FATEK

The Brand You Can Rely On

SC3 SERIES

EtherCAT & Pulse SERVO

FATEK AUTOMATION CORPORATION

26FL., NO. 29, SEC. 2, ZHONGZHENG E. RD.,
TAMSUI DIST., NEW TAIPEI CITY 25170, TAIWAN, R.O.C

TEL +886-2-2808-2192
FAX +886-2-2809-2618
E-mail sales@fatek.com
tech@fatek.com
Website www.fatek.com

SC3-CV1-01-2026

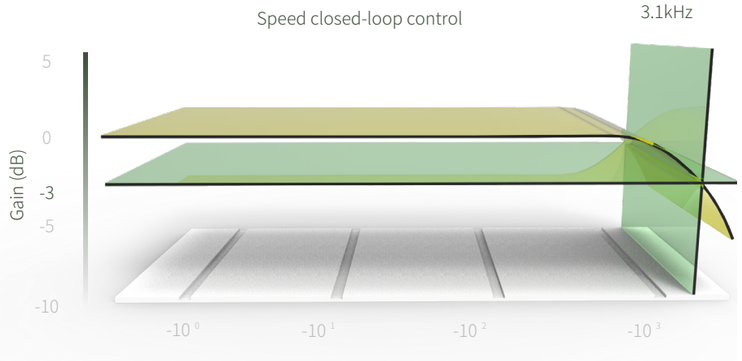
www.fatek.com

SC3 SERIES

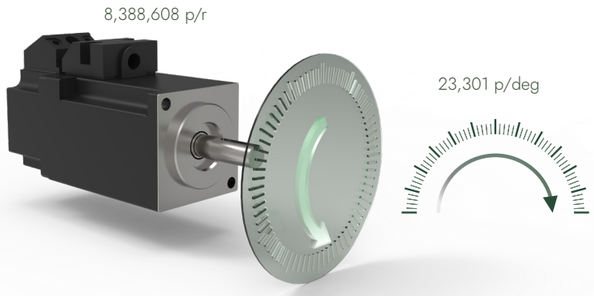
- EtherCAT® & PULSE Control Options
- Comprehensive Power Range from 100 W - 15 KW
- 23BIT / 17 BIT High-resolution Encoders
- 220V / 380V Power Options

3.1 kHz Frequency Response

- Higher responsiveness and shorter settling time
- Improve machine production efficiency



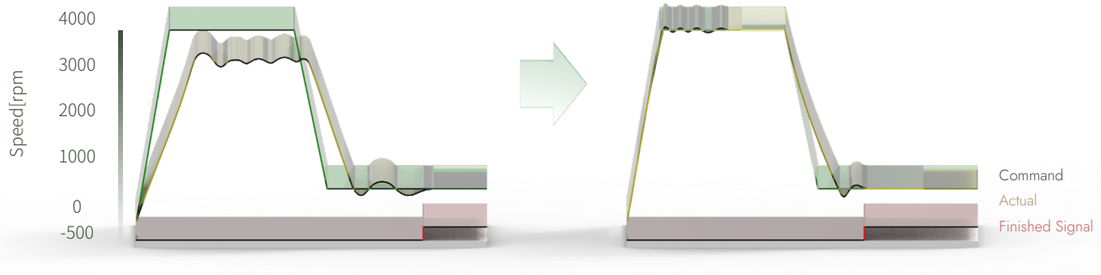
23-bit Absolute Encoder



- Single turn resolution up to 8388608 p/r
- Achieve more precise and smooth processing tasks
- Position information can be saved when power off
- 17 Bit is available

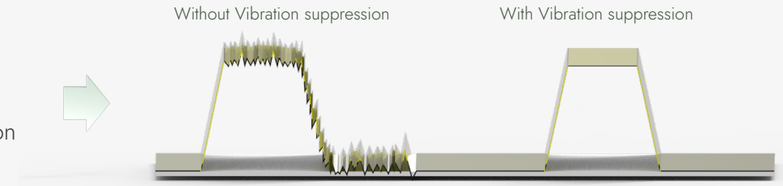
Auto-Adjustment

- Use the auto-adjustment function to easily auto-tune and realize fast and stable operation
- No need to be proficient in servo tuning
- Even if the load changes during operation, the system can operate stably

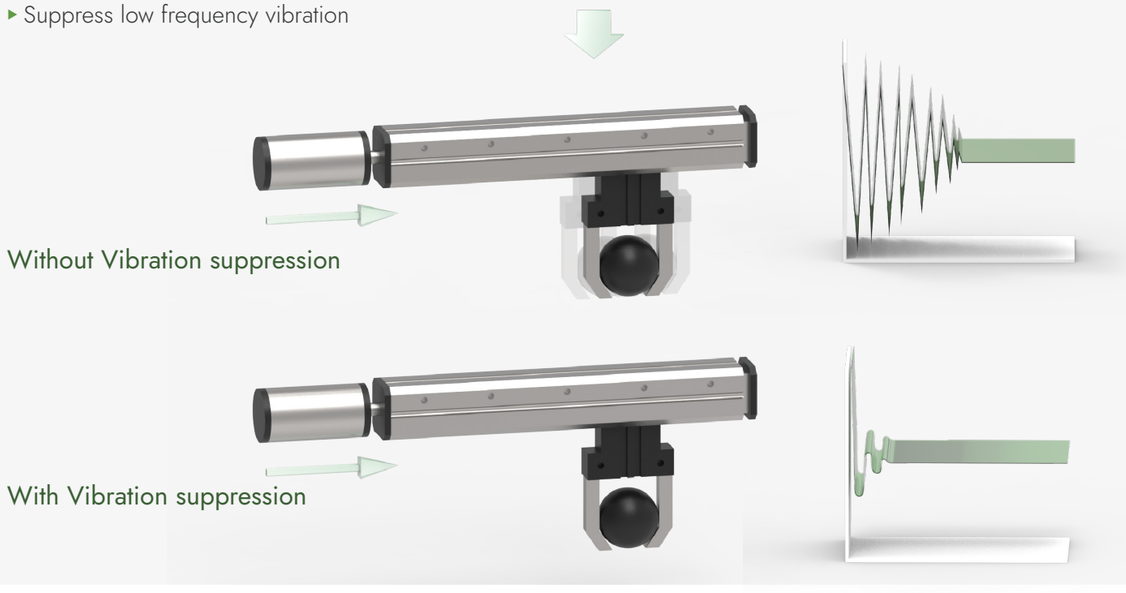


Vibration suppression

- Built-in 5 notch filters
- Suppress high-frequency vibration

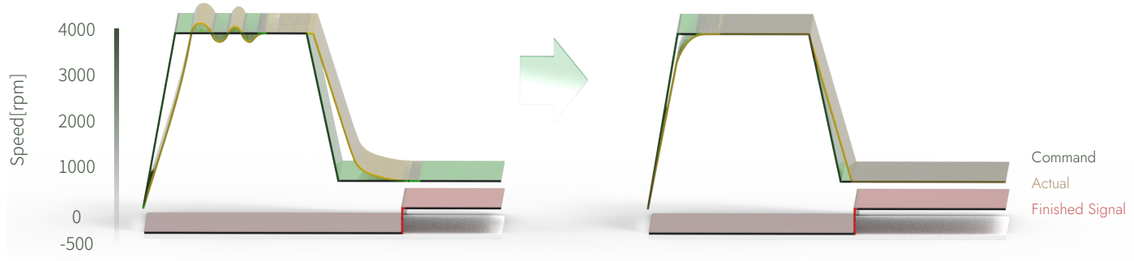


- Strengthen the end vibration suppression function, effectively suppress the mechanical end vibration
- Suppress low frequency vibration



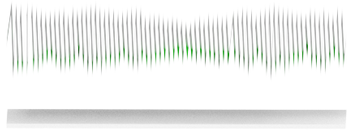
Auto-Tuning

- Auto-Tuning algorithm will recognize the load inertia change in real time, automatically adjusts the gain parameters, and sets the vibration suppression and notch frequency.
- Debugging cycle can be shortened, the system response performance and the equipment production efficiency are improved



Friction/Backlash Compensation

- Effectively reduce commutation deviation and improve machining accuracy



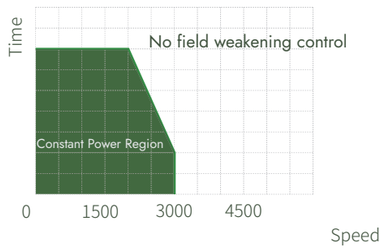
Before Compensation

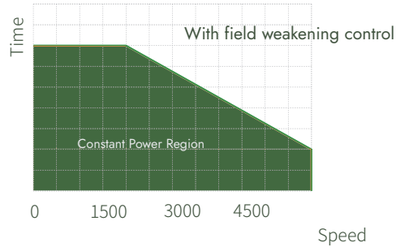
- Improve the stability when operating at low speed

After Compensation

Field Weakening Control

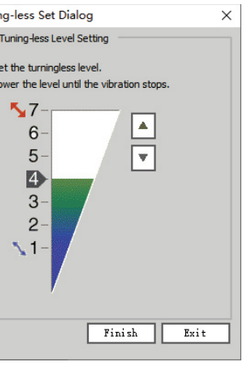
Optimize servo motor current compensation and control for automatic field weakening. Boost torque-speed performance and maximum speed at high speeds. Reduce losses and temperature rise to enhance efficiency, cut energy use, and prolong the motor's lifespan.





FULL LINE SUPPORT

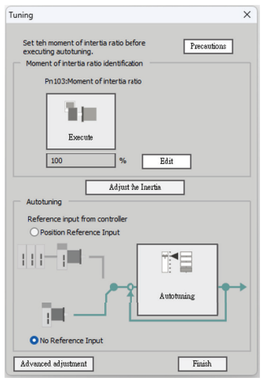
100 W - 15 KW Full Line Supply



Tuning-less level

Increase level for better response

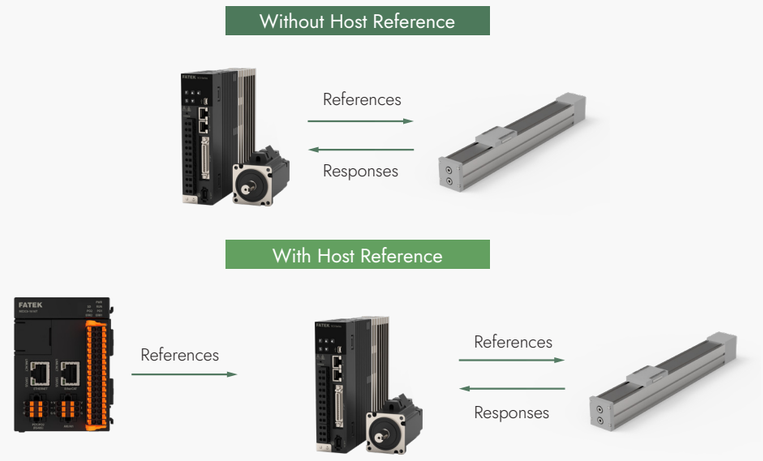
Decrease level to suppress vibration

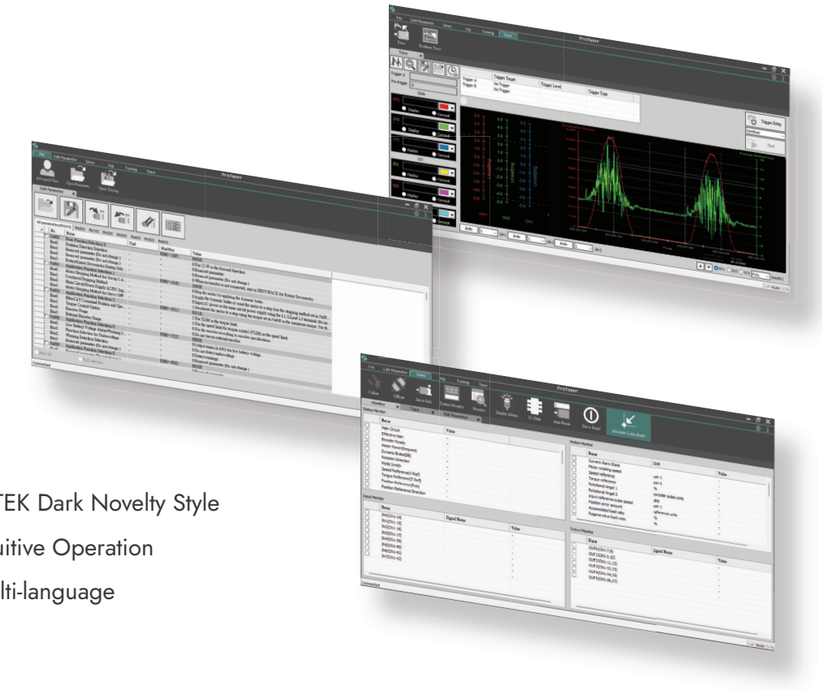


Autotuning

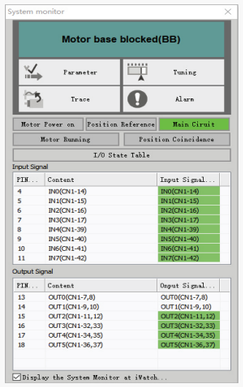
Simple click to execute automatically, no need to worry about any complicated settings

Autotuning



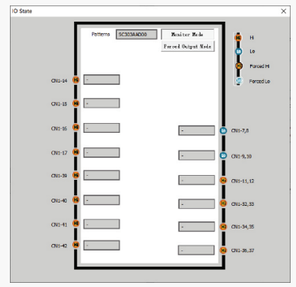


- FATEK Dark Novelty Style
- Intuitive Operation
- Multi-language



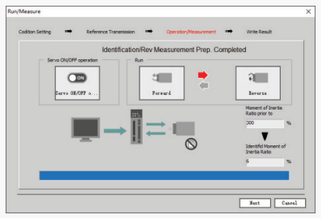
System Monitor

Display status of the servo, IO port status and shortcut functions for parameters, tracking, tuning and alarms



IO Status

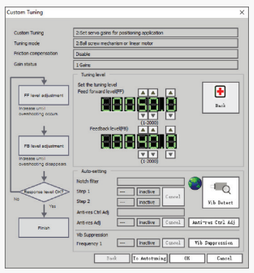
Intuitively monitor the status of servo input and output



Estimating the Moment of Inertia

No need for host controller reference

Easily get an accurate load moment of inertia



Vibration Suppression

Automatically turn on the notch filter and A-type vibration suppression according to the vibration frequency

Manual fine-tuning is also possible

SC3 SERIES

EtherCAT® & PULSE Control Options

FATEK® The Brand You Can Rely On
Drive

High performance servo drive

Series	Main Circuit Power Supply	Input Power Supply	Compatible Motor	Control Type	Number of Axis	Function Type
SC3	03A	A	D	0	0	-
1	2	3	4	5	6	7

1 Series

SC3

2 Main Circuit Power Supply

Code	Supply
03A	3A
06A	6A
08A	8A
10A	10A
15A	15A
28A	28A
35A	35A
40A	40A

3 Input Power Supply

Code	Main Circuit Supply
A	AC220V
B	AC380V
C	AC220V+DC24V
D	AC380V+DC24V

4 Compatible Motor

Code	Spec		Code	Spec
AC220Motor			AC380 Motor	
D	100W-400W		E	400W-750W
F	750W-1kW		H	1.0kW-2kW
G	1.5kW		I	2.1kW-3kW
H	2.0KW		K	4.0kW-5.5kW
-	-		L	7.5kW-13kW
-	-		N	15kW

5 Control Type

Code	Type
0	EtherCAT
1	Pulse

6 Number of Axis

Code	Spec
0	1 Axis

7 Function Type

Code	Function
(empty)	Standard Function

220VAC

▶ SC3 △△△ A □□□□

Model【△△△】			03A	06A	08A	10A
Continuous Output Current [Arms]			3	6	8	10
Instantaneous Max. Output Current [Arms]			10	13	17	21
Main Circuit	Power Supply		Three-phase* AC220 V，-15% to +10%, 50 Hz / 60 Hz			
	Input Current [Arms]		1.9	4.3	6.5	8.2
Control Power Supply			Single-phase AC220 V，-15% to +10%, 50 Hz / 60 Hz			
Power Supply Capacity [kVA]			1.3	1.7	2.4	2.8
Regenerative Resistor	Built-In Regenerative Resistor	Resistance [Ω]	-	40	40	40
		Capacity [W]	-	80	80	80
	Minimum Allowable External Resistance [Ω]		30	15	12	12
Overvoltage Category			III			

