

**SPECIFICATIONS:**

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 4.0 KG-CM <sup>2</sup> ( 21.9 OZ-IN <sup>2</sup> ) NOM
STEP ANGLE: 1.8°	HOLDING TORQUE: 132.8KG-CM ( 1845 OZ-IN) MIN [1]
STEP TO STEP ACCURACY: ± 5 % [1], [2]	DETENT TORQUE: 3.89KG-CM ( 54.0 OZ-IN) MIN
POSITIONAL ACCURACY: ± 5 % [1], [3]	
HYSTERESIS: %	INSULATION CLASS: B
WINDING RESISTANCE: 0.27 OHM ±10% AT 25° [7]	BEARINGS: ABEC 3, DOUBLE SHIELDED
WINDING INDUCTANCE: 2.4 mH ± 20% [7] [8]	
PHASE VOLTAGE: 2.4 VDC [7]	TEMP. RISE: 80°C MAX. [9]
PHASE CURRENT: 9.0 AMP [(RATED) PARALLEL] [12]	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.	WEIGHT: 5.39 KG (11.9 LB)

HT34-487

**REVISIONS**

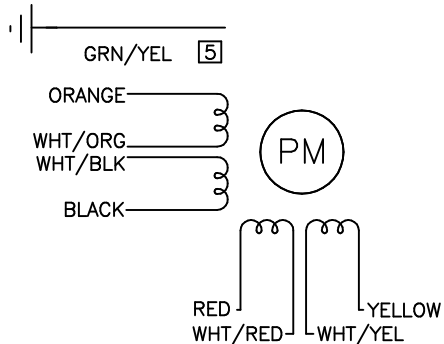
ECO NO.	REV	DESCRIPTION	DATE	APPROVED
4383	A	INITIAL RELEASE	2/16/02	J.D.
4391	B	ADD ENCODER HOLES	3/18/02	J.D.
4393	C	CHG DRAIN, WAS AWG 22		
5235	D	ADD EU COMPLIANCE NOTES	8/25/05	R. Hazelwood

NOTES, UNLESS OTHERWISE SPECIFIED:

