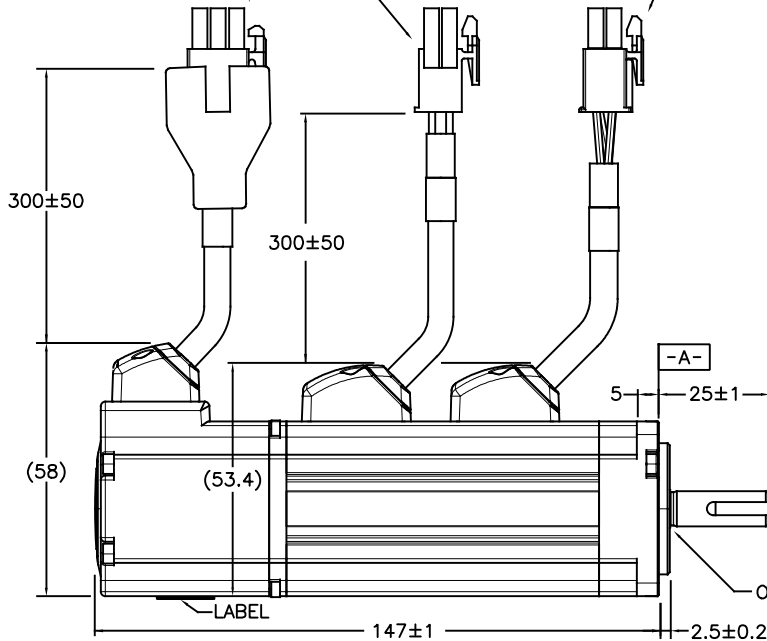
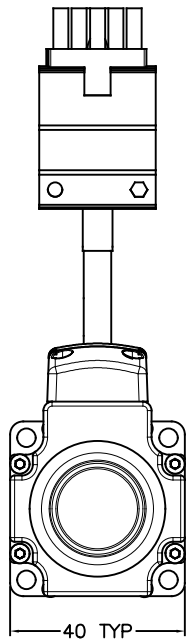


**ENCODER CONNECTOR**  
CONNECTOR: AMP 172171-1  
770835-1 contacts (strip)  
VIEWING MATING END

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



**MOTOR POWER CONNECTOR**  
CONNECTOR: AMP 172167-1  
170360-1 contacts (strip)  
VIEWING MATING END



⊥	0.04	A
⊙	0.04	B

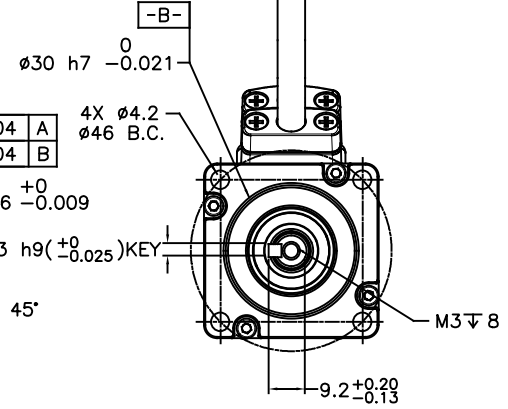
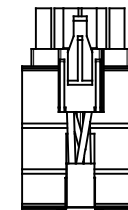
4X  $\phi 4.2$   
 $\phi 46$  B.C.

