

Nidec small bldc motor

CMC 27H-24V



제품 이미지 사진



CHARACTERISTIC

- Clockwise Rotation / Counter Clockwise Rotation
- Signal Function Available
- Locked Rotor Protection
- PWM Control (Standard)
- PLL Control (External Reference Clock, semi-customized)
- Quiet Operation
- Compact $\phi 48.9 \times 31.7$ mm Case
- Power ~ 12W Class

MAJOR CHARACTERISTIC PARAMETERS

Parameter	Symbol	Conditions	Min.	Nom.	Max.	Units
Operating Voltage	VM	Model 27H-24	21.6	24	26.4	V
Operating Current	IRun	Model 27H-24, continuous operation	-	-	1.0	A
Run Torque	TRun	Model 27H-24, continuous operation	-	-	38	mN · m
Power	POUT	Model 27H-24, continuous operation	-	-	15.3	W
No Load Speed	ω NL	Model 27H-24	-	4,700	-	min-1
Rotor Inertia	JM	-	-	40	-	g · cm ²
Sound Pressure	NM	No load, f=0 to 20 kHz, 30cm from motor	-	-	50	dB(A)
Operating Temperature	TA	MRelative humidity 5%-90%, non-condensing	10	-	50	°C
Life Expectancy†	L10	Continuous operation, no load, TA=+20°C	5,000	-	-	hours
Mass	VM	-	-	210	-	g

■ Note: Current, power, speed, sound level, and life expectancy ratings are at nominal voltage.
 *Automatic shutdown at locked rotor condition: Restart at power OFF/ON.
 †L10 life expectancy, relative humidity 5% - 90%, non-condensing: The point in time at which 90 percent of a sample lot can be expected to survive, failure criteria for life testing that establishes this figure include a 20% reduction in speed or a 20% increase in operating current.

INTERFACE

- PWM 타입 (標準) PWM Type(Standard)
Connector type = S7B-ZR-SM4A(JST made)

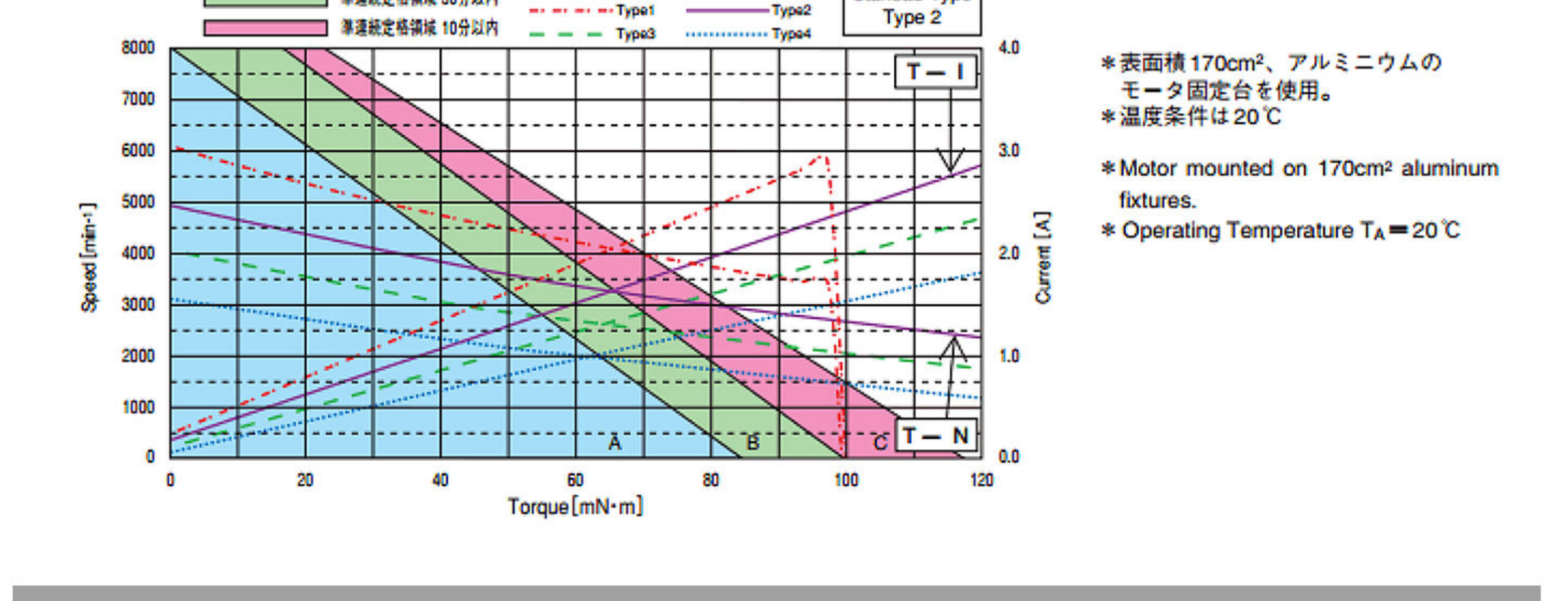
Pin No.	Type	Explanation
1	20FG	Open-collector circuit, I _c = 3.0mA, □ square wave pulses 20ppr
2	5V	IC Power Supply
3	CW/CCW	High = CW/Low = CCW.
4	PWM	f _{in} = 0.5k to 50 kHz, V _{in} (LOW) < 1.0V, □ V _{in} (High) = 2.5 to 5.0V, duty cycle = 20% to 100%.
5	ST/ST	High = Start / Low = Stop
6	GND	Ground.
7	VM	Motor Power Supply

