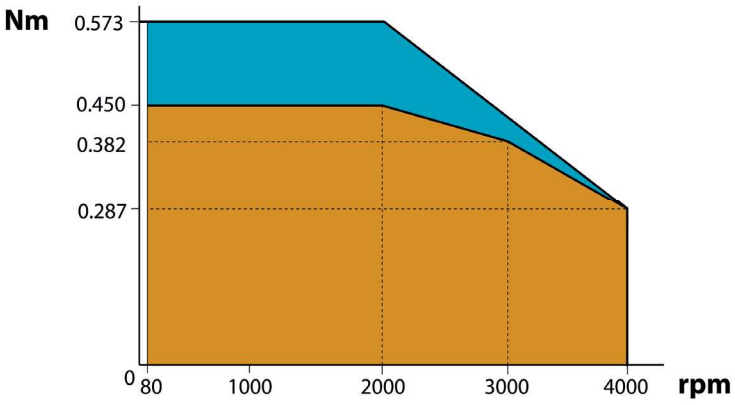
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
220 Vac	120 W	2.00 A	--	0.382 Nm	-- Nm	-- ohm	-- mH	-- Vrms/ Krpm	-- g.cm²	-- g.

Mechanical drawing

Dimensions in mm



Torque diagram



Brushless DC MT36ZBVH200M3G3

Motor features

Phases	3
Poles	
Rated speed	3000 rpm ± 10%
No load speed	4000 rpm ± 10%
Insulation class	B, 130°C
Ambient temperature	-10°C ÷ + 40°C
Max temperature rise	80K
Dielectric strength	1800 V/S
Max shaft axial load	100 N
Max shaft radial load	400 N 20mm from the front end of the shaft
Protection IP	IP 54

