

# Servo Motor Specifications

POSYS  
(KANZ,KANQ)

Designed	Checked	Approved
<h1>Approved</h1>		



## Model Name

**K A NZ - 04 B F 1 N 2**

Product Type	Sense of Rotation		Series		Rated Power		Supply Voltage		Feedback		Special Sequence		Brake		Shaft end			
<b>K</b>	KOMOTEK		<b>A</b>	CW	<b>NZ</b>	Frameless	<b>A3</b>	30W	<b>A</b>	110Vac	<b>C</b>	2048PR 9Wire [NC]	<b>1</b>	Default	<b>N</b>	None[Std]	<b>1</b>	Round
			<b>B</b>	CCW	<b>NQ</b>	Frameless	<b>A5</b>	50W	<b>B</b>	220Vac	<b>E</b>	2500PR 9Wire [NC]	<b>2</b>	Special	<b>B</b>	Brake	<b>2</b>	Key w ay[Std]
					<b>FZ</b>	Frame	<b>A8</b>	80W	<b>D</b>	48Vdc	<b>F</b>	2930PR 19Wire [NC]	<b>3</b>	Special	<b>S</b>	Oil Seal	<b>3</b>	D-CUT
							<b>01</b>	100W	<b>E</b>	24Vdc	<b>G</b>	17M ABS			<b>T</b>	Brake & Seal		
							<b>02</b>	200W	<b>G</b>	380Vac	<b>G</b>	18M ABS EBI 113S						
							<b>04</b>	400W	<b>J</b>	75Vdc								
							<b>06</b>	600W	<b>H</b>	170Vdc								
							<b>08</b>	750W	<b>R</b>	42Vdc								
							<b>10</b>	1kW										

## Brake specification

## Applicable Brake (KANZ, KANQ)

Item	Unit	Applicable Motor Flange Size		
		40	60	80
Static friction torque	N •m	0.39	1.69	3.25
Rotor inertia	10 <sup>-4</sup> kg •m <sup>2</sup>	0.0025	0.020	0.075
Armature suction time	ms	25	50	60
Armature release time	ms	20	15	15
Release voltage	DC, V	2 (at 20℃)	2 (at 20℃)	2 (at 20℃)
excitation voltage	DC, V	24 ± 2.4	24 ± 2.4	24 ± 2.4
excitation current	DC, A	0.26	0.36	0.43

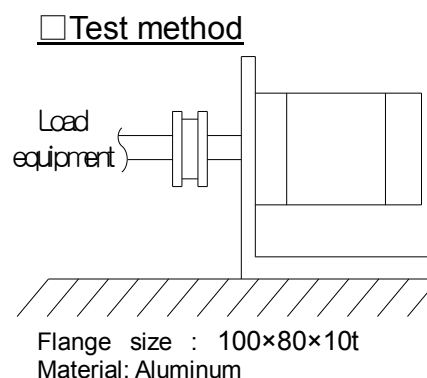
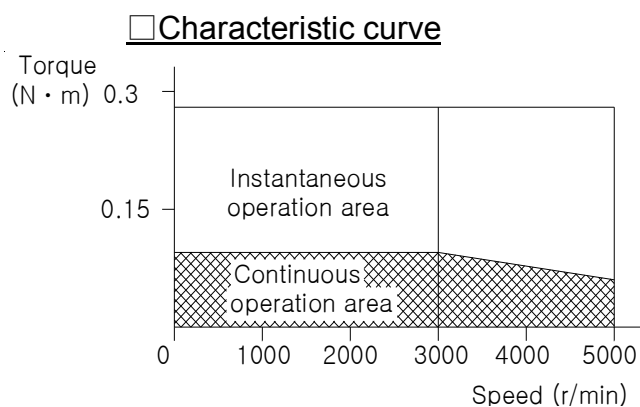
## Detail specifications

DATE	Type	Specification	Drawing No.	Remark
Z-Series				
2015.01.06	KANZ-A3B□1□□	KMDS 10486	10100570 10100571	Normal Brake
2015.01.06	KANZ-A3BG1□□	KMDS 10486	10001680 10001681	Normal Brake
2015.01.06	KANZ-A5B□1□□	KMDS 10486	10100572 10100573	Normal Brake
2015.01.06	KANZ-A5BG1□□	KMDS 10486	10001682 10001683	Normal Brake
2015.01.06	KANZ-A8B□1□□	KMDS 10486	10100574 10100575	Normal Brake
2015.01.06	KANZ-A8BG1□□	KMDS 10486	10001684 10001685	Normal Brake
2015.01.06	KANZ-01B□1□□	KMDS 10486	10100576 10100577	Normal Brake
2015.01.06	KANZ-01BG1□□	KMDS 10486	10001686 10001687	Normal Brake
2015.01.06	KANZ-02B□1□□	KMDS 10486	10100578 10100579	Normal Brake
2015.01.06	KANZ-04B□1□□	KMDS 10486	10100580 10100581	Normal Brake
2015.01.06	KANZ-06B□1□□	KMDS 10486	10100582 10100583	Normal Brake
2015.01.06	KANZ-08B□1□□	KMDS 10486	10100584 10100585	Normal Brake
2015.01.06	KANZ-10B□1□□	KMDS 10486	10100586 10100587	Normal Brake
Q-Series				
2015.01.06	KANQ-01B□1□□	KMDS 10486	10100588 10100589	Normal Brake
2015.01.06	KANQ-02B□1□□	KMDS 10486	10100590 10100591	Normal Brake
2015.01.06	KANQ-04B□1□□	KMDS 10486	10100592 10100593	Normal Brake

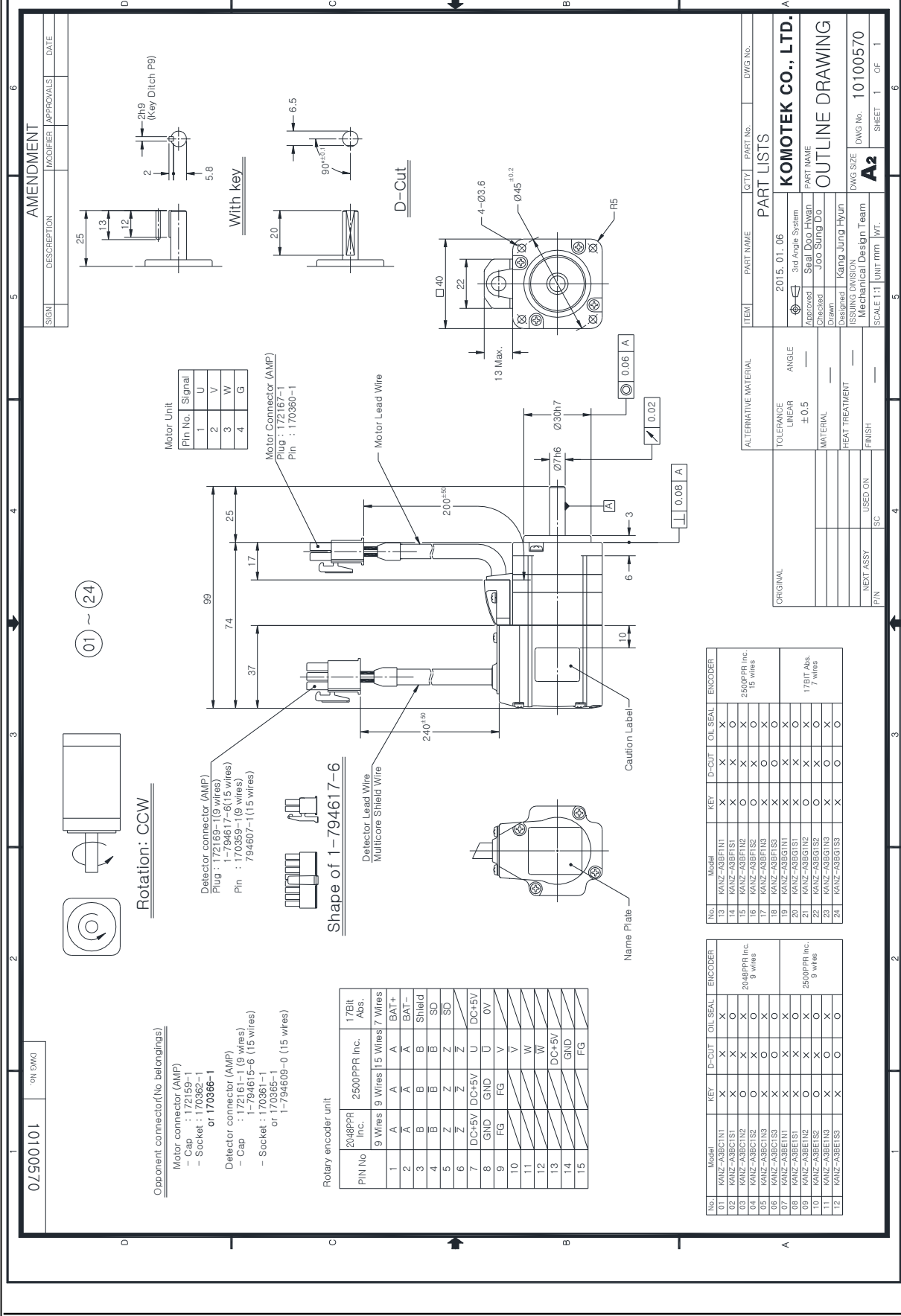
## AC Servo Motor Specifications

Item	Unit	KANZ-A3B□1N□	KANZ-A3B□1B□	Remarks
		KANZ-A3B□1S□	KANZ-A3B□1T□	
Flange size	mm	40	40	
Rated output	W	30	30	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.095	0.095	
	kgf·cm	0.97	0.97	
Maximum torque	N·m	0.28	0.28	
	kgf·cm	2.9	2.9	
Rated current	A <sub>(rms)</sub>	1.1	1.1	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.015	0.019	
	gf·cm·sec <sup>2</sup>	0.015	0.019	
Elec. time constant	ms	0.6	0.6	
Mech. time constant	ms	2.07	2.63	
Rated power rate	kW/s	6.13	4.84	
Momentary maximum current	A(o-p)	4.30	4.30	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	3.5	3.5	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.1	0.1	±10%
	kgf·cm/A <sub>(rms)</sub>	1.02	1.02	±10%
Phase resistance	Ω	4.0	4.0	±10%
Phase inductance	mH	2.4	2.4	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	0.32	0.54	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-A3B□1□□\_Normal Model Outline Drawing



01500101

01 SWG

AMENDMENT

SIGN	DESCRIPTION	MODIFIER	APPROVALS	DATE
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Rotation: CCW

Opponent connector (No belongings)

- Motor connector (AMP)
  - Cap : 172159-1
  - Socket : 170362-1 or 170360-1
- Detector connector (AMP)
  - Cap : 172161-1 (9 wires)
  - Cap : 1794615-6 (15 wires)
  - Socket : 170361-1 or 1794609-0 (15 wires)

Rotary encoder unit

PIN No	2048PPR Inc.	2500PPR Inc.	17Bit Abs.
1	A	A	BAT+
2	A	A	BAT-
3	B	B	Shield
4	B	B	SD
5	Z	Z	SD
6	Z	Z	Z
7	DC+5V	DC+5V	U
8	GND	GND	U
9	FG	FG	V
10			V
11			W
12			W
13			DC+5V
14			GND
15			FG

Motor Unit

Pin No.	Signal
1	U
2	V
3	W
4	G

Detector connector (AMP)

- Plug : 172167-1
- Pin : 170360-1

Shape of 1-794617-6

Detector Lead Wire

Multicore Shield Wire

Name Plate

Caution Label

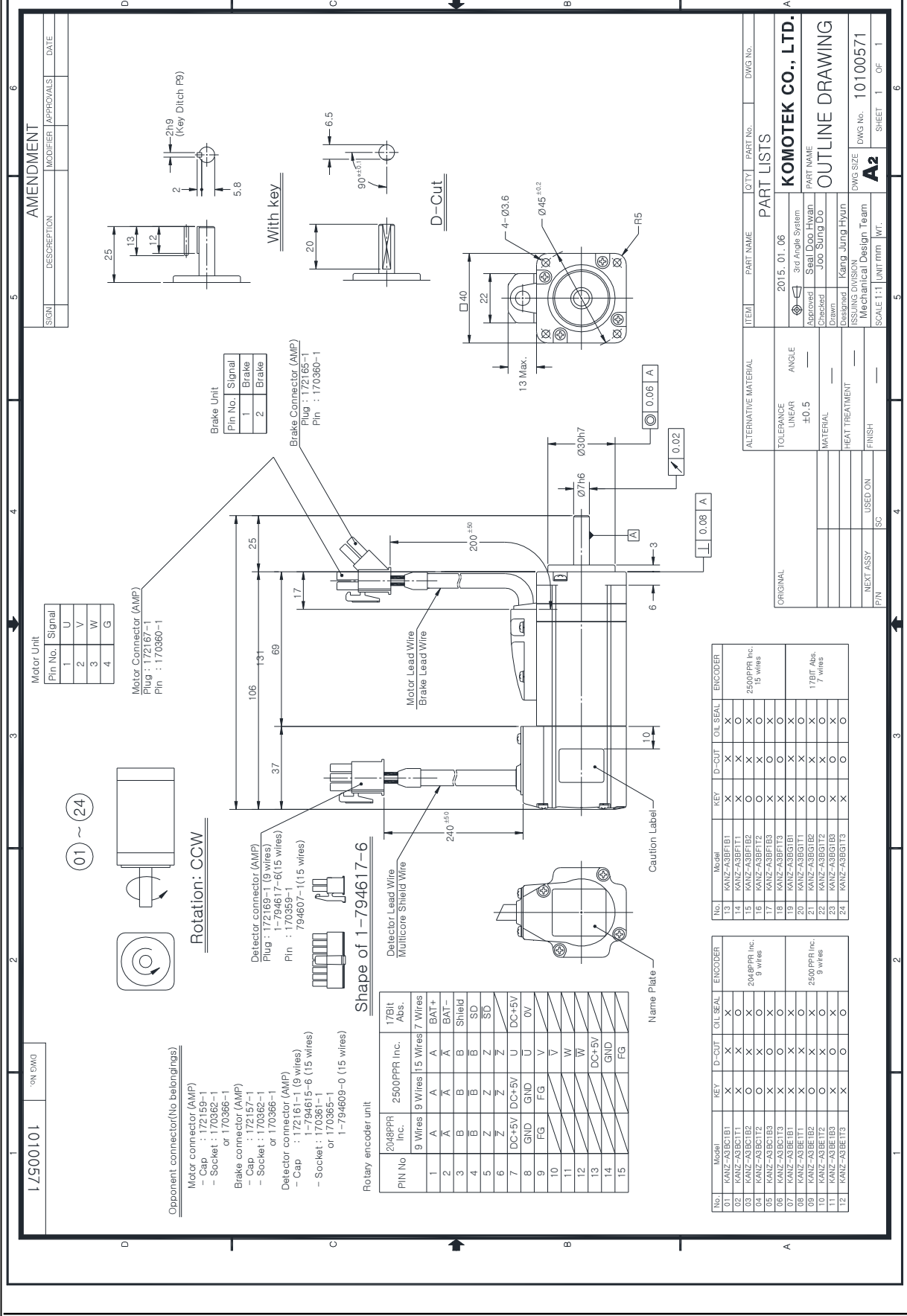
No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
13	KANZ-ABFIN1	X	X	X	X
14	KANZ-ABFIN1	X	X	X	X
15	KANZ-ABFIN2	O	X	X	2500PPR Inc. 15 wires
16	KANZ-ABFIN3	X	X	X	X
17	KANZ-ABFIN3	X	X	X	X
18	KANZ-ABFIN3	X	X	X	X
19	KANZ-ABFIN1	X	X	X	X
20	KANZ-ABFIN2	O	X	X	17Bit Abs. 7 wires
21	KANZ-ABFIN2	O	X	X	X
22	KANZ-ABFIN3	X	X	X	X
23	KANZ-ABFIN3	X	X	X	X
24	KANZ-ABFIN3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-ABFIN1	X	X	X	X
02	KANZ-ABFIN1	X	X	X	X
03	KANZ-ABFIN2	O	X	X	2048PPR Inc. 9 wires
04	KANZ-ABFIN2	O	X	X	X
05	KANZ-ABFIN3	X	X	X	X
06	KANZ-ABFIN3	X	X	X	X
07	KANZ-ABFIN1	X	X	X	X
08	KANZ-ABFIN2	O	X	X	2500PPR Inc. 9 wires
09	KANZ-ABFIN2	O	X	X	X
10	KANZ-ABFIN3	X	X	X	X
11	KANZ-ABFIN3	X	X	X	X
12	KANZ-ABFIN3	X	X	X	X

ITEM	PART NAME	QTY	PART No.	DWG No.
PART LISTS				
2015.01.06	3rd Angle System			
Approved	Seal Doo Hwan			
Checked	Joo Sung Do			
Drawn				
Destined	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100570			
SCALE	1:1	UNIT	mm	WT.
A2				
SHEET 1 OF 1				

ALTERNATIVE MATERIAL	ANGLE	FINISH	USED ON	SC
ORIGINAL	LINEAR	±0.5		
	MATERIAL			
	HEAT TREATMENT			
	FINISH			
	SC			
	PIN			
	NEXT ASSY			

KANZ-A3B□1□□ Brake Model Outline Drawing



AMENDMENT	
NO.	DATE
DESCRIPTION	MODIFIER
APPROVALS	

Motor Unit

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
Plug : 172167-1  
Pin : 170360-1

Brake Unit

Pin No.	Signal
1	Brake
2	Brake

Brake Connector (AMP)  
Plug : 172166-1  
Pin : 170360-1

- Opponent connector (No. belongings)
- Motor connector (AMP)
    - Cap : 172159-1
    - Socket : 170362-1 or 170366-1
  - Brake connector (AMP)
    - Cap : 172157-1
    - Socket : 170362-1 or 170366-1
  - Detector connector (AMP)
    - Cap : 172161-1 (9 wires)
    - Socket : 170361-1 or 170365-1
  - Detector connector (AMP)
    - Cap : 1794615-6 (15 wires)
    - Socket : 170361-1 or 170365-1
  - Detector connector (AMP)
    - Cap : 1794617-6 (15 wires)
    - Socket : 170361-1 or 170365-1

Shape of 1-794617-6

Rotary encoder unit	17Bit Abs.
1	A
2	A
3	B
4	B
5	Z
6	Z
7	DC+5V
8	GND
9	FG
10	FG
11	V
12	W
13	DC+5V
14	GND
15	FG

Rotary encoder unit	15 Wires	7 Wires
1	A	BAT+
2	A	BAT-
3	B	Shield
4	B	SD
5	Z	Z
6	Z	Z
7	DC+5V	U
8	GND	U
9	FG	V
10	FG	V
11	W	W
12	W	W
13	DC+5V	W
14	GND	W
15	FG	FG

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-A3B01B1	X	X	X	2500PPR Inc. 9 wires
02	KANZ-A3B01T1	X	X	X	2500PPR Inc. 9 wires
03	KANZ-A3B01B2	O	X	X	2048PPR Inc. 8 wires
04	KANZ-A3B01T2	O	X	X	2048PPR Inc. 8 wires
05	KANZ-A3B01B3	X	O	X	2500PPR Inc. 9 wires
06	KANZ-A3B01T3	X	O	X	2500PPR Inc. 9 wires
07	KANZ-A3B01B1	X	X	X	17BIT Abs. 7 wires
08	KANZ-A3B01T1	X	X	X	17BIT Abs. 7 wires
09	KANZ-A3B01B2	X	X	X	17BIT Abs. 7 wires
10	KANZ-A3B01T2	X	X	X	17BIT Abs. 7 wires
11	KANZ-A3B01B3	X	O	X	17BIT Abs. 7 wires
12	KANZ-A3B01T3	X	O	X	17BIT Abs. 7 wires

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
13	KANZ-A3BF1B1	X	X	X	2500PPR Inc. 15 wires
14	KANZ-A3BF1T1	X	X	X	2500PPR Inc. 15 wires
15	KANZ-A3BF1B2	O	X	X	2500PPR Inc. 15 wires
16	KANZ-A3BF1T2	O	X	X	2500PPR Inc. 15 wires
17	KANZ-A3BF1B3	X	O	X	2500PPR Inc. 15 wires
18	KANZ-A3BF1T3	X	O	X	2500PPR Inc. 15 wires
19	KANZ-A3BG1B1	X	X	X	17BIT Abs. 7 wires
20	KANZ-A3BG1T1	X	X	X	17BIT Abs. 7 wires
21	KANZ-A3BG1B2	X	X	X	17BIT Abs. 7 wires
22	KANZ-A3BG1T2	X	X	X	17BIT Abs. 7 wires
23	KANZ-A3BG1B3	X	O	X	17BIT Abs. 7 wires
24	KANZ-A3BG1T3	X	O	X	17BIT Abs. 7 wires

**PART LISTS**

ITEM	PART NAME	QTY	PART No.	DWG No.
2015.01.06	3rd Angle System			
Approved	Seal Doo Hyun			
Checked	Joo Sung Do			
Drawn	Daehwan			
Design	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100571			
SCALE	1:1	UNIT	mm	
FINISH				
USED ON				
SC				
P/N				

**ALTERNATIVE MATERIAL**

TOLEANCE	ANGLE
LINEAR	±0.5
MATERIAL	
HEAT TREATMENT	
FINISH	

**ORIGINAL**

**NEXT ASSY**

**SCALE 1:1 UNIT mm**

**FINISH**

**USED ON**

**SC**

**P/N**

**ISSUING DIVISION**

**Mechanical Design Team**

**Drawn**

**Daehwan**

**Checked**

**Joo Sung Do**

**Approved**

**Seal Doo Hyun**

**3rd Angle System**

**2015.01.06**

**PART NAME**

**QTY**

**PART No.**

**DWG No.**

**ITEM**

**KOMOTEK CO., LTD.**

**OUTLINE DRAWING**

**DWG No. 10100571**

**SCALE 1:1 UNIT mm**

**FINISH**

**USED ON**

**SC**

**P/N**

**NEXT ASSY**

**ORIGINAL**

**TOLEANCE**

**ANGLE**

**LINEAR**

**±0.5**

**MATERIAL**

**HEAT TREATMENT**

**FINISH**

**USED ON**

**SC**

**P/N**

**ISSUING DIVISION**

**Mechanical Design Team**

**Drawn**

**Daehwan**

**Checked**

**Joo Sung Do**

**Approved**

**Seal Doo Hyun**

**3rd Angle System**

**2015.01.06**

**PART NAME**

**QTY**

**PART No.**

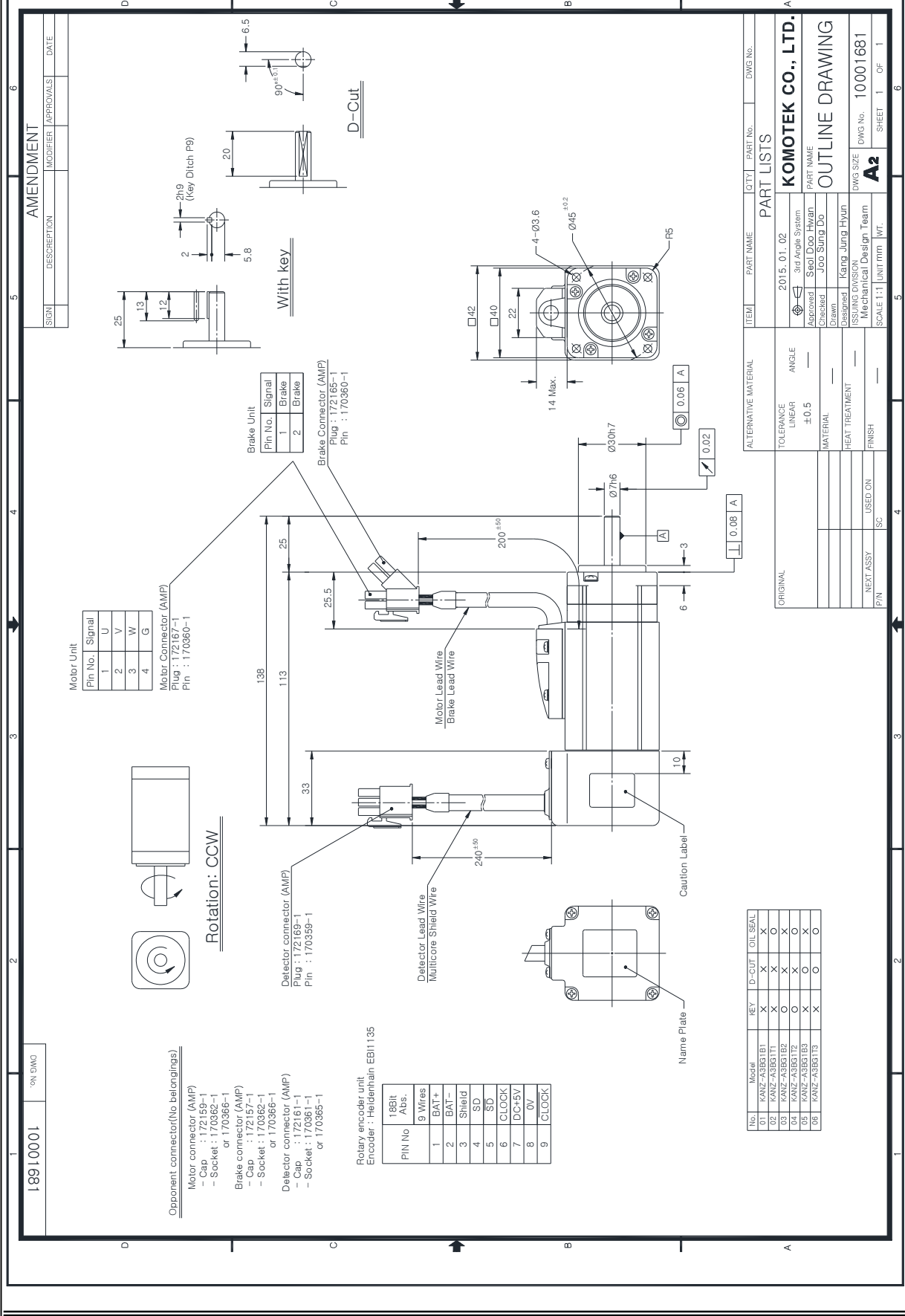
**DWG No.**

**ITEM**





# KANZ-A3BG1 Brake Model Outline Drawing [Heidenhain Encoder EBI 1135]



SIGN		DESCRIPTION		MODIFIER		APPROVALS		DATE	

Motor Unit

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
Plug : 172187-1  
Pin : 170360-1

