SPECIFICATIONS:

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 2.7KG–CM^2(0.0387 OZ–IN–SEC^2)NOM
STEP ANGLE: 1.8°	DETENT TORQUE: 3.56 G–CM (49.5 OZ–IN) MIN
STEP TO STEP ACCURACY:±.09 DEGREES [1] , [2]	INSULATION CLASS: B
POSITIONAL ACCURACY:±.09 DEGREES [1] , [3]	WEIGHT: 3.8 KG (8.4 LBS)
SHAFT RUNOUT: 0.05 mm T.I.R. MAX	TEMP. RISE: 80 °C MAX. [9]
RADIAL PLAY: 0.025mm MAX W/A .5KG RADIAL LOAD	OPERATING TEMP. RANGE: –20 TO +50 °C
END PLAY: 0.075mm MAX W/A 1KG AXIAL LOAD	STORAGE TEMP. RANGE: –40 TO +70 °C
BEARINGS: ABEC 3 , DOUBLE SHIELDED	RELATIVE HUMIDITY RANGE: 5 TO 99 %

HW34–506

SPECIFICATION / CONNECTION	RESISTANCE PER PHASE OHM ±10% [7]	INDUCTANCE PER PHASE mH ±20% [8]	RATED CURRENT Amp	HOLDING TORQUE Nm Min [1]	HOLDING TORQUE oz–in Min. [1]
BI–POLAR SERIES	2.6	21.6	2.8	8.9	1260
BI–POLAR PARALLEL	0.65	5.4	5.6	8.9	1260
UNI–POLAR	1.3	5.4	4.0	6.4	906

REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
6449	A	INITIAL RELEASE	3/7/12	J KORDIK
6578	B	105°C CABLE/DOC CLEANUP	8/15/12	J KORDIK
6677	C	ADD P/N FOR LABEL SEAL	1/24/13	J KORDIK
6723	D	ADD NOTE 15	3/22/13	J KORDIK
7209	E	TYPO REVISED	6/22/15	J KORDIK
7373	F	END BELL SEALING OPTIONS	2/12/16	J KORDIK
7393	G	REVISE TYPO ON CALLOUT	3/3/16	J KORDIK
7447	H	REVISE NOTE 10	6/7/16	J KORDIK
7906	J	REVISE DIMS, ADD NOTES	3/26/18	J KORDIK
8317	K	REVISE OVERALL SIZE	9/3/19	J KORDIK

NOTES, UNLESS OTHERWISE SPECIFIED:

[1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.

[2] BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.

[3] MAXIMUM ERROR IN 360°.

4. HIPOT 1150 VAC, 60 Hz FOR ONE MINUTE.

[5] LEADS: 8, 22 AWG, 7 STRAND MIN. UL AND CSA APPROVED. 105°C RATED SHIELDED CABLE, 8 COND W/ DRAIN. CABLE MUST MEET AMP SPECIFICATION 666–2126.

6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.

[7] MEASUREMENTS MADE WITH CABLE.

[8] MEASURED USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz, WITH CABLE.

[9] AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.

10. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.

[11] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

12. HIGH TORQUE MOTOR DESIGN, MICROSTEP LAMINATION, INTENDED FOR USE WITH 80VDC DRIVES WHEN WINDINGS CONNECTED IN PARALLEL AND WITH 160VDC DRIVES WHEN WINDINGS CONNECTED IN SERIES.

[13] DRAIN WIRE TO BE CONNECTED TO INSIDE OF REAR ENDBELL.

[14] MOTOR TO MEET IP65 STANDARDS. REAR END BELL OPTIONS INCLUDE A SOLID END BELL OR A BRASS PLUG COVERING THE SHAFT BEARING, A 3M LABEL MUST COVER THE BRASS PLUG. CABLE GLAND TO BE NICKEL–PLATED BRASS, ASI P/N 3012215 OR EQUIVALENT.

15. END BELLS TO BE PROTECTED WITH BLACK COATING.

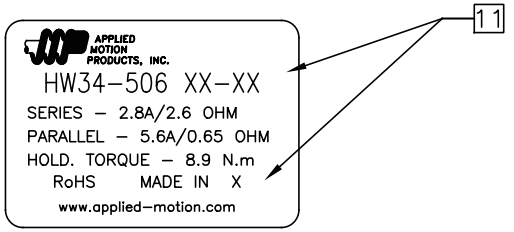
16. USE PROPRIETARY PLASTIC SPRAY ON STATOR PRIOR TO ASSEMBLY.

17. A FIXTURE IS TO BE USED TO ENSURE THE UNIT WILL HOLD A VACUUM OF 5 INCHES OF MERCURY FOR 20 SECONDS MINIMUM BEFORE THE INSTALLATION OF THE OIL SEAL.

