

## MOTOR SPECIFICATIONS:

NUMBER OF PHASES:	2	ROTOR INERTIA (g-cm <sup>2</sup> /oz-in <sup>2</sup> ):	9/0.05 NOM
STEPS PER REVOLUTION:	200	INSULATION CLASS:	B (130°C)
STEP ANGLE (°):	1.8	BEARINGS:	ABEC 3, DOUBLE SHIELDED

CONNECTION	RESISTANCE PER PHASE	INDUCTANCE PER PHASE	RATED CURRENT	HOLDING TORQUE	
	ohm ±10%	mH ±20%	AMP	mNm MIN	oz-in MIN
BI-POLAR	1.4	1.3	1.0	50	7.08

## GEARMOTOR SPECIFICATIONS:

TEMP. RISE (°C):	7	80 MAX	TOTAL WEIGHT (±10g/±0.35oz):	150/5.29
OPERATING AMB. TEMP. RANGE (°C):	-10 to +50	RELATIVE HUMIDITY RANGE (%):	85 NON-CONDENSING	
STORAGE TEMP. RANGE (°C):	0 to +40			

## GEARHEAD SPECIFICATIONS:

RATIO:	4:1	EFFICIENCY (%):	90
MAX TORQUE CONTINUOUS (Nm/oz-in):	0.5/70.8	BACKLASH (°):	≤1.2
MAX TORQUE (Nm/oz-in):	0.8/113.3	MAX RADIAL LOAD (N/lbf):	≤20/4.49
MAX INPUT SPEED (RPM):	6000	MAX AXIAL LOAD (N/lbf):	≤20/4.49

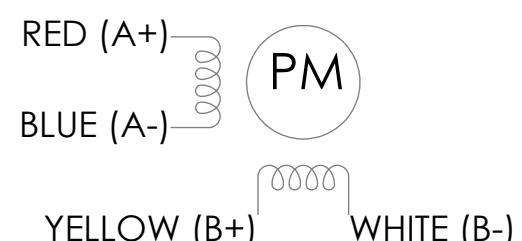
## NOTES, UNLESS OTHERWISE SPECIFIED:

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

DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTION.

REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
7935	A	INITIAL RELEASE	7/2/18	J. KORDIK
8429	B	TYPO CORRECTION	3/3/20	J. KORDIK
8758	C	REDRAWN IN SOLIDWORKS	4/18/22	L. LIU

## WIRING DIAGRAM

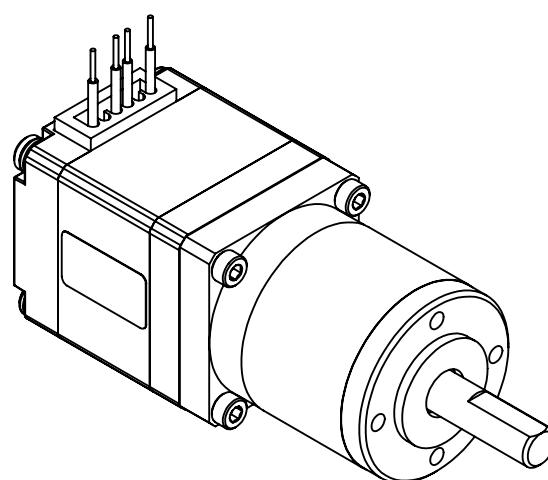
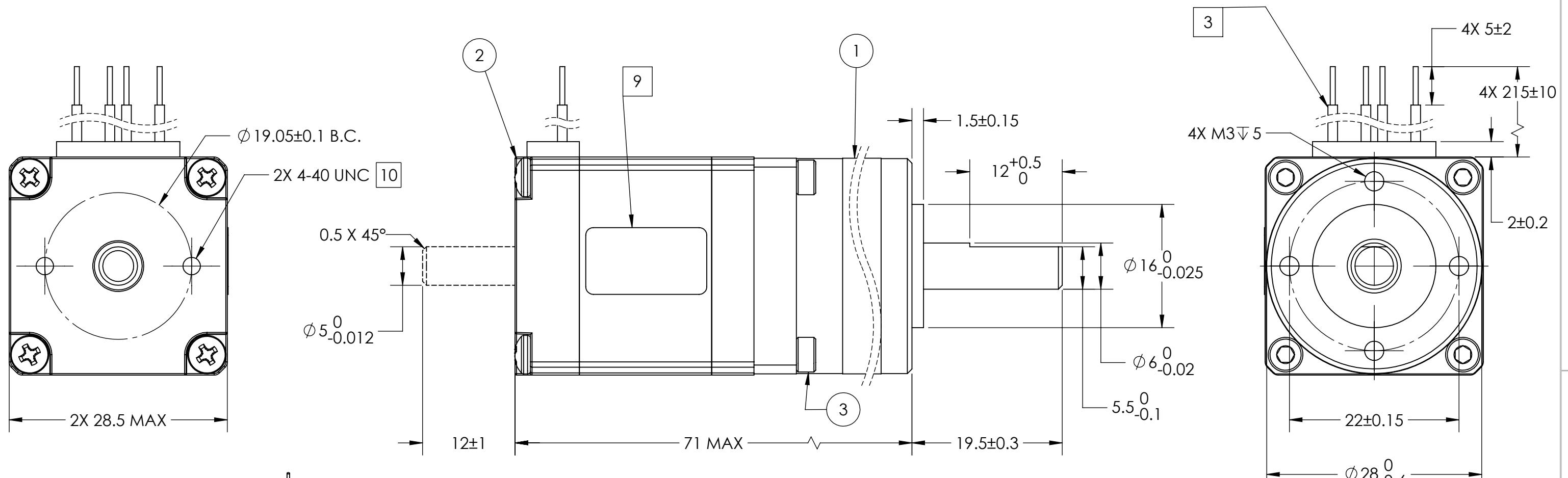
DRIVE SEQUENCE MODEL  
BI-POLAR FULL STEP

