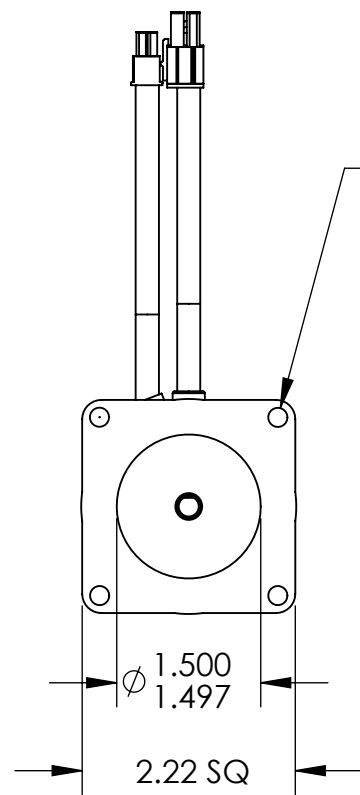


PART REVISION HISTORY

REV.	DESCRIPTION	ECO	DWN	CHKD	DATE

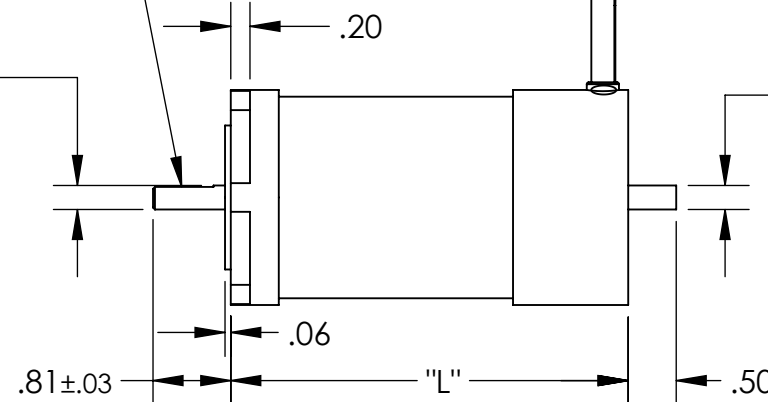
PART NUMBER
E023-XX-NXXXXX-NN-XXX

↑ SERIES
↑ STACK LENGTH
↑ WINDING LETTER
↑ ENCODER TYPE (N-NO ENCODER, B-BEARING, M-MODULAR)
↑ ENCODER RESOLUTION (X1000, X2000, X5000)
↑ ENC COVER (N-NO COVER, C-COVER)
↑ BRAKE (N-NO BRAKE, B-BRAKE)
↑ CUSTOM



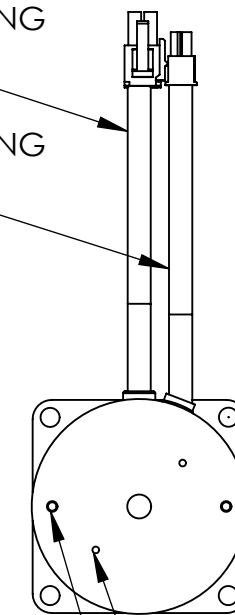
(4) ϕ .200 THRU HOLES
EQ SP ON 2.625 B.C.
FLAT 0.015 DP x 0.61 LONG

ϕ .2500
 ϕ .2495



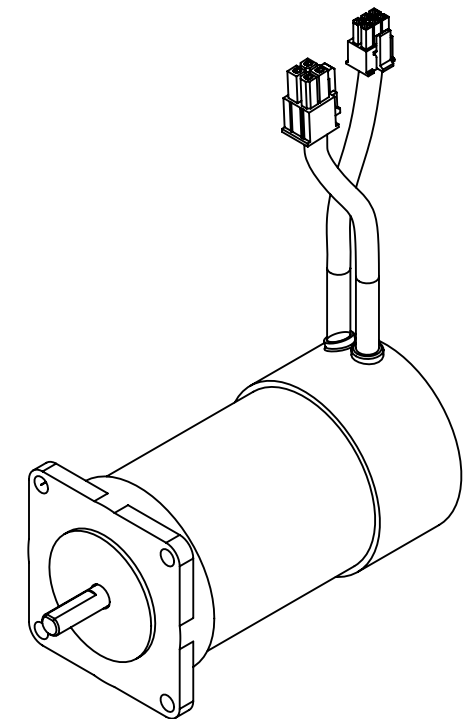
HALL SENSORS
MOLEX 43025-0600
MOTOR POWER
MOLEX 39-01-2040

MOTOR CABLE
SHIELDED 18" LONG
18 AWG
HALL CABLE
SHIELDED 18" LONG
22 AWG



(2) 2-56 UNC 2B, 0.15 DP
EQ SP ON 1.28 B.C.

