

ABB BALDOR RELIANCE III

Customer information packet

IDBRPM589004

900HP, 1750, 460V, FL5830, TEBC, F3

Specifications

Enclosure	TEBC
Frame	FL5830Z
Frame Material	Exposed Laminations
Frequency	90.00 Hz
Output @ Frequency	900.000 HP @ 90 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 90 HZ
Voltage @ Frequency	460.0 V @ 90 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	1041.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	1041.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	104.80 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	4.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1794 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L8806A
Layout	619718-003
Eff. date	01-19-2022
CD Diagram	422927-001
Poles	06
Leads	
Proprietary	False
Created date	07-29-2021

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

Nameplate

000613006MY							
	DUTY	HP	RPM	AMPS	VOLTS	HZ	
	CONT	900	1794		1041	460	90
	CONT	900	2100		1026	460	105.4
CAT.NO.	IDBRPM589004			SPEC. NO.	F58-A000-0046		
SER.NO				FR	FL5830Z	INSUL	H
PH.	3	MAX SAFE SPEED		2250	AMB.	40	MIN. AMB.
DESIGN NO.	L8806A		TYPE		ENCL.	TEAO-BC	
S.F.	1.00		D.E. BRG.		140BC02J30X		
ENCL MOD			O.D.E. BRG.		130RU02M30X		
	IP44						

FRAME	FL5830	AMPS	1041	MAX SAFE SPEED	2000				
HP	900	DUTY	CONT	IM (AMPS)	379	R1	.00085	X1	.0260
BASE SPEED	1794	S.F.	1.0	P.F. @NL / FL	.022/.849	R2	.00068	X2	.0277
PHASE/HZ	3/90	AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	705			XM	.676

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1794	900	2634	460	90	1042
MAX SPEED	2101	900	2249	460	105.4	1026
MIN SPEED	0	0	2634	2.65	.3135	1042

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	90	379
1/4	1799	225	657	460	90	457
1/2	1797	451	1317	460	90	620
3/4	1795	675	1974	460	90	820
FULL LOAD	1794	899	2634	460	90	1042
0/L	1786	1792	5267	460	90	2050

REMARKS:
CALCULATED DATA

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DRAWN BY: B.GRANT
CHECKED BY: B.GRANT
APPROVED BY: J.MARTIN
DATE: 2-26-21

