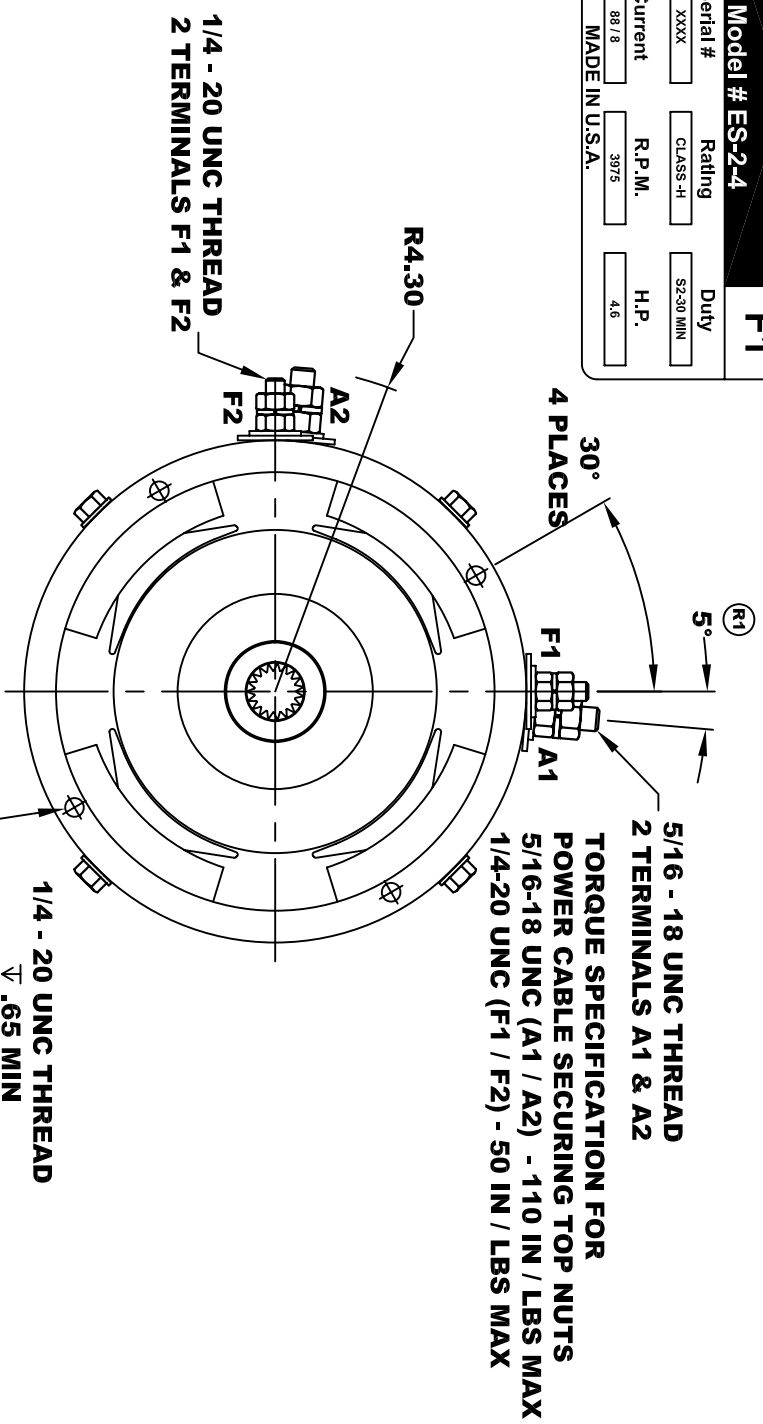
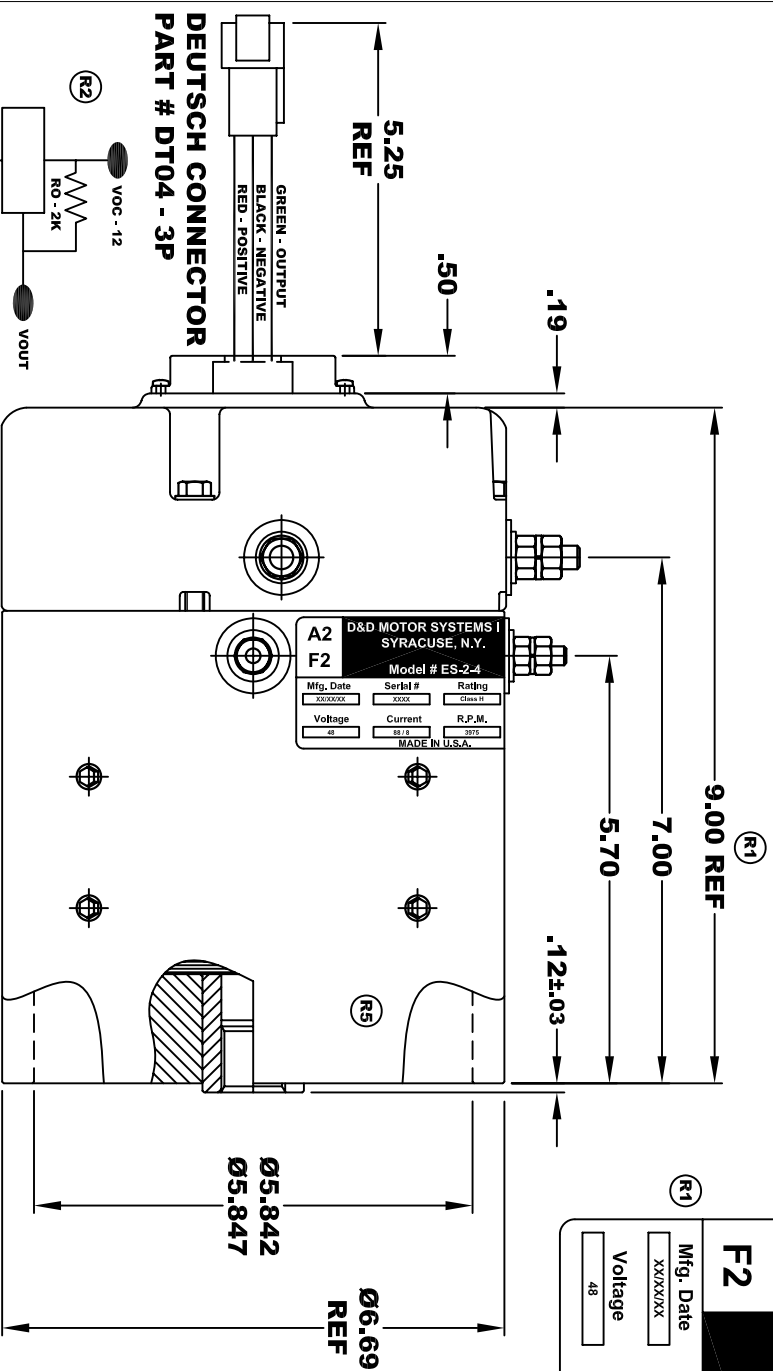


