



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## 7.5° 10 Watts 4 phases Part number made to order



- 48 steps/revolution (7.5°)
- Absorbed power : 10 W
- 2 or 4 phase versions available

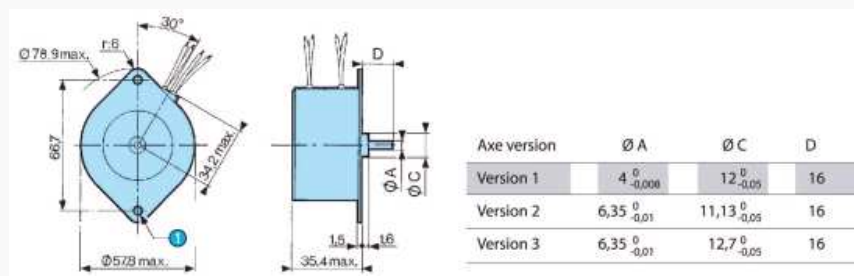
### Part numbers

	Type	Type	Number of phases	Electronic controller used	Resistance per phase (Ω)	Inductance per phase (mH)	Current per phase (A)	Voltage at motor terminals (V)
82 930 015	4 phases	82 930 0 4		Unipolar	22.3	47	0,39	12,5

### Specifications

Absorbed power (W)	10
Holding torque (mNm)	155
Step angle (°)	7,5
Positioning accuracy (%)	5
Rotor inertia (gcm <sup>2</sup> )	84
Max. detent torque (mNm)	12
Max. coil temperature (°C)	120
Storage temperature (°C)	-40 → +80
Thermal resistance of coil - ambient air (°C/W)	7
Insulation resistance (at 500 Vcc) (MΩ) following NFC 51200 standard	> 10 <sup>3</sup>
Insulation voltage (50 Hz, 1 minute) (V) following NFC 51200 standard	> 600
Wires length (mm)	250
Weight (g)	340
Protection rating	IP 40

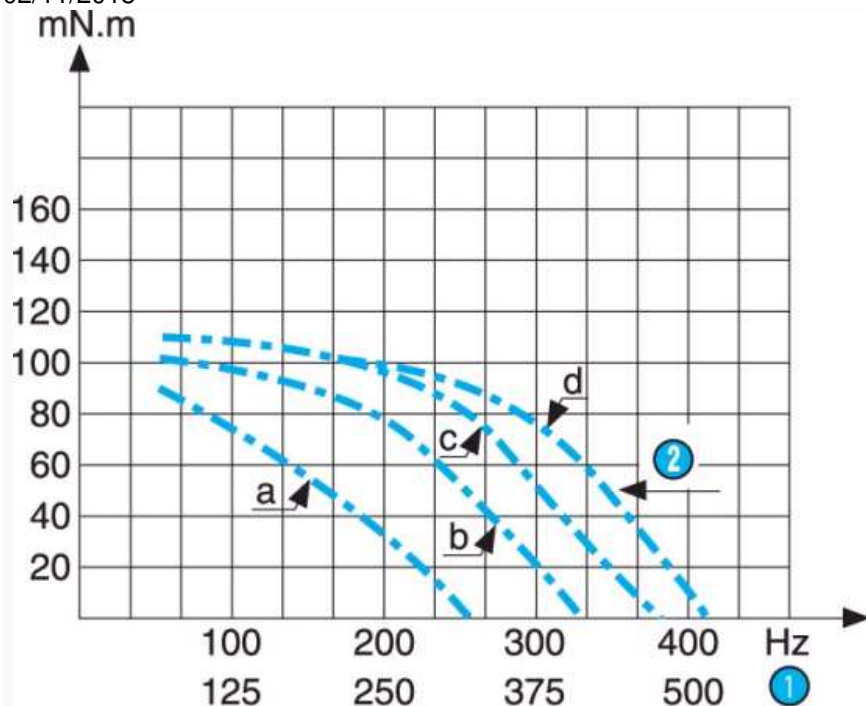
### Dimensions (mm)



