

ABB BALDOR RELIANCE III



Customer information packet IDBRPM21404

40HP, 1750, 460V, FL2173, TEBC, F3

Specifications

Enclosure	TEBC
Frame	FL2173Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	51.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	51.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	31.31 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3311A
Layout	617525-053
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	10-22-2021

Thermal Device - Bearing

None

Thermal Device - Winding

Normally Closed Thermostat

Nameplate

000613006MY

	DUTY	HP	RPM	AMPS	VOLTS	HZ	
	CONT	40	1770	51	460	60	
	CONT	40	3525	49	460	120	
CAT.NO.	IDBRPM21404		SPEC. NO.	F21-A000-0458			
SER.NO		FR	FL2173Z	INSUL	H		
PH.	3	MAX SAFE SPEED	5000	AMB.	50	MIN. AMB.	-25
DESIGN NO.	L3311A	TYPE		ENCL.	TEAO-BC		
S.F.	1.00	D.E. BRG.	50BC03JPP30A				
ENCL MOD		O.D.E. BRG.	45BC02JPP30A				
	IP44						

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	FL2173	AMPS	51	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)			
HP	40	DUTY	CONT	IM (AMPS)	20	R1	.108	X1	.495
BASE SPEED	1770	S.F.	1.0	P.F. @NL/FL	.060/.820	R2	.0747	X2	.632
PHASE/HERTZ	3/60	AMB °C/INSUL	50/H	WK ² (Lb-Ft ²)	2.64			XM	11.5

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1768	40.0	119	460	60	50.7
MAX SPEED	3526	40.0	60	460	120	49.1
MIN SPEED	0	0	119	16.1	1.08	50.7

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	22.9
1/4	1792	10.0	29	460	60	25.9
1/2	1785	20.0	59	460	60	32.3
3/4	1776	30.0	89	460	60	40.8
FULL LOAD	1768	40.0	119	460	60	50.7
O/L	1726	78.1	238	460	60	97.6