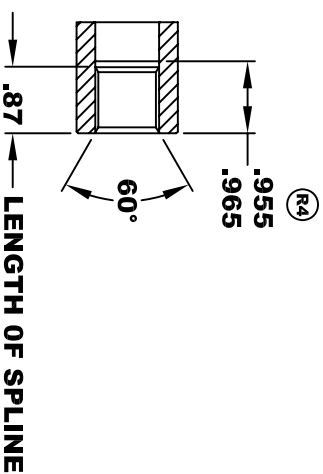
D&D MOTOR SYSTEMS INC.		A2	A1
SYRACUSE N.Y.		F2	F1
Model # ES-2-4			
Mfg. Date	Serial #	Rating	Duty
XXXXXX	XXXX	CLASS - H	52-30 MIN
Voltage	Current	R.P.M.	H.P.
48	88 / 8	3075	4.6
MADE IN U.S.A.			



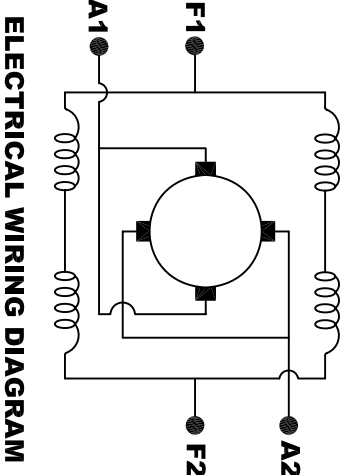
ELECTRICAL SPECIFICATION:
 -4.5V TO 24V OPERATING VOLTAGE
 -20°C TO 85°C OPERATING TEMPERATURE
 -CURRENT SINKING UP TO 25mA
 -AN EXTERNAL PULL UP RESISTOR IS REQUIRED
 -SENSOR IS DESIGNED TO OPERATE WITH 4 N/S POLEPAIRS
 THE OPERATIONAL DISTANCE BETWEEN THE MAGNET
 AND THE HOUSING, INCLUDING ANY RUNOUT
 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: 46 LBS
 CLASS "H" INSULATION
 PERFORMANCE SPEC: 4**



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

D & D MOTOR SYSTEMS INC

MOTOR OUTLINE

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"

SIZE	DRAWN DATE	RELEASE DATE	DWG NO. / PART NO.	REV
B	6-4-03		ES-2-4 (R3)	R5
SCALE	STF	DRAWN BY	MJG	REV DATE
				4-26-13