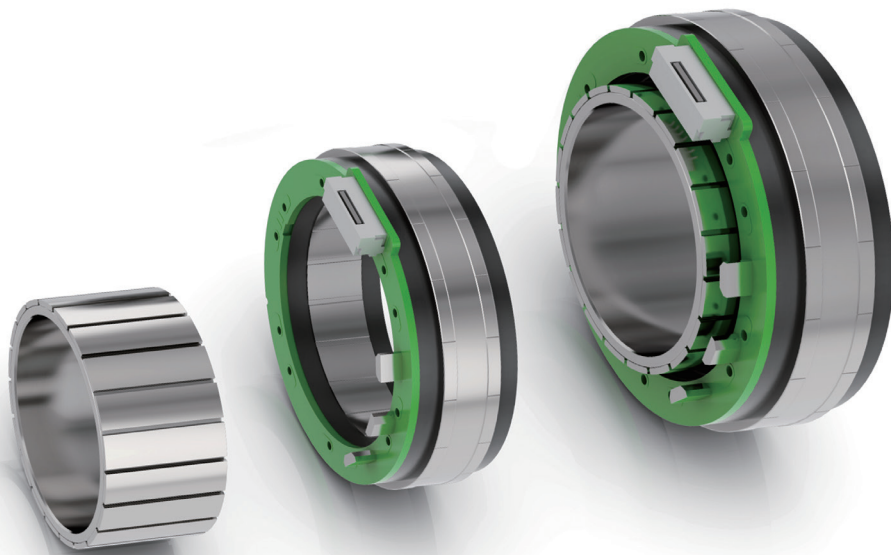


DINGS'

Precision Motion Specialist

FRAMELESS MOTOR

Jiangsu DINGS' Intelligent Control Technology Co., Ltd.





Since its establishment in 2008, Jiangsu DINGS' Intelligent Control Technology Co., Ltd. has adhered to the business philosophy of **"Quality comes from responsibility, and details determine success or failure."**

The company is committed to becoming a precision motion specialist and a world-class provider of motion control solutions.

DINGS' offers a comprehensive range of products, including precision stepper motors, DC motors, voice coil motors, lead and ball screw linear actuators, PMSM motors for new energy vehicles, and motion controllers.

SCALE

200+ Processing Equipment



20+ Assembly Lines



100+ Testing Instruments



140+ Patents



GROWTH

2008 Company founded and DINGS' brand registered

2010 Established DINGS' MOTION USA

2016 Established DINGS' Korea

2019 Joined LEILI Group

2021 Established Changzhou Intelligent Manufacturing Factory
Listed on China's NEEQ ('New Third Board') Market

2022 Set up R&D Center in Korea

Listed on the Beijing Stock Exchange [Stock Code : 920593]

2023 Conversion to DINGS' Korea Corporation
Established of DINGS' Japan

2024 Completed Headquarters Smart Manufacturing Base
Established of DINGS' Motion Europe

2025 Establishment of Thailand Manufacturing Base

CERTIFICATIONS



PRODUCT WARRANTY

DINGS' provides a 1-year warranty from the factory shipment date. If caused by quality issues, free repair is provided.

Free maintenance does not apply in the following cases:

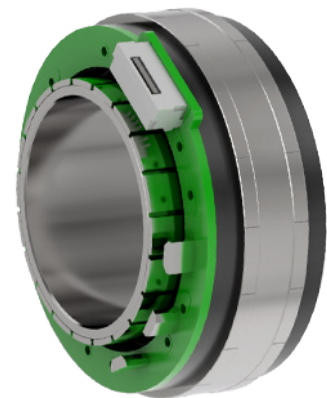
- Warranty period expired
- (including nameplate loss or intentional damage)
- Improper installation, use, or environment
- Unauthorized disassembly or modification
- Repaired by non-accredited personnel
- Damage from natural disasters or force majeure

DINGS' is dedicated to delivering quality, reliability, and responsibility in every product and service.

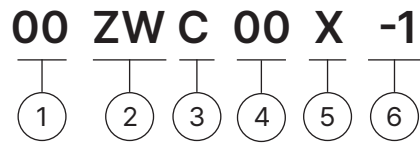
Content

FRAMELESS MOTOR

Part Number Construction	4
25 mm	5
38 mm	7
50 mm	9
70 mm	12
85 mm	15
115 mm	18



Part Number Construction



① Motor Size

Motor Size (mm)	25	38	50	70	85	115
-----------------	----	----	----	----	----	-----

② Product Name

ZW = Slotted Brushless DC Motor

③ Motor Shape

C = Circular type

④ Motor Length

Unit : mm

when the length involves decimal points, use "." instead

⑤ Motor Casing

X = Coreless

⑥ Customer Sequence Number

Example

Part Number	50ZWC15X-001
Description	50mm frame size Round frameless torque motor Body length: 15mm Coreless type Customization number 001