$\phi 8$  h6  $^{+0}_{-0.009}$

3 h9 ( $^{+0}_{-0.025}$ ) KEY

1.0 X 45°

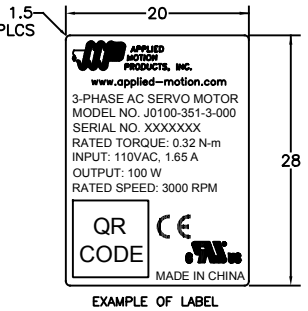
2.5±0.2



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE ECO 7012	6/10/14	J KORDIK
B	REVISE LENGTH ECO 7055	8/28/14	J KORDIK
C	ADD LABEL ECO 7060	9/15/14	J KORDIK
D	REVISE TEXT ECO 7159	3/16/15	J KORDIK
E	REVISE SPEC PER ECO 7205	5/8/15	J Kordik
F	ADD UL TO LABEL PER ECO 7330	10/12/15	J KORDIK
G	SPECS REVISED PER ECO 7510	10/12/15	J KORDIK
H	REVISE MOTOR OUTLINE ECO 7682	8/1/17	J KORDIK
I	BREAK CONTACT 170360-1, 8434	3/10/20	LEO. L

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

- A SHAFT SEAL IS SHIPPED WITH MOTOR, BUT NOT INSTALLED.
- TIMING LOGIC IS CCW AS VIEWED FROM FRONT SHAFT.
- MOTOR IS IP65, EXCEPT SHAFT OPENING AND CABLE CONNECTOR.
- INSTALL INDOORS, AWAY FROM DIRECT SUNLIGHT, FLAMMABLE AND CORROSIVE GASES.
- 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.

TOLERANCES	THIRD ANGLE PROJECTION
DECIMALS: MM (INCH) X.XXX = ±0.013 (.005) X.XX = ±0.25 (.01) X.X = ±2.5 (0.1)	
ANGLES: MACH. = ±.5° CHAM. = ±.5°	APPROVALS DRAWN R.JONEZ CHECKED K.KESLER APPROVED
COMPUTER DATA BASE DRAWING	DATE 6/6/14 6/9/14

**APPLIED MOTION PRODUCTS, INC.**

**AC SERVO MOTOR WITH ENCODER AND BRAKE**

DWG NO. **J0100-351-3-000** REV **I**

SCALE: NONE SHEET 1 OF 2

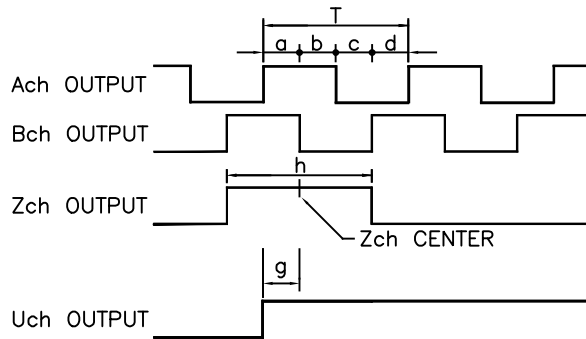
**AC SERVO MOTOR SPECIFICATION – PERMANENT MAGNET 8 POLES**

INPUT POWER SUPPLY	VAC	120
RATED OUTPUT	W	100
VOLTAGE CONSTANT	V(rms)/K(rpm)±10%	12
RATED WINDING CURRENT	A (rms)	1.65
PEAK WINDING CURRENT	A (rms)	4.95
WINDING RESISTANCE	V ±10%@20°C	4.9 LINE-TO-LINE
WINDING INDUCTANCE	mH ±20%	5.9 LINE-TO-LINE
RATED TORQUE	Nm(kgf-cm)	0.32(3.26)
PEAK TORQUE	Nm(kgf-cm)	0.92(9.38)
TORQUE CONSTANT	Nm/A(rms)±10%	0.195
RATED SPEED	rpm/min	3000
MAXIMUM SPEED	rpm/min	6000
WEIGHT WITH STD ENCODER	kg (lbs)	0.8 (1.8)
INSULATION CLASS		B 130°C
ENCODER RESOLUTION		2500 LINES/REV.
SHAFT LOAD – AXIAL	N(MAX)	50 N/11LB
SHAFT LOAD – RADIAL	N(MAX)	60 N/13.5LB
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>	0.00000522

