

ABB BALDOR RELIANCE III

Customer information packet

IDBRPM587004

700HP, 1750, 460V, FL5824, TEBC, F3

Specifications

Enclosure	TEBC
Frame	FL5824Z
Frame Material	Exposed Laminations
Frequency	878.00 Hz
Output @ Frequency	700.000 HP @ 878 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 878 HZ
Voltage @ Frequency	460.0 V @ 878 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	818.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	818.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	98.80 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	1750 rpm
Starting Method	Full Voltage

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L9018A
Layout	619708-013
Eff. date	12-17-2024
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	700	1750		818	460		87.8	
	CONT	700	2100		802	460		105.4	
CAT.NO.	IDBRPM587004		SPEC. NO.		F58-A000-0044				
SER.NO			FR	FL5824Z	INSUL	H			
PH.	3	MAX SAFE SPEED		2250	AMB.	40	MIN. AMB.		-25
DESIGN NO.	L9018A		TYPE		ENCL.		TEAO-BC		
S.F.	1.00		D.E. BRG.		140BC02J30X				
ENCL MOD			O.D.E. BRG.		130RU02M30X				
	IP44								

FRAME	FL5824	AMPS	818	MAX SAFE SPEED	2250				
HP	700	DUTY	CONT	IM (AMPS)	311	R1	.00119	X1	.0334
BASE SPEED	1750	S.F.	1.0	P.F. @NL / FL	.023/.841	R2	.00089	X2	.0345
PHASE/HZ	3/87.8	AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	582			XM	.821

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1750	700	2101	460	87.8	820
MAX SPEED	2101	700	1750	460	105.4	803
MIN SPEED	0	0	2101	2.78	.2992	820

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1756	0	0	460	87.8	311
1/4	1755	175	524	460	87.8	371
1/2	1753	350	1049	460	87.8	495
3/4	1752	525	1573	460	87.8	648
FULL LOAD	1750	700	2101	460	87.8	820
0/L	1741	1567	4727	460	87.8	1804