* If using single-phase AC220V, except for the 03A model, the performance of other models cannot reach the speifications indicated

380VAC

▶ SC3 △△△ B □□□□

Model【△△△】			03A	06A	12A	15A	28A	40A
Continuous Output Current [Arms]			3	6	12	15	28	40
Instantaneous Max. Output Current [Arms]			8.5	14	25	45	63	100
Main Circuit	Power Supply		AC380 V，-15% to +10%, 50 Hz / 60 Hz					
	Input Current [Arms]		3	5.9	9.7	15.5	24.8	36
Control Power Supply			DC24V，-10% to +10% 20W				AC380 V -15% to +10%, 50 Hz / 60 Hz	
Power Supply Capacity [kVA]			2	3.9	7.8	12.4	19.8	28.8
Regenerative Resistor	Built-In Regenerative Resistor	Resistance [Ω]	40	40	40	32	-	-
		Capacity [W]	80	80	80	150	-	-
	Minimum Allowable External Resistance [Ω]		30	30	20	20	15*1	10*1
Overvoltage Category			III					

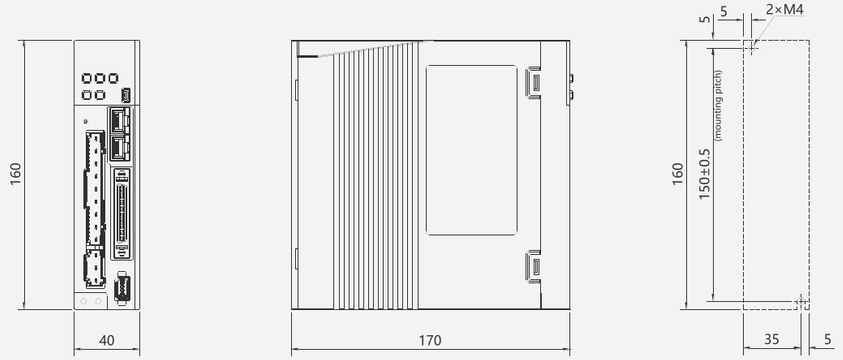
Note: *1:The driver is equipped with an external resistor of 18Ω and 1000W by default.

Items		Specification
Control Method		IGBT-based PWM control, sine wave current drive
Feedback		Serial encoder：17 / 23 bits (incremental encoder/absolute encoder)
Operating Conditions	Surrounding Air Temperature	0 ～ + 50°C
	Storage Temperature	- 20 ～ + 85°C
	Surrounding Air Humidity	95% relative humidity max. (With no freezing or condensation)
	Storage Humidity	95% relative humidity max. (With no freezing or condensation)
	Vibration Resistance	4.9 m/s2
	Shock Resistance	19.6 m/s2
	Protection Class	IP20
	Pollution Degree	Must be no corrosive or flammable gases. Must be no exposure to water, oil, or chemicals. Must be no dust, salts, or iron dust.
	Altitude	1000 m or less
	Others	Do not use SERVOPACKs in the following locations： Locations subject to static electricity noise, strong electromagnetic / magnetic fields, radioactivity
Applicable Standards		EN 50178, EN 61800-5-1, EN55011 group 1 class A, EN 61000-6-2, EN 61000-6-4, EN 61800-3,IEC 61508-1 to 4, IEC 61800-5-2, IEC 62061 and IEC 61326-3-1
Mouning		Standard: Base-mounted
Performance	Speed Control Range	Performance
	Coefficient of Speed Fluctuation	±0.01% of rated speed max. (for a load fluctuation of 0% to 100%)
		0% of rated speed max. (for a voltage fluctuation of ±10%)
		±0.1% of rated speed max. (for a temperature fluctuation of 25° C±25° C)
	Torque Control Tolerance (Repeatability)	1%
	Soft Start Time Setting	0 to 10 s (can be set individually for acceleration and deceleration.)
Displays / Indicators		CHARGE indicator and five-digit seven-segment display
Panel Operator		Five push switches

Items			Specification
I/O Signal	Encoder Output Pulses		Phase A, phase B, phase C：line driver output； Number of divided output pulses: Any setting is allowed。
	Sequence Input	Input Signals That Can Be Allocated	Allowable voltage range: 24 VDC ±20% Number of input points: 8
			Input method: Sink inputs or source inputs Input Signals: • Servo ON（/S-ON） • Proportional control（/P-CON） •（P-OT） （N-OT） Forward drive prohibit and reverse drive prohibit •Alarm reset（/ALM-RST） •（/P-CL） （/N-CL） Forward external torque limit and reverse external torque limit •Internal Settings Speed Switch •Zero clamping（/ZCLAMP） •Position deviation clearance（/CLR） •Gain Selection（/G-SEL） A signal can be allocated and the positive and negative logic can be changed.
I/O Signal	Sequence Output	Output Signals That Can Be Allocated	Allowable voltage range: 5 VDC to 30 VDC Number of output points: 6
			Output Signals: • Positioning completion（/COIN） • Speed limit detection（/VLT） • Speed coincidence detection（/V-CMP） • Brake（/BK） • Rotation detection（/TGON） •Servo ready（/S-RDY） •Torque limit detection（/CLT） •Servo alarm（ALM） A signal can be allocated and the positive and negative logic can be changed.
Communications	RS-485 Communications	Communications Standard	MODBUS
		1:N Communications	Up to N = 50 stations possible for RS-485 por
		Axis Address Setting	Set with parameters

Items					Specification
Control	Speed Control	Soft Start Time Setting			0 to 10 s (can be set individually for acceleration and deceleration.)
		Input Signals	Reference Voltage		Max. input voltage：±10 V (forward speed reference with positive reference) 150(r/min)/V (default setting)；Input gain setting can be changed.
			Input Impedance		Approx. 20 KΩ
			Circuit Time Constant		47μs
		Internal Set Speed Contro	Rotation Direction Selection		With Proportional Control signal
			Speed Selection		With forward/reverse external torque limit signal (speed 1 to 3 selection). Servomotor stops or another control method is used when both are OFF.
	Position Control	Feedforward Compensation			0 to 100%
		Positioning Completed Width Setting			0 to 1,073,741,824 reference units
		Input Signals	Reference pulses	Reference Pulse Form	One of the following is selected: Sign + pulse train、CW + CCW pulse train、or two-phase pulse train with 90° phase differential
				Input Form	Line driver or open collector
				Maximum Input Frequency	• Line driver Sign + pulse train or CW + CCW pulse train：500kpps Two-phase pulse train with 90° phase differential：500kpps • Open Collector Sign + pulse train or CW + CCW pulse train：200kpps Two-phase pulse train with 90° phase differential：200kpps
			Clear Signal		Position deviation clear Line driver or open collector
	Torque Control	Input Signals		Reference Voltage	•Maximum input voltage: ±10 V (forward torque output for positive reference). •3.3 VDC at rated torque (default setting); Input gain setting can be changed.
				Input Impedance	Approx. 20 KΩ
				Circuit Time Constant	47μs
Regenerative Processing					Built-in or external regenerative resistors (options)
Overtravelling (OT) Prevention					Dynamic brake stop at P-OT or N-OT, deceleration to a stop, or free run to a stop
Protective Functions					Overcurrent, Overvoltage, low voltage, overload, regeneration error , etc.
Utility Functions					Gain adjustment, alarm history, JOG operation, etc.

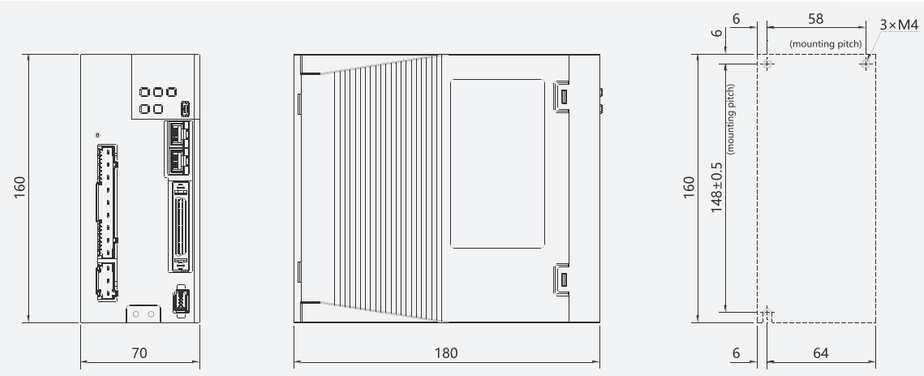
▶ SC303AA □□□



Unit : mm

Mounting Hole Diagram

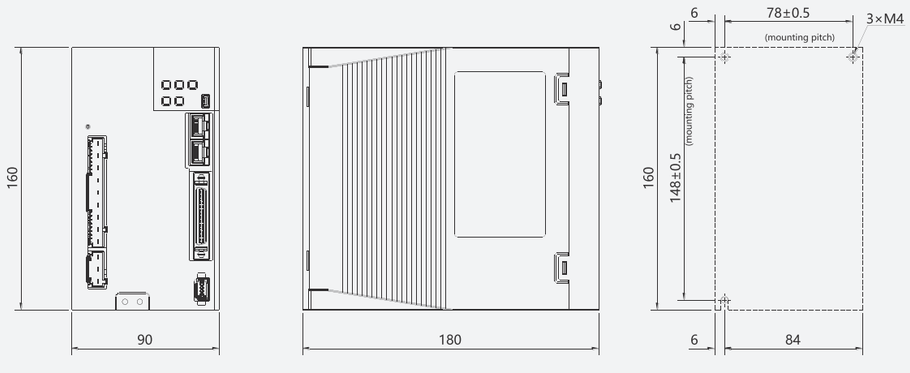
▶ SC306AA □□□ , SC303AB □□□□



Unit : mm

Mounting Hole Diagram

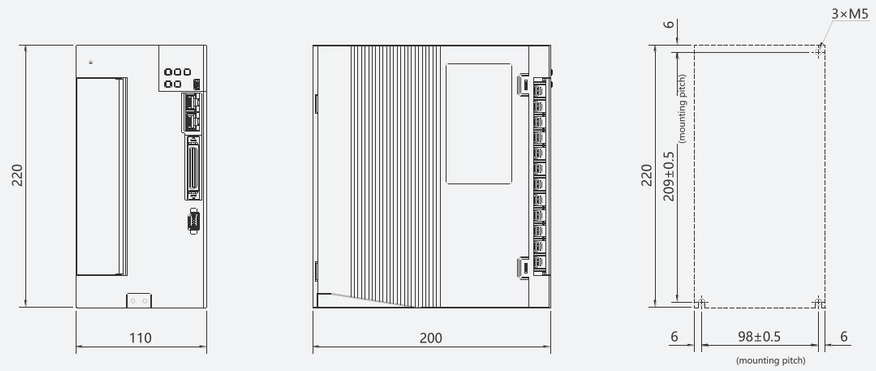
▶ SC308/10AA □□□□ , SC306/10AB □□□□



Unit : mm

Mounting Hole Diagram

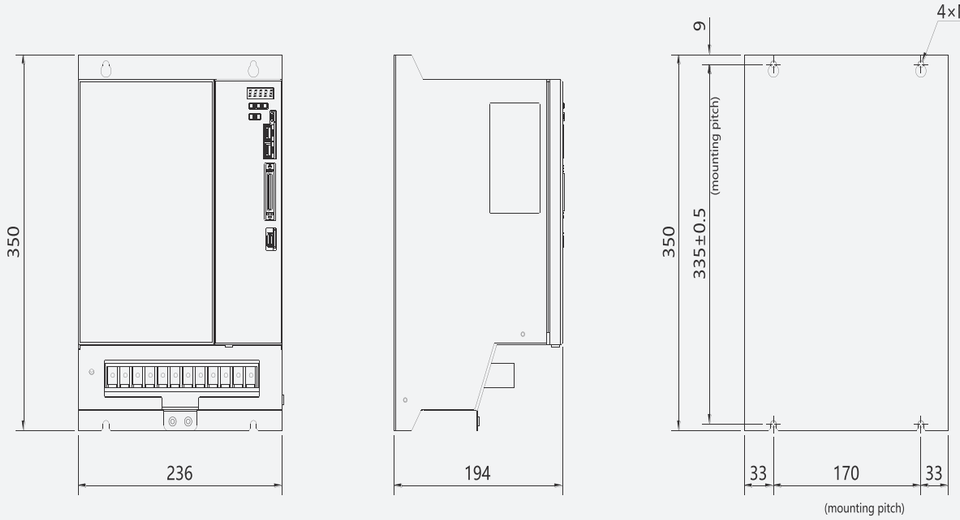
▶ SC315AB □□□



Unit : mm

Mounting Hole Diagram

▶ SC328/40AB □□□



Unit : mm

Mounting Hole Diagram

▶ POWER INPUT AC 220V

100W

40 MM | IP 64

200W 400W 750KW

60 MM | 80 MM | IP 65

1KW 1.5KW 2KW

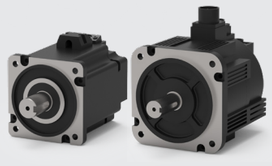
130 MM | IP 65

▶ POWER INPUT AC 380V

400W

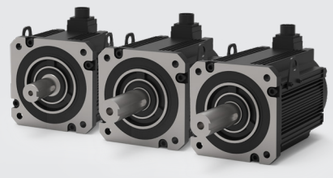
60 MM | IP 65

750KW 1KW 2KW



80 MM | 130 MM | IP 65

2.9KW 4KW 5.5KW 7.5KW 13KW 15KW



180 MM | 220 MM | IP 65

High performance servo motor

Series	-	Power	Encoder	Rated speed	Max speed	Shaft end type Select accessories	Flange	Inertia	Voltage	Version
MA6	-	010	M	30	60	A	04	B	2	N
1	2	3	4	5	6	7	8	9	10	11

1 Series

Code	Spec
MA6	MA6 motor

4 Encoder

Code	Type
M	17 Bit Multi-turn Magnetic Encoder
D/H	23 Bit Multi-turn Optical Encoder

5 Rated Speed

Code	Spec
10	1000rpm
15	1500rpm
20	2000rpm
30	3000rpm

3 Power

Code	Spec
AC220Motor	
010	100W
020	200W
040	400W
075	750W
100	1KW
150	1.5K
200	2KW
AC380 Motor	
040	400W
075	750w
100	1KW
200	2KW
290	2.9KW
400	4KW
550	5.5KW
750	7.5KW
13K	13KW
15K	15KW

6 Max Speed

Code	Spec	Code	Spec
17	1700rpm	45	4500rpm
20	2000rpm	50	5000rpm
25	2500rpm	60	6000rpm
30	3000rpm	65	6500rpm

10 Voltage

Code	Spec
2	AC220V
4	AC380V

7 Shaft end Type Select accessories

Code	Optic Axis	Key Axis	Oil seal	Brake
A	–	●	●	–
B	–	●	●	●

11 Version

Code	Spec
0~9	Reference motor model
A-Z	

8 Flange

Code	Spec
04	40
06	60
08	80
11	110
13	130
18	180
22	220

9 Inertia

Code	Spec
N	Absent
A	Low
B	Medium
C	High
D	Low speed high torque

Encoder Type:
Single-turn (incremental);
Multi-turn (the encoder with battery is for absolute value usage, and the encoder without battery is for incremental usage) Battery Recommendation: 3.6V (When the battery voltage drops below approximately 3V, it will display "Encoder Battery Alert (A.830)" or "Abnormal Warning of Absolute Encoder Battery (A.930)". When this alert or warning is displayed, the battery needs to be replaced.)

