

ABB BALDOR RELIANCE III

Customer information packet

IDFRPM21204C

20HP, 1750, 460V, FL2162, TEFC, F3

Specifications

Enclosure	TEFC
Frame	FL2162CZ
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	20.000 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	27.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	26.74 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1775 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3308A
Layout	617517-083
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	10-21-2021

Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613006MY									
	DUTY	HP	RPM	AMPS	VOLTS	HZ			
	CONT	20	1775		27	460	60		
	CONT	20	3545		25	460	120		
CAT.NO.	IDFRPM21204C		SPEC. NO.		F21-A000-0453				
SER.NO			FR	FL2162CZ	INSUL	H			
PH.	3	MAX SAFE SPEED		5000	AMB.	40	MIN. AMB.	-25	
DESIGN NO.	L3308A		TYPE		ENCL.		TEFC		
S.F.	1.00		D.E. BRG.		50BC03JPP30A				
ENCL MOD			O.D.E. BRG.		45BC02JPP30A				
	IP44								

Parts List

Part number	Description	Quantity
WS392780	WS F21-A000-0453	1.000 ea
RA389311	RA F21-A000-0453	1.000 ea
418018122A	LABEL	2.000 ea
411716004A	219P039 - 219P039 - LA	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000613006MY	NP-RPMAC INVERTER DUTY	1.000 ea
000692000XM	LABEL QR CODE	1.000 ea
LB1613	LABEL, QR CODE, ADHESIVE LABEL	1.000 ea
422927001	C/D LABEL	1.000 ea
807581004AAB	BRKT,FL210,DE 807581-2WCB	1.000 ea
807581003BAA	BRKT,FL210,DE 807581-1WCB	1.000 ea
BP5068BJ01	BRUSH, .187 X .187 X 1.00	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
400638001AB	WASHER SPRING - 210	1.000 ea
036610010AB	MHSLW M10 PLATED	4.000 ea
036000016DB	HHCS	2.000 ea
036100080KA	M10-1.50X 80MM HXSOCHDCS	3.000 ea
418057491A	LIFTING LUG	2.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
609830005AN	TBOLT PURGE MTR	4.000 ea
BP5248	BP5248	1.000 ea
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 ea
415072001B	CLAMP	1.000 ea
417733004AC	GASK C/BOX	1.000 ea
706310640B	BACKPLATE GASKET C/BOX 706310-637	1.000 ea
034180010DA	KEY 1/4X1/4X1-1/4L	1.000 ea
078547001P	FAN 210	1.000 ea
708533051A	GRILL, FAN COVER	1.000 ea
708533050A	COVER, FAN	1.000 ea

036321020HB	HEXSOCKET FLAT SCREW M	3.000 ea
418057256F	HHCS M6 12MM ZINCPLAT	1.000 ea
418057373A	SCREW SHEET METAL	7.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
406673002C	.75 CAP PLUG	1.000 ea
406673002AE	2" CAP PLUG	1.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
706310638A	BACK PLATE FOR 706310-637 WITH 3.12" BOL	1.000 ea
423709011A	WASHER	8.000 ea
708533003A	PLATE, BTM FAN/BLOWER	2.000 ea
706310637A	C/BOX, MILL, RPMAC,9X9X4, 375IN^3	1.000 ea
706310641A	LIPPED CBOX LID FOR 706310-642	1.000 ea
706310640A	LID GASKET C/BOX 706310-637	1.000 ea
036010012HB	HHCS T/BOX BRACE	16.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	4.000 ea
034180022FA	KEY 3/8X3/8X2-3/4 L	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
004824007CQR	C2 PAINT SYSTEM MEDIUM GRAY CHARCOAL MET	0.100 ea
LB1549	LABEL, BLANK 1.375 X 2.250 IMPRINTABLE	1.000 ea
004824007AB	PAINT,XT	0.100 ea

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN	EQ	CKT	OHMS	PER PHASE
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)				
HP	20	DUTY	CONT	IM (AMPS)	15	R1	.179	X1	.845	
BASE SPEED	1775	S.F.	1.0	P.F.@NL/FL	.066/.777	R2	.122	X2	1.09	
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	1.92			XM	18.1	

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1774	20.0	59	460	60	26.9
MAX SPEED	3543	20.0	30	460	120	24.4
MIN SPEED	0	0	59	13.8	.874	26.9

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	14.4
1/4	1794	5.01	15	460	60	15.7
1/2	1787	10.0	29	460	60	18.6
3/4	1781	15.0	44	460	60	22.4
FULL LOAD	1774	20.0	59	460	60	26.9
O/L	1742	39.3	119	460	60	48.5

