

# NEMA17-03

Bipolar Stepper Motor



This stepper motor can be optimally used for tasks in the areas of Automation, CNC (f. e. engraving lasers, 3D printers, milling machines, etc.), or robotic. The compact design and the low weight predestine this stepper motor for projects with low building space or weight capacity.

## KEY FEATURES

Shaft diameter	Ø 5 x 18 mm (single shaft)
Specification	42SHD0513-20
Connection	6-pol connector (JST), 4

Steps per revolution	200
Dimensions	42 x 42 x 27 mm
Items delivered	NEMA17-03 stepper motor

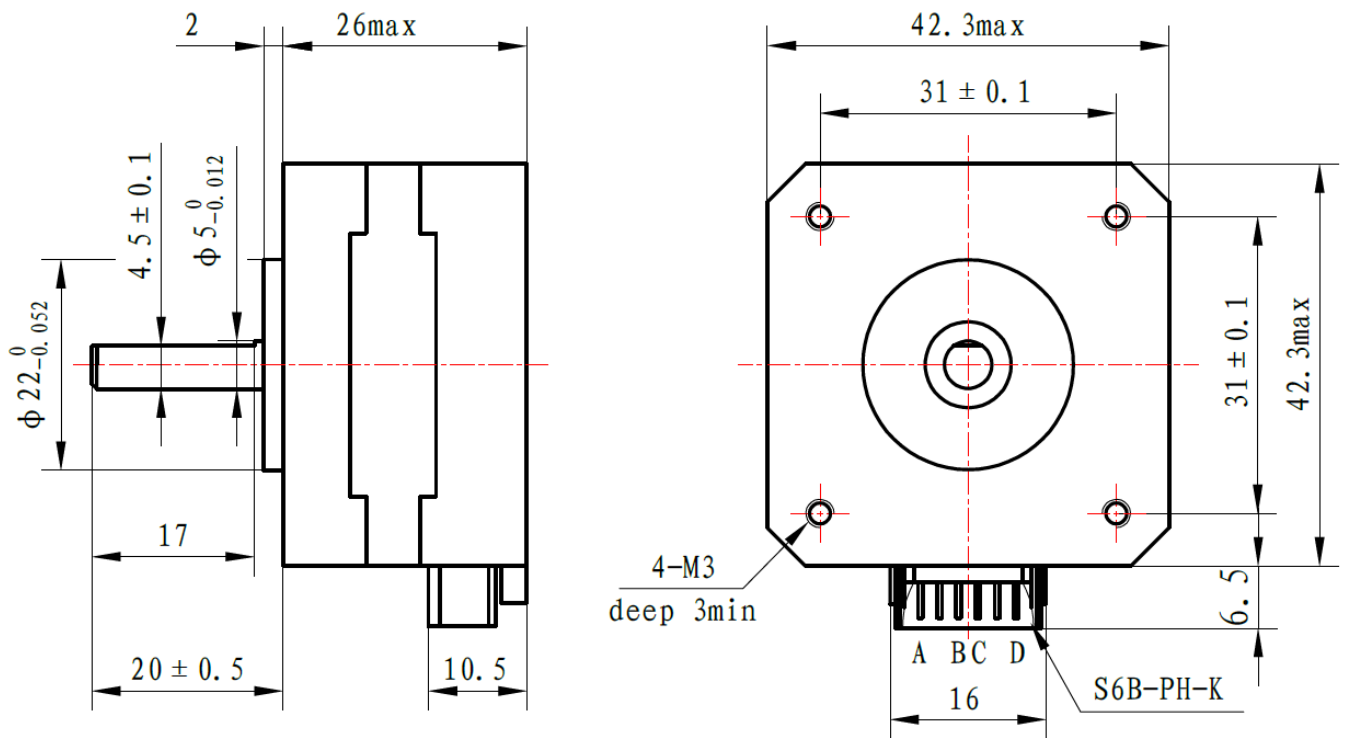
## PERFORMANCE CHARACTERISTICS

Holding Torque	0.2 Nm
Rated Voltage	5 V
Rated Current	1.2 A
Step Angle	1.8 °
Amount of Phases	2
Phase Resistance	4.2 Ω
Phase Inductivity	5.6 mH
Isolation resistance	Min. 100MΩ at 500 V DC
Isolation class	B (130°)
Rotational inertia	38 g·cm <sup>2</sup>
Detent torque	0,012 Nm
Operating Temperature	-10°C - 50°C