AC220V 100W 23 Bit Multi-turn Optical Encoder

010D3060 Flange 40mm

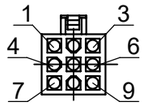
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		010D3060 △ 04B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.1	-
Rated Current	A	1.8	±5%
Maximum Current	A	6.3	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	0.3	-
MaximumTorque	Nm	1.1	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	0.065[0.065]	-
Torque constant	N.m/A	0.17	-
Back EMF	V/1000r/min	13.8	±5%
Resistance	Ω	7.81	±10%
Inductance	mH	12.03	±20%
Electrical time constant	mS	1.54	-
Rated Voltage	V	220	-
Number of poles		4	-
Flange	mm	40	-
Insulation Class		Class F	
Protection class		IP 64	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

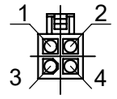
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

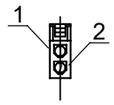
Encoder



Power input



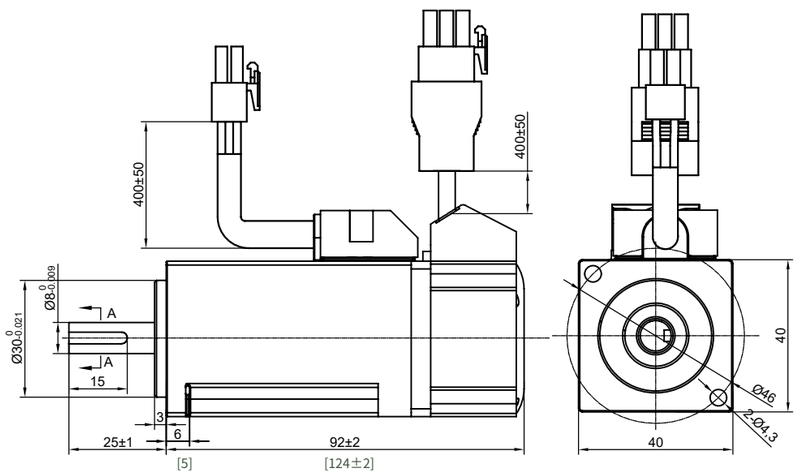
Brake input



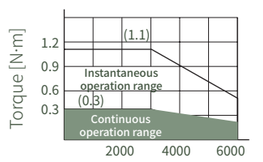
△：A(Without brake) , B(With brake)

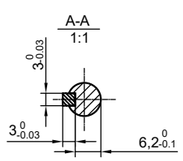
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC220V 100W 17 Bit Multi-turn Magnetic Encoder

010M3060 Flange 40mm

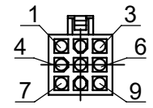
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		010M3060 △ 04B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.1	-
Rated Current	A	1.8	±5%
Maximum Current	A	6.3	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	0.3	-
MaximumTorque	Nm	1.1	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	0.067[0.067]	-
Torque constant	N.m/A	0.17	-
Back EMF	V/1000r/min	13.8	±5%
Resistance	Ω	7.81	±10%
Inductance	mH	12.03	±20%
Electrical time constant	mS	1.54	-
Rated Voltage	V	220	-
Number of poles		4	-
Flange	mm	40	-
Insulation Class		Class F	
Protection class		IP 64	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

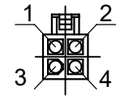
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

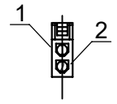
Encoder



Power input



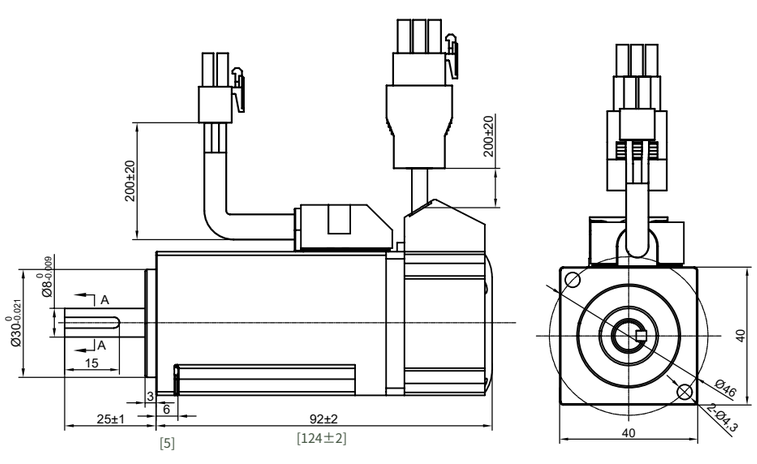
Brake input



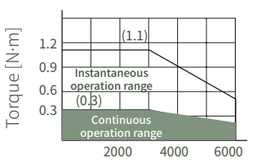
△：A(Without brake) , B(With brake)

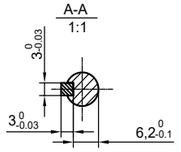
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC220V 200W 23 Bit Multi-turn Optical Encoder

020D3060 Flange 60mm

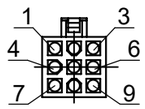
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		020D3060 △ 06B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.2	-
Rated Current	A	1.6	±5%
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	0.64	-
MaximumTorque	Nm	1.91	-
Moment of Inertia	kg.m²×10⁻⁴	0.26[0.28]	-
Torque constant	N.m/A	0.4	-
Back EMF	V/1000r/min	27.7	±5%
Resistance	Ω	7.3	±10%
D-axis Inductance	mH	11.6	±20%
Q-axis Inductance	mH	12.7	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

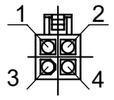
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

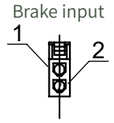
Encoder



Power input



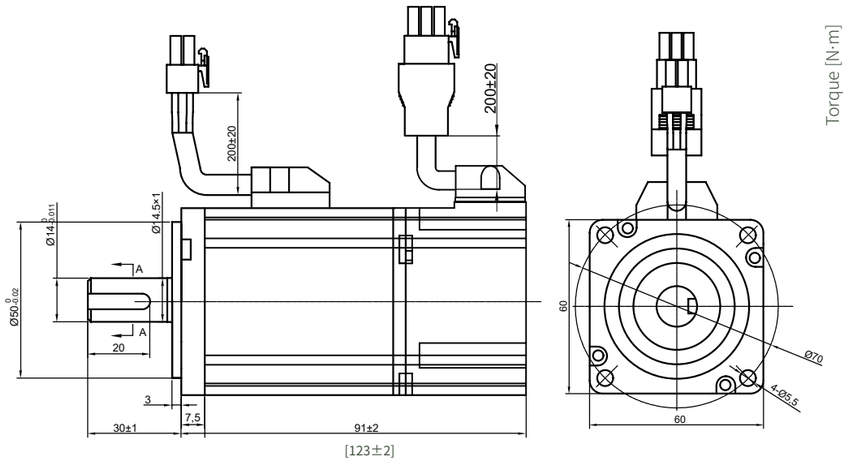
Brake input



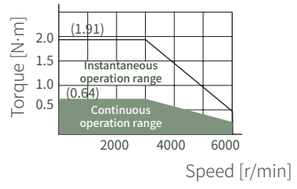
△：A(Without brake) , B(With brake)

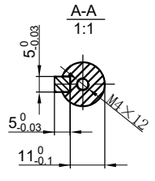
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC220V 200W 17 Bit Multi-turn Magnetic Encoder

020M3050 Flange 60mm

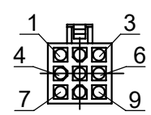
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		020M3050 △ 06B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.2	-
Rated Current	A	1.5	±5%
Maximum Current	A	4.5	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	5000	-
Rated Torgue	Nm	0.64	-
MaximumTorque	Nm	1.91	-
Moment of Inertia	kg.m²×10⁻⁴	0.26[0.28]	-
Torque constant	N.m/A	0.4	-
Back EMF	V/1000r/min	27.7	±5%
Resistance	Ω	7.3	±10%
D-axis Inductance	mH	11.6	±20%
Q-axis Inductance	mH	12.7	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

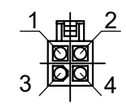
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

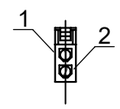
Encoder



Power input



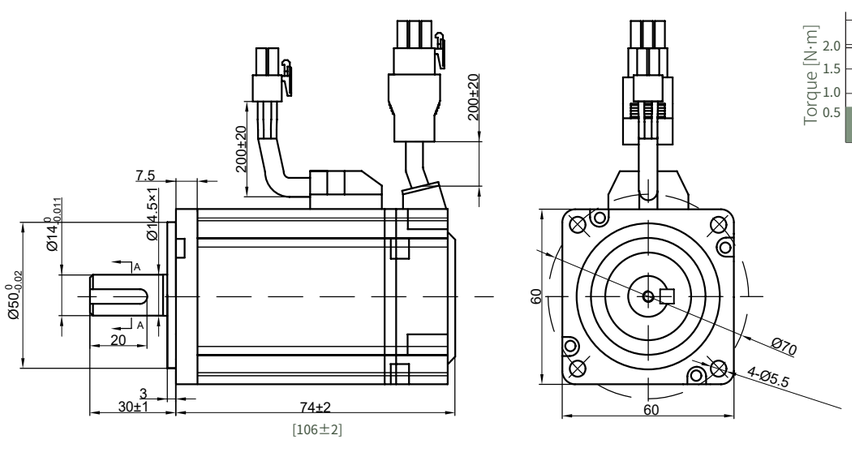
Brake input



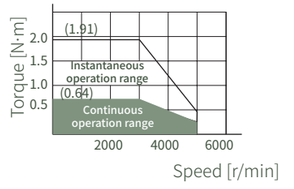
△：A(Without brake) , B(With brake)

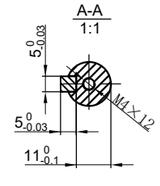
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC220V 400W 23 Bit Multi-turn Optical Encoder

040D3060 Flange 60mm

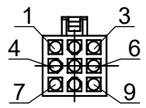
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		040D3060 △ 06B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.4	-
Rated Current	A	2.5	±5%
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	1.27	-
MaximumTorque	Nm	3.81	-
Moment of Inertia	kg.m²×10⁻⁴	0.49[0.51]	-
Torque constant	N.m/A	0.51	-
Back EMF	V/1000r/min	30.5	±5%
Resistance	Ω	3.63	±10%
D-axis Inductance	mH	6.5	±20%
Q-axis Inductance	mH	7.0	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

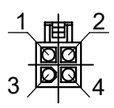
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

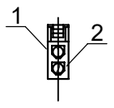
Encoder



Power input



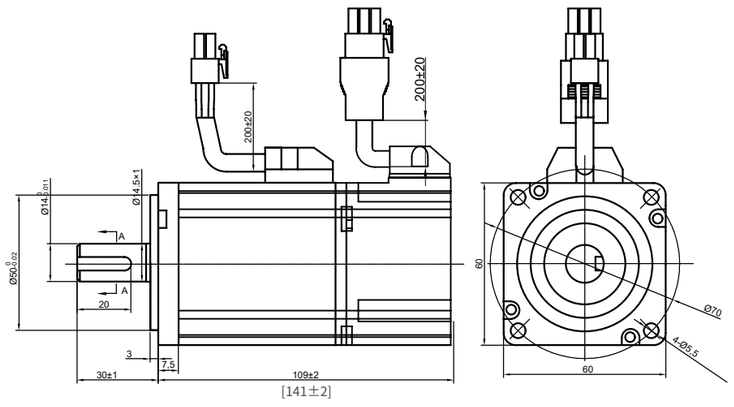
Brake input



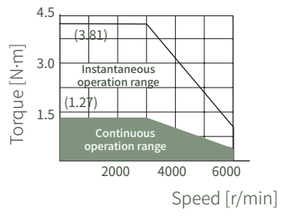
△：A(Without brake)，B(With brake)

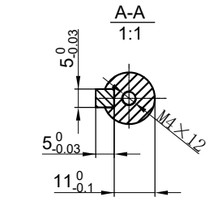
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





[ ]：square bracket is for brake model size

Partial end face of shaft

AC220V 400W 17 Bit Multi-turn Magnetic Encoder

040M3050 Flange 60mm

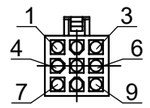
Adaptation driver (SC3-)		03AAD □□□	
Motor model (MA6-)		040M3050 △ 06B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.4	-
Rated Current	A	2.5	±5%
Maximum Current	A	7.5	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	5000	-
Rated Torgue	Nm	1.27	-
MaximumTorque	Nm	3.81	-
Moment of Inertia	kg.m²×10⁻⁴	0.49[0.51]	-
Torque constant	N.m/A	0.51	-
Back EMF	V/1000r/min	30.5	±5%
Resistance	Ω	3.63	±10%
D-axis Inductance	mH	6.5	±20%
Q-axis Inductance	mH	7.0	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

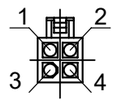
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

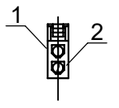
Encoder



Power input



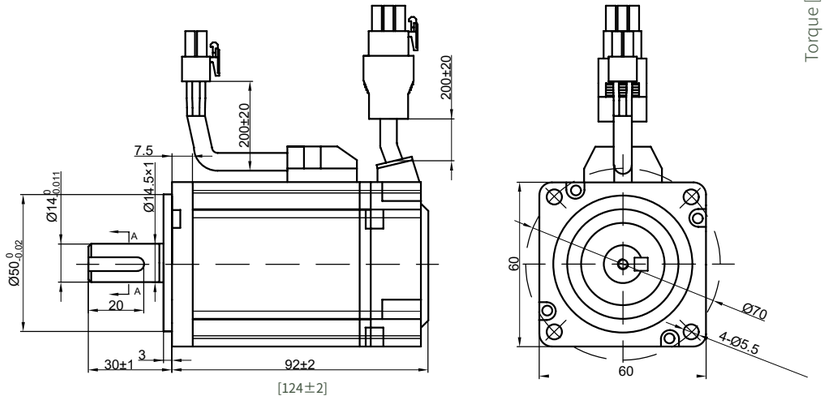
Brake input



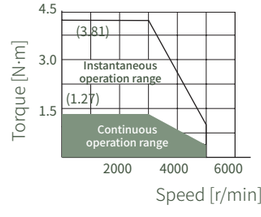
△：A(Without brake)，B(With brake)

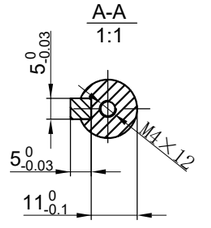
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





[ ]：square bracket is for brake model size

Partial end face of shaft

AC220V 750W 23 Bit Multi-turn Optical Encoder

075D3060 Flange 80mm

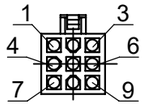
Adaptation driver (SC3-)		06AAF □□□	
Motor model (MA6-)		075D3060 △ 08B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.75	-
Rated Current	A	4.8	±5%
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	2.39	-
MaximumTorque	Nm	7.2	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	1.51[1.71]	-
Torque constant	N.m/A	0.5	-
Back EMF	V/1000r/min	31.5	±5%
Resistance	Ω	1.16	±10%
D-axis Inductance	mH	4.1	±20%
Q-axis Inductance	mH	4.7	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	80	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20°C ~ 50°C ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

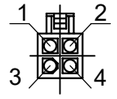
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

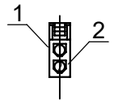
Encoder



Power input



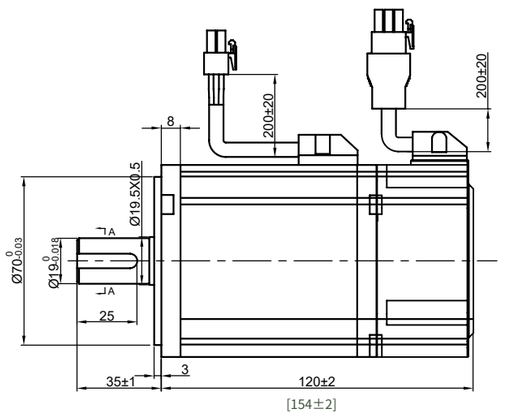
Brake input

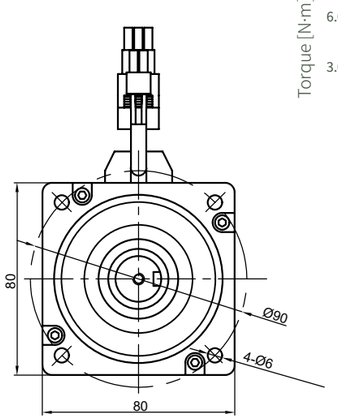


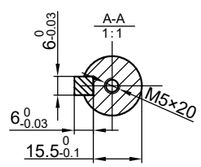
△：A(Without brake)， B(With brake)

