

ABB BALDOR RELIANCE III



Customer information packet IDBRPM18204C

20HP, 1755RPM, 3PH, 60HZ, 1852C, TEBC, FT/250

Specifications

Enclosure	TEAO
Frame	FL1852C
Frame Material	Aluminum
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
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	27.96 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	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1755 rpm
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3218A
Layout	617235-023
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

000613006MY

	DUTY	HP	RPM	AMPS	VOLTS	HZ	
	CONT	20	1755	27	460	60	
	CONT	20	3565	25	460	122	
CAT.NO.	IDBRPM18204C		SPEC. NO.	P18T0268			
SER.NO		FR	FL 1852CZ	INSUL	H		
PH.	3	MAX SAFE SPEED	7200	AMB.	40	MIN. AMB.	-25
DESIGN NO.	L3218A	TYPE		ENCL.	TEAO-BC		
S.F.	1.0	D.E. BRG.	45BC02JPP30A				
ENCL MOD		O.D.E. BRG.	35BC02JPP30A				

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	FL1852	AMPS	27	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)			
HP	20	DUTY	CONT	IM (AMPS)	14.6	R1	.258	X1	.906
BASE SPEED	1755	S.F.	1.0	P.F. @NL/FL	.060/.796	R2	.191	X2	1.03
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	.8			XM	18.9

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1757	20.0	60	460	60	27.1
MAX SPEED	3564	20.0	29	460	122	24.8
MIN SPEED	0	0	60	20.2	1.44	27.1

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	14.3
1/4	1790	5.01	15	460	60	15.5
1/2	1779	10.0	30	460	60	18.5
3/4	1769	15.0	45	460	60	22.3
FULL LOAD	1757	20.0	60	460	60	27.1
O/L	1701	38.8	120	460	60	50.9

