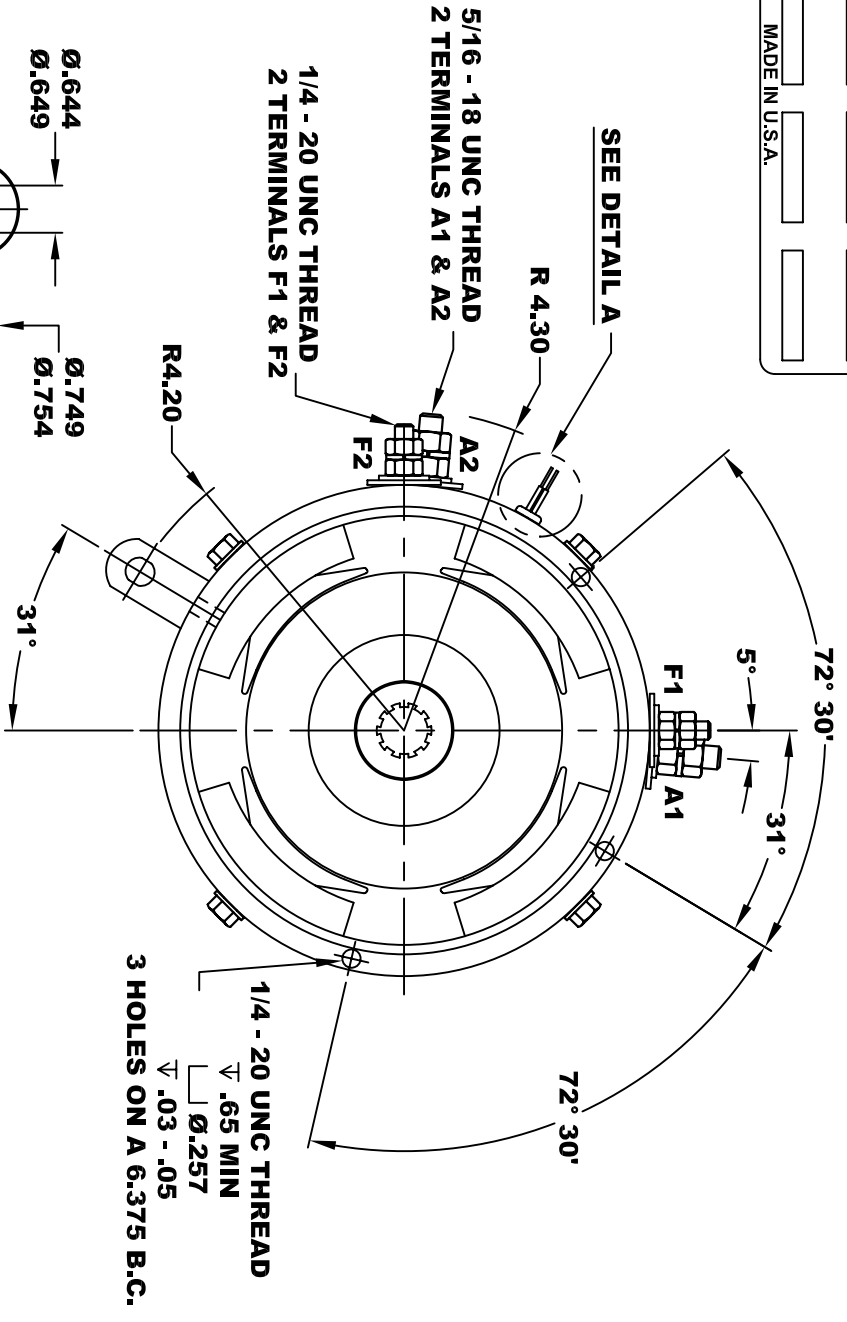
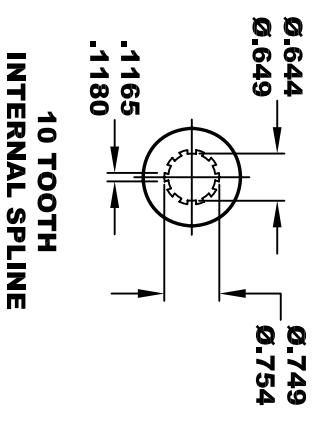