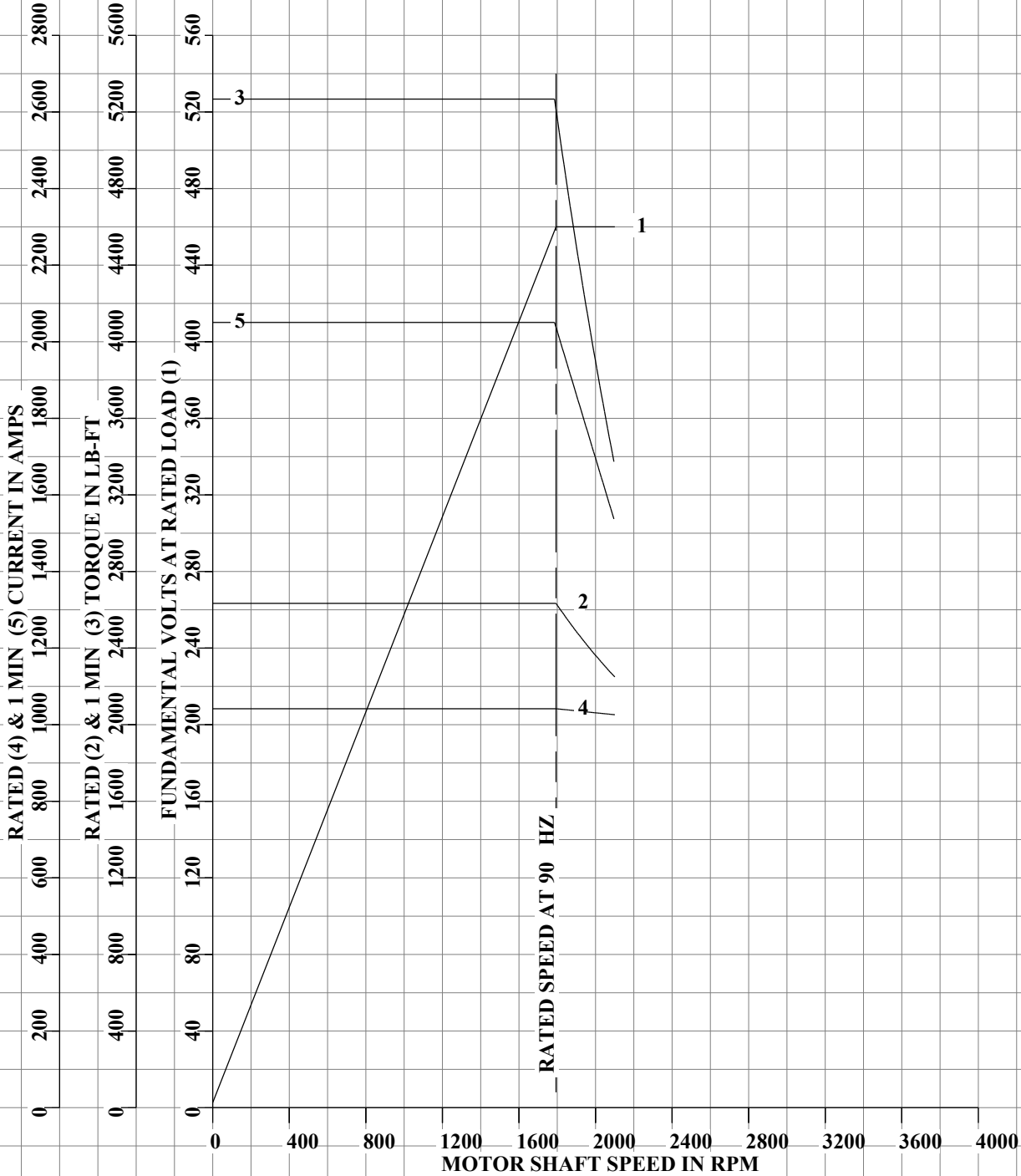
**AC MOTOR
PERFORMANCE
DATA**

L8806A

ISSUE DATE 2-26-21

FRAME	FL5830	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)		
HP	900	AMPS	1041	MAX SAFE SPEED	2000	R1	.00085	X1 .0260
BASE SPEED	1794	DUTY	CONT	IM (AMPS)	379	R2	.00068	X2 .0277
PHASE/HZ	3/90	S.F.	1.0	P.F. @NL / FL	.022/.849			XM .676
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	705			