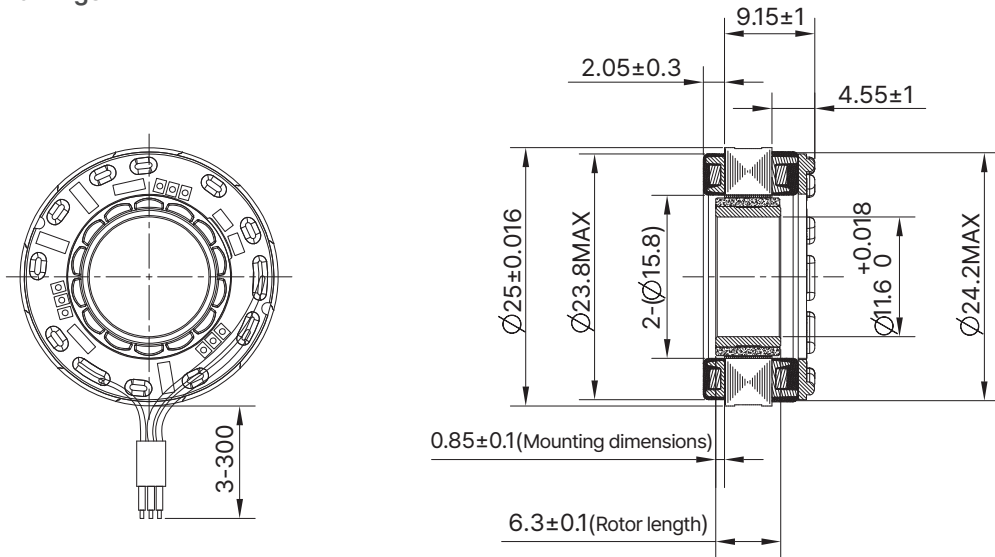
25mm Series

Motor Characteristics

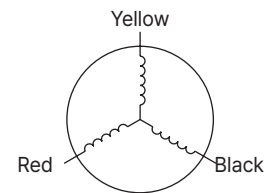
Motor part number	25ZWC10X-1	
Stator outer diameter	mm	25 (±0.016)
Rotor inner diameter	mm	11.6 (+0.018)
Number of slots	-	12
Pole pairs	-	7
Phase-to-phase resistance	Ω	0.42
Phase-to-phase inductance	mH	0.123
Winding connection method	-	Star connection
Insulation class	-	F
Duty type	-	S2
Feedback method	-	/
Commutation angle	-	120°
Insulation strength (Withstand voltage)	-	600VAC/1s/3mA
Insulation resistance	-	50MΩ/500VDC
Stator weight	g	20
Rotor weight	g	3.2
No-load speed	RPM	26000
No-load current	A	0.65(REF)
Rated voltage	VDC	24
Rated power	W	70
Rated torque	N·m	0.032
Rated speed	RPM	22650
Rated current	A	3.8
Torque constant	Nm/A	0.009
Back-EMF constant (effective value)	Vrms/Krpm	0.65
Peak torque	N·m	0.105
Peak current	A	13.0
Rotor inertia	g·cm ²	1.47

25mm Series

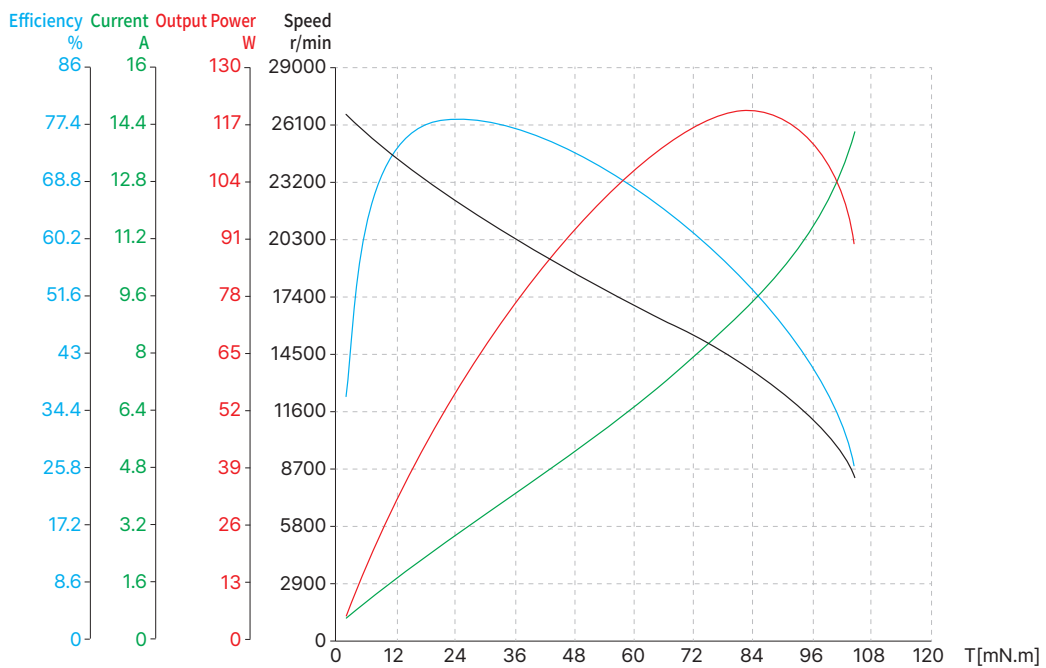
Dimensional Drawings



Lead-out type	Lead-out color	Function
UL1332 AWG20	Yellow	U phase
	Red	V phase
	Black	W phase



Torque Performance Curves



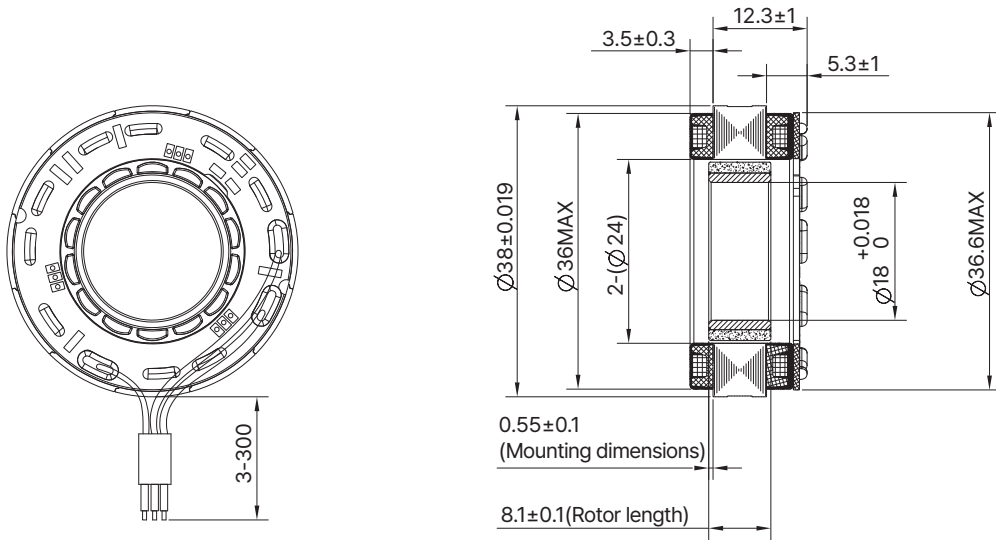
38mm Series

Motor Characteristics

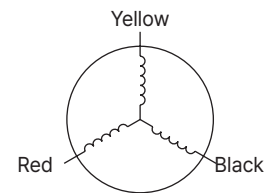
Motor part number	38ZWC15X-1	
Stator outer diameter	mm	38±0.019
Rotor inner diameter	mm	18+0.018
Number of slots	-	12
Pole pairs	-	7
Phase-to-phase resistance	Ω	0.8
Phase-to-phase inductance	mH	0.9
Winding connection method	-	Star connection
Insulation class	-	F
Duty type	-	S2
Feedback method	-	/
Commutation angle	-	120°
Insulation strength (Withstand voltage)	-	1200VAC/1s/3mA
Insulation resistance	-	50MΩ/500VDC
Stator weight	g	50
Rotor weight	g	10
No-load speed	RPM	13000
No-load current	A	0.6(REF)
Rated voltage	VDC	48
Rated power	W	110
Rated torque	N·m	0.1
Rated speed	RPM	10470
Rated current	A	2.75
Torque constant	Nm/A	0.035
Back-EMF constant (effective value)	Vrms/Krpm	2.6
Peak torque	N·m	0.32
Peak current	A	11
Rotor inertia	g·cm ²	10

