Direct drive stepper motors

➜ 7.5° 7.5 Watts

- 48 steps/revolution (7.5°)
- Absorbed power : 7.5 W
- 2 or 4 phase versions available

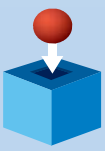


Specifications

			2 phases	4 phases
Type			82 920 0	82 920 0
Number of phases			2	4
Electronic controller used			Bipolar	Unipolar
Resistance per phase (Ω)	**Current per phase (A)**	**Voltage at motor terminals (V)**		
10.7	0.59	0.59	82 920 001	●
46	0.28	12.9	●	82 920 012
General characteristics				
Absorbed power (W)			7.5	7.5
Holding torque (mN.m)			70	57
Step angle (°)			7.5	7.5
Positioning accuracy (mm)			5	5
Inertia of rotor (gcm^2)			18.8	18.8
Max. detent torque (mN.m)			6	6
Max. coil temperature (°C)			120	120
Storage temperature (°C)			-40 → +80	-40 → +80
Thermal resistance of coil - ambient air (°C/W)			9.3	9.3
Insulation resistance (at 500 Vcc) (MΩ) following NFC 51200 standard			> 10^3	> 10^3
Insulation voltage (50 Hz, 1 minute) (V) following NFC 51200 standard			> 600	> 600
Wires length (mm)			250	250
Weight (g)			210	210
Protection rating			IP40	IP 40

5

Product adaptations

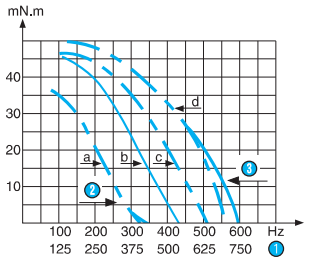


- Special output shafts
- Special supply voltages
- Special cable lengths
- Special connectors

To order, see page 13

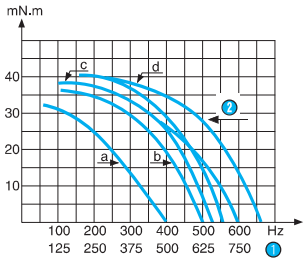
Curves

2 phases



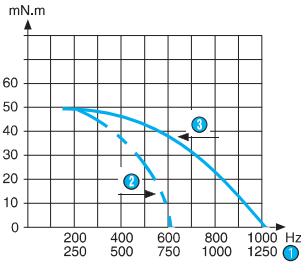
1 RPM
2 Max. stopping-starting curves
3 Max. operating curves

4 phases



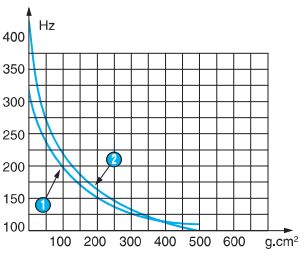
1 RPM
2 Max. operating curves

2 phases - Max. stopping-starting and operating curves at I constant (PBL 3717) for 2 (motor) phases 10.7 Ω. Holding torque 70 mN.m. Current per phase 0.59 A



1 RPM
2 Max. stopping-starting curves
3 Max. operating curves

Max. stopping-starting frequency curves as a function of the external inertia load at zero antagonistic torque. Tests at constant U.

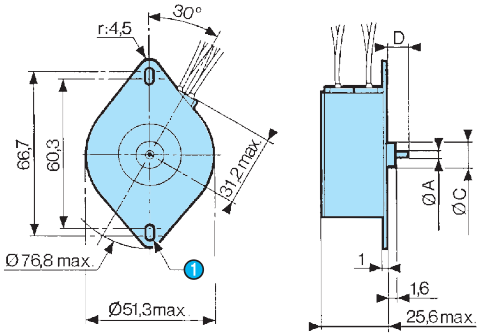


1 2 phases
2 4 phases

Inertia of measuring chain : 2.2 g.cm²
a = constant voltage controller with Rs (resistance in series) = 0
b = constant voltage controller with Rs (resistance in series) = R motor
c = constant voltage controller with Rs (resistance in series) = 2R motor
d = constant voltage controller with Rs (resistance in series) = 3R motor

The measurements are made with full stepping, 2-phases energised.

Dimensions



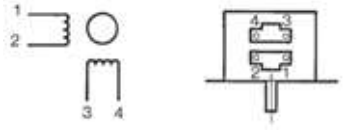
Version axe	Ø A	Ø C	D
Version 1	**2 $^{0}_{-0,006}$**	**9 $^{-0,010}_{-0,060}$**	**9**
Version 2	2 $^{0}_{-0,006}$	10 $^{-0,010}_{-0,060}$	9
Version 3	3,17 $^{0}_{-0,006}$	9,52 $^{-0,010}_{-0,060}$	9

1 2 oblong fixing holes : wide 3.5

Connections

2 phases

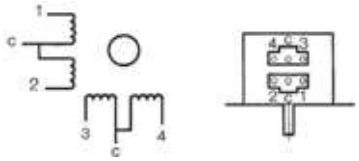
		1	2	3	4
1	1	-	+	-	+
	2	-	+	+	-
	3	+	-	+	-
	4	+	-	-	+
	5	-	+	-	+



1 Step
Energisation sequence for clockwise rotation : (viewed shaft end)

4 phases

		1	2	3	4
1	1	-		-	
	2	-			-
	3		-		-
	4		-	-	
	5	-		-	



1 Step
Energisation sequence for clockwise rotation :
2 phases energised (viewed shaft end, front forward)
Commons connected to positive.