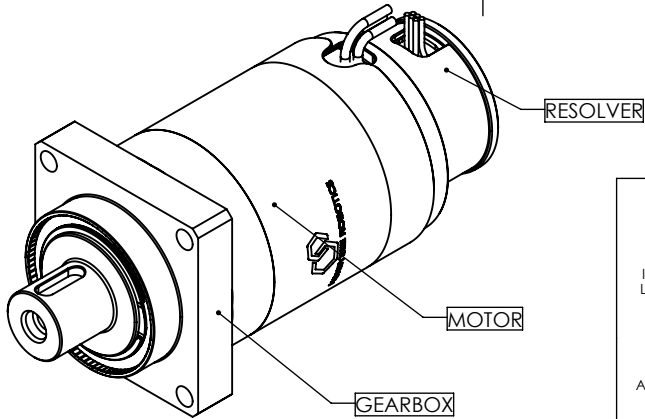
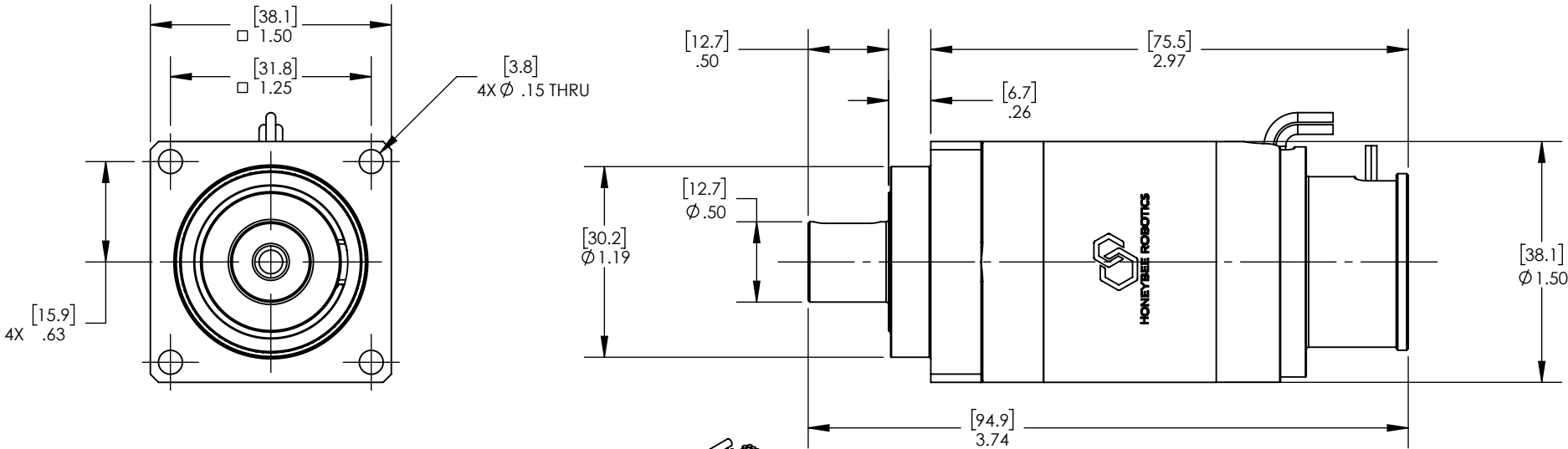
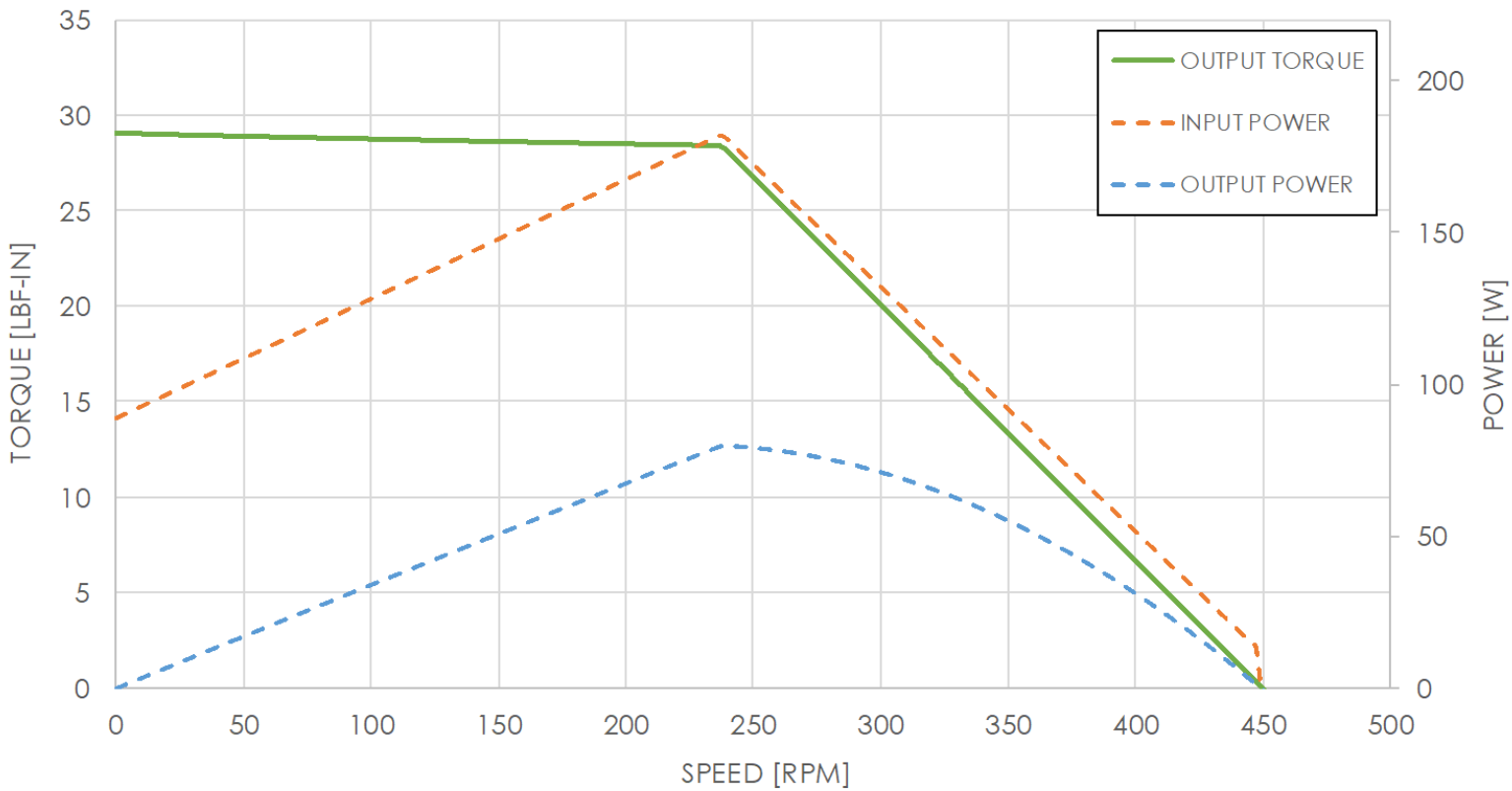


