

**Linear Brushless Ironless Three Phase Motor  
LBIM-032-04 Series**

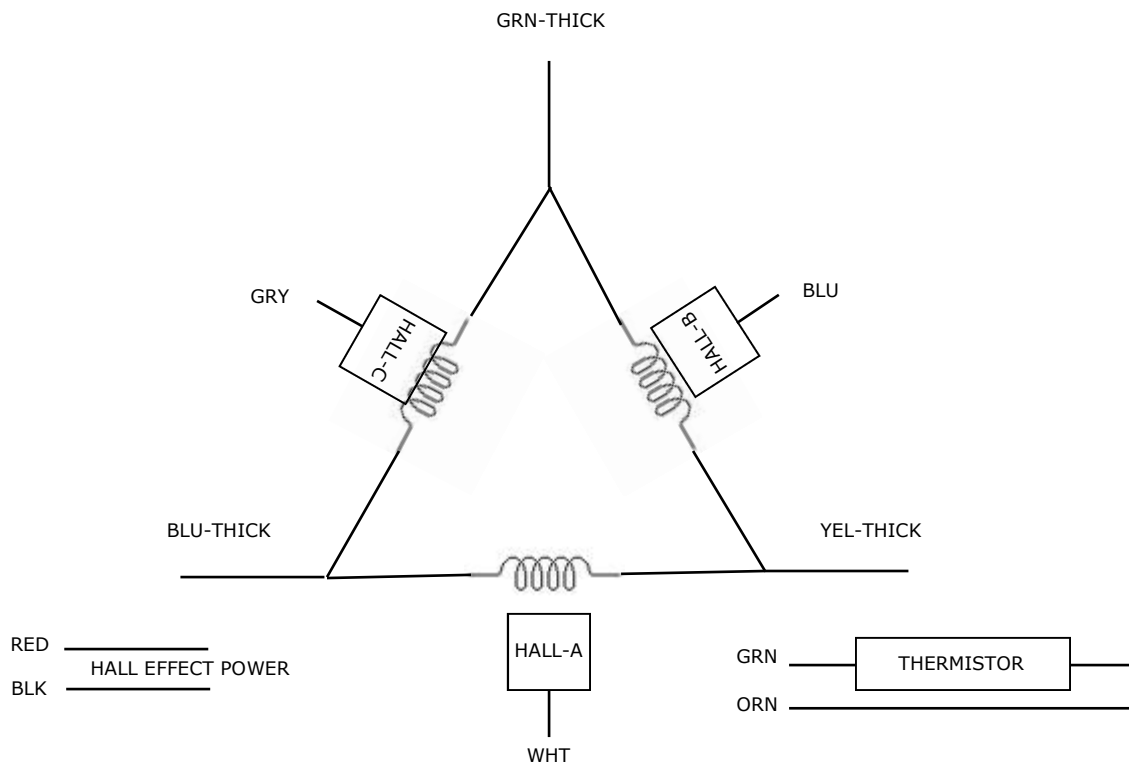
**motiCont**

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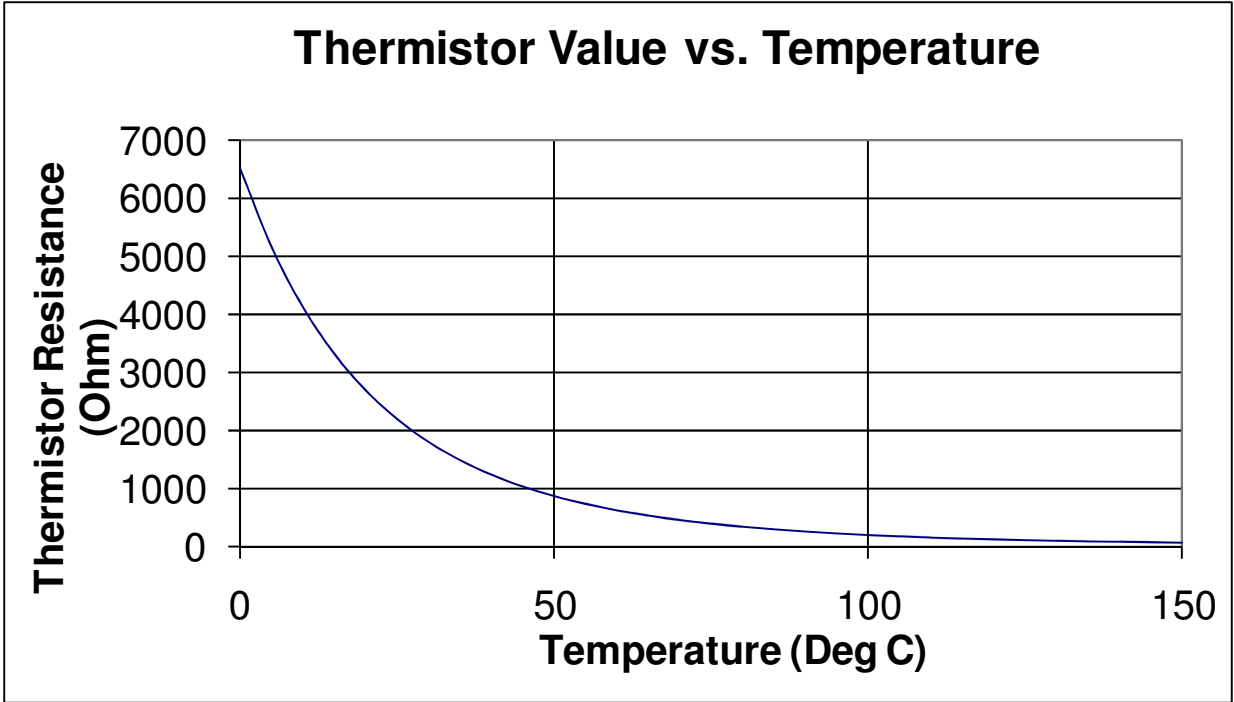
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<b>Forcer</b>		
<b>LBF-032-048-321-01</b>		
<b>PERFORMANCE</b>		
Intermittent Force @ 10% Duty Cycle	108.0	lb
	480.6	N
Continuous Force @ 25 °C	34.0	lb
	151.3	N
Continuous Force @ Tmax	29.0	lb
	129.0	N
Maximum Continuous Power	126	W
Motor Constant	3.0	lb/ W <sup>0.5</sup>
	13.5	N/ W <sup>0.5</sup>
<b>ELECTRICAL SPECIFICATIONS</b>		
Peak Current @ 10% Duty Cycle	32.4	A
Continuous Current @ Tmax	8.7	A
Force Constant	3.3	lb/A
	14.6	N/A
Back EMF	0.4	V/in/s
	14.6	V/m/s
Phase-to-Phase Resistance @ 25 °C	1.2	Ohm
Phase-to-Phase Inductance @ 1 KHz	0.6	mH
<b>MECHANICAL SPECIFICATIONS</b>		
Coil Assembly Mass	2.03	lb
	0.92	Kg
Magnetic Cogging Force	0	lb
Maximum Allowable Coil Temperature	110	°C
Electrical Cycle Length	1.6	in
	40.6	mm
<b>THERMAL SPECIFICATIONS</b>		
Thermal Time Constant	3	min
Thermal Resistance	0.67	°C/W