38mm Series

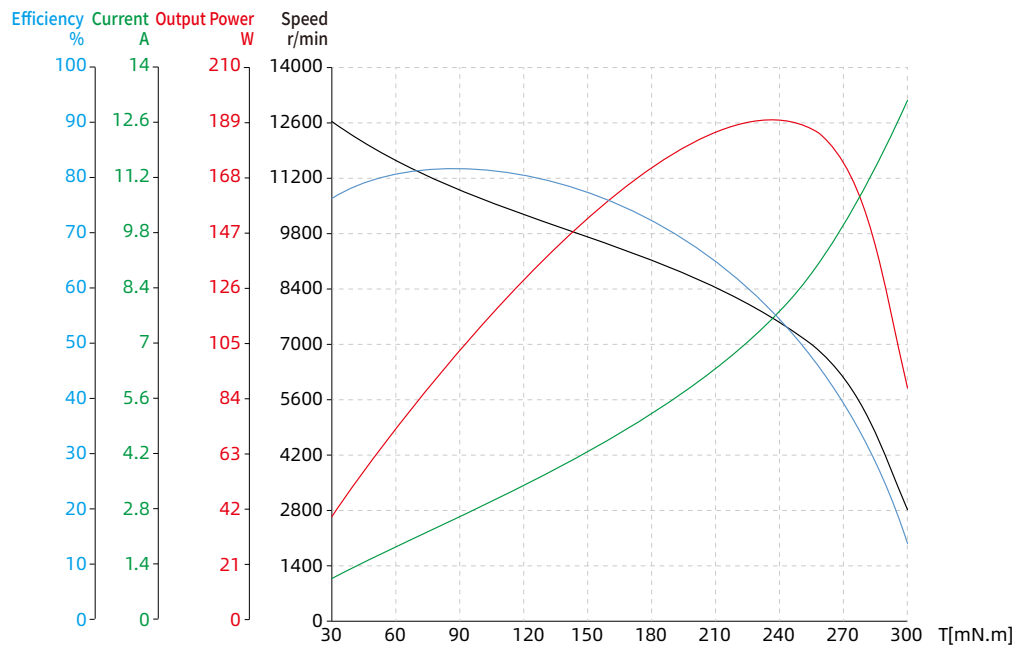
Dimensional Drawings



Lead-out type	Lead-out color	Function
UL1332 AWG20	Yellow	U phase
	Red	V phase
	Black	W phase



Torque Performance Curves



50mm Series

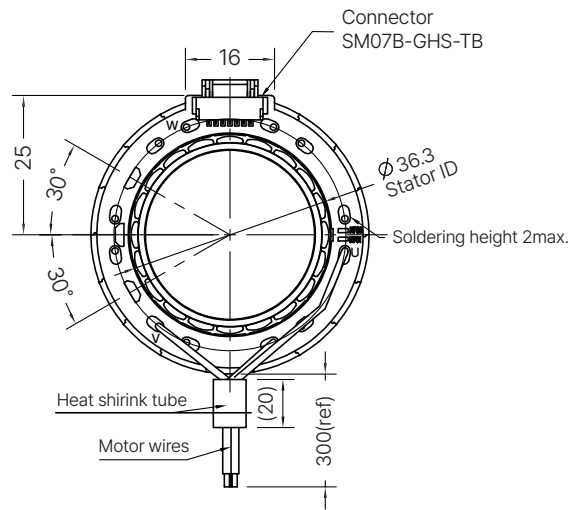
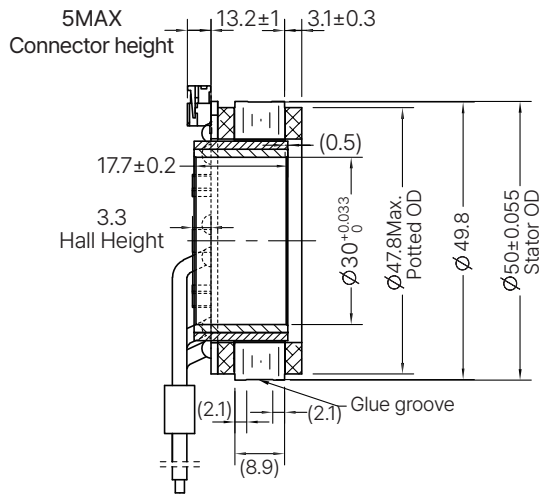
Motor Characteristics

Motor part number		50ZWC15X-1	50ZWC25X-1
Stator outer diameter	mm	50±0.031	50±0.031
Rotor inner diameter	mm	30+0.033	30+0.033
Overall length (L)	mm	13.2	19.5
Stack length (L1)	mm	8.9	15.2
Rotor length (L2)	mm	17.7±0.2	24±0.2
Number of slots	-	18	18
Pole pairs	-	10	10
Phase-to-phase resistance	Ω	0.62	0.6
Phase-to-phase inductance	mH	0.44	0.45
Winding connection method	-	Star connection	Star connection
Insulation class	-	F	F
Duty type	-	S2	S2
Feedback method	-	Hall sensor	Hall sensor
Commutation angle	-	120°	120°
Insulation strength (Withstand voltage)	-	500VAC/1mA/1s	500VAC/1mA/1s
Insulation resistance	-	100MΩ/500VDC	100MΩ/500VDC
Stator weight	g	77.5	124
Rotor weight	g	38	50
No-load speed	RPM	6400	5000
No-load current	A	0.4(REF)	1.1(REF)
Rated voltage	VDC	48	48
Rated power	W	168	219
Rated torque	N·m	0.3	0.51
Rated speed	RPM	5350	4100
Rated current	A	4.4	5.65
Torque constant	Nm/A	0.074	0.092
Back-EMF constant (effective value)	Vrms/Krpm	5.5	6.8
Peak torque	N·m	0.96	1.5
Peak current	A	10.7	16.1
Rotor inertia	g·cm ²	100	135