Brake Unit

Pin No.	Signal
1	Brake
2	Brake

Brake Connector (AMP)  
Plug : 172165-1  
Pin : 170360-1

18910001 0N DMG

- Opponent connector (No. belongings)
- Motor connector (AMP)
    - Cap : 172159-1
    - Socket : 170362-1 or 170366-1
  - Brake connector (AMP)
    - Cap : 172157-1
    - Socket : 170362-1 or 170366-1
  - Detector connector (AMP)
    - Cap : 172161-1
    - Socket : 170361-1 or 170365-1

Rotary encoder unit  
Encoder : Heidenhain EBI1135

PIN No.	18Bit Abs.
1	BAT+
2	BAT-
3	Shield
4	SD
5	SD
6	CLOCK
7	DC+5V
8	0V
9	CLOCK

No.	Marked	KEY	D-CUT	OIL SEAL
01	KANZ-A3BG1B1	X	X	X
02	KANZ-A3BG1T1	X	X	X
03	KANZ-A3BG1B2	O	X	X
04	KANZ-A3BG1T2	X	X	X
05	KANZ-A3BG1B3	X	X	X
06	KANZ-A3BG1T3	X	X	X

ITEM	PART NAME	QTY	PART No.	DWG No.
<b>PART LISTS</b>				
2015. 01. 02	3rd Brake System			
Approved	Spot D Co Hyun			
Disseminated	Soo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10001681			
SCALE	1:1 Unit:mm			
			<b>A2</b>	
			SHEET	1 OF 1

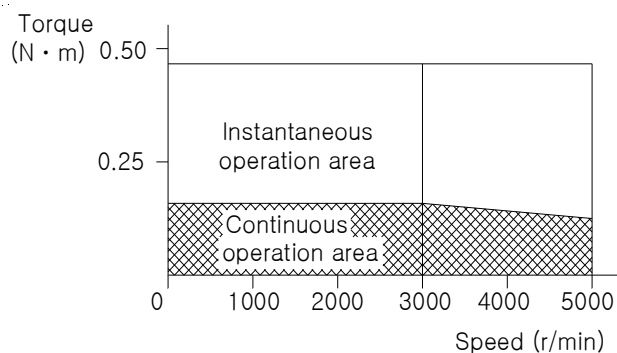
ORIGINAL	
ALTERNATIVE MATERIAL	ANGLE
TOLERANCE	LINEAR
	±0.5
MATERIAL	
HEAT TREATMENT	
FINISH	
USED ON	
SC	
P/N	

## AC Servo Motor Specifications

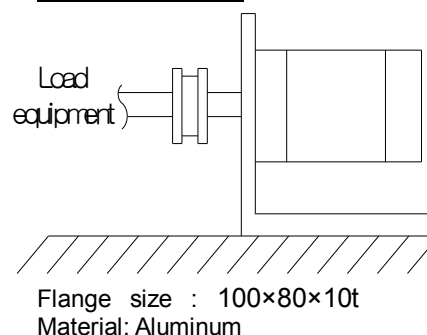
Item	Unit	KANZ-A5B□1N□	KANZ-A5B□1B2□	Remarks
		KANZ-A5B□1S□	KANZ-A5B□1T2□	
Flange size	mm	40	40	
Rated output	W	50	50	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.16	0.16	
	kgf·cm	1.62	1.62	
Maximum torque	N·m	0.48	0.48	
	kgf·cm	4.9	4.9	
Rated current	$A_{(rms)}$	1.0	1.0	±10%
Rotor inertia	$\times 10^{-4} \text{kg} \cdot \text{m}^2$	0.024	0.029	
	$\text{gf} \cdot \text{cm} \cdot \text{sec}^2$	0.024	0.030	
Elec. time constant	ms	0.67	0.67	
Mech. time constant	ms	1.3	1.5	
Rated power rate	kW/s	10.9	8.9	
Momentary maximum current	$A_{(o-p)}$	4.30	4.30	±10%
Back EMF constant per phase	$\times 10^{-3} \text{V}_{(rms)}/\text{min}^{-1}$	5.30	5.30	±10%
Torque constant	$\text{N} \cdot \text{m}/A_{(rms)}$	0.166	0.166	±10%
	$\text{kgf} \cdot \text{cm}/A_{(rms)}$	1.69	1.69	±10%
Phase resistance	$\Omega$	4.2	4.2	±10%
Phase inductance	mH	2.8	2.8	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	0.39	0.63	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.

□ Characteristic curve



□ Test method





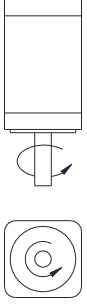
# KANZ-A5B □ □ □ Brake Model Outline Drawing

AMENDMENT			
SIGN	DESCRIPTION	MODIFIER	APPROVALS
DATE		DATE	

**Motor Unit**

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
Plug : 172167-1  
Pin : 170360-1



Opponent connector (No belongings)

- Motor connector (AMP)
  - Cap : 172159-1
  - Socket : 170362-1 or 170366-1
- Brake connector (AMP)
  - Cap : 172157-1
  - Socket : 170362-1 or 170366-1
- Detector connector (AMP)
  - Cap : 172161-1 (9 wires)
  - 1-794615-6 (15 wires)
  - Socket : 170361-1 or 170365-1

Rotary encoder unit

PIN No	204PPR Inc.	2500PPR Inc.	17BIT Abs.
1	A	A	A
2	A	A	A
3	B	B	B
4	B	B	B
5	Z	Z	Z
6	Z	Z	Z
7	DC+5V	DC+5V	DC+5V
8	GND	GND	U
9	FG	FG	V
10			V
11			W
12			W
13			DC+5V
14			GND
15			FG

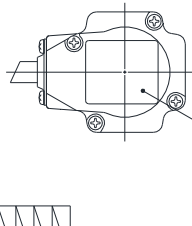
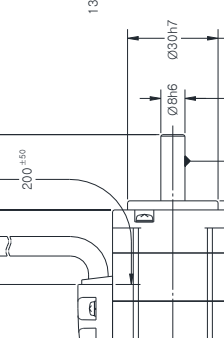
**Brake Unit**

Pin No.	Signal
1	Brake
2	Brake

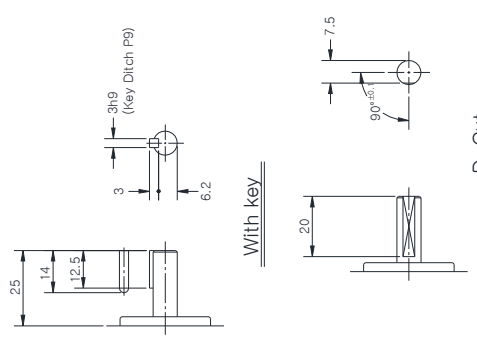
Brake Connector (AMP)  
Plug : 172165-1  
Pin : 170360-1



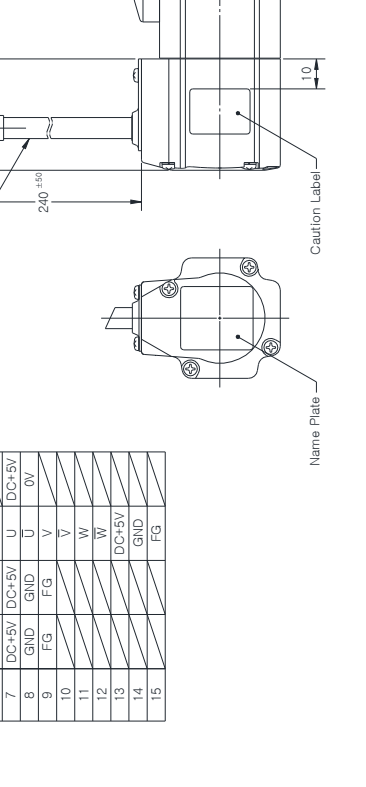
Shape of 1-794617-6



Caution Label



D-Out



No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
13	KANZ-ABBF1B1	X	X	X	X
14	KANZ-ABBF1T1	X	X	X	X
15	KANZ-ABBF1B2	O	X	O	2500PPR Inc. 15 wires
16	KANZ-ABBF1T2	X	X	X	X
17	KANZ-ABBF1B3	X	X	X	X
18	KANZ-ABBF1T3	X	X	X	X
19	KANZ-ABBF1B1	X	X	X	X
20	KANZ-ABBF1T1	X	X	X	X
21	KANZ-ABBF1B2	O	X	O	17BIT Abs. 7 wires
22	KANZ-ABBF1T2	O	X	O	X
23	KANZ-ABBF1B3	X	X	X	X
24	KANZ-ABBF1T3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-ASBCT1B1	X	X	X	X
02	KANZ-ASBCT1T1	X	X	X	X
03	KANZ-ASBCT1B2	O	X	O	204PPR Inc. 9 wires
04	KANZ-ASBCT1T2	X	X	X	X
05	KANZ-ASBCT1B3	X	X	X	X
06	KANZ-ASBCT1T3	X	X	X	X
07	KANZ-ASBET1B1	X	X	X	X
08	KANZ-ASBET1T1	X	X	X	X
09	KANZ-ASBET1B2	O	X	O	2500PPR Inc. 9 wires
10	KANZ-ASBET1T2	O	X	O	X
11	KANZ-ASBET1B3	X	X	X	X
12	KANZ-ASBET1T3	X	X	X	X

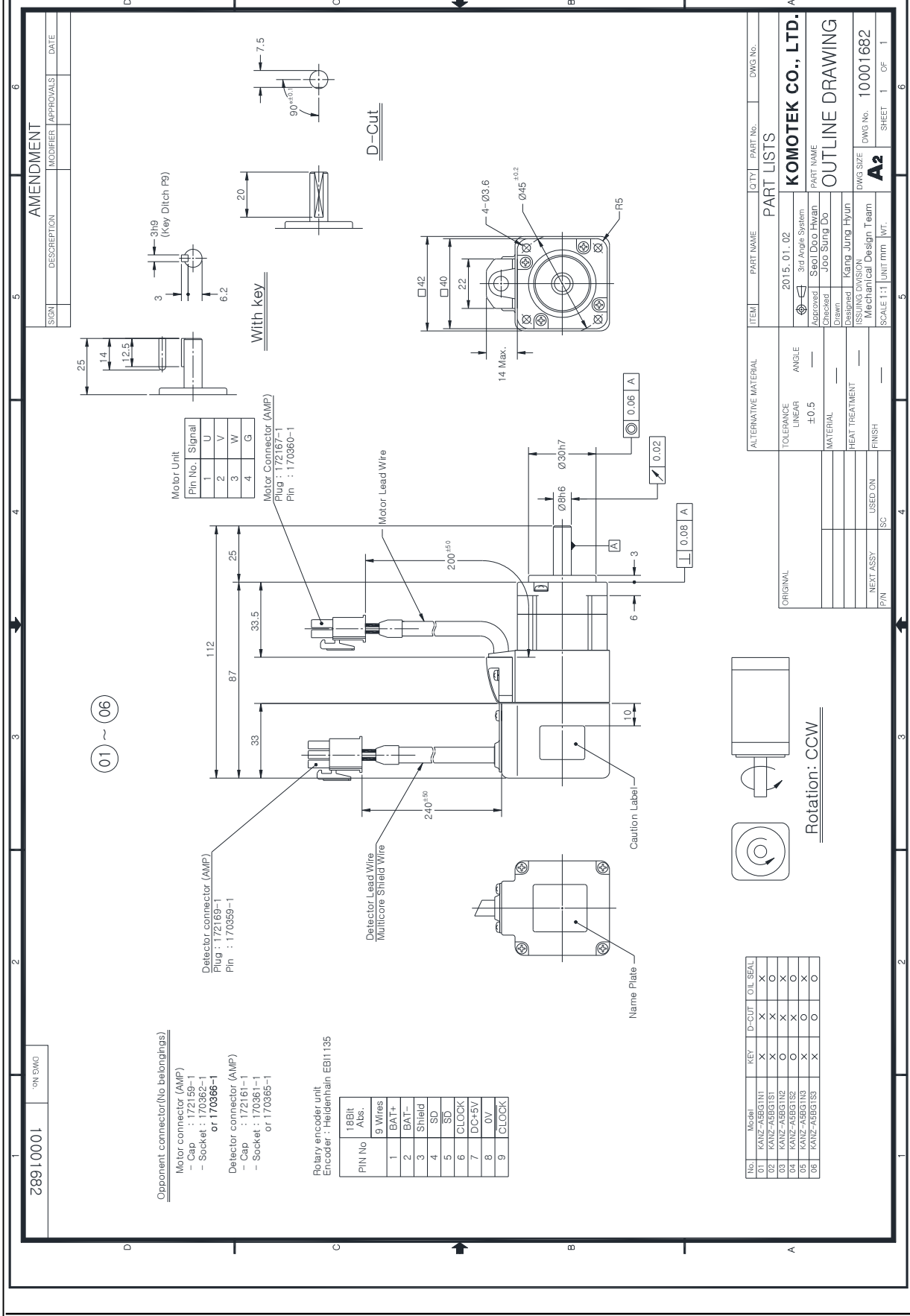
**PART LISTS**

ITEM	PART NAME	QTY	PART No.	DWG No.
2015.01.06	3rd Angle System			
Approved	Seal Doo Hwan			
Checked	Joo Sung Do			
Drawn	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG SIZE	SCALE 1:1	UNIT mm	WT.	

**KOMOTEK CO., LTD.**  
**OUTLINE DRAWING**

DWG No. **10100573**  
SHEET **1** OF **1**

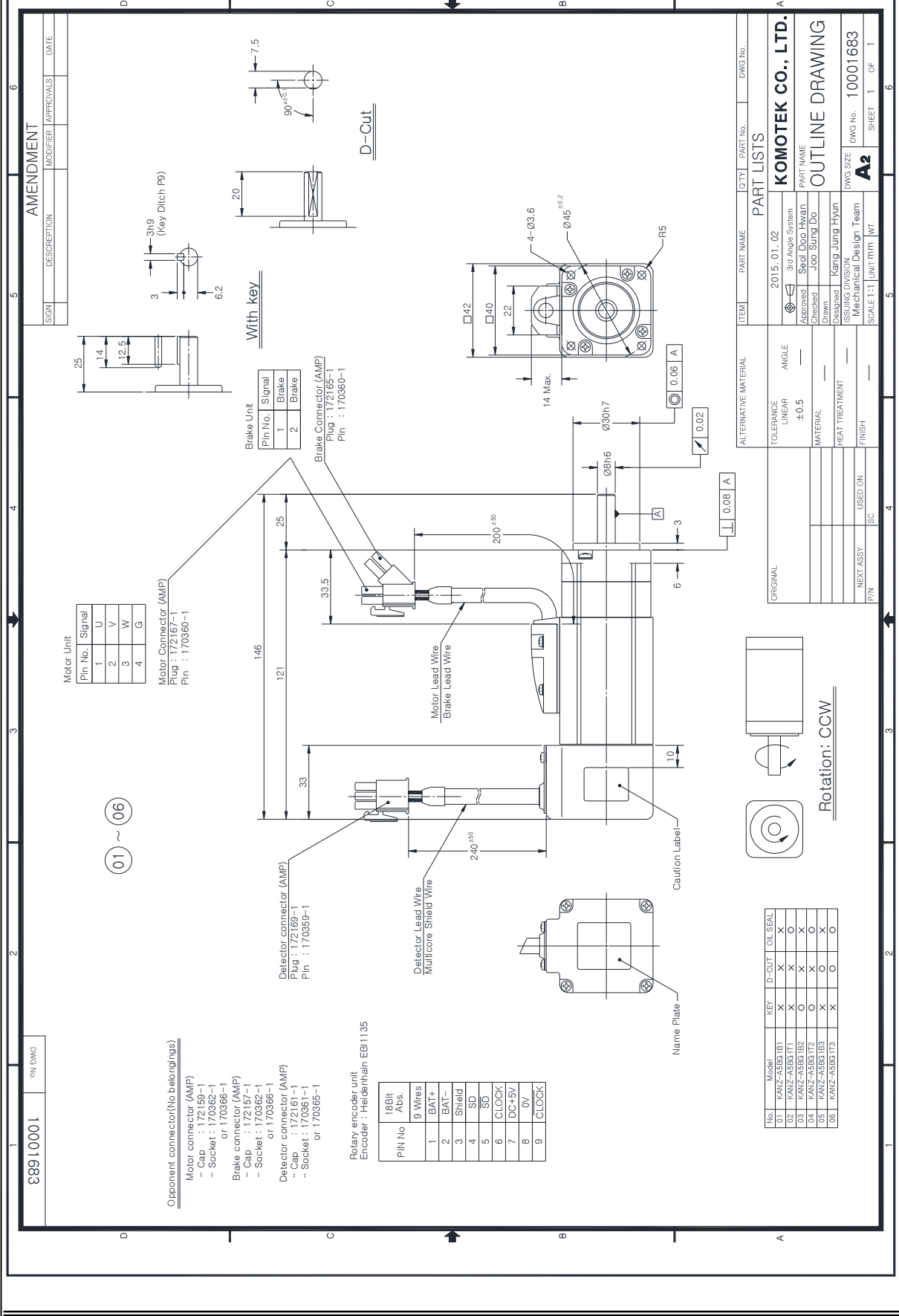
# KANZ-A5BG1□□ Normal Model Outline Drawing [Heidenhain Encoder EBI 1135]



Rotation: CCW

No.	Modifi	KEY	D-CUT	OIL SEAL
01	KANZ-A5BG1N1	X	X	X
02	KANZ-A5BG1S1	X	X	X
03	KANZ-A5BG1N2	X	X	X
04	KANZ-A5BG1S2	X	X	X
05	KANZ-A5BG1N3	X	X	X
06	KANZ-A5BG1S3	X	X	X

KANZ-A5BG1 □ □ Brake Model Outline Drawing [Heidenhain Encoder EBI 1135]



AMENDMENT

SIGN	DESCRIPTION	MODIFIER	APPROVALS	DATE

Motor Unit

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
Plug : 172169-1  
Pin : 170360-1

Brake Unit

Pin No.	Signal
1	Brake
2	Brake

Brake Connector (AMP)  
Plug : 172165-1  
Pin : 170360-1

- Opponent connector (No. belongings)
- Motor connector (AMP)
    - Cap : 172159-1
    - Socket : 170362-1
  - or 170366-1
  - Brake connector (AMP)
    - Cap : 172157-1
    - Socket : 170362-1
  - or 170366-1
  - Detector connector (AMP)
    - Cap : 172161-1
    - Socket : 170361-1
  - or 170365-1

Rotary encoder unit  
Encoder : Heidenhain EBI 1135

Pin No	18Bit Abs.	9 Wires
1	BAT+	
2	BAT-	
3	Shield	
4	SD	
5	SD	
6	CLOCK	
7	DC+5V	
8	0V	
9	CLOCK	

PART LISTS

ITEM	PART NAME	QTY	PART No.	DWG No.
2015.01.02	3rd Angle System			
Approved	Sed Doo Hwan			
Checked	Joong Sung Do			
Drawn	Kang Jung Hyun			
Designed	Seung Do Hwang			
Reviewed	Mechanical Design Team			

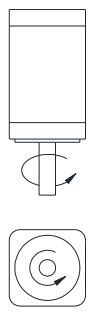
ALTERNATIVE MATERIAL

TOLERANCE	ANGLE
LINEAR	—
ANGULAR	—
MATERIAL	—
HEAT TREATMENT	—
FINISH	—

ORIGINAL

SCALE	UNIT	MT.
1:1	mm	

DWG No. 10001683  
SHEET 1 OF 1

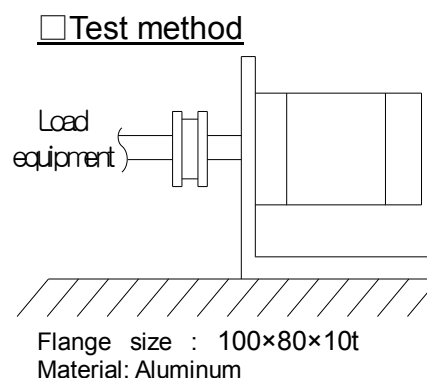
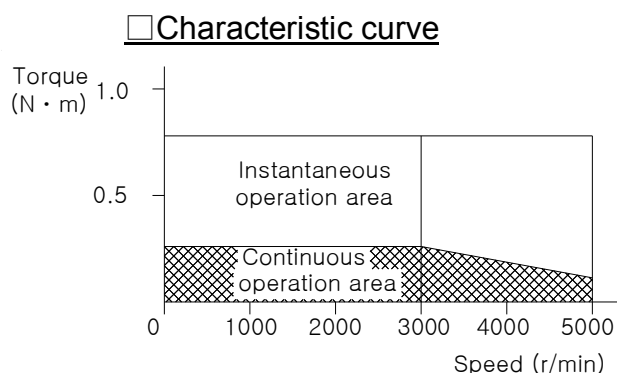


No.	Model	KEY	D-CUT	OIL SEAL
01	KANZ-A5BG1B1	X	X	X
02	KANZ-A5BG1T1	X	X	X
03	KANZ-A5BG1B2	X	X	X
04	KANZ-A5BG1B3	X	X	X
05	KANZ-A5BG1T3	X	X	X

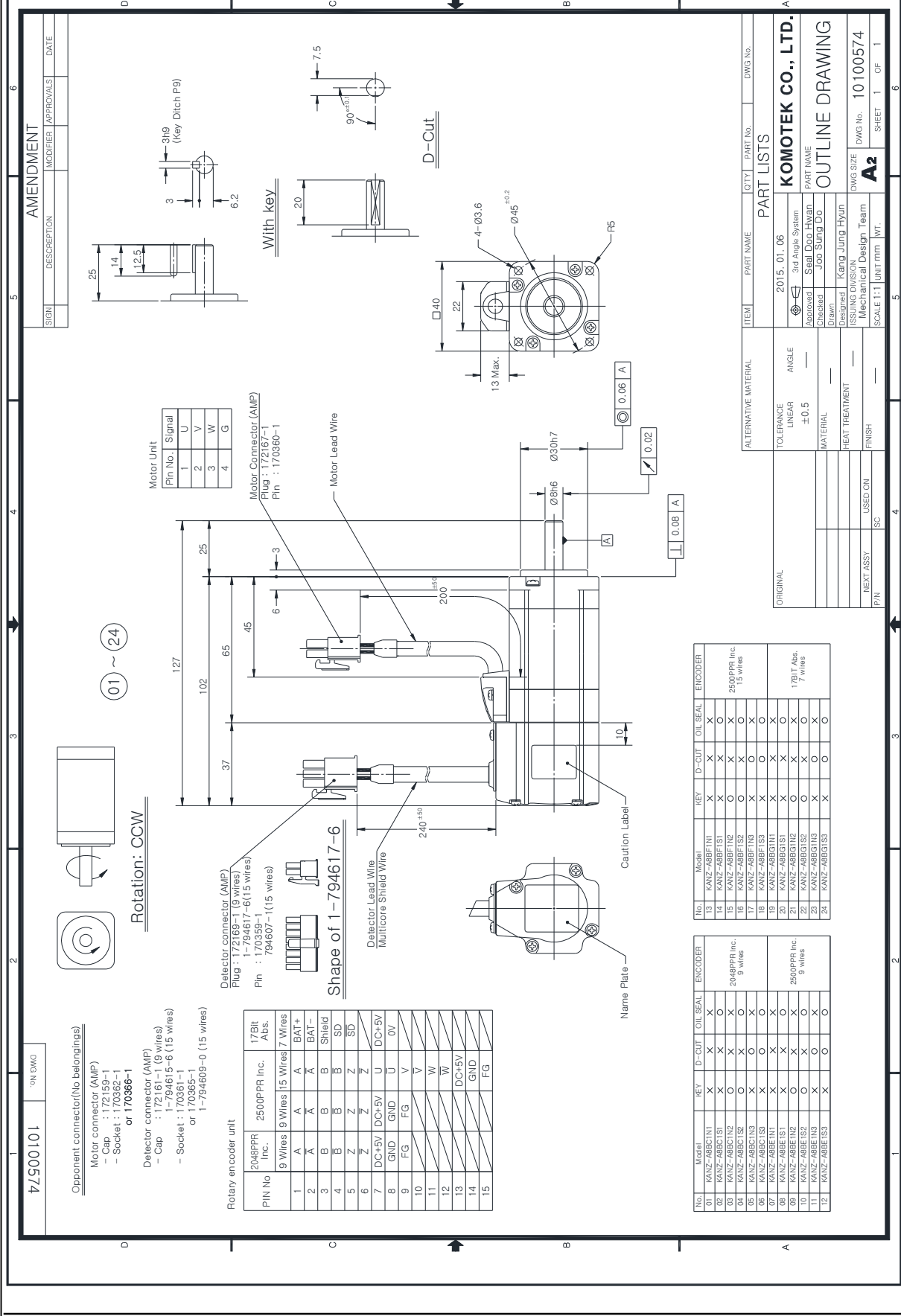
## AC Servo Motor Specifications

Item	Unit	KANZ-A8B□1N□	KANZ-A8B□1B□	Remarks
		KANZ-A8B□1S□	KANZ-A8B□1T□	
Flange size	mm	40	40	
Rated output	W	80	80	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.255	0.255	
	kgf·cm	2.60	2.60	
Maximum torque	N·m	0.76	0.76	
	kgf·cm	7.8	7.8	
Rated current	A <sub>(rms)</sub>	1.0	1.0	±10%
Rotor inertia	$\times 10^{-4}$ kg·m <sup>2</sup>	0.039	0.049	
	gf·cm·sec <sup>2</sup>	0.040	0.050	
Elec. time constant	ms	0.96	0.96	
Mech. time constant	ms	0.86	1.09	
Rated power rate	kW/s	17.0	13.6	
Momentary maximum current	A(o-p)	4.3	4.3	±10%
Back EMF constant per phase	$\times 10^{-3}$ V <sub>(rms)</sub> /min <sup>-1</sup>	9.3	9.3	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.27	0.27	±10%
	kgf·cm/A <sub>(rms)</sub>	2.75	2.75	±10%
Phase resistance	Ω	4.6	4.6	±10%
Phase inductance	mH	4.25	4.25	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	0.5	0.77	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.

