Nema17 stepper motor datasheet

This hybrid stepped engine has a 1.8 degree step angle (200 steps/revolution). Each stage draws 1.2 A at 4 B, allowing you to keep the torque 3.2 kg-cm (44 ounces in). The engine has six colored wires discontinued with bare leads that allow it to be driven by both unipolar and bipolar step-forward drivers engines. When used with a unipolar stepper engine driver, all six leads are used. When used with a bipolar stepper engine driver, the center of the crane yellow and white wires can be turned off (red-blue pair gives access to one coil and black-green steam gives access to another coil). We recommend using it as a bipolar stepper engine and controlling it with one of our bipolar stepper drivers or one of our Tic Stepper engine controllers. Specifically, Tics make management easy because they support six different interfaces (USB, TTL serial, I2C, RC, analog voltage, and quadricular coder) and are customized via USB with our free utility configuration. The 6-lead, unipolar/bipolar wires of the stepper engine are stopped with bare wires. 6-lead, unipolar/bipolar stepper wiring chart. Our 5mm universal mounting hub can be used to install objects on the shaft of the 5 mm stepper engine output diameter, and our aluminum bracket NEMA 17 offers many options for assembling this step engine in your project. A similar NEMA17 stepper engine is available with a threaded output shaft that converts its rotation into linear motion of the included traveling nut. Technical size: 42.3 mm sq.× 48 mm, Not including shaft (NEMA 17) Weight: 350 g (13 ounces) Clutch diameter: 5mm D Steps per revolution: 200 Current rating: 1.2 A per coil Voltage rating: 4 v Resistance: 3.3 Ω per coil Torque retention: 3.2 kg-cm (44 ounces per) Induction: 2.8 mN per coil Lead length: 30 cm (12) Output shaft supported by two ball bearings More specifications available in the data table (189k pdf). Dimensions Next diagram shows the dimensions of the stepper engine in mm. The size with the inscription length is 48 mm. The D-shaft output has a diameter of 5 mm with a section that flattens by 0.5 mm. This shaft works with our 5mm universal installation hub. Inside the bipolar stepper engine (SOYO NEMA 14-size). Stepper Motor Applications Stepper engines are usually used in various applications where precise position management is desirable and the cost or complexity of the feedback management system is unreasonable. Вот несколько приложений, где степпер двигатели часто встречаются: Печатники ЧПУ машины 3D принтер / прототип машины (например, RepRap) Лазерные резаки Выберите и поместите машины линейных приводов Hard drives Примечание: Этот шагер двигатель SOYO часть номер SY42STH47-1206A. Pololu Universal mounting hub for 5 mm shaft, #4-40 holes (2-Pack) A4988 Stepper Motor Driver Carrier DRV8825 Stepper Motor Driver Carrier, High Current Your basket is empty! Fast Guide NEMA Size 17 1.8 2-phase stepper engine Mechanical specifications Dimensions in inches (mm) Extra Extra shaft 0.55 (14) LMAX 0.94 ± 0.02 (23.88 ± 0.51) 0.590 (14 0.177 ± 0.002 (4.52 ± 0.05) 0.1702 (4.52 ± 0.05) 0.05) 0.1702 7 ± 0.002 (4.52 ± 0.05) 0.197 (5.0) Apartment extends to the rear end of the bell 0.08 (2.03) 11.8 inches (30 cm) FRONT VIEW