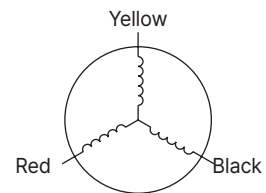
50mm Series

Dimensional Drawings

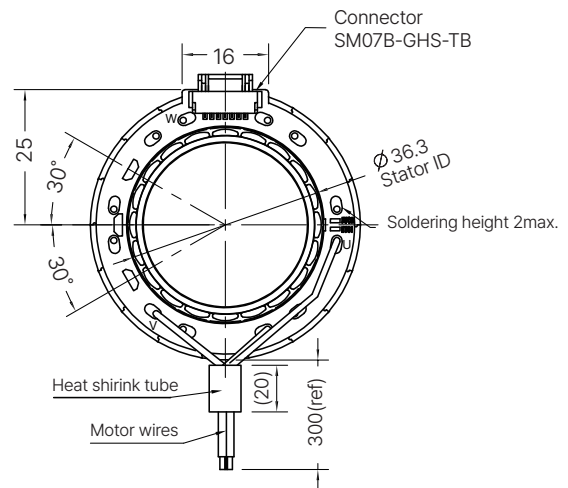
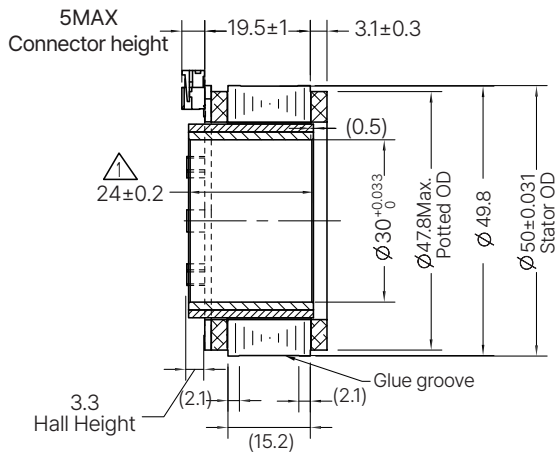
50ZWC15X-1



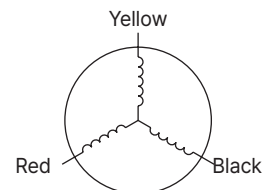
Lead-out type	Lead-out color	Function
UL1332 AWG20	Yellow	U phase
	Red	V phase
	Black	W phase



50ZWC25X-1



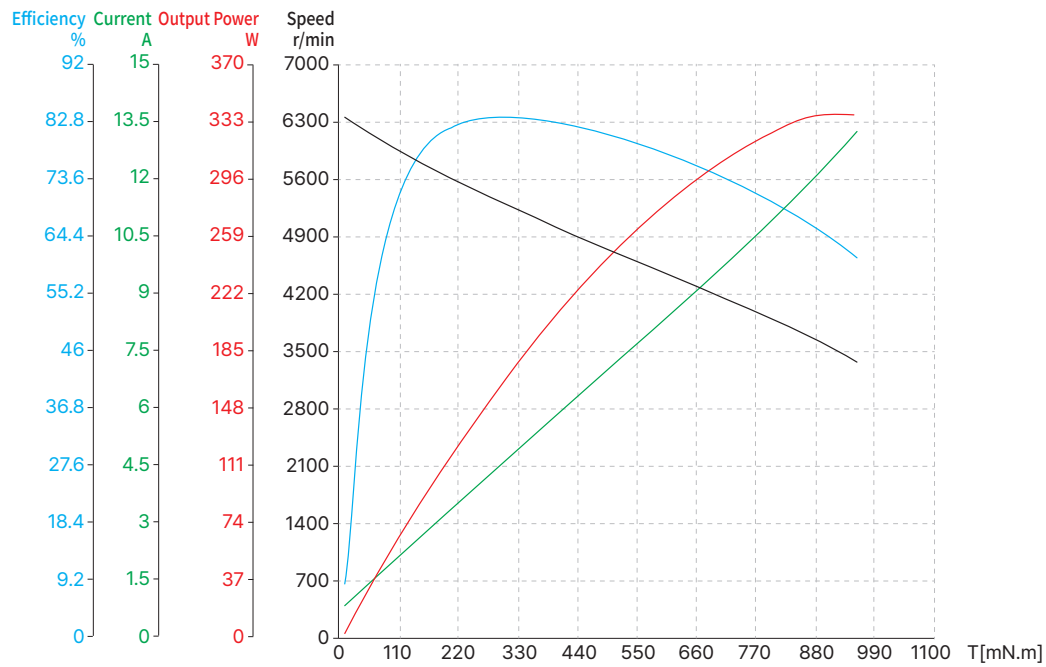
Lead-out type	Lead-out color	Function
UL1332 AWG20	Yellow	U phase
	Red	V phase
	Black	W phase



