

SPECIFICATION

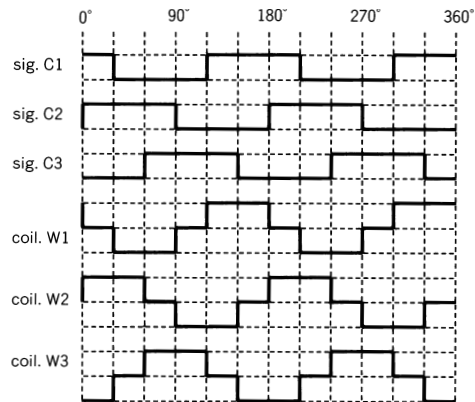
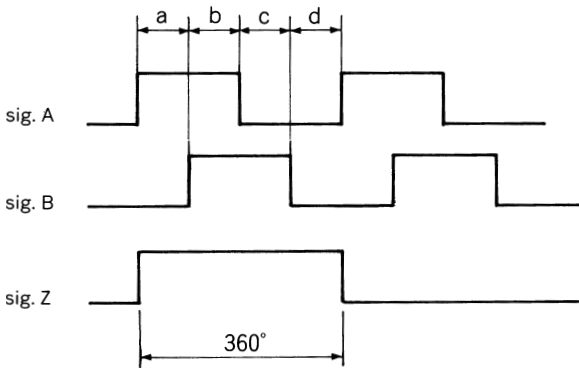
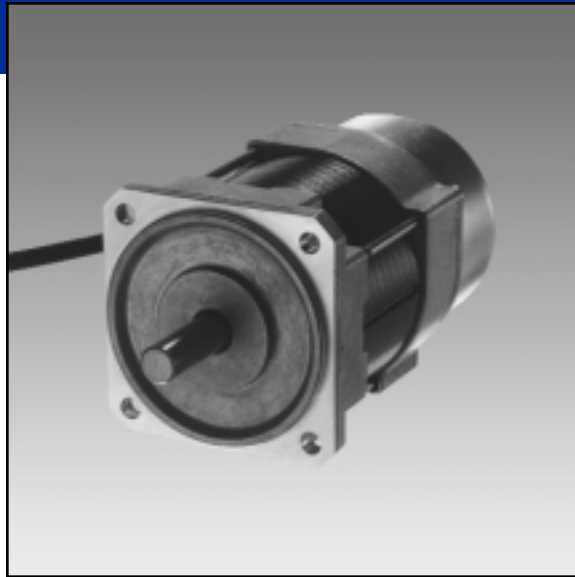
PARAMETER	UNITS	LA052-040E		LA052-080E		LA052-110E
RATED POWER	W	40		80		110
RATED VOLTAGE	VDC	24	75	24	75	75
RATED SPEED	rpm	3,000		3,000		3,000
RATED TORQUE	N-cm	12.7	12.7	25.5	25.5	35.3
	kgf-cm	1.3	1.3	2.6	2.6	3.6
RATED CURRENT	A	2.5	0.9	4.6	1.8	2.1
TORQUE CONSTANT	N-cm/A	5.0	14.8	5.9	19.1	19.6
	kgf-cm/A	0.51	1.51	0.6	1.95	2.00
BACK EMF CONSTANT	V/krpm	5.2	15.5	6.2	20.0	20.5
PHASE RESISTANCE	W	1.18	11.0	0.60	6.2	3.71
PHASE INDUCTANCE	mH	4.4	42	1.4	14	9.1
INSTANTANEOUS PEAK TORQUE	N-cm	38.2	38.2	76.5	76.5	105.9
	kgf-cm	3.9	3.9	7.8	7.8	10.8
MAX SPEED	rpm	5,000	5,000	5,000	5,000	5,000
ROTOR INERTIA (TYPE 2*)	g-cm ²	87	87	91	91	166
	g-cm ²	110	110	117	117	18
POWER RATE (TYPE 2*)	kW/s	1.87	1.87	7.14	7.14	8.48
	kW/s	1.48	1.48	5.56	5.56	6.74
MECHANICAL TIME CONSTANT (TYPE 2*)	ms	4.1	4.4	4.6	1.5	1.6
	ms	5.2	5.5	2.0	2.0	1.8
ELECTRICAL TIME CONSTANT	ms	3.7	3.8	2.3	2.3	2.5
MASS	kg	0.6	0.6	0.6	0.6	0.8

