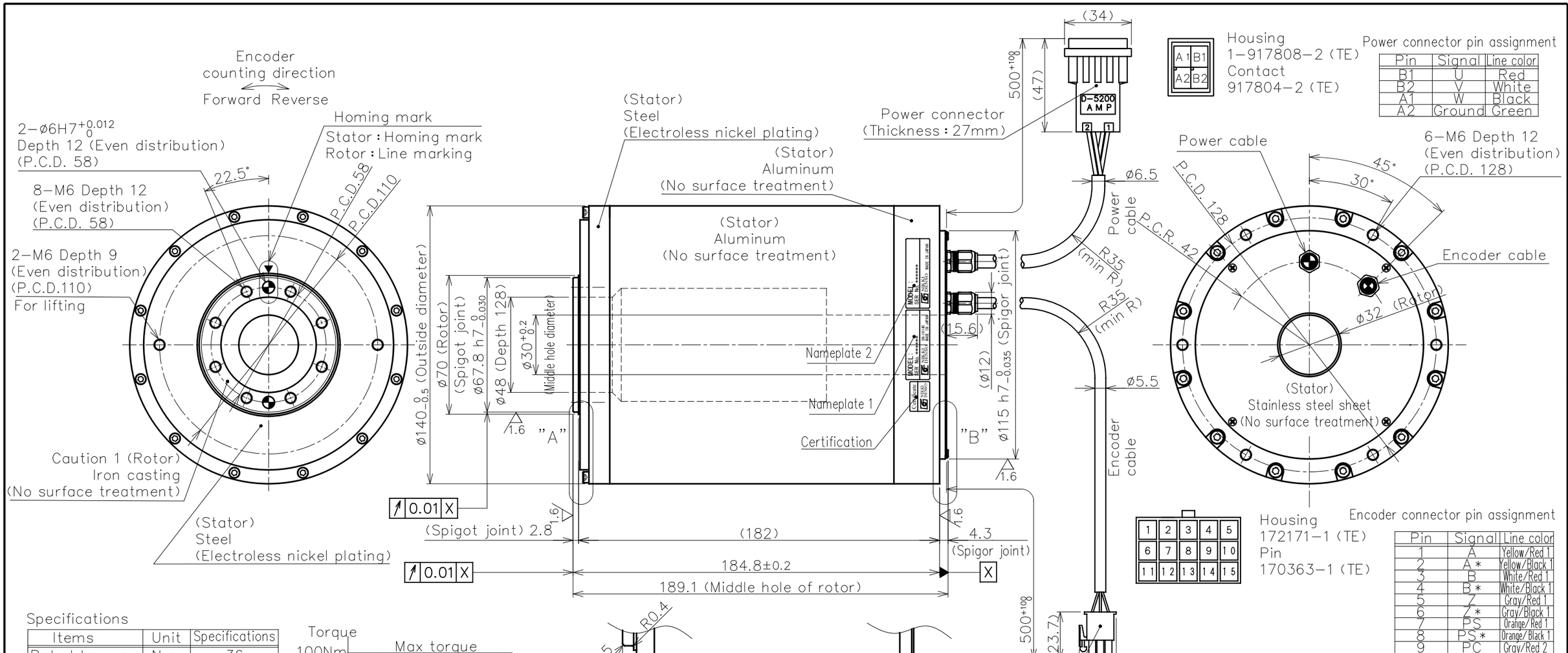


Power connector pin assignment

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

Encoder connector pin assignment

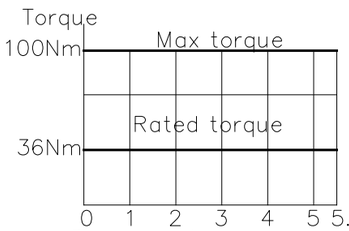
Pin	Signal	Line color
1	A	Yellow/Red 1
2	A*	Yellow/Black 1
3	B	White/Red 1
4	B*	White/Black 1
5	Z	Gray/Red 1
6	Z*	Gray/Black 1
7	PS	Orange/Red 1
8	PS*	Orange/Black 1
9	PC	Gray/Red 2
10	PC*	Gray/Black 2
11	+5V	Pink/Red 1
12	GND	Pink/Black 1
13	+5V	Orange/Red 2
14	GND	Orenge/Black 2
15	FG	Outer shield

Specifications

Items	Unit	Specifications
Rated torque	N·m	36
Max torque	N·m	100
Rated current	A	9.6
Rated rotation speed	rps	5.5
Rated output	W	1,244
Encoder type	Optical incremental	
The signal output	Pulse out put of A phase and B phase	
Interpolation unit	Built−in motor	
Detection pulse	ppr	3,360,000
Electrical detection resolution	arc second	0.386
Allowable moment load	N·m	31.9 (Caution 2)♦
Allowable axial load	N	3,200 (Caution 2)♦
Radial runout (No load)	mm	0.01
Axial runout (No load)	mm	0.01
Rotor moment of inertia	kg·m²	0.0033
Mass	kg	12
Magnetic pole detection	Automatic pole detection	
Power Source	ACV	3−phase 200V AC
Paired servo driver	1.5kW	
Duty type	−	Continuous (S1)
Mounting attitude	Horizontal (Rotor facing upward)	☆
Protection class	IP	42
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

♦ 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.

Torque characters



Nameplate list

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

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 eachload 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.

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

Note File name : SE−79750.dwg

Approved	Checked	Designed

NIKKI DENSO CKD NIKKI DENSO CO., LTD

Entry no. R1−7176 8
Product no. 247−991*
Parts no.
Surface treatment: Refer drawing
Material: Refer drawing
Scale: 1/2
Third angle projection
Model: DISC motor HD140−185−LSP (INC) NMR−FRUA2A−122AP
Title: Dimensions (INC) High precision
Drawing No. SE−7975 0
REV.