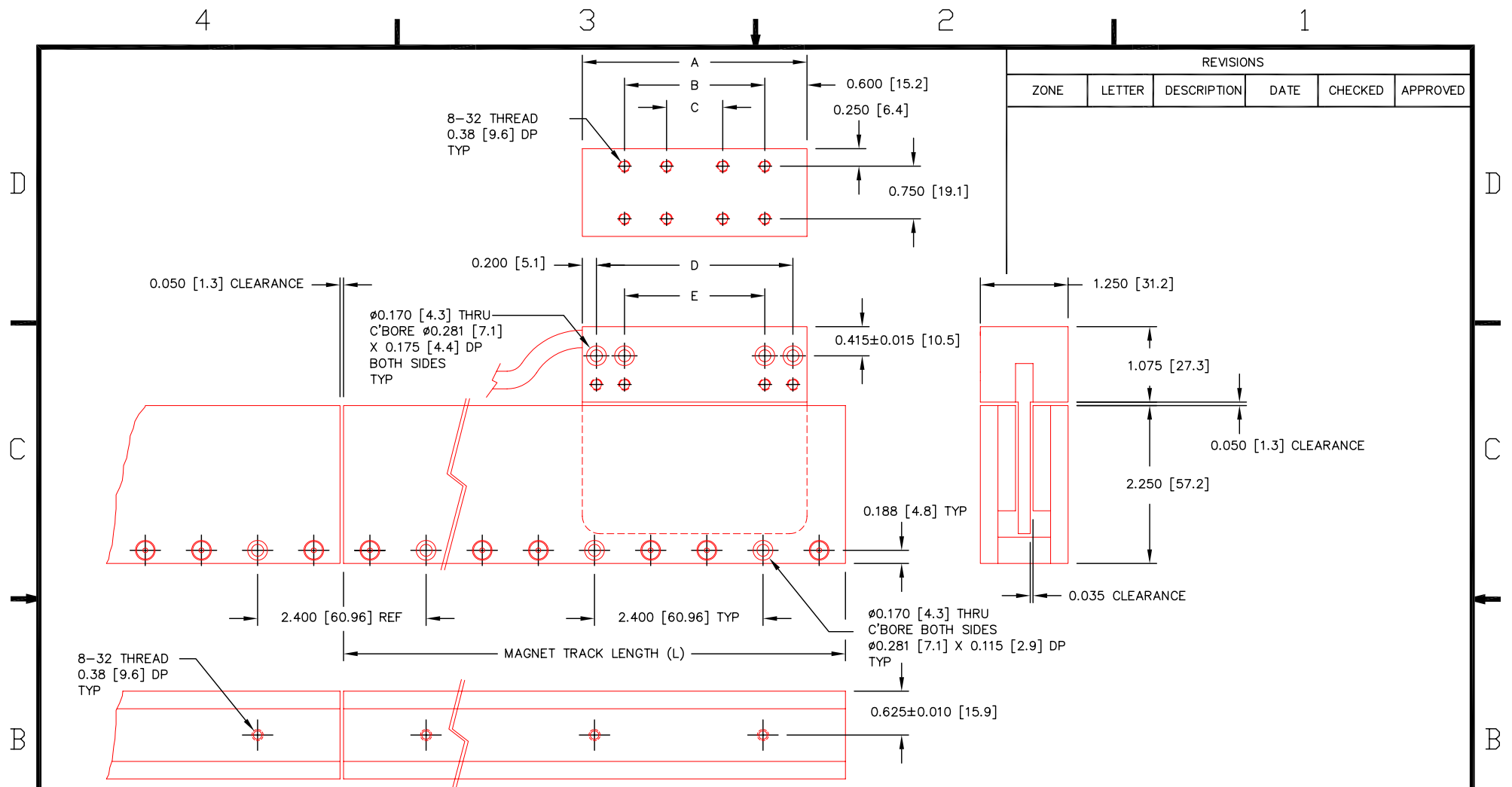
<b>Magnetic Track</b>		
<b>LBM-032-057-XXX-01</b>		
<b>DIMENSIONS</b>		
Width	1.25	in
	31.8	mm
Height	2.25	in
	57.2	mm
Length		
LBM-032-057-121-01	4.75	in
	121.7	mm
LBM-032-057-243-01	9.55	in
	242.6	mm
LBM-032-057-365-01	14.35	in
	364.5	mm
LBM-032-057-608-01	23.95	in
	608	mm
Mass		
All Models	0.58	lb/in
	10.3	Kg/m



Wire	Description
BLU-THICK	Motor Phase A
YEL-THICK	Motor Phase B
GRN-THICK	Motor Phase C
GRN	Thermistor
ORN	Thermistor
WHT	Commutation Sensor Output - A
BLU	Commutation Sensor Output - B
GRY	Commutation Sensor Output - C
RED	+5 VDC Logic Supply for Commutation Sensors (Hall Effects)
BLK	Ground for Commutation Sensor (Hall Effects)



Specifications are subject to change without notice.



REVISIONS					
ZONE	LETTER	DESCRIPTION	DATE	CHECKED	APPROVED

FORCER MODEL	A	B	C	D	E
LBF-032-048-081-01	3.200 [81.3]	2.000 [50.8]	N/A	2.800 [71.1]	N/A
LBF-032-048-161-01	6.350 [161.3]	5.150 [130.8]	2.000 [50.8]	5.950 [151.1]	3.000 [76.2]
LBF-032-048-241-01	9.500 [241.3]	8.300 [210.8]	2.000 [50.8]	9.100 [231.1]	3.000 [76.2]
LBF-032-048-321-01	12.650 [321.3]	11.450 [290.8]	2.000 [50.8]	12.250 [311.2]	3.000 [76.2]

MAGNET TRACK	L (LENGTH)
LBM-032-057-121-01	4.75 [120.7]
LBM-032-057-243-01	9.550 [242.6]
LBM-032-057-365-01	14.350 [364.5]
LBM-032-057-608-01	23.950 [608.3]

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DIMENSIONS ARE IN INCHES (mm)  
 TOLERANCES ON:  
 DECIMALS FRACTIONS ANGLES  
 .XXX .XX ± 1/125 ± 1/2°  
 ± .005 ± .01  
 UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
APPLICATION	

MATERIAL	CONTRACT
FINISH	DRN
	CHKD
	APPVD
	APPVD

**MOTICONT**

IRONLESS LINEAR MOTOR

SIZE	CODE	DWG. NO.	REV.
A		LBIM-032-XX	1

SCALE: 1 / 2 SHEET 1 OF 1

NOTES:  
 UNLESS OTHERWISE SPECIFIED