[ ]：square bracket is for brake model parameter

External Dimensions

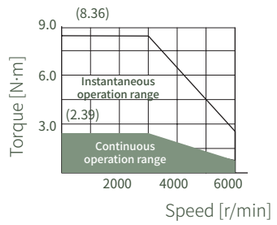






Partial end face of shaft

Torque Characteristics



[ ]：square bracket is for brake model size

AC220V 750W 17 Bit Multi-turn Magnetic Encoder

075M3045 Flange 80mm

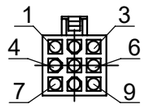
Adaptation driver (SC3-)		06AAF □□□	
Motor model (MA6-)		075M3045 △ 08B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.75	-
Rated Current	A	4.8	±5%
Maximum Current	A	16.8	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	4500	-
Rated Torgue	Nm	2.39	-
MaximumTorque	Nm	8.36	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	1.51[1.71]	-
Torque constant	N.m/A	0.5	-
Back EMF	V/1000r/min	31.5	±5%
Resistance	Ω	1.16	±10%
D-axis Inductance	mH	4.1	±20%
Q-axis Inductance	mH	4.7	±20%
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	80	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20°C ~ 50°C ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

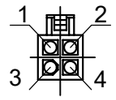
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

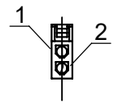
Encoder



Power input



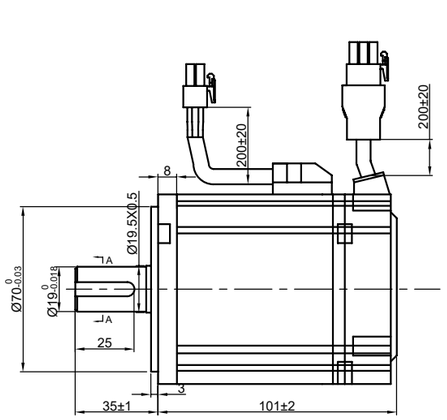
Brake input

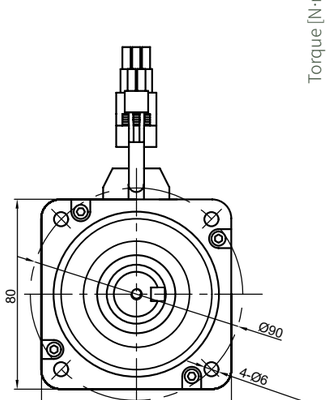


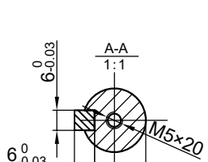
△：A(Without brake)， B(With brake)

[ ]：square bracket is for brake model parameter

External Dimensions

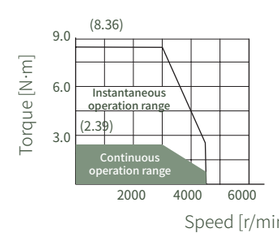






Partial end face of shaft

Torque Characteristics



[ ]：square bracket is for brake model size

AC220V 1KW 23 Bit Multi-turn Optical Encoder

100D2030 Flange 130mm

Adaptation driver (SC3-)		06AAF □□□	
Motor model (MA6-)		100D2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1	-
Rated Current	A	4.6	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	4.8	-
MaximumTorque	Nm	16.2	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	13.88[15.78]	-
Torque constant	N.m/A	1.04	-
Back EMF	V/1000r/min	70.3	±5%
Resistance	Ω	1.34	±10%
Inductance	mH	6.78	±20%
Electrical time constant	mS	5.06	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence

Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

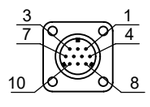
Motor Winding Connector Wiring Sequence

Num	A	B	C	D
Def	U	V	W	PE

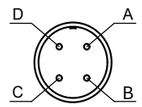
Braker Connector Wiring Sequence

Num	1	2
Def	+24	0V

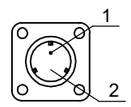
Encoder



Power input



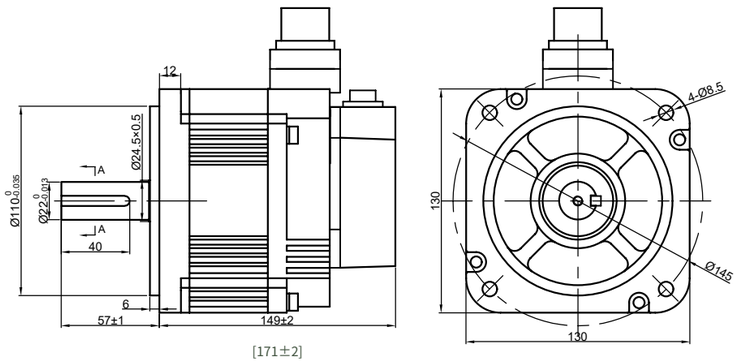
Brake input



△：A(Without brake) , B(With brake)

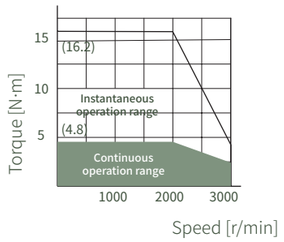
[ ]：square bracket is for brake model parameter

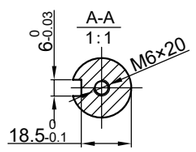
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC220V 1KW 17 Bit Multi-turn Magnetic Encoder

100M2030 Flange 130mm

Adaptation driver (SC3-)		06AAF □□□	
Motor model (MA6-)		100M2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1	-
Rated Current	A	4.6	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	4.8	-
MaximumTorque	Nm	16.2	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	13.88[15.78]	-
Torque constant	N.m/A	1.04	-
Back EMF	V/1000r/min	70.3	±5%
Resistance	Ω	1.34	±10%
Inductance	mH	6.78	±20%
Electrical time constant	mS	5.06	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence

Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

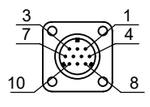
Motor Winding Connector Wiring Sequence

Num	A	B	C	D
Def	U	V	W	PE

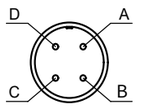
Braker Connector Wiring Sequence

Num	1	2
Def	+24	0V

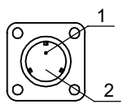
Encoder



Power input



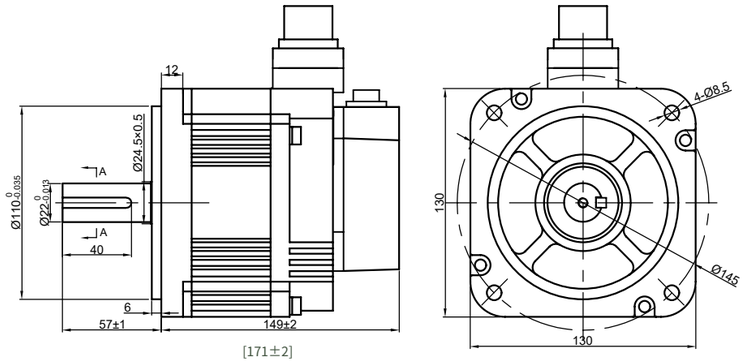
Brake input



△：A(Without brake) , B(With brake)

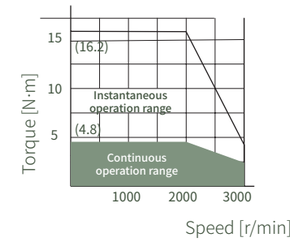
[ ]：square bracket is for brake model parameter

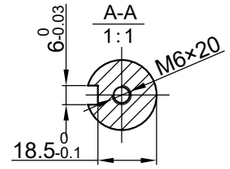
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC220V 1.5KW 23 Bit Multi-turn Optical Encoder

150D2030 Flange 130mm

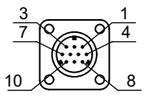
Adaptation driver (SC3-)		08AAG □□□	
Motor model (MA6-)		150D2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1.5	-
Rated Current	A	7.5	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	7.5	-
MaximumTorque	Nm	22.5	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	18.57[20.24]	-
Torque constant	N.m/A	1.0	-
Back EMF	V/1000r/min	65	±5%
Resistance	Ω	0.86	±10%
Inductance	mH	4.73	±20%
Electrical time constant	mS	5.5	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

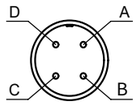
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

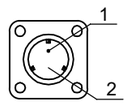
Encoder



Power input



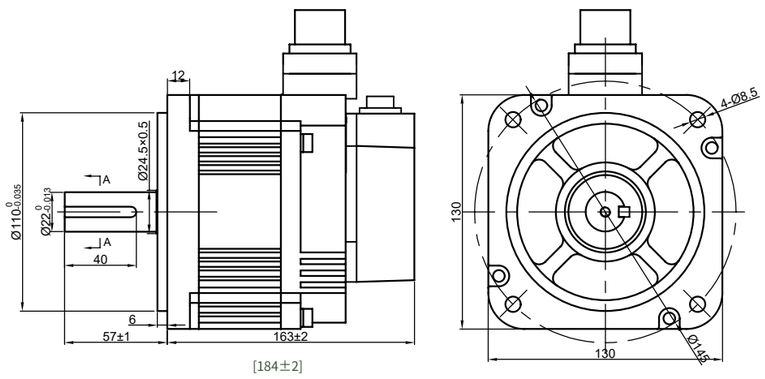
Brake input



△：A(Without brake) , B(With brake)

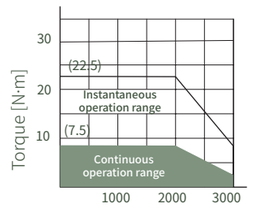
[ ]：square bracket is for brake model parameter

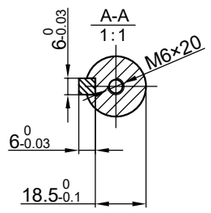
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC220V 1.5KW 17 Bit Multi-turn Magnetic Encoder

150M2030 Flange 130mm

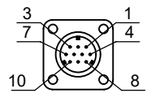
Adaptation driver (SC3-)		08AAG □□□	
Motor model (MA6-)		150M2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1.5	-
Rated Current	A	7.5	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	7.5	-
MaximumTorque	Nm	22.5	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	18.57[20.24]	-
Torque constant	N.m/A	1	-
Back EMF	V/1000r/min	65	±5%
Resistance	Ω	0.86	±10%
Inductance	mH	4.73	±20%
Electrical time constant	mS	5.5	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

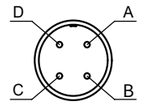
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

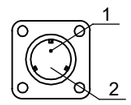
Encoder



Power input



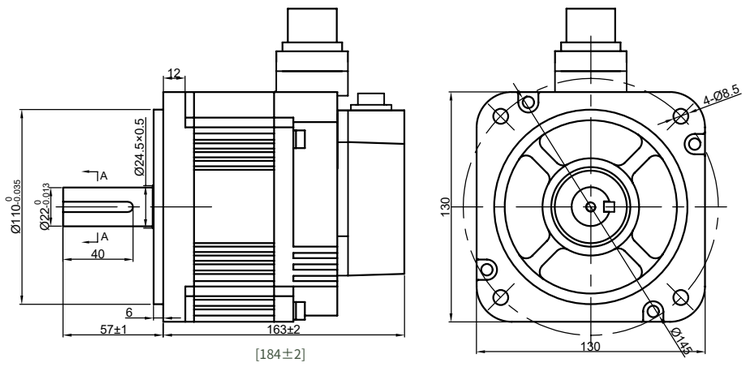
Brake input



△：A(Without brake) , B(With brake)

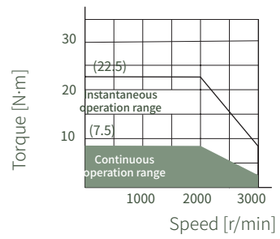
[ ]：square bracket is for brake model parameter

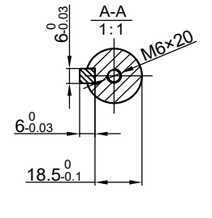
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC220V 2KW 23 Bit Multi-turn Optical Encoder

200D2030 Flange 130mm

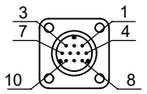
Adaptation driver (SC3-)		10AAH □□□	
Motor model (MA6-)		200D2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	2.0	-
Rated Current	A	9.0	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	9.6	-
MaximumTorque	Nm	28.8	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	23.69[25.36]	-
Torque constant	N.m/A	1.06	-
Back EMF	V/1000r/min	69	±5%
Resistance	Ω	0.7	±10%
Inductance	mH	4.69	±20%
Electrical time constant	mS	6.7	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

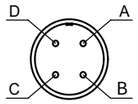
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

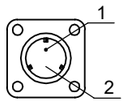
Encoder



Power input



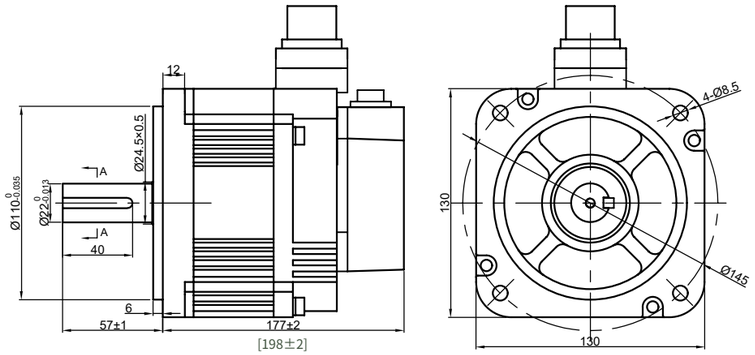
Brake input



△：A(Without brake) , B(With brake)

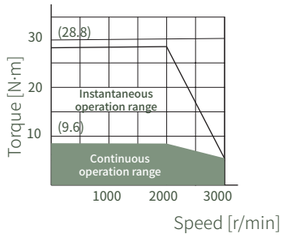
[ ]：square bracket is for brake model parameter

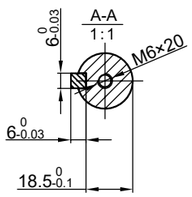
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC220V 2KW 17 Bit Multi-turn Magnetic Encoder

200M2030 Flange 130mm

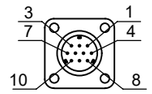
Adaptation driver (SC3-)		10AAH □□□	
Motor model (MA6-)		200M2030 △ 13B2N	
Spec	Unit	Value	Accuracy
Rated Power	kw	2.0	-
Rated Current	A	9.0	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	9.6	-
MaximumTorque	Nm	28.8	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	23.69[25.36]	-
Torque constant	N.m/A	1.06	-
Back EMF	V/1000r/min	69	±5%
Resistance	Ω	0.7	±10%
Inductance	mH	4.69	±20%
Electrical time constant	mS	6.7	-
Rated Voltage	V	220	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

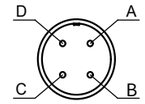
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

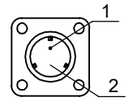
Encoder



Power input



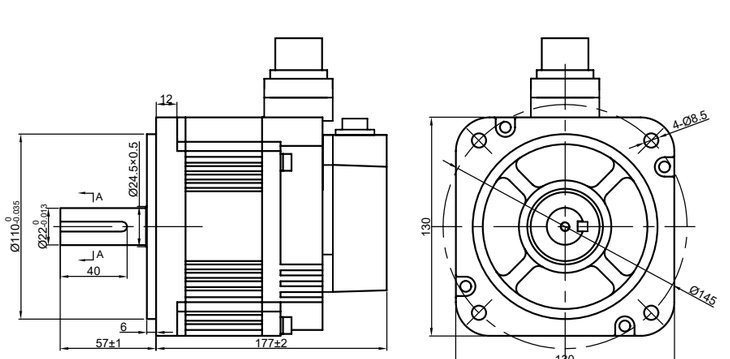
Brake input



△：A(Without brake) , B(With brake)

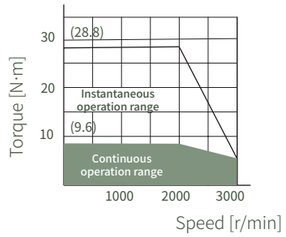
[ ]：square bracket is for brake model parameter