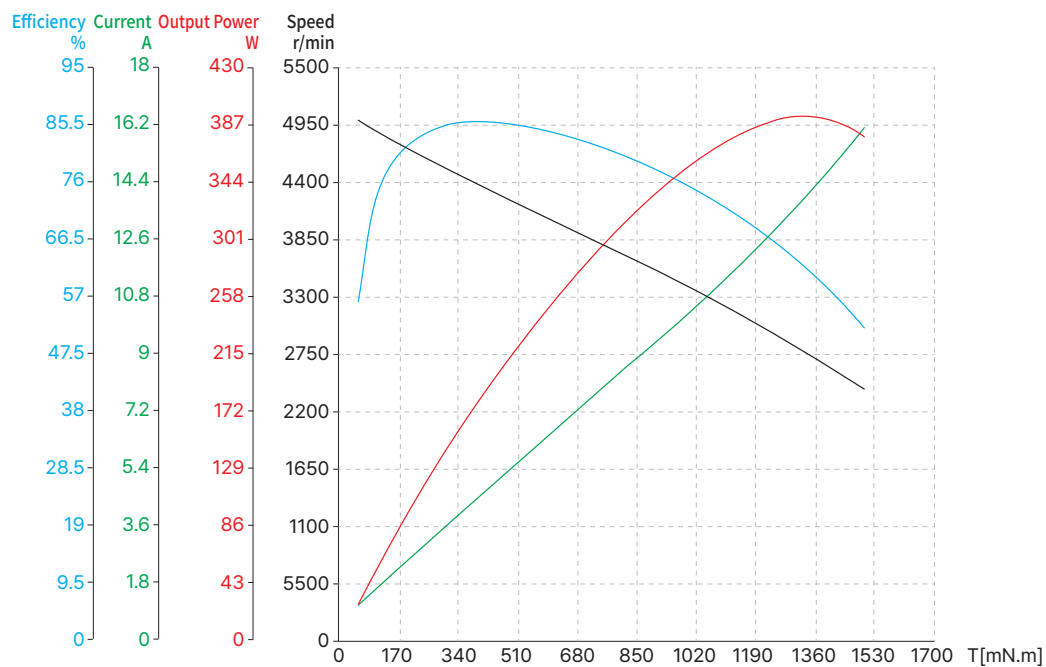
50mm Series

Torque Performance Curves

● 50ZWC15X-1



● 50ZWC25X-1



70mm Series

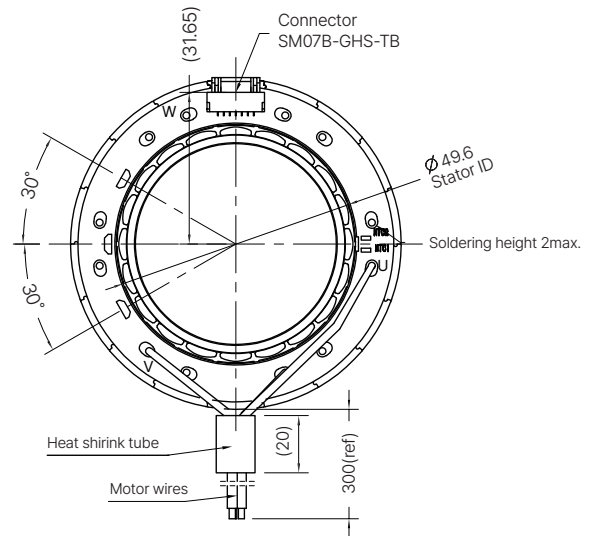
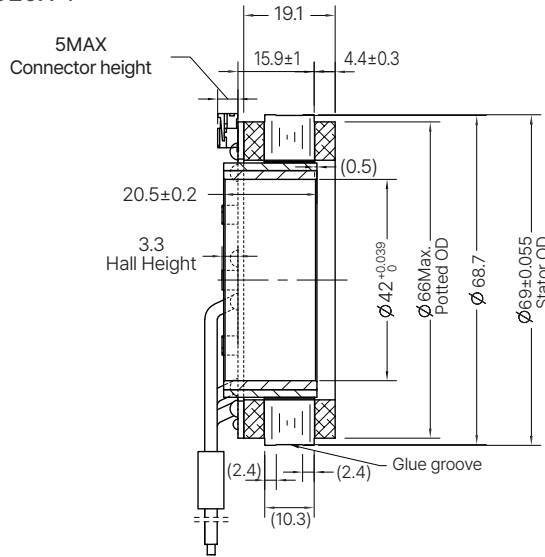
Motor Characteristics

Motor part number		70ZWC20X-1	70ZWC25X-1
Stator outer diameter	mm	69±0.037	69±0.037
Rotor inner diameter	mm	42+0.039	42+0.039
Overall length (L)	mm	15.9	21.5
Stack length (L1)	mm	10.3	15.9
Rotor length (L2)	mm	20.5±0.2	26±0.2
Number of slots	-	18	18
Pole pairs	-	10	10
Phase-to-phase resistance	Ω	0.32	0.22
Phase-to-phase inductance	mH	0.52	0.35
Winding connection method	-	Star connection	Star connection
Insulation class	-	F	F
Duty type	-	S2	S2
Feedback method	-	Hall sensor	Hall sensor
Commutation angle	-	120°	120°
Insulation strength (Withstand voltage)	-	500VAC/1mA/1s	500VAC/1mA/1s
Insulation resistance	-	100MΩ/500VDC	100MΩ/500VDC
Stator weight	g	167.5	224
Rotor weight	g	72	90
No-load speed	RPM	4350	4400
No-load current	A	0.5(REF)	1.3(REF)
Rated voltage	VDC	48	48
Rated power	W	216	456
Rated torque	N·m	0.55	1.3
Rated speed	RPM	3750	3350
Rated current	A	5.4	11.4
Torque constant	Nm/A	0.109	0.13
Back-EMF constant (effective value)	Vrms/Krpm	8.1	9.6
Peak torque	N·m	1.65	2.6
Peak current	A	14.2	21
Rotor inertia	g·cm ²	358	455

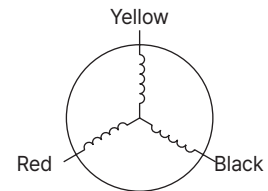
70mm Series

Dimensional Drawings

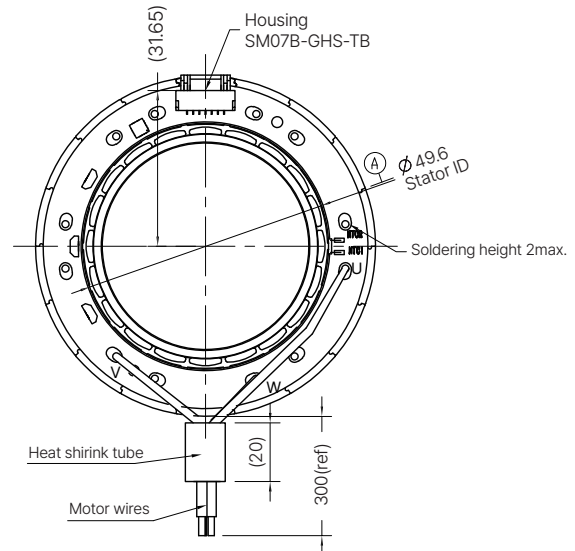
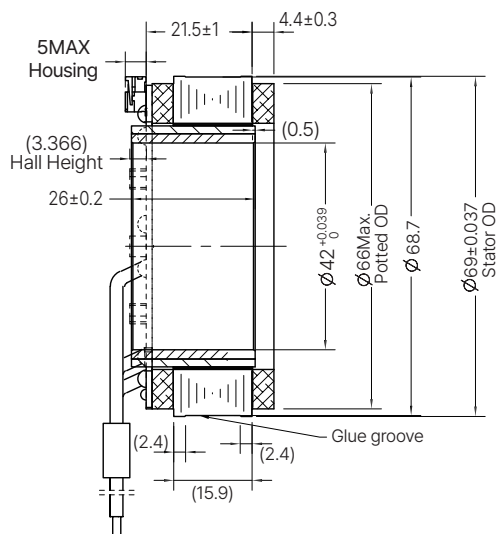
70ZWC20X-1



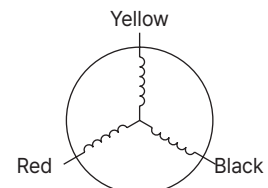
Lead-out type	Lead-out color	Function
UL1332 AWG20	Yellow	U phase
	Red	V phase
	Black	W phase



