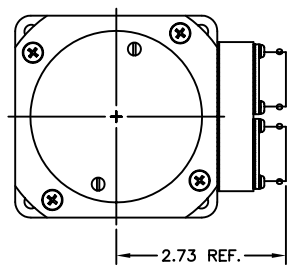
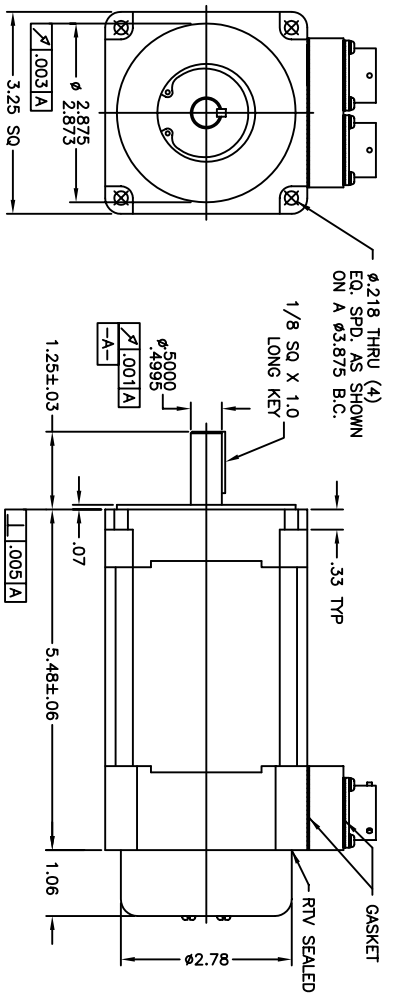
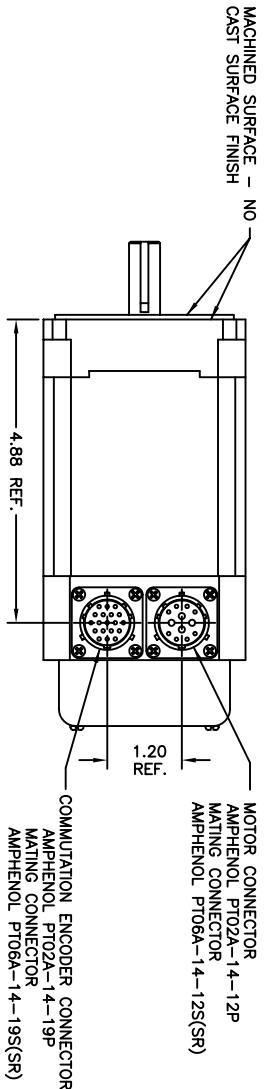


REV	DESCRIPTION/ECD NO.	DATE
A1	CORRECTED WINDING	11/10/04
A2	SYNCHRONIZED SIGNAL NAMES WITH CABLE	11/12/04
B	HIPOT INCREASED TO 2300V	1/10/05



COMMUTATION ENCODER CHARACTERISTICS

QUANTUM ED142-05/08-5000-8-01-11-01-02

INPUT OUTPUT 3 VDC ±5%

INPUT RIPPLE 2% PK-PK @ 500C

FREQUENCY RESPONSE 500 HZ

SYMMETRY SEPARATION 180° ±10% TYP.

COMMUTATION OSCILLATION ±4% ELECTRICAL

OPERATING TEMPERATURE -40 TO 100°C

RESOLUTION 5000 LINES, W/INDEX

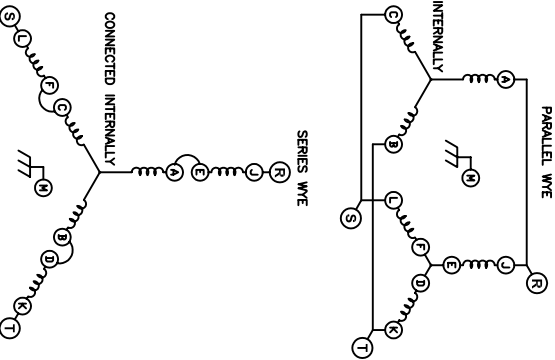
MOTOR CONNECTOR PINOUT (PTO2A-14-12P)

