

MODEL SHOWN:
3100RHT-SSKSN-9S01

3100 SERIES SUBSEA ROTARY ACTUATOR

GENERAL SPECIFICATIONS:

- OUTPUT TORQUE: UP TO 150 FT-LB PEAK (HT GEARING)
- OUTPUT SPEED: UP TO 150 RPM NO-LOAD (HS GEARING)
- INTEGRATED SERVO CONTROL AND MOTOR DRIVER
- INTERNAL PRESSURE COMPENSATOR
- OPTIONAL SPRING-ENGAGED, POWER-OFF BRAKE^[1]
- LED SHAFT POSITION INDICATOR RING
- STANDARD CONNECTOR: 9-PIN LOW-PROFILE WET-MATE CONNECTOR
- COMMUNICATION PHYSICAL LAYER OPTIONS: RS-232, RS-485, CAN, ETHERNET, ANALOG VOLTAGE CONTROL, AND ANALOG CURRENT CONTROL
- MAXIMUM RADIAL LOAD:
 - 200 LB WITH SHAFT CANTILEVERED, LOAD APPLIED AT END
 - 2000 LB WITH SHAFT SUPPORTED AT END
- OUTPUT SHAFT AXIAL LOAD: 350 LBF MAX
- AVAILABLE RIGHT-ANGLE GEARBOX. CONTACT 2G FOR DETAILS.

OPERATING ENVIRONMENT:

- DESIGNED FOR MISSION-CRITICAL SUBSEA USE
- PRESSURE-BALANCED OIL-FILLED HOUSING
- CORROSION RESISTANT HOUSING MATERIAL OPTIONS
 - STAINLESS STEEL, PASSIVATED
 - ALUMINUM, HARDCOAT ANODIZED
 - TITANIUM
- OPERATIONAL DEPTH RATING: >6000 METERS SEAWATER
- DESIGN PRESSURE: 10,000 psi
- OPERATING TEMPERATURE RANGE: -20°C TO 65°C
- STORAGE TEMPERATURE RANGE: -30°C TO 85°C
- OPERATING VOLTAGE:
 - 24 VDC STANDARD (12-55 VDC RANGE)
 - UP TO 400V AVAILABLE. CONTACT 2G.^[2]