The above values are measured with Aluminum Plate of 200 x 200 x 6 mm

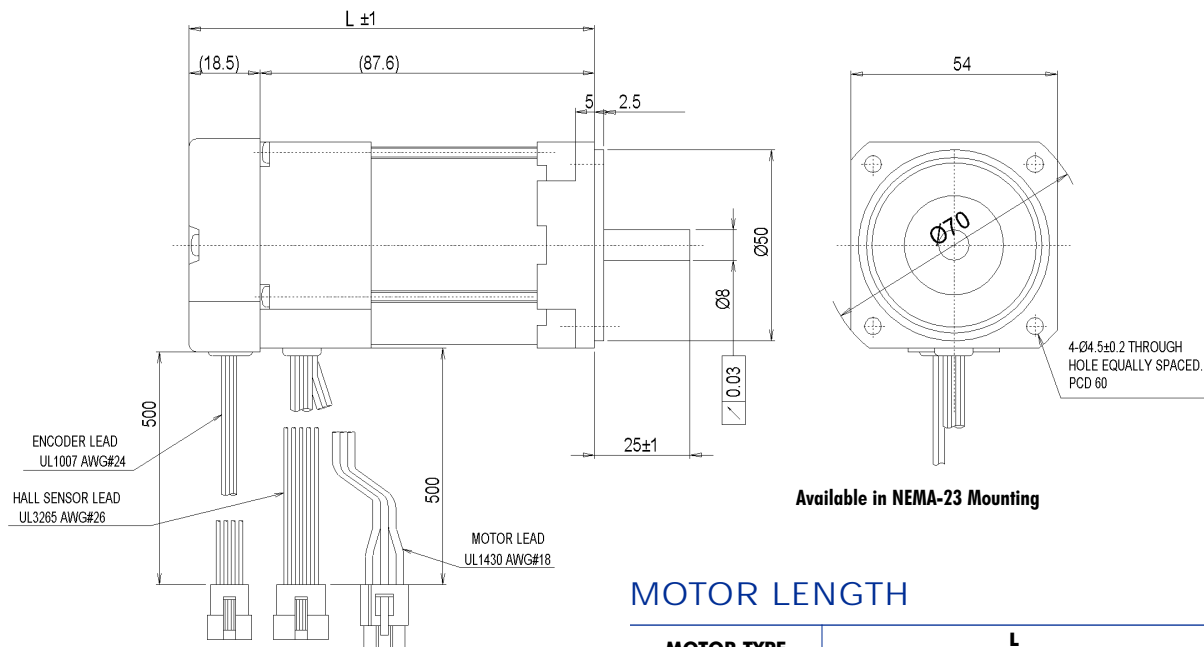
* See Encoder Specification below

ENCODER SPECIFICATION

TYPE	UNITS	TYPE 1	TYPE 2	
		PULL UP AT 4.7 [kΩ]	HALL SENSOR OPEN COLLECTOR	ENCODER TTL COMPATIBLE
RESOLUTION	P/R	500	-	200, 400
NUMBER OF CHANNELS	-	6 (A, B, Z, C1, C2, C3)	C1, C2, C3	A, B
POWER SUPPLY	VDC	5 ± 5%	5 ± 5%	5 ± 5%
CONSUMPTION CURRENT	mA (max.)	100	40	50
OUTPUT VOLTAGE	VDC	VOH = 2.4 (min.), VOL = 0.4 (max.), (Isink = 4 mA)	14.4 (max.), (Isink = 15 mA)	VOH = 2.4 (min.), VOL = 0.4 (max.), (Isink = 15 mA)
PHASE OFFSET	-	a, b, c, d = 90° ± 45°	-	a, b, c, d = 90° ± 45°
SIG. Z PULSE WIDTH	-	360° ± 180°	-	-
FREQUENCY RESPONSE	kHz (min.)	50	-	20
OPERATING TEMPERATURE RANGE	°C	0 ~ 60 (temperature inside of encoder)		



→ CW ROTATION VIEWED FROM OUTPUT SHAFT END
ENCODER OUTPUT PHASE



MOTOR LENGTH

MOTOR TYPE	L	
	TYPE 1*	TYPE 2*
LA052-040E	85	86.1
LA052-080E	85	86.1
LA052-110E	105	106.1

* See Encoder Specification on previous page