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Product Datasheet

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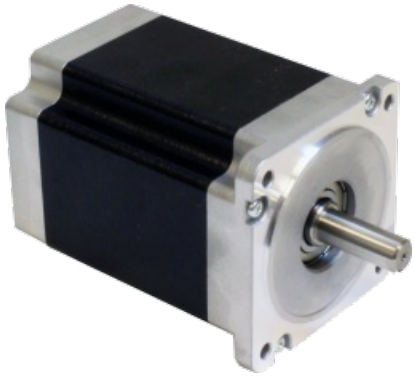
HT34-497

NEMA 34 High Torque Step Motor



Product Features

- *2-phase hybrid step motor*
- *High torque design*
- *Standard NEMA 34 dimensions*
- *Optimized for high bus voltage operation*

Description

Product Description:

The HT34-497 two-phase stepper motor is designed for use with the STAC5 and STAC6 series of stepper drives and is suitable for a wide range of motion control applications. The motor is optimized for use with high bus-voltage drives and comes with an integral 10 ft shielded cable.

The motor is terminated with 8 motor leads plus 1 ground lead making it easy to connect the motor to the drive depending on the drive voltage being used. For 120 VAC applications the motor leads must be connected in parallel. For 220 VAC applications the motor leads must be connected in series.

Note: The HT34-497 step motor supersedes the HT34-490 step motor in 120 VAC applications with the STAC6 stepper drives.

Please note that a VL series gearhead purchased for this motor will require a special mounting adaptor and 2 weeks lead time. Please contact customer service for the price of this adaptor.

Specifications

Part Number:	HT34-497
Frame Size:	NEMA 34
Motor Type:	High torque
Part Number w/Double Shaft:	HT34-497D
Part Number w/Encoder:	HT34-497D-YAA
Part Number w/Encoder & Cover:	HT34-497D-YAC
Motor Length:	6.14 inches
Number of Lead Wires:	8
Lead Wire Configuration:	shielded cable, no connector
Lead Wire/Cable Length:	10 feet inches
Lead Wire Gauge:	22 AWG
Unipolar Holding Torque:	1198 oz-in
Bipolar Holding Torque:	1694 oz-in
Step Angle:	1.8 deg
Bipolar Series Current:	2.55 A/phase
Bipolar Series Resistance:	4.9 Ohms/phase
Bipolar Series Inductance:	38.4 mH/phase
Bipolar Parallel Current:	5.10 A/phase
Bipolar Parallel Resistance:	1.2 Ohms/phase
Bipolar Parallel Inductance:	9.6 mH/phase
Unipolar Current:	3.61 A/phase
Unipolar Resistance:	2.5 Ohms/phase
Unipolar Inductance:	9.6 mH/phase
Rotor Inertia:	6.80E-02 oz-in-sec^2

Integral Gearhead:	No
Weight:	11.0 lbs
Storage Temperature:	-40 to 70 °C
Operating Temperature:	-20 to 50 °C
Insulation Class:	Class B (130 ºC)
Maximum Radial Load:	42 lbs
Maximum Thrust Load:	33 (2.2 w/ encoder) lbs
Shaft Run Out:	0.002 inch T.I.R. max
Radial Play:	0.001 inch max w/ 1.1 lb load
End Play:	0.003 inch max w/ 2.2 lb load
Perpendicularity:	0.003 inches
Concentricity:	0.003 inches

Downloads

Datasheet:	StepMotorWiring-8-lead-cabled-solid.pdf Stepper Motor Life data-110817.pdf
Product PDF - S3 Link:	http://s3.amazonaws.com/applied-motion-pdf/HT34-497.pdf
2D Drawing:	HT34-497_RevG.pdf HT34-497D-YAA_RevB.pdf
3D Drawing:	34HT156D.igs HT34-497D_156mm_YAA_Enc.igs
Speed-Torque Curves:	STAC5_speed-torque.pdf STAC6_speed-torque.pdf

Products in the Series *Cabled Step Motors*

Part Number	Frame Size	Length	Holding Torque	Series Current	Parallel Current	Rotor Inertia
HT23-552	NEMA 23	1.71	84.4	0.71	1.41	1.70E-03
HT23-553	NEMA 23	2.17	167	0.71	1.41	4.25E-03
HT23-554	NEMA 23	3.05	255	0.71	1.41	6.80E-03
HT23-598C	NEMA 23	2.35	158	2.12	4.24	0.0036
HT23-601C	NEMA 23	3.20	269	2.12	4.24	6.51E-03
HT34-495	NEMA 34	3.11	555	2.15	4.30	2.27E-02
HT34-496	NEMA 34	4.63	1110	2.05	4.10	4.53E-02
HT34-497	NEMA 34	6.14	1694	2.55	5.10	6.80E-02
HT34-506C	NEMA 34	4.94	1260	2.8	5.6	0.0387
HT34-696	NEMA 34	4.59	1110	2.05	4.1	3.87E-02
HW23-598	NEMA 23	2.34	158	2.12	4.24	3.68E-03
HW23-601	NEMA 23	3.21	269	2.12	4.24	6.51E-03
HW23-753	NEMA 23	2.19	153	0.71	1.41	3.12E-03
HW23-754	NEMA 23	3.23	227	0.71	1.41	6.51E-03
HW24-108	NEMA 24	3.72	354	NA	4.0	1.27E-02
HW34-506	NEMA 34	5.0	1260	2.8	5.6	3.87E-02
HW34-696	NEMA 34	4.59	1062	2.03	4.06	3.87E-02