- PLL 타입 (세미カスタム) PLL Type(semi-customized)
Connector type = S8B-ZR-SM4A (JST made)

Pin No.	Type	Explanation
1	GAIN	High = High speed / Low = Low speed.
2	LD	SPEED LOCK : Low
3	CW/CCW	High = CW / Low = CCW.
4	CLK	f _{CLK} = r.p.m. / 60 × 20.
5	ST/ST	High = Stop / Low = Start.
6	5V	IC Power Supply
7	GND	Ground.
8	VM	Motor Power Supply

PERFORMANCE CHARACTERISTICS

- Continuous Operation : All time (A)
- Quasi continuous Operation : ≤30 minutes(B)/≤10 minutes(C)



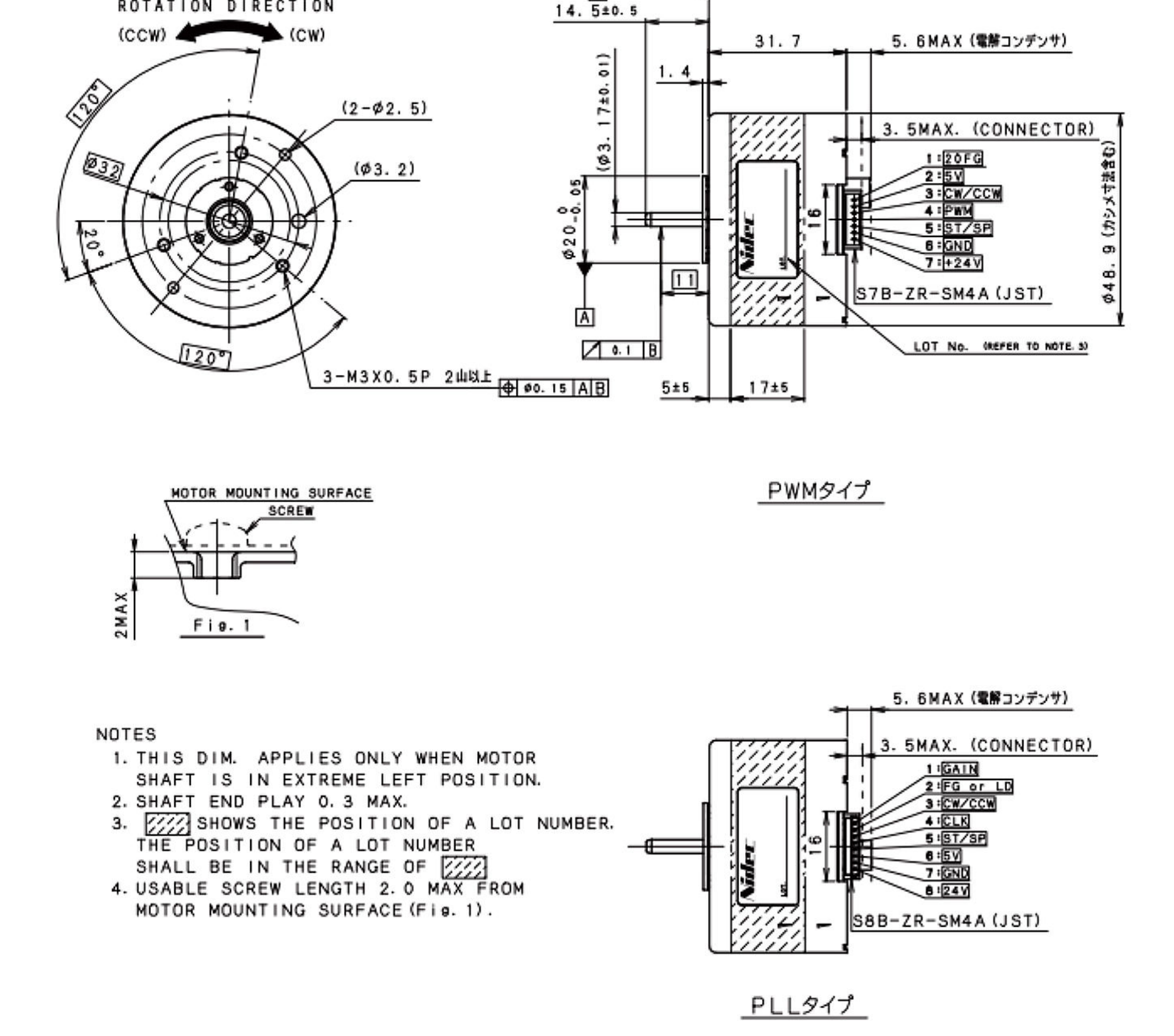
MOTOR AND DIRVE CIRCUIT OPTIONS

Feature	27H Standard	27H Options
Shape of Motor Shaft	Round	-
Surface of Motor Shaft	Smooth	-
Length of Motor Shaft	14.5mm	-
Bearing Type	Sleeve	-

CONTROL OPTION

■ This product is semi-customized product since speed control circuit is built in motor. Speed control circuit design will be customized to required rotation speed and load condition. Please make a contact with our sales division for more information.

- External Dimensions



NOTES
 1. THIS DIM. APPLIES ONLY WHEN MOTOR SHAFT IS IN EXTREME LEFT POSITION.
 2. SHAFT END PLAY 0.3 MAX.
 3. SHOWS THE POSITION OF A LOT NUMBER. THE POSITION OF A LOT NUMBER SHALL BE IN THE RANGE OF 2.0 MAX FROM MOTOR MOUNTING SURFACE (Fig. 1).
 *単位は、mm表示 *Dimensions in millimeters
 *指示無き公差: ±0.3mm *Tolerance = ±0.3, Unless otherwise specified