STEP	A+	A-	B+	B-
1	+	-	+	-
2	-	+	+	-
3	-	+	-	+
4	+	-	-	+
1	+	-	+	-

CCW  
↑  
CW  
↓

CW (CLOCKWISE) AND CCW (COUNTER-CLOCKWISE) ROTATION  
WHEN SEEN FROM THE MOUNTING FACE END OF THE MOTOR

Applied Motion Products		THIRD ANGLE PROJECTION	NAME	DATE	TITLE: STEPPER MOTOR W/ GEARHEAD
A MOONS' COMPANY		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	Y. LAPNET	
		TOLERANCES:	PRE.CHECK		
		- ANGULAR: ± 0.5	PRE.APPROVAL		
		- ONE DECIMAL PLACE: ± 0.25	FIN.CHECK		
		- TWO DECIMAL PLACES: ± 0.13	C. BREUNINGER	4/18/22	
PROPRIETARY AND CONFIDENTIAL		MATERIAL	SAP: 4611110060153		
		FINISH	ALT DWG. NO.:		
		DO NOT SCALE DRAWING	ALT SAP:		
			SCALE: 2:1	SHEET 1 OF 2	



GEARHEAD MATERIALS:	
GEARTRAIN:	Y100 (1144) STEEL
HOUSING:	304 STAINLESS STEEL
INPUT/OUTPUT FLANGE:	LY12 ALUMINUM
OUTPUT SHAFT:	40Cr STEEL
PINION:	Y100 (1144) STEEL

ITEM NO.	SAP PART NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	4332401001497	28PH004.00-L1	PH GEARHEAD	1
2	4611110012628	HT11-020 10	STEP MOTOR	1
3	4294404001453	91292A012 OR EQUIVALENT	M2.5X8MM STAINLESS STEEL SOCKET HEAD SCREW	4



PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
APPLIED MOTION PRODUCTS. ANY  
REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF  
APPLIED MOTION PRODUCTS IS  
PROHIBITED.

THIRD ANGLE PROJECTION		NAME	DATE
UNLESS OTHERWISE SPECIFIED:	DIMENSIONS ARE IN MILLIMETERS		
DIMENSIONS ARE IN MILLIMETERS		DRAWN	Y. LAPNET 4/18/22
TOLERANCES:		PRE.CHECK	
- ANGULAR: $\pm 0.5$		PRE.APPROVAL	
- ONE DECIMAL PLACE: $\pm 0.25$		FIN.CHECK	C. BREUNINGER 4/18/22
- TWO DECIMAL PLACES: $\pm 0.13$		SAP: 4611110060153	
MATERIAL		ALT DWG. NO.:	
FINISH		DO NOT SCALE DRAWING	ALT SAP:

TITLE: STEPPER MOTOR W/  
GEARHEAD

SIZE DWG. NO. REV  
**B** HT11-020-G004 **C**  
SCALE: 2:1 SHEET 2 OF 2