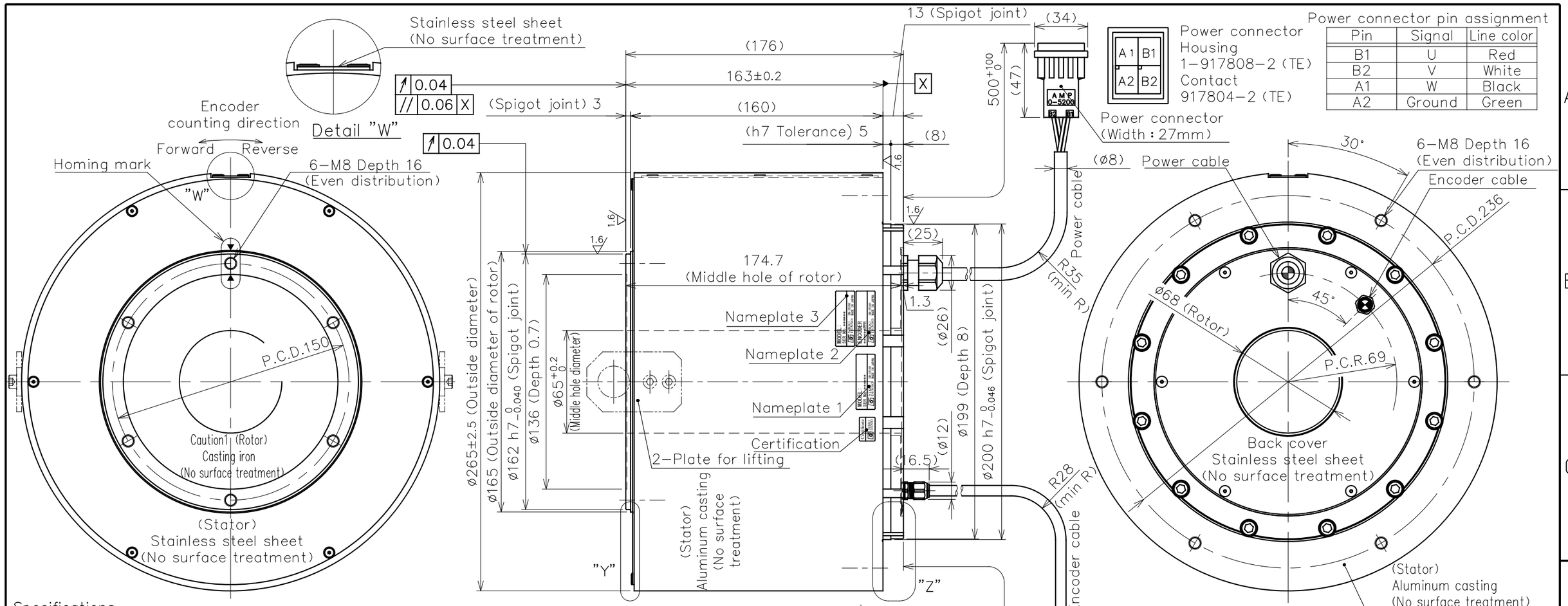

Power connector pin assignment

Pin	Signal	Line color
B1	U	Red
B2	V	White
A1	W	Black
A2	Ground	Green

Specifications

Items	Unit	Specifications
Rated torque	N·m	120
Max torque	N·m	300
Rated current	A	10
Rated rotation speed	rps	2
Rated output	W	1,507
Encoder type	Optical absolute (single-turn)	
The signal output	Serial communication	
Interpolation unit	Built−in motor	
Detection pulse	ppr	6,815,744
Electrical detection resolution	arc second	0.191
Allowable moment load	N·m	450 ◆
Allowable axial load	N	30,000 ◆
Radial runout (No load)	mm	0.04
Axial runout (No load)	mm	0.04
Parallelism	mm	0.06
Absolute position accuracy	arc second	±50 (OP : ±10)
Repeat accuracy (Back and forth)	arc second	±1
Rotor moment of inertia	kg·m²	0.105
Mass	kg	42
Magnetic pole detection	Absolute position detection	
Power Source	ACV	3-phase 200V AC
Paired servo driver	kW	1.5
Duty type	−	Continuous (S1)
Mounting attitude	Horizontal	(Rotor facing up and down direction) ☆◆
Protection class	IP	44
Operating temperature	℃	0~40
Humidity (Non−condensing)	%	85 or lower
Vibration resistance	G	1
Withstand voltage	AC 1500V for 1 min only	
Insulation resistance	Ω	100M or higher

◆ 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.

Caution

1. No surface treatment on the rotor.
   Please remove the anticorrosive coating before using the motor.
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.
3. Please do not wire the pin (A6~B7) which is reserved for encoder manufacturer to avoid the encoder troubles.

Nameplate list

Index	Details
Nameplate 1	Motor serial No.
Nameplate 2	Encoder type, Resolution
Nameplate 3	Encoder software

Encoder connector pin assignment

Pin	Signal	
A1	EP5	
B1	GND	
A2	EP5	
B2	GND	
A3	SD1	
B3	SD1*	
A4	N.C.	
B4	N.C.	
A5	N.C.	
B5	N.C.	
A6	Reserved	(Caution 3)
B6	Reserved	(Caution 3)
A7	Reserved	(Caution 3)
B7	Reserved	(Caution 3)
A8	N.C.	
B8	FG	

Un−used PINS : A4, A5, A8, B4 and B5

Rev.mark Entry no.	Rev.note	APPROVED DATE	CHECKED DATE	DESIGNED DATE

NOTE File name : SE−79540.dwg

Approved	Checked	Designed

NIKKI DENSO CKD NIKKI DENSO CO., LTD

Entry no. R1−7176 6

Surface treatment: Refer drawing

Material: Refer drawing

Scale: 1/2.5

Third angle projection

Product no. 2480−0010

Model: DISC motor DD250−163−LS (ABS) DD25−152L02CNN

Title: Dimensions (ABS)

Drawing No. SE−79540

REV.