IP54 Protection

Hall Sensor

Gearbox

230 Vac High Voltage

Encoder features

No encoder

Other features

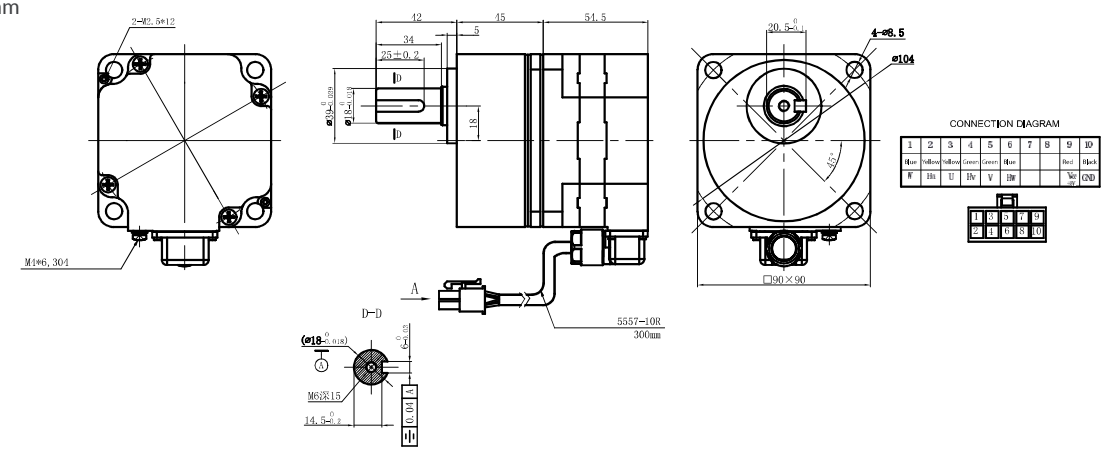
Hall sensor
Gearbox 1:5 ratio

Specification

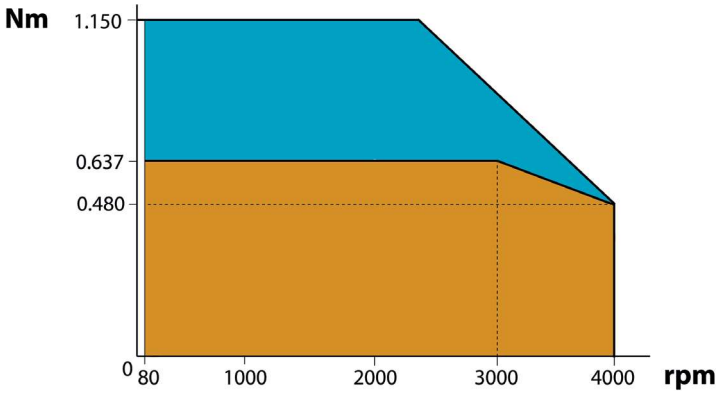
Rated voltage	Rated power	Rated current	Peak current	Rated torque	Peak torque	Phase resistance	Phase inductance	Back EMF	Rotor inertia	Approx weight
220 Vac	200 W	2.00 A	0.637	-- Nm	-- Nm	-- ohm	-- mH	-- Vrms/ Krpm	-- g.cm²	-- g.

Mechanical drawing

Dimensions in mm



Torque diagram



Motors Customizations

WATERPROOF MOTORS

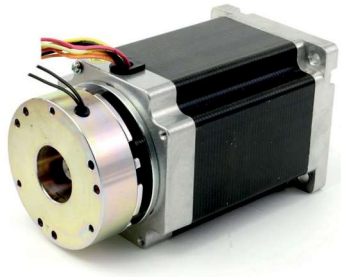
- Dimensions available from NEMA11 to NEMA34 in various depths
- Torques from 0.15 Nm to 12.2 Nm
- Cable outputs with IP65 connector or with flying lead and PG IP65 cable gland
- IP65 or higher protection on request

MOTORS WITH GEARBOX

- Different types of gearbox available: planetary, spur gear, etc.
- Motors for gearbox coupling from NEMA17 to NEMA34 with various depths
- Motor output torques from 0.15 Nm to 12.2 Nm
- Customizable reduction ratios
- Protection class from IP20 to IP65

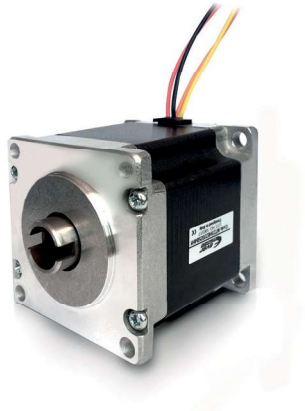
MOTORS WITH INCREMENTAL OR ABSOLUTE ENCODER

- Different types of encoders available both incremental and absolute multi-turn
- Available with motors from sizes NEMA08 to NEMA42
- Incremental encoders with resolutions from 400 ppr to 2000 ppr and differential (5Vdc) or single ended (24Vdc) outputs
- Absolute multi-turn encoders with 17 Bit resolution on single turn and 16 Bit multi-turn resolution with BISS-C or SSI interface
- IP65 protection



MOTORS WITH BRAKE

- Brakes can be applied with customized voltages and torques
- Motor dimensions available from NEMA24 to NEMA42 with various depths



HOLLOW-SHAFT MOTORS

- Customizable with special machining on hollow shafts
- Motor dimensions available from NEMA17 to NEMA42 with various depths