REMARKS: TYPICAL DATA

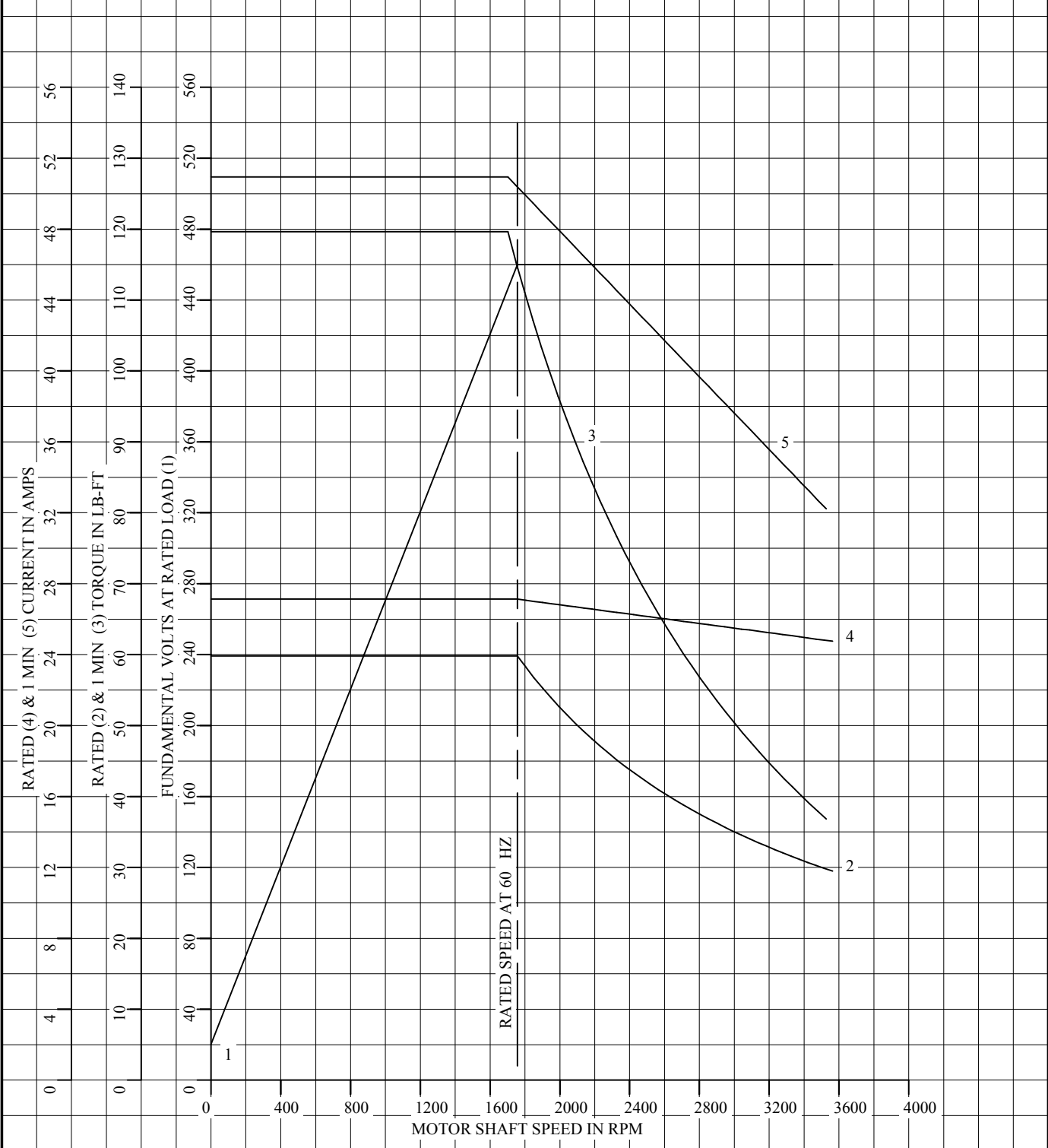


DR. BY B. GRANT
 CK. BY B. GRANT
 APP. BY T. CUFR
 DATE 5-31-06

**A-C MOTOR
 PERFORMANCE DATA** L3218A
 ISSUE DATE 8-2-16

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL1852	AMPS	27	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)	
HP	20	DUTY	CONT	IM (AMPS)	14.6	R1	.258 X1 .906
BASE SPEED	1755	S.F.	1.0	P.F. @NL/FL	.060/.796	R2	.191 X2 1.03
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	.8		XM 18.9