BLOWER DATA

VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA
CORRELATED DATA

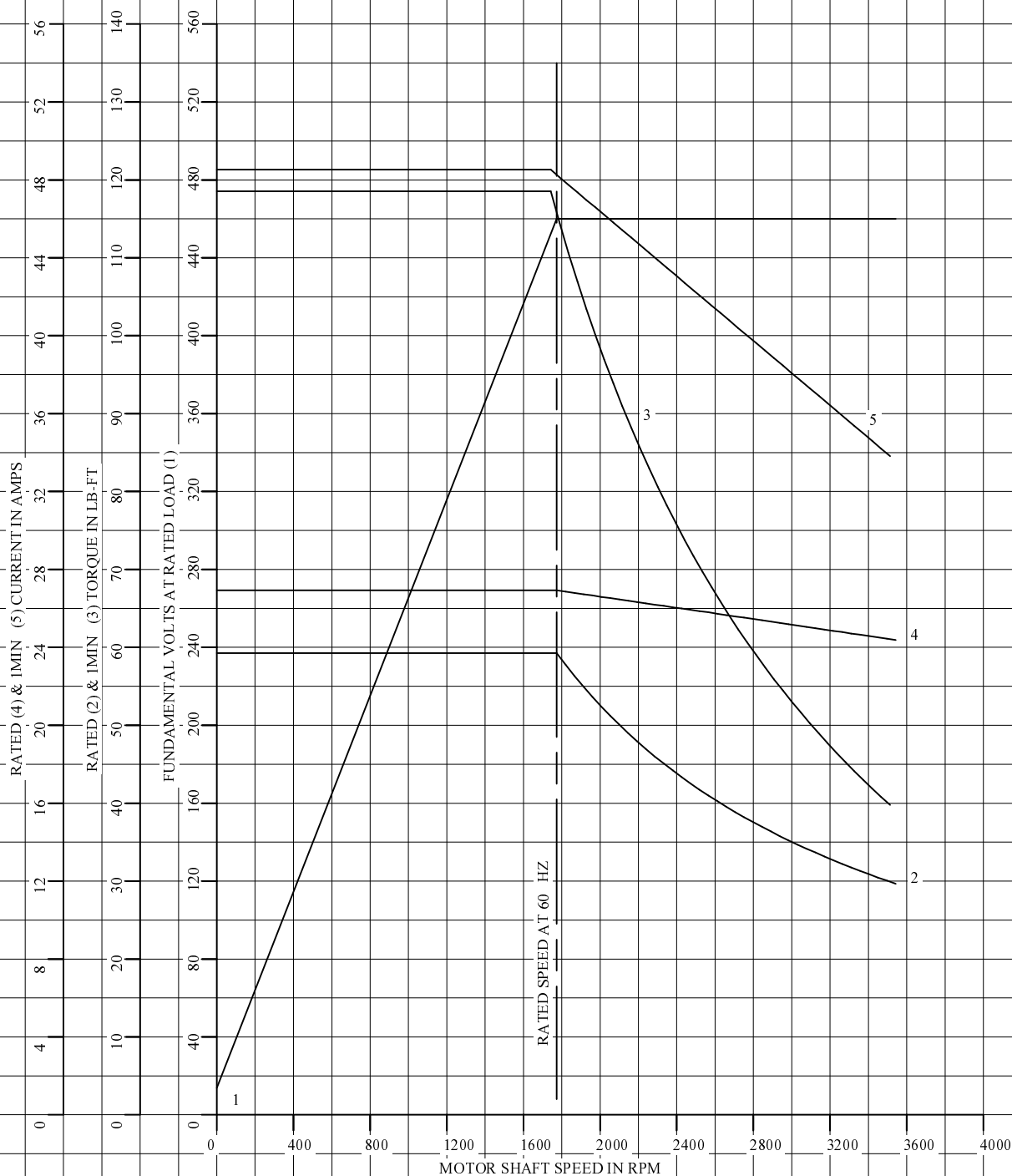


DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 6-6-06

**A-C MOTOR
PERFORMANCE
DATA** **L3308A**
ISSUE DATE **6-6-06**

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN	EQ	CKT	OHMS PER PHASE
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)			
HP	20	DUTY	CONT	IM (AMPS)	15	R1	.179	X1	.845
BASE SPEED	1775	S.F.	1.0	P.F. @NL/FL	.066/.777	R2	.122	X2	1.09
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	1.92	XM 18.1			

CORRELATED DATA
VARIABLE SPEED AC MOTOR CURVES



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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**A-C MOTOR
PERFORMANCE
CURVES**