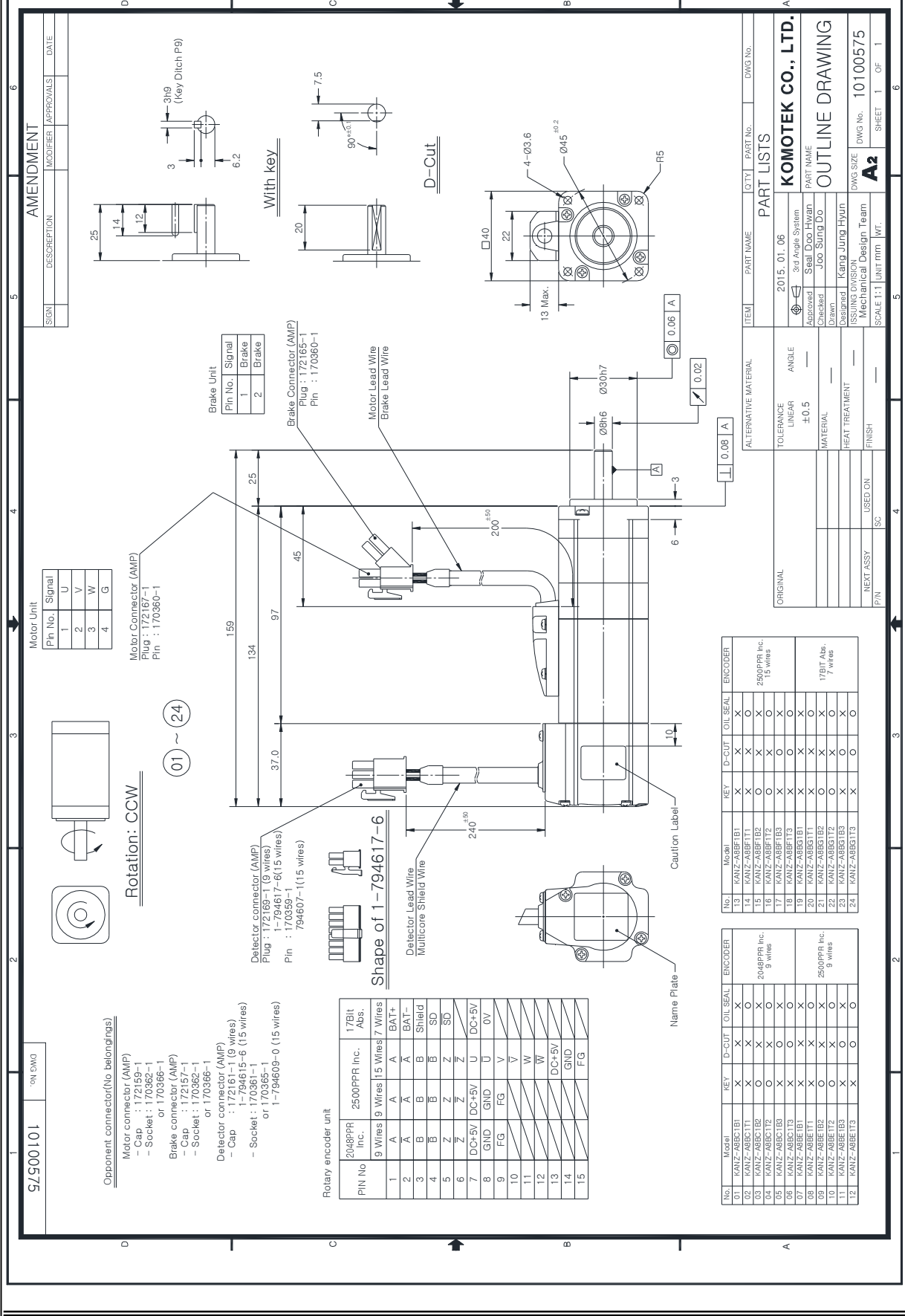


KANZ-A8B□1□□\_Normal Model Outline Drawing





KANZ-A8B□1□□ Brake Model Outline Drawing



SIGN		DESCRIPTION		MODIFIER		APPROVALS		DATE	

Motor Unit

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
 Plug : 172167-1  
 Pin : 170360-1

Brake Unit

Pin No.	Signal
1	Brake
2	Brake

Brake Connector (AMP)  
 Plug : 172165-1  
 Pin : 170380-1

Rotary encoder unit

Pin No	2049PPR Inc.	2500PPR Inc.	17Bit Abs
1	A	A	BAT+
2	A	A	BAT-
3	B	B	Shield
4	B	B	SD
5	Z	Z	SD
6	Z	Z	SD
7	DC+5V	DC+5V	U
8	GND	GND	U
9	FG	FG	V
10	W	W	W
11	W	W	W
12	W	W	W
13	DC+5V	DC+5V	U
14	GND	GND	U
15	FG	FG	V

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER	D-CUT	OIL SEAL	ENCODER
13	KANZ-ABBF1B1	X	X	X	X	X	X	X
14	KANZ-ABBF1T1	X	X	X	X	X	X	X
15	KANZ-ABBF1B2	X	X	X	X	X	X	2500PPR Inc. 15 wires
16	KANZ-ABBF1T2	X	X	X	X	X	X	X
17	KANZ-ABBF1B3	X	X	X	X	X	X	X
18	KANZ-ABBF1T3	X	X	X	X	X	X	X
19	KANZ-ABBE1B1	X	X	X	X	X	X	X
20	KANZ-ABBE1T1	X	X	X	X	X	X	X
21	KANZ-ABBE1B2	X	X	X	X	X	X	17Bit Abs. 7 wires
22	KANZ-ABBE1T2	X	X	X	X	X	X	X
23	KANZ-ABBE1B3	X	X	X	X	X	X	X
24	KANZ-ABBE1T3	X	X	X	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-ABBC1B1	X	X	X	X
02	KANZ-ABBC1T1	X	X	X	X
03	KANZ-ABBC1B2	X	X	X	X
04	KANZ-ABBC1T2	X	X	X	X
05	KANZ-ABBC1B3	X	X	X	X
06	KANZ-ABBC1T3	X	X	X	X
07	KANZ-ABBE1B1	X	X	X	X
08	KANZ-ABBE1T1	X	X	X	X
09	KANZ-ABBE1B2	X	X	X	X
10	KANZ-ABBE1T2	X	X	X	X
11	KANZ-ABBE1B3	X	X	X	X
12	KANZ-ABBE1T3	X	X	X	X

ITEM	PART NAME	Q'TY	PART No.	DWG No.

**PART LISTS**

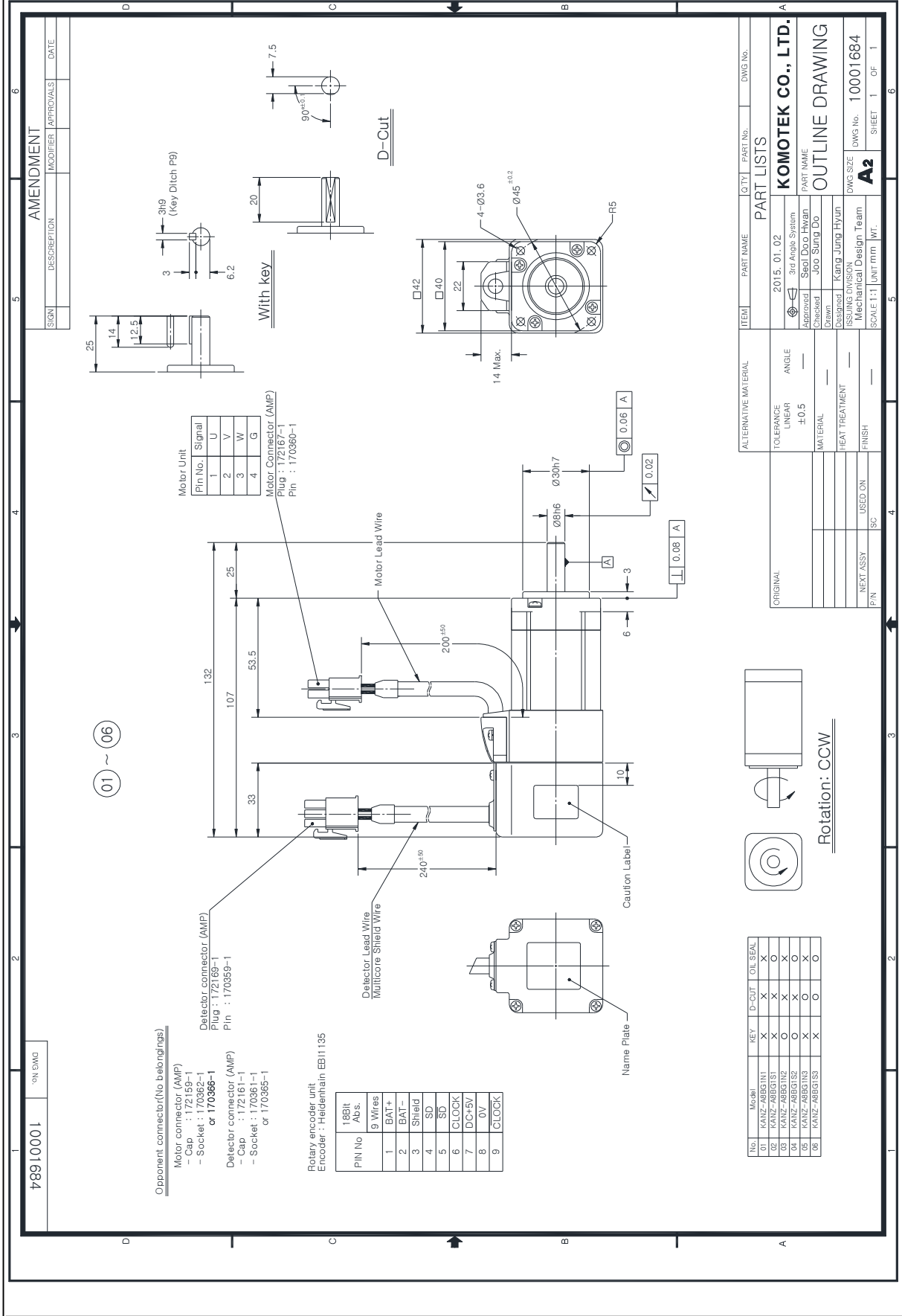
2015. 01. 06	3rd Angle System
Approved	Seal Doon Hywan
Checked	Joo Sung Do
Drawn	Daejeon Kang Jung Hyun
ISSUING DIVISION	Mechanical Design Team
DWG No.	10100575
SCALE 1:1	LIMIT mm
SHEET 1	OF 1

**KOMOTEK CO., LTD.**  
**OUTLINE DRAWING**

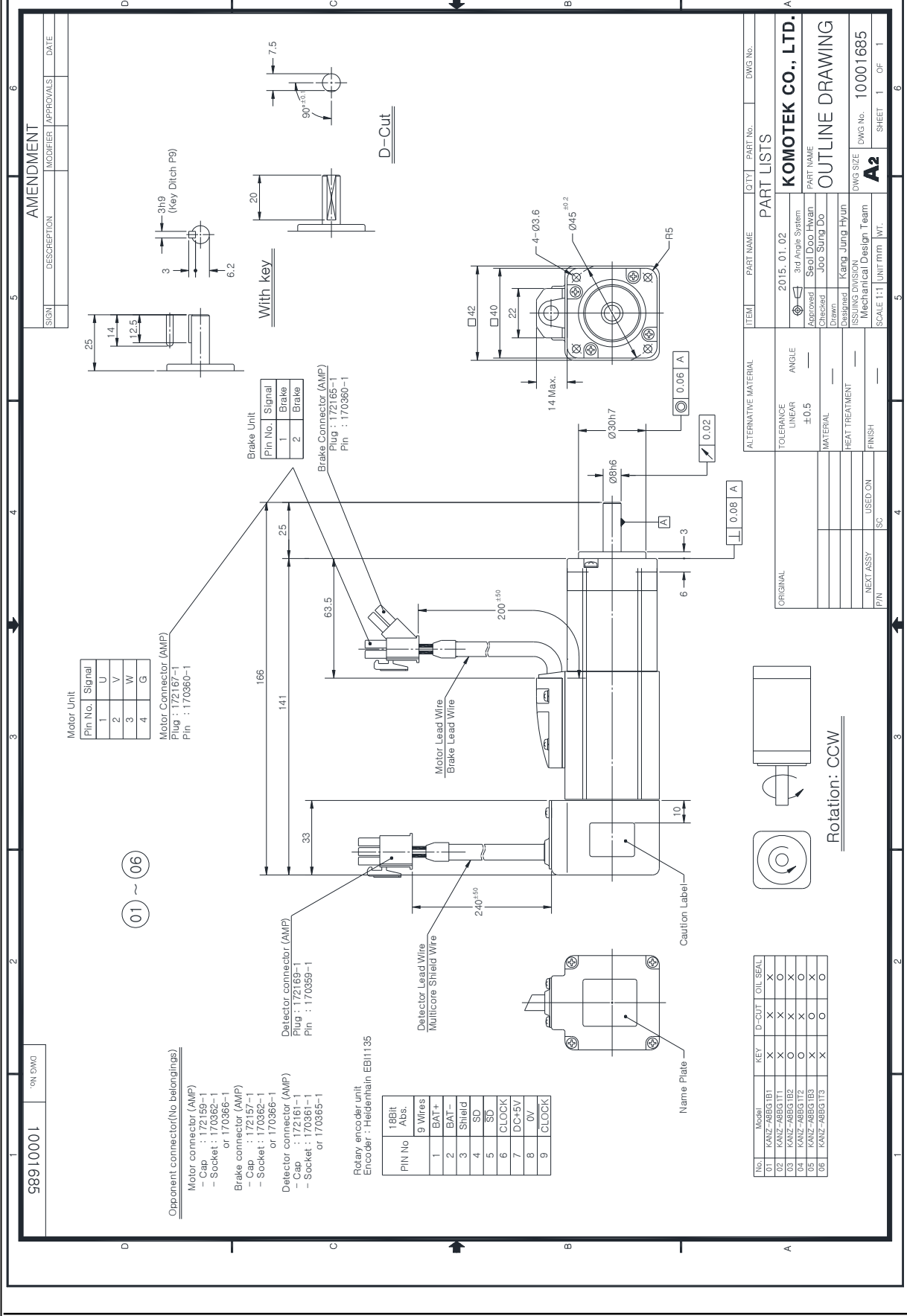
57500101 00N 5XMO

Opponent connector (No belongs to us)  
 Motor connector (AMP)  
 - Cap : 170150-1 (9 wires)  
 - Socket : 170382-1  
 or 170366-1  
 Brake connector (AMP)  
 - Cap : 172157-1  
 - Socket : 170382-1  
 or 170366-1  
 Detector connector (AMP)  
 - Cap : 172161-1 (9 wires)  
 - Socket : 170361-1  
 or 170365-1  
 or 1794609-0 (15 wires)

**KANZ-A8BG1** □ □ **Normal Model Outline Drawing [Heidenhain Encoder EBI 1135]**



KANZ-A8BG1 □ □ Brake Model Outline Drawing [Heidenhain Encoder EBI 1135]



AMENDMENT			
SIGN	DESCRIPTION	MODIFIER	APPROVALS
		DATE	

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
Plug : 172167-1  
Pin : 170360-1

Pin No.	Signal
1	Signal
2	Brake
3	Brake

Brake Unit  
Plug : 172165-1  
Pin : 170360-1

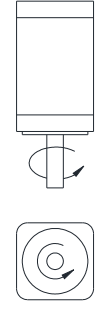
Pin No.	Signal
1	Signal
2	Brake
3	Brake

Detector connector (AMP)  
Plug : 172169-1  
Pin : 170359-1

Relay encoder unit  
Encoder : Heidenhain EBI1135

PIN No	18Bit Abs.	9 Wires
1	BAT+	
2	BAT-	
3	Shield	
4	SD	
5	SD	
6	CLOCK	
7	DC+5V	
8	0V	
9	CLOCK	

No.	Model	KEY	D-CUT	OIL SEAL
01	KANZ-A8BG1B1	X	X	X
02	KANZ-A8BG1T1	X	X	X
03	KANZ-A8BG1B2	O	X	X
04	KANZ-A8BG1B3	O	X	X
05	KANZ-A8BG1B3	X	X	X
06	KANZ-A8BG1T3	X	O	O



ITEM	PART NAME	QTY	PART No.	DWG No.

**PART LISTS**

APPROVED	DESIGNED	CHECKED	DRAWN	CUSTOMER

2015. 01. 02  
3rd Angle System  
Approved: Seo Doo Hyun  
Drawn: Joo Sung Do  
Customer: Kang Jung Hyun

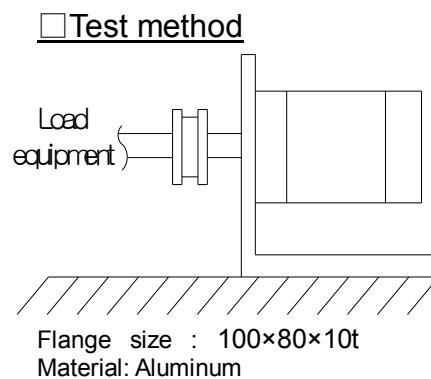
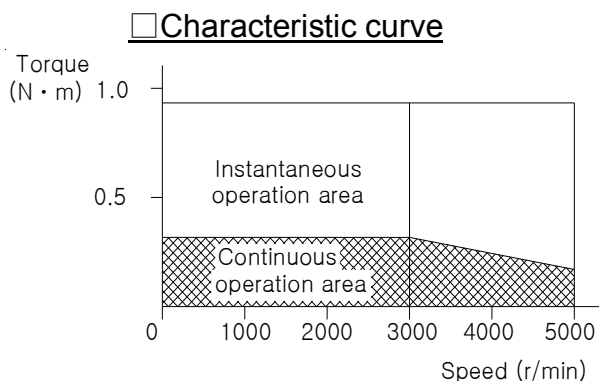
**KOMOTEK CO., LTD.**  
PART NAME: **OUTLINE DRAWING**

ISSUING DIVISION: Mechanical Design Team  
DWG No.: 10001685  
SCALE: 1:1 UNIT: mm  
SHEET 1 OF 1

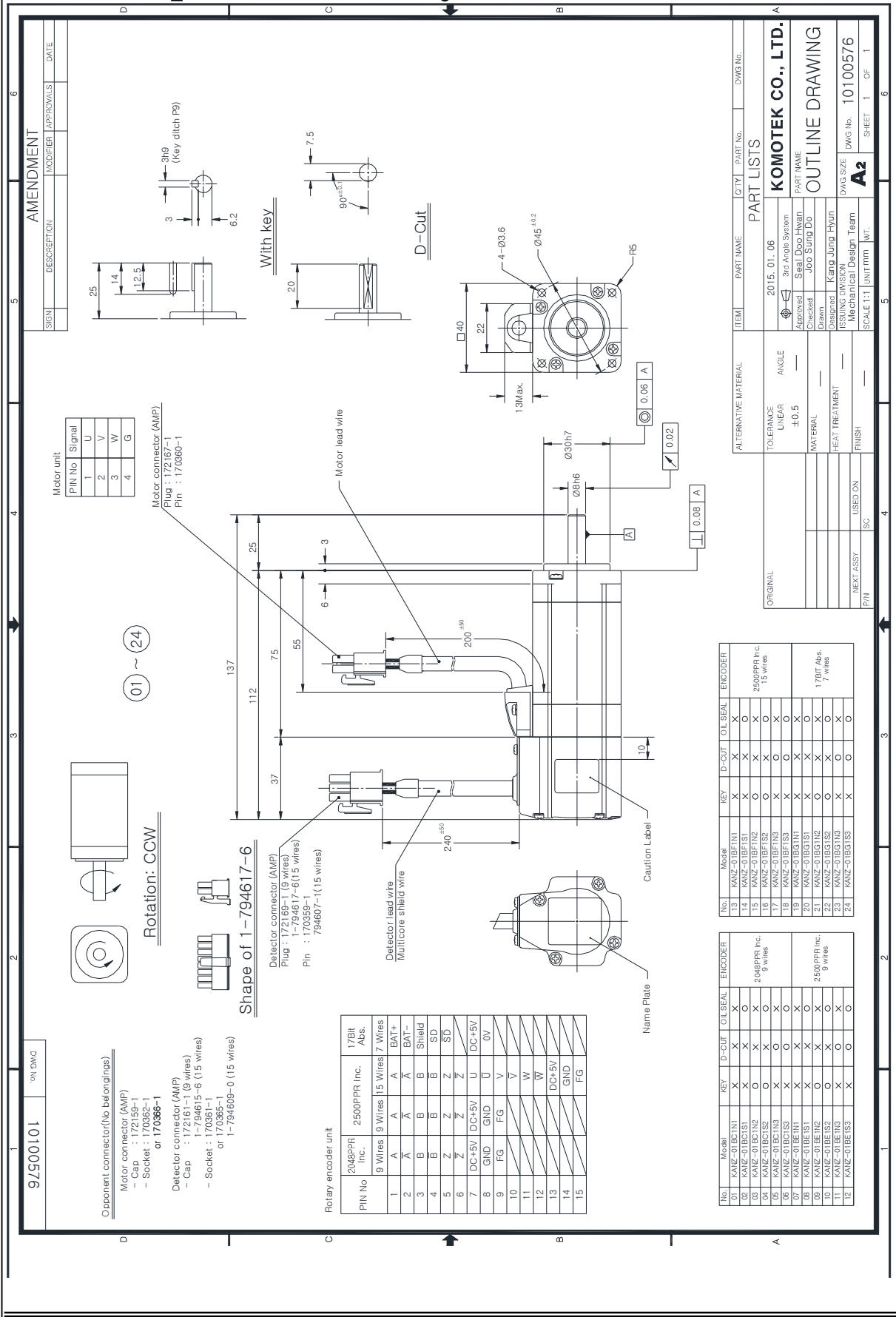
## AC Servo Motor Specifications

Item	Unit	KANZ-01B□1N□ KANZ-01B□1S□	KANZ-01B□1B□ KANZ-01B□1T□	Remarks
Flange size	mm	40	40	
Rated output	W	100	100	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.32	0.32	
	kgf·cm	3.24	3.24	
Maximum torque	N·m	0.95	0.95	
	kgf·cm	9.7	9.7	
Rated current	A <sub>(rms)</sub>	1.0	1.0	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.059	0.061	
	gf·cm·sec <sup>2</sup>	0.060	0.062	
Elec. time constant	ms	0.88	0.88	
Mech. time constant	ms	0.98	1.02	
Rated power rate	kW/s	17.7	17.1	
Momentary maximum current	A(o-p)	4.30	4.30	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	11.5	11.5	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.36	0.36	±10%
	kgf·cm/A <sub>(rms)</sub>	3.67	3.67	±10%
Phase resistance	Ω	5.7	5.7	±10%
Phase inductance	mH	5.0	5.0	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	0.66	0.93	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-01B□1□□\_Normal Model Outline Drawing



**PART LISTS**

ITEM	PART NAME	QTY	PART No.	DWS No.
	2015_01_06			
	3rd Angle System			
	Approved Seal Doc Hyuan			
	Checked Joo Sung Do			
	Drawn Kang Jung Hyun			
	DESIGN DIVISION			
	Mechanical Design Team			
SCALE 1:1 UNIT: mm			DWS No. 10100576	
FINISH			USED ON	
NEXT ASSY			SC	

**ALTERNATIVE MATERIAL**

LINEAR	ANGLE
±0.5	
TOLERANCE	
MATERIAL	
HEAT TREATMENT	

**ORIGINAL**

**NEXT ASSY**

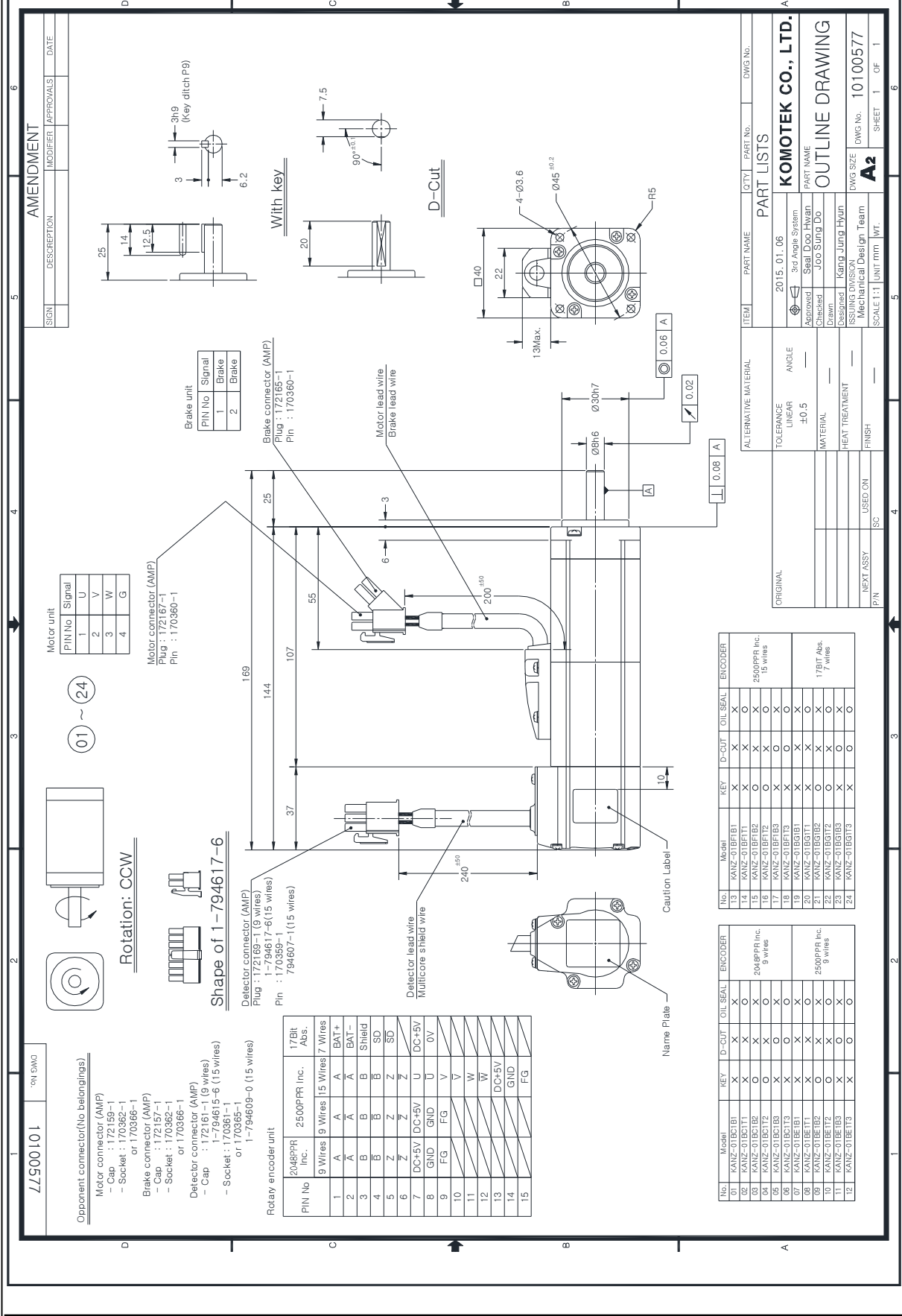
**USED ON**

**SC**

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
13	KANZ-01BFIN1	X	X	X	X
14	KANZ-01BFLS1	X	X	X	X
15	KANZ-01BFTN2	X	X	X	2500PPR Inc. 15 wires
16	KANZ-01BFTS2	X	X	X	X
17	KANZ-01BFTN3	X	X	X	X
18	KANZ-01BFTS3	X	X	X	X
19	KANZ-01BFTN1	X	X	X	X
20	KANZ-01BFTS1	X	X	X	X
21	KANZ-01BGTN2	X	X	X	17BIT Abs. 7 wires
22	KANZ-01BGTS2	X	X	X	X
23	KANZ-01BGTN3	X	X	X	X
24	KANZ-01BGTS3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-01BCIN1	X	X	X	X
02	KANZ-01BCIS1	X	X	X	X
03	KANZ-01BCIN2	X	X	X	2048PPR Inc. 9 wires
04	KANZ-01BCIS2	X	X	X	X
05	KANZ-01BCIN3	X	X	X	X
06	KANZ-01BCIS3	X	X	X	X
07	KANZ-01BCIN1	X	X	X	X
08	KANZ-01BCIS1	X	X	X	X
09	KANZ-01BEIN2	X	X	X	2500PPR Inc. 9 wires
10	KANZ-01BEIS2	X	X	X	X
11	KANZ-01BEIN3	X	X	X	X
12	KANZ-01BEIS3	X	X	X	X

KANZ-01B□□□ Brake Model Outline Drawing



AMENDMENT	DESCRIPTION	MODIFIER	APPROVALS	DATE

ITEM	PART NAME	QTY	PART No.	DWG No.