VARIABLE SPEED AC MOTOR CURVES



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



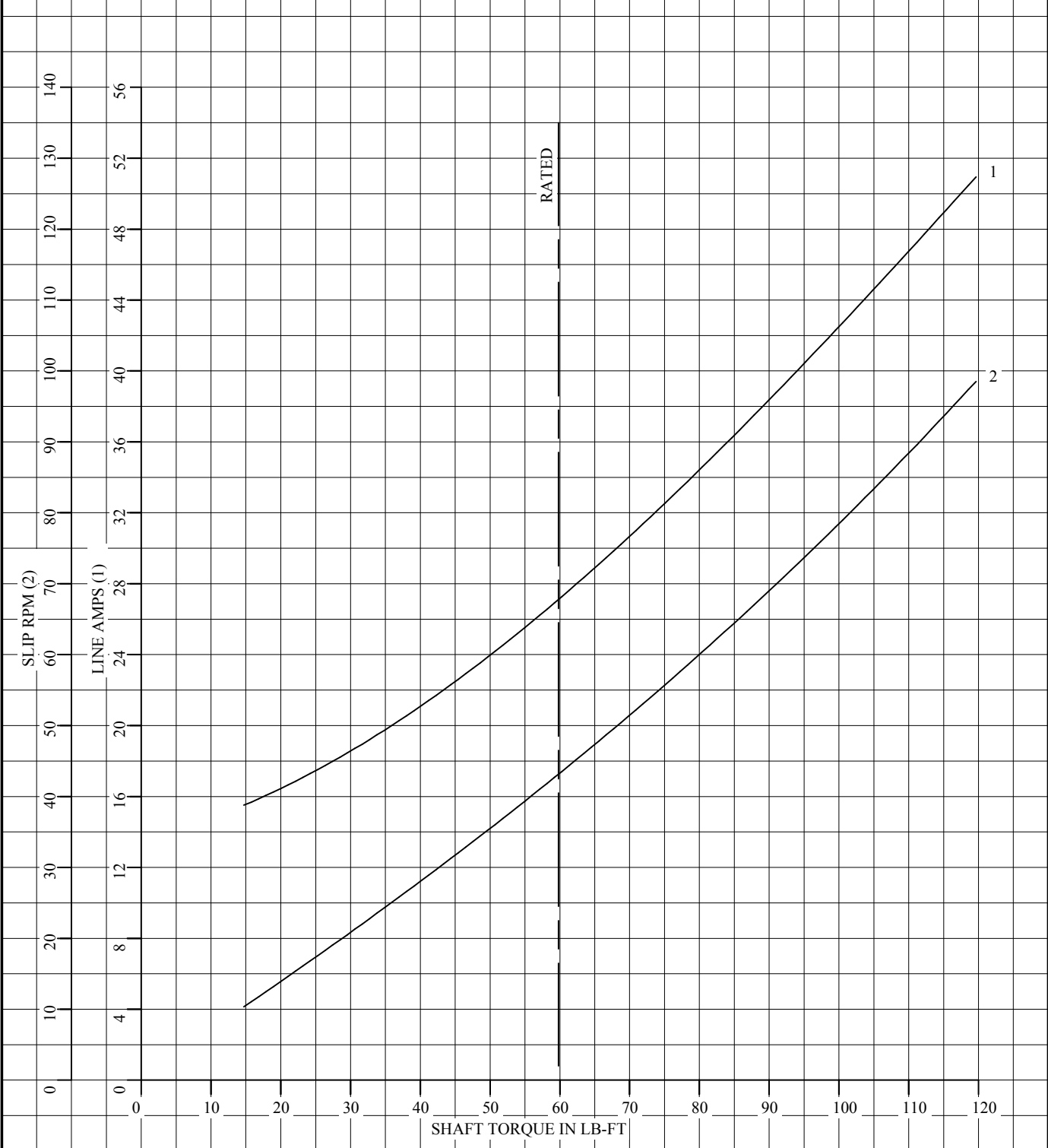
DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 5-31-06

**A-C MOTOR
PERFORMANCE
CURVES**

L3218A
SH 1 OF 2
ISSUE DATE 8-2-16

REL S.O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL1852	AMPS	27	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)	
HP	20	DUTY	CONT	IM (AMPS)	14.6	R1	.258 X1 .906
BASE SPEED	1755	S.F.	1.0	P.F. @NL/FL	.060/.796	R2	.191 X2 1.03
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK ² (Lb-Ft ²)	.8		XM 18.9