UL CERTIFIED MOTORS

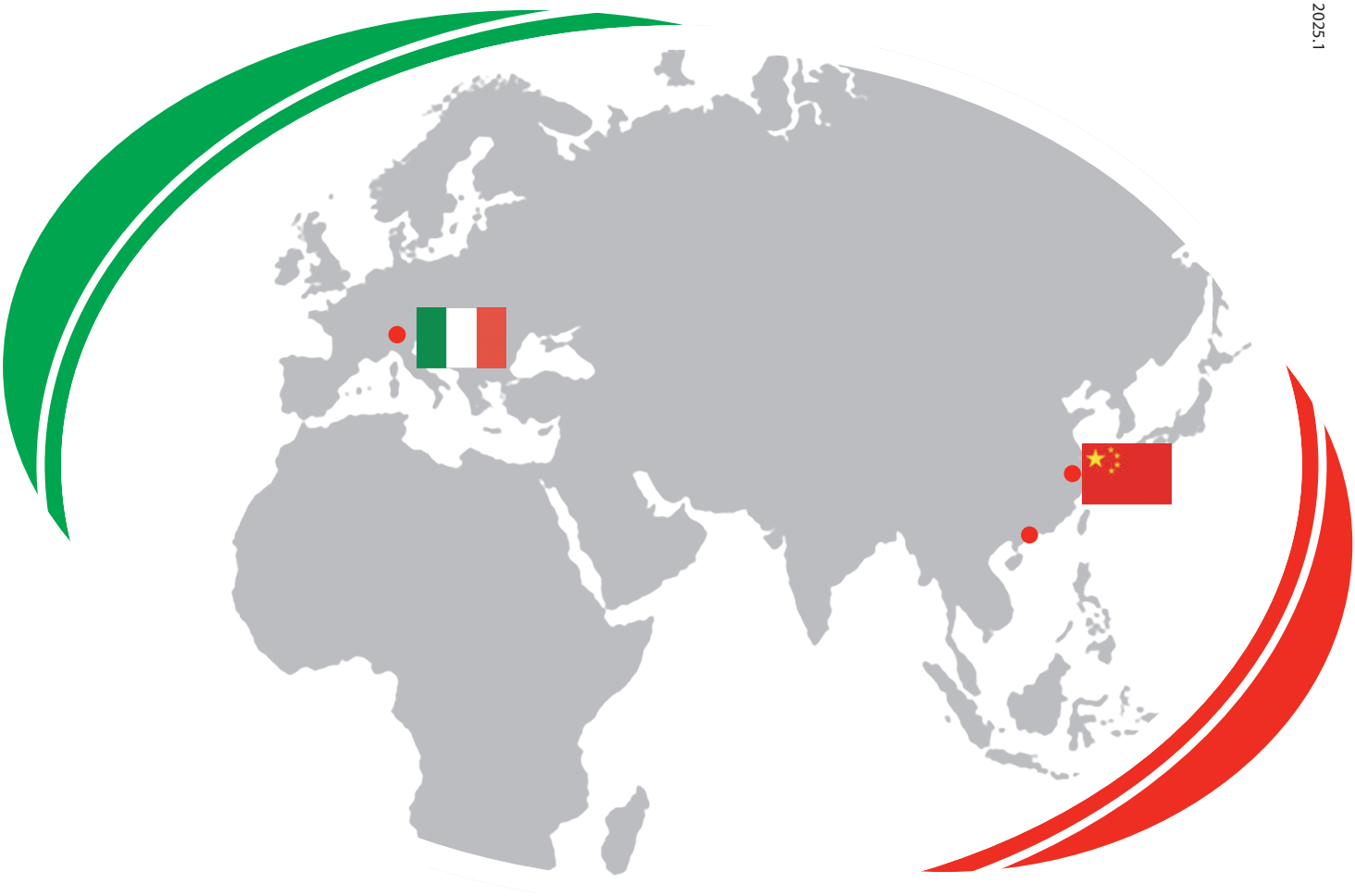
- Available motor size: NEMA23

MOTORS WITH SHAFTS FOR LINEAR ACTUATIONS

- NEMA17, NEMA23 and NEMA24 motor sizes available
- Screw parameters on the motor shaft can be customized according to the application

MOTORS WITH MULTIPLE CHARACTERISTICS

- Availability of motors with multiple characteristics (e.g. High Efficiency motors with gearbox, encoder and IP65 protection)
- Further customization on request



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