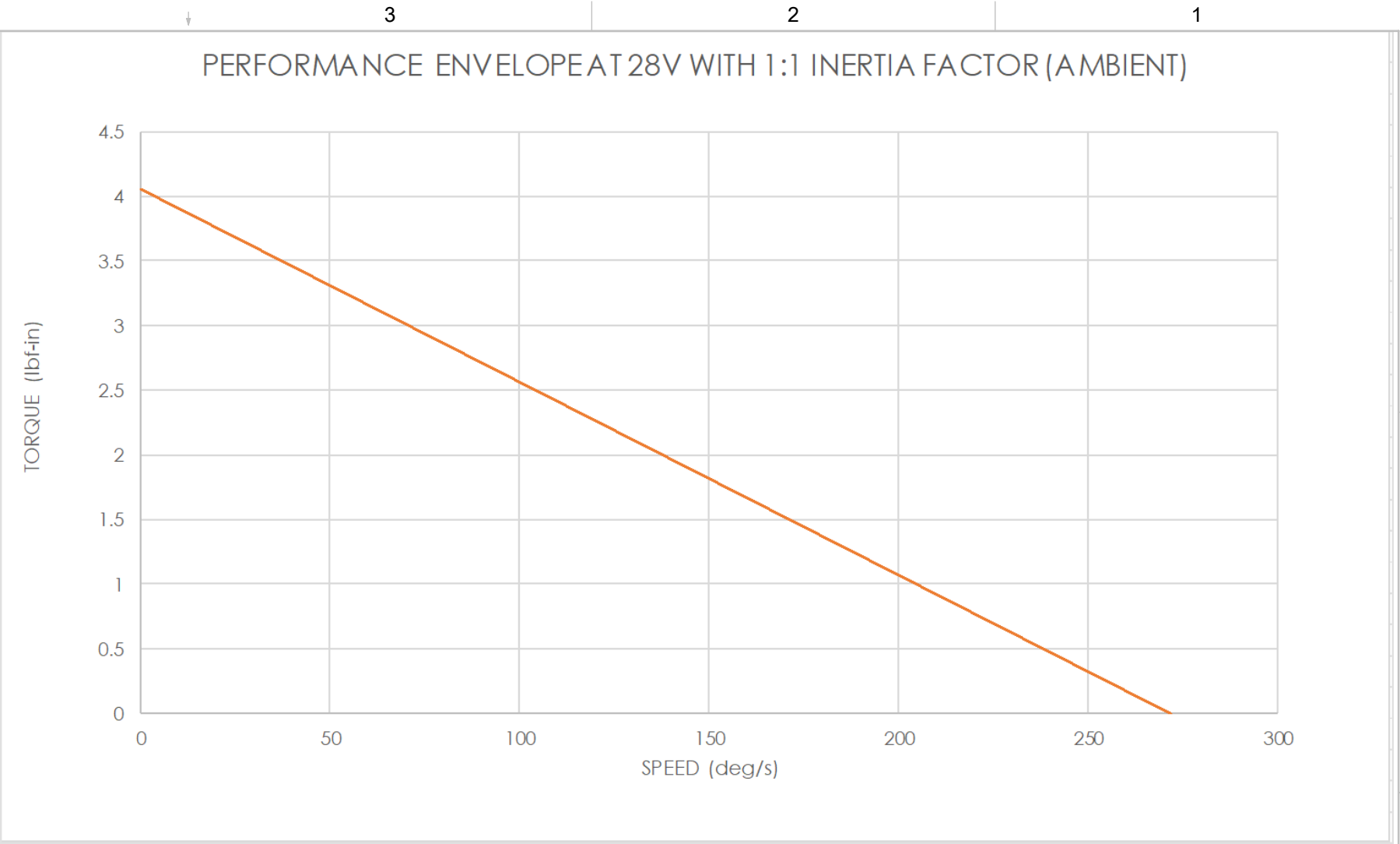
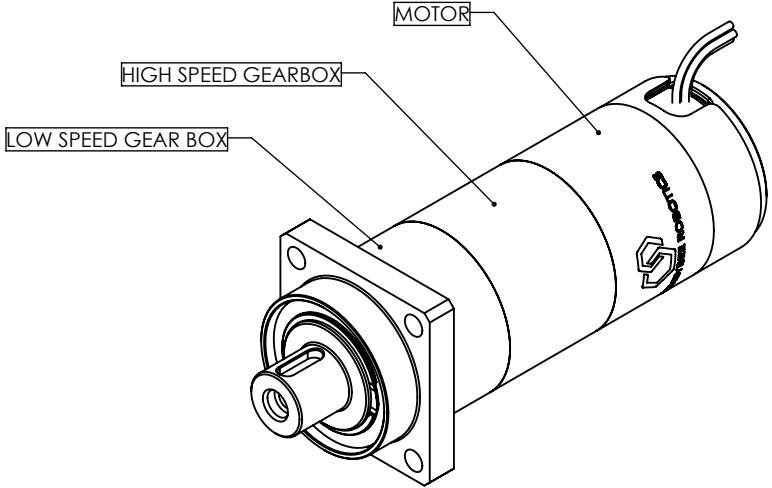
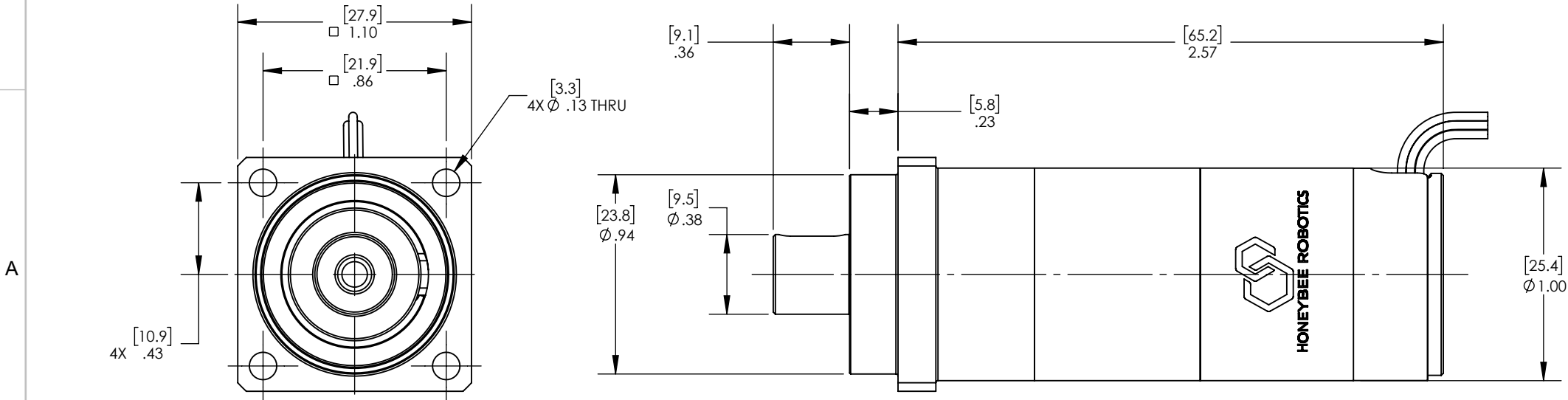


|   |                                         |                                                                          |
|---|-----------------------------------------|--------------------------------------------------------------------------|
| D | MECHANICAL PARAMETERS                   |                                                                          |
|   | FRAME SIZE                              | C                                                                        |
|   | OVERALL LENGTH                          | in [mm] 3.15 [80.1]                                                      |
|   | NOMINAL OD                              | in [mm] 1.00 [25.4]                                                      |
|   | MASS                                    | lbm [kg] 0.45 [0.2]                                                      |
|   | OPERATIONAL PARAMETERS                  |                                                                          |
|   | DRIVE TYPE                              | 2 PHASE - BIPOLAR                                                        |
|   | PHASES                                  | # 2                                                                      |
|   | NUMBER OF POLE PAIRS                    | - 3                                                                      |
|   | FULL STEP SIZE                          | DEG [RAD] 0.83 [0.014]                                                   |
| C | NO LOAD RESPONSE RATE<br>FULL STEP MODE | PULSES/S 326                                                             |
|   |                                         | DEG/S [RAD/S] 271 [4.72]                                                 |
|   | TORQUE AT LOW PULSE RATE                | lbf-in [N·m] 4.05 [0.45]                                                 |