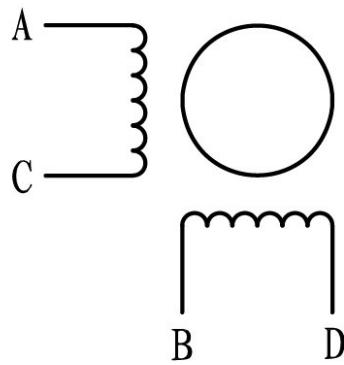
## FURTHER DETAILS

Article No.	NEMA17-03
EAN	4250236818764
Customs Tariff No.	8501109990

## DRAWING



## WIRING

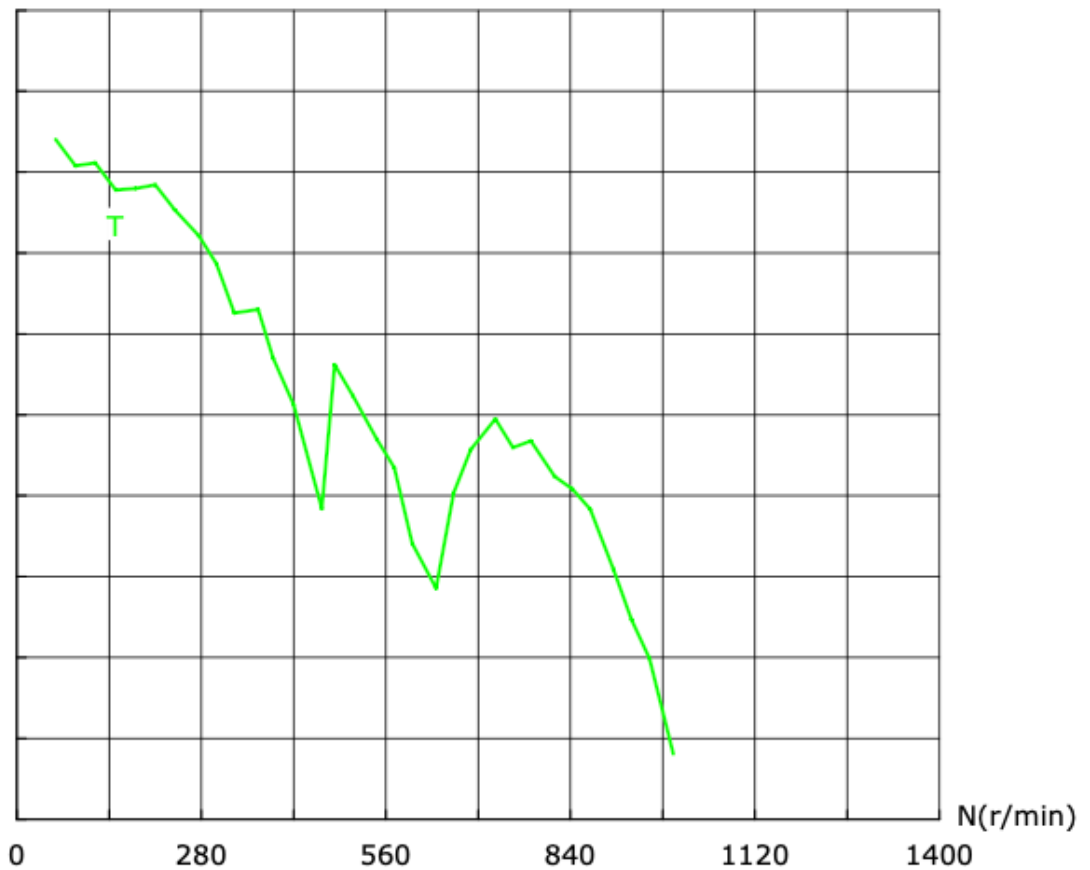


## TORQUE DIAGRAM

### DRIVER SETTINGS

Voltage 24,72 V

T(mN.m)



#### MAX. EFFICIENCY

Efficiency 57,0 %

Torque 81,7 mNm

Current 0,529 A

Speed 843 min<sup>-1</sup>

Output power 7,214 W

#### MAX. TORQUE

Torque 168,1 mNm

Current 0,418 A

Speed 59 min<sup>-1</sup>

Output power 1,039 W

#### MAX. POWER

Torque 93,6 mNm

Current 0,562 A

Speed 780 min<sup>-1</sup>

Output power 7,642 W

Published: 27.10.2021

[www.joy-it.net](http://www.joy-it.net)

SIMAC Electronics GmbH,  
Pascalstr. 8, 47506 Neukirchen-Vluyn