(2) 4-40 UNC 2B, 0.15 DP
EQ SP ON 1.812 B.C.



MOTOR PARAMETERS		E023-1A	E023-2A	E023-3A	E023-4A
RATED SPEED	RPM	6000	6000	6000	5000
RATED TORQUE	OZ-IN	20	38	55	70
PEAK TORQUE	OZ-IN	60	114	165	210
CONTINUOUS CURRENT	AMPS	1.8	3.4	4.8	4.5
PEAK CURRENT	AMPS	5.5	10.1	14.4	13.6
VOLTAGE CONSTANT, Ke	V/KRPM	8.8	9.1	9.2	12.4
TORQUE CONSTANT, Kt	OZ-IN/A	11.9	12.3	12.4	16.8
RESISTANCE	OHM	4.1	1.4	1.1	1.2
INDUCTANCE	mH	6.8	3.1	2.3	3.3
MOMENT OF INERTIA	Oz-In-Sec ²	0.0011	0.0017	0.0025	0.0032
"L" LENGTH	INCH	2.57	3.35	4.14	4.92
WEIGHT	LBS	1.2	1.8	2.3	2.8

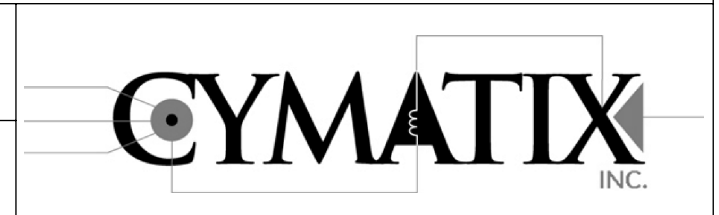
NOTE: Kt AND Ke BASED ON TRAPEZOIDAL DRIVE
4 POLE DESIGN

MOTOR CONNECTOR		
POS	COLOR	VALUE
1	RED	PHASE R
2	WHITE	PHASE S
3	BLACK	PHASE T
4	BARE	SHIELD

HALL CONNECTOR		
POS	COLOR	VALUE
1	RED	5 VDC
2	BLACK	GND
3	BROWN	HALL A
4	ORANGE	HALL B
5	YELLOW	HALL C
6	BARE	SHIELD

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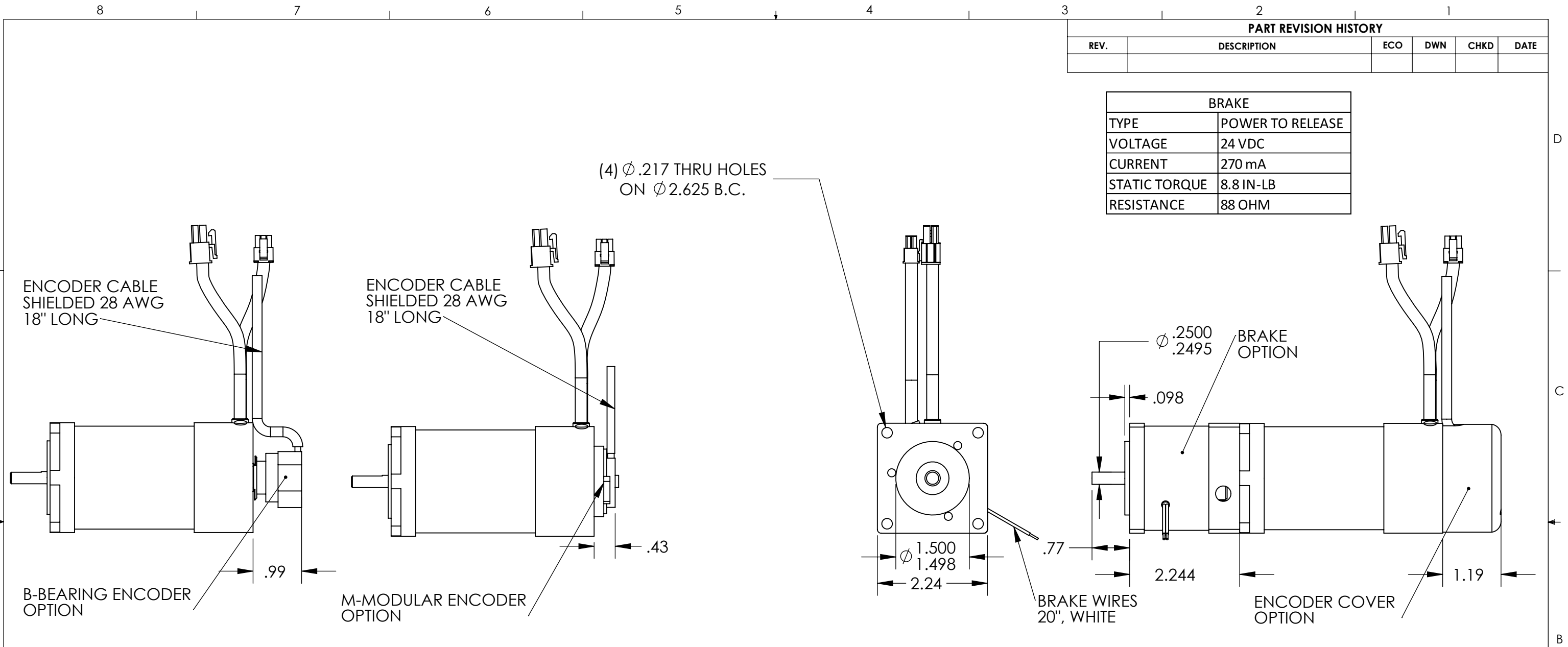
TOLERANCES UNLESS OTHERWISE SPECIFIED (U.O.S.)			
DECIMALS	C'BREAKS	FRAC.	MACH. FIN.
.XX = ± .01	.010/.020	1/64	125
.XXX = ± .005	FILLETS	ANGLES	1°
.XXXX = ± .0005	.020 MAX		



