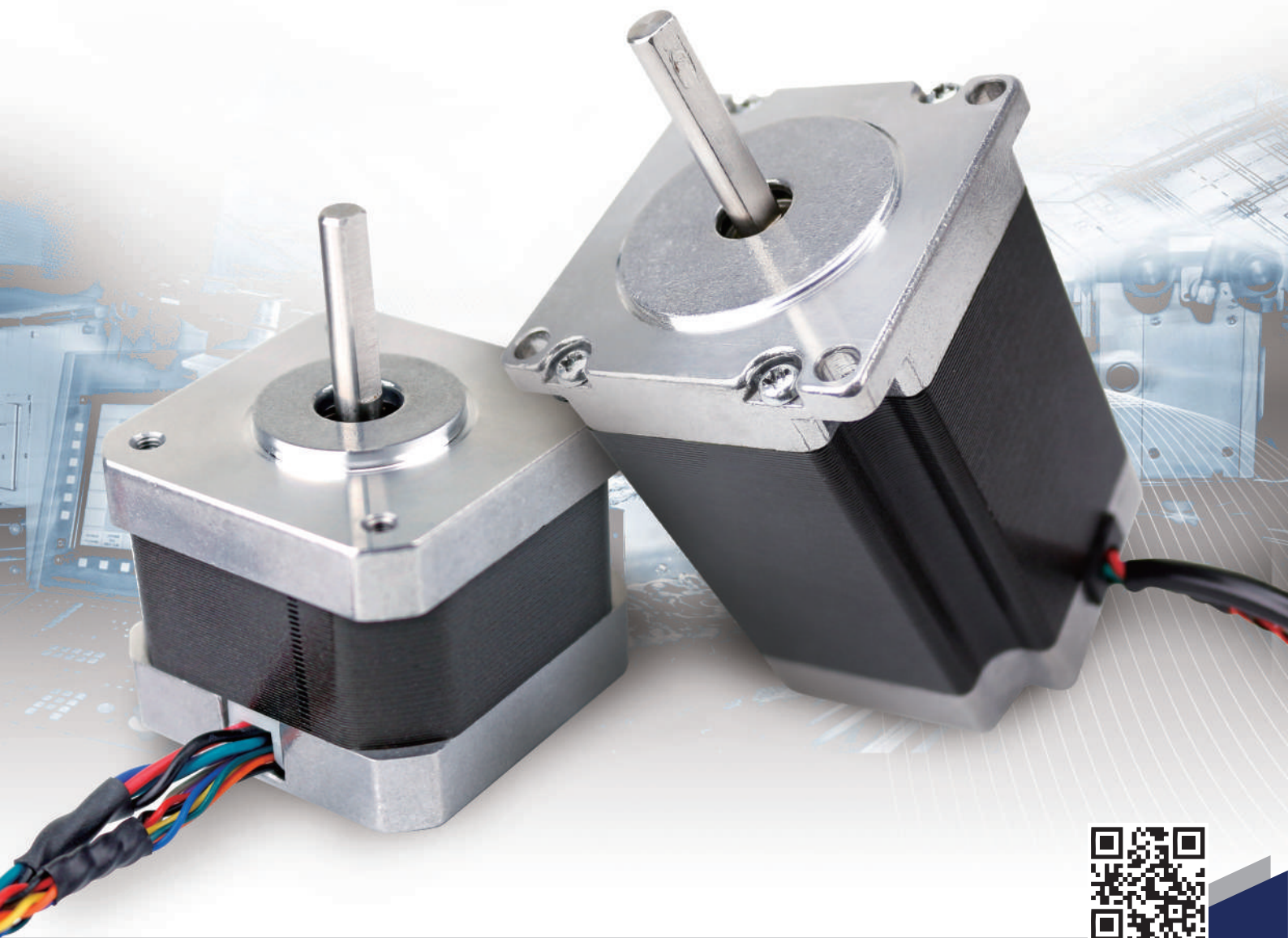




BEST STEP

ENCODER IN STEP





86STEP

ENCODER IN STEP

| About 86STEP

86STEP is a stepper motor with a built-in optical encoder to directly monitor the position of the motor rotor. Through the encoder's feedback mechanism, closed loop control is realized, which not only retains the advantages of stepping motors, but also effectively avoids step loss problems. This feature is particularly suitable for application devices that require location verification and location maintenance, and can significantly improve the safety and reliability of the system.

