

# 標準 DC ブラシレスモータ (22H シリーズ)

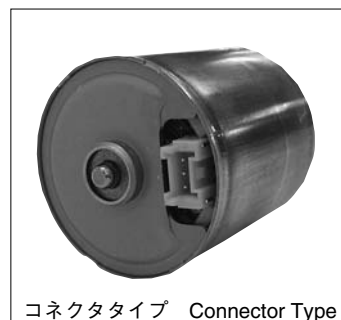
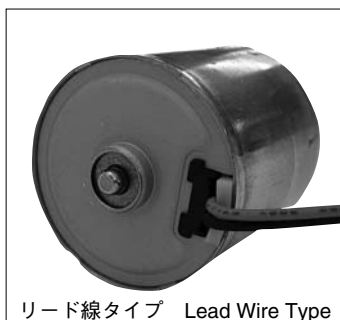
## ■特徴

- ・時計回り（反時計回りオプション）
- ・信号機能
- ・モータロック保護
- ・低イナーシャ化
- ・静音化
- ・小型
- ・出力～8Wクラス

## Characteristic

- ・ Clockwise Rotation (CCW Optional)
- ・ Signal Function Available
- ・ Locked Rotor Protection
- ・ Low Inertia
- ・ Quiet Operation
- ・ Compact  $\phi 35.8 \times 40\text{mm}$  Case
- ・ Power  $\sim 8\text{W}$  Class

## ● 22H Type



## ■主要特性 Major Characteristic Parameters

Parameter	Symbol	Conditions	Min.	Nom.	Max.	Units
動作電圧 Operating Voltage	$V_M$	Model 22H-12 Model 22H-24	8.0 16	12 24	15 26.4	V V
動作電流 Operating Current	$I_{RUN}$	Model 22H-12, continuous operation Model 22H-24, continuous operation	— —	— —	1.2 0.8	A A
負荷トルク Run Torque	$T_{RUN}$	Model 22H-12, continuous operation Model 22H-24, continuous operation	— —	— —	14.7 24.8	mN · m mN · m
出力 Power	$P_{OUT}$	Model 22H-12, continuous operation Model 22H-24, continuous operation	— —	— —	6.9 10.2	W W
無負荷回転数 No Load Speed	$\omega_{NL}$	Model 22H-12 Model 22H-24	— —	5,300 5,000	— —	$\text{min}^{-1}$ $\text{min}^{-1}$
ロータイナーシャ Rotor Inertia	$J_M$	—	—	18.5	—	$\text{g} \cdot \text{cm}^2$
騒音 Sound Pressure	$N_M$	No load, f=0 to 20 kHz, 30cm from motor	—	—	50	dB(A)
動作温度 Operating Temperature	$T_A$	Relative humidity 5% - 90%, non-condensing	10	—	50	$^{\circ}\text{C}$
寿命 Life Expectancy <sup>†</sup>	$L_{10}$	Continuous operation, no load, $T_A=+20^{\circ}\text{C}$	5,000	—	—	hours
重量 Motor Weight	$W_M$	—	—	145	—	g

(注) データは代表特性値です。

† L10寿命は、試験サンプル中の残存率90%を示し、特性の±20%以上変化したときが寿命の対象となります。試験条件は、湿度5～95%、結露無きことです。

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 bearing 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.

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## ■特性グラフ Performance Characteristics

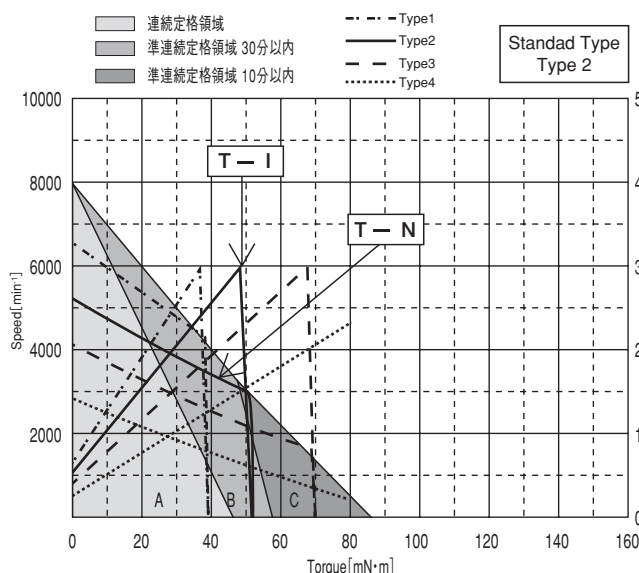
連続定格領域： 全時間(A)