PIN	FUNCTION
A	R2S
B	T2S
C	S2S
D	T1E
E	R1E
F	S1E
G	N/C
H	N/C
J	R1S
K	T1S
L	S1S
M	CASE GROUND

MOTOR PARAMETERS @25°C

MAX. OPERATING SPEED (S _n)	TOL.	UNITS	SERIES CONNECTION	PARALLEL CONNECTION
CONTINUOUS TORQUE (T _o)	MAX.	R.P.M.	6000	4000
PEAK TORQUE (T _p)	MAX.	IN-LB	18.13	18.13
TORQUE SENSITIVITY (K _t)	MAX.	IN-LB/AMPS	79.69	79.69
BACK EMF CONSTANT (K _e) (L-L, D.C.)	±10%	V/K, R.P.M.	1.5	3.0
D.C. RESISTANCE (R _a) (L-L)	±10%	OHMS	17.80	35.55
INDUCTANCE (L) (L-L)	±15%	mH	1.18	4.73
ROTOR INERTIA (J _r)	NOM.	IN-LB-SEC ²	0.0021	0.0021
FRICTION TORQUE (T _f)	NOM.	IN-LB	0.8	0.8
DAMPING TORQUE (T _d)	NOM.	IN-LB/KRPM	0.081	0.081
THERMAL RESISTANCE (R _{th})	NOM.	°C/WATT	0.89	0.89
WINDING TEMPERATURE	MAX.	°C	135	135
NUMBER OF POLES	NOM.	LBS	8	8
WEIGHT	NOM.	LBS	9.0	9.0

- NOTES:
1. MOTOR FRONT BEARING: 40mm O.D., 17mm I.D., 12mm WIDE. BASIC SERIES NO. 6203.
 2. BEARING PRELOAD IS LOCATED AT DRIVE END OF MOTOR.
 3. REAR BEARING IS BONDED INTO END CAP USING LOCTITE #680.
 4. MOTOR IS PAINTED WITH BLACK ENAMEL PAINT, EXCEPT FOR THE MOUNTING FACE.
 5. THERMOSTAT: NORMALLY CLOSED, OPENING TEMPERATURE 135°C. LOCATED ON WINDING END TURNS.
 6. ENCODER SHIELD IS INSULATED FROM CASE.
 7. HALL TRANSISTORS IN LINE WITH BACK EMF φ CROSSING WITHIN ±10° ELECTRICAL.
 8. HIPOT TEST (100%): 2300 VDC RISE TIME=25sec, DWELL=10sec, 0.5mA MAX LEAKAGE, NO ARCING.
 9. ALL UNITS TO BE 100% TESTED FOR BOTH ELECTRICAL AND MECHANICAL COMPLIANCE INCLUDING STATIC AND DYNAMIC FRICTION SPECIFICATIONS PER LATEST APPROVED TEKNIC MOTOR TEST PROCEDURE.



COMMUTATION ENCODER CONNECTOR PINOUT (PTO2A-14-19P)

PIN	FUNCTION
A	THEMOSTAT
B	THEMOSTAT
C	COMM-T
D	ENC 1
E	ENC 1
F	ENC A
G	ENC A
H	ENCODER GROUND
J	N/C
K	+5 VDC ENCODER
L	N/C
M	COMM-S
N	ENC B
P	ENC B
R	COMM-R
S	N/C
T	N/C
U	N/C
V	N/C

DESCRIPTION	DATE	SCALE	DRAWN BY	MATERIAL	FINISH	FILENAME	DWGNO.	REV.
BRUSHLESS MOTOR, 452-1041 DZ-IN	0611/03	NONE	DRL	NA	NA	M-3496-FT.DWG	M-3496-FT	B

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 ANGULAR ± 1° LINEAR ± .020

Teknic, Inc.