| Features

Stall Detection

Position Verification

Accurate Homing

Close-loop control with step motor benefit

86STEP

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| Key Specifications



Hybrid stepper motor



Encoder inside, resolution 8,192 ppr to 16,384 ppr



Durable design



Suitable for a range of applications

| Application Examples



CNC machines



Additive Manufacturing



Automation



Dispensing devices



Medical devices



Position required

86STEP

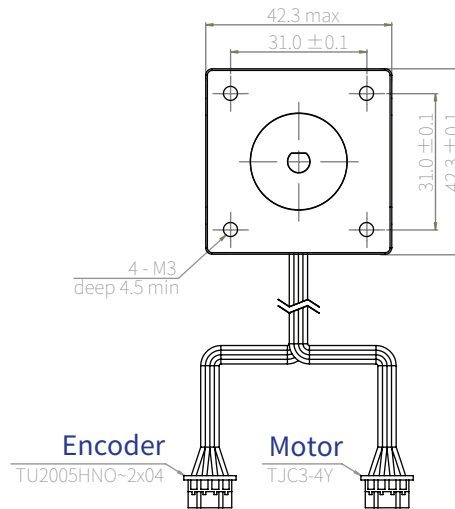
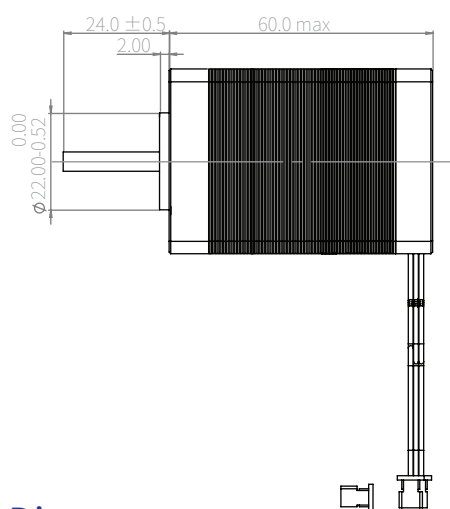
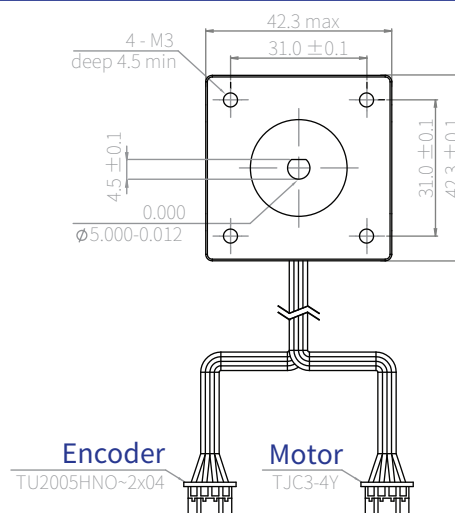
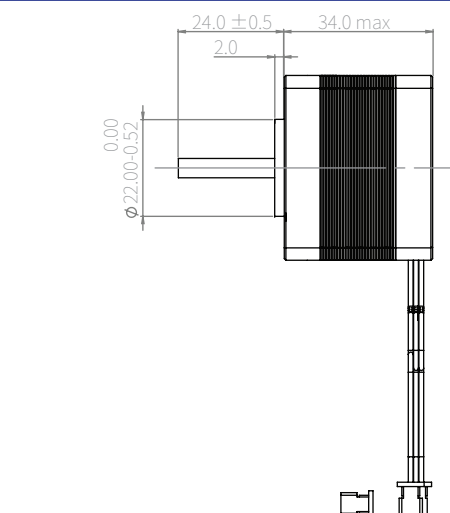
ENCODER IN STEP

42 mm sq.

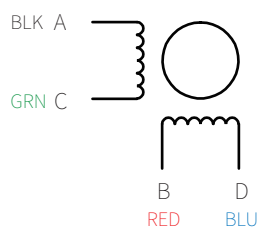
423409 : 34mm

426009 : 60mm

Part number	Holding torque	Step angle	Detent torque	Rated Current	Phase resistance	Phase inductance	Insulation resistance	Rotor inertia	Weight
86STEP-423409	280mN.m	0.9°	12mN.m	0.75A	10 Ω±10%	15mH±20%	100MΩmin. (500V DC)	39g.cm ²	0.2 kg
86STEP-426009	860mN.m	0.9°	20mN.m	1.50A	3.5 Ω±10%	9mH±20%	100MΩmin. (500V DC)	102g.cm ²	0.45 kg



Wiring Diagram

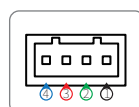


Encoder



Conn1 PIN#	1	2	3	4	5	6	7	8
FUN	A+	A-	B+	B-	Z+	Z-	VCC	GND
Color	Orange	Yellow	Green	Blue	Purple	Grey	Red	Black

