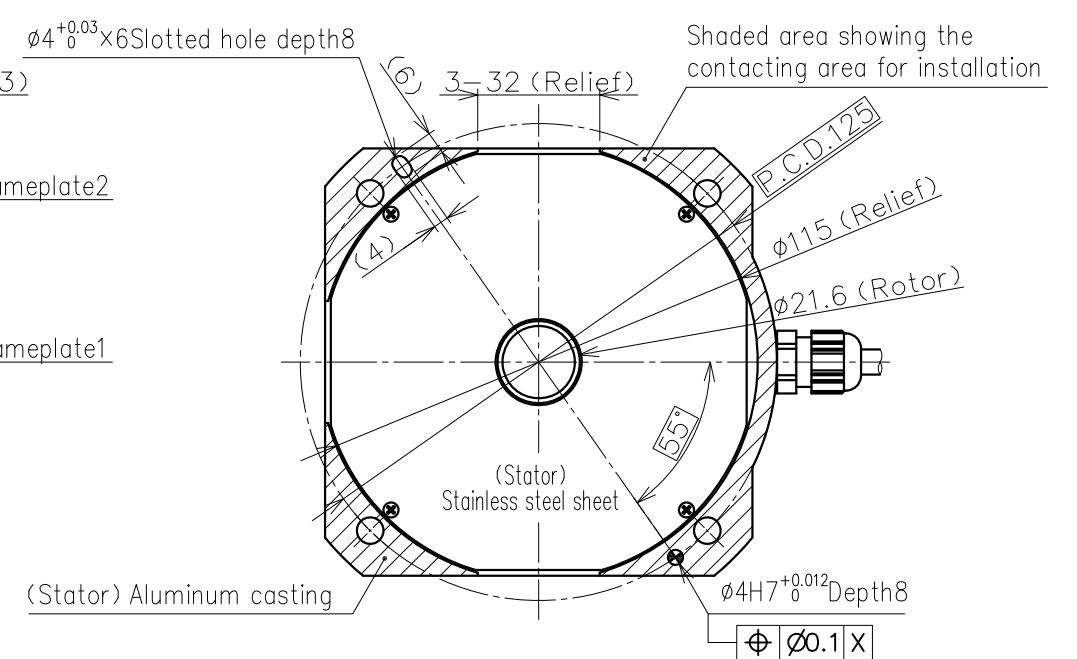
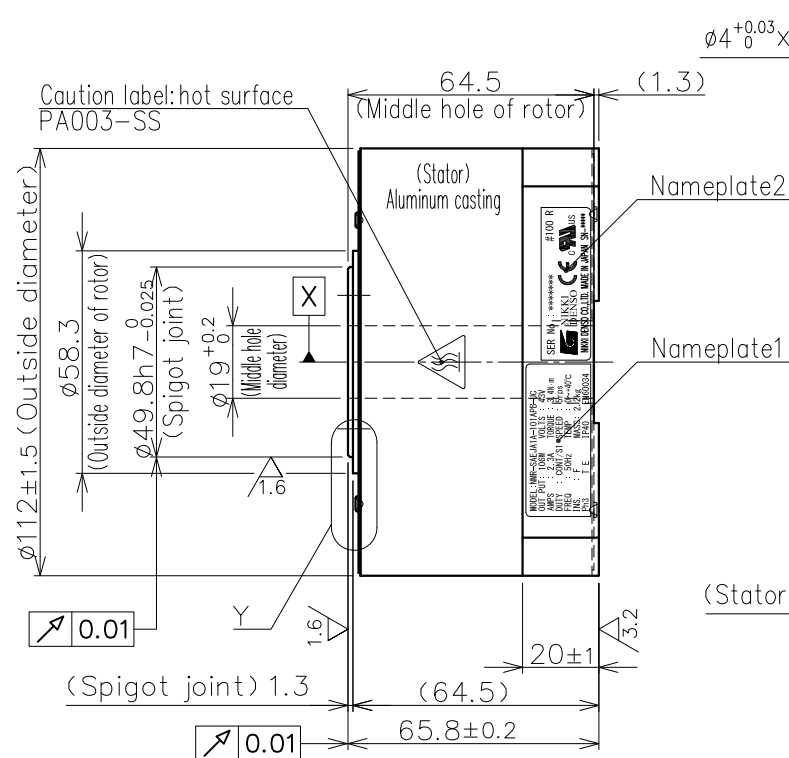



Note

1. The spigot joint surface of rotation part (both axial and radial) are coated by the transparent color coating agent for the rust prevention under the environment of no condensation. Make sure to use the dry cloth when you clean up the spigot joint surface of rotation part. Never use the organic solvent such as acetone or ethanol since these solvent destroys the coating agent and will cause the rusting.

2. Allowable axial load and allowable moment load indicated in the spec. sheet are the maximum allowable load when each load is independently activated. Please make sure to consult us in case of combined load at the axial load, radial load, and moment load to be activated, or life of the motor.