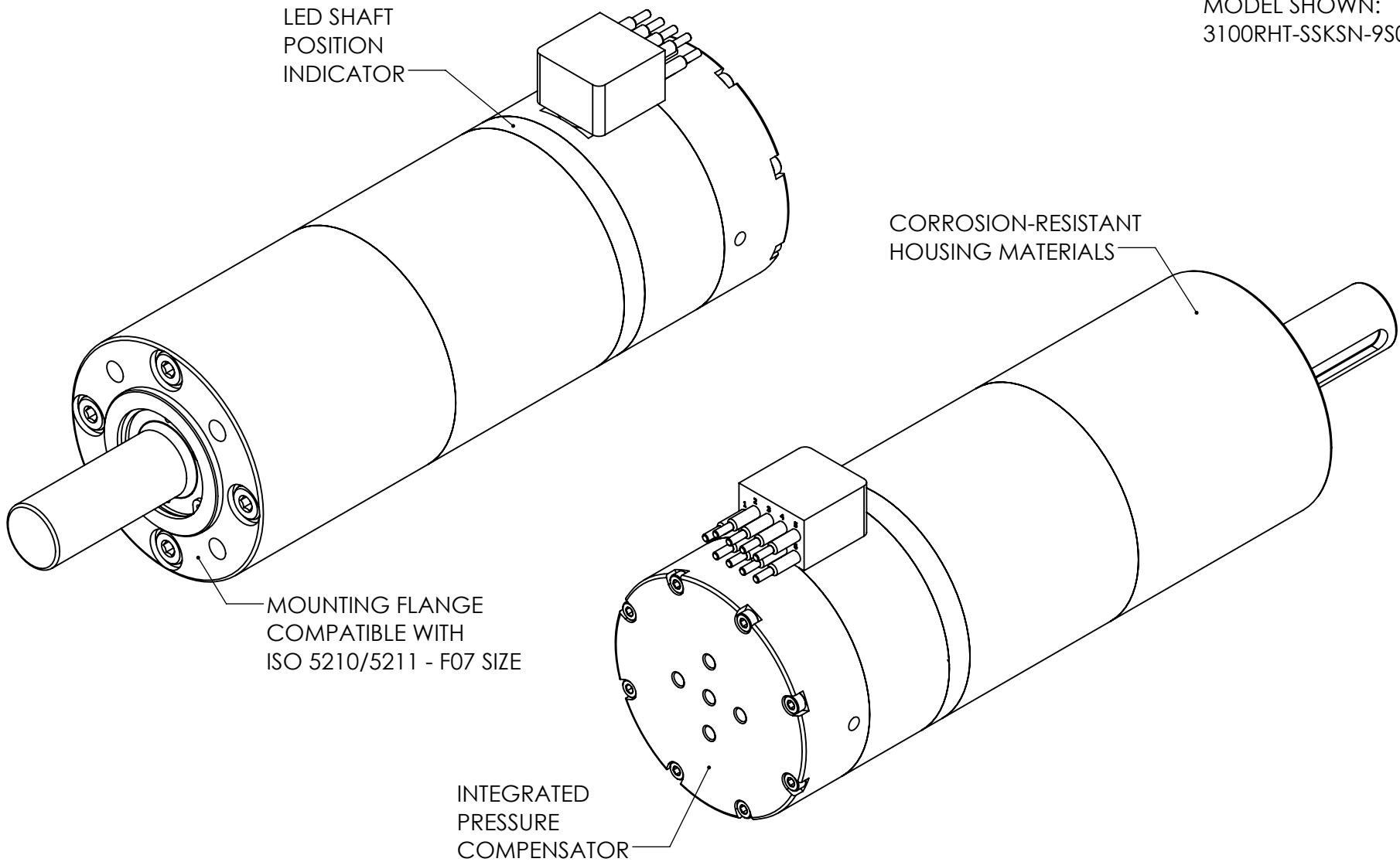
ONBOARD MOTOR DRIVER AND SERVO SYSTEM:

- CLOSED-LOOP POSITION CONTROL WITH PID TUNING
- CONFIGURABLE LIMITS FOR CURRENT, POWER, VELOCITY, AND ACCELERATION
- CONFIGURABLE MOTION PROFILE GENERATOR
- CONTACTLESS NON-WEARING ABSOLUTE POSITION SENSOR
- DOES NOT REQUIRE HOMING
- 0.002° RESOLUTION, 0.2° PRECISION, 1° ACCURACY
- COMMS PROTOCOL: MODBUS & 2G PACKETS
- DEFAULT BAUD RATE: 115200



2G ENGINEERING CAN CUSTOMIZE ANY ACTUATOR TO SUIT YOUR APPLICATION. CERTAIN OPTIONS MAY IMPACT DIMENSIONS, PERFORMANCE, AND LEAD TIME. CONTACT 2G TO CONFIRM SPECIFICATIONS FOR YOUR APPLICATION.

[1] BRAKE OPTION ADDS LENGTH. CONTACT 2G FOR DIMENSIONS.