REMARKS:
TYPICAL DATA



DRAWN BY: C. ETIENNE
CHECKED BY: C. ETIENNE
APPROVED BY: J. MARTIN
DATE: 7/16/21

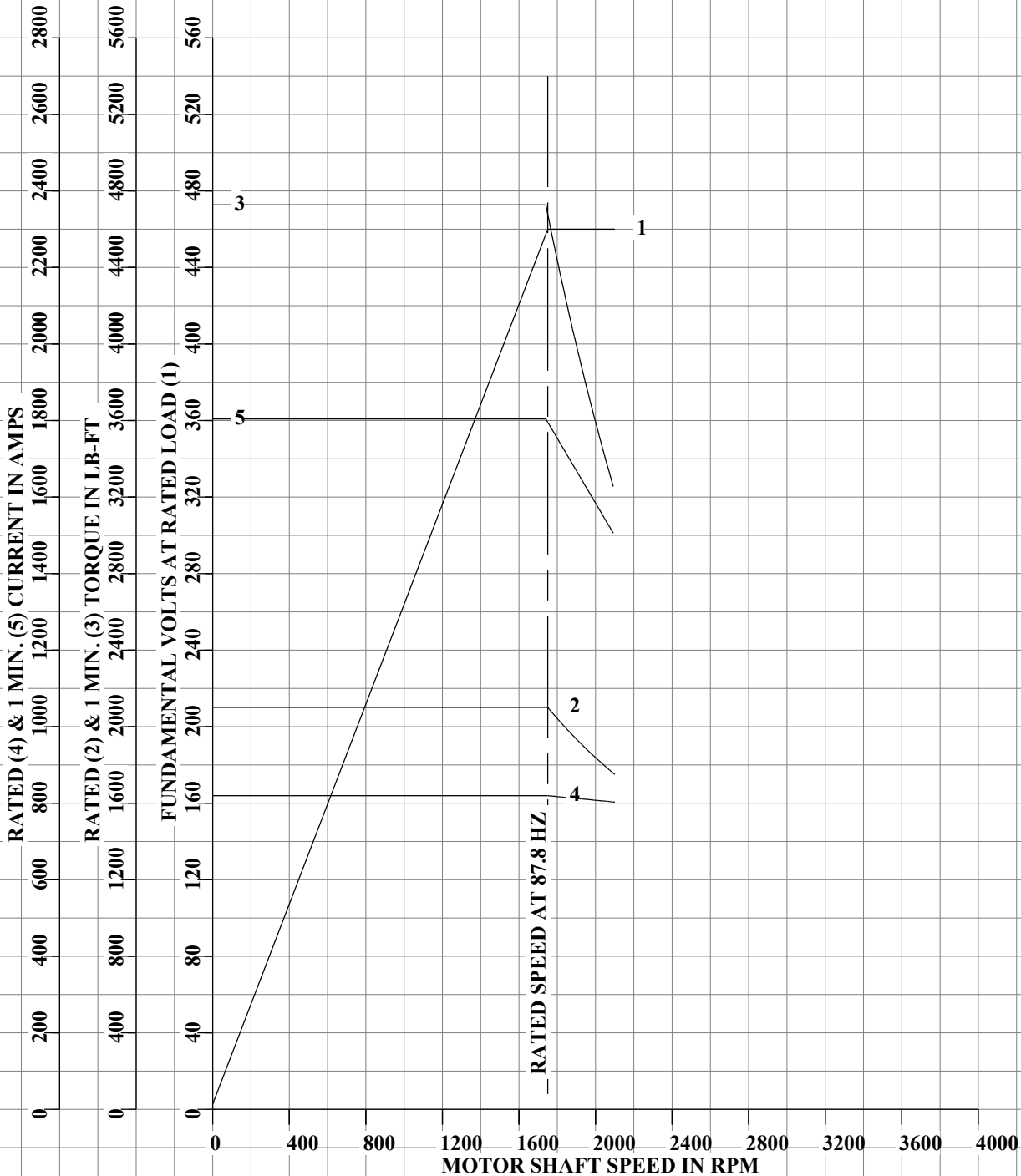
**AC MOTOR
PERFORMANCE
DATA**

L9018A

ISSUE DATE 7/16/21

FRAME	FL5824	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)		
HP	700	AMPS	818	MAX SAFE SPEED	2250	R1	.00119	X1 .0334
BASE SPEED	1750	DUTY	CONT	IM (AMPS)	311	R2	.00089	X2 .0345
PHASE/HZ	3/87.8	S.F.	1.0	P.F. @NL / FL	.023/.841			XM .821
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	582			