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 5-31-06

**A-C MOTOR
PERFORMANCE
CURVES**

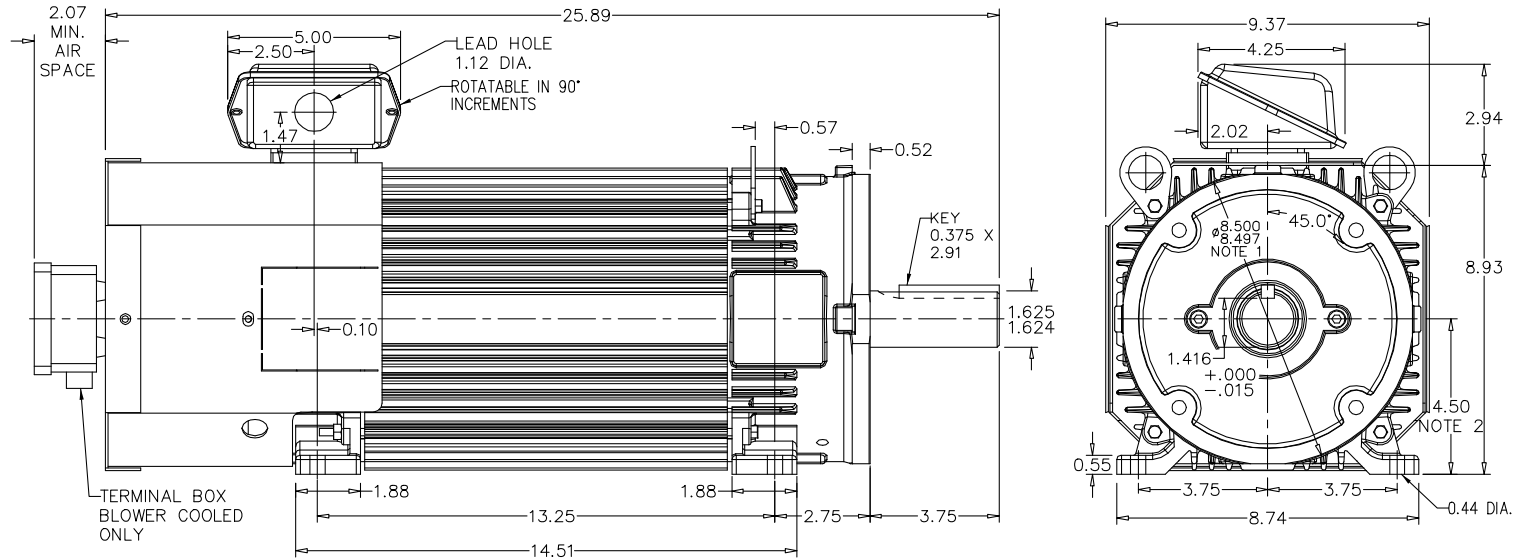
L3218A
SH 2 OF 2
ISSUE DATE 8-2-16

RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING
CURRENT MOTOR
FL1852CZ

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT / NEMA 250TC C-FACE
DRIVE METHOD: COUPLED OR BELTED

COOLING: BLOWER COOLED or
FAN COOLED
ACCESSORIES: PROVISIONS FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

617235-023



NOTE 1:

C-FACE & TACHOMETER MOUNTING
1/2-13 TAP, 1.00 DEEP, ON A 7.25 DIA. BOLT CIRCLE
NOTE 2: FACE RUNOUT AND ECCENTRICITY 0.004 MAX. T.I.R.
SHAFT HEIGHT WILL NOT BE EXCEEDED
SHIMS UP TO 0.03 INCHES IN THICKNESS ARE USUALLY
REQUIRED FOR COUPLED OR GEARED MACHINES

TERMINAL BOX MAY BE LOCATED F1 OR F2 IF SPECIFIED
40 AMP STEEL TERMINAL BOX SHOWN
REFER TO 616779-50 FOR SPECIFIED TERMINAL BOX DIMENSIONS
REFER TO 616779-55 FOR SPECIFIED TACHOMETER DIMENSIONS

MOTOR WEIGHT: 209 LBS. (MAY VARY 15%)
DIMENSIONS ARE IN INCHES SCALE: 1.00

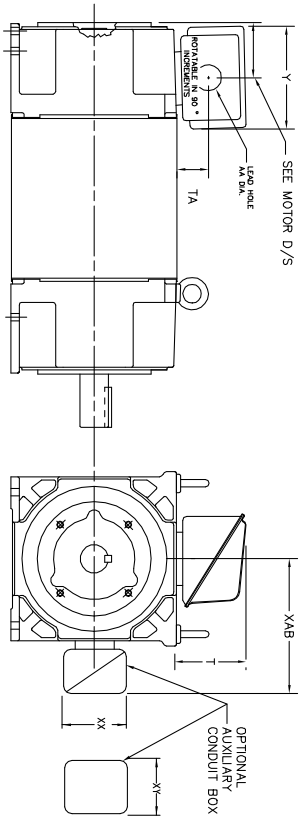
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: CLARIFY MOUNTING HOLE DIMENSIONS			BALDOR	
REV. LTR: B	VERSION: 02	TDR: 00000931418	DIM SH 250TC RPMAC TEBC/FC FL1852CZ FT MT PROV FOR TACH	
FILE: \RGG\00003\273	REVISED: 01:34:52 06/23/2015	BY: RGGWT	SH 1 of 1	
MTL: -				