L3308A

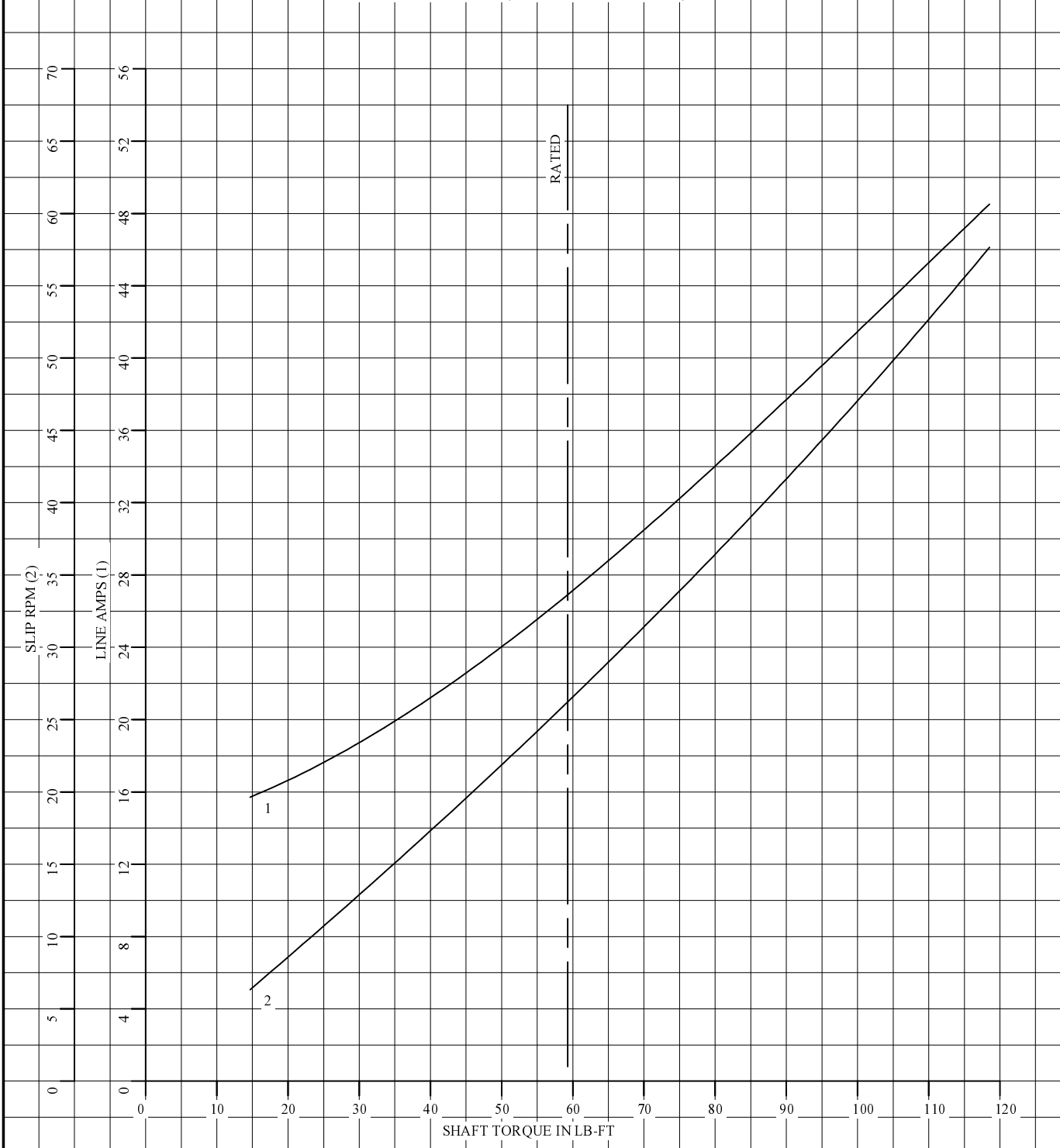
SH 1 OF 2

ISSUE DATE 6-6-06

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE	CONN	EQ	CKT	OHMS	PER PHASE
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000						(AT BASE RATING, 25 °C)
HP	20	DUTY	CONT	IM (AMPS)	15	R1	.179			X1	.845
BASE SPEED	1775	S.F.	1.0	P.F. @NL/FL	.066/.777	R2	.122			X2	1.09
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	1.92					XM	18.1

CORRELATED DATA

LOAD PERFORMANCE (CONSTANT V/Hz RANGE)