REMARKS: TYPICAL DATA
CORRELATED DATA

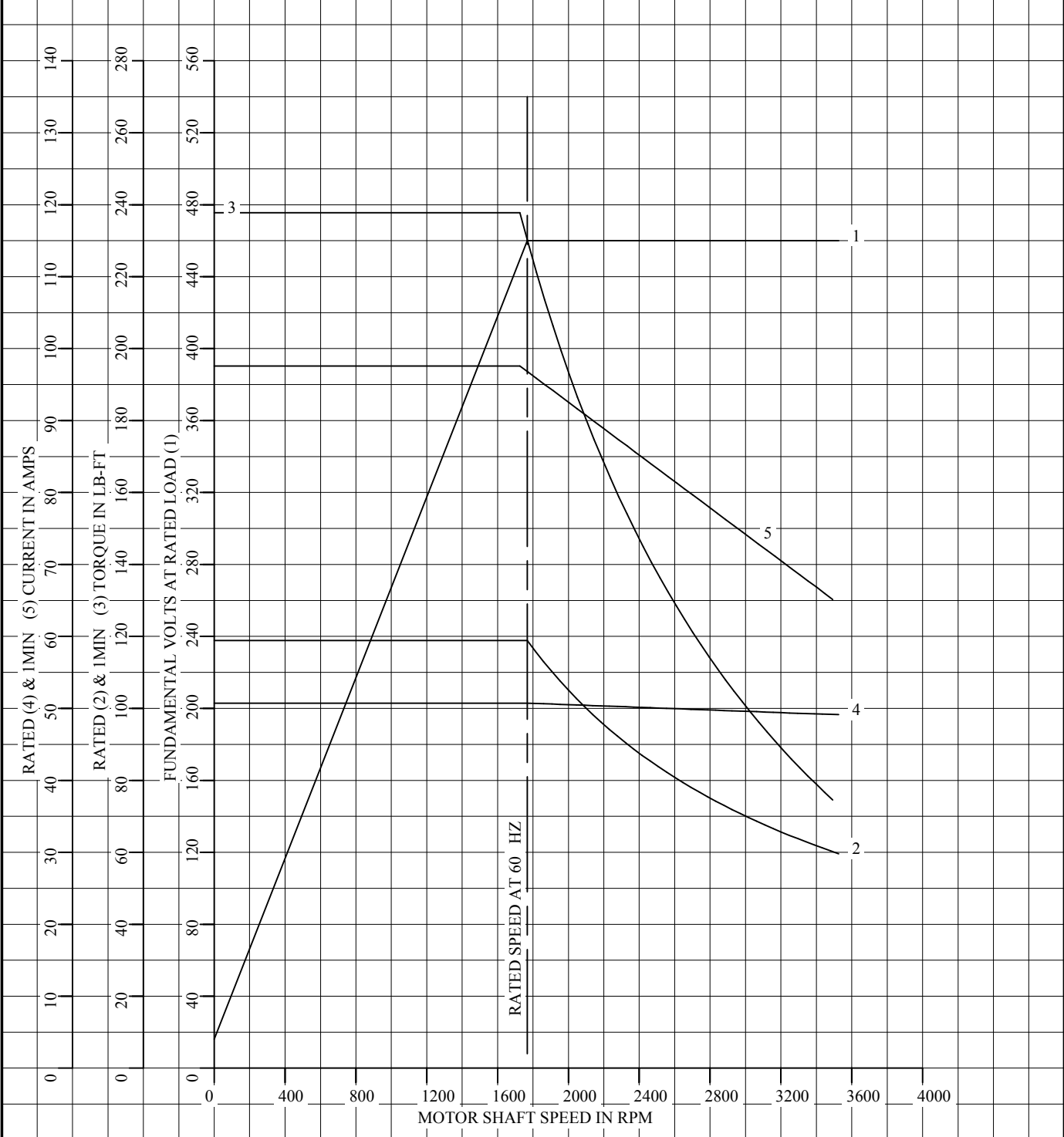


DR. BY K. GREEN
 CK. BY B. GRANT
 APP. BY J. MARTIN
 DATE 8-25-14

**A-C MOTOR
PERFORMANCE DATA** L3311A
 ISSUE DATE 2-19-16

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2173	AMPS	51	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)	
HP	40	DUTY	CONT	IM (AMPS)	20	R1	.108 X1 .495
BASE SPEED	1770	S.F.	1.0	P.F. @NL/FL	.060/.820	R2	.0747 X2 .632
PHASE/HERTZ	3/60	AMB °C/INSUL	50/H	WK ² (Lb-Ft ²)	2.64		XM 11.5