D	6	5	
	MECHANICAL PARAMETERS		
	FRAME SIZE	-	F
	OVERALL LENGTH	in [mm]	3.74 [94.9]
	NOMINAL OD	in [mm]	1.50 [38.1]
	MASS	lbm [kg]	1.10 [0.5]
	OPERATIONAL PARAMETERS		
	NOMINAL OPERATIONAL VOLTAGE	V _{DC}	28
	MAXIMUM ALLOWABLE CURRENT LIMIT	A _{DC}	6.5
	NO LOAD SPEED	RPM	450
C	STALL TORQUE	lbf-in [N·m]	29.0 [3.3]
	TORQUE LIMIT (10,000 CYCLE FATIGUE LIFE)	lbf-in [N·m]	24 [2.7]
	TORQUE LIMIT (1,000,000 CYCLE FATIGUE LIFE)	lbf-in [N·m]	4.7 [0.5]
	OPERATIONAL TEMPERATURE RANGE	°C	-60 TO 100
	SURVIVAL TEMPERATURE RANGE	°C	-80 TO 200
	MOTOR WINDING PARAMETERS		
	NUMBER OF PHASES	-	3
	NUMBER OF POLE PAIRS	-	2
	WINDING CONFIGURATION	-	SIMPLEX WYE WOUND
	ROTOR INERTIA	oz-in-s ² x10 ⁻³ [g·cm ²]	0.249 [17.6]
B	BACK-EMF CONSTANT	V _{PEAK} /rad/s	0.054
	TORQUE CONSTANT	lbf-in/A _{PEAK} [N·m/A _{PEAK}]	0.48 [0.054]
	MOTOR CONSTANT	lbf-in/√W [N·m/√W]	0.35 [0.039]
	RESISTANCE (LINE-LINE)	Ω	1.7 - 2.1
	INDUCTANCE (LINE-LINE)	mH	0.4 - 0.6
	COMMUTATION SENSOR PARAMETERS		
	SENSOR TYPE	-	VARIABLE RELUCTANCE RESOLVER
	REDUNDANCY	-	SIMPLEX
	EXCITATION FREQUENCY	kHz	20
	EXCITATION VOLTAGE	V _{RMS}	2.2
A	TRANSFORMATION RATIO (OUTPUT/INPUT)	-	0.3
	RESOLVER SPEED	-	2X
	GEARBOX PARAMETERS		
	GEARBOX TYPE	-	PLANETARY
	GEAR REDUCTION	-	10.7:1 (32:3)
NUMBER OF STAGES	-	1	
	TYPICAL BACKLASH	DEG	1.25

NOTES;

- 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.
- TORQUE-SPEED CURVE AND OPERATIONAL PARAMETERS ARE APPLICABLE FOR BOTH TRAPEZOIDAL AND SINE DRIVE TYPES
- STEP FILE ATTACHED TO PDF.

ACTUATOR AMBIENT PERFORMANCE ENVELOPE



UNLESS OTHERWISE NOTED: DIMENSIONS ARE IN INCHES (CRITICAL DIMENSION) (ALL FEATURE CONTROL FRAME) INTERPRET DRAWING PER ASME Y14.5-2018 LINEAR TOLERANCES: .X ±.05 .XX ±.01 .XXX ±.005 (XXX) CRITICAL ANGULAR TOLERANCES: ±0.5 DEGREES			SURFACE ROUGHNESS 63/ MICROINCHES OR BETTER		
HONEYBEE ROBOTICS			PROJECT TITLE STANDARD PRODUCT DATA SHEETS		
PART NUMBER 560-131-0029			REVISION B		
PART DESCRIPTION F-SIZE BLDC (RESOLVER), 3-PHASE, 10.67:1			CAGE CODE 8DSS5		
SHEET SIZE B			SHEET 1 OF 1		