Motor



Conn1 PIN#	1	2	3	4
FUN	A	C	B	D
Color	Black	Green	Red	Blue

Uni-polarfull step

Excitation sequence and direction of rotation

PHASE STEP	A	B	C	D
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

seen from the mounting surface, it is clockwise

86STEP

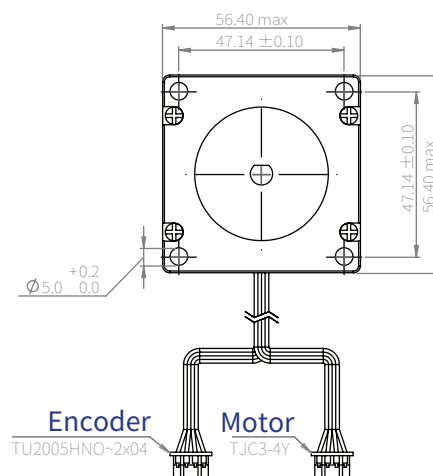
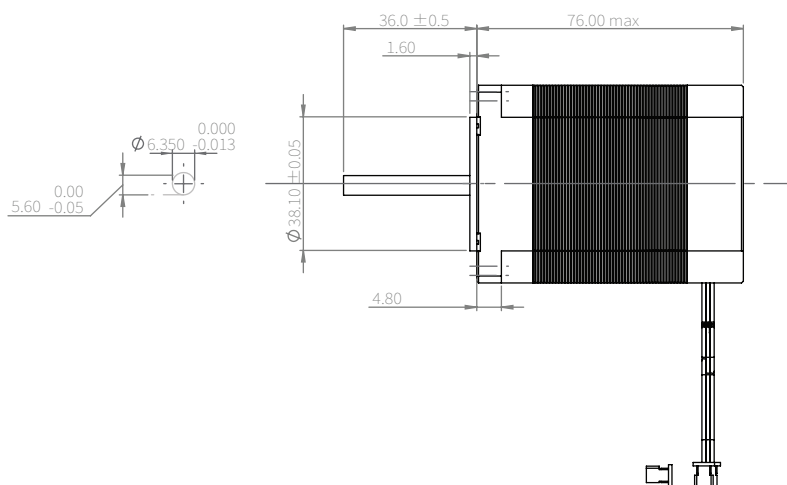
ENCODER IN STEP

57 mm sq.

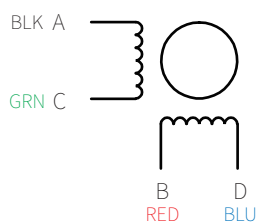
577609 : 76mm

5710009 : 100mm

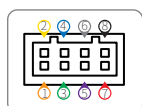
Part number	Holding torque	Step angle	Detent torque	Rated Current	Phase resistance	Phase inductance	Insulation resistance	Rotor inertia	Weight
86STEP-577609	1800mN.m	0.9°	70mN.m	3.0A	2.0Ω±10%	10mH±20%	100MΩmin. (500V DC)	460g.cm ²	1.0 kg
86STEP-5710009	2400mN.m	0.9°	100mN.m	4.2A	0.75Ω±10%	2.8mH±20%	100MΩmin. (500V DC)	650g.cm ²	1.3 kg



Wiring Diagram

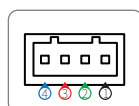


Encoder



Conn1 PIN#	1	2	3	4	5	6	7	8
FUN	A+	A-	B+	B-	Z+	Z-	VCC	GND
Color	Orange	Yellow	Green	Blue	Purple	Grey	Red	Black

Motor



Conn1 PIN#	1	2	3	4
FUN	A	C	B	D
Color	Black	Green	Red	Blue

Uni-polarfull step

Excitation sequence and direction of rotation

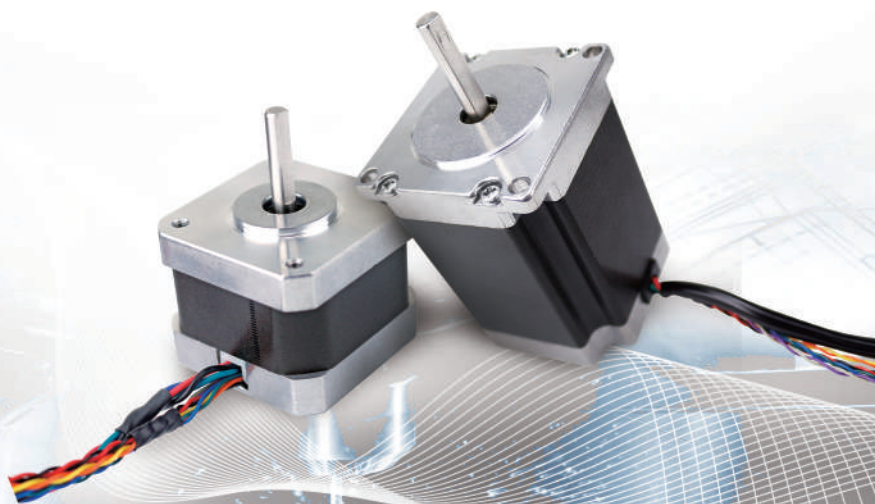
PHASE STEP	A	B	C	D
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

seen from the mounting surface, it is clockwise



86STEP

ENCODER IN STEP



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