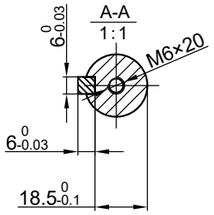
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 400W 23 Bit Multi-turn Optical Encoder

040D3060 Flange 60mm

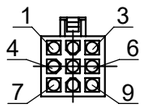
Adaptation driver (SC3-)		03ADE □□□	
Motor model (MA6-)		040D3060 △ 06B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.4	-
Rated Current	A	1.6	±5%
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	1.27	-
MaximumTorque	Nm	3.81	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	0.49[0.51]	-
Torque constant	N.m/A	0.79	-
Back EMF	V/1000r/min	48.5	±5%
Resistance	Ω	8.6	±10%
D Inductance	mH	6.0	±20%
Q Inductance	mH	7.5	±20%
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

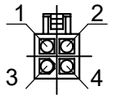
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

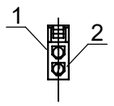
Encoder



Power input



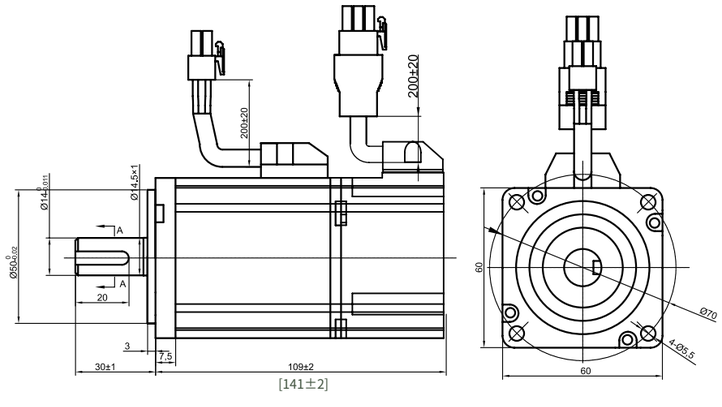
Brake input



△：A(Without brake) , B(With brake)

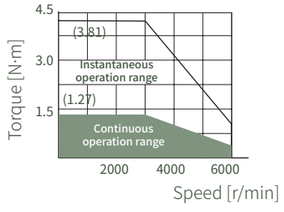
[ ]：square bracket is for brake model parameter

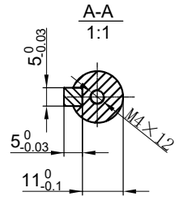
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 400W 17 Bit Multi-turn Magnetic Encoder

040M3060 Flange 60mm

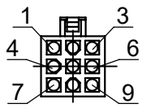
Adaptation driver (SC3-)		03ADE □□□	
Motor model (MA6-)		040M3060 △ 06B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.4	-
Rated Current	A	1.6	±5%
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	1.27	-
MaximumTorque	Nm	3.81	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	0.49[0.51]	-
Torque constant	N.m/A	0.79	-
Back EMF	V/1000r/min	48.5	±5%
Resistance	Ω	8.6	±10%
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	60	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

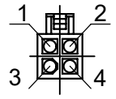
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

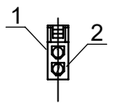
Encoder



Power input



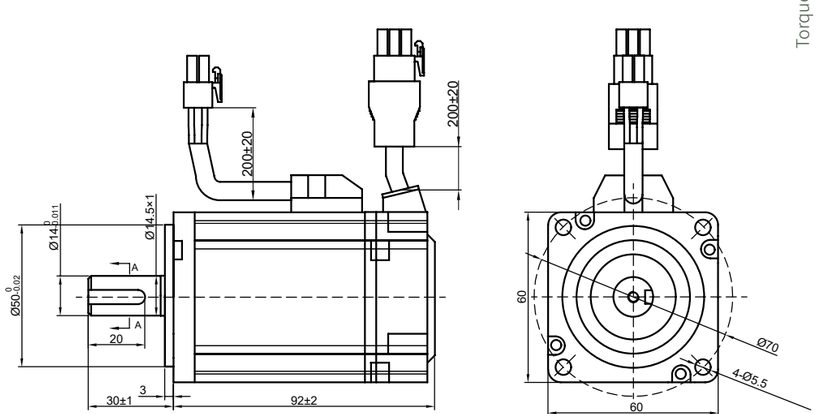
Brake input



△：A(Without brake) , B(With brake)

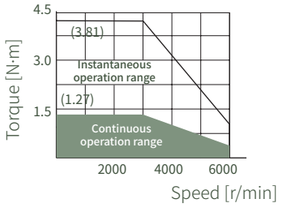
[ ]：square bracket is for brake model parameter

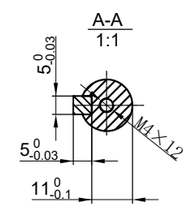
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 750W 23 Bit Multi-turn Optical Encoder

075D3060 Flange 80mm

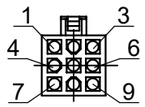
Adaptation driver (SC3-)		03ADE □□□	
Motor model (MA6-)		075D3060 △ 08B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.75	-
Rated Current	A	2.5	±5%
Maximum Current	A	7.5	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	6000	-
Rated Torgue	Nm	2.39	-
MaximumTorque	Nm	8.36	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	1.51[1.71]	-
Torque constant	N.m/A	0.92	-
Back EMF	V/1000r/min	57.1	±5%
Resistance	Ω	4.0	±10%
D Inductance	mH	8.0	±20%
Q Inductance	mH	8.5	±20%
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	80	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

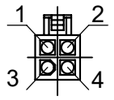
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

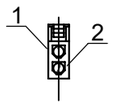
Encoder



Power input



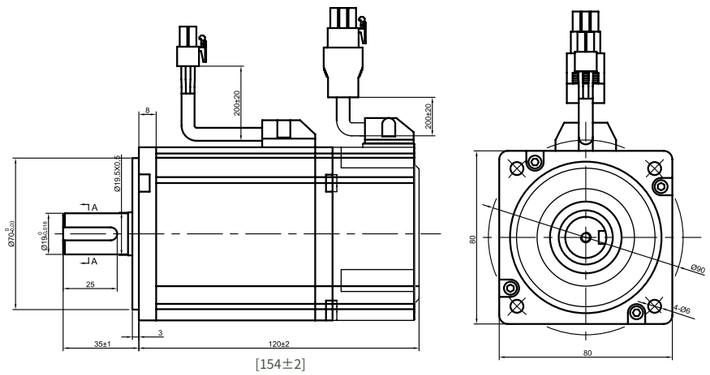
Brake input



△：A(Without brake) , B(With brake)

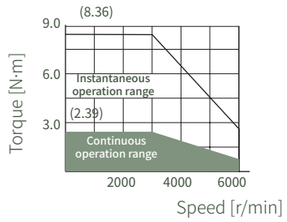
[ ]：square bracket is for brake model parameter

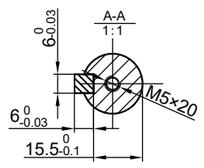
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 750W 17 Bit Multi-turn Magnetic Encoder

075M3045 Flange 80mm

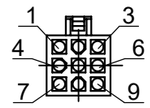
Adaptation driver (SC3-)		03ADE □□□	
Motor model (MA6-)		075M3045 △ 08B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	0.75	-
Rated Current	A	2.5	±5%
Maximum Current	A	7.5	-
Rated Speed	rpm	3000	-
MaximumSpeed	rpm	4500	-
Rated Torgue	Nm	2.39	-
MaximumTorque	Nm	8.36	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	1.51[1.71]	-
Torque constant	N.m/A	0.92	-
Back EMF	V/1000r/min	57.1	±5%
Resistance	Ω	4.0	±10%
Inductance	mH	50.56	±20%
Electrical time constant	mS	12.64	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	80	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	SD+	SD-	E+	-	-	+5V	0V	E-	PE

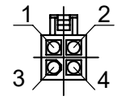
Motor Winding Connector Wiring Sequence				
Num	1	2	3	4
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

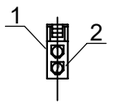
Encoder



Power input



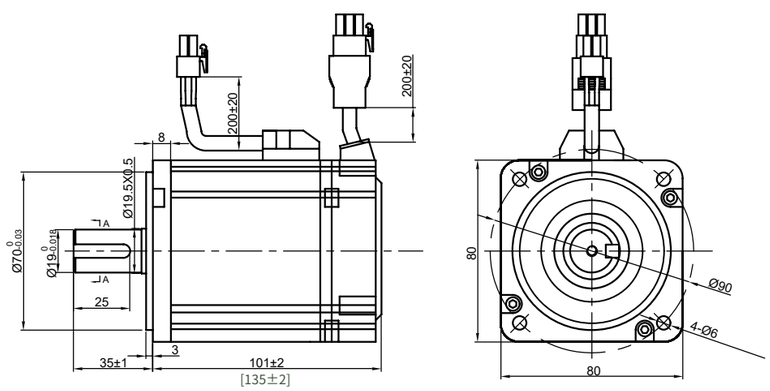
Brake input



△：A(Without brake) , B(With brake)

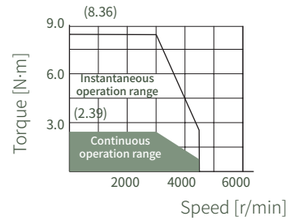
[ ]：square bracket is for brake model parameter

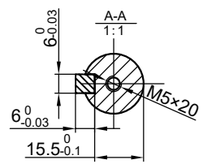
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 1KW 23 Bit Multi-turn Optical Encoder

100D1530 Flange 130mm

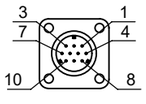
Adaptation driver (SC3-)		06ADH □□□	
Motor model (MA6-)		100D1530 △ 13B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1	-
Rated Current	A	4.0	±5%
Maximum Current	A	12.0	-
Rated Speed	rpm	1500	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	6.4	-
MaximumTorque	Nm	19.2	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	16.04[17.71]	-
Torque constant	N.m/A	1.6	-
Back EMF	V/1000r/min	110.5	±5%
Resistance	Ω	2.5	±10%
Inductance	mH	13.3	±20%
Electrical time constant	mS	5.32	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

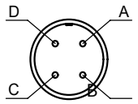
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

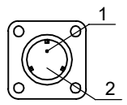
Encoder



Power input



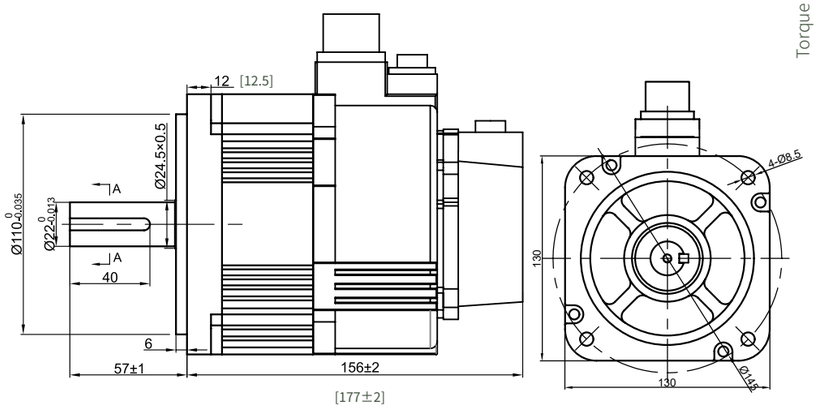
Brake input



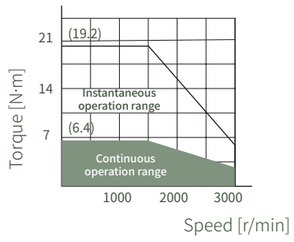
△：A(Without brake)，B(With brake)

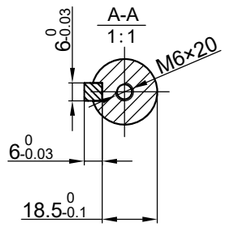
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC380V 1KW 17 Bit Multi-turn Magnetic Encoder

100M1530 Flange 130mm

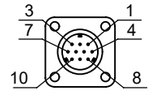
Adaptation driver (SC3-)		06ADH □□□	
Motor model (MA6-)		100M1530 △ 13B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	1	-
Rated Current	A	4.0	±5%
Maximum Current	A	12.0	-
Rated Speed	rpm	1500	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	6.4	-
MaximumTorque	Nm	19.2	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	16.04[17.71]	-
Torque constant	N.m/A	1.6	-
Back EMF	V/1000r/min	110.5	±5%
Resistance	Ω	2.5	±10%
Inductance	mH	13.3	±20%
Electrical time constant	mS	5.32	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

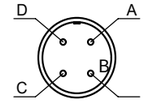
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

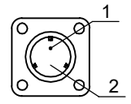
Encoder



Power input



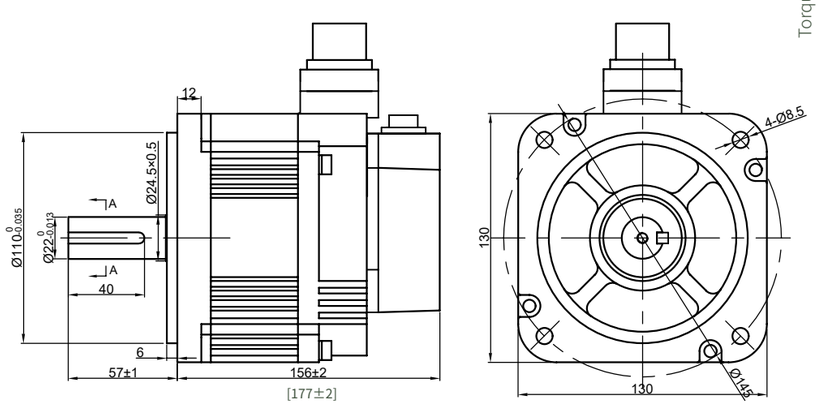
Brake input



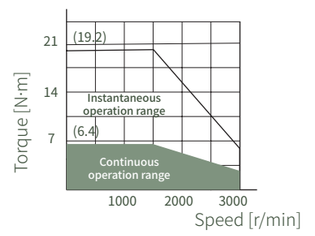
△：A(Without brake)，B(With brake)

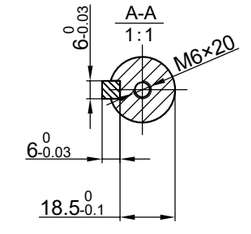
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics





Partial end face of shaft

[ ]：square bracket is for brake model size

AC380V 2KW 23 Bit Multi-turn Optical Encoder

200D2030 Flange 130mm

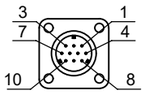
Adaptation driver (SC3-)		06ADH □□□	
Motor model (MA6-)		200D2030 △ 13B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	2.0	-
Rated Current	A	5.6	±5%
Maximum Current	A	16.8	-
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	9.6	-
MaximumTorque	Nm	28.8	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	23.69[25.36]	-
Torque constant	N.m/A	1.7	-
Back EMF	V/1000r/min	113	±5%
Resistance	Ω	1.6	±10%
Inductance	mH	8.96	±20%
Electrical time constant	mS	5.6	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

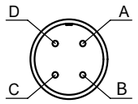
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

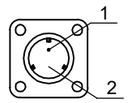
Encoder



Power input



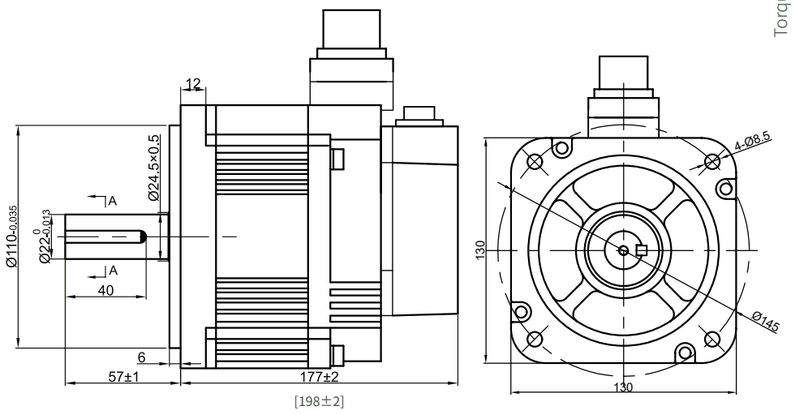
Brake input



△：A(Without brake) , B(With brake)