VARIABLE SPEED AC MOTOR CURVES



CALCULATED DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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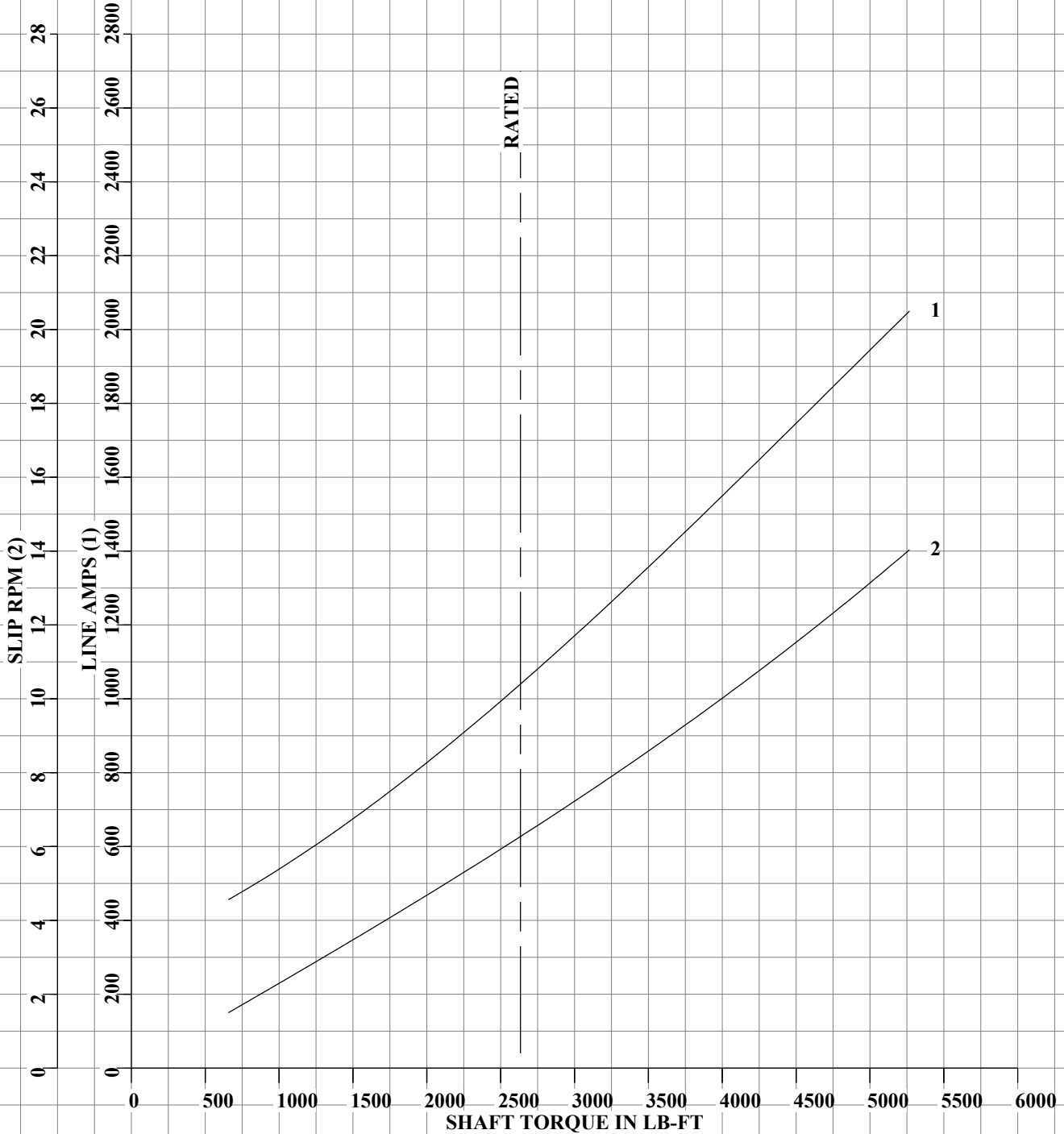
**AC MOTOR
PERFORMANCE
DATA**

L8806A

ISSUE DATE: 2-26-21

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BASE SPEED	1794	DUTY	CONT	IM (AMPS)	379	R2	.00068	X2 .0277
PHASE/HZ	3/90	S.F.	1.0	P.F. @NL / FL	.022/.849			XM .676
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	705			