**PART LISTS**

2015-01-06	3rd Angle System	Approved	Seal Doc Hwan	PART NAME

**KOMOTEK CO., LTD.**

**OUTLINE DRAWING**

Designed: Kang Jung Hyun  
Checked: Joo Sung Do  
Drawn: Joo Sung Do  
ISSUING DIVISION: Mechanical Design Team  
DWG No.: 10100577  
SCALE 1:1 UNIT mm INT.

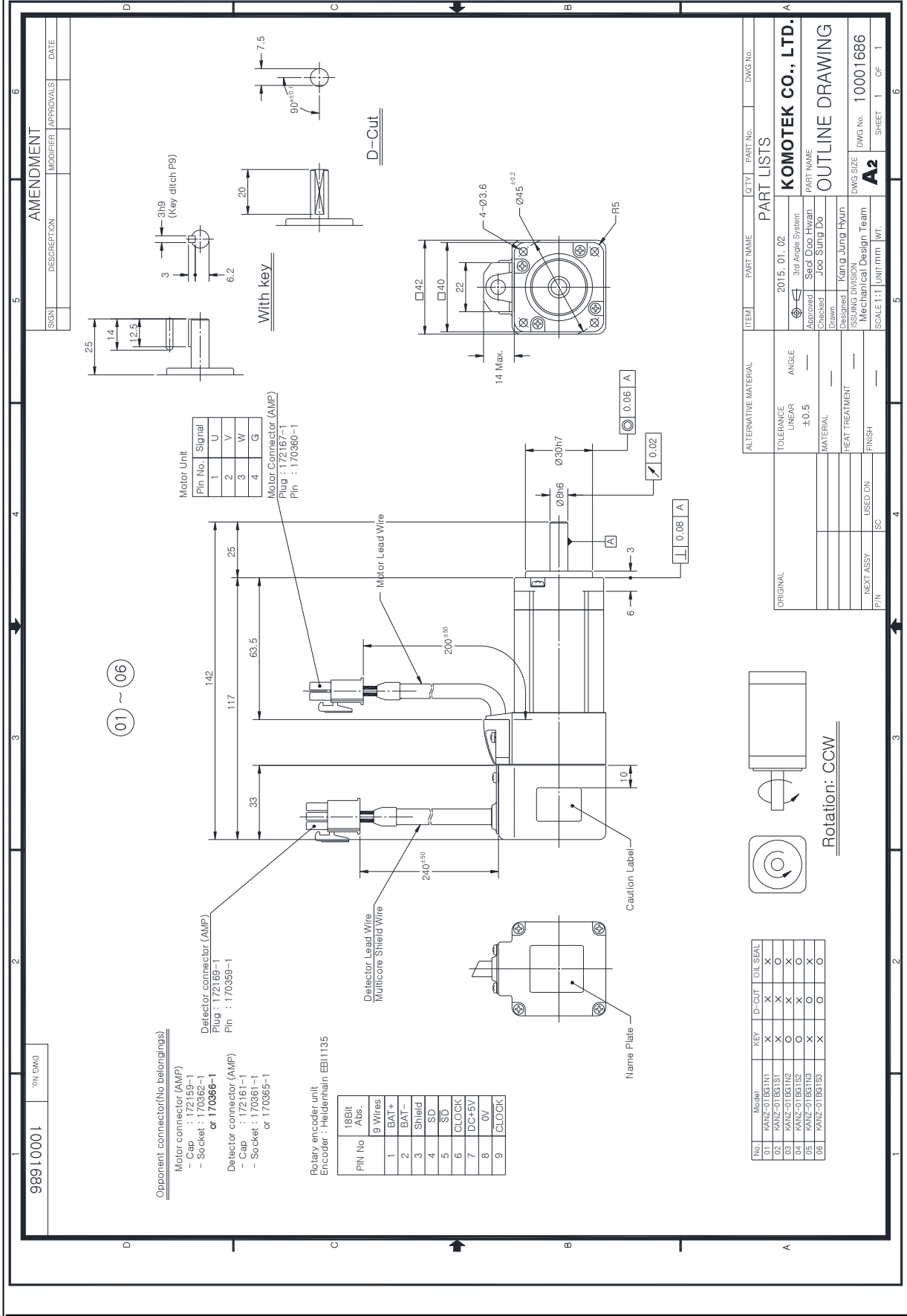
**A2**

SHEET 1 OF 1

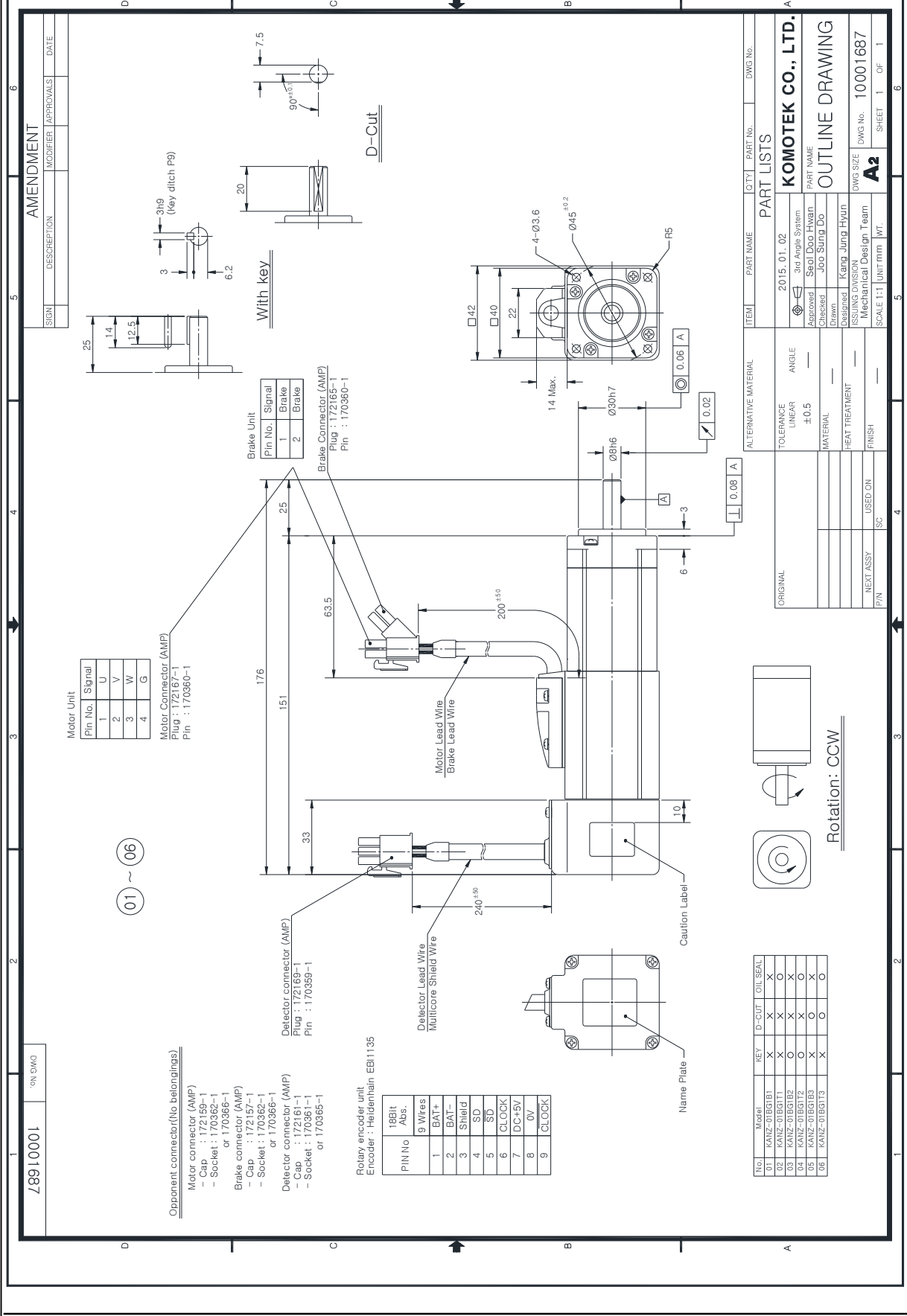
No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
13	KANZ-01BF1B1	X	X	X	X
14	KANZ-01BF1T1	X	X	X	X
15	KANZ-01BF1B2	X	X	X	X
16	KANZ-01BF1B2	X	X	X	X
17	KANZ-01BF1B3	X	X	X	X
18	KANZ-01BF1T3	X	X	X	X
19	KANZ-01BG1B1	X	X	X	X
20	KANZ-01BG1T1	X	X	X	X
21	KANZ-01BG1B2	X	X	X	X
22	KANZ-01BG1T2	X	X	X	X
23	KANZ-01BG1B3	X	X	X	X
24	KANZ-01BG1T3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-01BC1B1	X	X	X	X
02	KANZ-01BC1T1	X	X	X	X
03	KANZ-01BC1B2	X	X	X	X
04	KANZ-01BC1T2	X	X	X	X
05	KANZ-01BC1B3	X	X	X	X
06	KANZ-01BC1T3	X	X	X	X
07	KANZ-01BE1B1	X	X	X	X
08	KANZ-01BE1T1	X	X	X	X
09	KANZ-01BE1B2	X	X	X	X
10	KANZ-01BE1T2	X	X	X	X
11	KANZ-01BE1B3	X	X	X	X
12	KANZ-01BE1T3	X	X	X	X

KANZ-01BG1 □ □ Normal Model Outline Drawing [Heidenhain Encoder EBI 1135]



KANZ-01BG1 Brake Model Outline Drawing [Heidenhain Encoder EBI 1135]

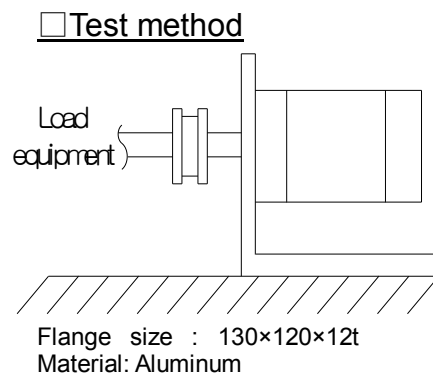
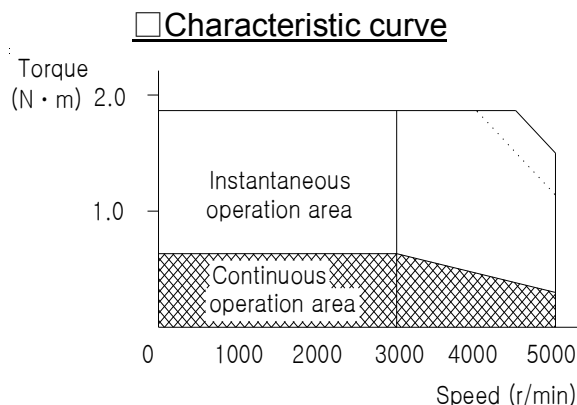




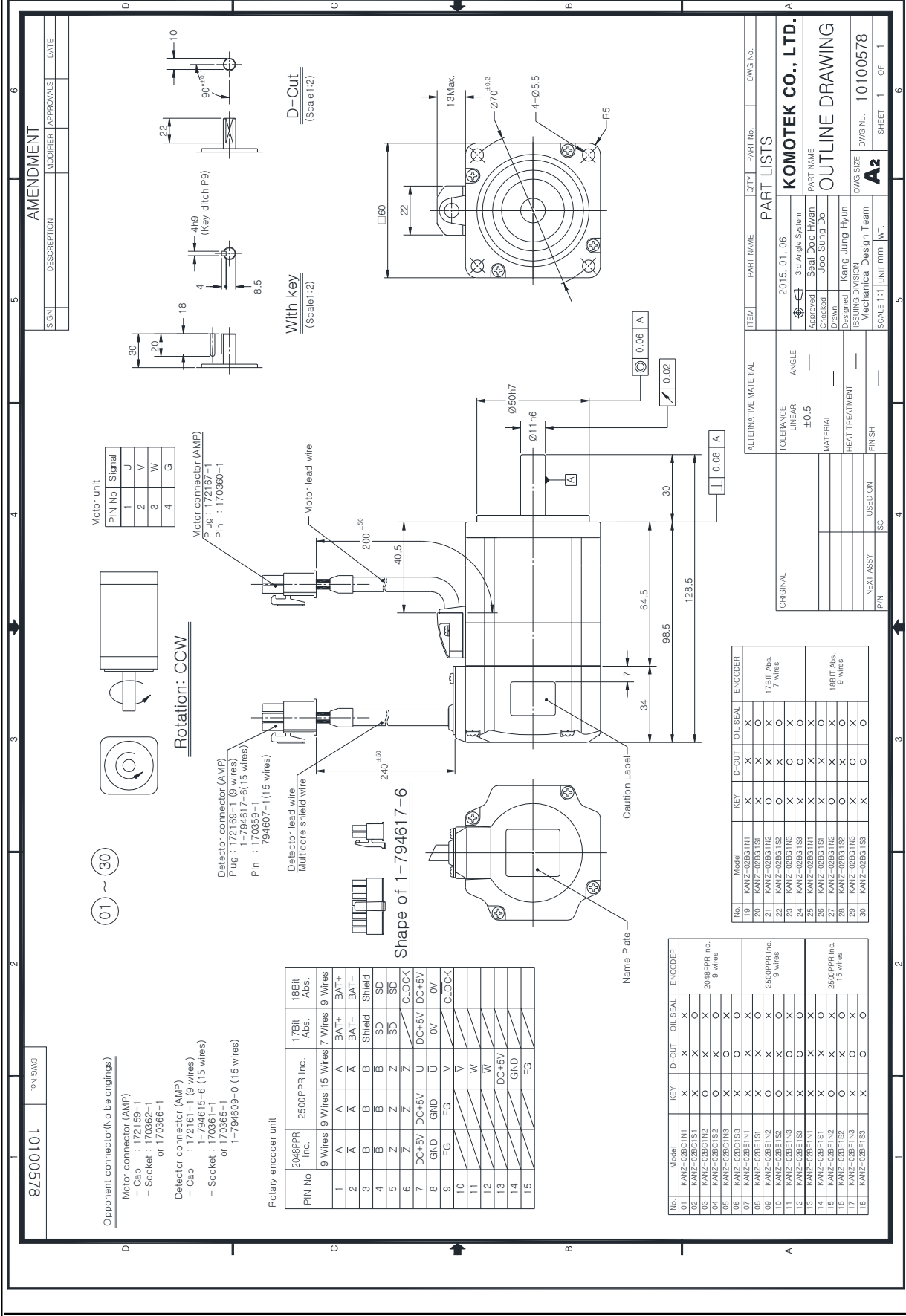
## AC Servo Motor Specifications

Item	Unit	KANZ-02B□1N□	KANZ-02B□1B□	Remarks
		KANZ-02B□1S□	KANZ-02B□1T□	
Flange size	mm	60	60	
Rated output	W	200	200	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.64	0.64	
	kgf·cm	6.5	6.5	
Maximum torque	N·m	1.91	1.91	
	kgf·cm	19.5	19.5	
Rated current	A <sub>(rms)</sub>	1.6	1.6	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.19	0.21	
	gf·cm·sec <sup>2</sup>	0.19	0.21	
Elec. time constant	ms	3.1	3.1	
Mech. time constant	ms	0.81	0.9	
Rated power rate	kW/s	21.9	19.9	
Momentary maximum current	A(o-p)	6.89	6.89	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	14.8	14.8	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.42	0.42	±10%
	kgf·cm/A <sub>(rms)</sub>	4.28	4.28	±10%
Phase resistance	Ω	2.2	2.2	±10%
Phase inductance	mH	6.8	6.8	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	1.0	1.5	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-02B□1□□ Normal Model Outline Drawing



87500101	9W 5VKG	AMENDMENT	DESCRIPTION	MODIFIER	APPROVALS	DATE

- Opponent connector (No belonging)
- Motor connector (AMP)
  - Cap : 172159-1
  - Socket : 170362-1 or 170366-1
- Detector connector (AMP)
  - Cap : 172161-1 (9 wires)
  - Socket : 170361-1 or 170365-1
- 1-794609-0 (15 wires)

ITEM	PART NAME	QTY	PART No.	DWG No.

**PART LISTS**

2015. 01. 06  
3rd Angle System

Approved : Seol Doo Hyun  
Drawn : Joo Sung Do

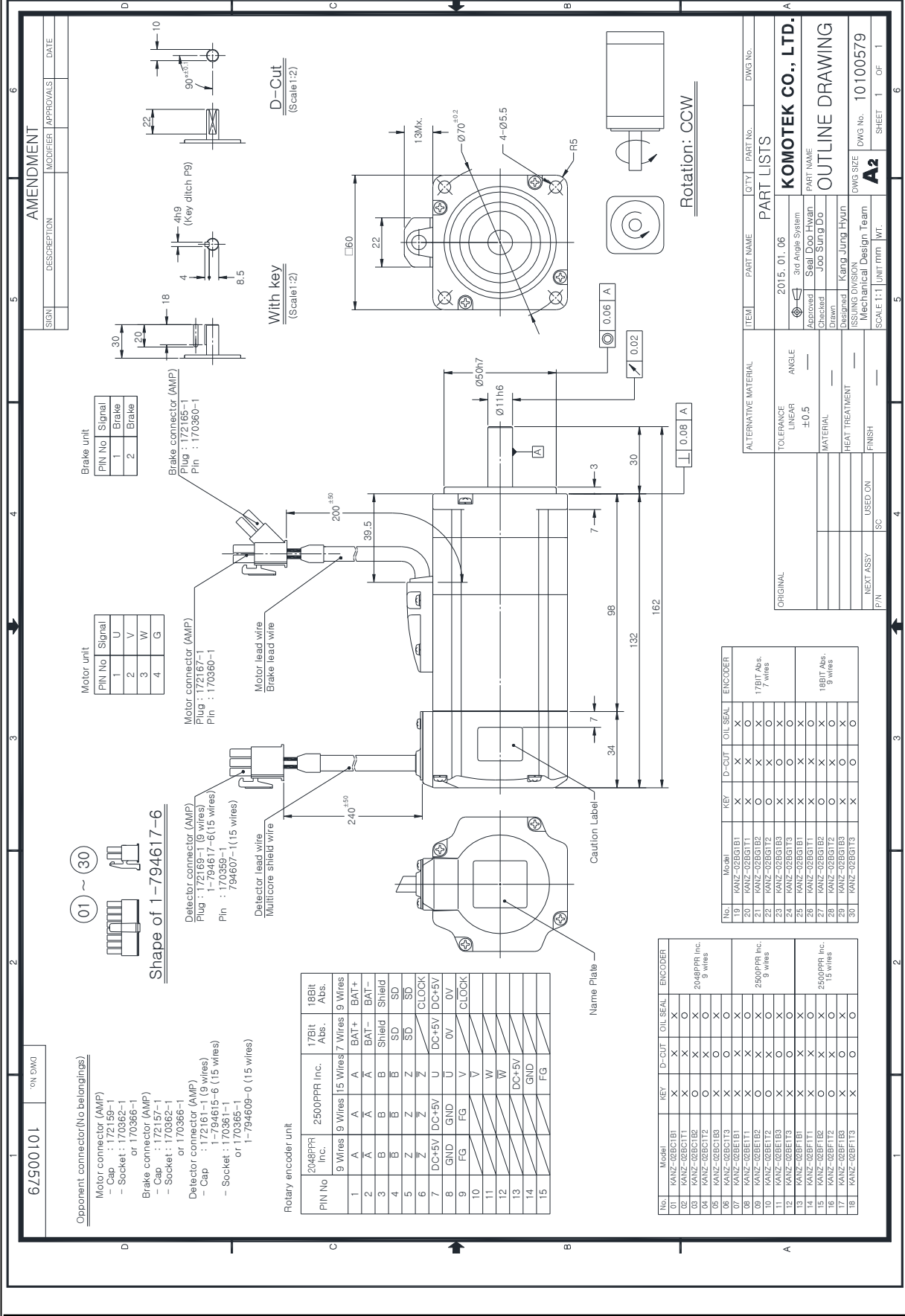
ISSUING DIVISION : Kang Jung Hyun  
Mechanical Design Team

DWG No. : 10100578  
SHEET 1 OF 1

Scale 1:1 Unit mm

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-02B51N1	X	X	X	17Bit Abs. 7 wires
20	KANZ-02B51S1	X	X	X	17Bit Abs. 7 wires
21	KANZ-02B51N2	O	X	X	18Bit Abs. 9 wires
22	KANZ-02B51S2	O	X	X	18Bit Abs. 9 wires
23	KANZ-02B51N3	X	X	X	2500PPR Inc. 9 wires
24	KANZ-02B51S3	X	X	X	2500PPR Inc. 9 wires
25	KANZ-02B51N1	X	X	X	2500PPR Inc. 15 wires
26	KANZ-02B51S1	X	X	X	2500PPR Inc. 15 wires
27	KANZ-02B51N2	O	X	X	2500PPR Inc. 15 wires
28	KANZ-02B51S2	O	X	X	2500PPR Inc. 15 wires
29	KANZ-02B51N3	X	X	X	2500PPR Inc. 15 wires
30	KANZ-02B51S3	X	X	X	2500PPR Inc. 15 wires

KANZ-02B□1□□ Brake Model Outline Drawing



**AMENDMENT**

NO.	DESCRIPTION	MODIFIER	APPROVALS	DATE

**Motor unit**

PIN No.	Signal
1	U
2	V
3	W
4	G

**Brake unit**

PIN No.	Signal
1	Brake
2	Brake



**Detector connector (AMP)**  
 Plug : 172169-1 (9 wires)  
 1-794617-6 (15 wires)  
 Pin : 170365-1 (15 wires)  
 794007-1 (15 wires)

**Motor connector (AMP)**  
 Plug : 172167-1  
 Pin : 170360-1

**Brake connector (AMP)**  
 Plug : 172165-1  
 Pin : 170360-1

**Rotary encoder unit**

PIN No.	2048PPR Inc.	2500PPR Inc.	17Bit Abs.	18Bit Abs.
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	DC+5V	DC+5V	DC+5V
8	GND	GND	0V	0V
9	FG	FG	V	V
10	FG	FG	V	V
11	W	W	W	W
12	W	W	W	W
13	DC+5V	DC+5V	GND	GND
14	GND	GND	FG	FG
15				

Name Plate

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-02BGT1	X	X	X	X
02	KANZ-02BGT1	X	X	X	X
03	KANZ-02BGT2	X	X	X	X
04	KANZ-02BGT2	X	X	X	X
05	KANZ-02BGT3	X	X	X	X
06	KANZ-02BGT3	X	X	X	X
07	KANZ-02BGT1	X	X	X	X
08	KANZ-02BGT1	X	X	X	X
09	KANZ-02BGT2	X	X	X	X
10	KANZ-02BGT2	X	X	X	X
11	KANZ-02BGT3	X	X	X	X
12	KANZ-02BGT3	X	X	X	X
13	KANZ-02BGT1	X	X	X	X
14	KANZ-02BGT1	X	X	X	X
15	KANZ-02BGT2	X	X	X	X
16	KANZ-02BGT2	X	X	X	X
17	KANZ-02BGT3	X	X	X	X
18	KANZ-02BGT3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-02BGT1	X	X	X	X
20	KANZ-02BGT1	X	X	X	X
21	KANZ-02BGT2	X	X	X	X
22	KANZ-02BGT2	X	X	X	X
23	KANZ-02BGT3	X	X	X	X
24	KANZ-02BGT3	X	X	X	X
25	KANZ-02BGT1	X	X	X	X
26	KANZ-02BGT1	X	X	X	X
27	KANZ-02BGT2	X	X	X	X
28	KANZ-02BGT2	X	X	X	X
29	KANZ-02BGT3	X	X	X	X
30	KANZ-02BGT3	X	X	X	X

**PART LISTS**

ITEM	PART NAME	Q'TY	PART No.	DWG No.
2015. 01. 06	3rd Angle System			
Approved	Seal Doo Hyun			
Checked	Joo Sung Do			
Drawn	Kang Jung Hyun			
Designated	ISSUING DIVISION			
	Mechanical Design Team			