VARIABLE SPEED AC MOTOR CURVES



TYPICAL DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



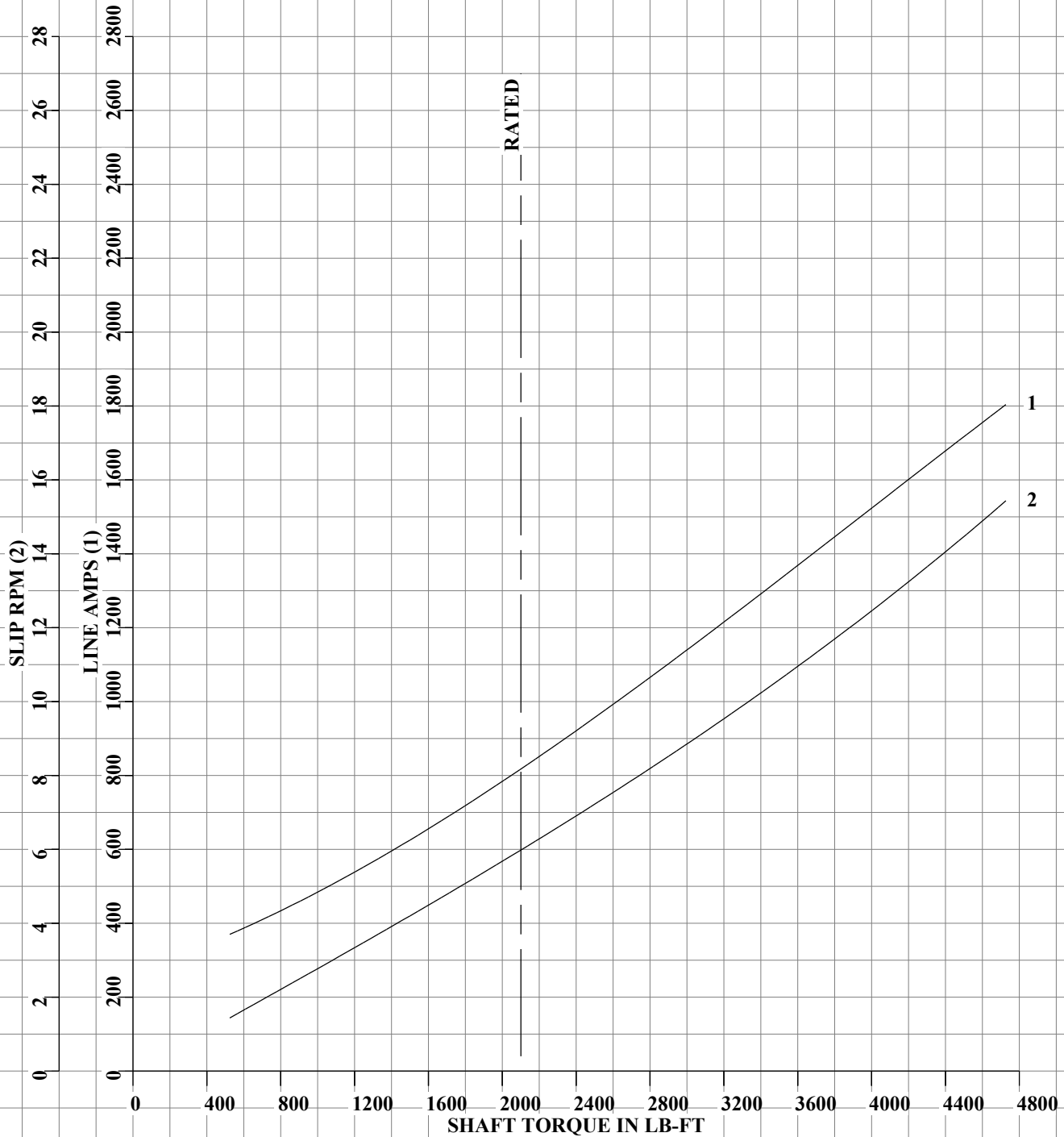
DRAWN BY: C. ETIENNE
 CHECKED BY: C. ETIENNE
 APPROVED BY: J. MARTIN
 DATE: 7/16/21

**AC MOTOR
PERFORMANCE
DATA**

L9018A
 ISSUE DATE: 7/16/21

FRAME	FL5824	VOLTS	460	ENCLOSURE	TFC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)		
HP	700	AMPS	818	MAX SAFE SPEED	2250	R1	.00119	X1 .0334
BASE SPEED	1750	DUTY	CONT	IM (AMPS)	311	R2	.00089	X2 .0345
PHASE/HZ	3/87.8	S.F.	1.0	P.F. @NL / FL	.023/.841			XM .821
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	582			