|   | POWERED HOLDING TORQUE                  | lbf-in [N·m] 5.73 [0.65]                                                 |
|   | UNPOWERED HOLDING                       | lbf-in [N·m] 1.2 [0.135]                                                 |
|   | OPERATING TEMPERATURE RANGE             | °C -60 TO 100                                                            |
|   | SURVIVAL TEMPERATURE RANGE              | °C -80 TO 200                                                            |
|   | MOTOR WINDING PARAMETERS                |                                                                          |
|   | ROTOR INERTIA                           | oz-in-s <sup>2</sup> x10 <sup>-3</sup> [g·cm <sup>2</sup> ] 0.038 [2.71] |
|   | PHASE RESISTANCE                        | Ω 144 - 176                                                              |
| → | PHASE INDUCTANCE                        | mH 42                                                                    |
|   | GEARBOX PARAMETERS                      |                                                                          |
|   | GEARBOX TYPE                            | PLANETARY                                                                |
|   | REDUNDANCY                              | SIMPLEX                                                                  |
|   | GEAR REDUCTION                          | 36:1                                                                     |
|   | NUMBER OF STAGES                        | 2                                                                        |
|   | TYPICAL BACKLASH                        | DEG 1.25                                                                 |



- NOTES:
1. ASSUMING 1:1 INERTIA FACTOR (REFLECTED DRIVEN INERTIA/ROTOR INERTIA). CONTACT HBR FOR INERTIA FACTORED RESPONSE RATE.
