

4

3

2

1

MOTOR SPECIFICATIONS:

FRAME SIZE:	NEMA 11	ROTOR INERTIA (g-cm ² /oz-in ²):	18/9.8E-02 NOM
STEP ACCURACY (°):	±0.09	INSULATION CLASS:	B (130 °C)
STEP ANGLE (°):	1.8	BEARINGS:	ABEC 3, DOUBLE SHIELDED
INPUT VOLTAGE (VDC):	15 - 30	APPROVALS:	CE, RoHS

GEARMOTOR SPECIFICATIONS:

TEMP. RISE (°C):	80 MAX	TOTAL WEIGHT (±10g/±0.35oz):	283/9.98
OPERATING AMB. TEMP. RANGE (°C):	0 to +85	RELATIVE HUMIDITY RANGE (%):	90 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
8161	B	REVISE FROM L1 TO L2	3/8/19	J. KORDIK
8758	C	REDRAWN IN SOLIDWORKS	4/18/22	L. LIU

NOTES, UNLESS OTHER WISE SPECIFIED:

1.
- THIS ASSEMBLY IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
2.
- ALL SPECIFICATIONS AND OPERATING INSTRUCTIONS CAN BE FOUND AT APPLIED-MOTION.COM.

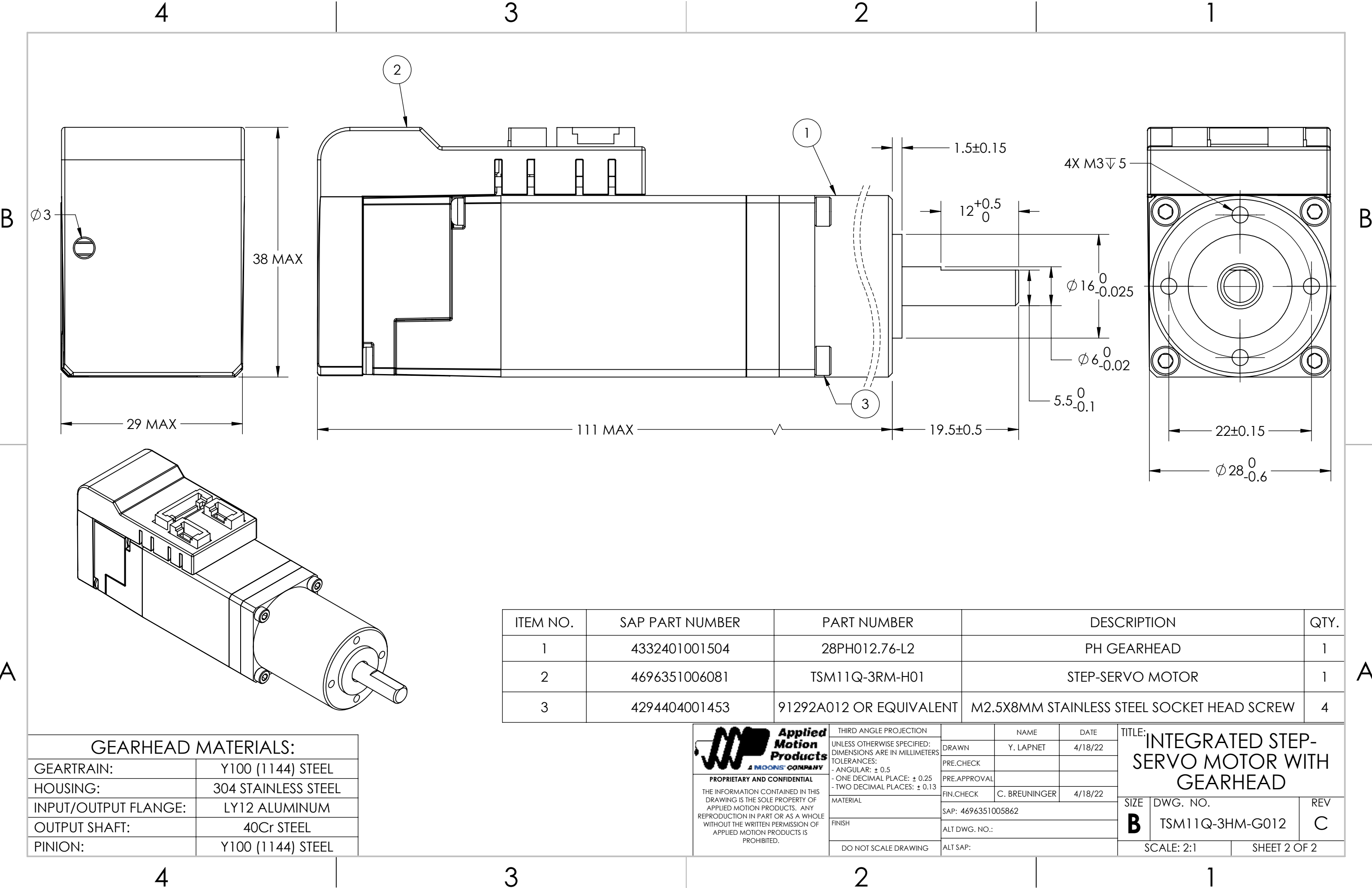
 Applied Motion Products A MOONS' COMPANY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APPLIED MOTION PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF APPLIED MOTION PRODUCTS IS PROHIBITED.	THIRD ANGLE PROJECTION		NAME	DATE	TITLE: INTEGRATED STEP-SERVO MOTOR WITH GEARHEAD			
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	Y. LAPNET	4/18/22				
	TOLERANCES:	PRE.CHECK						
	- ANGULAR: ± 0.5	PRE.APPROVAL						
	- ONE DECIMAL PLACE: ± 0.25	FIN.CHECK	C. BREUNINGER	4/18/22	SIZE B	DWG. NO. TSM11Q-3HM-G012		
	- TWO DECIMAL PLACES: ± 0.13	SAP: 4696351005862						
MATERIAL	ALT DWG. NO.:			SCALE: 2:1				
FINISH	ALT SAP:							
DO NOT SCALE DRAWING				SHEET 1 OF 2				

4

3

2

1



ITEM NO.	SAP PART NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	4332401001504	28PH012.76-L2	PH GEARHEAD	1
2	4696351006081	TSM11Q-3RM-H01	STEP-SERVO 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

 Applied Motion Products A MOONS' COMPANY 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	TITLE: INTEGRATED STEP-SERVO MOTOR WITH GEARHEAD		
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	Y. LAPNET	4/18/22			
	TOLERANCES: - ANGULAR: ± 0.5 - ONE DECIMAL PLACE: ± 0.25 - TWO DECIMAL PLACES: ± 0.13	PRE.CHECK					
	MATERIAL	FIN.CHECK	C. BREUNINGER	4/18/22	SIZE	DWG. NO.	REV
	FINISH	DO NOT SCALE DRAWING	ALT DWG. NO.:	ALT SAP:	B	TSM11Q-3HM-G012	C
					SCALE: 2:1		SHEET 2 OF 2