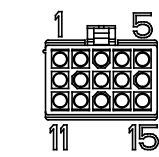


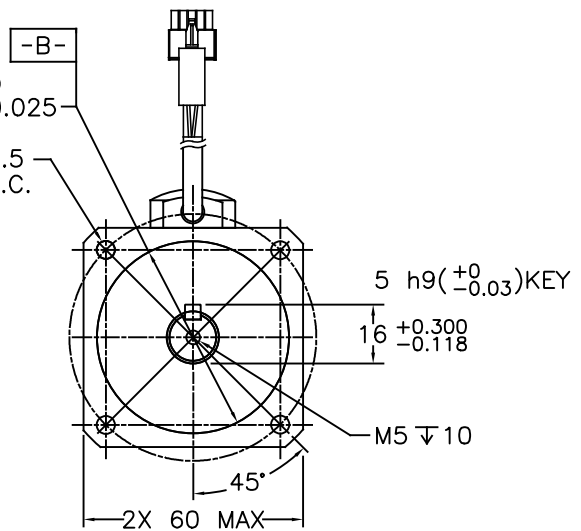
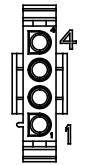
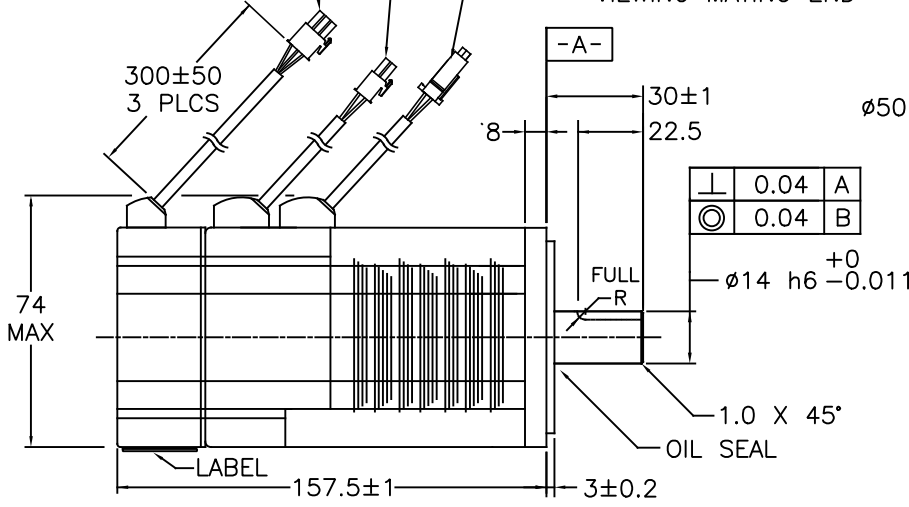
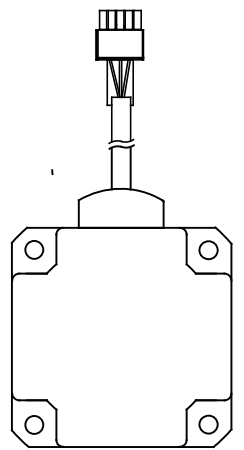
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE ECO 7159	3/16/15	J KORDIK
B	SPECS REVISED ECO 8316	8/26/19	L. LIU
C	BREAK CONTACT 170360-1, 8434	3/10/20	L. LIU



ENCODER CONNECTOR
 CONNECTOR: AMP 172171-1
 770834-1 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
 350536-1 contacts (strip)
 VIEWING MATING END



⊥	0.04	A
⊙	0.04	B

⊕
 -ø14 h6 -0.011

ENCODER CONNECTION TABLE

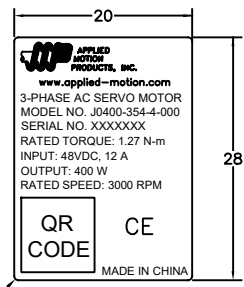
PIN	LEAD COLOR	SIGNAL
1	RED	+5V
2	BLACK	GROUND
3	BROWN	U+
4	BROWN/BLACK	U-
5	GRAY	V+
6	GRAY/BLACK	V-
7	WHITE	W+
8	WHITE/BLACK	W-
9	BLUE/BLACK	A+
10	BLUE	A-
11	GREEN	B+
12	GREEN/BLACK	B-
13	YELLOW	Z+
14	YELLOW/BLACK	Z-
15	SHIELD	SHIELD

MOTOR CONNECTION TABLE

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

BRAKE CONNECTION TABLE

PIN	LEAD COLOR	SIGNAL
1	RED	BRAKE
2	BLACK	BRAKE



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: (L₁₀ LIFE, 20000 HOURS, 2000 RPM).