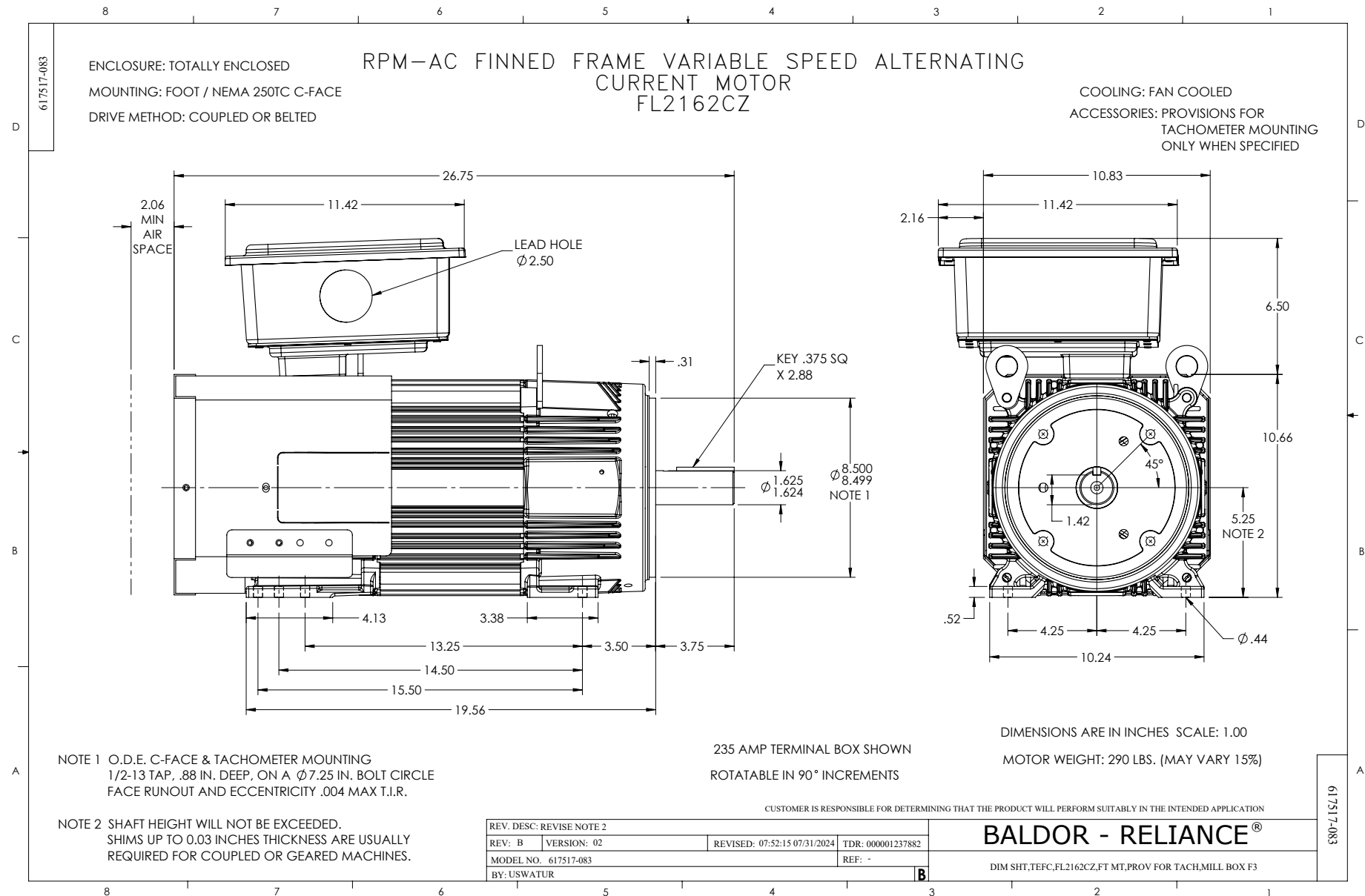
REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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APP. BY T. CUFR
DATE 6-6-06