70ZWC25X-1



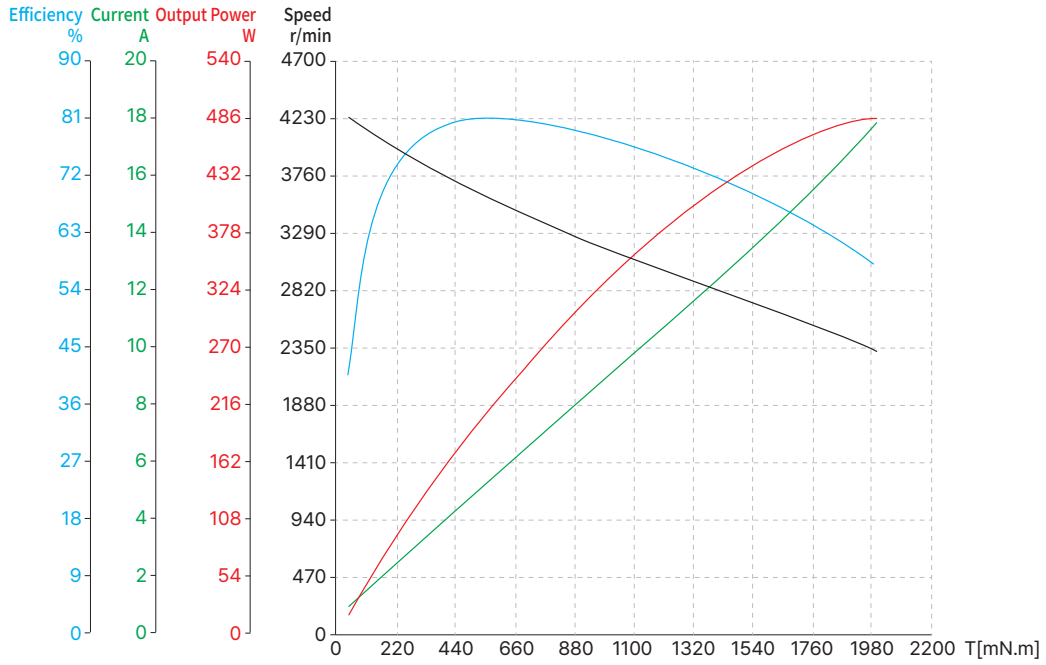
Lead-out type	Lead-out color	Function
UL1332 AWG18	Yellow	U phase
	Red	V phase
	Black	W phase



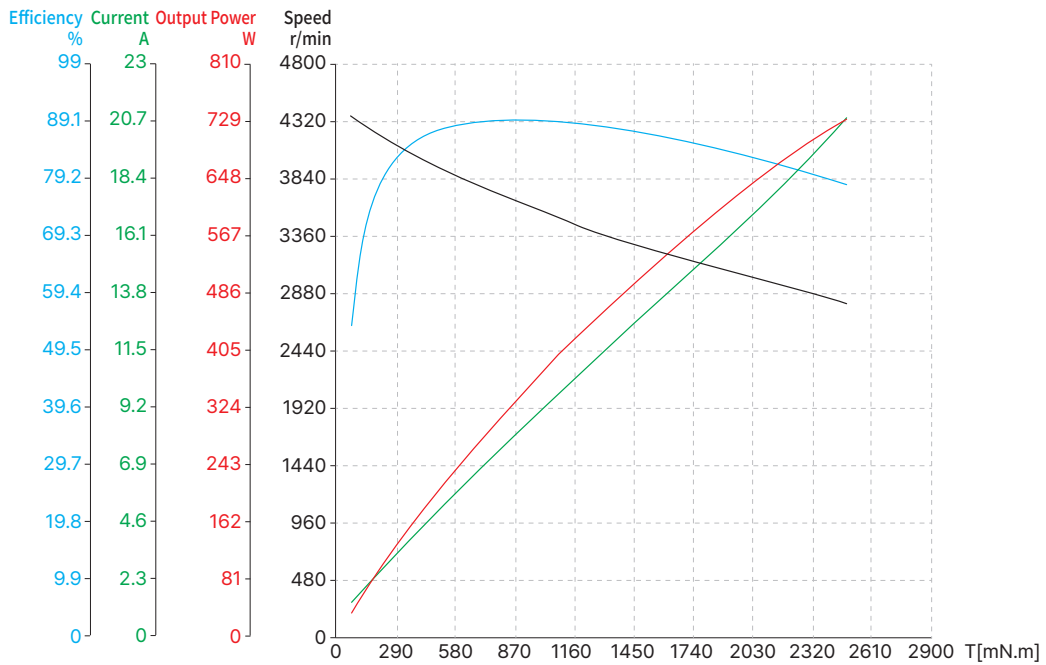
70mm Series

■ Torque Performance Curves

● 70ZWC20X-1



● 70ZWC25X-1



85mm Series

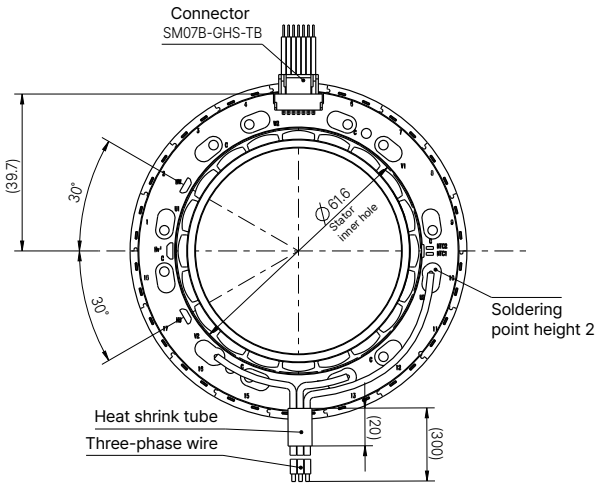
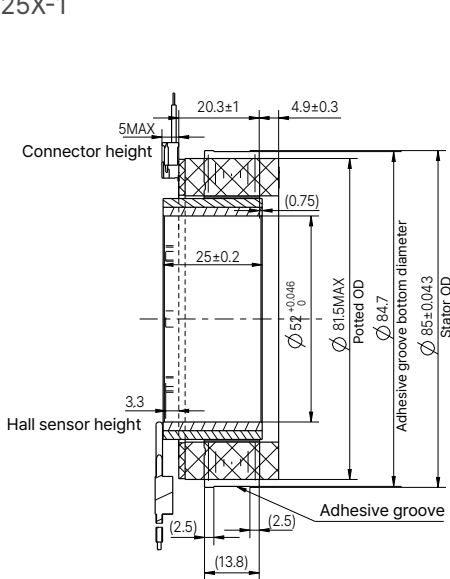
Motor Characteristics