**6 BRAKE SPECIFICATIONS:**

RATED VOLTAGE	24VDC
RATED CURRENT	0.25A
RELEASE VOLTAGE	18.5 VDC MAX (at 20°C)
STATIC FRICTION TORQUE	.35 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)

**TIMING LOGIC / ENCODER SIGNALS**



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

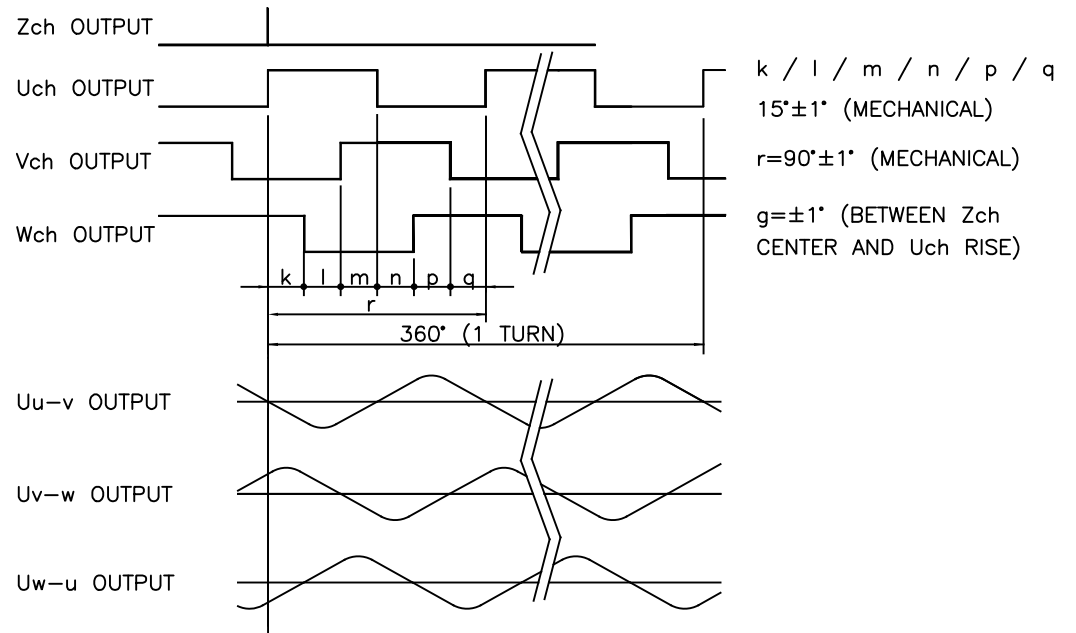
$a, b, c, d = T/4 \pm T/8$

$h = T \pm T/2$

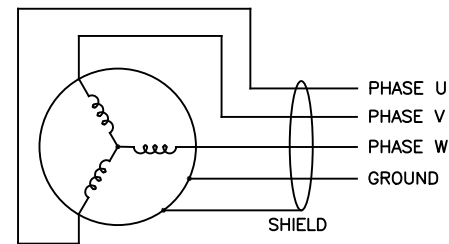
**TIMING LOGIC / ENCODER SIGNALS**


(NOT TO SAME SCALE AS OTHER DETAIL)

ALL TIMING IS WITH SHAFT TURNING CCW, VIEWED FROM FRONT.



k / l / m / n / p / q  
15°±1° (MECHANICAL)  
r=90°±1° (MECHANICAL)  
g=±1° (BETWEEN Zch CENTER AND Uch RISE)



CONTRACT NO.		 <b>APPLIED MOTION PRODUCTS, INC.</b>			
APPROVALS	DATE				
DRAWN <i>R. JONEZ</i>	6/6/14	<b>SERVO MOTOR SPECIFICATIONS</b>			
CHECKED <i>K. KESLER</i>	6/9/14				
APPROVED		B	FSCM NO.	DWG NO. J0100-351-3-000	REV 1
APPROVED			SCALE: NONE	SHEET 2 OF 2	