  2. PERFORMANCE AND TEMPERATURE OPERATIONAL ENVELOPES ARE DEPENDENT ON DUTY CYCLE, THERMAL BOUNDARY CONDITIONS, MOTOR POWER LOSSES AND DERATING REQUIREMENTS OF THE APPLICATION. CONTACT HONEYBEE ROBOTICS FOR EVALUATION UNDER SPECIFIC CONDITIONS.
  3. STEP FILE ATTACHED TO PDF.



|                                                                                                                                                                                                                                                                  |  |                                                         |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------|--|
| UNLESS OTHERWISE NOTED:<br>DIMENSIONS ARE IN INCHES<br>(CRITICAL DIMENSION)<br>CALL FEATURE CONTROL FRAME<br>INTERPRET DRAWING PER ASME Y14.5-2018<br>LINEAR TOLERANCES:<br>.X ±.05<br>.XX ±.01<br>.XXX ±.005<br>CRITICAL<br>ANGULAR TOLERANCES:<br>±0.5 DEGREES |  | SURFACE<br>ROUGHNESS<br>63/<br>MICROINCHES<br>OR BETTER |  |
| HONEYBEE ROBOTICS                                                                                                                                                                                                                                                |  | PROJECT TITLE<br>STANDARD PRODUCT DATA SHEETS           |  |
| PART NUMBER<br>560-101-0052                                                                                                                                                                                                                                      |  | REVISION<br>C                                           |  |
| PART DESCRIPTION<br>C-SIZE STEPPER, 2-PHASE, 36:1                                                                                                                                                                                                                |  | CAGE CODE 8DSS5   SHEET SIZE B   SHEET 1 OF 1           |  |