Motor part number		85ZWC25X-1	85ZWC35X-1
Stator outer diameter	mm	85±0.043	85±0.043
Rotor inner diameter	mm	52+0.046	52+0.046
Overall length (L)	mm	20.3	30.1
Stack length (L1)	mm	13.8	23.6
Rotor length (L2)	mm	25±0.2	35±0.2
Number of slots	-	18	18
Pole pairs	-	10	10
Phase-to-phase resistance	Ω	0.14	0.06
Phase-to-phase inductance	mH	0.34	0.12
Winding connection method	-	Star connection	Star connection
Insulation class	-	F	F
Duty type	-	S2	S2
Feedback method	-	Hall sensor	Hall sensor
Commutation angle	-	120°	120°
Insulation strength (Withstand voltage)	-	500VAC/1mA/1s	500VAC/1mA/1s
Insulation resistance	-	100MΩ/500VDC	100MΩ/500VDC
Stator weight	g	315	460
Rotor weight	g	135	189
No-load speed	RPM	3650	4700
No-load current	A	0.6(REF)	2.4(REF)
Rated voltage	VDC	48	48
Rated power	W	422	827
Rated torque	N-m	1.3	2
Rated speed	RPM	3100	3950
Rated current	A	10.3	20.6
Torque constant	Nm/A	0.16	0.117
Back-EMF constant (effective value)	Vrms/Krpm	9.7	8.66
Peak torque	N-m	3.9	6
Peak current	A	27	62
Rotor inertia	g·cm ²	1086	1520

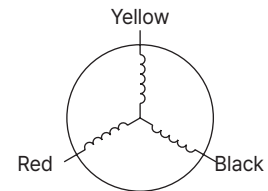
85mm Series

Dimensional Drawings

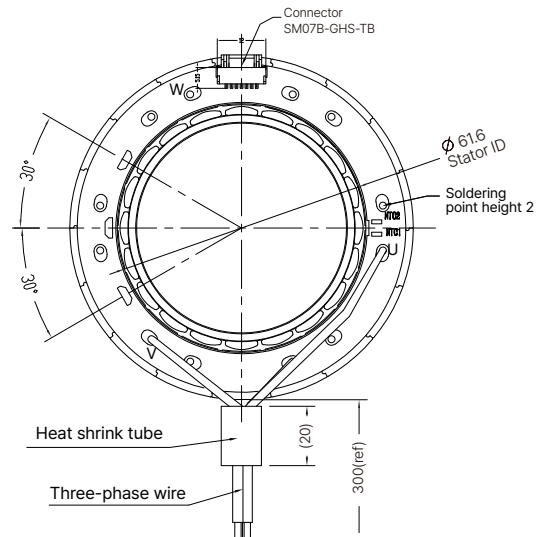
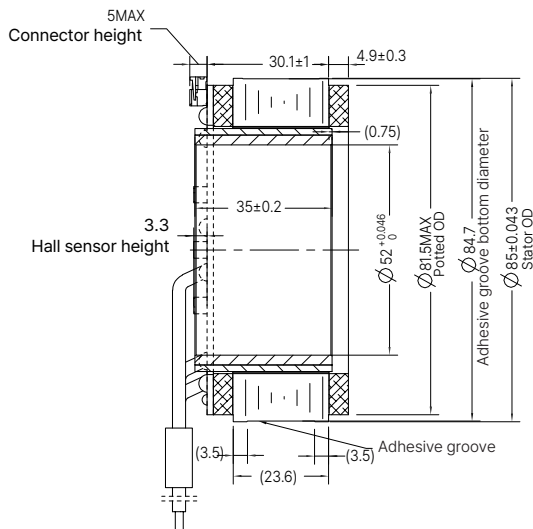
85ZWC25X-1



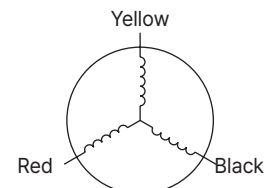
Lead-out type	Lead-out color	Function
UL1332 AWG16	Yellow	U phase
	Red	V phase
	Black	W phase



85ZWC35X-1



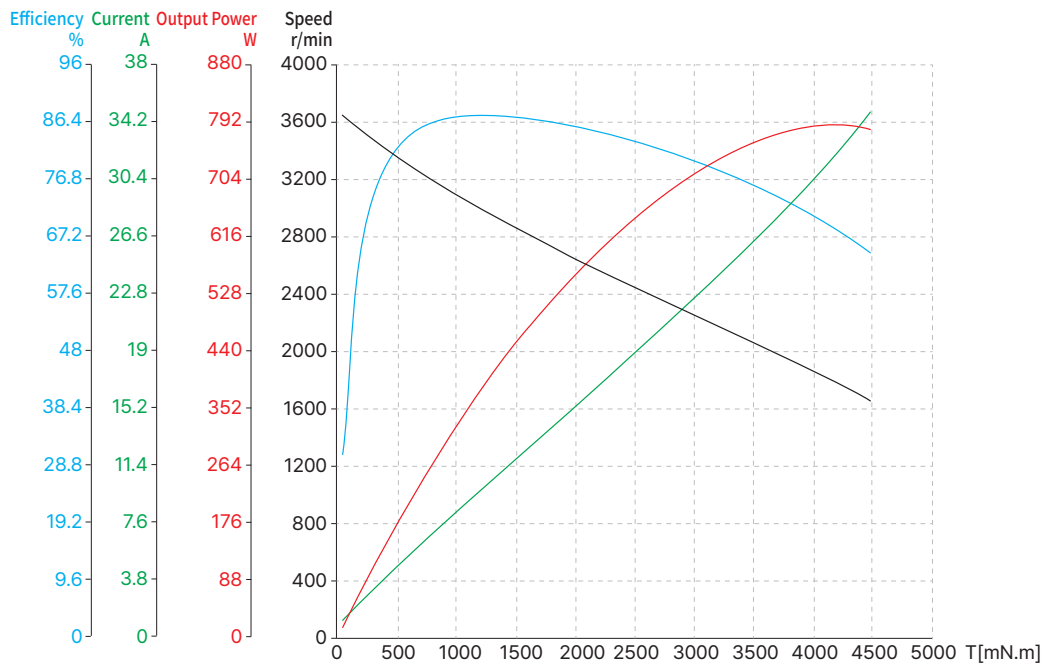
Lead-out type	Lead-out color	Function
UL1332 AWG16	Yellow	U phase
	Red	V phase
	Black	W phase



