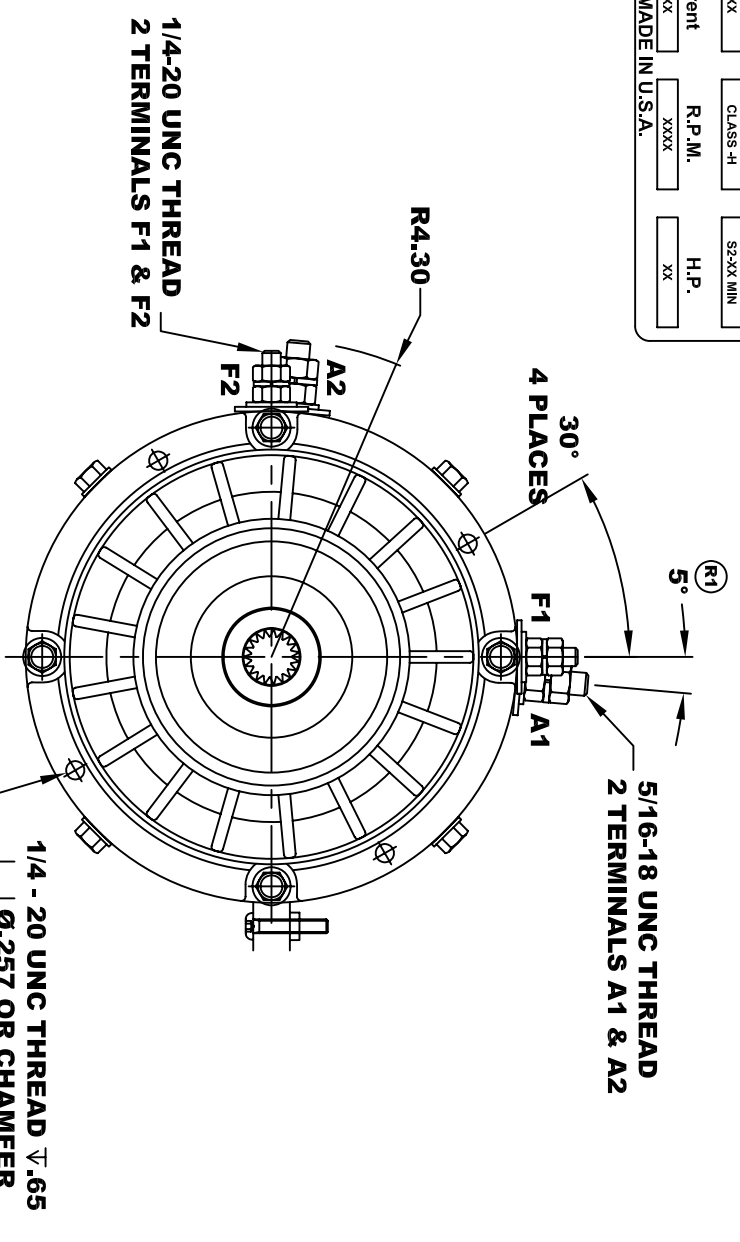
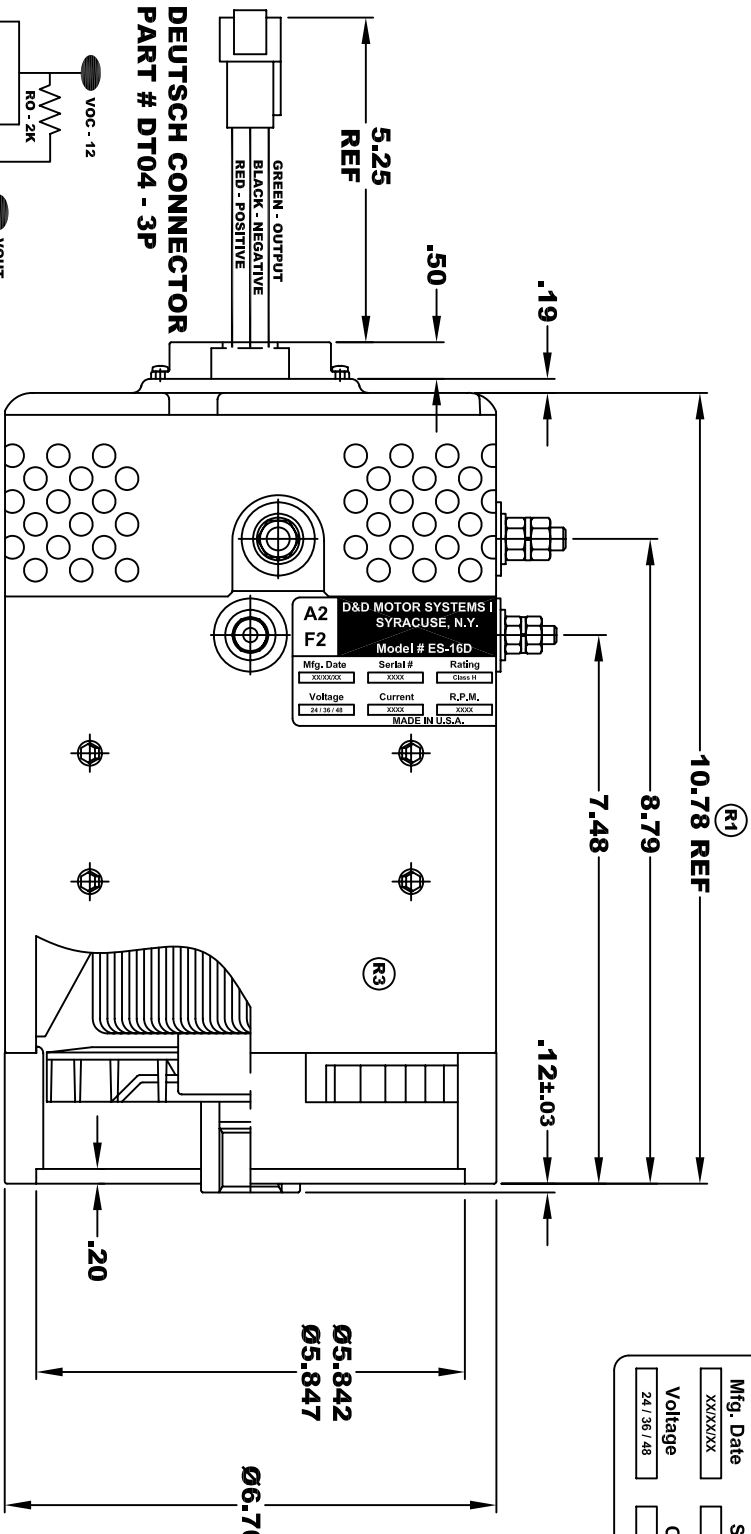
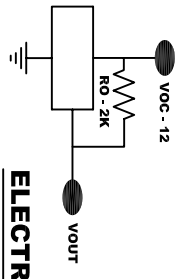