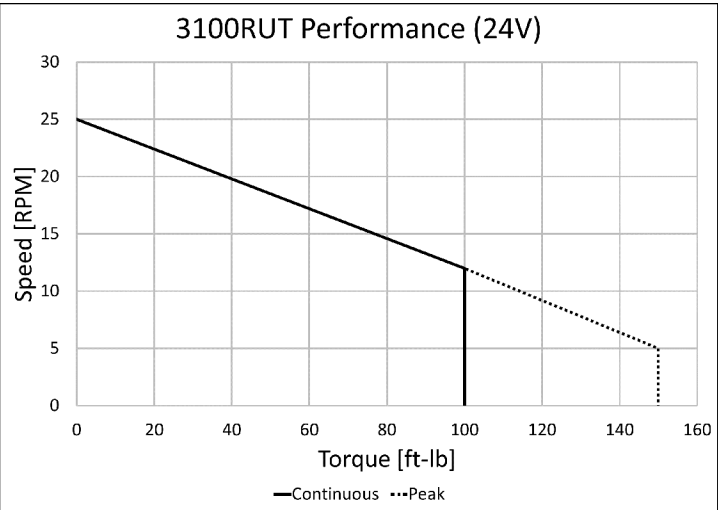
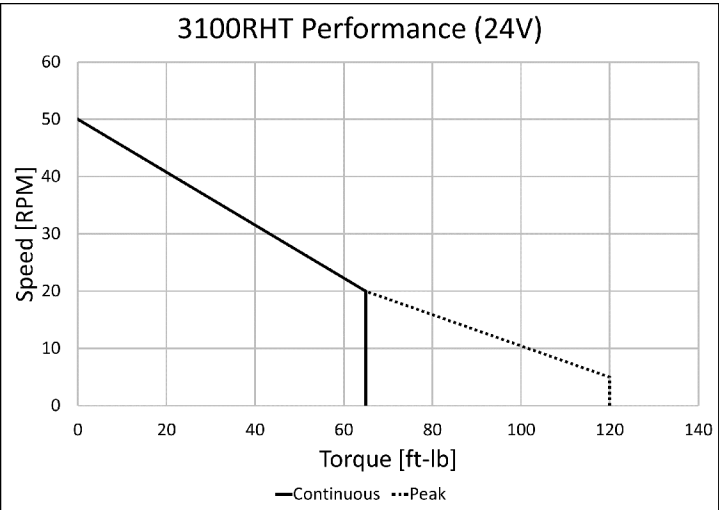
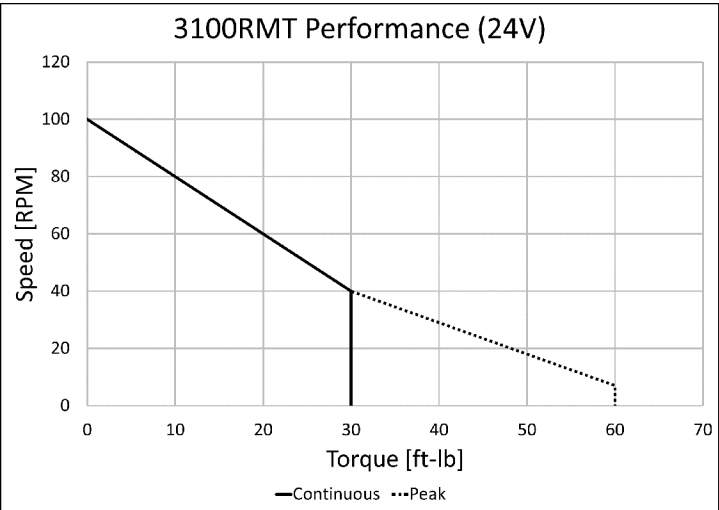
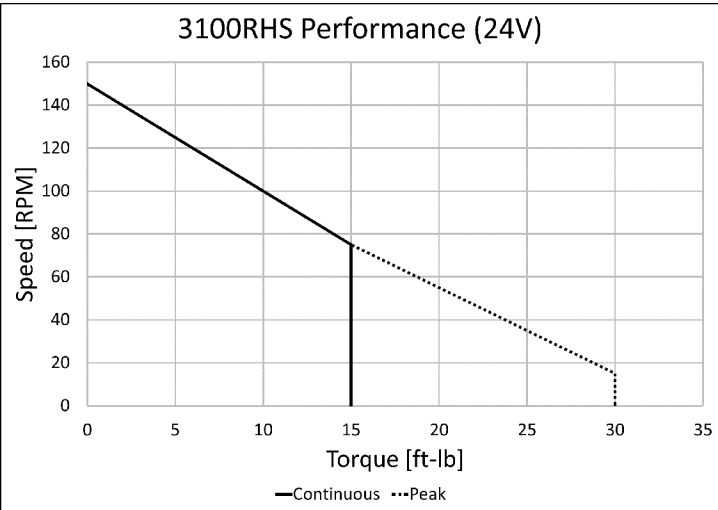
[2] DIMENSIONS & PERFORMANCE OF HIGH-VOLTAGE UNITS MAY DIFFER FROM STANDARD 24V UNITS. CONTACT 2G FOR DETAILS.



