

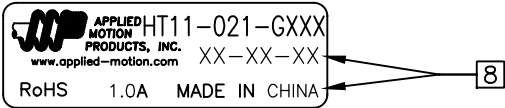
MOTOR SPECIFICATIONS:	GEARMOTOR SPECIFICATIONS:
NUMBER OF PHASES: 2	TEMP. RISE: 80°C MAX. 6
STEPS PER REVOLUTION: 200	OPERATING AMB. TEMP. RANGE: -20 TO +50 °C
STEP ANGLE: 1.8°	STORAGE TEMP. RANGE: -20 TO +70 °C
RATED CURRENT: 1.0 A	RELATIVE HUMIDITY: 85% MAX NON-CONDENSING
RESISTANCE PER PHASE: 2.0 Ohms 4	
INDUCTANCE PER PHASE: 2.4 mH 5	
ROTOR INERTIA: 18 g-cm ² (0.10 oz-in ²)NOM	
HOLDING TORQUE 0.10 Nm (14.16 oz-in)NOM	
INSULATION CLASS: B (130°C)	
BEARINGS: ABEC 3, DOUBLE SHIELDED, NS7 GREASE	

NOTES, UNLESS OTHERWISE SPECIFIED:

1. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
2. LEADS: 4, AWG 26, 7 STRAND MIN., UL AND CSA APPROVED, UL 1007
3. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- 4 AS MEASURED ACROSS EACH PHASE.
- 5 AS MEASURED ACROSS EACH PHASE USING AN A.C. INDUCTANCE BRIDGE AT 1 KHz.
- 6 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
7. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
- 8 MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, AMP P/N, 'MADE IN (COUNTRY OF ORIGIN)', AND DATE CODE.
9. ALL MOTOR SPECIFICATIONS AND OPERATING INSTRUCTIONS CAN BE FOUND AT APPLIED-MOTION.COM.
- 10 SHAFT OPTION: IF DOUBLE SHAFT REQUIRED ADD "D" TO END OF PART NUMBER.
DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTION.

REVISIONS				
ECO NO.	REV	DESCRIPTION	DATE	APPROVED
7935	A	PRELIMINARY RELEASE	7/2/18	J.KORDIK
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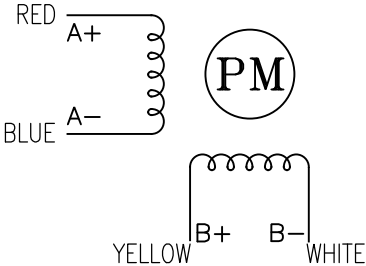
LABEL DETAIL



SWITCHING SEQUENCE FOR CW ROTATION
FACING MOUNTING END

STEP	RED	BLUE	YELLOW	WHITE
0	+	—	+	—
1	—	+	+	—
2	—	+	—	+
3	+	—	—	+
4	+	—	+	—

CW
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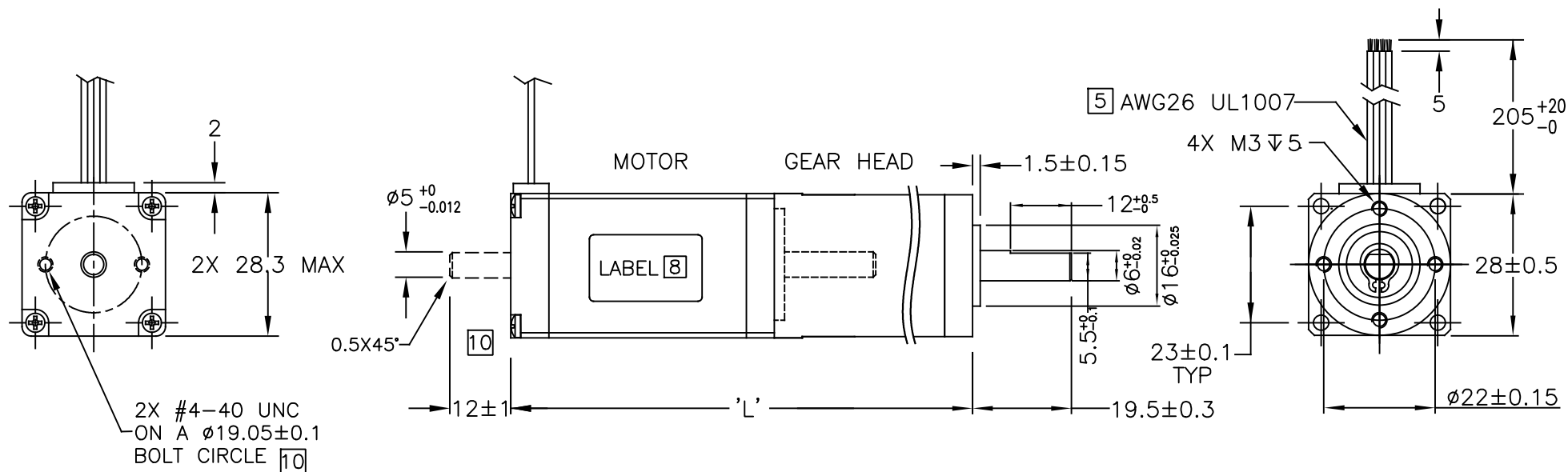
CONTRACT NO. —				
APPROVALS	DATE	STEP MOTOR WITH GEARHEAD ASSEMBLY - OUTLINE DRAWING		
DRAWN R.JONEZ	4/23/18			
CHECKED	—	B	COMPUTER DATA BASE DRAWING	DWG NO. HT11-021-GXXX
APPROVED	—			REV A
APPROVED	—	SCALE: NONE		SHEET 1 OF 2