D&D MOTOR SYSTEMS INC.				A1	
SYRACUSE N.Y.				F1	
Model # ES-16D					
A2	F2	Mfg. Date	Serial #	Rating	Duty
		XX/XX/XX	XXXX	CLASS-H	S2-XX MIN
		Voltage	Current	R.P.M.	H.P.
		24 / 36 / 48	XXXX	XXXX	XX
MADE IN U.S.A.					

**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

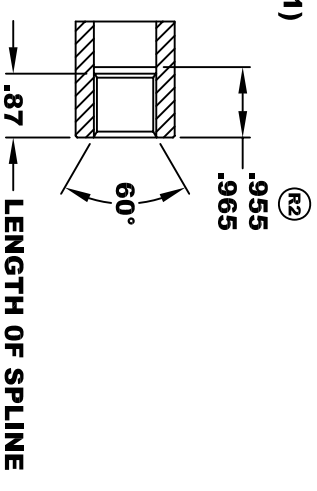


ELECTRICAL SPECIFICATION:
 -4.5V TO 24V OPERATING VOLTAGE
 -20°C TO 85°C OPERATING TEMPERATURE
 -CURRENT SINKING UP TO 25mA
 -AN EXTERNAL OUTPUT PULL UP RESISTOR IS REQUIRED
 -SENSOR IS DESIGNED TO OPERATE WITH 4 N/S POLEPAIRS
 -THE OPERATIONAL DISTANCE BETWEEN THE MAGNET
 -AND THE HOUSING, INCLUDING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

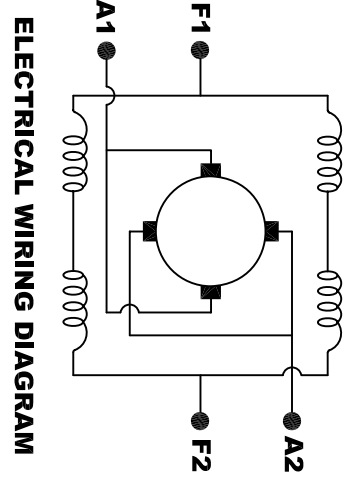


**INTERNAL INVOLUTE SPLINE SPECIFICATION
CLASS 5 FILLET ROOT SIDE FIT (PER A.N.S.I. B92.1)**

NO. OF TEETH	19
SPLINE PITCH	24 / 48
PRESSURE ANGLE	45°
BASE Ø	.5597 REF
PITCH Ø	.7916 REF
MAJOR Ø	.850 - .859
FORM Ø	.835
MINOR Ø	.767 - .772
CIRCULAR SPACE WIDTH	.0764
EFFECTIVE SPACE WIDTH	.0738
MAX. DIMENSION BETWEEN TWO PINS	.6714
PIN Ø	.0800
SPLINE HARDNESS TO BE R/C	26-34



**MOTOR WEIGHT 50 LBS
CLASS "H" INSULATION
PERFORMANCE SPEC: 5**



ELECTRICAL WIRING DIAGRAM

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"

D & D MOTOR SYSTEMS INC
MOTOR OUTLINE

SIZE	DRAWN DATE	RELEASE DATE	DWG NO. / PART NO.	REV
B	9-25-03		ES-16D	R3
SCALE	STF	DRAWN BY	MJG	REV DATE
				5-1-13