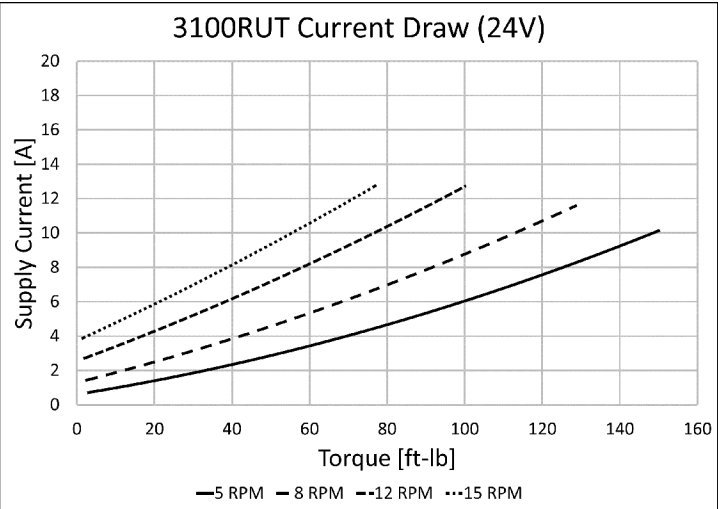
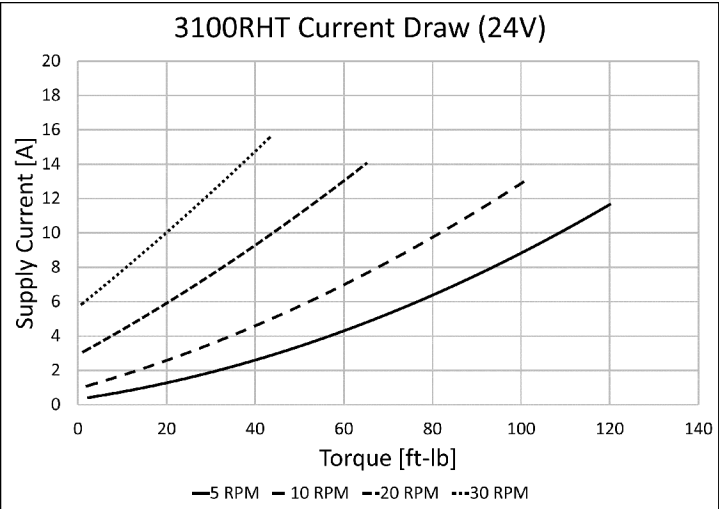
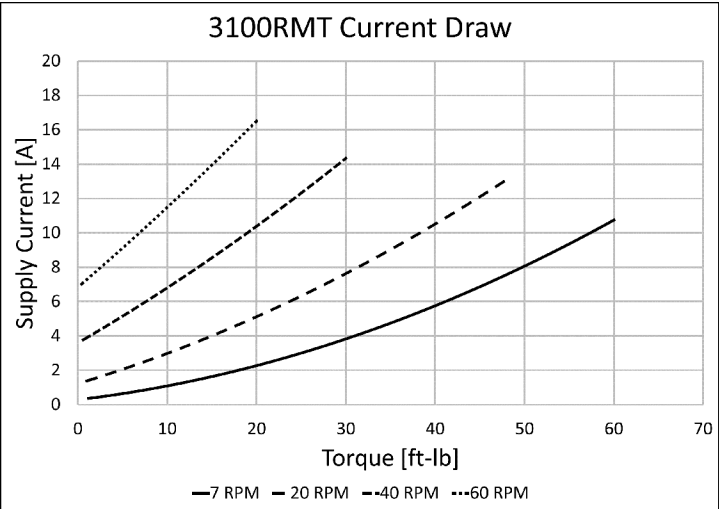
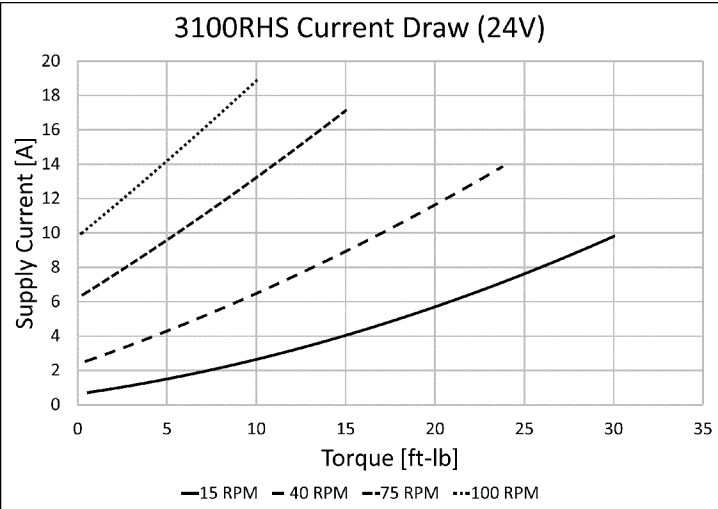
RATED TORQUE (24VDC)		
GEARING	CONTINUOUS	PEAK
-	ft-lb [Nm]	ft-lb [Nm]
HS	15 [11]	30 [22]
MT	30 [22]	60 [44]
HT	65 [48]	120 [89]
UT	100 [74]	150 [111]