**ALTERNATIVE MATERIAL**

TOLEANCE	LINEAR	ANGLE
±0.5	---	---

**MATERIAL** ---

**HEAT TREATMENT** ---

**FINISH** ---

**USED ON** ---

**SC** ---

**PIN** ---

**SCALE 1:1** UNIT mm

**ISSUING DIVISION** Mechanical Design Team

**DWG No.** 10100579

**Scale Size** A2

**Part Name** KANZ-02B□1□□

**Part No.** ---

**Part Name** KOMOTEK CO., LTD.

**Part Name** OUTLINE DRAWING

**Scale** 1:1

**Unit** mm

**Weight** ---

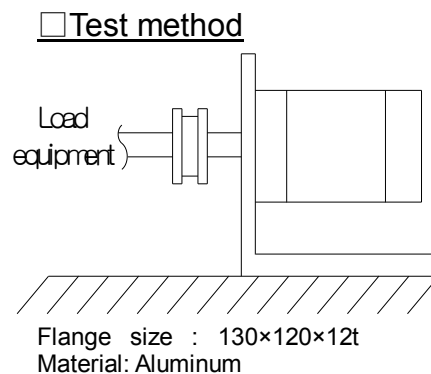
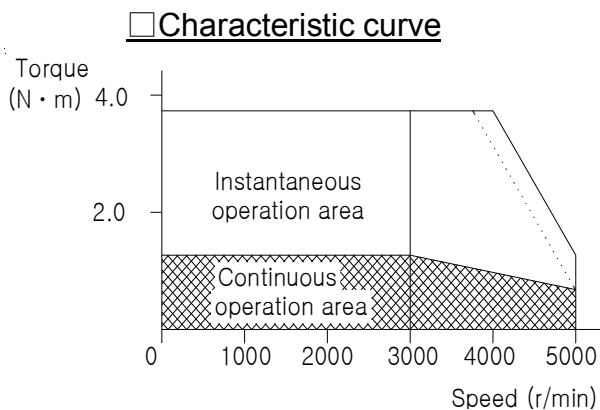
**Sheet** 1 OF 1

Rotation: CCW

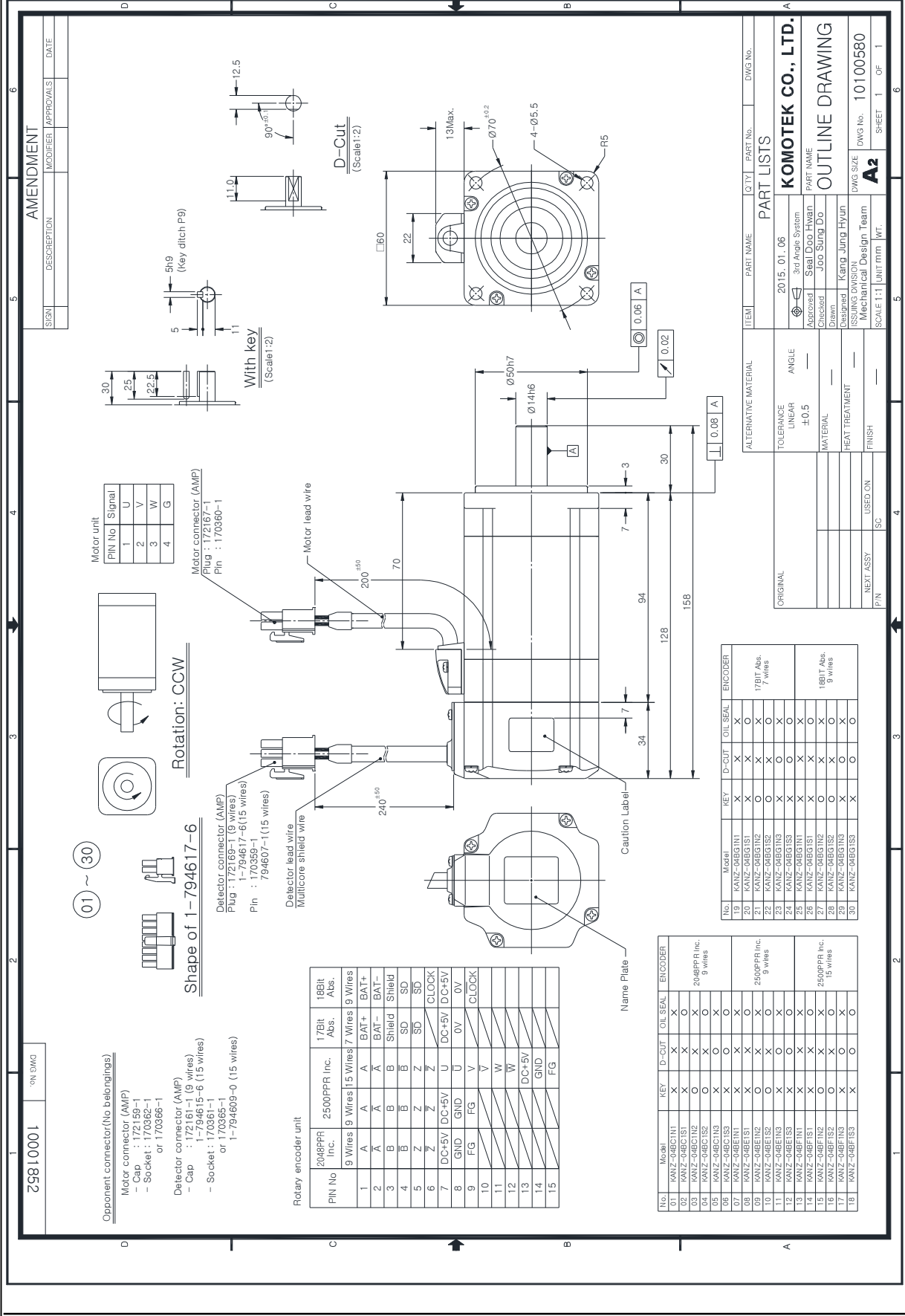
## AC Servo Motor Specifications

Item	Unit	KANZ-04B□1N□ KANZ-04B□1S□	KANZ-04B□1B□ KANZ-04B□1T□	Remarks
Flange size	mm	60	60	
Rated output	W	400	400	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	1.3	1.3	
	kgf·cm	13	13	
Maximum torque	N·m	3.8	3.8	
	kgf·cm	39	39	
Rated current	A <sub>(rms)</sub>	2.5	2.5	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.33	0.35	
	gf·cm·sec <sup>2</sup>	0.34	0.36	
Elec. time constant	ms	3.7	3.7	
Mech. time constant	ms	0.54	0.57	
Rated power rate	kW/s	52.2	49.2	
Momentary maximum current	A(o-p)	10.5	10.5	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	19.0	19.0	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.54	0.54	±10%
	kgf·cm/A <sub>(rms)</sub>	5.51	5.51	±10%
Phase resistance	Ω	1.38	1.38	±10%
Phase inductance	mH	5.1	5.1	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	1.7	2.3	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

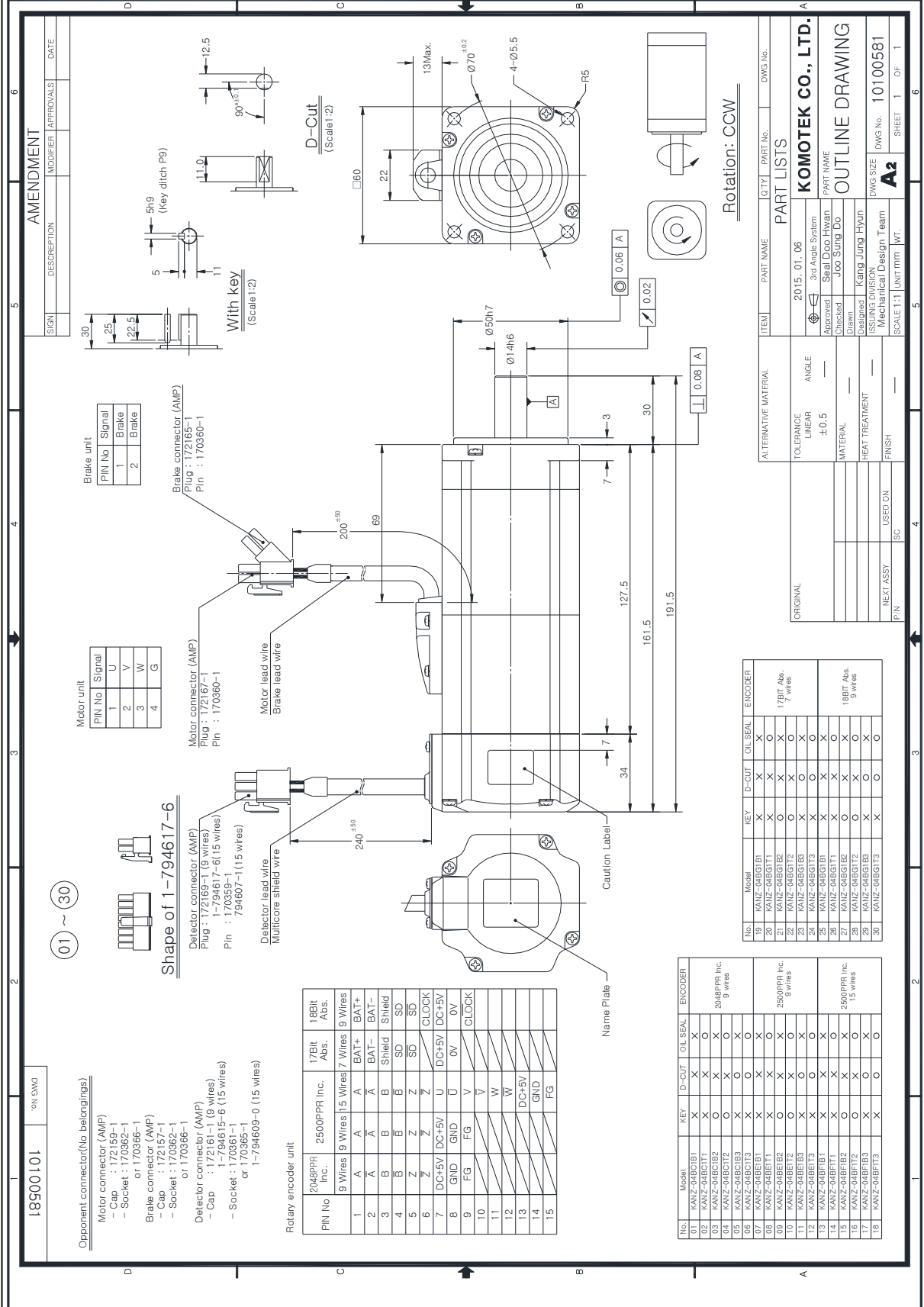
1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-04B □ □ □ Normal Model Outline Drawing



KANZ-04B□□□ Brake Model Outline Drawing

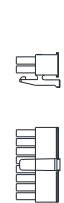


SIGN	DESCRIPTION	MODIFIER	APPROVALS	DATE

Motor unit	Pin No	Signal
1	U	Brake
2	V	Brake
3	W	Brake
4	G	Brake

Brake unit	Pin No	Signal
1	U	Brake
2	V	Brake
3	W	Brake
4	G	Brake

01 ~ 30



Detector connector (AMP)  
 Plug : 172169-1 (9 wires)  
 1-794617-6 (15 wires)  
 Pin : 170360-1 (15 wires)  
 794609-1 (15 wires)

Motor connector (AMP)  
 Plug : 172169-1  
 Pin : 170360-1

Brake connector (AMP)  
 Plug : 172165-1  
 Pin : 170360-1

Rotary encoder unit	2048PPR Inc.	2500PPR Inc.	17Bit Abs.	18Bit Abs.
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	DC+5V	DC+5V	DC+5V
8	GND	GND	OV	OV
9	FG	FG	V	V
10	FG	FG	V	V
11	W	W	W	W
12	DC+5V	DC+5V	DC+5V	DC+5V
13	GND	GND	GND	GND
14	FG	FG	FG	FG
15	FG	FG	FG	FG

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-04BC1B1	X	X	X	2048PPR Inc. 9 wires
02	KANZ-04BC1T1	X	X	X	2048PPR Inc. 9 wires
03	KANZ-04BC1B2	X	X	X	2048PPR Inc. 9 wires
04	KANZ-04BC1T2	X	X	X	2048PPR Inc. 9 wires
05	KANZ-04BC1B3	X	X	X	2500PPR Inc. 9 wires
06	KANZ-04BC1T3	X	X	X	2500PPR Inc. 9 wires
07	KANZ-04BE1B1	X	X	X	2500PPR Inc. 15 wires
08	KANZ-04BE1T1	X	X	X	2500PPR Inc. 15 wires
09	KANZ-04BE1B2	X	X	X	2500PPR Inc. 9 wires
10	KANZ-04BE1T2	X	X	X	2500PPR Inc. 9 wires
11	KANZ-04BE1B3	X	X	X	2500PPR Inc. 15 wires
12	KANZ-04BE1T3	X	X	X	2500PPR Inc. 15 wires
13	KANZ-04BF1B1	X	X	X	2500PPR Inc. 15 wires
14	KANZ-04BF1T1	X	X	X	2500PPR Inc. 15 wires
15	KANZ-04BF1B2	X	X	X	2500PPR Inc. 15 wires
16	KANZ-04BF1T2	X	X	X	2500PPR Inc. 15 wires
17	KANZ-04BF1B3	X	X	X	2500PPR Inc. 15 wires
18	KANZ-04BF1T3	X	X	X	2500PPR Inc. 15 wires

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-04BG1B1	X	X	X	17BIT Abs. 7 wires
20	KANZ-04BG1T1	X	X	X	17BIT Abs. 7 wires
21	KANZ-04BG1B2	X	X	X	17BIT Abs. 7 wires
22	KANZ-04BG1T2	X	X	X	17BIT Abs. 7 wires
23	KANZ-04BG1B3	X	X	X	17BIT Abs. 7 wires
24	KANZ-04BG1T3	X	X	X	17BIT Abs. 7 wires
25	KANZ-04BG1B1	X	X	X	18BIT Abs. 9 wires
26	KANZ-04BG1T1	X	X	X	18BIT Abs. 9 wires
27	KANZ-04BG1B2	X	X	X	18BIT Abs. 9 wires
28	KANZ-04BG1T2	X	X	X	18BIT Abs. 9 wires
29	KANZ-04BG1B3	X	X	X	18BIT Abs. 9 wires
30	KANZ-04BG1T3	X	X	X	18BIT Abs. 9 wires

Rotation: CCW

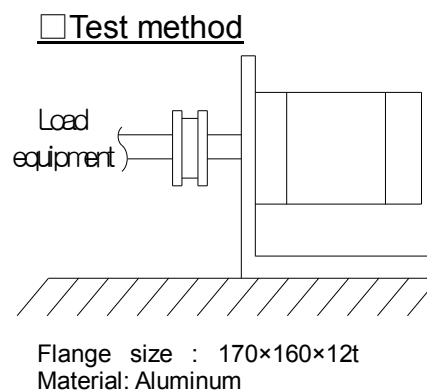
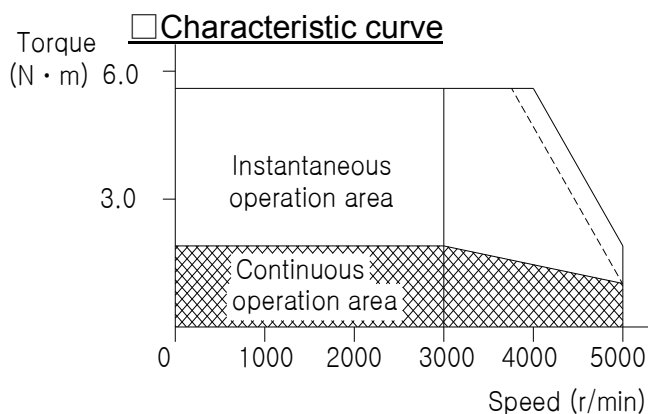
ALTERNATIVE MATERIAL	ITEM	PART NAME	QTY	PART No.	DWG No.
ORIGINAL					
NEXT ASSY					
USED ON					
SC					
PIN					

PART LISTS		PART NAME		QTY		PART No.		DWG No.	
2015. 01. 06									
Approved	3rd Angle System	KOMOTEK CO., LTD.							
Checked	Seal Doo Hwan	PART NAME							
Drawn	Joo Sung Do	OUTLINE DRAWING							
ISSUING DIVISION : Kang Jung Hyun									
DWG No. : 10100581									
MECHANICAL DESIGN TEAM									
SCALE 1:1 UNIT mm									
SHEET 1 OF 1									

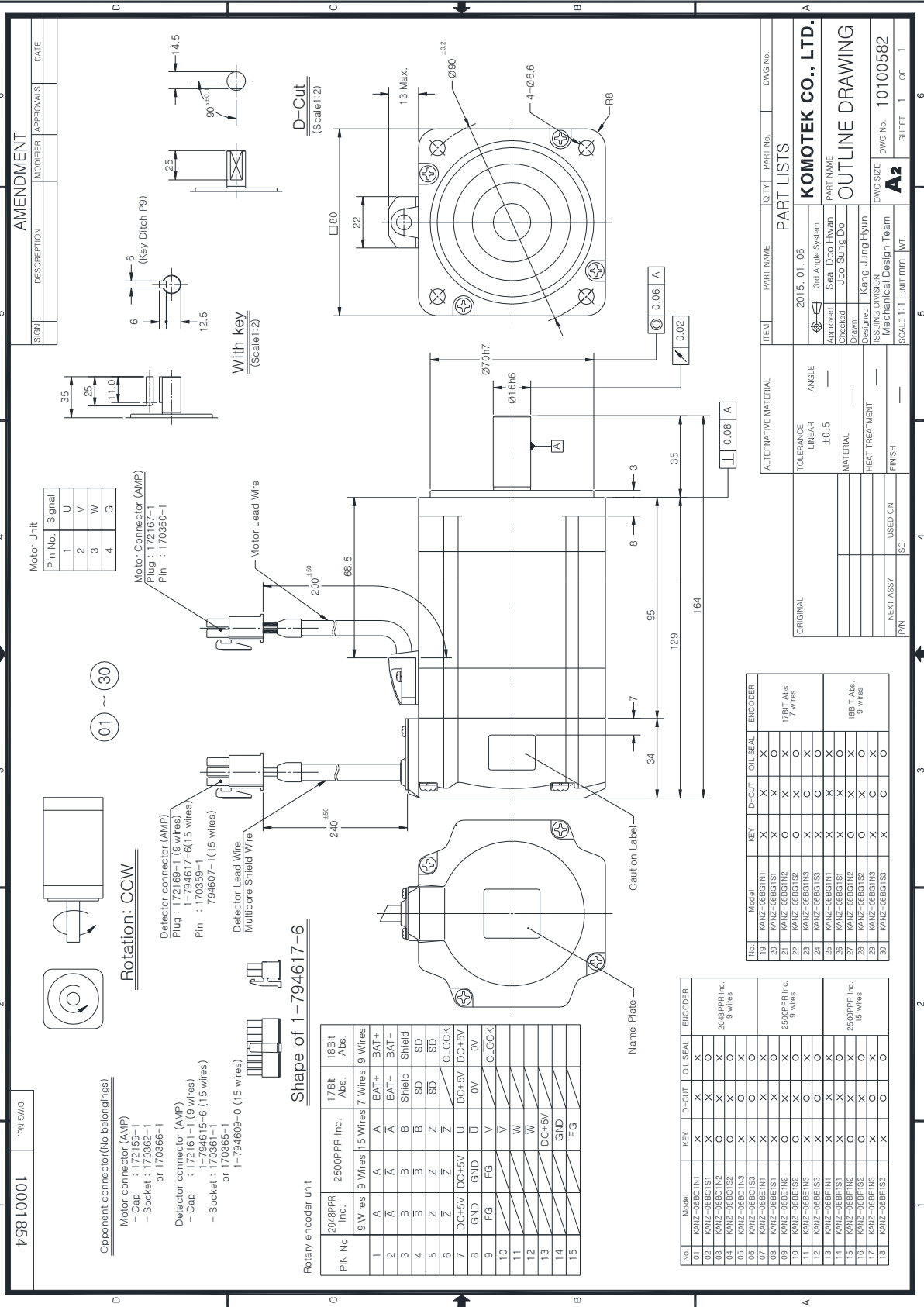
## AC Servo Motor Specifications

Item	Unit	KANZ-06B□1N□	KANZ-06B□1B□	Remarks
		KANZ-06B□1S□	KANZ-06B□1T□	
Flange size	mm	80	80	
Rated output	W	600	600	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	1.91	1.91	
	kgf·cm	19.49	19.49	
Maximum torque	N·m	5.73	5.73	
	kgf·cm	58.47	58.47	
Rated current	A <sub>(rms)</sub>	4.1	4.1	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.93	1.05	
	gf·cm·sec <sup>2</sup>	0.95	1.07	
Elec. time constant	ms	7.3	7.3	
Mech. time constant	ms	0.39	0.44	
Rated power rate	kW/s	39.7	35.1	
Momentary maximum current	A(o-p)	17.4	17.4	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	18.7	18.7	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.55	0.55	±10%
	kgf·cm/A <sub>(rms)</sub>	5.61	5.61	±10%
Phase resistance	Ω	0.41	0.41	±10%
Phase inductance	mH	3.0	3.0	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	2.9	3.5	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-06B  1   Normal Model Outline Drawing



SIGN	DESCRIPTION	MODIFIER	APPROVALS	DATE

Pin No.	Signal
1	U
2	V
3	W
4	G

Motor Connector (AMP)  
 Plug : 172167-1  
 Pin : 170360-1

Detector connector (AMP)  
 Plug : 172169-1 (9 wires)  
 1-794617-6 (15 wires)  
 Pin : 170359-1  
 794607-1 (15 wires)

Detector Lead Wire  
 Multicore Shield Wire  
 1-794609-0 (15 wires)



Shape of 1-794617-6

Pin No	2048PPR Inc. 9 Wires	2500PPR Inc. 15 Wires	17Bit Abs. 9 Wires	18Bit Abs. 9 Wires
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	DC+5V	DC+5V	DC+5V
8	GND	GND	0V	0V
9	FG	FG	V	V
10				
11				
12				
13				
14				
15				

No.	Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANZ-06BG1N1	X	X	X	X
20	KANZ-06BG1S1	X	X	X	X
21	KANZ-06BG1N2	O	X	X	X
22	KANZ-06BG1S2	O	X	X	X
23	KANZ-06BG1N3	X	X	X	X
24	KANZ-06BG1S3	X	X	X	X
25	KANZ-06BG1N1	X	X	X	X
26	KANZ-06BG1S1	X	X	X	X
27	KANZ-06BG1N2	O	X	X	X
28	KANZ-06BG1S2	O	X	X	X
29	KANZ-06BG1N3	X	X	X	X
30	KANZ-06BG1S3	X	X	X	X

No.	Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANZ-06BG1N1	X	X	X	X
20	KANZ-06BG1S1	X	X	X	X
21	KANZ-06BG1N2	O	X	X	X
22	KANZ-06BG1S2	O	X	X	X
23	KANZ-06BG1N3	X	X	X	X
24	KANZ-06BG1S3	X	X	X	X
25	KANZ-06BG1N1	X	X	X	X
26	KANZ-06BG1S1	X	X	X	X
27	KANZ-06BG1N2	O	X	X	X
28	KANZ-06BG1S2	O	X	X	X
29	KANZ-06BG1N3	X	X	X	X
30	KANZ-06BG1S3	X	X	X	X

No.	Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANZ-06BG1N1	X	X	X	X
20	KANZ-06BG1S1	X	X	X	X
21	KANZ-06BG1N2	O	X	X	X
22	KANZ-06BG1S2	O	X	X	X
23	KANZ-06BG1N3	X	X	X	X
24	KANZ-06BG1S3	X	X	X	X
25	KANZ-06BG1N1	X	X	X	X
26	KANZ-06BG1S1	X	X	X	X
27	KANZ-06BG1N2	O	X	X	X
28	KANZ-06BG1S2	O	X	X	X
29	KANZ-06BG1N3	X	X	X	X
30	KANZ-06BG1S3	X	X	X	X

ITEM	PART NAME	Q'TY	PART No.	DWG No.
2015. 01. 06	3rd Angle System			
Approved	Seal Doo Hwan			
Checked	Joo Sung Do			
Drawn	Daesung Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG SIZE	A2			
SCALE 1:1	UNIT mm			

ALTERNATIVE MATERIAL	LINEAR	ANGLE	FINISH	USED ON	SC	P/N
ORIGINAL	LINEAR	±0.5				
NEXT ASSY						

Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANZ-06BG1N1	X	X	X
20	KANZ-06BG1S1	X	X	X
21	KANZ-06BG1N2	O	X	X
22	KANZ-06BG1S2	O	X	X
23	KANZ-06BG1N3	X	X	X
24	KANZ-06BG1S3	X	X	X
25	KANZ-06BG1N1	X	X	X
26	KANZ-06BG1S1	X	X	X
27	KANZ-06BG1N2	O	X	X
28	KANZ-06BG1S2	O	X	X
29	KANZ-06BG1N3	X	X	X
30	KANZ-06BG1S3	X	X	X