Notes and Warning Installation, configuration and maintenance must be carried out by qualified tech-nicians only. You need to have detailed information to be able to do this job. Unexpected dangers can arise when working with this product! Misuse can destroy this product and related components! For more information go to www.imshome.com Specs 1.5 Amp Engines single length Double Length Part Number M-1713-1.5 (1) M-1715-1.5 (1) Holding torque oz-in 32 60 N-cm 23 42 Detent torque oz-in 1.7 2.1 N-cm 1.2 1.5 Rotor inertia oz-in-sec2 0 .. 000538 0.0008037 kg-cm2 0.038 0.057 Weight oz 7.4 8.1 grams 210 230 Phase current amps 1.5 1.5 Phase resistance ohms 1.3 2.1 Phase induction mH 2.1 5.0 (1) Point S for one shaft or D for double shaft. Example M-1713-1.5S Triple Length M-1719-1.5 (1) 75 53 3.5 2.5 0.00115 62 0.082 12.7 360 1.5 2.0 3.85 Wire Signals and Connections and Wire Colors Phase A Phase A /Phase B Phase /B Red Blue Green Black... 1.22 (... 30.99) ... 1.67 (... 42.3) 4X Ø M3xP0.5 0.177 (4.5) deep min Ø 0.197 +0/-0.001 (Ø 4.99 +0/-0.012) Ø 0.866 +0/-0.002 (Ø 22.0 +0/-0.052) REAR VIEW (Reduced) 2X M2 0.20 (5.1) deep min Motor stack length inches (mm) Single LMAX 1.34 (34.0) 0.75 ±0.005 (19 ±0.13) Double 1.57 (40) Triple 1.89 (48) Part Numbers Example: Stepper motor frame size M - 17 = NEMA 17 (1.7 / 42 mm) Motor length 13 - = single stack 15 - = double stack 19 - = triple stack Phase current 1.5 = 1.5 Amps Shaft S = single, front shaft only D = double, front and rear shafts Optional optical encoder (1) ES = Single-end ED = Differential Line count 100, 200, 250, 400, 500 or 1000 (2) M - 1 7 1 3- 1. 5 S M - 1 7 1 3-1.5 S M - 1 7 1 3 1.5 S M - 1 7 1 3-1.5 S M - 1 7 1 1 3-1.5 S M - 1 7 1 3-1.5 E S 1 00 (1) Encoder replaces in the constructor's room. (2) All coders have an index mark, except for the 1000 line count. NEMA17 Stepper Engine Fast Link R060210 from RepRap NEMA 17 Stepper Engine Vitamin NEMA 17 size stepper engine. Wikipedia Stepper engine is another NEMA-17 engine size NEMA 17 stepper engine walker with a 1.7 x 1.7 inch (43.18 x 43.18 mm) front panel. The NEMA 17 is larger and usually heavier than, say, the NEMA 14, but it also means that it has more room to put higher torque. However, its size is not a sign of its power. The dimensions of Common Stepper Motor Models The most commonly used stepper engines in Reprap-based 3D printers are Kysan 1124090/42BYGH4803, Rattm 17HS8401, and Wantai 42BYGHW609. However, engines close to the NEMA 17 size, with approximately the following can also work: 1.5A to 1.8A current per phase of 1-4 volts from 3 to 8 mH induction at phase 44 N'cm (62oz.5 kg) or more holding torque 1.8 or 0.9 degrees per step (200/400 (200/400 Accordingly) You can add information about any jet engine you encounter, but please add only steppers (not other engines) that have been tested to actually work on some or all of the printers. Model Holding Torque Voltage Assessment Val Step Corner Length Motor Estimated Current Induction 17HS08-1104S 13 N'cm 3.5 v Single 1.8 20 mm 1.0A 4.5 ± 20% mNG 42HS02 22 Nhm 1.8 40 mm 0.4A 21±20% mH 42HS03 Bipolar parallel 47 N'N'Cm 47 N'cm 1.8 mm 1.4A 4±20% MH 42HS03 Bipolar series 47 Nh cm 1.8 48 mm 0.7A 16±± <1> <4> 20% mNG 42HS03 UniPolar 34 N'cm 1.8 48 