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



CALCULATED DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

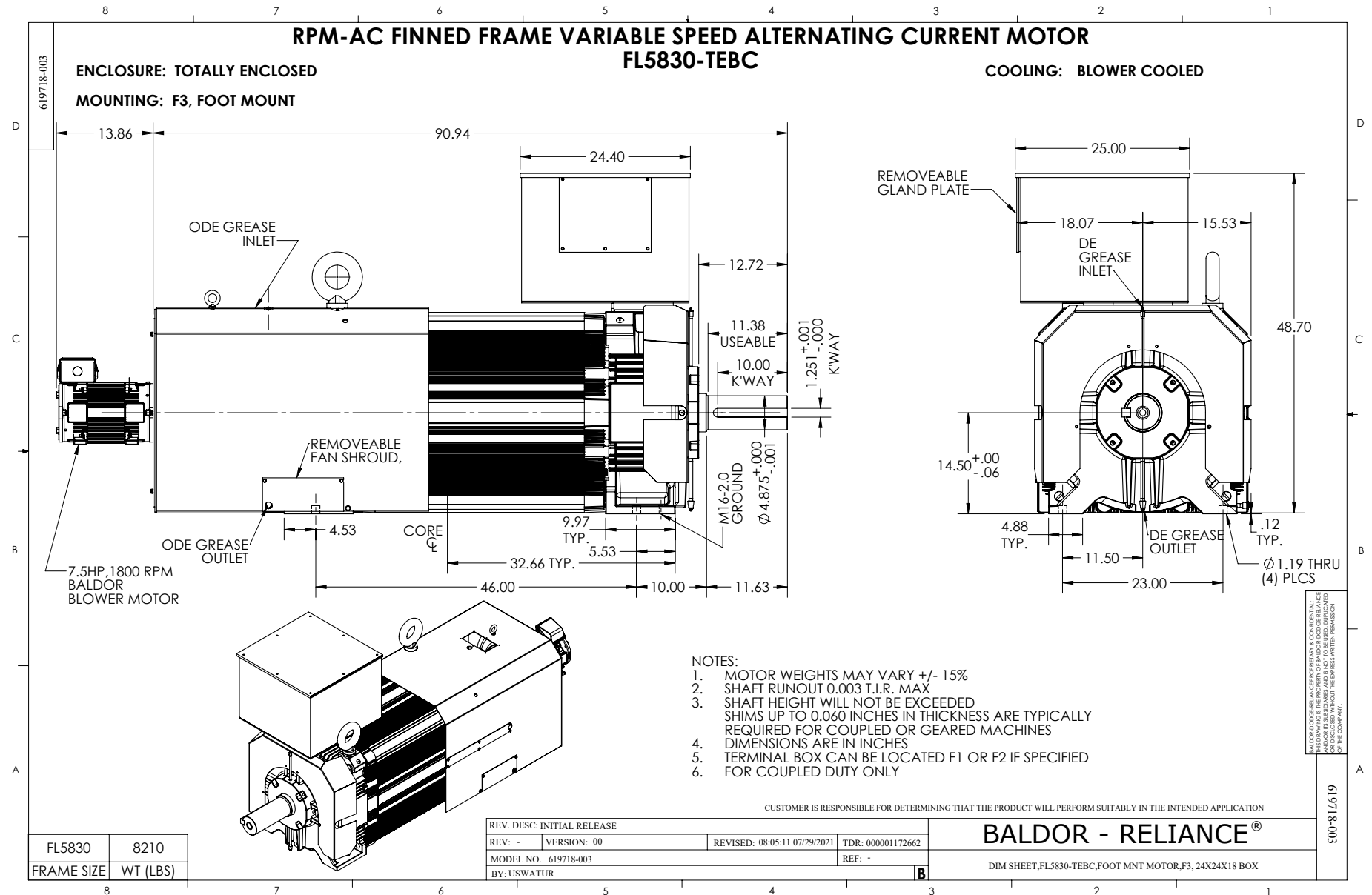


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**AC MOTOR
PERFORMANCE
DATA**