Continuous Operation: All time (A)

準連続定格領域： 30分以内(B)/10分以内(C)

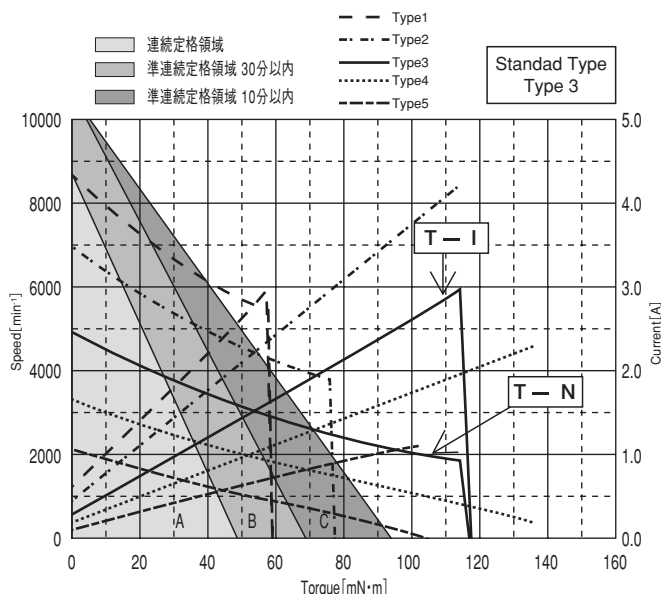
Quasi continuous Operation :  $\leq 30$  minutes (B) /  $\leq 10$  minutes (C)

(12V仕様@20℃)



\* 表面積 170cm<sup>2</sup>、アルミニウムのモータ固定台を使用。  
\* 温度条件は 20℃

(24V仕様@20℃)



\* Motor mounted on 170 cm<sup>2</sup> aluminum fixtures.  
\* Operating Temperature  $T_A = 20^\circ\text{C}$

## ■モータ、回路構成オプション Motor and Drive Circuit Options

Feature	22H Standard	22H Options
回転方向 Direction of Rotation <sup>(1)</sup>	CW	CCW(also see rotational direction control option below)
シャフト形状 Shape of Motor Shaft	Round	D-Cut
シャフト表面 Surface of Motor Shaft	Smooth	Knurled
シャフト長さ Length of Motor Shaft	23.2mm	18.2mm or 28.2mm
シャフト外径 Diameter of Motor Shaft	4.0mm	3.17mm
ベアリングタイプ Bearing Type	Sleeve	Ball
モータ端子 Motor Terminations <sup>(2)</sup>		
Power In	$V_M$	—
Ground	GND	—
CW/CCW Select	—	High = CW/Low = CCW.
Start/Stop Control	—	High = Start/Low = Stop.
PWM Input	—	$f_{in} = 0.5k$ to 50 kHz, $V_{in(LOW)} < 1.0V$ , $V_{in(High)} = 2.5$ to 5.0V, duty cycle = 20% to 100%.
Locked Rotor Alarm	—	Open-collector circuit, high-pass/low-fail, $I_C = 3.0mA$ , maximum.
Tachometer1	—	Open-collector circuit, $I_C = 3.0mA$ , maximum square wave pulses per revolution = motor poles/2.
Tachometer2	—	Open-collector circuit, $I_C = 3.0mA$ , maximum square wave pulses per revolution = motor poles $\times 3/2$ .

(1) 回転方向：モータ出力軸から見たもの

(1) Rotational orientation : Looking toward the load end of the motor shaft.

(2) モータ接続：6オプション中、最大4つの採用可能

(2) 22H designs support any four (max.) of six motor termination options shown above.

(3) オプション仕様、カスタム仕様につきましては弊社営業までお問い合わせください。

(3) Please make a contact with our sales division for options and customized.