617235-023

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	2.38	4.38	1.75/2.00
FL180	CAST IRON	N	208	706320007A	6.82	2.00	7.00	2.50/3.00
FL180	CAST IRON	Y/N	400	706320007A	6.78	2.38	4.38	3.00/3.50
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	0754520009	7.38	2.38	4.54	1.94
FL210 & RL210	STEEL	N	305	706320016A	9.00	4.12	8.44	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	706310056B	11.42	4.00	6.72	2.50
FL250 & RL250	STEEL	N	61	0754520009	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	305	706320016A	9.00	4.12	8.44	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	706310056B	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	706310056B	9.00	3.06	5.40	PC36/PG16
FL280 & RL280	STEEL	N	305	706320016A	11.42	4.00	6.72	2.50
FL280 & RL280	STEEL	N	500	706320017A	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	706310056B	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	FRAME SIZE	XAB	XX	XY	FRAME SIZE	XAB	XX	XY	FRAME SIZE
FL210/FL180/FL132/FL112	7.38	4.25	4.25	602007-26-A	10.88	8.00	8.00	706310-3-B	11.88	8.00	8.00	706310-3-B
FL250/FL160/FL132/FL112	8.44	4.25	4.25	602007-26-A	11.88	8.00	8.00	706310-3-B	12.88	8.00	8.00	706310-3-B
FL280/FL180/FL280/FL180	9.12	4.25	4.25	602007-26-A	12.62	8.00	8.00	706310-3-B	13.62	8.00	8.00	706310-3-B

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

TERMINAL BOX CAN BE ROTATED FOR LEAD INLET 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.

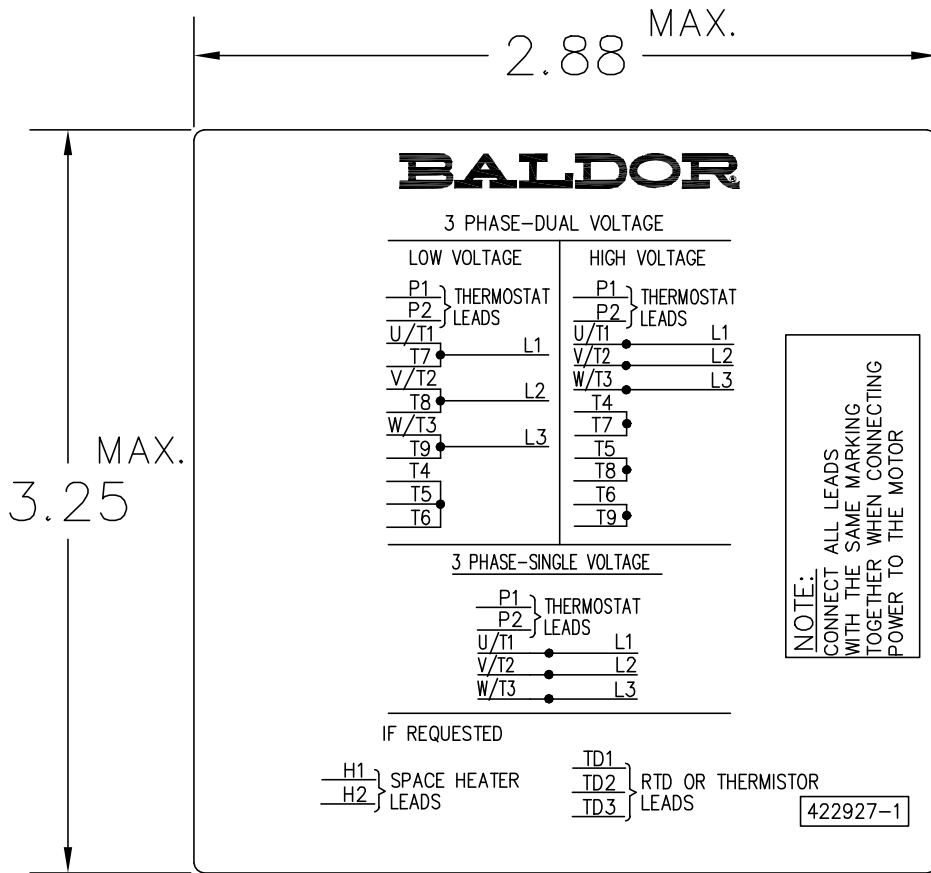
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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.

NOTE:
CONNECT ALL LEADS
WITH THE SAME MARKING
TOGETHER WHEN CONNECTING
POWER TO THE MOTOR

422927-1

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