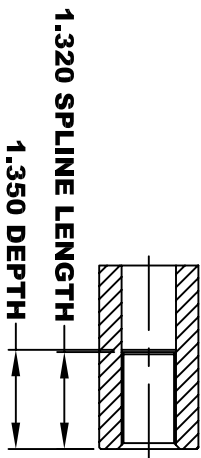
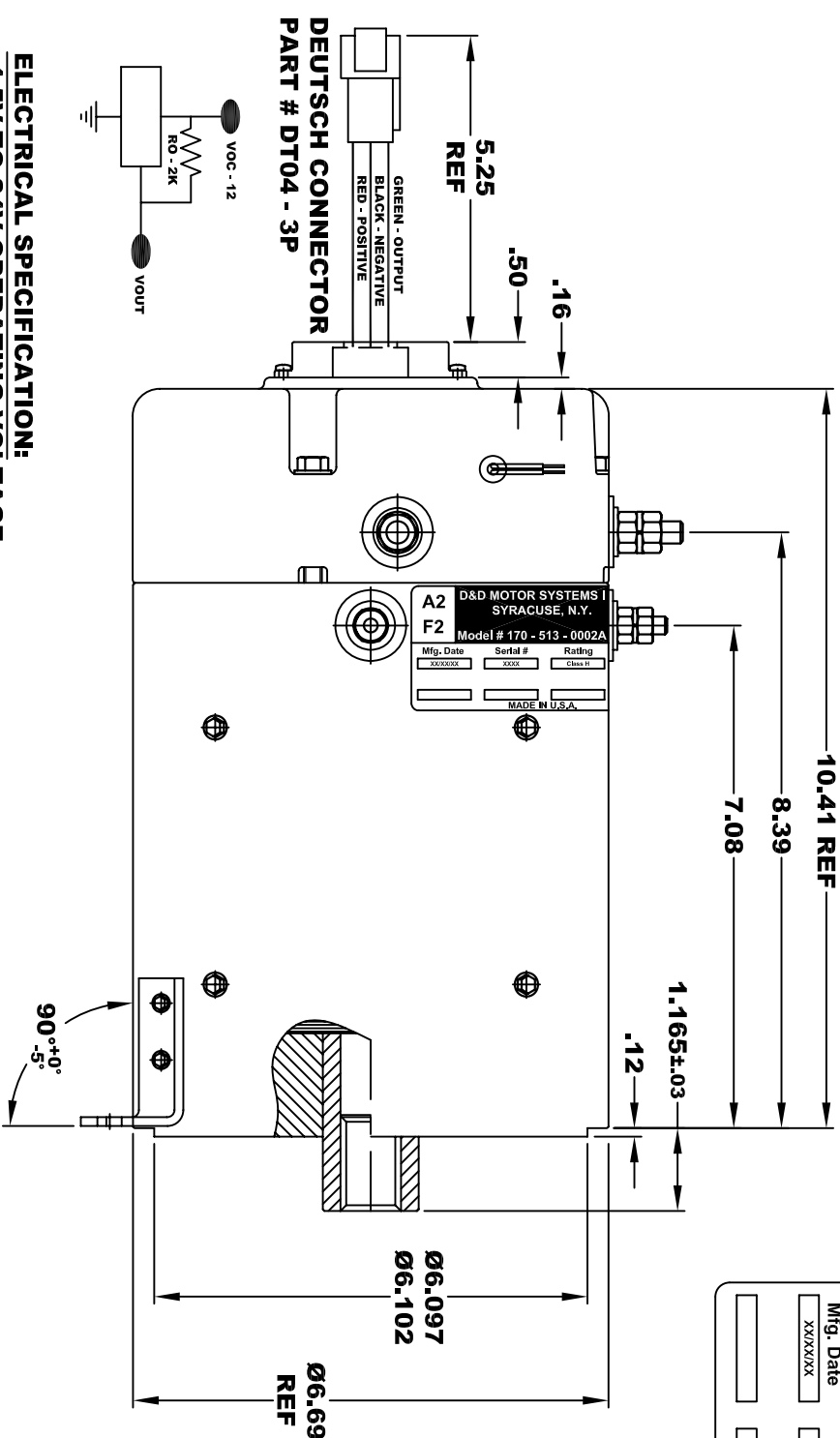