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



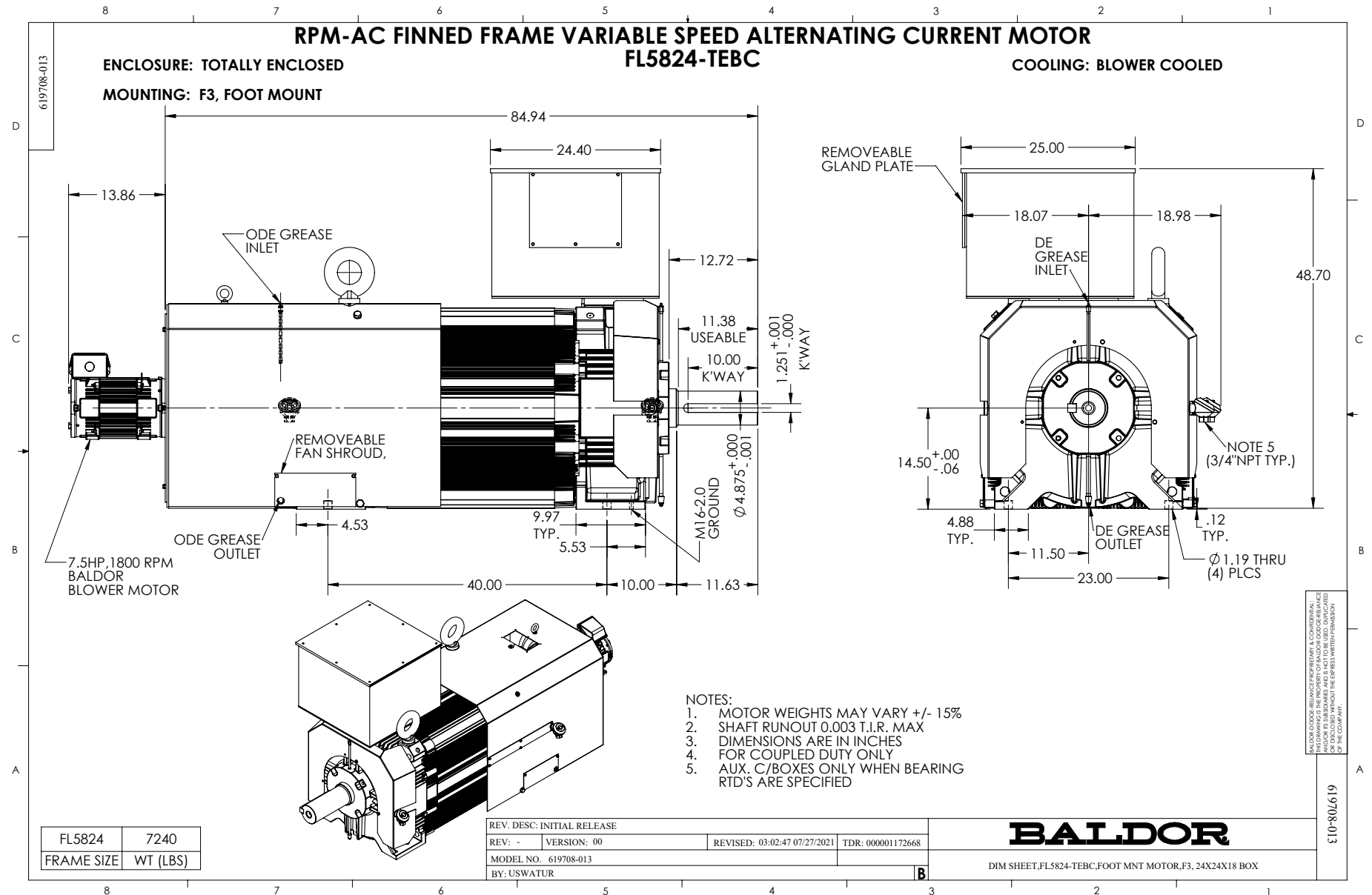
TYPICAL DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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 DATE: 7/16/21