GEARMOTOR TECHNICAL DETAILS:

ASSEMBLY P/N	HT11-021-G004	HT11-021-G005	HT11-021-G012	HT11-021-G014	HT11-021-G022
TOTAL WEIGHT-MOTOR & GEARHEAD	250 g (0.55 lbs)	250 g (0.55 lbs)	265 g (0.58 lbs)	265 g (0.58 lbs)	265 g (0.58 lbs)
ASSEMBLY LENGTH - TOTAL 'L'	91.6 mm (3.61 in)	93.8 mm (3.69 in)	94.1 mm (3.70 in)	94.1 mm (3.70 in)	101.6 mm (4.0 in)

GEARHEAD TECHNICAL DETAILS:

GEARHEAD P/N	28PH004.00-L1	28PH005.50-L1	28PH012.76-L1	28PH014.29-L1	28PH022.00-L1
RATIO	4:1	5.5:1	12.76:1	14.29:1	22.01:1
MAX TORQUE CONTINUOUS	0.5 Nm (70.80 oz-in)	0.5 Nm (70.80 oz-in)	2.0 Nm (283.22 oz-in)	2.0 Nm (283.22 oz-in)	2.0 Nm (283.22 oz-in)
MAX TORQUE	0.8 Nm (113.3 oz-in)	0.8 Nm (113.3 oz-in)	4.0 Nm (566.45 oz-in)	4.0 Nm (566.45 oz-in)	4.0 Nm (566.45 oz-in)
MAX RADIAL LOAD	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)
MAX AXIAL LOAD	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)	≤ 20 N (4.5 lbs)
INERTIA	1.0 g-cm ² (0.005oz-in ²)	1.0 g-cm ² (0.005oz-in ²)	0.6 g-cm ² (0.003oz-in ²)	0.6 g-cm ² (0.003oz-in ²)	0.6 g-cm ² (0.003oz-in ²)
BACKLASH	≤ 1.2 °	≤ 1.2 °	≤ 1.8 °	≤ 1.8 °	≤ 1.8 °
EFFICIENCY	90 %	90 %	81 %	81 %	81 %



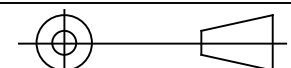
MATERIAL SPECIFICATIONS	
GEARTRAIN	Y15 (1213) STEEL
HOUSING	304 STAINLESS STEEL
INPUT/OUTPUT FLANGE	LY12 ALUMINUM
OUTPUT SHAFT	40Cr STEEL
PINION	Y15 (1213) STEEL

TOLERANCES

*ALL DIMENSIONS IN MM
 DECIMALS: MM
 X.XX = ±0.13
 X.X = ±0.25
 ANGLES:
 MACH. = ±0.5°
 CHAM. = ±5°

COMPUTER DATA
 BASE DRAWING

THIRD ANGLE PROJECTION



APPROVALS DATE

DRAWN R.JONEZ 4/20/18

CHECKED - -

APPROVED - -



STEP MOTOR WITH GEARHEAD ASSEMBLY - OUTLINE DRAWING

B DWG NO. HT11-021-GXXX REV A

SCALE: NONE SHEET 2 OF 2

Mouser Electronics

Authorized Distributor

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Applied Motion:

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