

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 dimensions	Ø 5 x 18 mm (single shaft)
Specification	42SHD0513-20B
Connection	6 pole socket S6B-PH-K (JST compatible), 4 Pins used
Steps per Revolution	200
Dimensions	42 x 42 x 27 mm
Items delivered	NEMA17-03 Stepper Motor

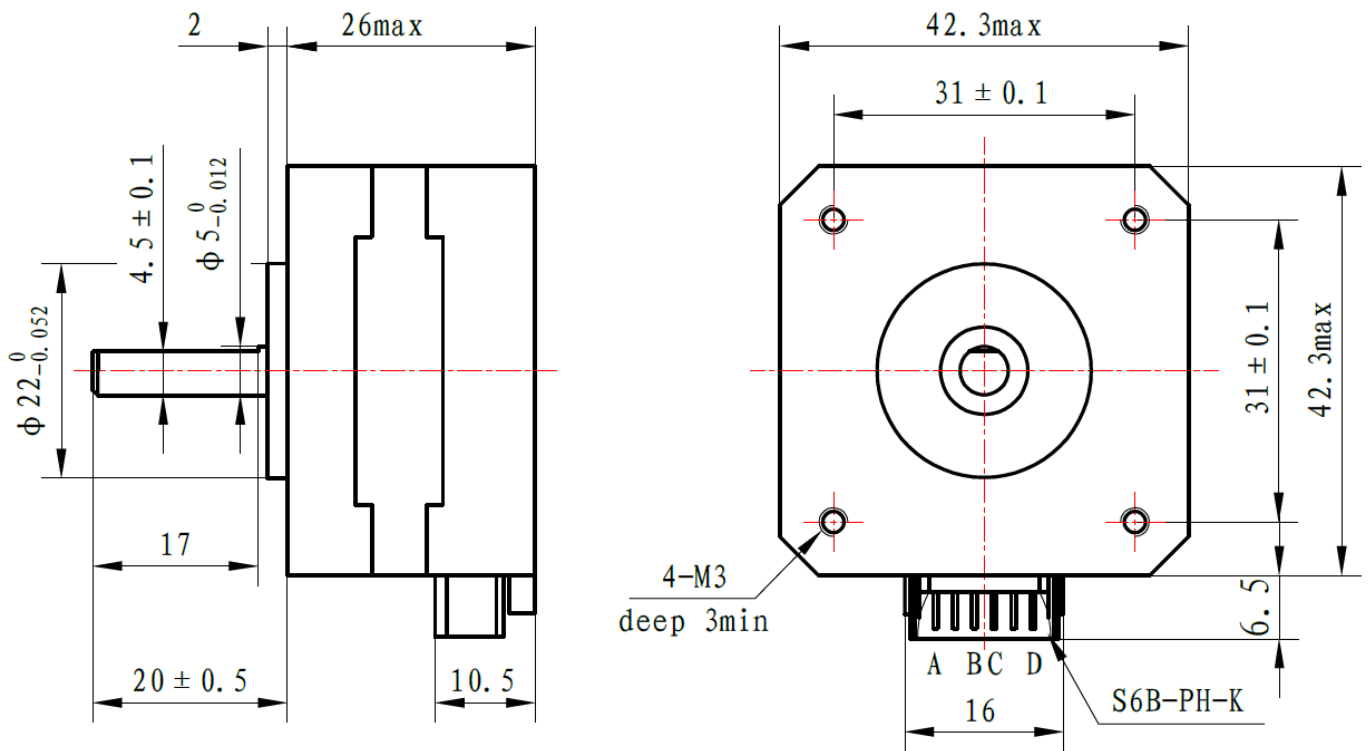
PERFORMANCE CHARACTERISTICS

Holding torque	0.2 Nm
Step angle	1.8 °
Rated voltage	5 V
Rated current	1.2 A
Amount of Phases	2
Phase resistance	4.2 Ω
Phase inductivity	5.6 mH
Isolation resistance	Min. 100MΩ bei 500 V DC
Isolation class	B (130°C)
Rotational inertia	260 g·cm ²
Detent torque	0.012 Nm
Operating temperature	-10°C - 50°C