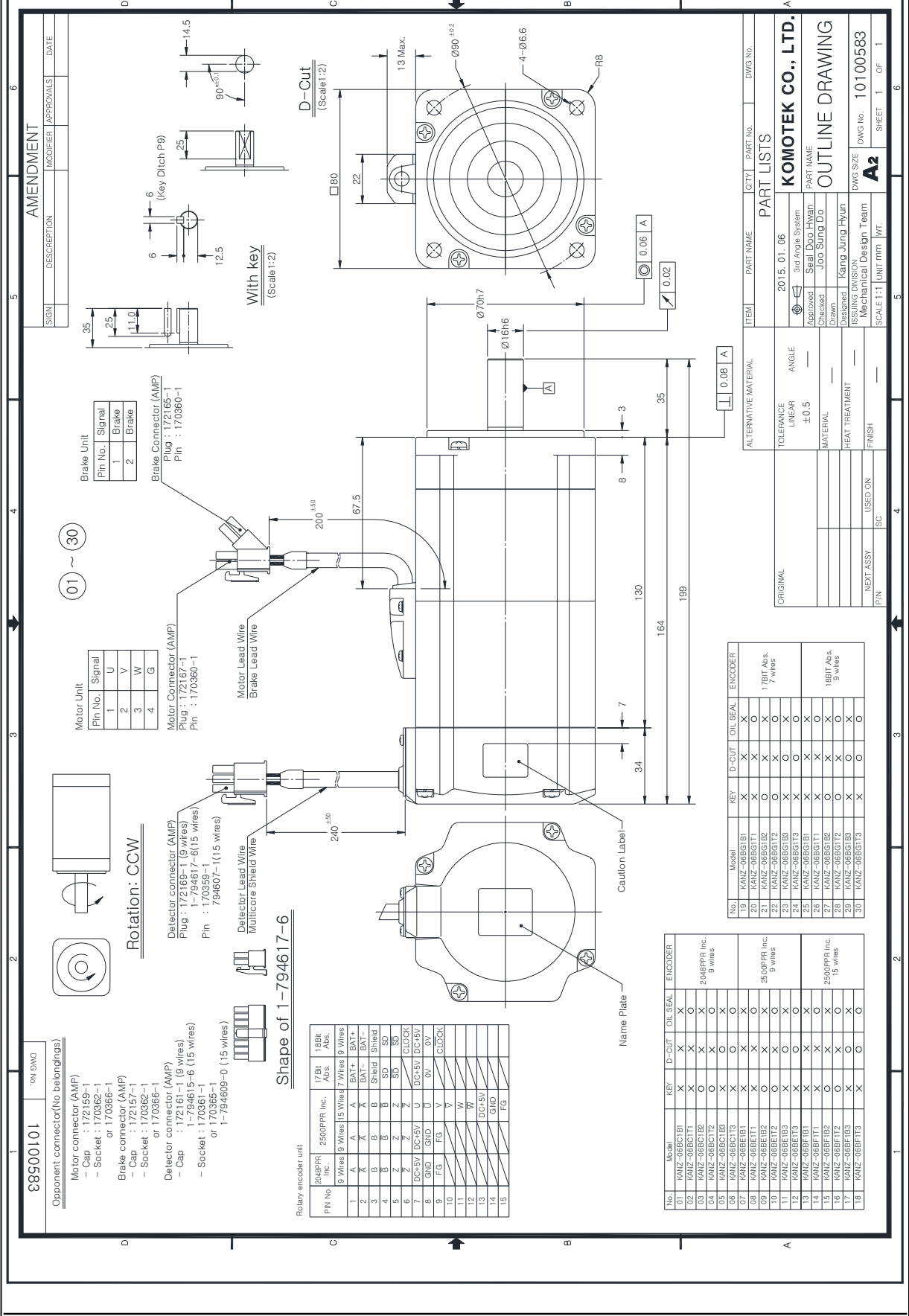
No.	Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANZ-06BG1N1	X	X	X	X
20	KANZ-06BG1S1	X	X	X	X
21	KANZ-06BG1N2	O	X	X	X
22	KANZ-06BG1S2	O	X	X	X
23	KANZ-06BG1N3	X	X	X	X
24	KANZ-06BG1S3	X	X	X	X
25	KANZ-06BG1N1	X	X	X	X
26	KANZ-06BG1S1	X	X	X	X
27	KANZ-06BG1N2	O	X	X	X
28	KANZ-06BG1S2	O	X	X	X
29	KANZ-06BG1N3	X	X	X	X
30	KANZ-06BG1S3	X	X	X	X

**KOMOTEK CO., LTD.**  
**OUTLINE DRAWING**

2015. 01. 06  
 3rd Angle System  
 Approved Seal Doo Hwan  
 Checked Joo Sung Do  
 Drawn Daesung Kang Jung Hyun  
 ISSUING DIVISION Mechanical Design Team  
 DWG No. 10100582  
 SCALE 1:1 UNIT mm  
**A2**  
 SHEET 1 OF 1



KANZ-06B □ 1 □ □ Brake Model Outline Drawing



88900101

Opponent connector (No belongings)

Motor connector (AMP)

- Cap : 172159-1  
 - Socket : 170362-1  
 or 170366-1

Brake connector (AMP)

- Cap : 172157-1  
 - Socket : 170362-1  
 or 170366-1

Detector connector (AMP)

- Cap : 172161-1 (9 wires)  
 1-794615-6 (15 wires)  
 - Socket : 170361-1  
 or 170365-1  
 1-794609-0 (15 wires)

Rotary encoder unit

Pin No.	2500PPR Inc.	17BIT Abs.	18BIT Abs.
1	9 Wires 9 Wires 15 Wires 7 Wires 9 Wires	A	BAT+
2	A	B	BAT-
3	B	C	Shield
4	B	D	Shield
5	Z	E	SD
6	Z	F	SB
7	DC+SV DC+SV U DC+SV DC+SV	G	CLOCK
8	GND GND U 0V	H	DC+SV
9	FG FG V	I	0V
10	W	J	W
11	W	K	W
12	W	L	W
13	DC+SV	M	DC+SV
14	FG	N	FG
15	FG	O	FG

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-06B□1□□	X	X	X	X
02	KANZ-06B□1□□	X	X	X	X
03	KANZ-06B□1□□	O	X	X	204PPR Inc. 9 wires
04	KANZ-06B□1□□	O	X	X	X
05	KANZ-06B□1□□	X	O	O	X
06	KANZ-06B□1□□	X	X	X	X
07	KANZ-06B□1□□	X	X	X	X
08	KANZ-06B□1□□	X	X	X	X
09	KANZ-06B□1□□	X	X	X	X
10	KANZ-06B□1□□	O	X	X	2500PPR Inc. 9 wires
11	KANZ-06B□1□□	X	X	X	X
12	KANZ-06B□1□□	X	X	X	X
13	KANZ-06B□1□□	X	X	X	X
14	KANZ-06B□1□□	X	X	X	X
15	KANZ-06B□1□□	X	X	X	2500PPR Inc. 15 wires
16	KANZ-06B□1□□	O	X	X	X
17	KANZ-06B□1□□	X	X	X	X
18	KANZ-06B□1□□	X	O	O	X

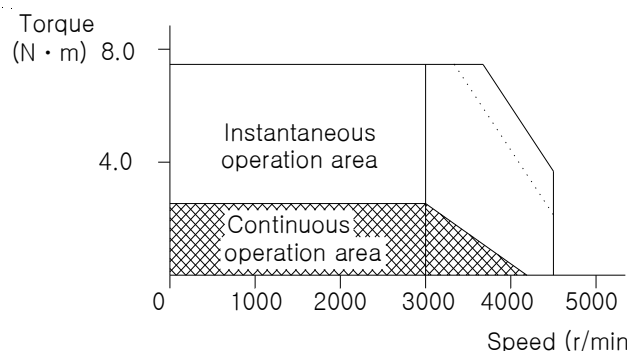
No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-06B□1□□	X	X	X	X
20	KANZ-06B□1□□	X	X	X	X
21	KANZ-06B□1□□	X	X	X	17BIT Abs. 7 wires
22	KANZ-06B□1□□	X	X	X	X
23	KANZ-06B□1□□	X	O	O	X
24	KANZ-06B□1□□	X	X	X	X
25	KANZ-06B□1□□	X	X	X	X
26	KANZ-06B□1□□	O	X	X	X
27	KANZ-06B□1□□	O	X	X	18BIT Abs. 9 wires
28	KANZ-06B□1□□	X	X	X	X
29	KANZ-06B□1□□	X	X	X	X
30	KANZ-06B□1□□	X	X	X	X

## AC Servo Motor Specifications

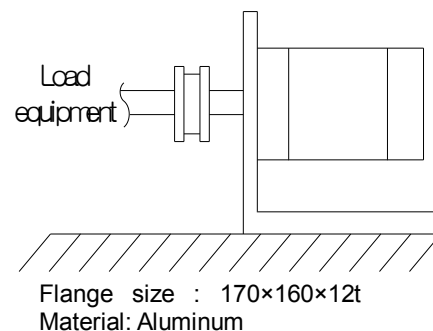
Item	Unit	KANZ-08B□1N□	KANZ-08B□1B□	Remarks
		KANZ-08B□1S□	KANZ-08B□1T□	
Flange size	mm	80	80	
Rated output	W	750	750	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	4500	4500	
Rated torque	N·m	2.4	2.4	
	kgf·cm	24.3	24.3	
Maximum torque	N·m	7.1	7.1	
	kgf·cm	73	73	
Rated current	A <sub>(rms)</sub>	4.3	4.3	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	1.20	1.32	
	gf·cm·sec <sup>2</sup>	1.22	1.35	
Elec. time constant	ms	7.4	7.4	
Mech. time constant	ms	0.44	0.50	
Rated power rate	kW/s	48.3	43.9	
Momentary maximum current	A(o-p)	18.3	18.3	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	22.0	22.0	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.63	0.63	±10%
	kgf·cm/A <sub>(rms)</sub>	6.42	6.42	±10%
Phase resistance	Ω	0.43	0.43	±10%
Phase inductance	mH	3.2	3.2	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	3.5	4.3	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20 °C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.

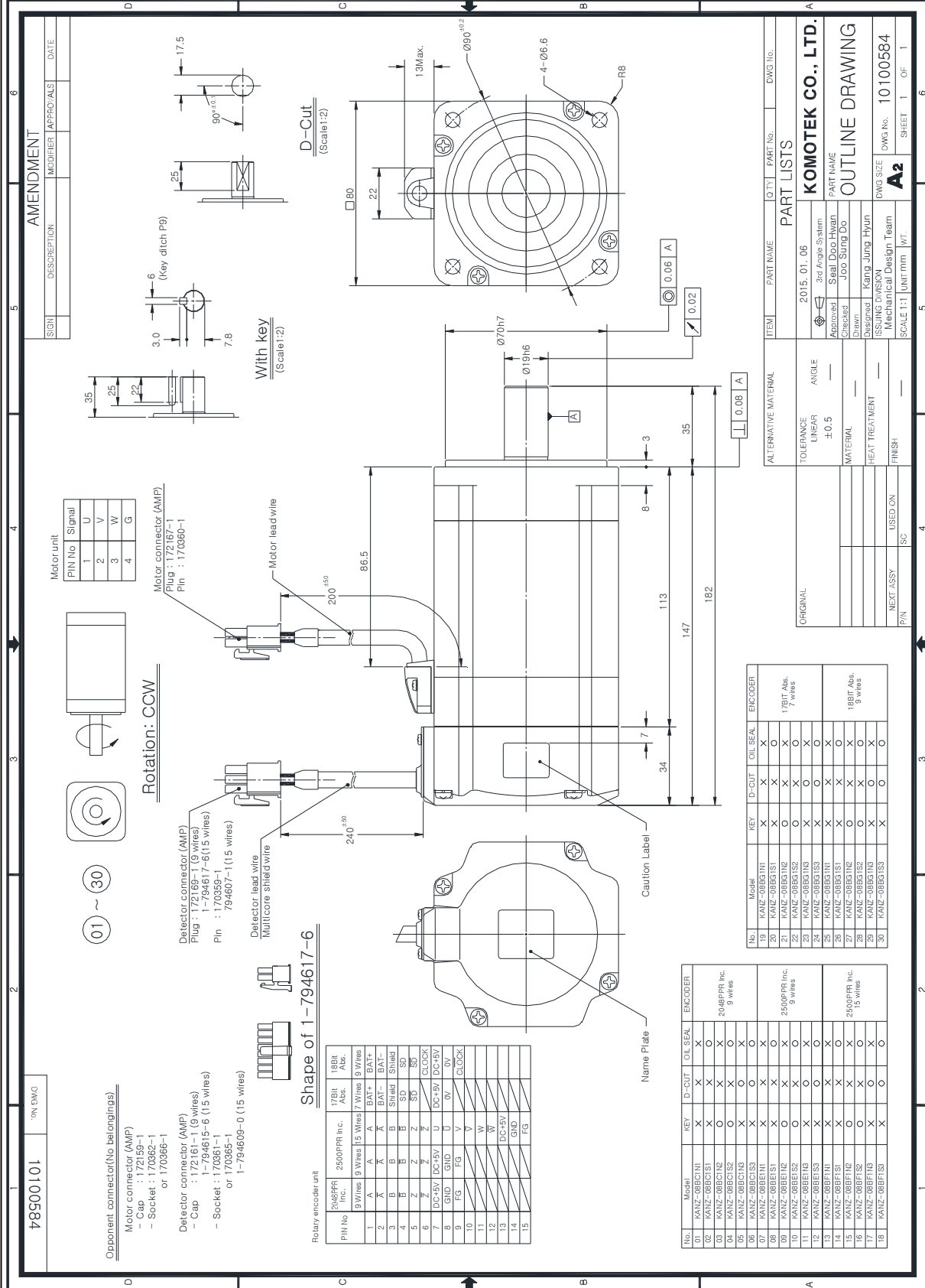
□ Characteristic curve



□ Test method



KANZ-08B□1□□\_Normal Model Outline Drawing



SIGN	DESCRIPTION	APPROV./ALS	DATE
	AMENDMENT		

Motor unit

Pin No	Signal
1	U
2	V
3	W
4	G

Motor connector (AMP)  
Plug : 172167-1  
Pin : 170360-1

Rotation: CCW

Detector connector (AMP)  
Plug : 172169-1 (9 wires)  
1-794617-6 (15 wires)  
Pin : 170359-1  
794607-1 (15 wires)

Detector lead wire  
Multicore shield wire

Motor lead wire

Shape of 1-794617-6

Relay encoder unit	2500PPR Inc.	17BIT Abs.	18BIT Abs.
1	A	A	A
2	A	A	A
3	B	B	B
4	B	B	B
5	Z	Z	Z
6	Z	Z	Z
7	DC+5V	DC+5V	DC+5V
8	GND	GND	GND
9	GND	GND	GND
10	FG	FG	FG
11	W	W	W
12	W	W	W
13	DC+5V	DC+5V	DC+5V
14	GND	GND	GND
15	FG	FG	FG

Relay encoder unit	2048PPR Inc.	17BIT Abs.	18BIT Abs.
1	A	A	A
2	A	A	A
3	B	B	B
4	B	B	B
5	Z	Z	Z
6	Z	Z	Z
7	DC+5V	DC+5V	DC+5V
8	GND	GND	GND
9	GND	GND	GND
10	FG	FG	FG
11	W	W	W
12	W	W	W
13	DC+5V	DC+5V	DC+5V
14	GND	GND	GND
15	FG	FG	FG

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANZ-08BC1N1	X	X	X	X
02	KANZ-08BC1S1	X	X	X	X
03	KANZ-08BC1N2	O	X	X	X
04	KANZ-08BC1S2	O	X	X	X
05	KANZ-08BC1N3	X	X	X	X
06	KANZ-08BC1S3	X	X	X	X
07	KANZ-08BC1N4	X	X	X	X
08	KANZ-08BC1S4	X	X	X	X
09	KANZ-08BE1N2	X	X	X	X
10	KANZ-08BE1S2	X	X	X	X
11	KANZ-08BE1N3	X	X	X	X
12	KANZ-08BE1S3	X	X	X	X
13	KANZ-08BF1N1	X	X	X	X
14	KANZ-08BF1S1	X	X	X	X
15	KANZ-08BF1N2	X	X	X	X
16	KANZ-08BF1S2	X	X	X	X
17	KANZ-08BF1N3	X	X	X	X
18	KANZ-08BF1S3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-08BE1N1	X	X	X	X
20	KANZ-08BE1S1	X	X	X	X
21	KANZ-08BE1N2	X	X	X	X
22	KANZ-08BE1S2	X	X	X	X
23	KANZ-08BE1N3	X	X	X	X
24	KANZ-08BE1S3	X	X	X	X
25	KANZ-08BE1N4	X	X	X	X
26	KANZ-08BE1S4	X	X	X	X
27	KANZ-08BF1N2	O	X	X	X
28	KANZ-08BF1S2	O	X	X	X
29	KANZ-08BF1N3	X	X	X	X
30	KANZ-08BF1S3	X	X	X	X

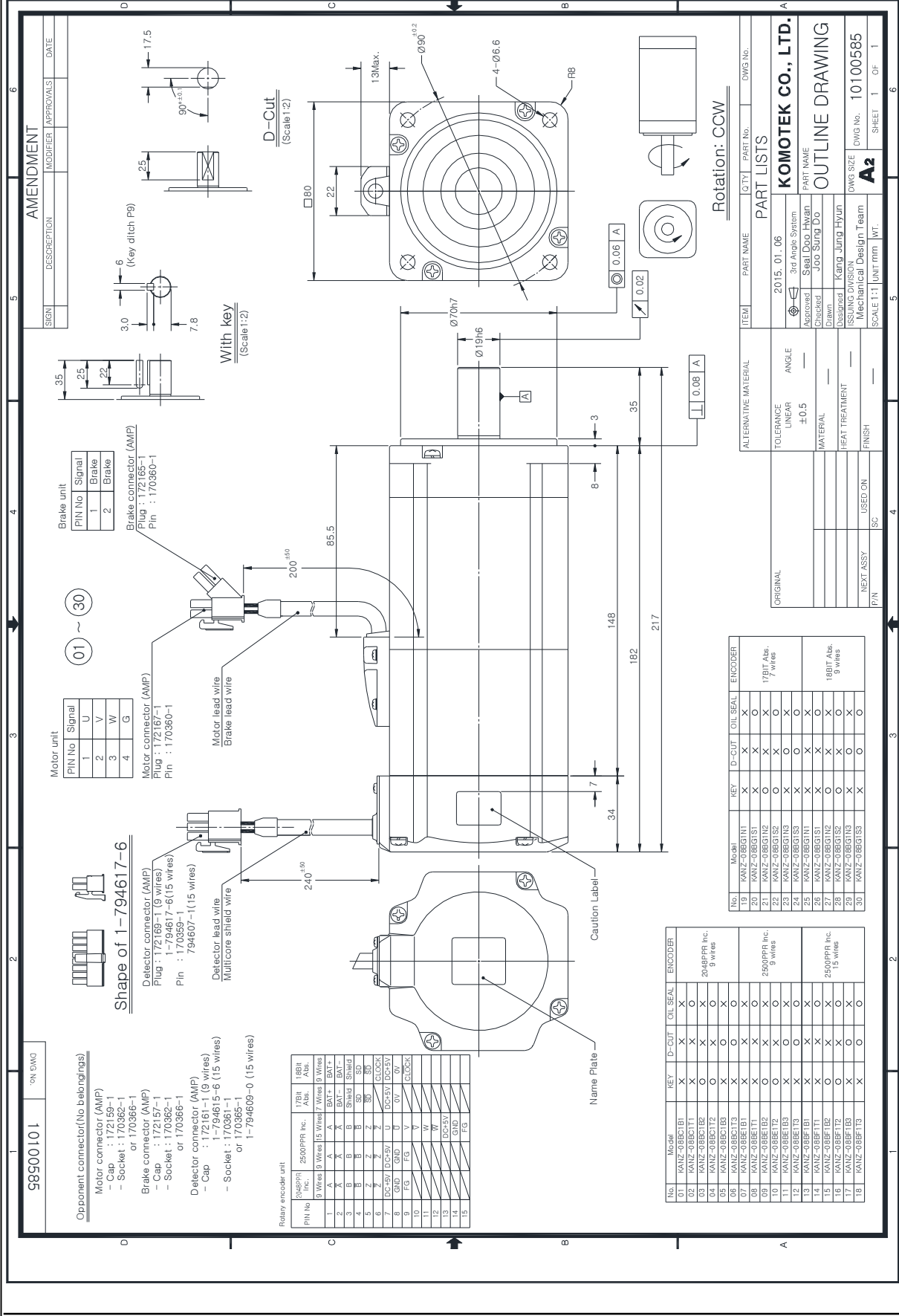
ITEM	PART NAME	Q'TY	PART No.	DWG No.
2015. 01. 06	3rd Frame System			
Approved	Seal Doo Hyun			
Checked	Joo Sung Do			
Drawn	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
SCALE 1:1	UNIT mm			
DWG SIZE				
DWG No.	10100584			
P/N				
USED ON				
SC				

ALTERNATIVE MATERIAL	ANGLE
TOLENANCE	LINEAR
LINEAR	±0.5
MATERIAL	
HEAT TREATMENT	
FINISH	

PART LISTS
PART NAME
PART No.
DWG No.
KOMOTEK CO., LTD.
PART NAME
OUTLINE DRAWING

SCALE	1:1
UNIT	mm
SCALE	A2
DWG SIZE	
ISSUING DIVISION	
Mechanical Design Team	
DWG No.	10100584
SHEET	1 OF 1

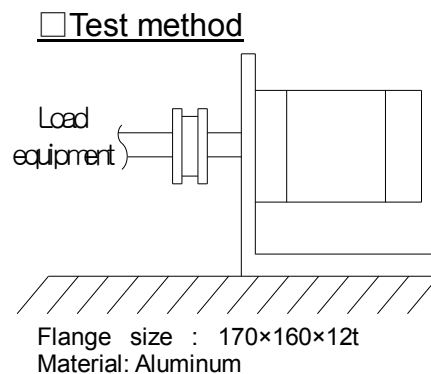
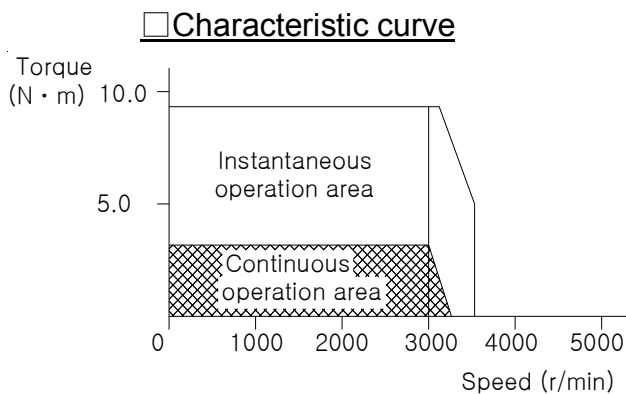
KANZ-08B□□□□ Brake Model Outline Drawing



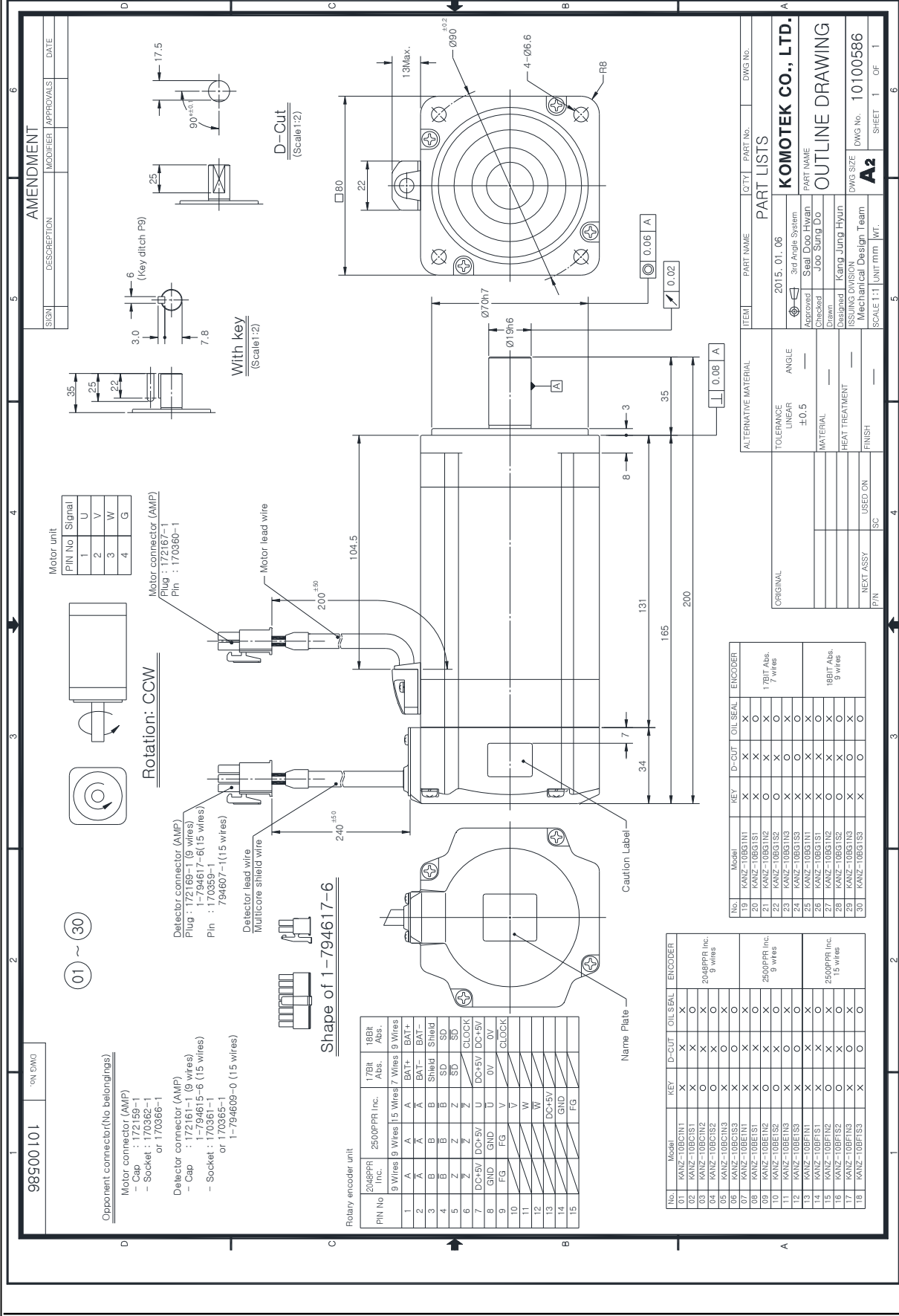
## AC Servo Motor Specifications

Item	Unit	KANZ-10B□1N□	KANZ-10B□1B□	Remarks
		KANZ-10B□1S□	KANZ-10B□1T□	
Flange size	mm	80	80	
Rated output	W	950	950	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	3500	3500	
Rated torque	N·m	3.0	3.0	
	kgf·cm	30.9	30.9	
Maximum torque	N·m	9.1	9.1	
	kgf·cm	92.6	92.6	
Rated current	A <sub>(rms)</sub>	4.3	4.3	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	1.47	1.49	
	gf·cm·sec <sup>2</sup>	1.5	1.52	
Elec. time constant	ms	7.6	7.6	
Mech. time constant	ms	0.33	0.34	
Rated power rate	kW/s	62.2	61.4	
Momentary maximum current	A(o-p)	18.3	18.3	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	27	27	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.80	0.80	±10%
	kgf·cm/A <sub>(rms)</sub>	8.16	8.16	±10%
Phase resistance	Ω	0.46	0.46	±10%
Phase inductance	mH	3.5	3.5	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	4.1	4.9	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANZ-10B□□□□\_Normal Model Outline Drawing



ITEM	PART NAME	Q'TY	PART No.	DWG No.

