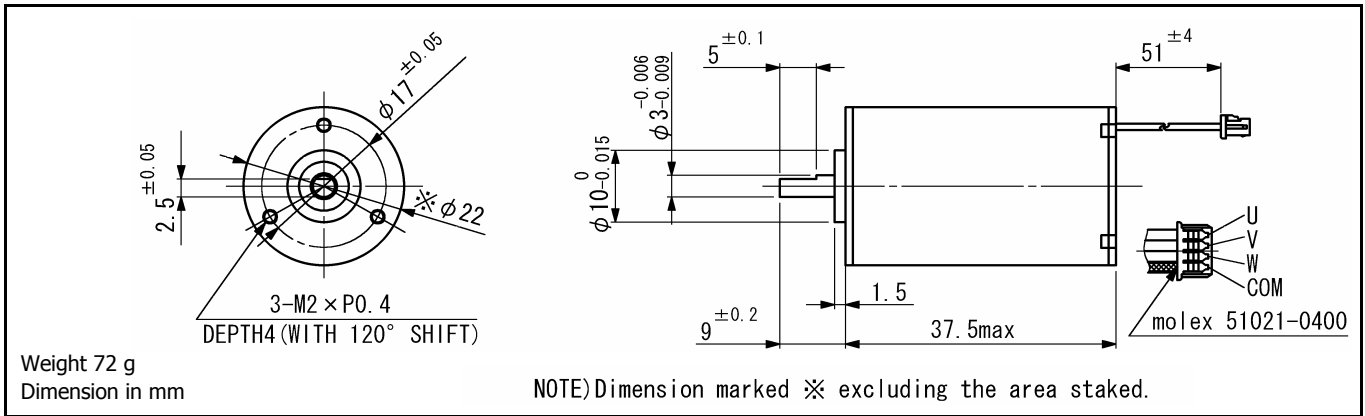


SBL22-37

Electronically commutated sensorless motor, slotless stator design

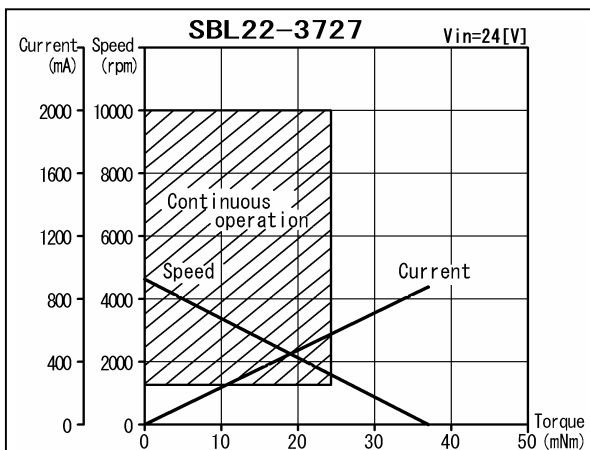


Sensorless drive circuit SSD22

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 ²

Continuous operation

15 Speed range				1300...10000 rpm
16 Max. torque				24.3 mNm



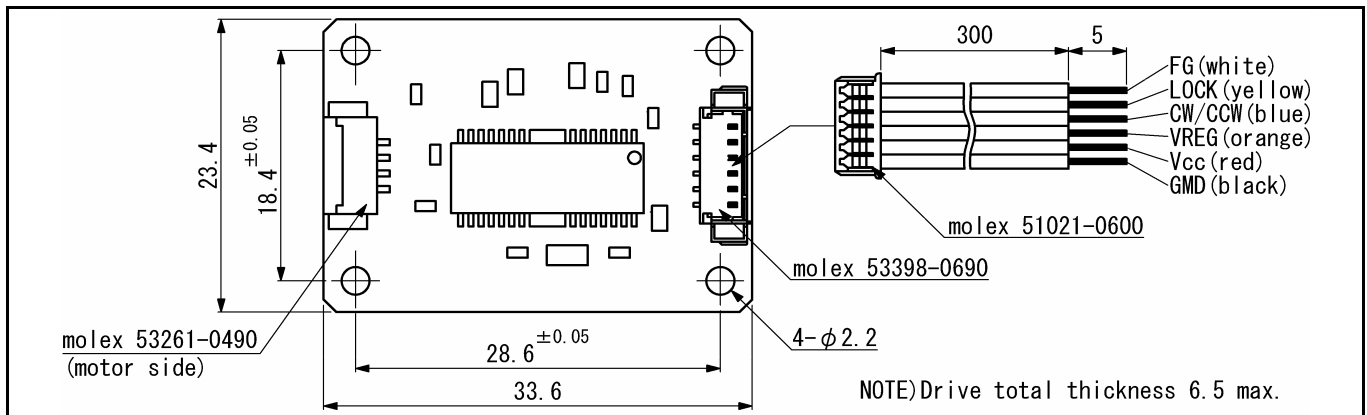
General specifications

17 Operating temperature	-20...+80	°C
18 Max. coil temperature	+90	°C
19 Thermal resistances	R _{th1} = 0.6, R _{th2} = 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.

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 an 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