**AC MOTOR
PERFORMANCE
DATA**

L9018A
 ISSUE DATE: 7/16/21



RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR

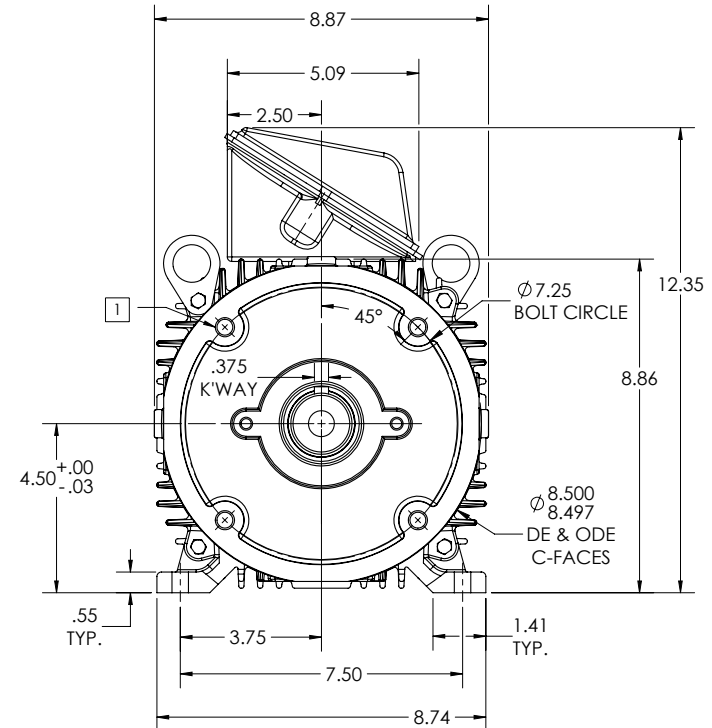
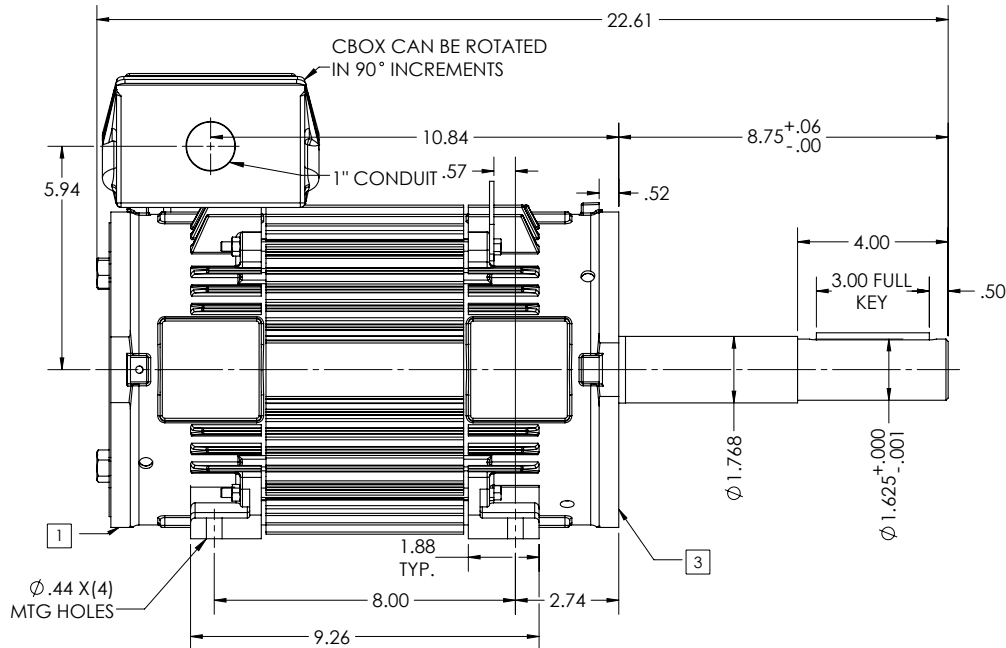
ENCLOSURE: TOTALLY ENCLOSED

FL1831CZ

COOLING: TEAO/TENV

MOUNTING: F3 FOOT/NEMA 180 C-FACE

DRIVE METHOD: DIRECT DRIVE



NOTES:

1. C-FACE & ODE TACH MOUNTING PROVISIONS = (4) 1/2-13 TAP X 1.0 DP
2. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
3. C-FACE FIT & FACE ECCENTRICITY = 0.004" T.I.R. MAX
4. DIMENSIONS ARE IN INCHES
5. MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF SHAFT EXTENSION IS .003" T.I.R.
6. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