TOLERANCES

DECIMALS: MM (INCH)
 X.XXX = ±0.01 (.005)
 X.XX = ±0.10 (.010)
 X.X = ±0.20 (.020)

ANGLES:
 MACH. = ±5°
 CHAM. = ±5°

THIRD ANGLE PROJECTION

APPROVALS: DRAWN *R.JONEZ*, CHECKED, APPROVED

DATE: 3/4/15

APPLIED MOTION PRODUCTS, INC.

AC SERVO MOTOR WITH ENCODER AND BRAKE

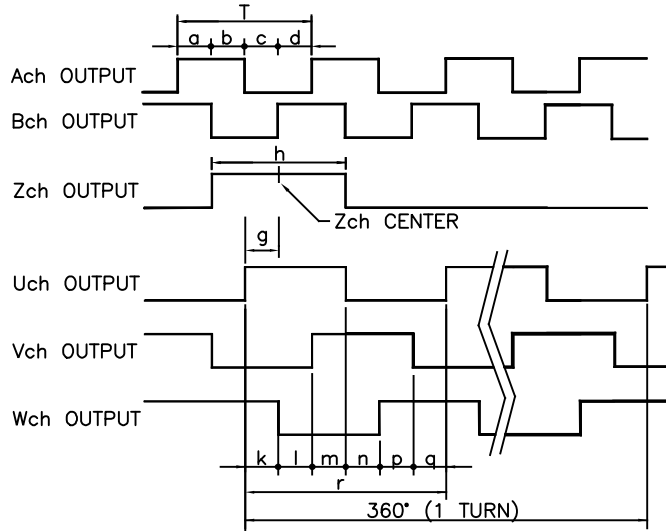
COMPUTER DATA BASE DRAWING

SCALE: NONE SHEET 1 OF 2

DWG NO. **J0400-354-4-000**

REV **C**

TIMING LOGIC / ENCODER SIGNALS



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

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

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

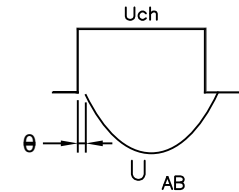
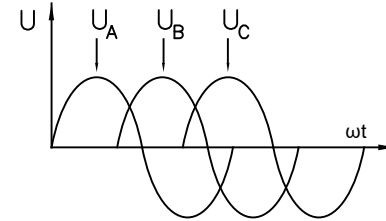
$$k / l / m / n / p / q$$

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

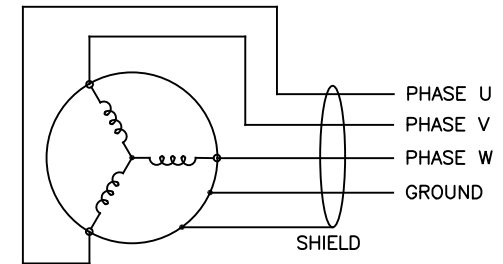
$$r = 90^\circ \pm 1^\circ \text{ (MECHANICAL)}$$

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

MOTOR PHASES



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



AC SERVO MOTOR SPECIFICATION – PERMANENT MAGNET 8 POLES		
INPUT POWER SUPPLY	VAC	48VDC
RATED OUTPUT	W	400
VOLTAGE CONSTANT	V(rms)/K(rpm)±10%	6.3
RATED WINDING CURRENT	A (rms)	12
PEAK WINDING CURRENT	A (rms)	36
WINDING RESISTANCE	$\Omega \pm 10\% @ 20^\circ C$	0.188 LINE-TO-LINE
WINDING INDUCTANCE	mH ±20%	0.6 LINE-TO-LINE
RATED TORQUE	Nm(kgf-cm)	1.27(12.95)
PEAK TORQUE	Nm(kgf-cm)	3.4(34.67)
TORQUE CONSTANT	Nm/A ±10%	0.103
RATED SPEED	rpm	3000
MAXIMUM SPEED	rpm	6000
WEIGHT W/ ENCODER & BRAKE	kg(lb)	1.9(4.2)
INSULATION CLASS		B 130°C
ENCODER RESOLUTION		2500 LINES/REV.
SHAFT LOAD – AXIAL	N MAX(lb)	70(15)
SHAFT LOAD – RADIAL	N MAX(lb)	240(54)
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	kgm ²	0.0000272

7
7

Ⓜ BRAKE SPECIFICATIONS:

RATED VOLTAGE	24VDC
RATED CURRENT	0.38A
RELEASE VOLTAGE	18.5 VDC MAX (at 20°C)
STATIC FRICTION TORQUE	2 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.



SERVO MOTOR SPECIFICATIONS

APPROVALS	DATE	FSCM NO. B DWG NO. J0400-354-4-000 REV C	
DRAWN R.JONEZ	3/4/15		
CHECKED			
APPROVED			
APPROVED		SCALE: NONE	SHEET 2 OF 2