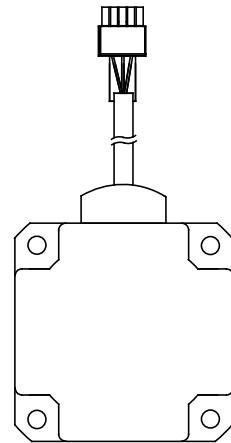


ENCODER CONNECTOR

CONNECTOR: AMP 172171-1  
770835-1 contacts (strip)  
VIEWING MATING END

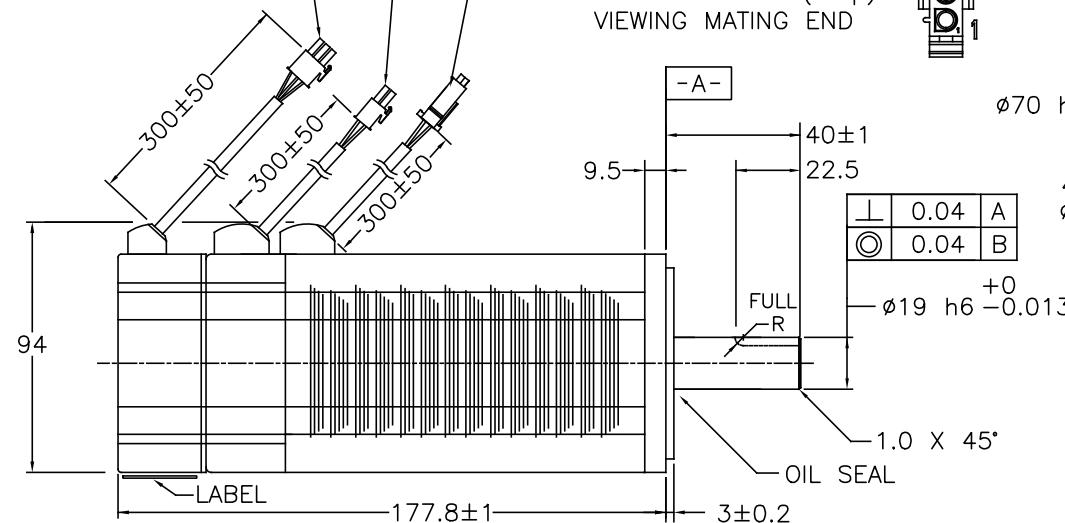


BRAKE CONNECTOR

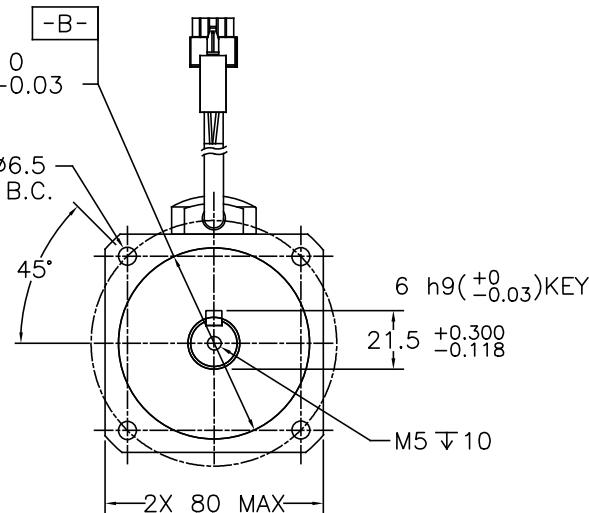
CONNECTOR: AMP 172165-1  
170360-1 contacts (strip)  
VIEWING MATING END