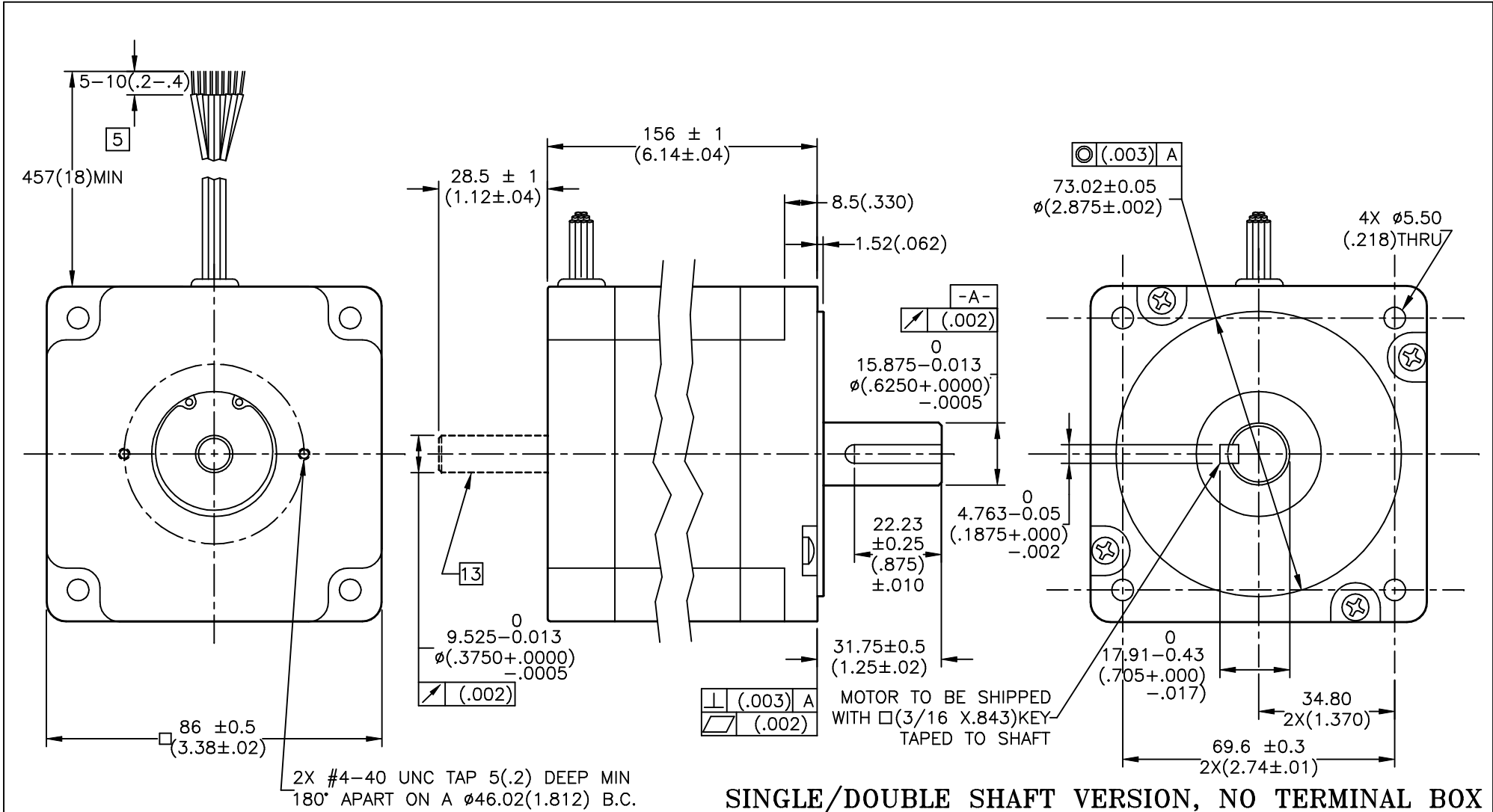
- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- [3] MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 8 AWG 22,7 STRAND MIN., UL AND CSA APPROVED, DRAIN: 1, AWG 24, UL 1430.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] AS MEASURED ACROSS ANY WINDINGS CONNECTED IN PARALLEL.
- [8] AS MEASURED ACROSS ANY WINDING USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz.
- [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.
- 11. ROTOR & STATOR LAMINATED CONSTRUCTION.
- [12] POWER SUPPLY VOLTAGE TO AMPLIFIER 80V OR LESS. IF GREATER THAN 80 VOLTS RATED CURRENT IS 4.5 AMPS, PARALLEL CONNECTED, W/50% DUTY CYCLE. (MOTOR MAY BE LEFT ENERGIZED AT 50% CURRENT BETWEEN CYCLES.)
- [13] ADD "D" TO END OF PART NUMBER IF DOUBLE SHAFT IS REQUIRED.
- 14. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- 15. MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT.

**PARALLEL CONNECTION**  
SWITCHING SEQUENCE FOR CW ROTATION  
FACING MOUNTING END

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



CONTRACT NO. CAT TS3684N2437		APPLIED MOTION PRODUCTS, INC.			
APPROVALS	DATE	<b>STEP MOTOR OUTLINE</b>			
DRAWN R. BARRICK	2/14/02				
CHECKED R. Hazelwood	2/15/02	<b>B</b>	COMPUTER DATA BASE DRAWING	DWG NO. HT34-487	REV D
APPROVED J. Daley	2/16/02		SCALE: 1=1	SHEET 1 OF 2	



**SINGLE/DOUBLE SHAFT VERSION, NO TERMINAL BOX**

<b>TOLERANCES</b> DECIMALS: MM (INCH) X.XXX = ±0.01 (.005) X.XX = ±0.10 (.010) X.X = ±0.20 (.020) ANGLES: MACH. = ±5° CHAM. = ±5°	<b>THIRD ANGLE PROJECTION</b> 		 <b>APPLIED MOTION PRODUCTS, INC.</b>
	APPROVALS DRAWN <i>R. BARRICK</i> CHECKED <i>R. Hagelwood</i> APPROVED <i>J. Daley</i>	DATE 2/14/02 2/15/02 2/16/02	
COMPUTER DATA BASE DRAWING	SCALE: FULL	SHEET 2 OF 2	