CORRELATED DATA
VARIABLE SPEED AC MOTOR CURVES



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



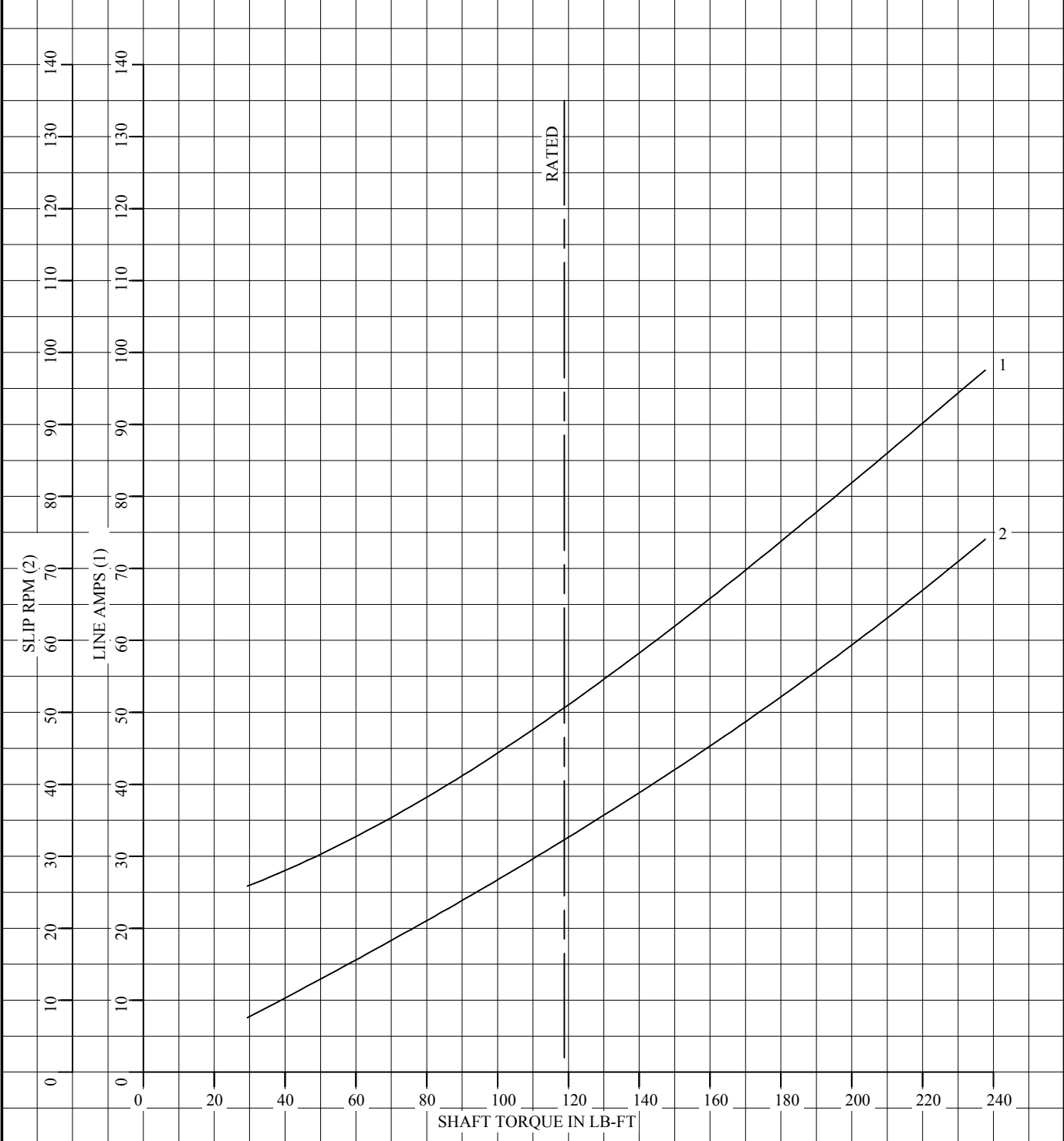
DR. BY K. GREEN
CK. BY B. GRANT
APP. BY J. MARTIN
DATE 8-25-14

**A-C MOTOR
PERFORMANCE
CURVES**

L3311A
SH 1 OF 2
ISSUE DATE 2-19-16 Page 6 of 10

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2173	AMPS	51	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)	
HP	40	DUTY	CONT	IM (AMPS)	20	R1 .108	X1 .495
BASE SPEED	1770	S.F.	1.0	P.F. @NL/FL	.060/.820	R2 .0747	X2 .632
PHASE/HERTZ	3/60	AMB °C/INSUL	50/H	WK ² (Lb-Ft ²)	2.64		XM 11.5