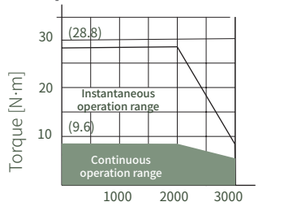
[ ]：square bracket is for brake model parameter

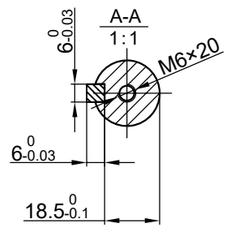
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 2KW 17 Bit Multi-turn Magnetic Encoder

200M2030 Flange 130mm

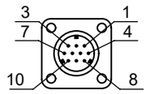
Adaptation driver (SC3-)		06ADH □□□	
Motor model (MA6-)		200M2030 △ 13B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	2.0	-
Rated Current	A	5.6	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	9.6	-
MaximumTorque	Nm	28.8	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	23.69[25.36]	-
Torque constant	N.m/A	1.7	-
Back EMF	V/1000r/min	113	±5%
Resistance	Ω	1.6	±10%
Inductance	mH	8.96	±20%
Electrical time constant	mS	5.6	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	130	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		17 Bit Multi-turn Magnetic Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

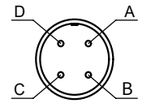
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

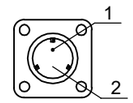
Encoder



Power input



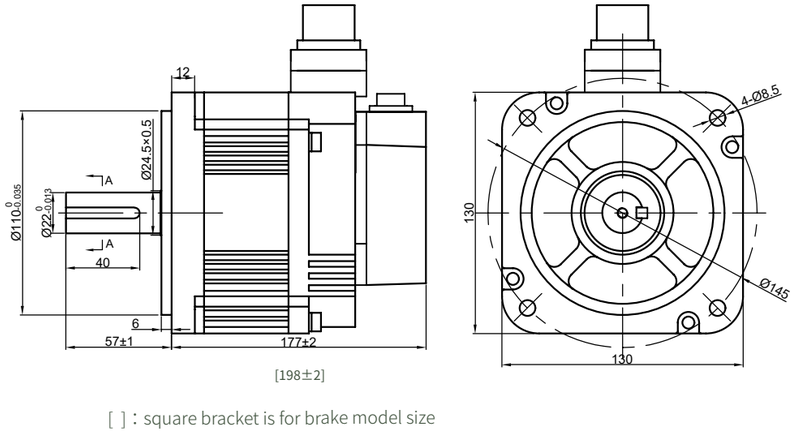
Brake input



△：A(Without brake) , B(With brake)

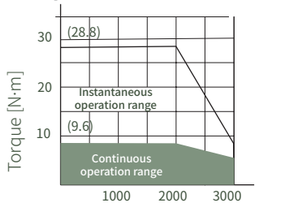
[ ]：square bracket is for brake model parameter

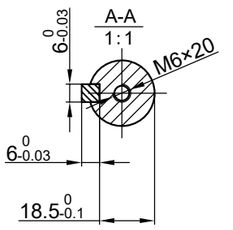
External Dimensions



[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 2.9KW 23 Bit Multi-turn Optical Encoder

290D1520 Flange 180mm

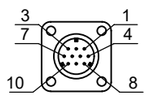
Adaptation driver (SC3-)		10ADI □□□	
Motor model (MA6-)		290D1520 △ 18B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	2.9	-
Rated Current	A	7.0	±5%
Maximum Current	A	21	-
Rated Speed	rpm	1500	-
MaximumSpeed	rpm	2000	-
Rated Torgue	Nm	18.6	-
MaximumTorque	Nm	55.8	-
Moment of Inertia	kg.m²×10⁻⁴	56.8[65.3]	-
Torque constant	N.m/A	2.66	-
Back EMF	V/1000r/min	171.5	±5%
Resistance	Ω	1.03	±10%
Inductance	mH	20.5	±20%
Electrical time constant	mS	19.9	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	180	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

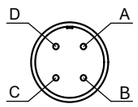
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

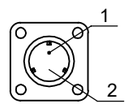
Encoder



Power input



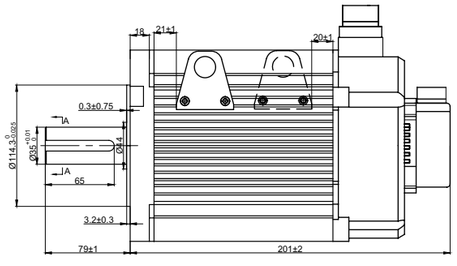
Brake input

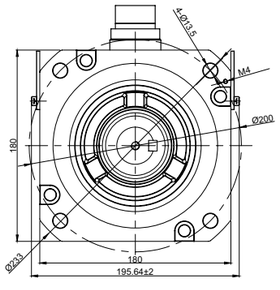


△：A(Without brake) , B(With brake)

[ ]：square bracket is for brake model parameter

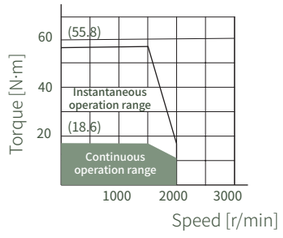
External Dimensions

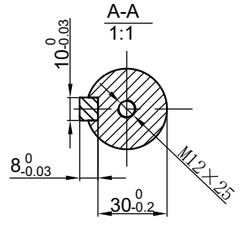




[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 4KW 23Bit23 Bit Multi-turn Optical Encoder

400D2030 Flange 180mm

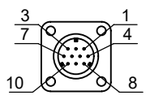
Adaptation driver (SC3-)		15ADK □□□	
Motor model (MA6-)		400D2030 △ 18B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	4.0	-
Rated Current	A	12	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	19	-
MaximumTorque	Nm	55.8	-
Moment of Inertia	kg.m²×10⁻⁴	56.8[65.3]	-
Torque constant	N.m/A	1.58	-
Back EMF	V/1000r/min	108	±5%
Resistance	Ω	0.46	±10%
Inductance	mH	9.17	±20%
Electrical time constant	mS	19.9	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	180	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

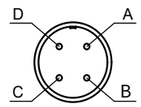
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

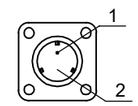
Encoder



Power input



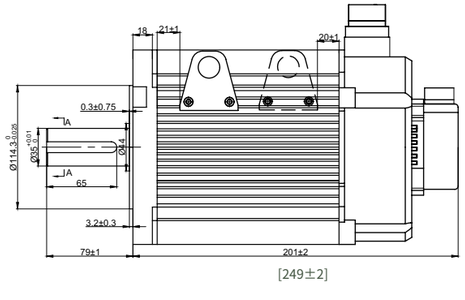
Brake input

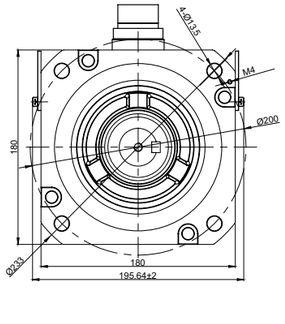


△：A(Without brake) , B(With brake)

[ ]：square bracket is for brake model parameter

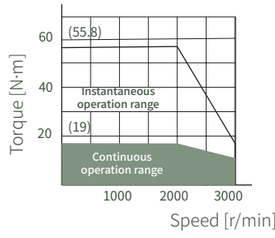
External Dimensions

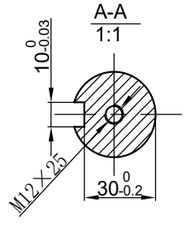




[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 5.5KW 23 Bit Multi-turn Optical Encoder

550D2030 Flange 180mm

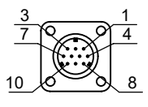
Adaptation driver (SC3-)		15ADK □□□	
Motor model (MA6-)		550D2030 △ 18B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	5.5	-
Rated Current	A	15	±5%
Rated Speed	rpm	2000	-
MaximumSpeed	rpm	3000	-
Rated Torgue	Nm	27	-
MaximumTorque	Nm	85	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	78.2[86.0]	-
Torque constant	N.m/A	1.8	-
Back EMF	V/1000r/min	119	±5%
Resistance	Ω	0.31	±10%
Inductance	mH	7.52	±20%
Electrical time constant	mS	24.3	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	180	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

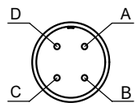
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

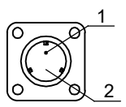
Encoder



Power input



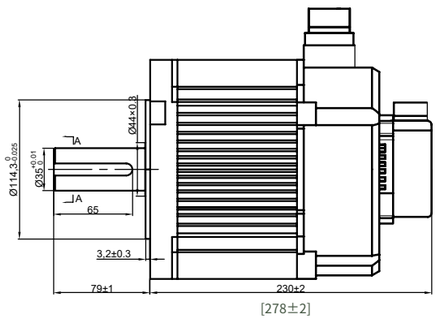
Brake input

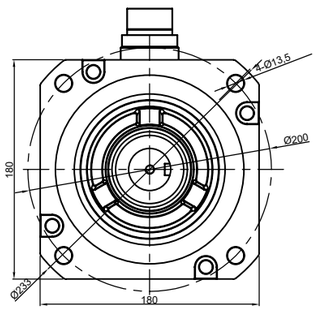


△：A(Without brake) , B(With brake)

[ ]：square bracket is for brake model parameter

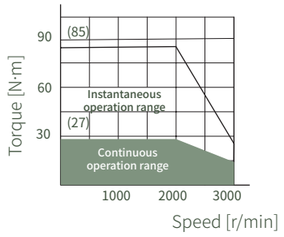
External Dimensions

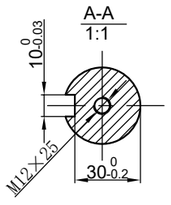




[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 7.5KW 23 Bit Multi-turn Optical Encoder

750D1525 Flange 180mm

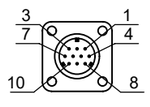
Adaptation driver (SC3-)		28ABL □□□	
Motor model (MA6-)		750D1525 △ 18B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	7.5	-
Rated Current	A	25.7	±5%
Maximum Current	A	63.7	
Rated Speed	rpm	1500	-
MaximumSpeed	rpm	2500	-
Rated Torgue	Nm	48	-
MaximumTorque	Nm	119	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	130[140]	-
Torque constant	N.m/A	1.86	-
Back EMF	V/1000r/min	123	±5%
Resistance	Ω	0.16	±10%
Inductance	mH	4.3	±20%
Electrical time constant	mS	26.9	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	180	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20℃ ~ 50℃ ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

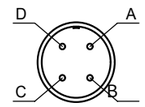
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

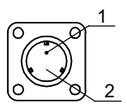
Encoder



Power input



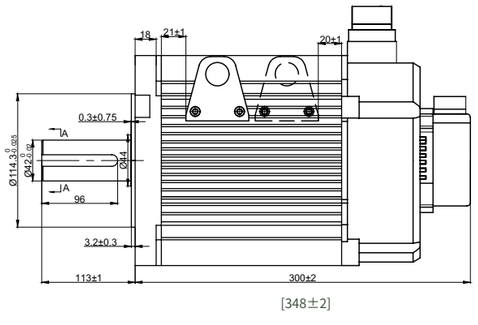
Brake input

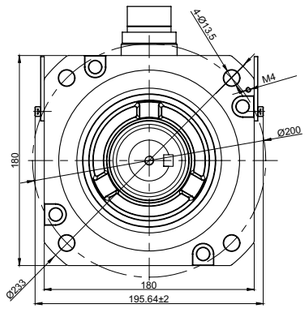


△：A(Without brake) , B(With brake)

[ ]：square bracket is for brake model parameter

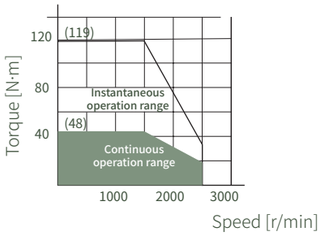
External Dimensions

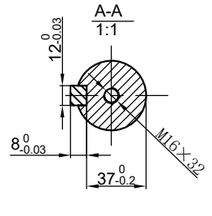




[ ]：square bracket is for brake model size

Torque Characteristics





Partial end face of shaft

AC380V 13KW 23 Bit Multi-turn Optical Encoder

13KD1517 Flange 180mm

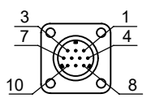
Adaptation driver (SC3-)		28ABL □□□	
Motor model (MA6-)		13KD1517A18B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	13	-
Rated Current	A	26.5	±5%
Maximum Current	A	66.25	
Rated Speed	rpm	1500	-
Maximum Speed	rpm	1700	-
Rated Torgue	Nm	83	-
MaximumTorque	Nm	208	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	272.8	-
Torque constant	N.m/A	3.13	-
Back EMF	V/1000r/min	205.8	±5%
Resistance	Ω	0.18	±10%
Inductance	mH	4.3	±20%
Electrical time constant	mS	23.89	-
Rated Voltage	V	380	-
Number of poles		5	-
Flange	mm	180	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20°C ~ 50°C ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

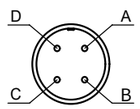
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

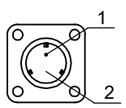
Encoder



Power input



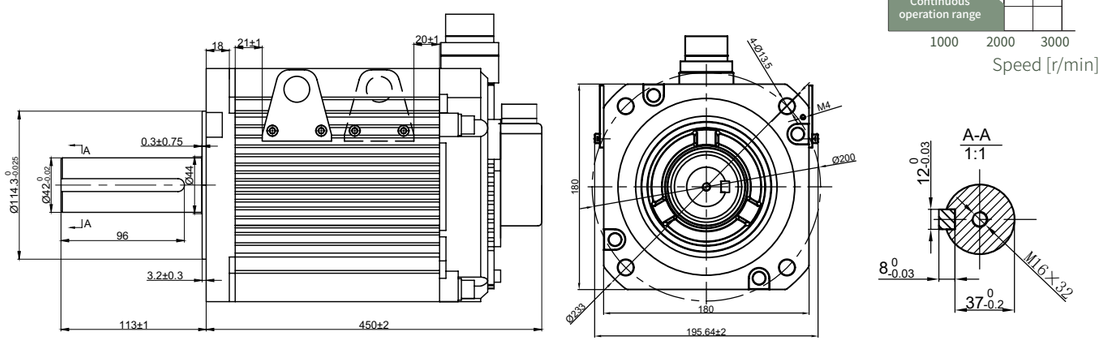
Brake input



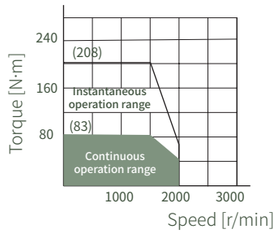
△：A(Without brake) , B(With brake)

[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics



Partial end face of shaft

AC380V 15KW 23 Bit Multi-turn Optical Encoder

15KD1520 Flange 220mm

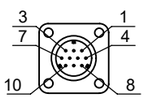
Adaptation driver (SC3-)		40ABN □□□	
Motor model (MA6-)		15KD1520A22B4N	
Spec	Unit	Value	Accuracy
Rated Power	kw	15	-
Rated Current	A	40	±5%
Maximum Current	A	100	
Rated Speed	rpm	1500	-
MaximumSpeed	rpm	2500	-
Rated Torgue	Nm	95.5	-
MaximumTorque	Nm	240	-
Moment of Inertia	$kg.m^2 \times 10^{-4}$	248	-
Torque constant	N.m/A	2.39	-
Back EMF	V/1000r/min	150	±5%
Resistance	Ω	0.1	±10%
Inductance	mH	2.4	±20%
Electrical time constant	mS	24	-
Rated Voltage	V	380	-
Number of poles		4	-
Flange	mm	220	-
Insulation Class		Class F	
Protection class		IP 65	
Operating Environment		-20°C ~ 50°C ，< 90% RH(Non-condensing)	
Encoder type		23 Bit Multi-turn Optical Encoder	

Motor Encoder Connector Wiring Sequence									
Num	1	2	3	4	5	6	7	8	9
Def	+5V	0V	-	E+	SD+	SD-	-	E-	PE