MOTOR POWER CONNECTOR

CONNECTOR: AMP 350779-1  
350218-1 contacts (strip)  
VIEWING MATING END

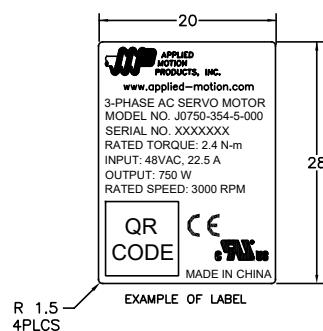


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE ECO 8316	8/27/19	L. LIU



ENCODER CONNECTION TABLE

PIN	LEAD COLOR	SIGNAL
1	RED	+5V
2	BLACK	GROUND
3	BROWN	U+
4	BROWN/BLACK	U-
5	GRAY	V+
6	GRAY/BLACK	V-
7	WHITE	W+
8	WHITE/BLACK	W-
9	BLUE/BLACK	A+
10	BLUE	A-
11	GREEN	B+
12	GREEN/BLACK	B-
13	YELLOW	Z+
14	YELLOW/BLACK	Z-
15	SHIELD	SHIELD



MOTOR CONNECTION TABLE

BRAKE CONNECTION TABLE		
PIN	LEAD COLOR	SIGNAL
1	RED	PHASE U
2	YELLOW	PHASE V
3	BLUE	PHASE W
4	YELLOW/GREEN	GROUND

NOTES: UNLESS OTHERWISE SPECIFIED

1. A SHAFT SEAL IS SHIPPED WITH MOTOR, BUT NOT INSTALLED.
2. TIMING LOGIC IS CCW AS VIEWED FROM FRONT SHAFT.
3. MOTOR IS IP65, EXCEPT SHAFT OPENING AND CABLE CONNECTOR.
4. INSTALL INDOORS, AWAY FROM DIRECT SUNLIGHT, FLAMMABLE AND CORROSIVE GASES.
5. 1000M MAX ALTITUDE.
6. BRAKE RELEASES WHILE ENERGIZED, DO NOT ENGAGE WHILE MOTOR IS ROTATING.  
BRAKE POWER IS NOT POLARITY SENSITIVE. THIS IS A HOLDING BRAKE.
7. SHAFT LOAD: (L<sub>10</sub> LIFE, 20000 HOURS, 2000 RPM).

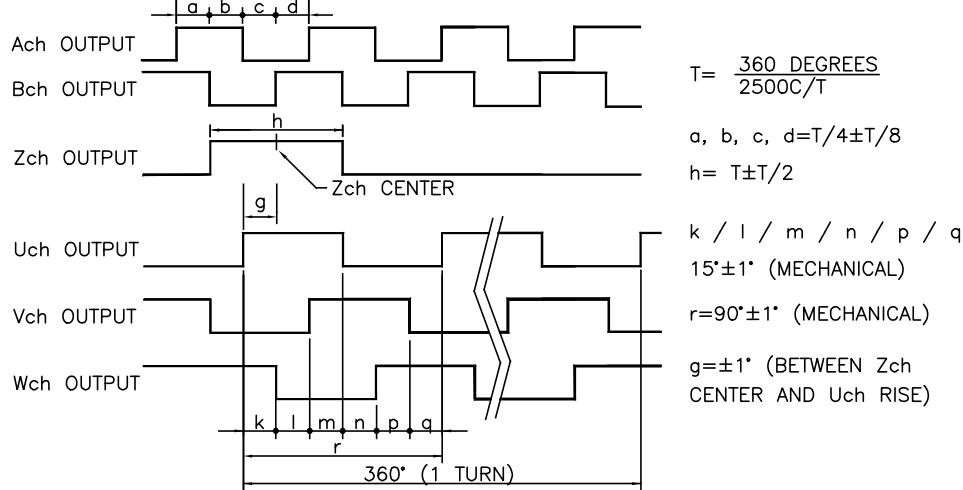
TOLERANCES		THIRD ANGLE PROJECTION		APPROVALS	DATE
DECIMALS: MM (INCH)	X.XXX= ±0.013 (.005)	X.XX = ±0.25 (.01)	X.X = ±2.5 (0.1)		
ANGLES:	MACH. = ±5°	CHAM. = ±5°		DRAWN R.JONEZ	8/26/19
				CHECKED	
				COMPUTER DATA BASE DRAWING	APPROVED
				SCALE: NONE	Sheet 1 of 2

APPLIED  
MOTION  
PRODUCTS, INC.