CORRELATED DATA
LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



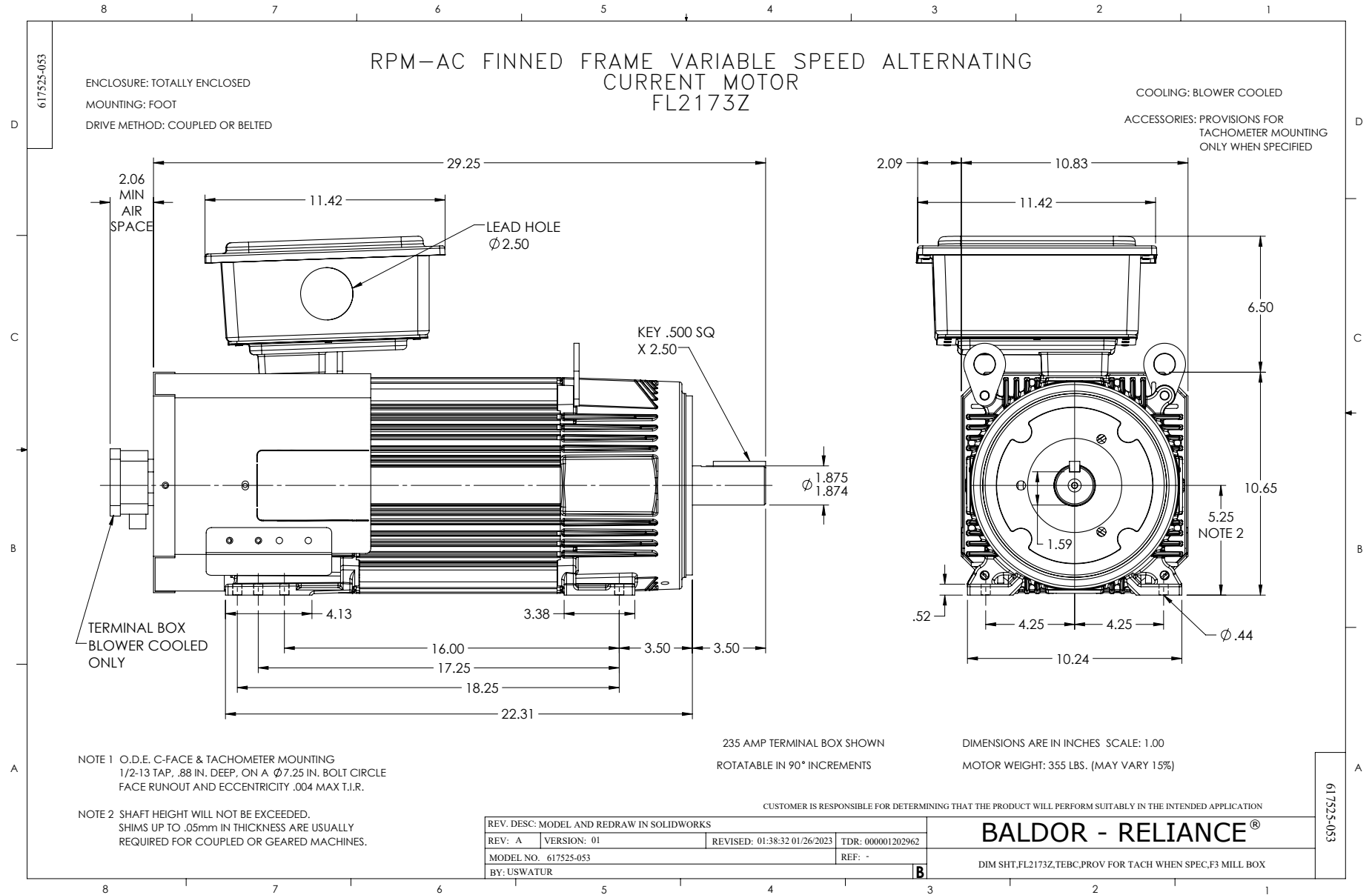
REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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DATE 8-25-14