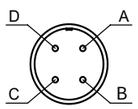
Motor Winding Connector Wiring Sequence				
Num	A	B	C	D
Def	U	V	W	PE

Braker Connector Wiring Sequence		
Num	1	2
Def	+24	0V

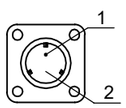
Encoder



Power input



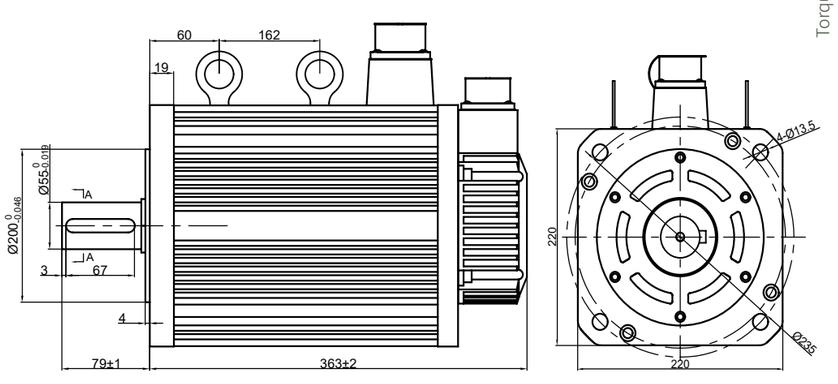
Brake input



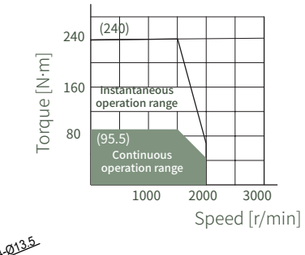
△：A(Without brake) , B(With brake)

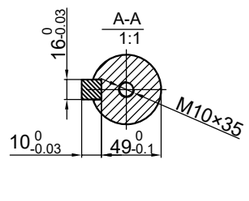
[ ]：square bracket is for brake model parameter

External Dimensions



Torque Characteristics

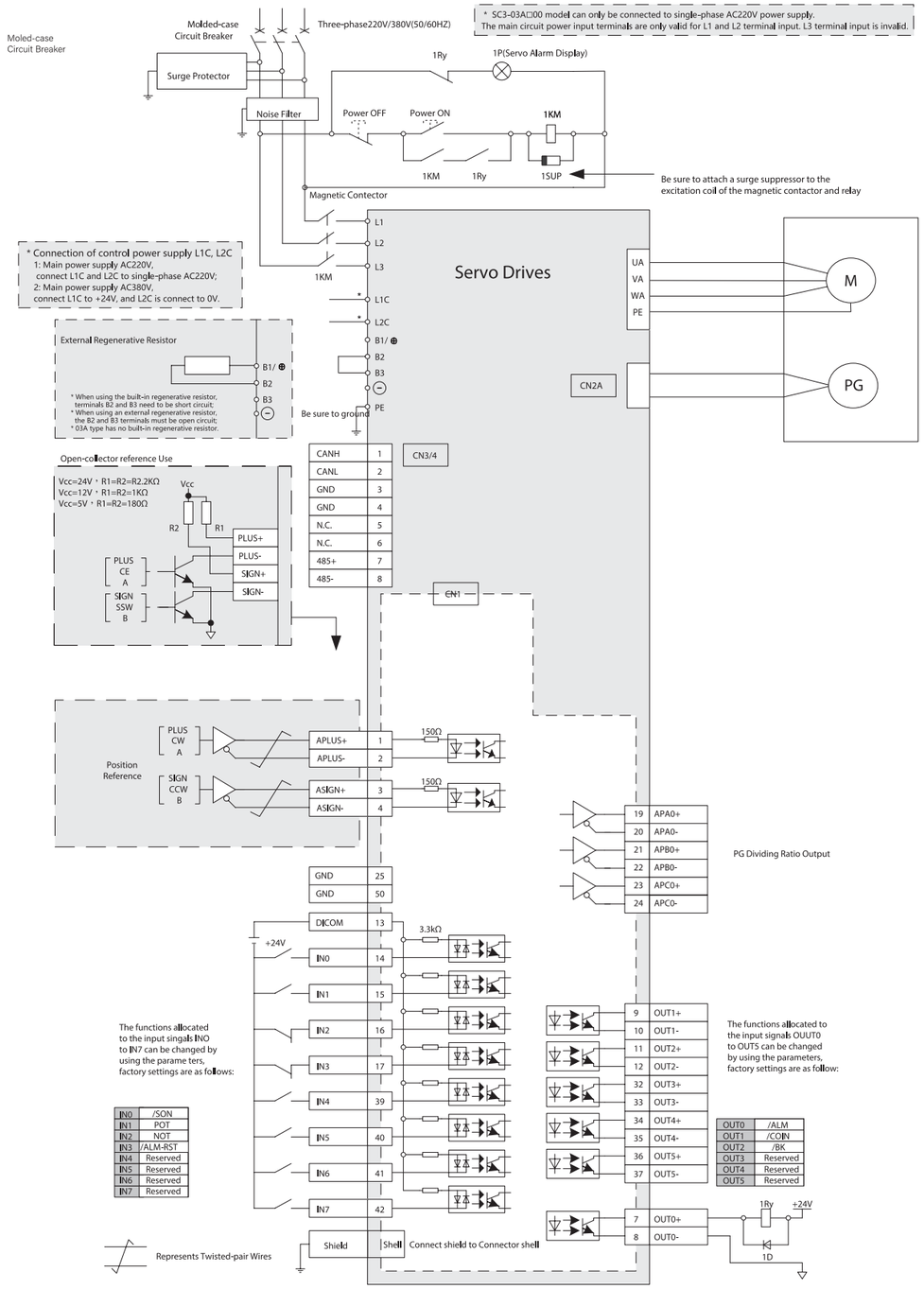




Partial end face of shaft

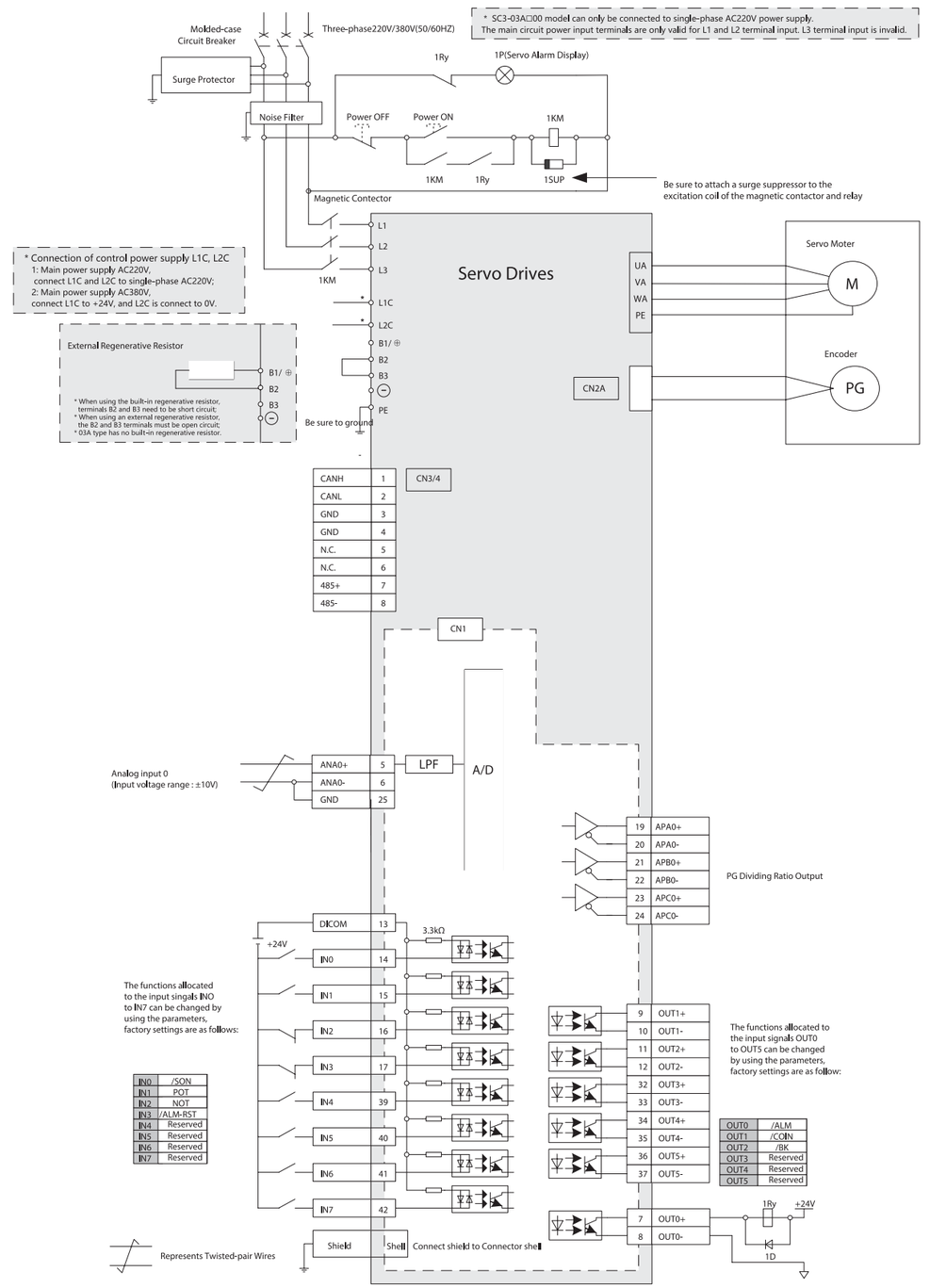
Main circuit and I/O connection

Position Control Mode



Main circuit and I/O connection

Velocity / Torque Control Mode



FATEK The Brand You Can Rely On
Model List

SC3 Series EtherCAT / Pulse Servo — AC220V

Power	Drive			Motor							Cables		
	Model	Spec	Certifications	Model	Inertia	Encoder	Brake	Flange(mm)	Voltage	Certifications	Power cable	Encoder cable(Choose one out of two)	Brake cable
100W	SC303AAD00 (EtherCAT) / SC303AAD10 (Pulse)	EtherCAT / Pulse Three-phase AC220V	CE	MA6-010M3060A04B2N	Middle	17 Bit Multi-turn Magnetic	—	40	AC220V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) :LA6-EHN03E-N2M ☐☐	—
				MA6-010M3060B04B2N	Middle	17 Bit Multi-turn Magnetic	●	40					LA6-PNN2F4-N5M ☐☐
				MA6-010D3060A04B2N	Middle	23 Bit Multi-turn Optical	—	40					—
				MA6-010D3060B04B2N	Middle	23 Bit Multi-turn Optical	●	40					LA6-PNN2F4-N5M ☐☐
200W		EtherCAT / Pulse Three-phase AC220V	CE	MA6-020M3050A06B2N	Middle	17 Bit Multi-turn Magnetic	—	60	AC220V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) :LA6-EHN03E-N2M ☐☐	—
				MA6-020M3050B06B2N	Middle	17 Bit Multi-turn Magnetic	●	60					LA6-PNN2F4-N5M ☐☐
				MA6-020D3060A06B2N	Middle	23 Bit Multi-turn Optical	—	60					—
				MA6-020D3060B06B2N	Middle	23 Bit Multi-turn Optical	●	60					LA6-PNN2F4-N5M ☐☐
400W		EtherCAT / Pulse Three-phase AC220V	CE	MA6-040M3050A06B2N	Middle	17 Bit Multi-turn Magnetic	—	60	AC220V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) :LA6-EHN03E-N2M ☐☐	—
				MA6-040M3050B06B2N	Middle	17 Bit Multi-turn Magnetic	●	60					LA6-PNN2F4-N5M ☐☐
				MA6-040D3060A06B2N	Middle	23 Bit Multi-turn Optical	—	60					—
				MA6-040D3060B06B2N	Middle	23 Bit Multi-turn Optical	●	60					LA6-PNN2F4-N5M ☐☐
750W	SC306AAF00 (EtherCAT) / SC306AAF10 (Pulse)	EtherCAT / Pulse Three-phase AC220V	CE	MA6-075M3045A08B2N	Middle	17 Bit Multi-turn Magnetic	—	80	AC220V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) :LA6-EHN03E-N2M ☐☐	—
				MA6-075M3045B08B2N	Middle	17 Bit Multi-turn Magnetic	●	80					LA6-PNN2F4-N5M ☐☐
				MA6-075D3060A08B2N	Middle	23 Bit Multi-turn Optical	—	80					—
				MA6-075D3060B08B2N	Middle	23 Bit Multi-turn Optical	●	80					LA6-PNN2F4-N5M ☐☐
1KW		EtherCAT / Pulse Three-phase AC220V	CE	MA6-100M2030A13B2N	Middle	17 Bit Multi-turn Magnetic	—	130	AC220V	CE	LA6-PAH1F0-N2F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-100M2030B13B2N	Middle	17 Bit Multi-turn Magnetic	●	130					LA6-PNH4F4-N5F ☐☐
				MA6-100D2030A13B2N	Middle	23 Bit Multi-turn Optical	—	130					—
				MA6-100D2030B13B2N	Middle	23 Bit Multi-turn Optical	●	130					LA6-PNH4F4-N5F ☐☐
1.5KW	SC308AAG00 (EtherCAT) / SC308AAG10 (Pulse)	EtherCAT / Pulse Three-phase AC220V	CE	MA6-150M2030A13B2N	Middle	17 Bit Multi-turn Magnetic	—	130	AC220V	CE	LA6-PAH1F0-N2F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-150M2030B13B2N	Middle	17 Bit Multi-turn Magnetic	●	130					LA6-PNH4F4-N5F ☐☐
				MA6-150D2030A13B2N	Middle	23 Bit Multi-turn Optical	—	130					—
				MA6-150D2030B13B2N	Middle	23 Bit Multi-turn Optical	●	130					LA6-PNH4F4-N5F ☐☐
2KW	SC310AAH00 (EtherCAT) / SC310AAH10 (Pulse)	EtherCAT/ Pulse Three-phase AC220V	CE	MA6-200M2030A13B2N	Middle	17 Bit Multi-turn Magnetic	—	130	AC220V	CE	LA6-PAH1F0-N2F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-200M2030B13B2N	Middle	17 Bit Multi-turn Magnetic	●	130					LA6-PNH4F4-N5F ☐☐
				MA6-200D2030A13B2N	Middle	23 Bit Multi-turn Optical	—	130					—
				MA6-200D2030B13B2N	Middle	23 Bit Multi-turn Optical	●	130					LA6-PNH4F4-N5F ☐☐

SC3 ☐☐☐☐☐ 0 ☐ : EtherCAT Control model
SC3 ☐☐☐☐☐ 1 ☐ : Pulse Control model

Multi-turn motors support both 【Absolute】 and 【Incremental】 control types.
【Absolute control】 is achieved by combining with 【Absolute encoder cable】
【Incremental control】 is implemented by pairing with 【Incremental encoder cable】