Nameplate list	
Index	Details
Nameplate 1	UL Motor serial No.1
Nameplate 2	UL Motor serial No.2
Nameplate 3	Encoder type. Resolution
Nameplate 4	Encoder software

	Power connector pin assignment		
	Pin	Signal	Line color
	1	U	Black
	2	V	Black
	3	W	Black
	4	Ground	Green/Yellow

Typing side  
B1 → B8

A1 → A8

Un-used PINS: A4, A5, B4, B5

Encoder connector pin assignment			
Pin	Signal	Pin	Signal
A1	+5V	A5	N.C.
B1	GND	B5	N.C.
A2	+5V	A6	Reserved
B2	GND	B6	Reserved
A3	SD1	A7	Reserved
B3	SD1*	B7	Reserved
A4	N.C.	A8	FG
B4	N.C.	B8	FG

Housing: J21DPM-16V-KY (JST)  
Contact: SJ2M-002GF-M1.0N (JST)

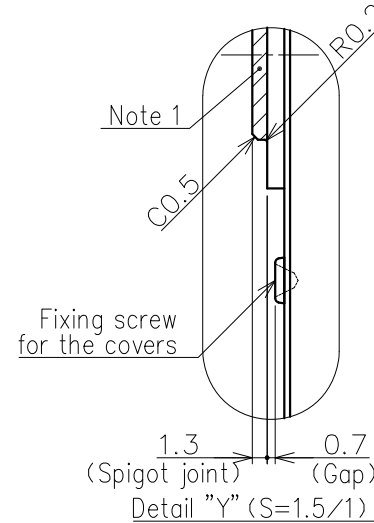
◆ The life of bearing and runout accuracy are different by load condition.

☆ Please make sure to consult with us if the mounting is other than horizontal attitude.

## Specifications

Items	Unit	Specifications
Power source	ACV	Single phase 100V
Paired servo driver	—	100W (VCL/VP) 200W (VPS)
Rated torque (Note 5)	N·m	3.0 3.4
Max. torque (Note 5)	N·m	7.5 8.5
Rated current (Note 5)	A	2.0 2.3
Rated rotation speed	rps	5
Rated output	W	106
Encoder type	Optical absolute (single-turn)	
The signal output	Serial communication	
Interpolation unit	Built-in motor	
Detection pulse	PPR	2,097,152
Electrical detection resolution	arc second	0.618
Allowable moment load	N·m	6.1
Allowable axial load	N	1,100
Radial runout (No load)	mm	0.01
Axial runout (No load)	mm	0.01
Rotor moment of inertia	kg·m <sup>2</sup>	0.00039
Mass	kg	2.2
Magnetic pole detection	Absolute position detection	
Duty type	—	Continuous (S1)
Mounting attitude	—	Horizontal (Rotor facing upward) ☆
Protection class	IP	40
Operating temperature	℃	0~40
Humidity (Non-condensing)	%	0~85
Vibration resistance	G	1
Withstand voltage	AC 1500V for 1 min. only	
Insulation resistance	Ω	100M or higher

Figure 1 is a graph showing the torque characteristics of the motor. The vertical axis is labeled 'Torque [%] (Rated torque ratio)' and has major tick marks at 70, 100, and 250. The horizontal axis is labeled 'Rotation speed [rps]' and has major tick marks at 0.2 and 5. The graph is divided into two horizontal regions: a lower region labeled 'Continuous usage area' extending from 0.2 to 5 rps at a torque ratio of 100%, and an upper region labeled 'Instantaneous usage area' extending from 0.2 to 5 rps at a torque ratio of 250%. A dashed vertical line at 0.2 rps indicates the continuous torque limit.



3. Please do not wire the pin (A6~B7) which is reserved for encoder manufacturer to avoid the encoder troubles.

4. Special model motor, please refer to the special model drawing.

5.If the rated torque of 3.4N·m (Max. torque 8.5N·m) output is required for VC2 or VPH servo driver, please pair with the servo driver of 200W output.

					NOTE File name/SE-84000A.dwg <div style="display: flex; justify-content: space-between;"> <span>APPROVED</span> <span>CHECKED</span> <span>DESIGNED</span> </div> <b>CKD NIKKI DENSO CO., LTD.</b>
REV. MARK ENTRY No.	REV. NOTE	APPROVED DATE	CHECKED DATE	DESIGNED DATE	

ENTRY No. <u>R1-72,176</u>		PRODUCT No. <u>248-2371</u>	
FINISH <u>—</u>		MODEL <u>zDISC Motor ND110-65-FSPB-UC (ABS_100V) NMR-SAEJATA-101APB-UC</u>	
MATERIAL <u>Refer drawing</u>		TITLE <u>Dimensions (ABS_100V_High precision)</u>	
SCALE <u>1/2</u>		DRAWING No. <u>SE-84000A</u>	REV. <u>A</u>
third angle projection			