MATERIAL		TITLE: NEMA 23 BRUSHLESS DC MOTOR	
FINISH		PART NO. E023	
DRAWN: JPB	DATE: 06/10/14	SIZE: B	PART REV. B
CHECKED: TPB	DATE: 06/10/14	SCALE: NONE	SHEET 1 OF 2
		DWG. NO. R	

PART REVISION HISTORY					
REV.	DESCRIPTION	ECO	DWN	CHKD	DATE

BRAKE	
TYPE	POWER TO RELEASE
VOLTAGE	24 VDC
CURRENT	270 mA
STATIC TORQUE	8.8 IN-LB
RESISTANCE	88 OHM



(4) ϕ .217 THRU HOLES
ON ϕ 2.625 B.C.

ENCODER CABLE
SHIELDED 28 AWG
18" LONG

ENCODER CABLE
SHIELDED 28 AWG
18" LONG

B-BEARING ENCODER
OPTION

M-MODULAR ENCODER
OPTION

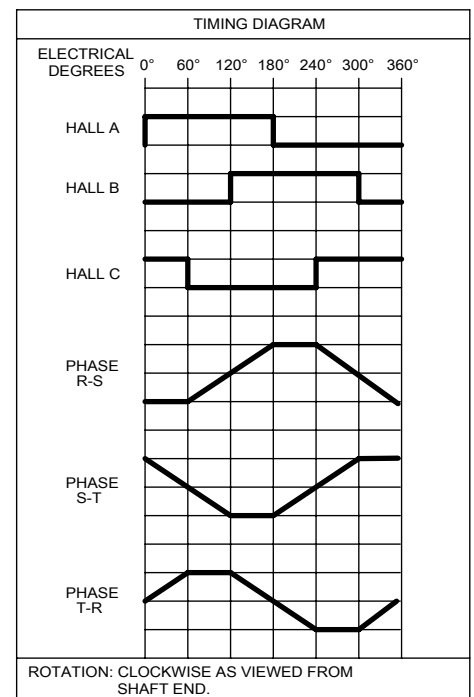
BRAKE WIRES
20", WHITE

ENCODER COVER
OPTION

ENCODER WIRING	
COLOR	FUNCTION
RED	5 VDC
BLACK	COMMON
BROWN	CHANNEL A
WHITE	CHANNEL A/ INDEX
BLUE	CHANNEL B
GREEN	CHANNEL B/ INDEX
ORANGE	INDEX
YELLOW	INDEX /

ENCODER SPECIFICATIONS	
TYPE	OPTICAL
OUTPUT TYPE	LINE DRIVER
LINE COUNT	1000 LINE
GATED	A / B AT 90 DEGREE
INPUT VOLTAGE	5 VDC +/- 5%
CURRENT	65 mA TYPICAL

STD AVAILABLE
RESOLUTIONS: 1000, 2000, 5000 LINE



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DECIMALS	C'BREAKS	FRAC.	MACH. FIN.
.XX = ± .01	.010/.020	1/64	125
.XXX = ± .005	FILLETS	ANGLES	
.XXXX = ± .0005	.020 MAX	1°	



MATERIAL		TITLE: NEMA 23 BRUSHLESS DC MOTOR - ENCODER	
FINISH		SIZE B	PART NO. E023
DRAWN JPB	DATE 06/10/14	THIRD ANGLE	PART REV. B
CHECKED TPB	DATE 06/10/14	SCALE: NONE	SHEET 2 OF 2
		DWG. NO. R	