☐☐ : cable length 03=3m; 05=5m; 10=10m

FATEK® The Brand You Can Rely On
Model List

SC3 Series EtherCAT / Pulse Servo — AC380V

Power	Drive			Motor							Cables		
	Model	Spec	Certifications	Model	Inertia	Encoder	Brake	Flange(mm)	Voltage	Certifications	Power cable	Encoder cable(Choose one out of two)	Brake cable
400W	SC303ADE00 (EtherCAT) / SC303ADE10 (Pulse)	EtherCAT / Pulse AC380V+DC24V	CE	MA6-040M3060A06B4N	Middle	17 Bit Multi-turn Magnetic	—	60	AC380V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) : LA6-EHN03E-N2M ☐☐	—
				MA6-040M3060B06B4N	Middle	17 Bit Multi-turn Magnetic	●	60					LA6-PNN2F4-N5M ☐☐
				MA6-040D3060A06B4N	Middle	23 Bit Multi-turn Optical	—	60					—
				MA6-040D3060B06B4N	Middle	23 Bit Multi-turn Optical	●	60					LA6-PNN2F4-N5M ☐☐
750W		EtherCAT / Pulse AC380V+DC24V	CE	MA6-075M3045A08B4N	Middle	17 Bit Multi-turn Magnetic	—	80	AC380V	CE	LA6-PAN0F0-N1M ☐☐	Absolute(battery) : LA6-EHN03E-P3M ☐☐ Incremental(no battery) : LA6-EHN03E-N2M ☐☐	—
				MA6-075M3045B08B4N	Middle	17 Bit Multi-turn Magnetic	●	80					LA6-PNN2F4-N5M ☐☐
				MA6-075D3060A08B4N	Middle	23 Bit Multi-turn Optical	—	80					—
				MA6-075D3060B08B4N	Middle	23 Bit Multi-turn Optical	●	80					LA6-PNN2F4-N5M ☐☐
1KW	SC306ADH00 (EtherCAT) / SC306ADH10 (Pulse)	EtherCAT / Pulse AC380V+DC24V	CE	MA6-100M1530A13B4N	Middle	17 Bit Multi-turn Magnetic	—	130	AC380V	CE	LA6-PAH1F0-N2F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-100M1530B13B4N	Middle	17 Bit Multi-turn Magnetic	●	130					LA6-PNH4F4-N5F ☐☐
				MA6-100D1530A13B4N	Middle	23 Bit Multi-turn Optical	—	130					—
				MA6-100D1530B13B4N	Middle	23 Bit Multi-turn Optical	●	130					LA6-PNH4F4-N5F ☐☐
2KW		EtherCAT / Pulse AC380V+DC24V	CE	MA6-200M2030A13B4N	Middle	17 Bit Multi-turn Magnetic	—	130	AC380V	CE	LA6-PAH1F0-N2F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-200M2030B13B4N	Middle	17 Bit Multi-turn Magnetic	●	130					LA6-PNH4F4-N5F ☐☐
				MA6-200D2030A13B4N	Middle	23 Bit Multi-turn Optical	—	130					—
				MA6-200D2030B13B4N	Middle	23 Bit Multi-turn Optical	●	130					LA6-PNH4F4-N5F ☐☐
2.9KW	SC310ADI00 (EtherCAT) / SC310ADI10 (Pulse)	EtherCAT / Pulse AC380V+DC24	CE	MA6-290D1520A18B4N	Middle	23 Bit Multi-turn Optical	—	180	AC380V	CE	LA6-PAH5F1-N3F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-290D1520B18B4N	Middle	23 Bit Multi-turn Optical	●	180					LA6-PNH4F4-N5F ☐☐
4KW	SC315ADK00 (EtherCAT) / SC315ADK10 (Pulse)	EtherCAT / Pulse AC380V+DC24	CE	MA6-400D2030A18B4N	Middle	23 Bit Multi-turn Optical	—	180	AC380V	CE	LA6-PAH5F1-N3F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-400D2030B18B4N	Middle	23 Bit Multi-turn Optical	●	180					LA6-PNH4F4-N5F ☐☐
5.5KW		EtherCAT / Pulse AC380V+DC24	CE	MA6-550D2030A18B4N	Middle	23 Bit Multi-turn Optical	—	180	AC380V	CE	LA6-PAH5F1-N3F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-550D2030B18B4N	Middle	23 Bit Multi-turn Optical	●	180					LA6-PNH4F4-N5F ☐☐
7.5KW	SC328ABL00 (EtherCAT) / SC328ABL10 (Pulse)	EtherCAT / Pulse AC380V	CE	MA6-750D1525A18B4N	Middle	23 Bit Multi-turn Optical	—	180	AC380V	CE	LA6-PAH5F1-N4F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
				MA6-750D1525B18B4N	Middle	23 Bit Multi-turn Optical	●	180					LA6-PNH4F4-N5F ☐☐
13KW		EtherCAT / Pulse AC380V	CE	MA6-13KD1517A18B4N	Middle	23 Bit Multi-turn Optical	—	180	AC380V	CE	LA6-PAH5F1-N4F ☐☐	Absolute(battery) : LA6-EXH13E-P3F ☐☐ Incremental(no battery) : LA6-EXH13E-N2F ☐☐	—
15KW	SC340ABN00 (EtherCAT) / SC340ABN10 (Pulse)	EtherCAT / Pulse AC380V	CE	MA6-15KD1520A22B4N	Middle	23 Bit Multi-turn Optical	—	220	AC380V	CE	LA6-PAN4F1-N8F ☐☐	Absolute(battery) : LA6-EHN43E-P3F ☐☐ Incremental(no battery) : LA6-EHN43E-N2F ☐☐	—

SC3 ☐☐☐☐☐ 0 ☐ : EtherCAT Control model
SC3 ☐☐☐☐☐ 1 ☐ : Pulse Control model

Multi-turn motors support both 【Absolute】 and 【Incremental】 control types.
【Absolute control】 is achieved by combining with 【Absolute encoder cable】
【Incremental control】 is implemented by pairing with 【Incremental encoder cable】

☐☐ : cable length 03=3m; 05=5m; 10=10m

FATEK® The Brand You Can Rely On
Model List

MA6 Motor - Multi-turn Optical Encoder

Category		Performance									(Mechanical & Physical)				(Electrical Characteristics)						(Environment & Protection)		
Motor model (MA6-)	Adaptation driver (SC3-)	Rated Power(kw)	Rated Voltage(V)	Rated Current(A)	Maximum Current(A)	Rated Speed(rpm)	Maximum Speed(rpm)	Rated Torgue(Nm)	Maximum Torque(Nm)	Encoder type	Flange (mm)	Number of poles	Moment of Inertia ($kg.m^2 \times 10\text{-}4$) [ ] : square bracket is for brake model parameter	Torque constant (N.m/A)	Back EMF (V/1000r/min)	Resistance (Ω)	D-axis Inductance (mH)	Q-axis Inductance (mH)	Inductance (mH)	Electrical time constant (mS)	Insulation Class	Protection class	Operating Environment (Non-condensing)
010D3060 △ 04B2N	03AAD □□□	0.1	220	1.8(±5%)	6.3	3000	6000	0.3	1.1	23Bit Multi-turn Optical Encoder	40	4	0.65[0.65]	0.17	13.8(±5%)	7.81(±10%)	-	-	12.03(±20%)	1.54	Class F	IP 64	-20°C ~ 50°C , < 90% RH
020D3060 △ 06B2N		0.2	220	1.6(±5%)	-	3000	6000	0.64	1.91	23Bit Multi-turn Optical Encoder	60	5	0.26[0.28]	0.4	27.7(±5%)	7.3(±10%)	11.6(±20%)	12.7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
040D3060 △ 06B2N		0.4	220	2.5(±5%)	-	3000	6000	1.27	3.81	23Bit Multi-turn Optical Encoder	60	5	0.49[0.51]	0.51	30.5(±5%)	3.63(±10%)	6.5(±20%)	7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
075D3060 △ 08B2N	06AAF □□□	0.75	220	4.8(±5%)	-	3000	6000	2.39	7.2	23Bit Multi-turn Optical Encoder	80	5	1.51[1.71]	0.5	31.5(±5%)	1.16(±10%)	4.1(±20%)	4.7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
100D2030 △ 13B2N		1	220	4.6(±5%)	-	2000	3000	4.8	16.2	23Bit Multi-turn Optical Encoder	130	5	13.88[15.78]	1.04	70.3(±5%)	1.34(±10%)	-	-	6.78(±20%)	5.06	Class F	IP 65	-20°C ~ 50°C , < 90% RH
150D2030 △ 13B2N	08AAG □□□	1.5	220	7.5(±5%)	-	2000	3000	7.5	22.5	23Bit Multi-turn Optical Encoder	130	5	18.57[20.24]	1	65(±5%)	0.86(±10%)	-	-	4.73(±20%)	5.5	Class F	IP 65	-20°C ~ 50°C , < 90% RH
200D2030 △ 13B2N	10AAH □□□	2	220	9(±5%)	-	2000	3000	9.6	28.8	23Bit Multi-turn Optical Encoder	130	5	23.69[25.36]	1.06	69(±5%)	0.7(±10%)	-	-	4.69(±20%)	6.7	Class F	IP 65	-20°C ~ 50°C , < 90% RH
040D3060 △ 06B4N	03ADE □□□	0.4	380	1.6(±5%)	-	3000	6000	1.27	3.81	23Bit Multi-turn Optical Encoder	60	5	0.49[0.51]	0.79	48.5(±5%)	8.6(±10%)	6(±20%)	7.5(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
075D3060 △ 08B4N		0.75	380	2.5(±5%)	7.5	3000	6000	2.39	8.36	23Bit Multi-turn Optical Encoder	80	5	1.51[1.71]	0.92	57.1(±5%)	4(±10%)	8(±20%)	8.5(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
100D1530 △ 13B4N	06ADH □□□	1	380	4(±5%)	12	1500	3000	6.4	19.2	23Bit Multi-turn Optical Encoder	130	5	16.04[17.71]	1.6	110.5(±5%)	2.5(±10%)	-	-	13.3(±20%)	5.32	Class F	IP 65	-20°C ~ 50°C , < 90% RH
100M1530 △ 13B4N		1	380	4(±5%)	12	1500	3000	6.4	19.2	17Bit Multi-turn Optical Encoder	130	5	16.04[17.71]	1.6	110.5(±5%)	2.5(±10%)	-	-	13.3(±20%)	5.32	Class F	IP 65	-20°C ~ 50°C , < 90% RH
200D2030 △ 13B4N		2	380	5.6(±5%)	12	2000	3000	9.6	28.8	23Bit Multi-turn Optical Encoder	130	5	23.69[25.36]	1.7	113(±5%)	1.6(±10%)	-	-	8.96(±20%)	5.6	Class F	IP 65	-20°C ~ 50°C , < 90% RH
290D1520 △ 18B4N	10ADI □□□	2.9	380	7(±5%)	21	1500	2000	18.6	55.8	23Bit Multi-turn Optical Encoder	180	5	56.8[65.3]	2.66	171.5(±5%)	1.03(±10%)	-	-	20.5(±20%)	19.9	Class F	IP 65	-20°C ~ 50°C , < 90% RH
400D2030 △ 18B4N	15ADK □□□	4	380	12(±5%)	-	2000	3000	19	55.8	23Bit Multi-turn Optical Encoder	180	5	56.8[65.3]	1.58	108(±5%)	0.46(±10%)	-	-	9.17(±20%)	19.9	Class F	IP 65	-20°C ~ 50°C , < 90% RH
550D2030 △ 18B4N	15ADK □□□	5.5	380	15(±5%)	-	2000	3000	27	85	23Bit Multi-turn Optical Encoder	180	5	78.2[86]	1.8	119(±5%)	0.31(±10%)	-	-	7.52(±20%)	24.3	Class F	IP 65	-20°C ~ 50°C , < 90% RH
750D1525 △ 18B4N	28ABL □□□	7.5	380	25.7(±5%)	63.7	1500	2500	48	119	23Bit Multi-turn Optical Encoder	180	5	130[140]	1.86	123(±5%)	0.16(±10%)	-	-	4.3(±20%)	26.9	Class F	IP 65	-20°C ~ 50°C , < 90% RH
13KD1517A18B4N		13	380	26.5(±5%)	66.25	1500	1700	83	208	23Bit Multi-turn Optical Encoder	180	5	272.8	3.13	205.8(±5%)	0.18(±10%)	-	-	4.3(±20%)	23.89	Class F	IP 65	-20°C ~ 50°C , < 90% RH
15KD1520A22B4N	40ABN □□□	15	380	40(±5%)	100	1500	2500	95.5	240	23Bit Multi-turn Optical Encoder	220	4	248	2.39	150(±5%)	0.1(±10%)	-	-	2.4(±20%)	24	Class F	IP 65	-20°C ~ 50°C , < 90% RH

△：：A(Without brake) , B(With brake)
[ ]：square bracket is for brake model parameter

FATEK® The Brand You Can Rely On
Model List

MA6 Motor - Multi-turn Magnetic Encoder

Category		Performance									(Mechanical & Physical)				(Electrical Characteristics)						(Environment & Protection)		
Motor model (MA6-)	Adaptation driver (SC3-)	Rated Power(kw)	Rated Voltage(V)	Rated Current(A)	Maximum Current(A)	Rated Speed(rpm)	Maximum Speed(rpm)	Rated Torgue(Nm)	Maximum Torque(Nm)	Encoder type	Flange (mm)	Number of poles	Moment of Inertia ($kg.m^2 \times 10\text{-}4$) [ ] : square bracket is for brake model parameter	Torque constant (N.m/A)	Back EMF (V/1000r/min)	Resistance (Ω)	D-axis Inductance (mH)	Q-axis Inductance (mH)	Inductance (mH)	Electrical time constant (mS)	Insulation Class	Protection class	Operating Environment (Non-condensing)
010M3060 △ 04B2N	03AAD □□□	0.1	220	1.8(±5%)	6.3	3000	6000	0.3	1.1	17Bit Multi-turn Magnetic Encoder	40	4	0.067[0.067]	0.17	13.8(±5%)	7.81(±10%)	-	-	12.03(±20%)	1.54(±20%)	Class F	IP 64	-20°C ~ 50°C , < 90% RH
020M3050 △ 06B2N		0.2	220	1.5(±5%)	4.5	3000	5000	0.64	1.91	17Bit Multi-turn Magnetic Encoder	60	5	0.26[0.28]	0.4	27.7(±5%)	7.3(±10%)	11.6(±20%)	12.7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
040M3050 △ 06B2N		0.4	220	2.5(±5%)	7.5	3000	5000	1.27	3.81	17Bit Multi-turn Magnetic Encoder	60	5	0.49[0.51]	0.51	30.5(±5%)	3.63(±10%)	6.5(±20%)	7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90%RH
075M3045 △ 08B2N	06AAF □□□	0.75	220	4.8(±5%)	16.8	3000	4500	2.39	8.36	17Bit Multi-turn Magnetic Encoder	80	5	1.51[1.71]	0.5	31.5(±5%)	1.16(±10%)	4.1(±20%)	4.7(±20%)	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
100M2030 △ 13B2N		1	220	4.6(±5%)	-	2000	3000	4.8	16.2	17Bit Multi-turn Magnetic Encoder	130	5	13.88[15.78]	1.04	70.3(±5%)	1.34(±10%)	-	-	6.78(±20%)	5.06(±20%)	Class F	IP 65	-20°C ~ 50°C , < 90% RH
150M2030 △ 13B2N	08AAG □□□	1.5	220	7.5(±5%)	-	2000	3000	7.5	22.5	17Bit Multi-turn Magnetic Encoder	130	5	18.57[20.24]	1	65(±5%)	0.86(±10%)	-	-	4.73(±20%)	5.5(±20%)	Class F	IP 65	-20°C ~ 50°C , < 90% RH
200M2030 △ 13B2N	10AAH □□□	2	220	9(±5%)	-	2000	3000	9.6	28.8	17Bit Multi-turn Magnetic Encoder	130	5	23.69[25.36]	1.06	69(±5%)	0.7(±10%)	-	-	4.69(±20%)	6.7(±20%)	Class F	IP 65	-20°C ~ 50°C , < 90% RH
040M3060 △ 06B4N	03ADE □□□	0.4	380	1.6(±5%)	-	3000	6000	1.27	3.81	17Bit Multi-turn Magnetic Encoder	60	5	0.49[0.51]	0.79	48.5(±5%)	8.6(±10%)	-	-	-	-	Class F	IP 65	-20°C ~ 50°C , < 90% RH
075M3045 △ 08B4N		0.75	380	2.5(±5%)	7.5	3000	4500	2.39	8.36	17Bit Multi-turn Magnetic Encoder	80	5	1.51[1.71]	0.92	57.1(±5%)	4(±10%)	-	-	50.56(±20%)	12.64(±20%)	Class F	IP 65	-20°C ~ 50°C , < 90% RH
200M2030 △ 13B4N	06ADH □□□ 10ADI □□□	2	380	5.6(±5%)	-	2000	3000	9.6	28.8	17Bit Multi-turn Magnetic Encoder	130	5	23.69[25.36]	1.7	113(±5%)	1.6(±10%)	-	-	8.96(±20%)	5.6(±20%)	Class F	IP 65	-20°C ~ 50°C , < 90% RH

△ : : A(Without brake) , B(With brake)
[ ] : square bracket is for brake model parameter