MATERIAL: -	UNLESS OTHERWISE SPECIFIED: - DIMENSIONS ARE IN INCHES - DIMENSIONS IN [] ARE IN mm - TOLERANCES: DECIMALS: .X ±.05 .XX ±.015 .XXX ±.005 ANGULAR: MACHINED: ±0.5° OTHER: ±2° - THREAD DEPTHS ON TAPPED HOLES ARE MINIMUMS - TAP DRILL DIAMETERS ARE REFERENCE - MAX FILLET RADIUS ON INSIDE SHARP CORNERS: 0.005 - BREAK ALL SHARP EDGES 0.010 MAX AND REMOVE BURRS - SURFACE FINISH: ≤63 Ra (µin)	INITIALS	DATE	 2G ENGINEERING WWW.2G-ENG.COM 608-825-4799	TITLE: 3100 SERIES ROTARY ACTUATOR DRAWING PACK	DWG. NO. 3100R	REV. D
MATERIAL COMMENTS:		DRAWN DJF	09/01/2021				
FINISH:		APPROVED DJF	06/06/2022				
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF 2G ENGINEERING. ANY DISTRIBUTION OR REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF 2G ENGINEERING IS PROHIBITED.		SIZE B		SCALE: 1:2			
		INTERPRET GEOMETRIC DIMENSIONING & TOLERANCING PER ASME Y14.5-2009					