18. USE PROPRIETARY PLASTIC SPRAY ON SURFACE AFTER ASSEMBLY.

19. USE ANTI–RUST TECHNOLOGY ON ROTOR AND STATOR.

LABEL DETAIL

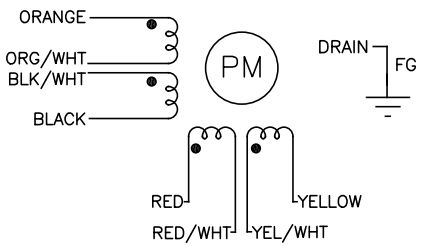


BIPOLAR, FULL STEP, 2 PHASE ON PARALLEL CONNECTED

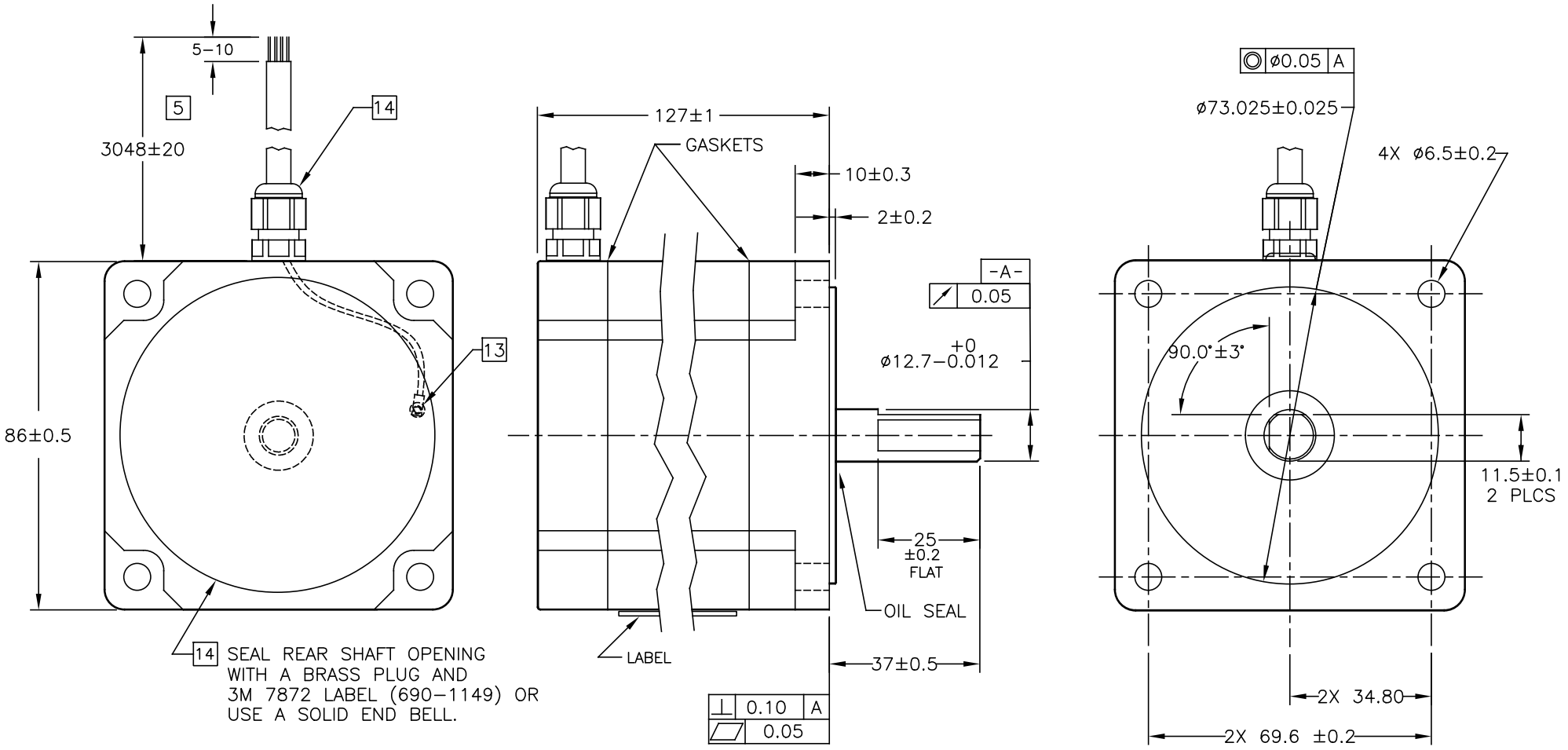
SWITCHING SEQUENCE FOR CW ROTATION FACING MOUNTING END

STEP	ORANGE & BLK/WHT	BLACK & ORN/WHT	RED & YEL/WHT	YELLOW & RED/WHT
0	+	–	+	–
1	–	+	+	–
2	–	+	–	+
3	+	–	–	+
4	+	–	+	–

CW ↓ CCW ↑



CONTRACT NO. –	APPLIED MOTION PRODUCTS, INC.
–	
APPROVALS / DATE	STEP MOTOR OUTLINE
DRAWN R.JONEZ 3/7/12	
CHECKED	B — COMPUTER DATA BASE DRAWING — DWG NO. HW34–506 — REV K
APPROVED	
APPROVED	SCALE: NONE — SHEET 1 OF 2



TOLERANCES	THIRD ANGLE PROJECTION		APPLIED MOTION PRODUCTS, INC.	
DECIMALS: MM (INCH) X.XXX= ± (.005) X.XX = ±0.13 (.010) X.X = ±0.25 (.020) ANGLES: MACH. = ±.5° CHAM. = ±5°			STEP MOTOR OUTLINE	
	APPROVALS	DATE	B	DWG NO. HW34–506 REV K
	DRAWN R.JONEZ	3/7/12		
	CHECKED		SCALE: NONE	SHEET 2 OF 2
COMPUTER DATA BASE DRAWING	APPROVED			