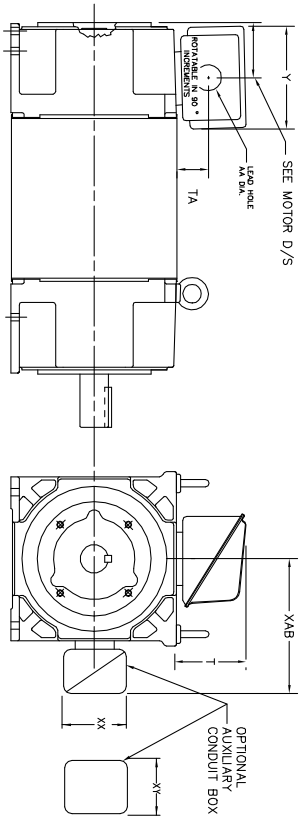
**A-C MOTOR
PERFORMANCE
CURVES**

L3311A
SH 2 OF 2
ISSUE DATE 2-19-16
Page 7 of 10



INDUSTRIAL ALTERNATING CURRENT MOTORS
RPM AC

STEEL, CAST IRON, MILL AND TERMINAL BOARD CONDUIT BOX DIMENSIONS
NEMA FRAMES RL210 thru RL280 and IEC FRAMES RDL132 thru RDL180
NEMA FRAMES FL180 thru FL280 and IEC FRAMES FDL112 thru FDL180



FRAME	TYPE	TERMINAL STRIP	AMPS	C/BOX	Y	TA	T	AA
FL180	STEEL	N	40	706320003A	5.00	1.62	3.00	1.12
FL180	STEEL	N	75	706320003A	6.12	2.38	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.82	2.00	7.00	2.50/3.00
FL180	CAST IRON	N	40	706320004A	5.75	2.38	4.38	1.50/1.75
FL180 & FDL11	MILL	Y	100	706310028A	7.75	2.30	4.40	PC29/PG16
FL210 & RL210	STEEL	N	61	0754520009	6.34	2.00	4.12	1.75
FL210 & RL210	STEEL	N	121	0754520010	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	336	706320016A	9.00	4.12	8.42	4.89
FL210 & RL210	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	7063100229A	7.75	2.30	4.40	PC29/PG16
FL210 & RL210	MILL	Y	160	706310056A	9.00	3.06	5.40	PC36/PG16
FL210 & RL210	MILL	Y/N	235	706310058B	11.42	4.00	6.72	2.50
FL250 & RL250	STEEL	N	61	0754520008	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	0754520009	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	336	706320016A	9.00	4.12	8.42	4.89
FL250 & RL250	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	CAST IRON	N	210	706320017A	10.50	4.88	9.00	4.0 TAP
FL250 & RL250	MILL	Y	100	7063100229A	7.75	2.30	4.40	PC29/PG16
FL250 & RL250	MILL	Y	160	706310056A	9.00	3.06	5.40	PC36/PG16
FL250 & RL250	MILL	Y/N	235	706310058B	11.42	4.00	6.72	2.50
FL250 & RL250	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK
FL280 & RL280	STEEL	N	160	706320029A	7.25	3.50	7.06	2.50
FL280 & RL280	STEEL	N	336	706320016A	9.00	4.12	8.42	4.89
FL280 & RL280	STEEL	N	500	702656001C	14.62	7.56	12.70	5.00
FL280 & RL280	CAST IRON	N	140	706320012B	9.25	4.81	8.56	3.0 TAP
FL280 & RL280	CAST IRON	N	210	706320015A	10.50	4.88	9.00	4.0 TAP
FL280 & RL280	CAST IRON	N	510	706320014D	15.00	7.56	12.81	5.0 TAP
FL280 & RL280	MILL	Y	100	706310056A	7.75	2.30	4.40	PC29/PG16
FL280 & RL280	MILL	Y	160	706310058B	9.00	3.06	5.40	PC36/PG16
FL280 & RL280	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)								
	XAB	XX	XY	PART NUMBER	FRAME SIZE	PART NUMBER			
FL180/FL180A/FL180B	7.38	4.25	4.25	602007-26-A	FL180/FL180A/FL180B	10.88	8.00	8.00	706310-3-B
FL250/FL250A/FL250B	8.44	4.25	4.25	602007-26-A	FL250/FL250A/FL250B	11.88	8.00	8.00	706310-3-B
FL280/FL280A/FL280B	9.12	4.25	4.25	602007-26-A	FL280/FL280A/FL280B	12.62	8.00	8.00	706310-3-B

