

SPECIFICATIONS:

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 120 G-CM ² (0.66 OZ-IN ²) NOM
STEP ANGLE: 1.8°	HOLDING TORQUE: 3.9 KG-CM (54.2 OZ-IN)MIN [1]
STEP TO STEP ACCURACY: ± 5 % [1, 2]	DETENT TORQUE: 200 G-CM (2.78 OZ-IN)MIN
POSITIONAL ACCURACY: ± 5 % [1, 3]	
HYSTERESIS: %	INSULATION CLASS: B
WINDING RESISTANCE: 0.63 OHM ±10% AT 25° [7]	BEARINGS: ABEC 3, DOUBLE SHIELDED
WINDING INDUCTANCE: 0.6 mH ± 20% [8]	WEIGHT: 0.45KG (1 LB)
PHASE VOLTAGE: 1.9 VDC	TEMP. RISE: 80 °C MAX. [9]
PHASE CURRENT: 3.0 AMP [(RATED) UNIPOLAR]	OPERATING TEMP. RANGE: -20 TO +50°C
	STORAGE TEMP. RANGE: -40 TO 70°C
SHAFT RUNOUT: 0.05 T.I.R.	RELATIVE HUMIDITY RANGE: 5 TO 95 %
RADIAL PLAY: 0.025 MAX W/A .5KG RADIAL LOAD.	
END PLAY: 0.075 MAX W/A 1KG AXIAL LOAD.	

HT23-395

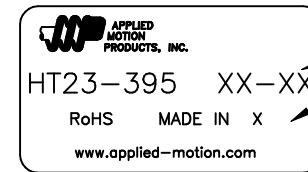
REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
3987	A	INITIAL RELEASE	8/14/96	<i>R. Kordik</i>
5003	B	ADD "23HT39D" IF DBL SHFT		
5235	C	ADD EU COMPLIANCE NOTES	8/25/05	<i>R. Hazelwood</i>
6006	D	ADD ENV DRAWING/ ENC HOLES	10/20/09	J KORDIK
6090	E	STANDARDIZE ENCODER HOLES	3/29/10	J KORDIK

NOTES, UNLESS OTHERWISE SPECIFIED:

- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- [3] MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 8 AWG 22,7 STRAND MIN., UL AND CSA APPROVED, UL 3265.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] AS MEASURED ACROSS ANY WINDING. RESISTANCE IS DOUBLE W/BOTH WINDINGS IN SERIES.
- [8] AS MEASURED ACROSS ANY WINDING USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz. INDUCTANCE IS FOUR TIMES VALUE W/WINDINGS IN SERIES.
- [9] AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED VOLTAGE APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- 10. HIGH TORQUE MOTOR DESIGN, MICROSTEP LAMINATION.
- 11. ROTOR & STATOR LAMINATION MATERIAL: 0.5mm thk, SEE AMP STD SPEC #1500-062.
- [12] SHAFT OPTION: IF DOUBLE SHAFT REQUIRED ADD "D" TO END OF PART NUMBER. DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTIONS.
- 13. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- [14] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

