Applied Motion Products, Inc.
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Product Datasheet

www.Applied-Motion.com

HT23-601C

NEMA 23 Step Motor with 10 Foot Shielded Cable

Product Features

- *2-phase hybrid step motor*
- *High torque design*
- *Standard NEMA 23 dimensions*
- *Optimized for 24 – 48 VDC bus voltage*
- *Please call for pricing regarding encoder and encoder with cover options*

Description

Product Description:

The HT23-601C two-phase stepper motor is designed for use with the ST5 and STR4 stepper drives and is suitable for a wide range of motion control applications. The motor is optimized for use with DC powered drives and comes with an integral 10 ft shielded cable.

Single and double shaft versions are available. The HT23-601DC-ZAC includes an optical encoder with 10 foot cable and rugger metal cover.

The motor is terminated with 8 motor leads plus a ground lead.

Specifications

Part Number:	HT23-601C
Frame Size:	NEMA 23
Motor Type:	High torque
Part Number w/Double Shaft:	HT23-601DC
Part Number w/Encoder:	HT23-601DC-ZAA
Part Number w/Encoder & Cover:	HT23-601DC-ZAC
Motor Length:	3.20 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:	191 oz-in
Bipolar Holding Torque:	269 oz-in
Step Angle:	1.8 deg
Bipolar Series Current:	2.12 A/phase
Bipolar Series Resistance:	2.2 Ohms/phase
Bipolar Series Inductance:	6.8 mH/phase
Bipolar Parallel Current:	4.24 A/phase
Bipolar Parallel Resistance:	0.7 Ohms/phase
Bipolar Parallel Inductance:	1.7 mH/phase
Unipolar Current:	3.00 A/phase
Unipolar Resistance:	1.1 Ohms/phase
Unipolar Inductance:	1.7 mH/phase
Rotor Inertia:	0.0064 oz-in-sec^2
Integral Gearhead:	No
Weight:	2.2 lbs

Weight:	2.2 lbs
Storage Temperature:	-30 +70 °C
Operating Temperature:	-20 +50 °C
Insulation Class:	B
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/ 1.1 lb load
Perpendicularity:	0.004 inches
Concentricity:	0.002 inches

Downloads

Datasheet:	http://s3.amazonaws.com/applied-motion-pdf/HT23-601C.pdf
2D Drawing:	HT23-601C_RevC.pdf HT23-601DC_RevC.pdf HT23-601DC-ZAA_RevA.pdf HT23-601DC-ZAC_RevA.pdf
3D Drawing:	HT23-601C.igs HT23-601DC.igs HT23-601DC-ZAA.igs HT23-601DC-ZAC.igs
Speed-Torque Curves:	ST_speed-torque.pdf STR_speed-torque.pdf STR2_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	0.0064
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