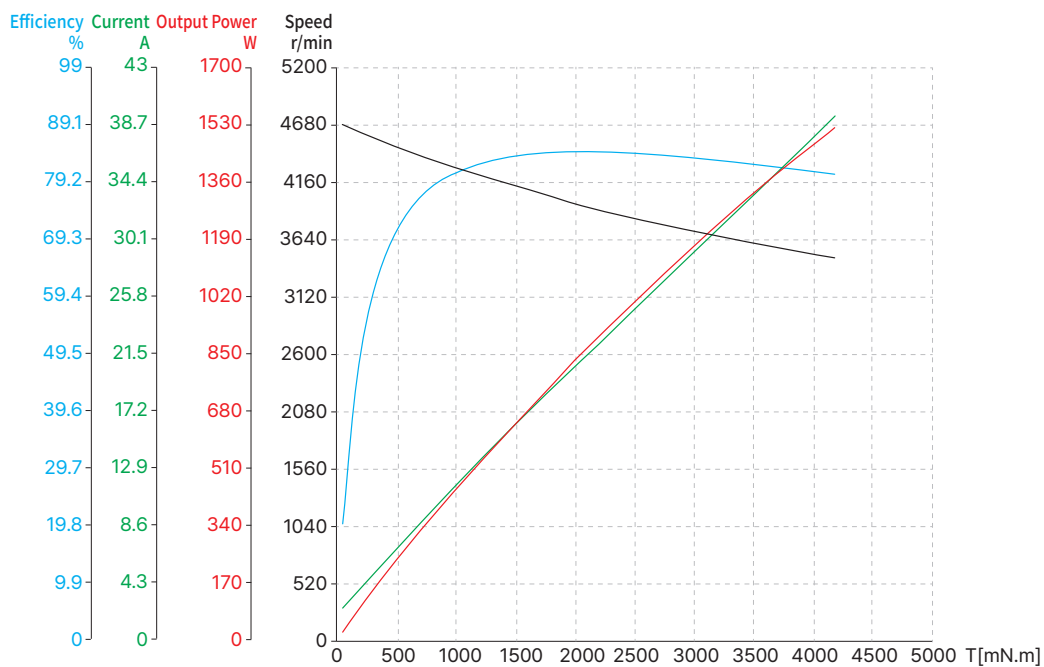
85mm Series

Torque Performance Curves

● 85ZWC25X-1



● 85ZWC35X-1



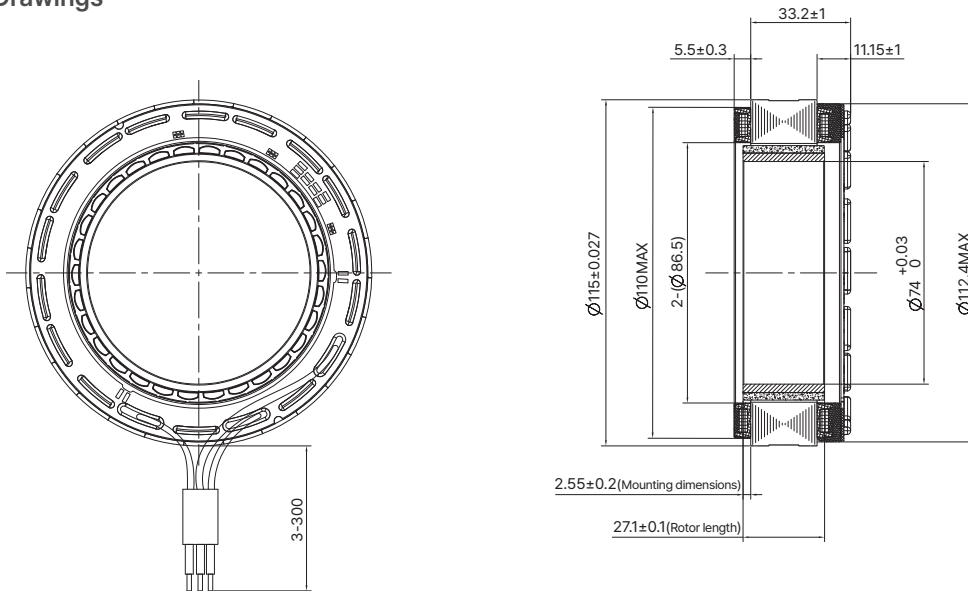
115mm Series

Motor Characteristics

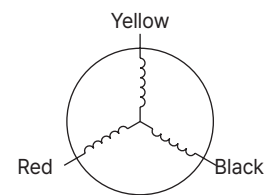
Motor part number	115ZWC37X-1	
Stator outer diameter	mm	115±0.027
Rotor inner diameter	mm	74+0.03
Number of slots	-	27
Pole pairs	-	15
Phase-to-phase resistance	Ω	0.122
Phase-to-phase inductance	mH	0.477
Winding connection method	-	Star connection
Insulation class	-	F
Duty type	-	S2
Feedback method	-	Hall sensor
Commutation angle	-	120°
Insulation strength (Withstand voltage)	-	1200VAC/1s/3mA
Insulation resistance	-	50MΩ/500VDC
Stator weight	g	815
Rotor weight	g	245
No-load speed	RPM	1750
No-load current	A	1.8(REF)
Rated voltage	VDC	48
Rated power	W	570
Rated torque	N·m	3.9
Rated speed	RPM	1400
Rated current	A	14.1
Torque constant	Nm/A	0.281
Back-EMF constant (effective value)	Vrms/Krpm	20.8
Peak torque	N·m	12.7
Peak current	A	47
Rotor inertia	g·cm ²	3930

115mm Series

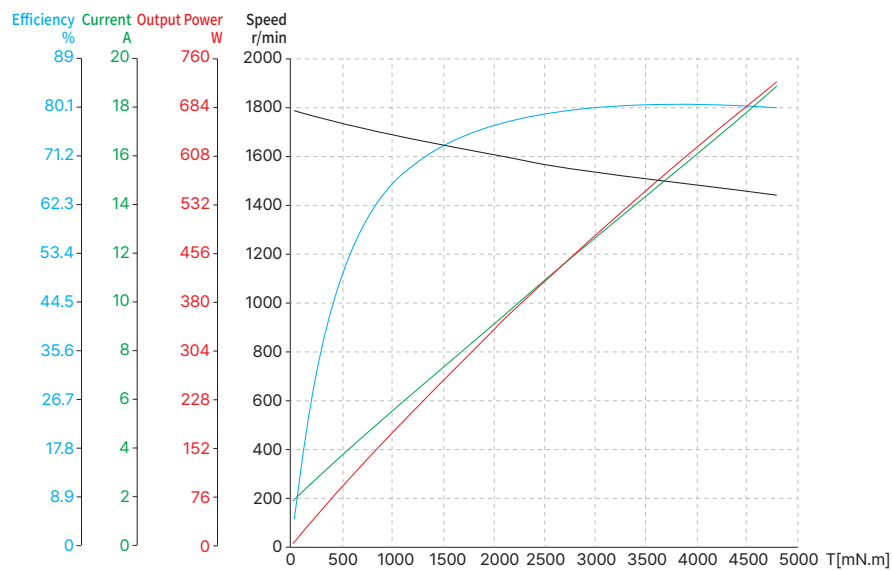
Dimensional Drawings



Lead-out type	Lead-out color	Function
UL1332 AWG14	Yellow	U phase
	Red	V phase
	Black	W phase



Torque Performance Curves



Note : All drawings are 1st Angle Projection - ISO Compliant (3D models available)



HEADQUARTER, CHINA

ENG Web



Partners Web



YouTube



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