- (1) 1/4" PIPE TAP
- (2) 1/2" PIPE TAP
- (3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
- (4) 2" DIA. SA OR 1" DIA. DIA. W/2"

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

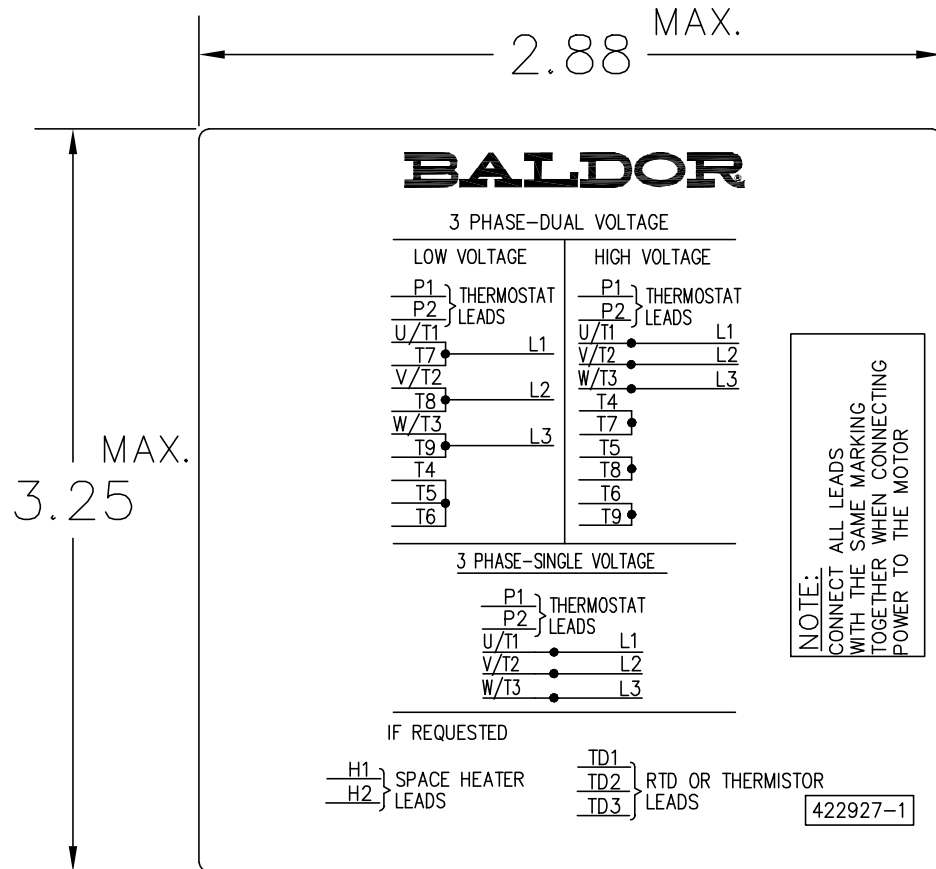
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD 706310-637 & 639 BOX	VERSION: 06	TDR: 000001180260
REV. LTR: F	REVISED: 11: 08: 56 10/26/2021	BY: RCGRWM
FILE: \RGG\00003\692		
MTL: -		

BALDOR - RELIANCE®

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180

422927-001



NOTE:
DATA TO BE SIZED
SO THAT IT FITS INTO
MATERIAL DECAL
DIMENSIONS. MAKE
LETTERS & NUMBERS
AS LARGE AS POSSIBLE.

MATERIAL: CERAMATIC DGF-P4
PERMA GRIP ADHESIVE

ALL LETTERS, NUMBERS
AND LINES TO BE BLACK
ON WHITE BACKGROUND.

422927-001

REV. DESC: CHANGE BACKGROUND COLOR FROM GOLD TO WHITE		
REV. LTR: B	VERSION: 02	TDR: 00000788708
FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR

EXTERNAL CONNECTION LABEL

SH 1 of 1