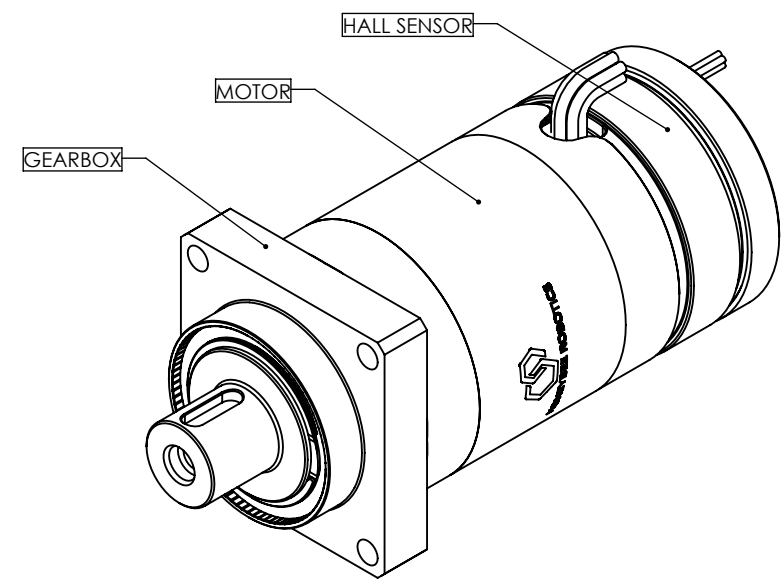
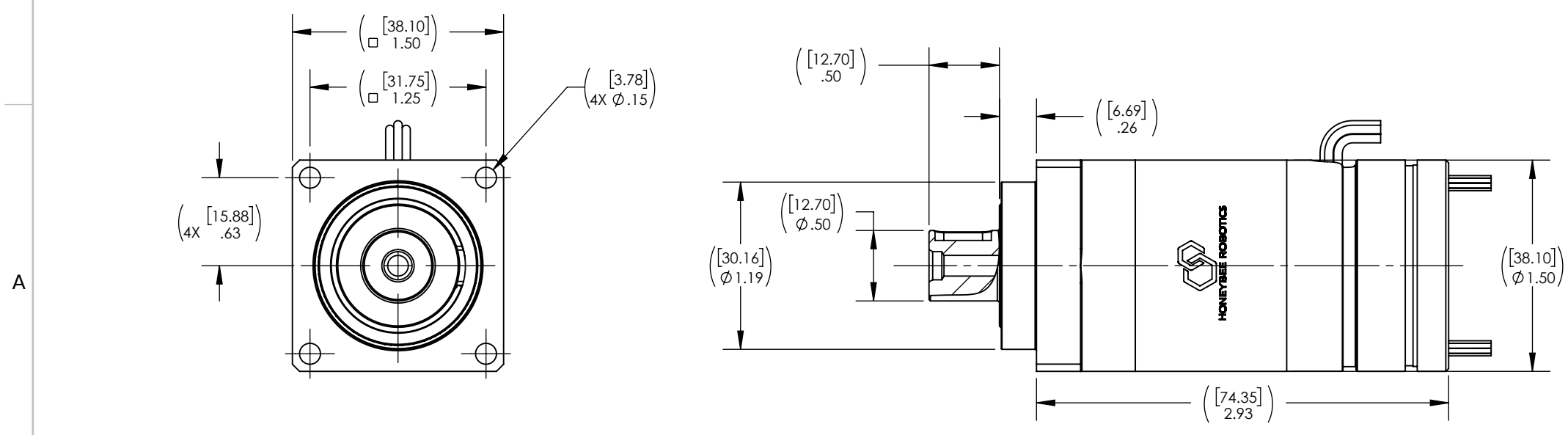
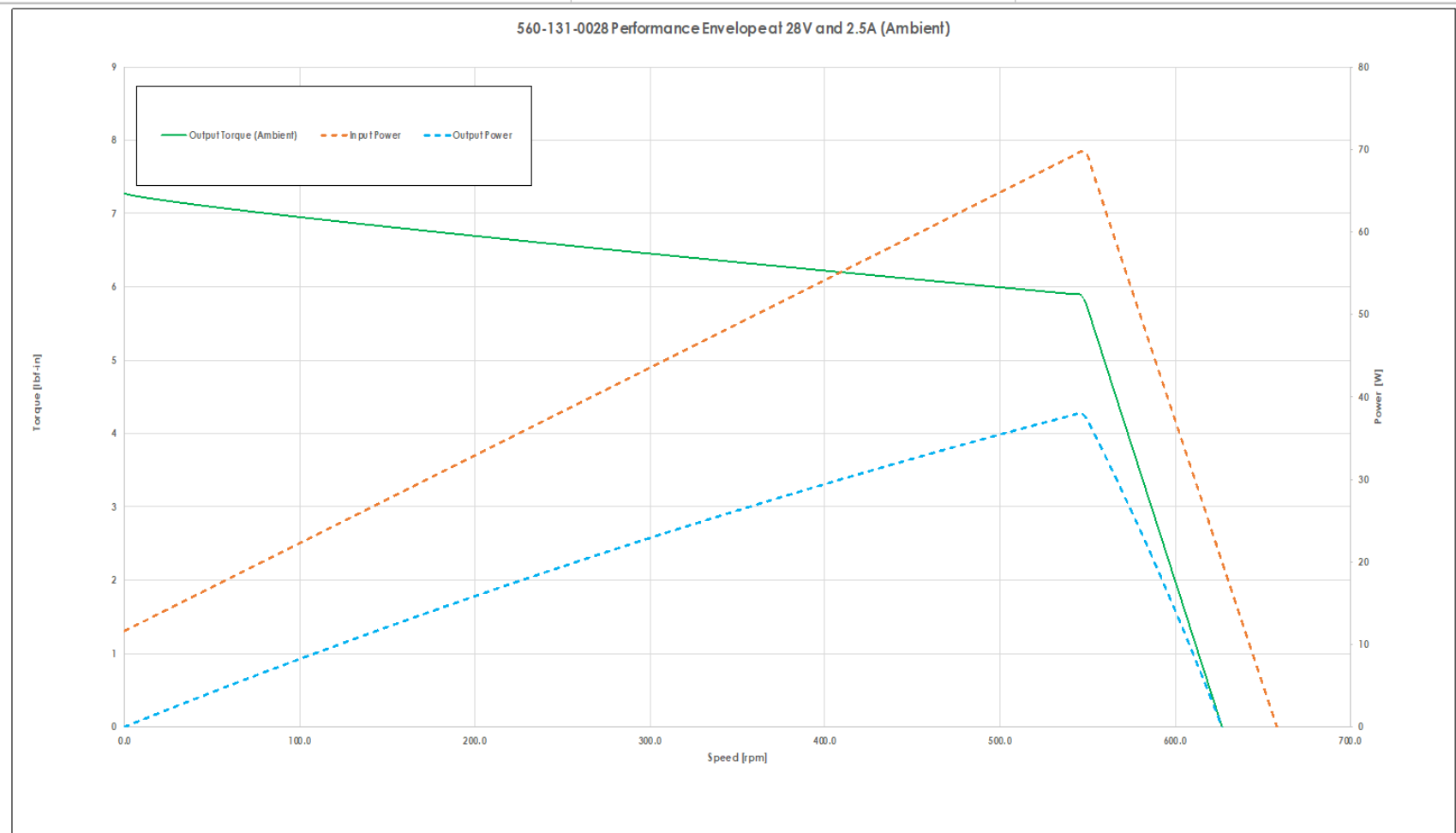