D



C




B

B

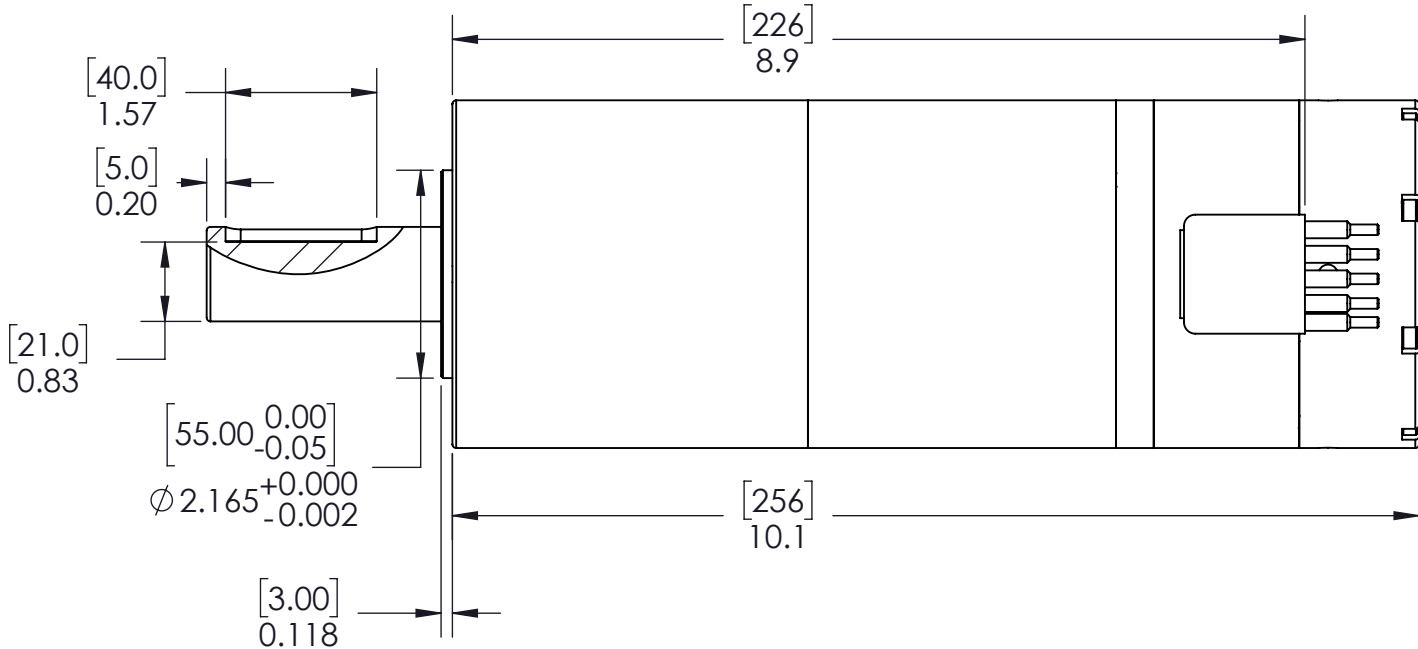
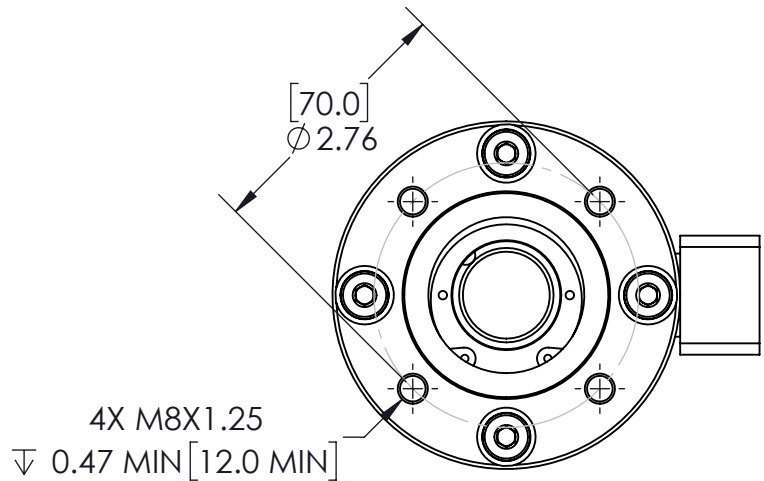
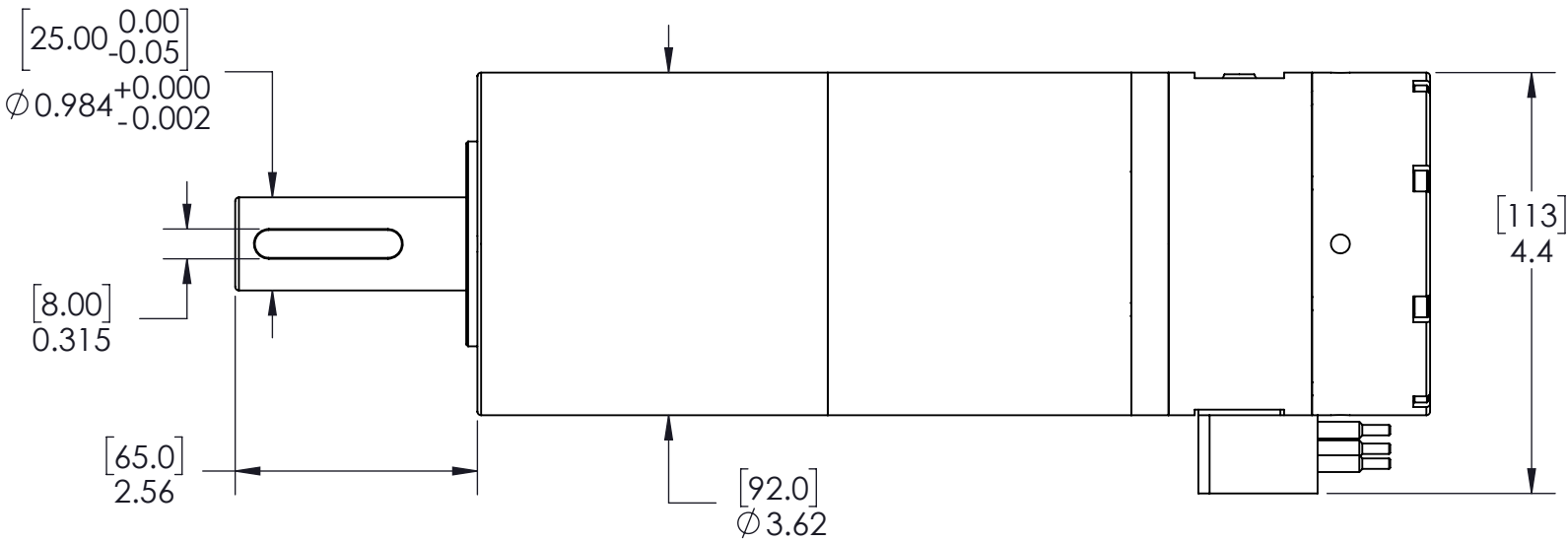
ALL CHARTS SHOW PERFORMANCE AT 24 VDC.
OPERATION AT OTHER VOLTAGES WILL IMPACT PERFORMANCE.

A


A

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		DRAWN DJF	09/01/2021				
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APPROXIMATE WEIGHTS	STAINLESS	ALUMINUM	TITANIUM
DRY/SURFACE	21 lbs 9.5 kg	14 lbs 6.4 kg	16 lbs 7.3 kg
WET/SUBMERGED	17 lbs 7.7 kg	10 lbs 4.5 kg	12 lbs 5.4 kg



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CERTAIN OPTIONS MAY IMPACT DIMENSIONS.
CONTACT 2G FOR COMPLETE DIMENSIONS AND 3D MODELS.

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FINISH:		SIZE B	THIRD ANGLE PROJECTION	INTERPRET GEOMETRIC DIMENSIONING & TOLERANCING PER ASME Y14.5-2009			
				SCALE: 1:2	SHEET 4 OF 4		