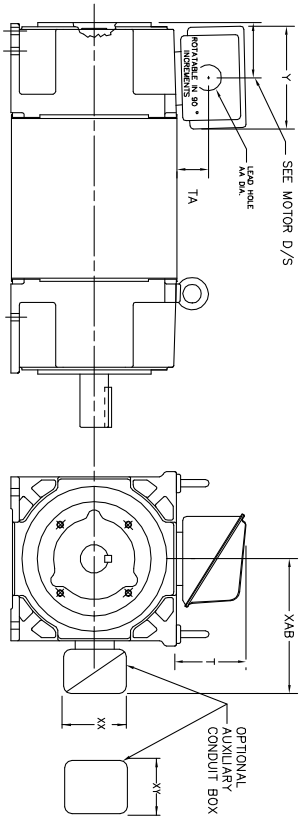
**A-C MOTOR
PERFORMANCE
CURVES**

L3308A
SH 2 OF 2
ISSUE DATE 6-6-06



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	Y/N	75	706320003A	6.12	2.36	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/3.00
FL180	CAST IRON	Y/N	100	706320004C	6.75	2.50	4.38	1.0/1.75
FL180 & FDL11	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16

FL210 & RL210	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL210 & RL210	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL210 & RL210	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310056A	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y/N	235	706310056B	11.42	4.00	6.72	2.50

FL250 & RL250	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL250 & RL250	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL250 & RL250	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	MILL	Y/N	235	706310057A	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	306	706320016A	9.00	4.12	8.44	4.59
FL280 & RL280	STEEL	N	500	702658001C	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	706320013A	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	PG29/PG16
FL280 & RL280	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/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	YAB	XX	XY	PART NUMBER	FRAME SIZE	YAB	XX	XY	PART NUMBER
FL210/FL180/RL210/RL182	7.38	4.25	4.25	602007-26-A	FL210/FL180/RL210/RL132	10.88	8.00	8.00	706310-3-B
FL250/FL160/RL250/RL160	8.44	4.25	4.25	602007-26-A	FL250/FL160/RL250/RL160	11.88	8.00	8.00	706310-3-B
FL280/FL180/RL280/RL180	9.12	4.25	4.25	602007-26-A	FL280/FL180/RL280/RL180	12.62	8.00	8.00	706310-3-B

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

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.

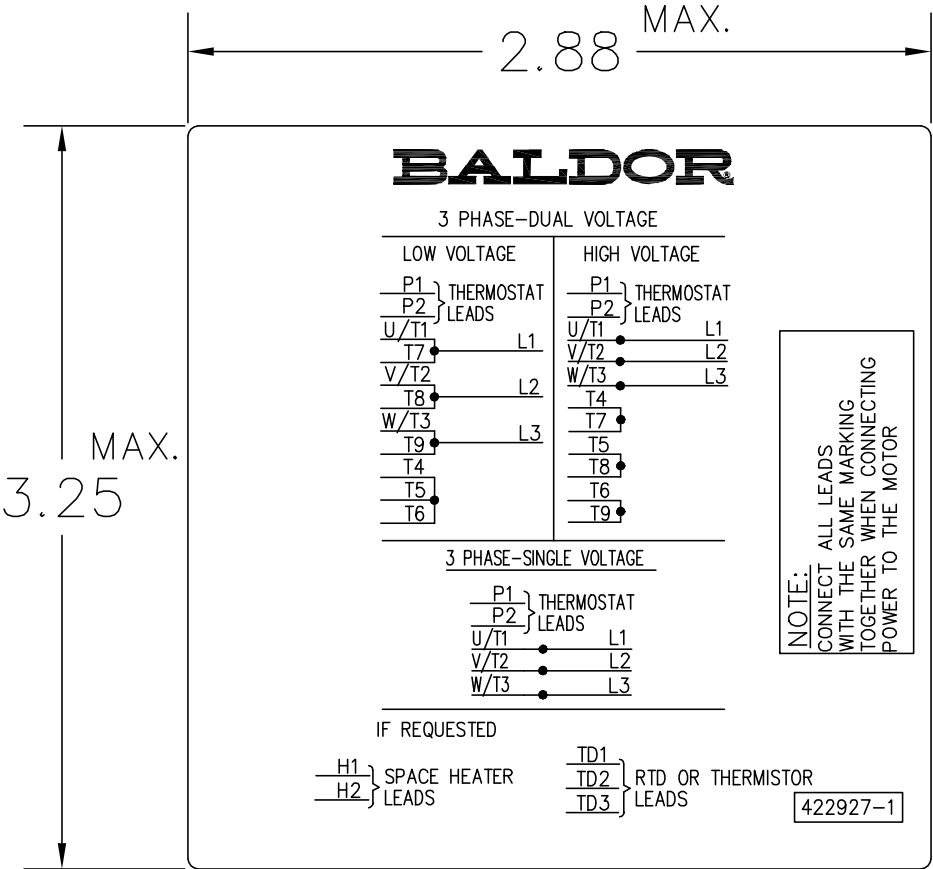
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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

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: 000000788708
FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR
EXTERNAL CONNECTION LABEL
SH 1 of 1