6	5	4
MECHANICAL PARAMETERS		units
FRAME SIZE	-	F
MASS	lbm [kg]	1.1 [0.5]
ROTOR INERTIA	$\text{oz-in-sec}^2 \times 10^{-3}$ [g·cm ²]	0.317 [22.4]
OPERATING TEMPERATURE RANGE	°C	-60 TO +200
MOTOR PARAMETERS		
DRIVE TYPE	-	3 PHASE - TRAPEZOIDAL (6-STEP)
NUMBER OF PHASES	-	3
NUMBER OF POLE PAIRS	-	2
REDUNDANCY	-	REDUNDANT
NO LOAD SPEED ¹	RPM	625.0
STALL TORQUE ²	lbf-in [N·m]	7.3 [0.8]
STEADY STATE CURRENT LIMIT ²	A	2.5
BACK EMF CONSTANT ⁴	V _{peak} /rad/sec	0.038
TORQUE CONSTANT ^{4,5}	lbf-in/A _{peak} [N·m/A _{peak}]	0.34 [0.038]
MOTOR CONSTANT ⁴	lbf-in/sqrt(W) [N·m/sqrt(W)]	0.23 [0.026]
RESISTANCE ³	Ohms	1.6 - 2.7
INDUCTANCE ³	mH	0.5 - 0.8
MAXIMUM ALLOWABLE WINDING TEMPERATURE	°C	200
COMMUTATION SENSOR PARAMETERS		
SENSOR TYPE	-	HALL EFFECT SENSOR
REDUNDANCY	-	REDUNDANT
EXCITATION FREQUENCY	kHz	N/A
EXCITATION VOLTAGE	V _{rms}	4.5-24 (SUPPLY VOLTAGE)
GEARBOX PARAMETERS		
GEARBOX TYPE	-	PLANETARY
GEAR REDUCTION	-	10.67:1
NUMBER OF STAGES	-	1
TYPICAL MECHANICAL EFFICIENCY	%	90
TYPICAL BACKLASH	DEGREES	1.25

- NOTES:
1. ASSUMING 28 VDC BUS VOLTAGE AT 22°C. CONTACT HBR FOR PERFORMANCE AT OTHER VOLTAGES AND TEMPERATURES.
 2. CURRENT LIMIT AND STALL TORQUE DERATED TO GEARBOX LOAD CAPACITY LIMITS, EEE-INST-0002 OR ELECTROMAGNETIC SATURATION. ACTUAL RMS CURRENT LIMIT AND STALL TORQUE WILL VARY BASED ON DUTY CYCLE AND INTERFACE TEMPERATURES. CONTACT HONEYBEE ROBOTICS FOR MORE INFORMATION.
 3. LINE TO LINE.
 4. AT MOTOR LEVEL.
 5. DERIVED FROM BACK-EMF CONSTANT.
 6. STANDARD OUTPUT SHAFT GEOMETRY. CONTACT HONEYBEE ROBOTICS FOR FURTHER OPTIONS.
 7. STEP FILE ATTACHED TO PDF.



UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES <small>(CRITICAL DIMENSION)</small>		
<small>(ALL FEATURE CONTROL FRAME)</small> INTERPRET DRAWING PER ASME Y14.5-2018 LINEAR TOLERANCES: .X ±.05 SURFACE .XX ±.01 ROUGHNESS .XXX ±.005 (XXX) CRITICAL ANGULAR TOLERANCES: ±0.5 DEGREES		
63 <small>OR BETTER</small>		PROJECT TITLE STANDARD PRODUCT DATA SHEETS
PART NUMBER 560-131-0028		REVISION A
PART DESCRIPTION F-SIZE BLDC (HALL), 3-PHASE REDUNDANT, 10.67:1		
CAGE CODE 8DSS5	SHEET SIZE B	SHEET 1 OF 1