**PART LISTS**

2015-01-06	3rd Angle System
Approved	Seal Doo Hwan
Checked	Joo Sung Do
Drawn	
Designed	Kang Jung Hyun
ISSUING DIVISION	Mechanical Design Team
DWG No.	10100586
SCALE	1:1 UNIT mm
FINISH	
USED ON	
ISC	
P/N	

**ALTERNATIVE MATERIAL**

--	--	--	--

**ORIGINAL**

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**TOLENANCE**

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**MATERIAL**

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**HEAT TREATMENT**

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**FINISH**

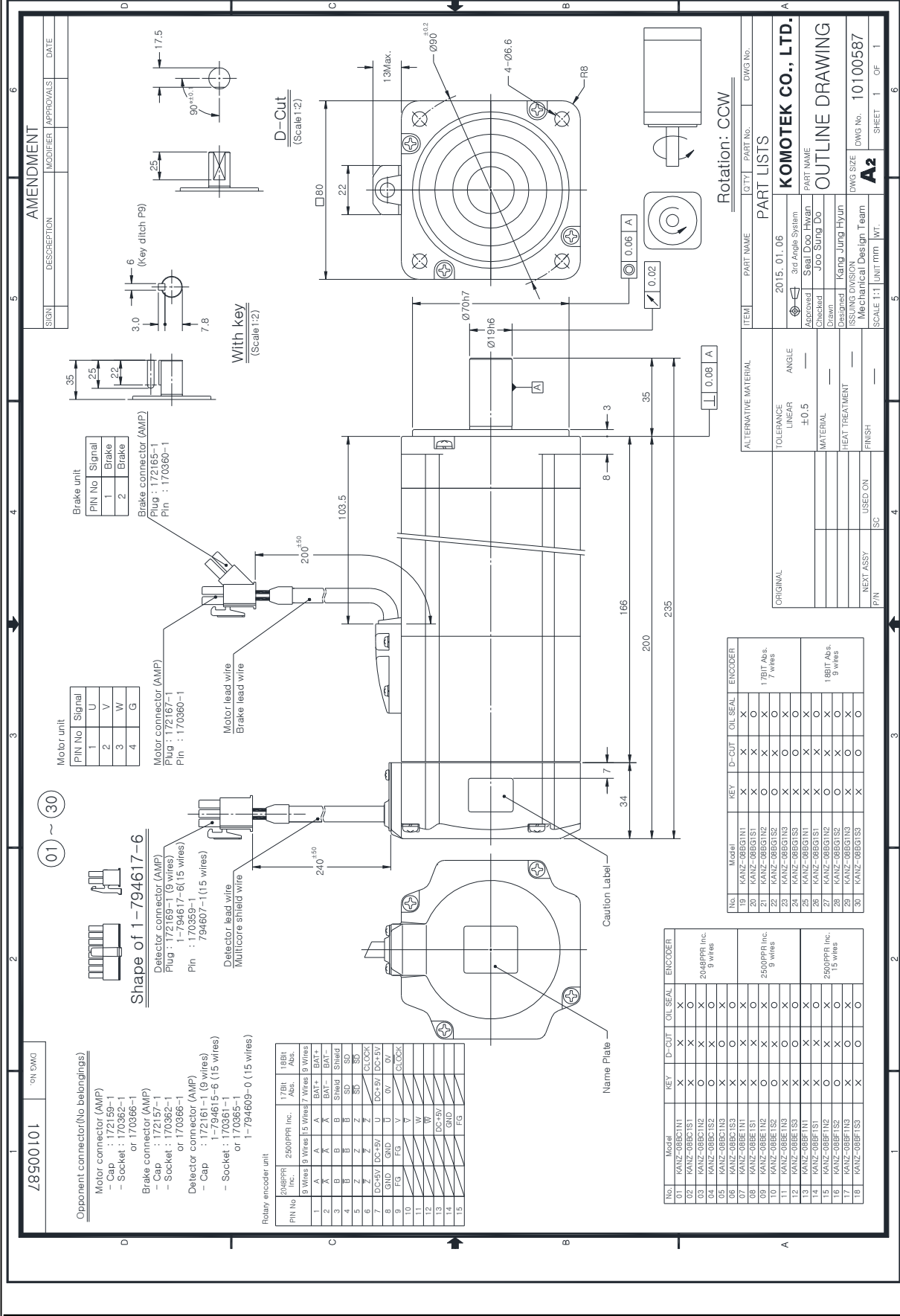
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No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANZ-10B1N1	X	X	X	X
20	KANZ-10B1S1	X	X	X	X
21	KANZ-10B1N2	O	X	X	17BIT Abs. 7 wires
22	KANZ-10B1S2	O	X	X	X
23	KANZ-10B1N3	X	X	X	X
24	KANZ-10B1S3	X	X	X	X
25	KANZ-10B1N1	X	X	X	X
26	KANZ-10B1S1	X	X	X	X
27	KANZ-10B1N2	X	X	X	18BIT Abs. 9 wires
28	KANZ-10B1S2	X	X	X	X
29	KANZ-10B1N3	X	X	X	X
30	KANZ-10B1S3	X	X	X	X

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
31	KANZ-10B1N1	X	X	X	X
32	KANZ-10B1S1	X	X	X	X
33	KANZ-10B1N2	O	X	X	2048PPR Inc. 9 wires
34	KANZ-10B1S2	O	X	X	X
35	KANZ-10B1N3	X	X	X	X
36	KANZ-10B1S3	X	X	X	X
37	KANZ-10B1N1	X	X	X	X
38	KANZ-10B1S1	X	X	X	X
39	KANZ-10B1N2	O	X	X	2500PPR Inc. 9 wires
40	KANZ-10B1S2	O	X	X	X
41	KANZ-10B1N3	X	X	X	X
42	KANZ-10B1S3	X	X	X	X
43	KANZ-10B1N1	X	X	X	X
44	KANZ-10B1S1	X	X	X	X
45	KANZ-10B1N2	X	X	X	2500PPR Inc. 15 wires
46	KANZ-10B1S2	X	X	X	X
47	KANZ-10B1N3	X	X	X	X
48	KANZ-10B1S3	X	X	X	X

PIN No	2048PPR Inc. 9 Wires	2500PPR Inc. 9 Wires	17BR Abs.	18BR Abs.
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	DC+5V	DC+5V	DC+5V
8	GND	GND	0V	0V
9	FG	FG	V	CLOCK
10	FG	FG	V	CLOCK
11			W	
12			W	
13			DC+5V	
14			GND	
15			FG	

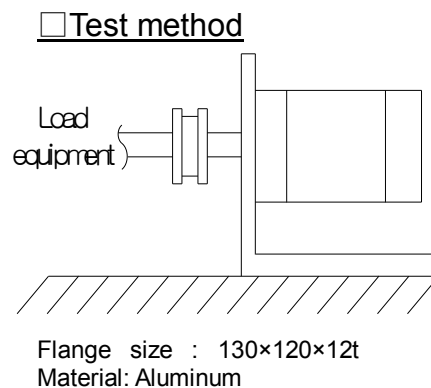
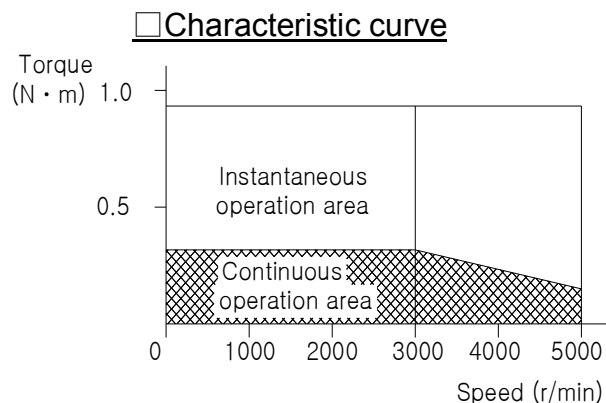
KANZ-10B □ □ □ Brake Model Outline Drawing



## AC Servo Motor Specifications

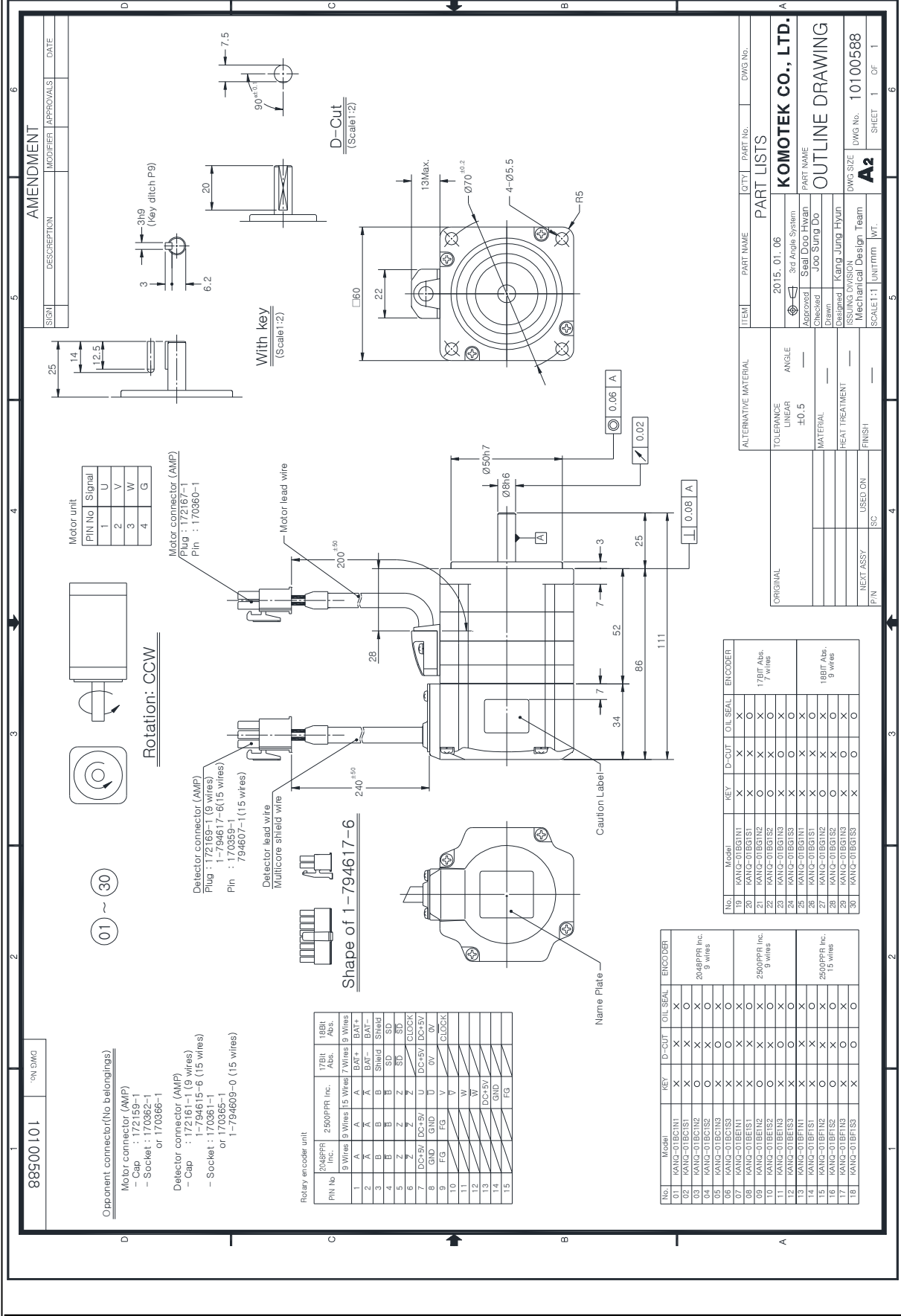
Item	Unit	KANQ-01B□1N□ KANQ-01B□1S□	KANQ-01B□1B□ KANQ-01B□1T□	Remarks
Flange size	mm	60	60	
Rated output	W	100	100	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.32	0.32	
	kgf·cm	3.24	3.24	
Maximum torque	N·m	0.95	0.95	
	kgf·cm	9.7	9.7	
Rated current	A <sub>(rms)</sub>	1.0	1.0	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.11	0.14	
	gf·cm·sec <sup>2</sup>	0.11	0.14	
Elec. time constant	ms	2.9	2.9	
Mech. time constant	ms	1.35	1.71	
Rated power rate	kW/s	9.4	7.4	
Momentary maximum current	A(o-p)	4.30	4.30	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	11.5	11.5	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.33	0.33	±10%
	kgf·cm/A <sub>(rms)</sub>	3.43	3.43	±10%
Phase resistance	Ω	4.0	4.0	±10%
Phase inductance	mH	11.4	11.4	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	0.78	1.2	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.





KANQ-01B□1□□ Normal Model Outline Drawing



**PART LISTS**

ITEM	PART NAME	QTY	PART No.	DWG No.
2015. 01. 06	3rd Angle System			
Approved	Seol Doo Hyun			
Checked	Joong Sung Do			
Drawn				
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100588			
SHEET	1	OF	1	6

**KOMOTEK CO., LTD.**

**OUTLINE DRAWING**

**A2**

ALTERNATIVE MATERIAL

TOLEARNCE	ANGLE
LINEAR	
	±0.5
MATERIAL	
HEAT TREATMENT	
FINISH	

ORIGINAL

USED ON

PIN

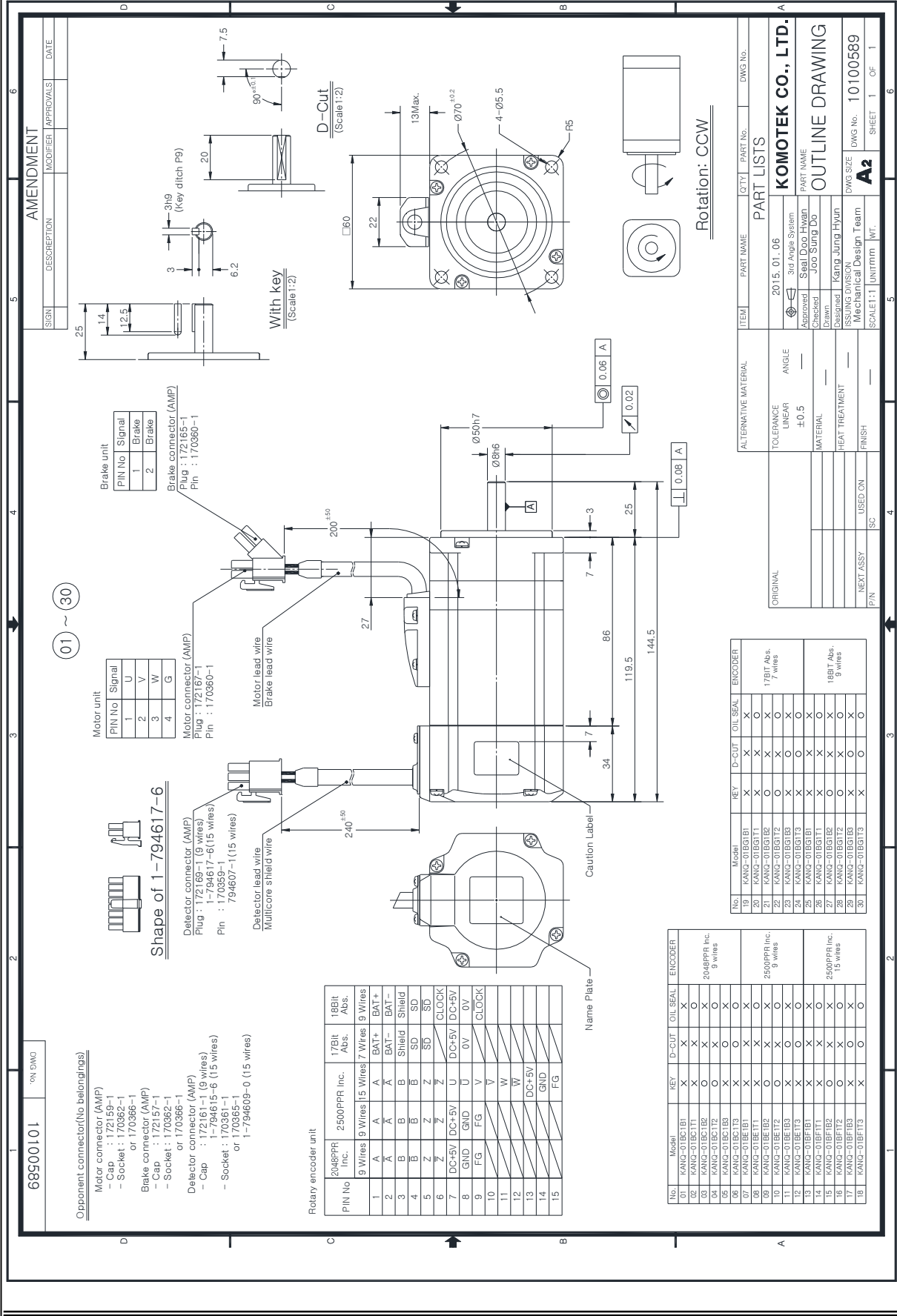
SC

SCALE: 1:1 Unit:mm

No.	Model	REV	D-CUT	OIL SEAL	ENCODER
19	KANQ-01BG1H1	X	X	X	X
20	KANQ-01BG1S1	X	X	X	X
21	KANQ-01BG1H2	O	X	X	17BIT Abs. 7 wires
22	KANQ-01BG1S2	O	X	O	X
23	KANQ-01BG1H3	X	O	X	X
24	KANQ-01BG1S3	X	O	X	X
25	KANQ-01BG1H1	X	X	X	X
26	KANQ-01BG1H2	O	X	X	18BIT Abs 9 wires
27	KANQ-01BG1S2	O	X	O	X
28	KANQ-01BG1H3	X	O	X	X
29	KANQ-01BG1H1	X	O	O	X
30	KANQ-01BG1S3	X	O	O	X

No.	Model	REV	D-CUT	OIL SEAL	ENCODER
01	KANQ-01BC1H1	X	X	X	X
02	KANQ-01BC1S1	X	X	X	X
03	KANQ-01BC1H2	O	X	X	2048PPR Inc. 9 wires
04	KANQ-01BC1S2	O	X	X	X
05	KANQ-01BC1H3	X	O	X	X
06	KANQ-01BC1S3	X	O	X	X
07	KANQ-01BE1H1	X	X	X	X
08	KANQ-01BE1S1	X	X	X	X
09	KANQ-01BE1H2	X	X	X	X
10	KANQ-01BE1S2	O	X	O	X
11	KANQ-01BE1H3	X	O	X	X
12	KANQ-01BE1S3	X	O	X	X
13	KANQ-01BF1H1	X	X	X	X
14	KANQ-01BF1S1	X	X	X	X
15	KANQ-01BF1H2	O	X	X	2500PPR Inc. 15 wires
16	KANQ-01BF1S2	O	X	O	X
17	KANQ-01BF1H3	X	O	X	X
18	KANQ-01BF1S3	X	O	O	X

# KANQ-01B □ 1 □ □ Brake Model Outline Drawing



68500101 0% SMD

AMENDMENT	NO.	DESCRIPTION	MODIFIER	APPROVALS	DATE

Motor unit

PIN No.	Signal
1	U
2	V
3	W
4	G

Brake unit

PIN No.	Signal
1	Brake
2	Brake

Motor connector (AMP)  
Plug : 172167-1  
Pin : 170360-1

Brake connector (AMP)  
Plug : 172165-1  
Pin : 170360-1

Detector connector (AMP)  
Plug : 172169-1 (9 wires)  
1-794617-6 (15 wires)  
Pin : 170369-1 (15 wires)  
794607-1 (15 wires)

Detector lead wire  
Multicore shield wire

Motor lead wire  
Brake lead wire

Rotary encoder unit

PIN No.	2048PPR Inc.	2500PPR Inc.	17BIT Abs.	18BIT Abs.
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	DC+5V	U	DC+5V
8	GND	GND	V	0V
9	T.G	FG	U	0V
10			V	
11			W	
12			W	
13			DC+5V	
14			GND	
15			FG	

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANQ-01BC1B1	X	X	X	2048PPR Inc. 9 wires
02	KANQ-01BC1T1	X	X	X	2500PPR Inc. 9 wires
03	KANQ-01BC1B2	X	X	X	17BIT Abs. 7 wires
04	KANQ-01BC1B3	X	X	X	18BIT Abs. 9 wires
05	KANQ-01BC1B3	X	X	X	18BIT Abs. 9 wires
06	KANQ-01BC1T3	X	O	X	18BIT Abs. 9 wires
07	KANQ-01BE1B1	X	X	X	2500PPR Inc. 9 wires
08	KANQ-01BE1T1	X	X	X	2500PPR Inc. 9 wires
09	KANQ-01BE1B2	O	X	X	17BIT Abs. 7 wires
10	KANQ-01BE1T2	O	X	X	18BIT Abs. 9 wires
11	KANQ-01BE1B3	X	X	X	18BIT Abs. 9 wires
12	KANQ-01BE1T3	X	X	X	18BIT Abs. 9 wires
13	KANQ-01BF1B1	X	X	X	2500PPR Inc. 15 wires
14	KANQ-01BF1T1	X	X	X	2500PPR Inc. 15 wires
15	KANQ-01BF1B2	X	X	X	17 BIT Abs. 7 wires
16	KANQ-01BF1T2	X	X	X	17 BIT Abs. 7 wires
17	KANQ-01BF1B3	X	X	X	18 BIT Abs. 9 wires
18	KANQ-01BF1T3	X	X	X	18 BIT Abs. 9 wires

ALTERNATIVE MATERIAL	ITEM	PART NAME	Q'TY	PART No.	DWG No.
ORIGINAL	2015-01-06	3rd Angle System			
	Approved	Seal Doo Hwan			
	Checked	Jo Sung Do			
	Drawn				
	Designed	Kang Jung Hyun			
ISSUING DIVISION: Mechanical Design Team					
DWG No. 10100599					
SCALE: 1:1 UNIT:mm Wt.					

Part Lists

ITEM	PART NAME	Q'TY	PART No.	DWG No.
1	KOMOTEK CO., LTD.			
2	OUTLINE DRAWING			

TOLERANCE	ANGULAR	LINEAR	ANGLE
		±0.5	

MATERIAL	HEAT TREATMENT	FINISH

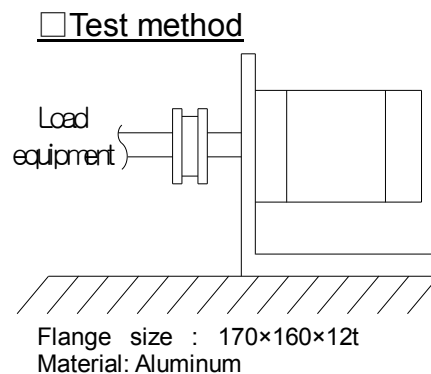
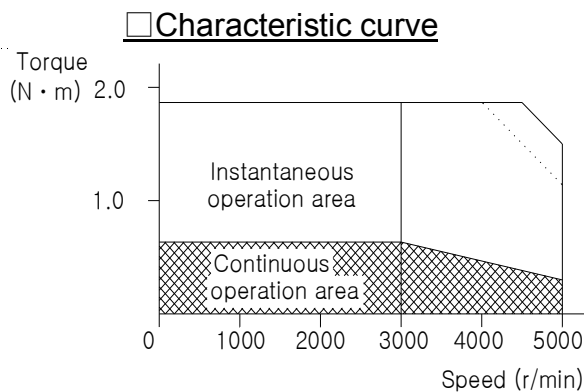
SCHEMATIC: USED ON: SC

PIN NEXT ASSY: 1 OF 1

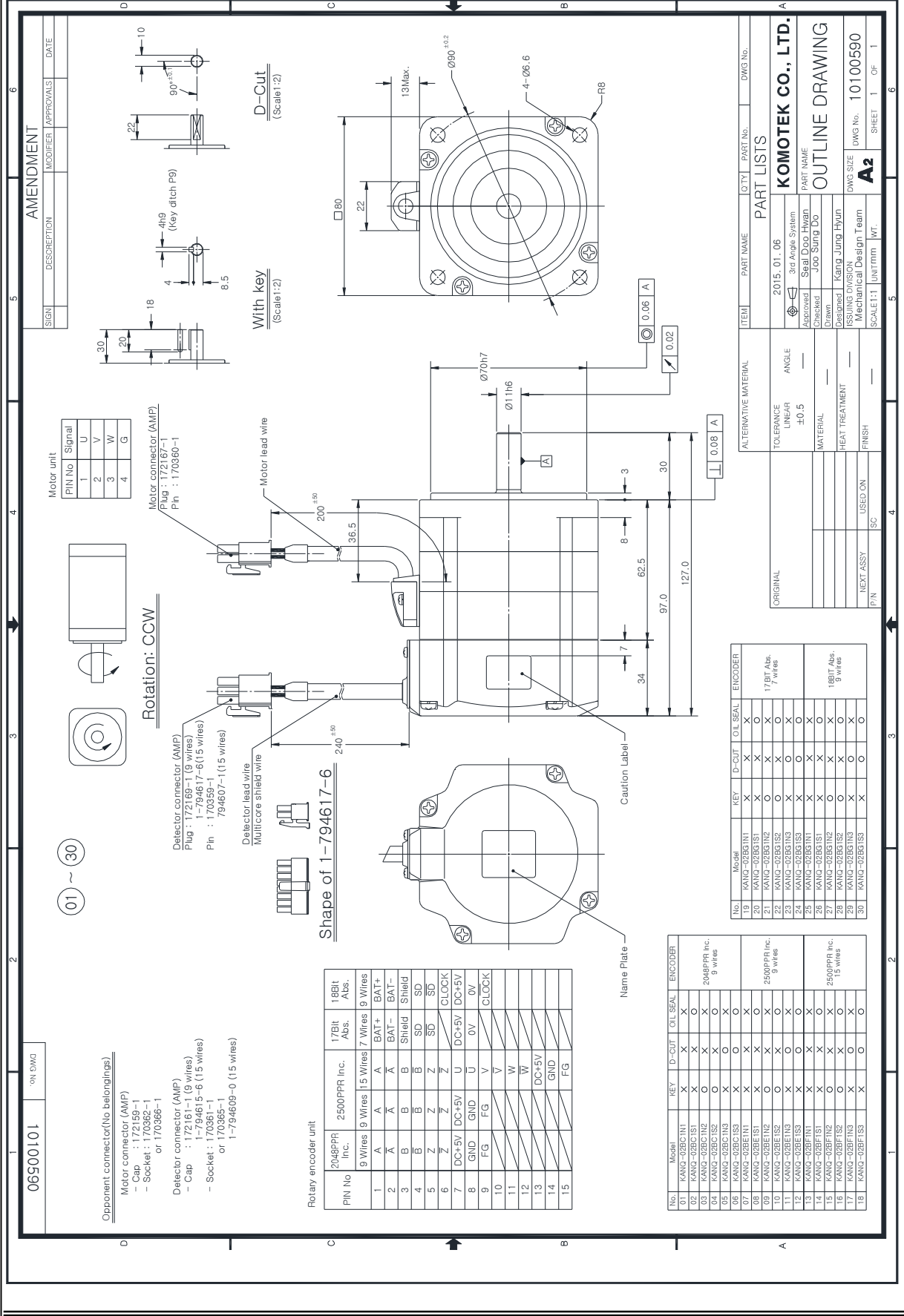
## AC Servo Motor Specifications

Item	Unit	KANQ-02B□1N□	KANQ-02B□1B□	Remarks
		KANQ-02B□1S□	KANQ-02B□1T□	
Flange size	mm	80	80	
Rated output	W	200	200	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	0.64	0.64	
	kgf·cm	6.5	6.5	
Maximum torque	N·m	1.91	1.91	
	kgf·cm	19.5	19.5	
Rated current	A <sub>(rms)</sub>	1.6	1.6	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.36	0.49	
	gf·cm·sec <sup>2</sup>	0.37	0.50	
Elec. time constant	ms	5.6	5.6	
Mech. time constant	ms	0.87	1.17	
Rated power rate	kW/s	11.5	8.5	
Momentary maximum current	A(o-p)	6.9	6.9	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	15.8	15.8	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.45	0.45	±10%
	kgf·cm/A <sub>(rms)</sub>	4.59	4.59	±10%
Phase resistance	Ω	1.4	1.4	±10%
Phase inductance	mH	7.9	7.9	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	1.5	2.3	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.