2 WEIGHT (LBS): 158.6

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

REV. DESC: INITIAL RELEASE

REV: - VERSION: 00

REVISED: 04/28/17 03/06/2017

TDR: 000001018909

MODEL NO. 617226-328

REF: -

BY: MGHJMZ2

BALDOR

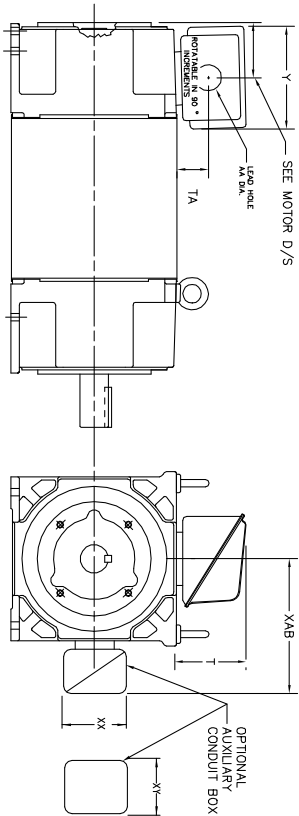
DIM SHT FL1831CZ RPM AC TENV FT / NEMA 180 C FACE MTG

SHEET NUMBER

1 OF 1

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	208	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	XA	XY	PART NUMBER	FRAME SIZE	YAB	XA	XY	PART NUMBER
FL210/RL210/FL112	7.38	4.25	4.25	602007-26-A	FL210/RL210/FL112	10.88	8.00	8.00	706310-3-B
FL250/RL250/FL160	8.44	4.25	4.25	602007-26-A	FL250/RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/RL280/FL280/180	9.12	4.25	4.25	602007-26-A	FL280/RL280/FL280/180	12.62	8.00	8.00	706310-3-B

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

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.
DR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

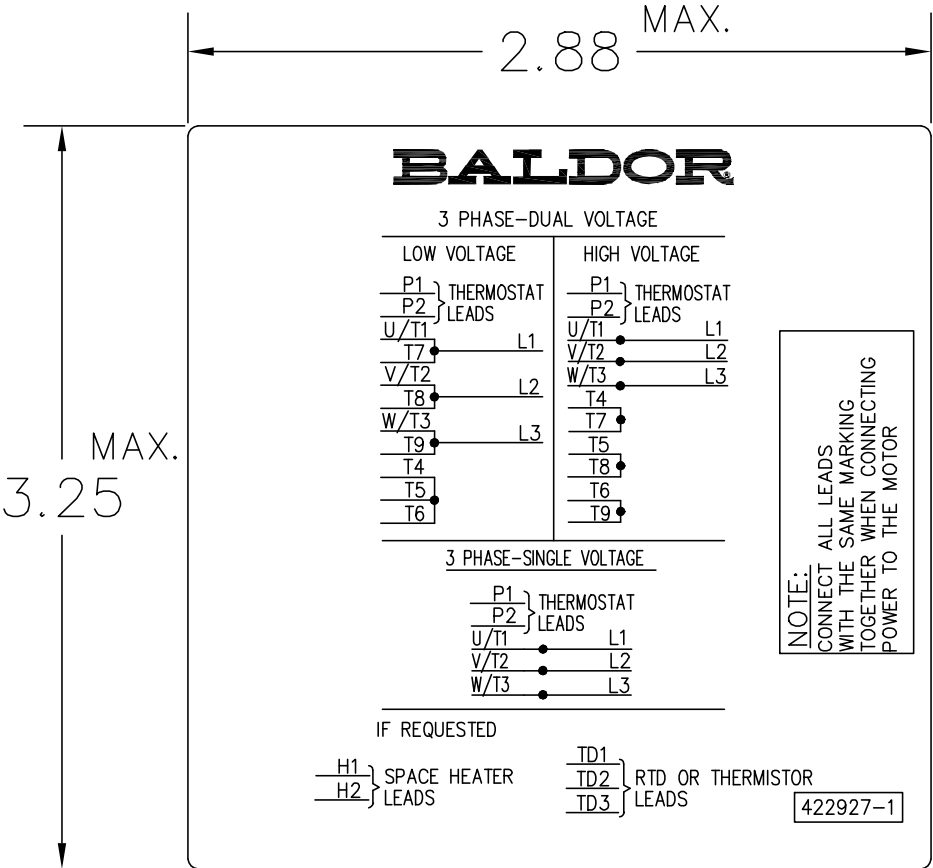
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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