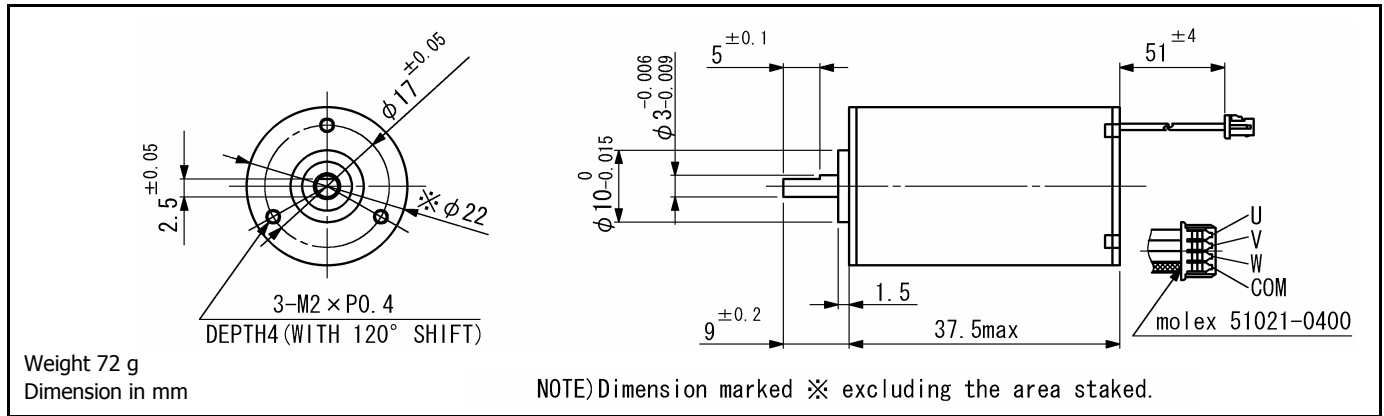


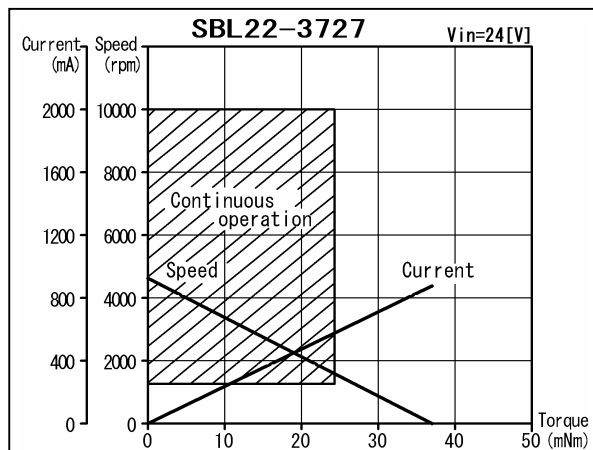
# SBL22-37

Electronically commutated sensorless motor, slotless stator design



### Sensorless drive circuit SSD22

Ordering number	SBL22	-3727
1 Nominal voltage		24 V
2 Terminal resistance		27 Ω
3 Output power		4.4 W
4 Efficiency		51 %
5 No-load speed		4685 rpm
6 No-load current		73 mA
7 Stall torque		36 mNm
8 Friction torque		3.2 mNm
9 Back-EMF constant		4.7 mV/rpm
10 Torque constant		44.1 mNm/A
11 Slope of N-T curve		130 rpm/mNm
12 Coil inductance		2.4 mH
13 Mechanical time constant (starting oscillating time neglected)		4.6 ms
14 Rotor inertia		3.31 gcm <sup>2</sup>
<b>Continuous operation</b>		
15 Speed range		1300...10000 rpm
16 Max. torque		24.3 mNm



### General specifications

17 Operating temperature	-20...+80	°C
18 Max. coil temperature	+90	°C
19 Thermal resistances	R <sub>th1</sub> = 0.6, R <sub>th2</sub> = 4.3	K/W
20 Bearings type	Preloaded ball bearings	
21 Max. shaft radial load	16 (9 mm)	N
22 Max. shaft axial load	4	N
23 Max. axial load at standstill	250	N
24 Shaft radial play	0.032	mm
25 Shaft axial play	0	mm

**Options:** Lead wires length, shaft length, special coils.

### V01

Namiki Precision Jewel Co.,Ltd

TEL: +81-3-5390-7620 FAX: +81-3-5390-8082

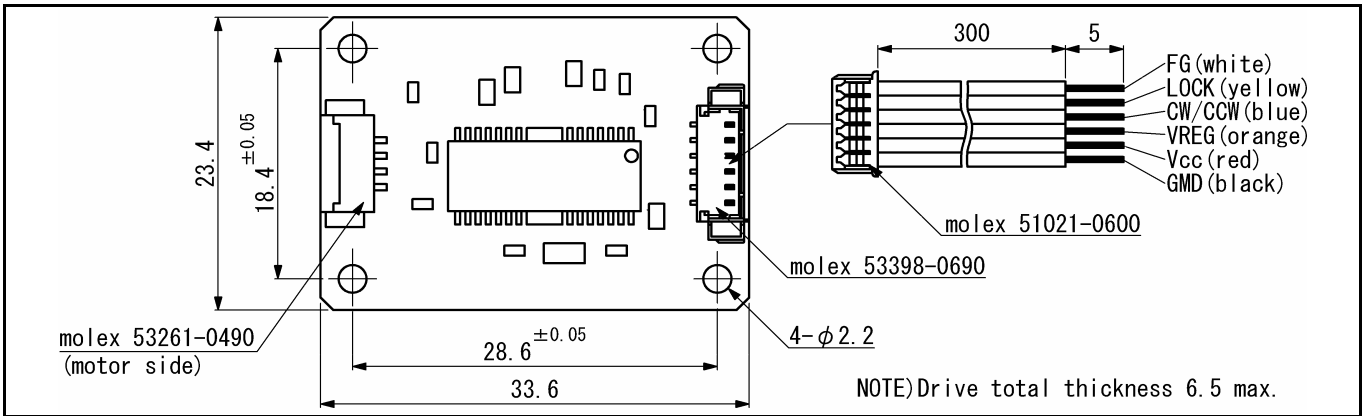
URL: www.namiki.net/

E-mail: kbinfo@namiki.net

Specifications subject to change without notice

# SSD22

## Sensorless brushless motor drive circuit



For DC brushless motor serie SBL22-37

### Description

SSD22 is a 3-phase sensorless drive circuit designed to operate brushless motor SBL22-37 exclusively. The desired motor speed is set by selecting the appropriate voltage supply, VCC. CW direction is obtained by connecting CW/CCW input to VREG, if not connected the motor runs CCW. FG (Frequency Generator) output generates 3 pulses per motor revolution. The LOCK output provides in normal operation a high logic level "1", in motor stall condition a low logic level "0". Internal thermal protection circuit included.

### Specifications

	SSD22			
	Min.	Typ.	Max.	
Voltage supply	8.0		24.0	V
Output voltage	8.0		24.0	V
Output current			0.9	A
Operating temperature range	-20 ... +75			°C
Weight	2.5			g

V01

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E-mail: kboinfo@namiki.net

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