mm 1.0A 4±20% mH 42HSC8402-25B , 42HSC8402-15B11 60 N'cm 3.0 W 5 mm Single 1.8 60 mm 1.5A 4.5±20% mH 42HT4 7 44 Nh cm 2.8 B 5mm Double 1.8 47mm 42SHD0404-22 52 Nhm 3.84 V 5mm Single 1.8 48mm 42SHDC3025-24B 40 N'cm 3.96 V 5mm Single 1.8 40mm 0.9A 42SHDC4047-23B 3 4 Nhm 3.96 In 5mm Single 1.8 4 0.9A 42SHD3418-24B15 50 N'cm 3.75 V 5 mm Single 1.8 40 mm 1.5A 5.0 mH 42BYGH4803 (SKU 1124030) 54.0 N'cm 4.2 V 5 mm 1.1.4 8 48 mm 42BYGH4803-DC (SKU 1124090) 54.0 H 4.2 B 5 mm 1.8 48 mm LDO-42STH4 7-1684A 50 N'cm 2.8 v 5 mm single or double 1.8 47 mm 1.6 8A 2.8 mN LDO-42STH47-1684AC 1 50 Nhm 2.8 W 5 mm single or double 1.8 47 mm 1.68A 2.8 mH 4118S-62-07 31 NM 5 mm 1.8 34 mm 17HS4417 40.0 N'cm 2.6 B 5 mm 1.8 40 mm 1.7A 2.8 mG SM-42BYG011-25 23.0 Nhm 12 V 5 mm single 1.8 34 mm 0.33A 46 mG 17HS1011-20B 2 8.1 0 NSM 4.8 B th 5mm single 1.8 34 mm 17HS3001-20B 40.0 NSM 2.0 B 5 mm 1.8 40 mm 1 1.2 A 4.5 mH 17HS5005-S24 44.0 N'cm 3 V 5 mm double 1.8 48 mm 17HS6002-27B 65.0 Nhm 4.4.0 05 V 5 mm single-class 1.8 60 mm 17HD2038E 45.0 NM 5 mm 1.8 17HS19-91684S 55 Nhm 2.8 B 5 mm single 1.8 47 mm 1.68A 2.8 mH42JM2B087C 33 NM 6.7 W 5 mm single 1.1.78 42 mm SY42STH47-1206A 31.1 Nhm 4.0 B 5 mm 1.8 40 mm 1.2A 2. 8 mHG SY42STH47-1504A 55.0 Nhm 2.8 B 5 mm 1.8 mm 47 mm SY42STH47-1684A 43.1 NM 2.8 B 2.8 B 2.8 B 5mm single-seater 1.8 48mm SY42STH47-1684B 43.1 Hmmm 2.8 v y 5mm double 1.8 48mm SL42STH40-1684A 4 0 N'cm 2.8 W 5 mm single 1.8 40 mm 1.68A 3.2 mN TB35HT36-36 1004A 35.3 Nhm 2.8 V 5 mm Single 1.8 36 mm TB35HT36-1004B 35.3 NM 2.8 W 5 mm double 1.8 36 mm SH4218-51-049 49 N'cm 5 mm 1.8 47 mm 42BYGH W811 47.0 H cm 3.1 B 5 mm 1.8 mm 48 mm 2.5A 1,1,1 8 mN 42HB34F103AB 23.5 Nhmm 5 mm 1.1.4 8 34 mm 42SHD0412-175S 44 N'cm 2.8 v 8mm double L175mm 1.8o 44mm 1704HS16 8A 54 Nh hm The 5mm 5mm flat 1.8 48 mm 1.68A 2.8 mH 1703HS168A 44 Nyum 2. 8 v th 5 mm single flat 1.8 40 mm 1.68A 3.6 mH 1704HD150AW 55 N'cm 4.2 V 5 mm one flat 1.8 4 8 mm JK42HS34-1334AC 22 N'cm 2.8 V 5 mm single flat 1.8 34 mm 1.33A 2.5 mH 17 HHS16-16-16-16-16 2004S1 45 N'cm - 5 mm single flat 1.8 40 mm 2A 2.6 mG 17HS24-1206S 65 N'cm - 5mm single-fleet 1.6 mG 8 60 mm 1.2A 7mH 17HS6002-N27BA 65 N'cm 4.05 V 5 mm single flat 1.8 60 mm 60 mm 1.5A 6.5mH 17HS8401B 52 N'cm - 5mm double 1.8 48mm 1.8A 3.2mH 0.9 Stepper Motor Model Holding Torque Voltage Voltage Val Step Corner Engine Length Current induction 42BYGHM809 48 N'cm 3.06 V 5 mm flat 0.9 48 mm 1.7A 2.8 mH x17HM19-2004S 46 N'cm - 5 mm 0.9 48 mm 2A 3mH Geared Stepper Model Holding Torque Voltage Voltage Val Step Engine Length Estimated current induction transmission ratio 10402222 220 N'cm 2.6 th 8mm one flat 1.8 3427 mm 1A 3.3.3. 5 mH 5.2:1 17HS1070-C5X 260 N'cm 2 In 8 mm single flat 1.8 3427 mm 1.3A 2.4 mH 5:1 1702HS040-AWP518 260 N'cm 12 V 8 mm single flat 1.8 3431 mm 0.4A 37 mH 5.18:1 - with such induction, this stepper is not capable of any speed and unsuitable for the printer, like most very low current steppers. Steppers. nema 17 stepper motor datasheet. nema 17 stepper motor datasheet pdf. nema 17 stepper motor 17hs4401 datasheet. nema 17 bipolar stepper motor datasheet. nema 17 hybrid stepper motor datasheet. nema 17 42 stepper motor datasheet. nema 17 unipolar stepper motor datasheet. nema 17 stepper motor kb02 datasheet