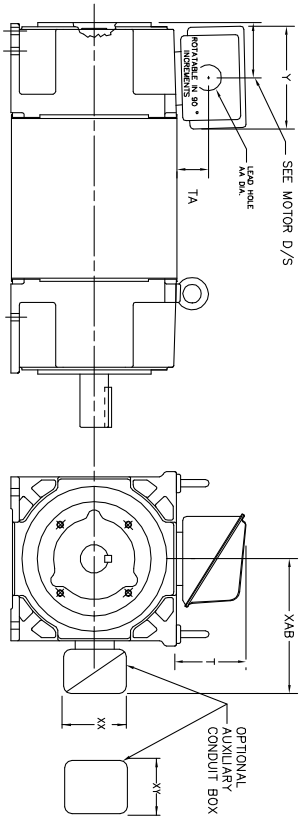
L8806A

ISSUE DATE: 2-26-21



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	2.35	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/2.00
FL180	CAST IRON	Y/N	208	706320004C	6.75	2.35	4.38	1.50/1.75
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	305	706320016A	9.00	4.12	8.44	4.59
FL210 & RL210	CAST IRON	N	110	075460052B	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	305	706320016A	9.00	4.12	8.44	4.59
FL250 & RL250	CAST IRON	N	110	075460052B	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	305	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	XA	XY	PART NUMBER	FRAME SIZE	YAB	XA	XY	PART NUMBER
FL210/RL210/FL112	7.38	4.25	4.25	602007-25-A	FL210/RL210/FL112	10.88	8.00	8.00	706310-3-B
FL250/RL250/FL160	8.44	4.25	4.25	602007-25-A	FL250/RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/RL280/FL180	9.12	4.25	4.25	602007-25-A	FL280/RL280/FL180	12.62	8.00	8.00	706310-3-B

(1) 1" MIN. CONDUIT.
(2) 1/2" MIN. 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.

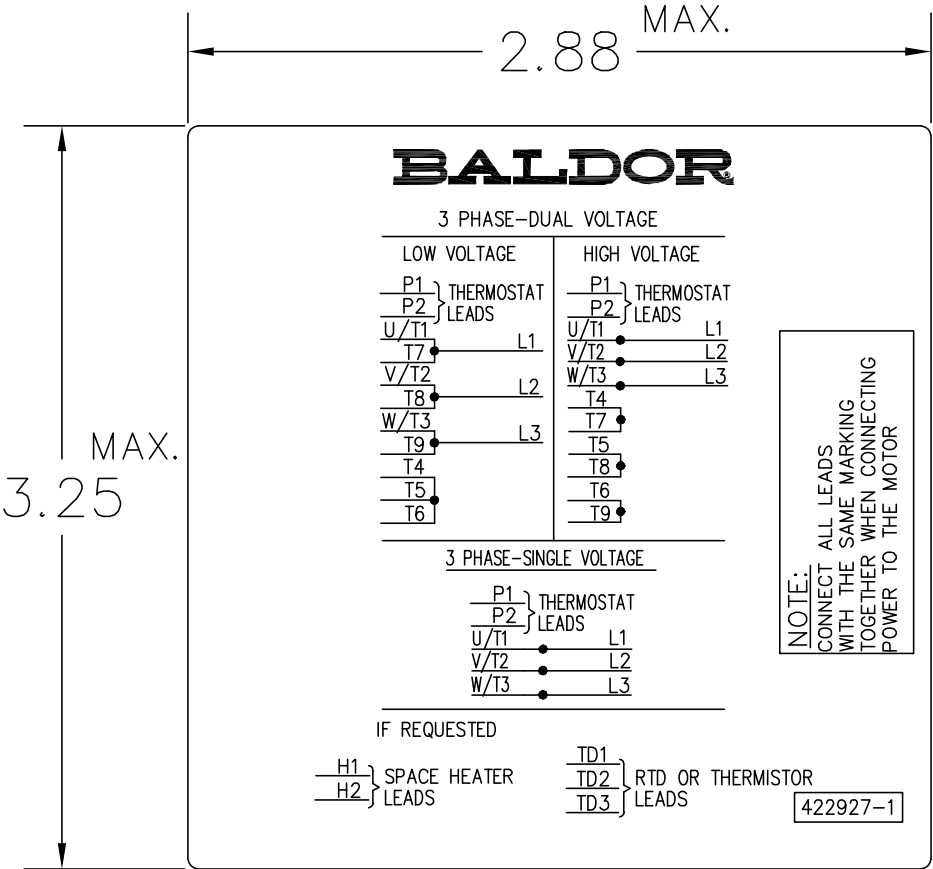
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD 706310-637 & 639 BOX	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: 000000788708
FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR
EXTERNAL CONNECTION LABEL
SH 1 of 1