KANQ-02B□1□□\_Normal Model Outline Drawing



Amendment

SIGN	DESCRIPTION	MODIFIER	APPROVALS	DATE

Motor unit

PIN No.	Signal
1	U
2	V
3	W
4	G

Motor connector (AMP)  
 Plug : 172167-1  
 Pin : 170360-1

Rotation: CCW

Detector connector (AMP)  
 Plug : 172169-1 (9 wires)  
 Pin : 1-794617-6 (15 wires)  
 Pin : 170363-1  
 794607-1 (15 wires)

Detector lead wire  
 Multicore shield wire

Motor lead wire

Shape of 1-794617-6

Rotary encoder unit

PIN No	2048PPR Inc.	2500PPR Inc.	17BIT Abs.	7 Wires	18BIT Abs.	9 Wires
1	A	A	BAT+	BAT+	BAT+	BAT+
2	A	A	BAT-	BAT-	BAT-	BAT-
3	B	B	Shield	Shield	Shield	Shield
4	B	B	SD	SD	SD	SD
5	Z	Z	SF	SF	SF	SF
6	Z	Z	CLOCK	CLOCK	CLOCK	CLOCK
7	DC+5V	DC+5V	U	DC+5V	DC+5V	DC+5V
8	GND	GND	U	OV	OV	OV
9	FG	FG	V	CLOCK	CLOCK	CLOCK
10	FG	FG	W			
11	FG	FG	W			
12	DC+5V	DC+5V	W			
13	GND	GND	DC+5V			
14	FG	FG	GND			
15	FG	FG	FG			

Opponent connector (No belonging)

Motor connector (AMP)  
 - Cap : 172159-1  
 - Socket : 170362-1  
 or 170366-1

Detector connector (AMP)  
 - Cap : 172161-1 (9 wires)  
 - Socket : 1-794615-6 (15 wires)  
 or 170364-1  
 1-794609-0 (15 wires)

Model

Model	KEY	D-CUT	OIL SEAL	ENCODER
19 KANQ-02B01N1	X	X	X	X
20 KANQ-02B01S1	X	X	X	X
21 KANQ-02B01N2	X	X	X	X
22 KANQ-02B01S2	X	X	X	X
23 KANQ-02B01N3	X	X	X	X
24 KANQ-02B01S3	X	X	X	X
25 KANQ-02B01N1	X	X	X	X
26 KANQ-02B01S1	X	X	X	X
27 KANQ-02B01N2	X	X	X	X
28 KANQ-02B01S2	X	X	X	X
29 KANQ-02B01N3	X	X	X	X
30 KANQ-02B01S3	X	X	X	X

Model

Model	KEY	D-CUT	OIL SEAL	ENCODER
01 KANQ-02B02N1	X	X	X	X
02 KANQ-02B02S1	X	X	X	X
03 KANQ-02B02N2	X	X	X	X
04 KANQ-02B02S2	X	X	X	X
05 KANQ-02B02N3	X	X	X	X
06 KANQ-02B02S3	X	X	X	X
07 KANQ-02B02N1	X	X	X	X
08 KANQ-02B02S1	X	X	X	X
09 KANQ-02B02N2	X	X	X	X
10 KANQ-02B02S2	X	X	X	X
11 KANQ-02B02N3	X	X	X	X
12 KANQ-02B02S3	X	X	X	X
13 KANQ-02B02N1	X	X	X	X
14 KANQ-02B02S1	X	X	X	X
15 KANQ-02B02N2	X	X	X	X
16 KANQ-02B02S2	X	X	X	X
17 KANQ-02B02N3	X	X	X	X
18 KANQ-02B02S3	X	X	X	X

Model

Model	KEY	D-CUT	OIL SEAL	ENCODER
01 KANQ-02B03N1	X	X	X	X
02 KANQ-02B03S1	X	X	X	X
03 KANQ-02B03N2	X	X	X	X
04 KANQ-02B03S2	X	X	X	X
05 KANQ-02B03N3	X	X	X	X
06 KANQ-02B03S3	X	X	X	X
07 KANQ-02B03N1	X	X	X	X
08 KANQ-02B03S1	X	X	X	X
09 KANQ-02B03N2	X	X	X	X
10 KANQ-02B03S2	X	X	X	X
11 KANQ-02B03N3	X	X	X	X
12 KANQ-02B03S3	X	X	X	X
13 KANQ-02B03N1	X	X	X	X
14 KANQ-02B03S1	X	X	X	X
15 KANQ-02B03N2	X	X	X	X
16 KANQ-02B03S2	X	X	X	X
17 KANQ-02B03N3	X	X	X	X
18 KANQ-02B03S3	X	X	X	X

PART LISTS

ITEM	PART NAME	Q'TY	PART No.	DWG No.
2015-01-06	3rd Angle System			
Approved	Seal Doo Hyun			
Checked	Joong Sung Do			
Drawn	Kang Jung Hyun			
DESTINED	Kang Jung Hyun			
ISSUING DIVISION: Mechanical Design Team				
DWG No. 10100590				
SCALE: 1:1 UNIT:mm WT.				

ALTERNATIVE MATERIAL

TOLERANCE	LINE-PR	ANGLE
±0.5		
MATERIAL		
HEAT TREATMENT		
FINISH		

P/N SC USED ON NEXT ASSY

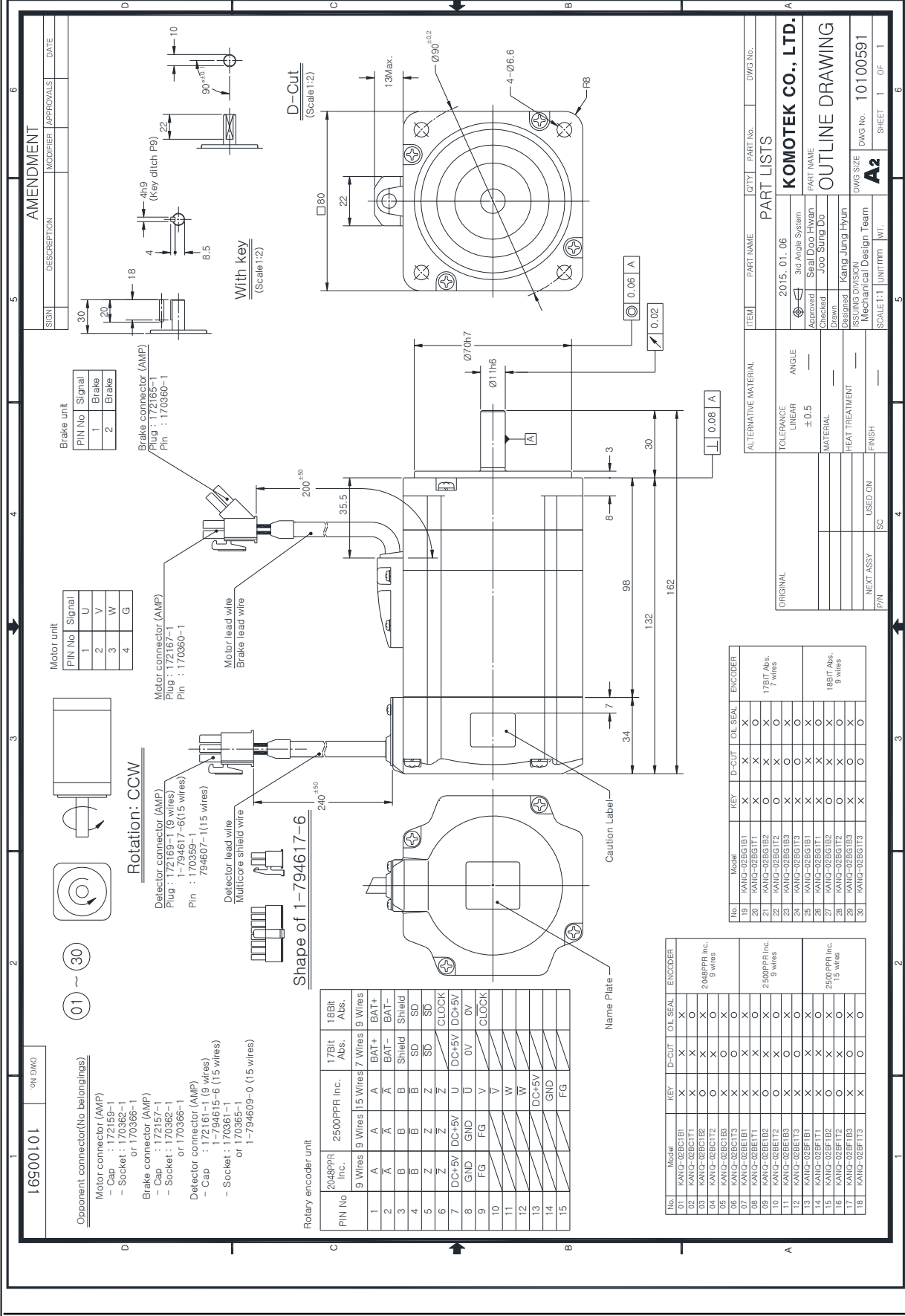
KOMOTEK CO., LTD.

OUTLINE DRAWING

DWG No. 10100590

SHEET 1 OF 1

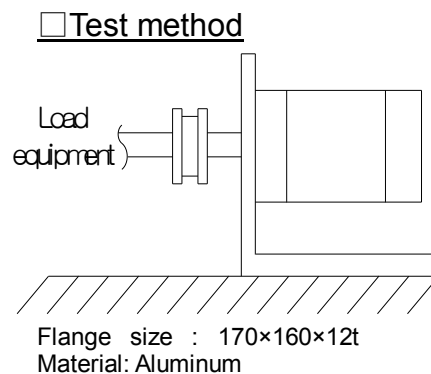
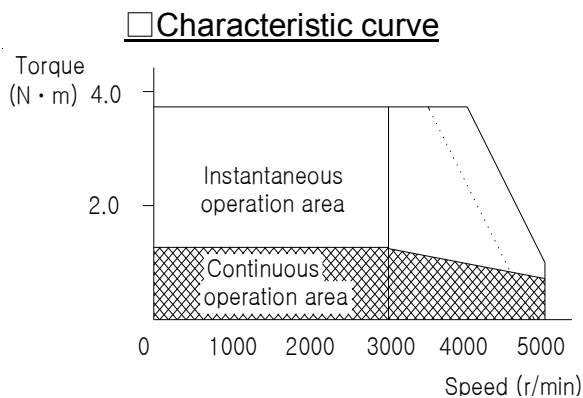
KANQ-02B □ 1 □ □ Brake Model Outline Drawing



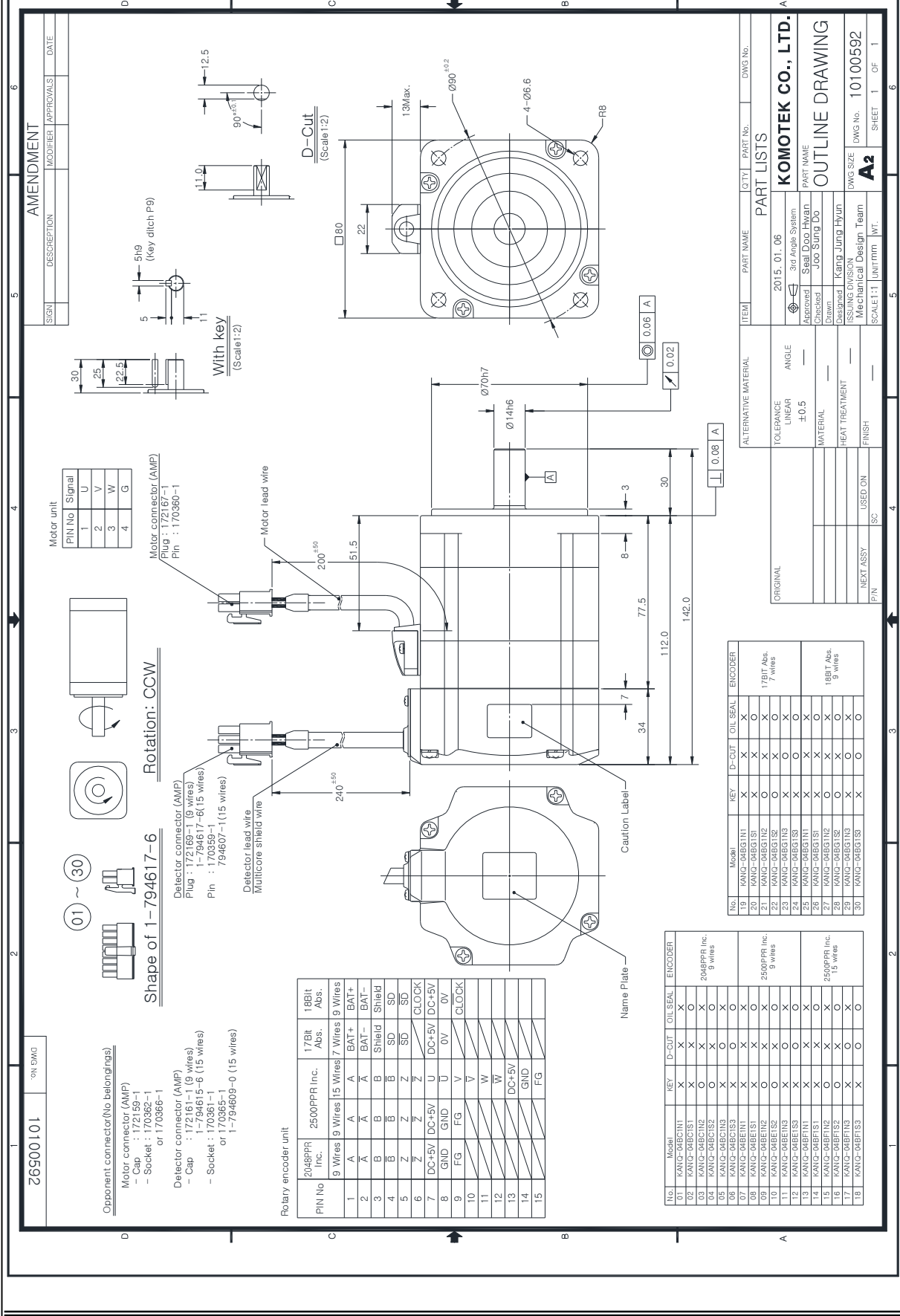
## AC Servo Motor Specifications

Item	Unit	KANQ-04B□1N□	KANQ-04B□1B□	Remarks
		KANQ-04B□1S□	KANQ-04B□1T□	
Flange size	mm	80	80	
Rated output	W	400	400	
Continuous Running Duty	%	100	100	
No. of poles		8	8	
Rated speed	r/min	3000	3000	
Maximum speed	r/min	5000	5000	
Rated torque	N·m	1.3	1.3	
	kgf·cm	13	13	
Maximum torque	N·m	3.82	3.82	
	kgf·cm	39	39	
Rated current	A <sub>(rms)</sub>	2.5	2.5	±10%
Rotor inertia	×10 <sup>-4</sup> kg·m <sup>2</sup>	0.62	0.74	
	gf·cm·sec <sup>2</sup>	0.63	0.76	
Elec. time constant	ms	6.6	6.6	
Mech. time constant	ms	0.62	0.74	
Rated power rate	kW/s	26.7	22.4	
Momentary maximum current	A(o-p)	10.49	10.49	±10%
Back EMF constant per phase	×10 <sup>-3</sup> V <sub>(rms)</sub> /min <sup>-1</sup>	20.9	20.9	±10%
Torque constant	N·m/A <sub>(rms)</sub>	0.56	0.56	±10%
	kgf·cm/A <sub>(rms)</sub>	5.70	5.70	±10%
Phase resistance	Ω	0.9	0.9	±10%
Phase inductance	mH	5.9	5.9	±20%
Insulation class		B	B	
Vibration class		V-15	V-15	
Paint color		Black	Black	
Weight	kg	2.1	3.0	
Oil seal		X / O	X / O	
Brake		X	O	
Structure		Totally-enclosed self-cooled	Totally-enclosed self-cooled	
Supply voltage	V AC	200/220	200/220	

1. These values are representative of the ideal sinusoidal operating conditions of the motors.  
(at ambient temperature 20°C)
2. IP class of these motors are IP65 without connectors.
3. Rated torque is the allowable continuous torque value when measured in the conditions shown below.

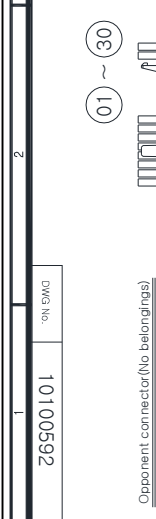
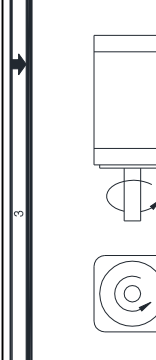


# KANQ-04B 1 1 1 Normal Model Outline Drawing



26500101		IN	SMG
AMENDMENT			
NO.	DESCRIPTION	MODIFIER	APPROVALS
DATE			

1	U
2	V
3	W
4	G



Opponent connector (No. belongings)

Motor connector (AMP)  
 - Cap : 172159-1  
 - Socket : 170362-1  
 or 170366-1

Detector connector (AMP)  
 - Cap : 172161-1 (9 wires)  
 - 794615-6 (15 wires)  
 - Socket : 170361-1  
 or 170366-1  
 - 794609-0 (15 wires)

Rotary encoder unit

Pin No.	2500PPR Inc.	17Bit Abs.	18Bit Abs.
1	A	A	BAT+
2	A	A	BAT-
3	B	B	Shield
4	B	B	SD
5	Z	Z	SD
6	Z	Z	CLOCK
7	DC+5V	U	DC+5V
8	GND	U	OV
9	FG	V	CLOCK
10			
11			
12			
13			
14			
15			

Rotary encoder unit

Pin No.	9 Wires	15 Wires	17 Wires	9 Wires
1	A	A	BAT+	BAT+
2	A	A	BAT-	BAT-
3	B	B	Shield	Shield
4	B	B	SD	SD
5	Z	Z	SD	SD
6	Z	Z	CLOCK	CLOCK
7	DC+5V	U	DC+5V	DC+5V
8	GND	U	OV	OV
9	FG	V	CLOCK	CLOCK
10				
11				
12				
13				
14				
15				

Rotary encoder unit

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANQ-04BGT1	X	X	X	X
20	KANQ-04BGT3	X	X	X	X
21	KANQ-04BGT5	X	X	X	X
22	KANQ-04BGT7	X	X	X	X
23	KANQ-04BGT9	X	X	X	X
24	KANQ-04BGT11	X	X	X	X
25	KANQ-04BGT13	X	X	X	X
26	KANQ-04BGT15	X	X	X	X
27	KANQ-04BGT17	X	X	X	X
28	KANQ-04BGT19	X	X	X	X
29	KANQ-04BGT21	X	X	X	X
30	KANQ-04BGT23	X	X	X	X

Rotary encoder unit

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANQ-04BCT1	X	X	X	2048PPR Inc. 9 wires
02	KANQ-04BCT3	X	X	X	2048PPR Inc. 9 wires
03	KANQ-04BCT5	X	X	X	2048PPR Inc. 9 wires
04	KANQ-04BCT7	X	X	X	2048PPR Inc. 9 wires
05	KANQ-04BCT9	X	X	X	2048PPR Inc. 9 wires
06	KANQ-04BCT11	X	X	X	2048PPR Inc. 9 wires
07	KANQ-04BCT13	X	X	X	2048PPR Inc. 9 wires
08	KANQ-04BCT15	X	X	X	2048PPR Inc. 9 wires
09	KANQ-04BCT17	X	X	X	2048PPR Inc. 9 wires
10	KANQ-04BCT19	X	X	X	2048PPR Inc. 9 wires
11	KANQ-04BCT21	X	X	X	2048PPR Inc. 9 wires
12	KANQ-04BCT23	X	X	X	2048PPR Inc. 9 wires
13	KANQ-04BCT25	X	X	X	2048PPR Inc. 9 wires
14	KANQ-04BCT27	X	X	X	2048PPR Inc. 9 wires
15	KANQ-04BCT29	X	X	X	2048PPR Inc. 9 wires
16	KANQ-04BCT31	X	X	X	2048PPR Inc. 9 wires
17	KANQ-04BCT33	X	X	X	2048PPR Inc. 9 wires
18	KANQ-04BCT35	X	X	X	2048PPR Inc. 9 wires

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

Part Lists

ITEM	PART NAME	QTY	PART NO.	DWG No.
	2015. 01. 06			
Approved	3rd Angle System			
Checked	Seal Doo Hwan			
Drawn	Joo Sung Do			
Designed	Kang Jung Hyun			
ISSUING DIVISION	Mechanical Design Team			
DWG No.	10100592			
SCALE	1:1 Unit:mm			
SHEET	1 OF 1			

# KANQ-04B□1□□ Brake Model Outline Drawing

SIGN		DESCRIPTION		MODIFIER		APPROVALS		DATE	

PART LISTS		
ITEM	PART NAME	QTY

**Opponent connector (No belongings)**

**Motor connector (AMP)**

- Cap : 172159-1
- Socket : 170362-1 or 170366-1

**Brake connector (AMP)**

- Cap : 172157-1
- Socket : 170362-1 or 170366-1

**Detector connector (AMP)**

- Cap : 172161-1 (9 wires)
- Socket : 170361-1 or 170365-1
- 1-794609-0 (15 wires)

**Rotary encoder unit**

PIN No	204PPR Inc.	15 Wires	17Bit Abs.	18Bit Abs.
1	A	A	A	BAT+
2	A	A	A	BAT-
3	B	B	B	Shield
4	B	B	B	SD
5	Z	Z	Z	SD
6	Z	Z	Z	CLOCK
7	DC+SV	DC+SV	U	DC+SV
8	GND	GND	U	0V
9	FG	FG	V	CLOCK
10				
11				
12				
13				
14				
15				

**Motor unit**

PIN No	Signal
1	U
2	V
3	W
4	G

**Brake unit**

PIN No	Signal
1	Brake
2	Brake

**Detector connector (AMP)**

Plug : 172169-1 (9 wires)  
1-794617-6 (15 wires)  
Pin : 170359-1

**Motor connector (AMP)**

Plug : 172167-1  
Pin : 170360-1

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANQ-04B31B1	X	X	X	X
20	KANQ-04B31T1	X	X	X	X
21	KANQ-04B31B2	X	X	X	17BIT Abs. 7 wires
22	KANQ-04B31T2	X	X	X	X
23	KANQ-04B31B3	X	X	X	X
24	KANQ-04B31T3	X	X	X	X
25	KANQ-04B31B1	X	X	X	X
26	KANQ-04B31T1	X	X	X	X
27	KANQ-04B31B2	X	X	X	18BIT Abs. 9 wires
28	KANQ-04B31T2	X	X	X	X
29	KANQ-04B31B3	X	X	X	X
30	KANQ-04B31T3	X	X	X	X

**Detector connector (AMP)**

Plug : 172161-1 (9 wires)  
1-794615-6 (15 wires)  
Pin : 170361-1

**Motor connector (AMP)**

Plug : 172167-1  
Pin : 170360-1

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
01	KANQ-04BCT1B1	X	X	X	X
02	KANQ-04BCT1T1	X	X	X	X
03	KANQ-04BCT1B2	X	X	X	204PPR Inc. 9 wires
04	KANQ-04BCT1T2	X	X	X	X
05	KANQ-04BCT1B3	X	X	X	X
06	KANQ-04BCT1T3	X	X	X	X
07	KANQ-04BCT1B1	X	X	X	X
08	KANQ-04BCT1T1	X	X	X	X
09	KANQ-04BCT1B2	X	X	X	2500PPR Inc. 9 wires
10	KANQ-04BCT1T2	X	X	X	X
11	KANQ-04BCT1B3	X	X	X	X
12	KANQ-04BCT1T3	X	X	X	X
13	KANQ-04BFT1B1	X	X	X	X
14	KANQ-04BFT1T1	X	X	X	X
15	KANQ-04BFT1B2	X	X	X	2500PPR Inc. 15 wires
16	KANQ-04BFT1T2	X	X	X	X
17	KANQ-04BFT1B3	X	X	X	X
18	KANQ-04BFT1T3	X	X	X	X

**Rotary encoder unit**

PIN No	2500PPR Inc.	15 Wires	17Bit Abs.	18Bit Abs.
1	A	A	A	BAT+
2	A	A	A	BAT-
3	B	B	B	Shield
4	B	B	B	SD
5	Z	Z	Z	SD
6	Z	Z	Z	CLOCK
7	DC+SV	DC+SV	U	DC+SV
8	GND	GND	U	0V
9	FG	FG	V	CLOCK
10				
11				
12				
13				
14				
15				

**Rotary encoder unit**

Shape of 1-794617-6

**Detector connector (AMP)**

Plug : 172161-1 (9 wires)  
1-794615-6 (15 wires)  
Pin : 170361-1

**Motor connector (AMP)**

Plug : 172167-1  
Pin : 170360-1

No.	Model	KEY	D-CUT	OIL SEAL	ENCODER
19	KANQ-04B31B1	X	X	X	X
20	KANQ-04B31T1	X	X	X	X
21	KANQ-04B31B2	X	X	X	17BIT Abs. 7 wires
22	KANQ-04B31T2	X	X	X	X
23	KANQ-04B31B3	X	X	X	X
24	KANQ-04B31T3	X	X	X	X
25	KANQ-04B31B1	X	X	X	X
26	KANQ-04B31T1	X	X	X	X
27	KANQ-04B31B2	X	X	X	18BIT Abs. 9 wires
28	KANQ-04B31T2	X	X	X	X
29	KANQ-04B31B3	X	X	X	X
30	KANQ-04B31T3	X	X	X	X