<b>D&amp;D MOTOR SYSTEMS INC.</b>			
<b>SYRACUSE N.Y.</b>			
<b>A2</b>	<b>A1</b>	<b>F2</b>	<b>F1</b>
<b>Model # 170 - 513 - 0002A</b>			
Mfg. Date XXXX/XX	Serial # XXXX	Rating CLASS - H	Voltage 80
MADE IN U.S.A.			

**TORQUE SPECIFICATION FOR  
POWER CABLE SECURING TOP NUTS**  
**5/16-18 UNC (A1 / A2) - 110 IN / LBS MAX**  
**1/4-20 UNC (F1 / F2) - 50 IN / LBS MAX**

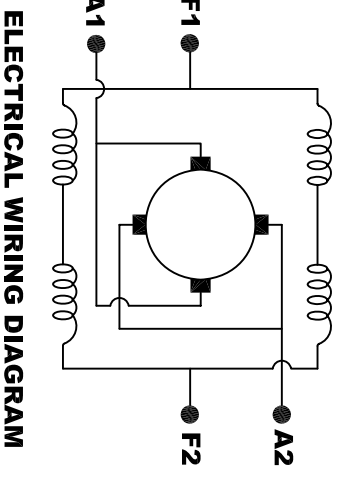


**THERMAL PROTECTOR ELECTRICAL SPECIFICATION:**  
**MAX. DC OPERATING VOLTAGE: 60 VOLTS**  
**140° C NORMALLY CLOSED SWITCH**

**DETAIL A**

**MOTOR WEIGHT 57 LBS**  
**CLASS "H" INSULATION**  
**PERFORMANCE SPEC: 50**

**ELECTRICAL SPECIFICATION:**  
**-4.5V TO 24V OPERATING VOLTAGE**  
**-20°C TO 85°C OPERATING TEMPERATURE**  
**-CURRENT SINKING UP TO 25ma**  
**-AN EXTERNAL OUTPUT PULL UP RESISTOR IS REQUIRED**  
**-SENSOR IS DESIGNED TO OPERATE WITH 4 N/S POLEPAIRS**  
**AND THE HOUSING, INCLUDING ANY RUNOUT**  
**SHOULD NOT EXCEED .030 INCHES**



**MOTOR WIRING CONNECTIONS:**  
**CW ROTATION DRIVE END**  
**CONNECT A1 & F1 TO ONE BATTERY TERMINAL**  
**CONNECT A2 & F2 TO OTHER BATTERY TERMINAL**  
**CCW ROTATION DRIVE END**  
**SWITCH F1 & F2 CONNECTIONS**

THIS PRINT IS THE PROPERTY OF D&D MOTOR SYSTEMS INC.  
 DO NOT SCALE  
 WORK TO DIMENSIONS  
 TOLERANCES UNLESS OTHERWISE SPECIFIED ARE AS FOLLOWS  
 .XX \_\_\_\_\_ .01  
 .XXX \_\_\_\_\_ .005  
 .XX ROUGH CASTING \_\_\_\_\_ .03  
 HOLES \_\_\_\_\_ -.001 / +.006  
 ANGLES \_\_\_\_\_ 0°30"

<b>D &amp; D MOTOR SYSTEMS INC</b>			
<b>MOTOR OUTLINE</b>			
SIZE	DRAWN DATE	RELEASE DATE	DWG NO. / PART NO.
B	9-28-09	9-28-09	170 - 513 - 0002A
SCALE	STF	DRAWN BY	MJG
			REV DATE