AC SERVO MOTOR  
WITH ENCODER AND BRAKE

B DWG NO. J0750-354-5-000 REV A

### TIMING LOGIC / ENCODER SIGNALS



$$T = \frac{360 \text{ DEGREES}}{2500C/T}$$

$$a, b, c, d = T/4 \pm T/8$$

$$h = T \pm T/2$$

$$k / l / m / n / p / q$$

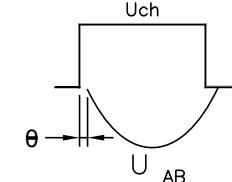
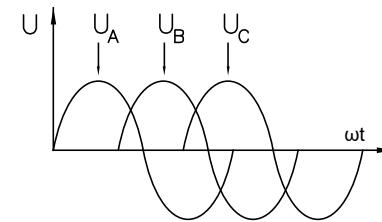
$$15^\circ \pm 1^\circ \text{ (MECHANICAL)}$$

$$r = 90^\circ \pm 1^\circ \text{ (MECHANICAL)}$$

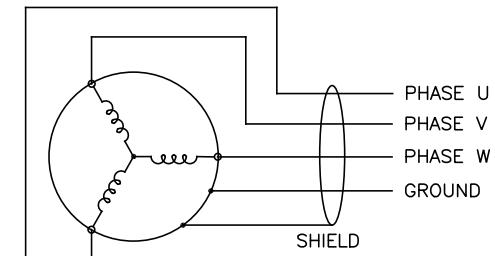
$$g = \pm 1^\circ \text{ (BETWEEN Zch CENTER AND Uch RISE)}$$

$$360^\circ \text{ (1 TURN)}$$

### MOTOR PHASES



$\theta = \pm 10^\circ$  (ELECTRICAL)  
 $U_A / U_B / U_C$  BACK EMF  
 MEASURED FROM TERMINAL TO NEUTRAL



### AC SERVOMOTOR SPECIFICATION – PERMANENT MAGNET 8 POLES

INPUT POWER SUPPLY	VAC	48
RATED OUTPUT	W	750
VOLTAGE CONSTANT	V(rms)/K(rpm) ± 10%	6.8
RATED WINDING CURRENT	A (rms)	22.5
PEAK WINDING CURRENT	A (rms)	56.5
WINDING RESISTANCE	V ± 10% @ 20°C	0.06 LINE-TO-LINE
WINDING INDUCTANCE	mH ± 20%	0.25 LINE-TO-LINE
RATED TORQUE	Nm(kgf-cm)	2.4(24.47)
PEAK TORQUE	Nm(kgf-cm)	6.0(61.18)
TORQUE CONSTANT	Nm/A(rms) ± 10%	0.11
RATED SPEED	rpm	3000
MAXIMUM SPEED	rpm	3600
WEIGHT W/ ENCODER & BRAKE	kg (lbs)	2.6(5.8)
INSULATION CLASS		B 130°C
ENCODER RESOLUTION		2500 LINES/REV.
SHAFT LOAD – AXIAL	N(lbs)(MAX)	90(20)
SHAFT LOAD – RADIAL	N(lbs)(MAX)	240N/(54)LB
MOTOR RATING	REF NOTE 3	IP65
AMBIENT TEMPERATURE	OPERATING	0 TO 40°C
AMBIENT TEMPERATURE	STORAGE	-20 TO 80°C
AMBIENT HUMIDITY MAX		85%
INERTIA – WITH ENCODER	kg*m <sup>2</sup>	0.000089

7  
7

6] BRAKE SPECIFICATIONS:	
RATED VOLTAGE	24VDC
RATED CURRENT	0.61A
RELEASE VOLTAGE	18.5 VDC MAX (at 20°C)
STATIC FRICTION TORQUE	4.5 Nm
ENGAGE TIME	AT NOMINAL AIR GAP (@20°C) <25ms (NEW) FULL RANGE MAX AIR GAP <100ms (WORST COND)
RELEASE TIME	WITHOUT DIODE: <25ms (E-STOP) WITH DIODE: <200ms (NORMAL STOP)

CONTRACT NO.

APPLIED  
MOTION  
PRODUCTS, INC.

### SERVO MOTOR SPECIFICATIONS

B	FSCM NO.	DWG NO.	REV
		J0750-354-5-000	A
APPROVED	SCALE: NONE		SHEET 2 OF 2