N°	Legend
①	2 Fixing holes Ø 4.4

### Curves

4 phases

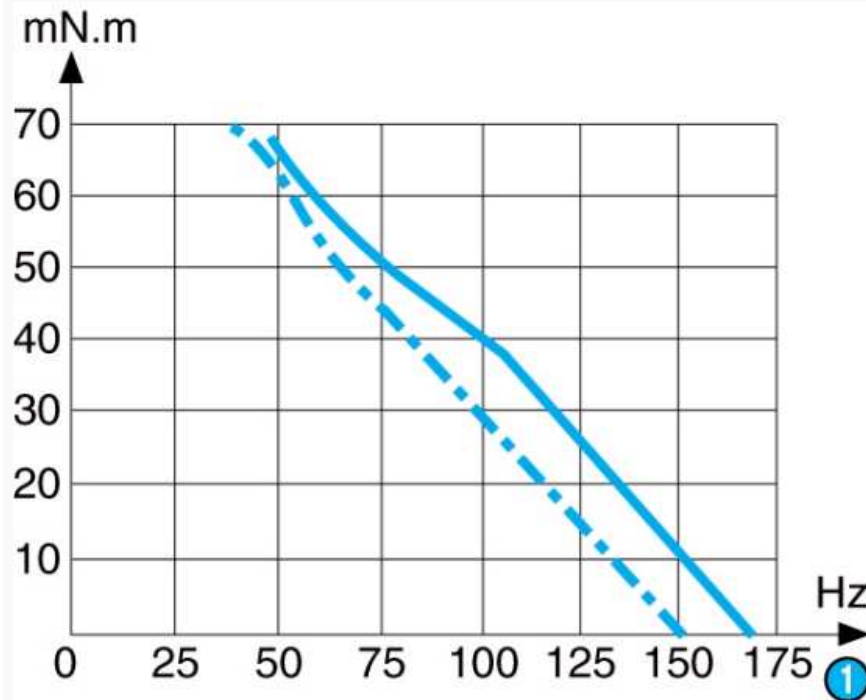


Inertia of measuring chain : 3.4 g.cm<sup>2</sup> a = constant voltage controller with Rs (resistance in series) = 0 b = constant voltage controller with Rs (resistance in series) = R motor c = constant voltage controller with Rs (resistance in series) = 2R motor d = constant voltage controller with Rs (resistance in series) = 3R motor The measurements are made with full stepping, 2-phases energised.

N°	Legend
1	RPM
2	Max. stopping-starting curves

**Curves**

4 phases - 32 Ω - Constant voltage - Curve produced with card 84 854 405

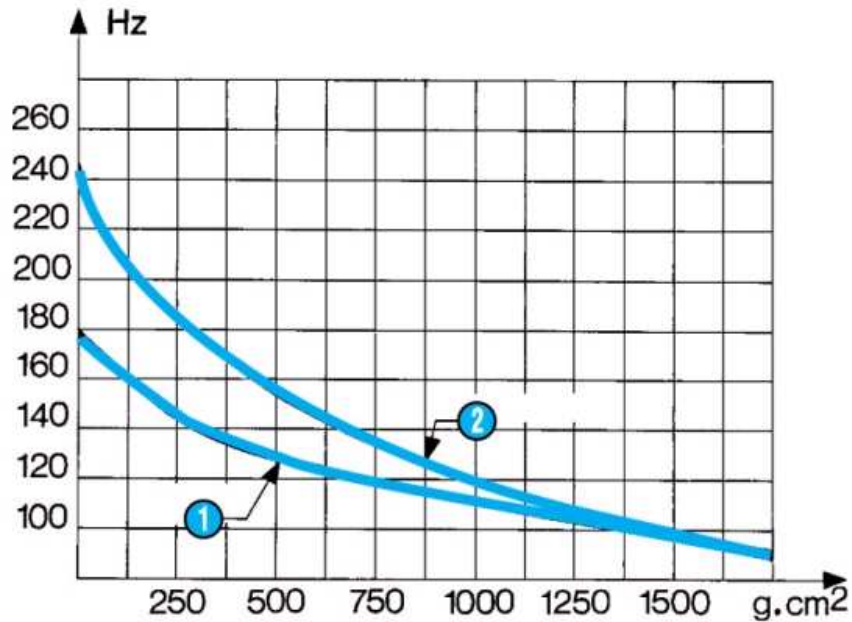


Max. stopping-starting and operating curves at I constant (PBL 3717) for 2 (motor) phases 9 ohms. Holding torque 150 mN.m Current per phase 0.53 A

N°	Legend
1	RPM

**Curves**

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



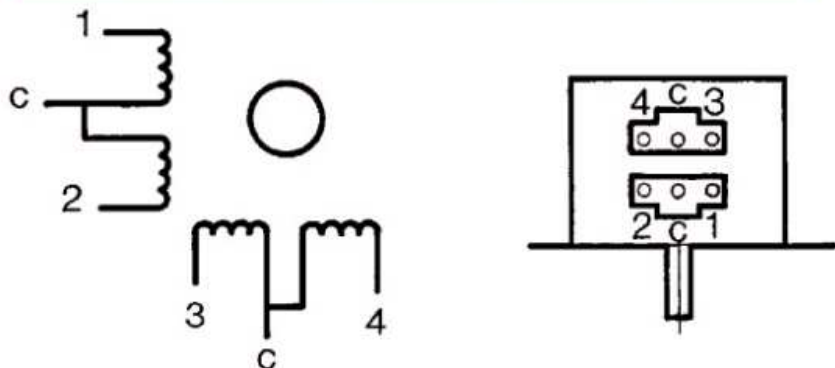
N.B. Measurement conditions : Tam = 25 °C, motor cold

N°	Legend
①	2 phases
②	4 phases

**Connections**

4 phases

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



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

N°	Legend
①	Step

Product adaptations



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