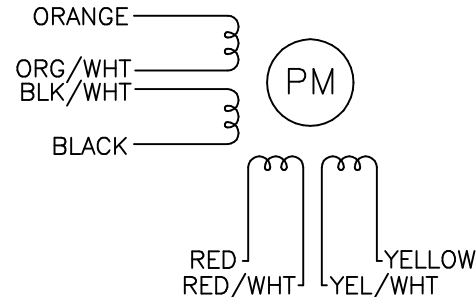
LABEL DETAIL



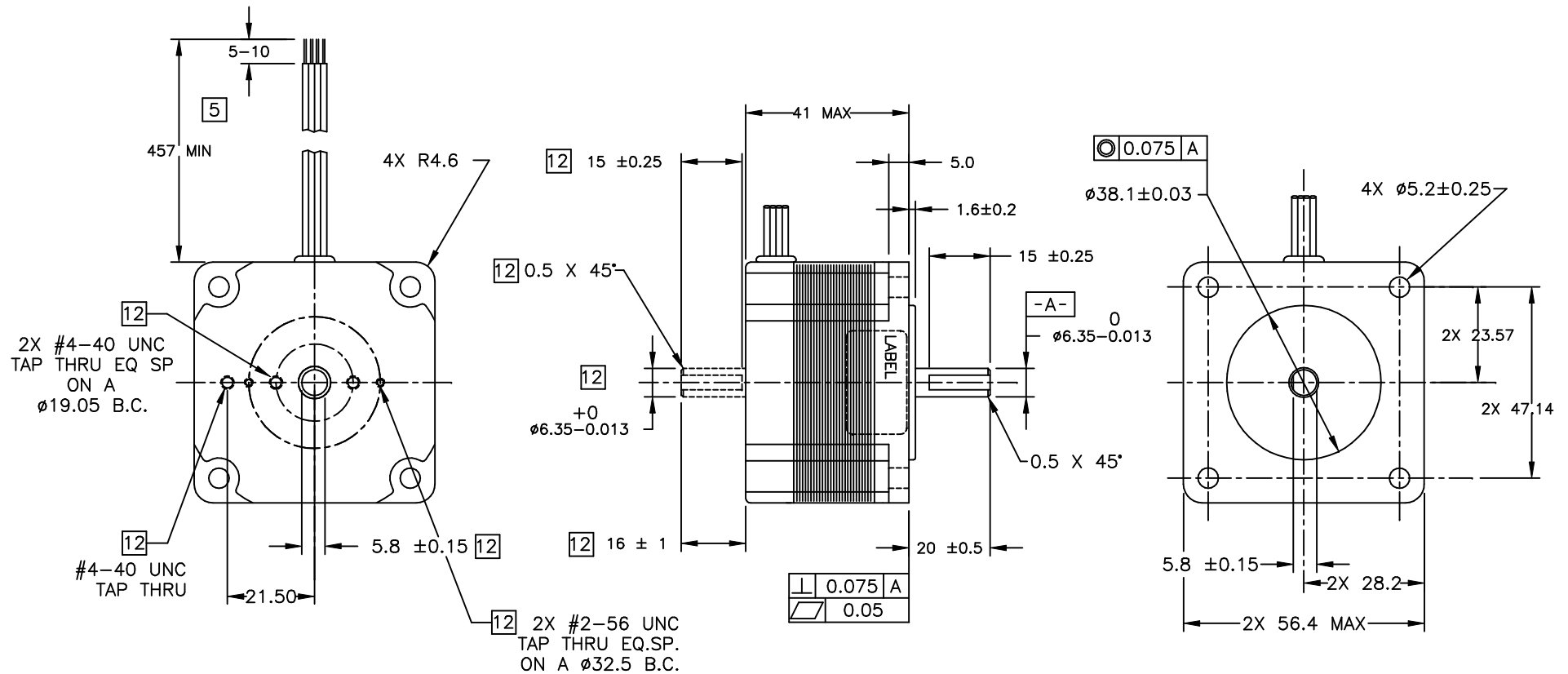
[14]

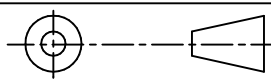

SWITCHING SEQUENCE FOR CW ROTATION
FACING MOUNTING END

STEP	ORANGE	BLACK	RED	YELLOW
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	+	-	+	-



CONTRACT NO. CAT TS3653N1E3		APPLIED MOTION PRODUCTS, INC.			
APPROVALS	DATE	STEP MOTOR OUTLINE			
DRAWN <i>R. BARRICK</i>	8/13/96				
CHECKED <i>B. Corser</i>	8/14/96				
APPROVED <i>R. Kordik</i>	8/14/96				
APPROVED		B	COMPUTER DATA BASE DRAWING	DWG NO. HT23-395	REV E
SCALE: 1=1		SHEET 1 OF 2			



TOLERANCES DECIMALS: MM (INCH) X.XXX = \pm (.005) X.XX = ± 0.13 (.010) X.X = ± 0.25 (.020) ANGLES: MACH. = $\pm 5^\circ$ CHAM. = $\pm 5^\circ$		THIRD ANGLE PROJECTION 		 APPLIED MOTION PRODUCTS, INC.	
APPROVALS DRAWN <i>R. BARRICK</i> CHECKED		DATE 12/12/02		STEP MOTOR OUTLINE	
APPROVED		SCALE: NONE		DWG NO. HT23-395 REV E	
COMPUTER DATA BASE DRAWING		SHEET 2 OF 2			