MOTOR SPECIFICATIONS:

NUMBER OF PHASES:	2	ROTOR INERTIA (g-cm^2/oz-in^2):	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 [5]	INDUCTANCE PER PHASE [6]	RATED CURRENT	HOLDING TORQUE [1]	
	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):	165/5.82
OPERATING AMB. TEMP. RANGE (°C):	-10 to +50	RELATIVE HUMIDITY RANGE (%):	85 NON-CONDENSING
STORAGE TEMP. RANGE (°C):	0 to +40		

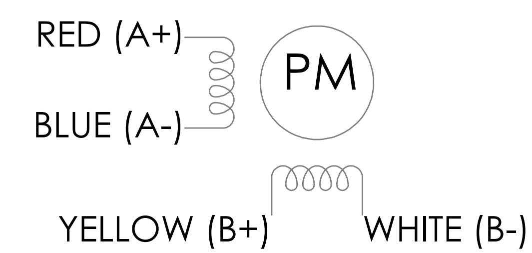
GEARHEAD SPECIFICATIONS:

RATIO:	12.76:1	EFFICIENCY (%):	81
MAX TORQUE CONTINUOUS (Nm/oz-in):	2/283.2	BACKLASH (°):	≤1.8
MAX TORQUE (Nm/oz-in):	3/424.8	MAX RADIAL LOAD (N/lbf):	≤20/4.49
MAX INPUT SPEED (RPM):	6000	MAX AXIAL LOAD (N/lbf):	≤20/4.49

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	+	-	+	-

CW ↓ / CCW ↑

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

NOTES, UNLESS OTHER WISE 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.

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THIRD ANGLE PROJECTION
UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES:
- ANGULAR: ± 0.5
- ONE DECIMAL PLACE: ± 0.25
- TWO DECIMAL PLACES: ± 0.13
MATERIAL
FINISH
DO NOT SCALE DRAWING

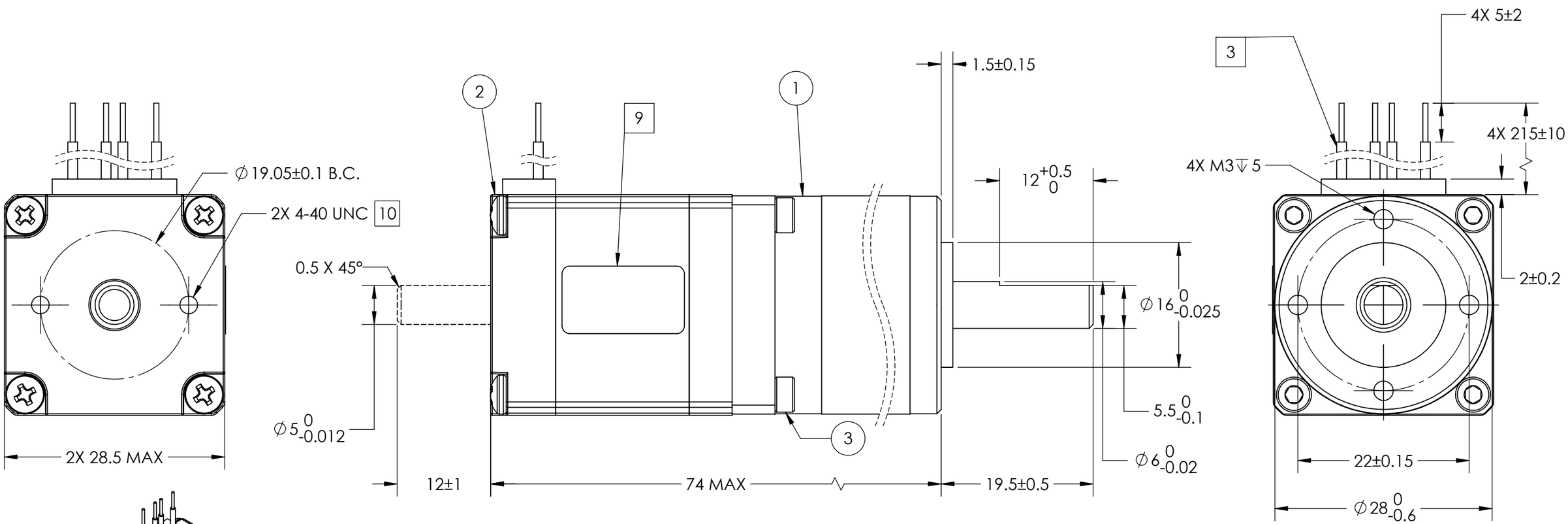
	NAME	DATE
DRAWN	Y. LAPNET	4/18/22
PRE.CHECK		
PRE.APPROVAL		
FIN.CHECK	C. BREUNINGER	4/18/22

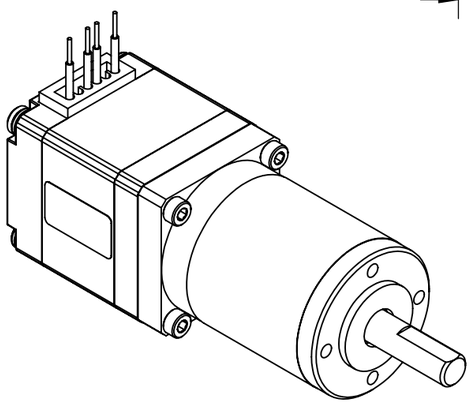
SAP: 4611110060155
ALT DWG. NO.:
ALT SAP:

TITLE: STEPPER MOTOR W/ GEARHEAD

SIZE	DWG. NO.	REV
B	HT11-020-G012	C

SCALE: 2:1 SHEET 1 OF 2





ITEM NO.	SAP PART NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	4332401001503	28PH012.76-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

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

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THIRD ANGLE PROJECTION

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- TWO DECIMAL PLACES: ± 0.13

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	Y. LAPNET	4/18/22
PRE.CHECK		
PRE.APPROVAL		
FIN.CHECK	C. BREUNINGER	4/18/22

SAP: 4611110060155

ALT DWG. NO.:

ALT SAP:

TITLE:
STEPPER MOTOR W/ GEARHEAD

SIZE	DWG. NO.	REV
B	HT11-020-G012	C

SCALE: 2:1 | SHEET 2 OF 2

Mouser Electronics

Authorized Distributor

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Applied Motion:
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