SERIAL NO. XXXXXXX
RATED SPEED: 3000 RPM
OUTPUT: 400 W
RATED TORQUE: 1.27 N-m
INPUT: 60VDC, 6.9 A
MADE IN CHINA
QR CODE
MODEL NO. J0400-355-4-000
3-PHASE AC SERVO MOTOR

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

300±50
3 PLCS

74 MAX

157.5±1
3±0.2

BLADE 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

ENVELOPE CONNECTION TABLE
<table>
<thead>
<tr>
<th>PIN</th>
<th>LEAD COLOR</th>
<th>SIGNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RED</td>
<td>+5V</td>
</tr>
<tr>
<td>2</td>
<td>BLACK</td>
<td>GROUND</td>
</tr>
<tr>
<td>3</td>
<td>BROWN</td>
<td>U</td>
</tr>
<tr>
<td>4</td>
<td>BROWN/BK</td>
<td>U-</td>
</tr>
<tr>
<td>5</td>
<td>GRAY</td>
<td>V+</td>
</tr>
<tr>
<td>6</td>
<td>GRAY/BK</td>
<td>V-</td>
</tr>
<tr>
<td>7</td>
<td>WHITE</td>
<td>W+</td>
</tr>
<tr>
<td>8</td>
<td>WHITE/BK</td>
<td>W-</td>
</tr>
<tr>
<td>9</td>
<td>BLUE/BK</td>
<td>A+</td>
</tr>
<tr>
<td>10</td>
<td>BLUE</td>
<td>A-</td>
</tr>
<tr>
<td>11</td>
<td>GREEN</td>
<td>B+</td>
</tr>
<tr>
<td>12</td>
<td>GREEN/BK</td>
<td>B-</td>
</tr>
<tr>
<td>13</td>
<td>YELLOW</td>
<td>Z</td>
</tr>
<tr>
<td>14</td>
<td>YELLOW/BK</td>
<td>Z-</td>
</tr>
<tr>
<td>15</td>
<td>SHIELD</td>
<td>SHIELD</td>
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MOTOR CONNECTION TABLE
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<tr>
<th>PIN</th>
<th>LEAD COLOR</th>
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<td>1</td>
<td>RED</td>
<td>PHASE U</td>
</tr>
<tr>
<td>2</td>
<td>YELLOW</td>
<td>PHASE V</td>
</tr>
<tr>
<td>3</td>
<td>BLUE</td>
<td>PHASE W</td>
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<tr>
<td>4</td>
<td>YELLOW/GN</td>
<td>GROUND</td>
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</tbody>
</table>

BRAKE CONNECTION TABLE
<table>
<thead>
<tr>
<th>PIN</th>
<th>LEAD COLOR</th>
<th>SIGNAL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>RED</td>
<td>BRAKE</td>
</tr>
<tr>
<td>2</td>
<td>BLACK</td>
<td>BRAKE</td>
</tr>
</tbody>
</table>

NOTES: UNLESS OTHERWISE SPECIFIED
1. SHAFT SEAL IS SHIPPED WITH MOTOR, BUT NOT INSTALLED.
2. TIMING LOGIC IS COW AS VIEWED FROM FRONT SHIELD.
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.

TOLERANCES
DECIMALS: MM (INCH)
X.XXX±0.013(0.005)
X.X = ±0.25 (0.1)
ANGLES:
MACH. = ±5'
CHAM. = ±5'

AC SERVO MOTOR
WITH ENCODER AND BRAKE

APPROVALS
DRAWN: AJONES
CHECKED: AJONES
APPROVED: F
AC SERVOMOTOR SPECIFICATION - PERMANENT MAGNET 8 POLES

INPUT POWER SUPPLY: VAC 60VCC
RATED OUTPUT: W 400
VOLTAGE CONSTANT: V(\text{rms})/K(\text{rpm})\pm10\% 19.3
RATED WINDING CURRENT: A (\text{rms}) 6.9
PEAK WINDING CURRENT: A (\text{rms}) 20.7
WINDING RESISTANCE: \Omega 0.15\pm0.02\Omega \text{RMS LINE-TO-LINE}
WINDING INDUCTANCE: \mu H \#30X 2 \text{LINE-TO-LINE}
RATED TORQUE: Nm (\text{kgf-cm}) 1.27(12.95)
PEAK TORQUE: Nm (\text{kgf-cm}) 3.8(38.75)
TORQUE CONSTANT: Nm/A(\text{rms})*10\% 0.184
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: kgm² 0.326X10⁻⁴

[Diagram of TIMING LOGIC / ENCODER SIGNALS]

15'\pm1' (MECHANICAL)
r=90'\pm1' (MECHANICAL)
g=\pm1' (BETWEEN Zch CENTER AND Uch RISE)

360' (1 TURN)

[Diagram of PHASE Diagram]

**NOT TO SAME SCALE AS OTHER DETAIL**

**BRAKE SPECIFICATIONS:**

RATED VOLTAGE: 24VDC
RATED CURRENT: 0.414A \text{ max} @24VDC
RELEASE VOLTAGE: 18.5 VDC Max (at 20\°C)
STATIC FRICTION TORQUE: 2 Nm
ENGAGE TIME: AT NOMINAL AIR GAP (\text{\textdegree}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**

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

\(T = \frac{2500 \text{C/T}}{a, b, c, d = T/4 \pm T/8}

h = T \pm T/2\)