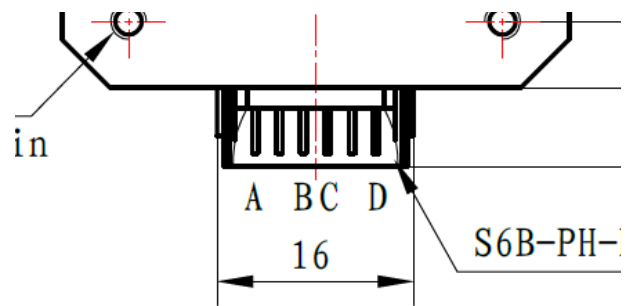
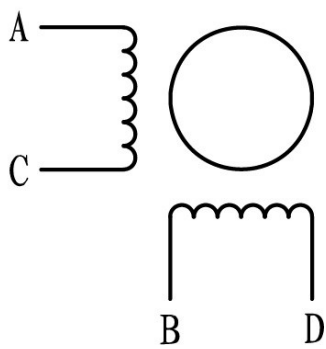
FURTHER DETAILS

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

DRAWING



WIRING

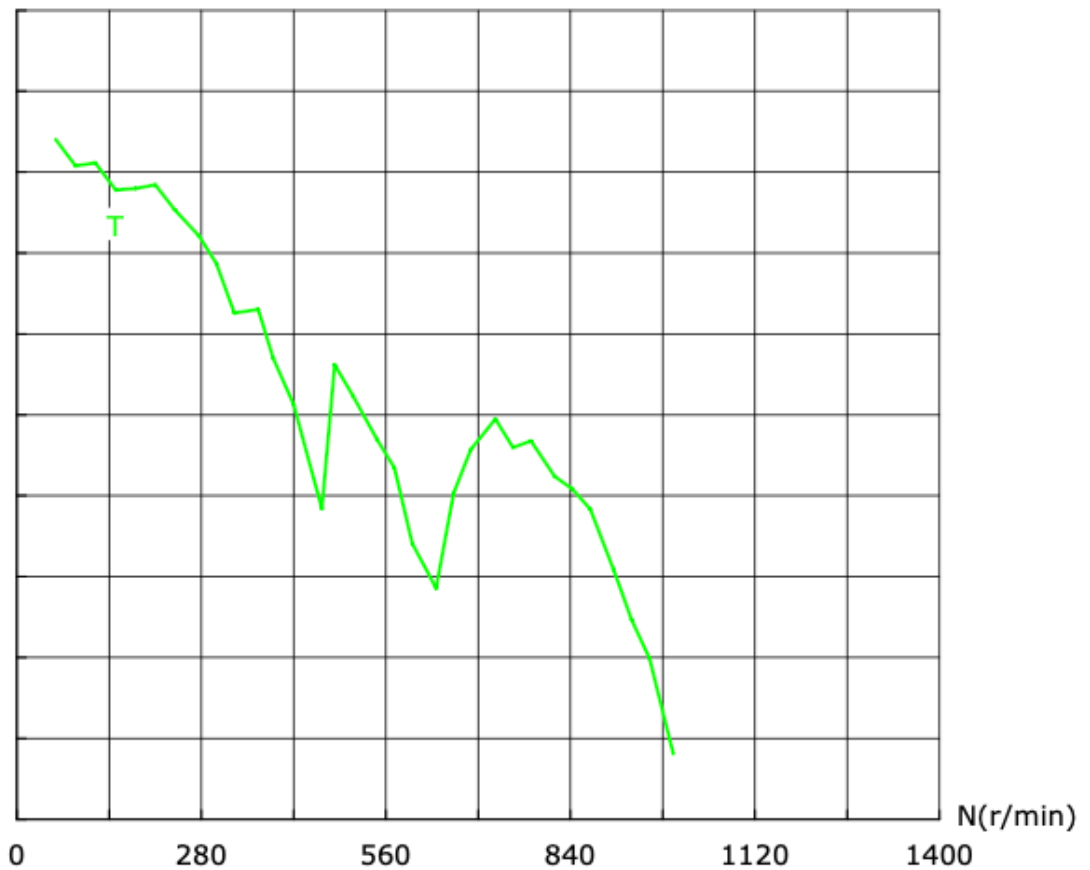


TORQUE DIAGRAM

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⁻¹

Output power 7.214 W

MAX. TORQUE

Torque 168.1 mNm

Current 0.418 A

Speed 59 min⁻¹

Output power 1.039 W

MAX. POWER

Torque 93.6 mNm

Current 0.562 A

Speed 780 min⁻¹

Output power 7.642 W

Published: 24.11.2025