

**BALDOR® • RELIANCE®**

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# Customer information packet

## ZDBRPM281004R1

100HP, 1750, 460V, FL2890, TEBC, F3

## Specifications

Enclosure	TEBC
Frame	FL2890Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	100.000 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	124.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	124.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	46.06 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.624 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1780 rpm
Starting Method	Full Voltage

## Part detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L4052A
Layout	617531-357
Eff. date	03-24-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-09-2021

**Thermal Device - Bearing**

None

**Thermal Device - Winding**

Normally Closed Thermostat

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**Nameplate**

**000613006MY**

	<b>DUTY</b>	<b>HP</b>	<b>RPM</b>	<b>AMPS</b>	<b>VOLTS</b>	<b>HZ</b>	
	CONT	100	1780	124	460		60
	CONT	100	3555	120	460		120
<b>CAT.NO.</b>	ZDBRPM281004R1		<b>SPEC. NO.</b>	F28-A000-0381			
<b>SER.NO</b>		<b>FR</b>	FL2890Z	<b>INSUL</b>	H		
<b>PH.</b>	3	<b>MAX SAFE SPEED</b>	5000	<b>AMB.</b>	45	<b>MIN. AMB.</b>	-25
<b>DESIGN NO.</b>	L4052A	<b>TYPE</b>		<b>ENCL.</b>	TEAO-BC		
<b>S.F.</b>	1.00	<b>D.E. BRG.</b>	75BC02J30X				
<b>ENCL MOD</b>		<b>O.D.E. BRG.</b>	55BC02J30X				
	IP44						

REL. S. O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)
FRAME	FL2890	AMPS	124	MAX SAFE RPM	4800	
HP	100	DUTY	CONT	IM (AMPS)	59	R1 .0288 X1 .200
BASE SPEED	1780	S. F.	1.0	P. F. @NL/FL	.035/ .805	R2 .0185 X2 .254
PHASE/HERTZ	3/60	AMB °C/INSUL	45/H	WK <sup>2</sup> (Lb-Ft <sup>2</sup> )	9.7	XM 4.49


**RATED FULL LOAD DATA**

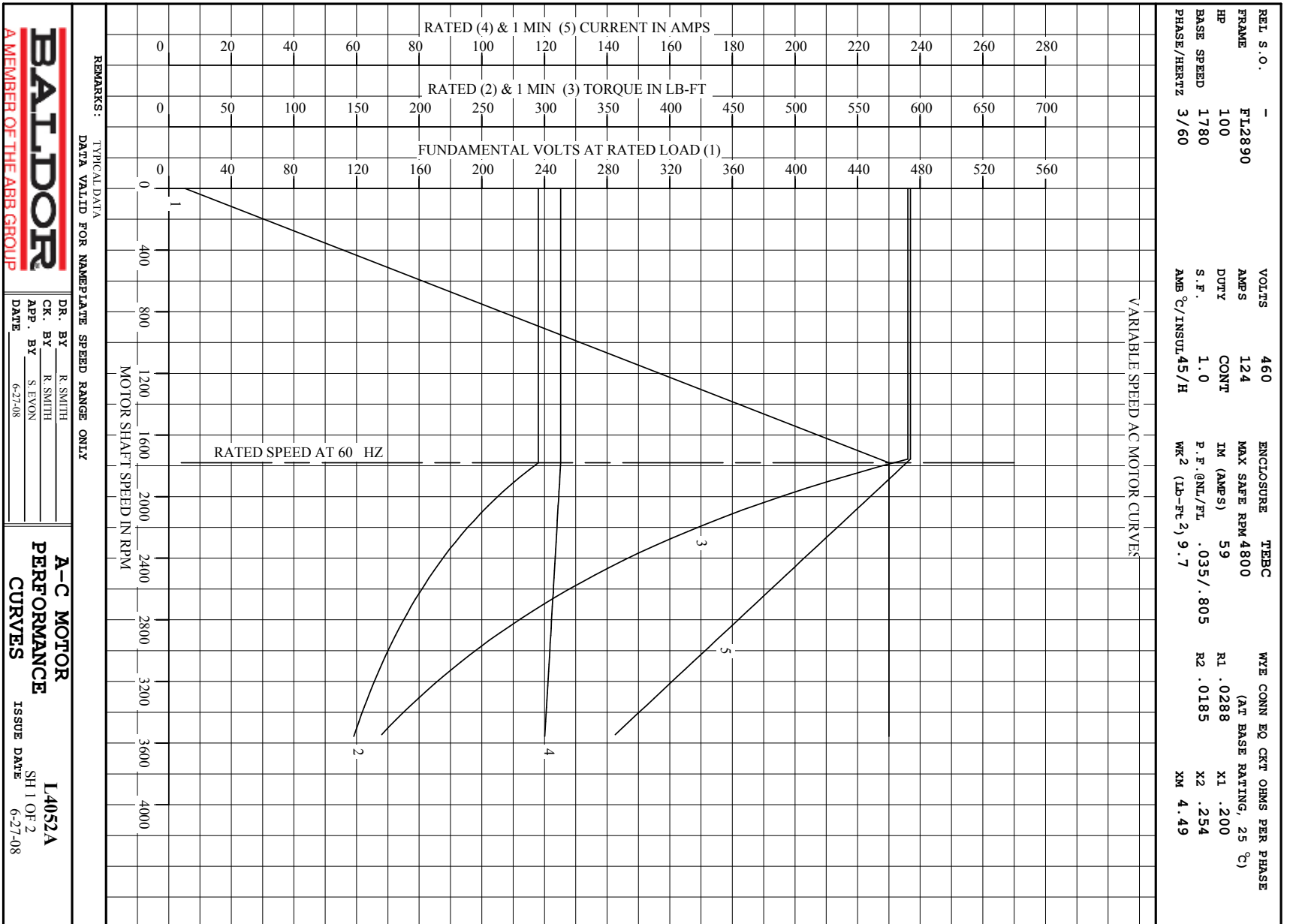
	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1781	100	295	460	60	125
MAX SPEED	3556	100	148	460	120	120
MIN SPEED	0	0	295	10.5	.648	125

**LOAD PERFORMANCE AT BASE SPEED**

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	58.3
1/4	1795	25.0	73	460	60	65.8
1/2	1791	50.1	147	460	60	81.0
3/4	1786	74.9	220	460	60	101
FULL LOAD	1781	100	295	460	60	125
O/L	1756	197	590	460	60	237

REMARKS : TYPICAL DATA

 <p><b>A MEMBER OF THE ABB GROUP</b></p>	DR. BY	R. SMITH	<p><b>A-C MOTOR PERFORMANCE DATA</b></p> <p>ISSUE DATE 6-27-08</p>
	CK. BY	R. SMITH	
	APP. BY	S. EVON	
	DATE	6-27-08	

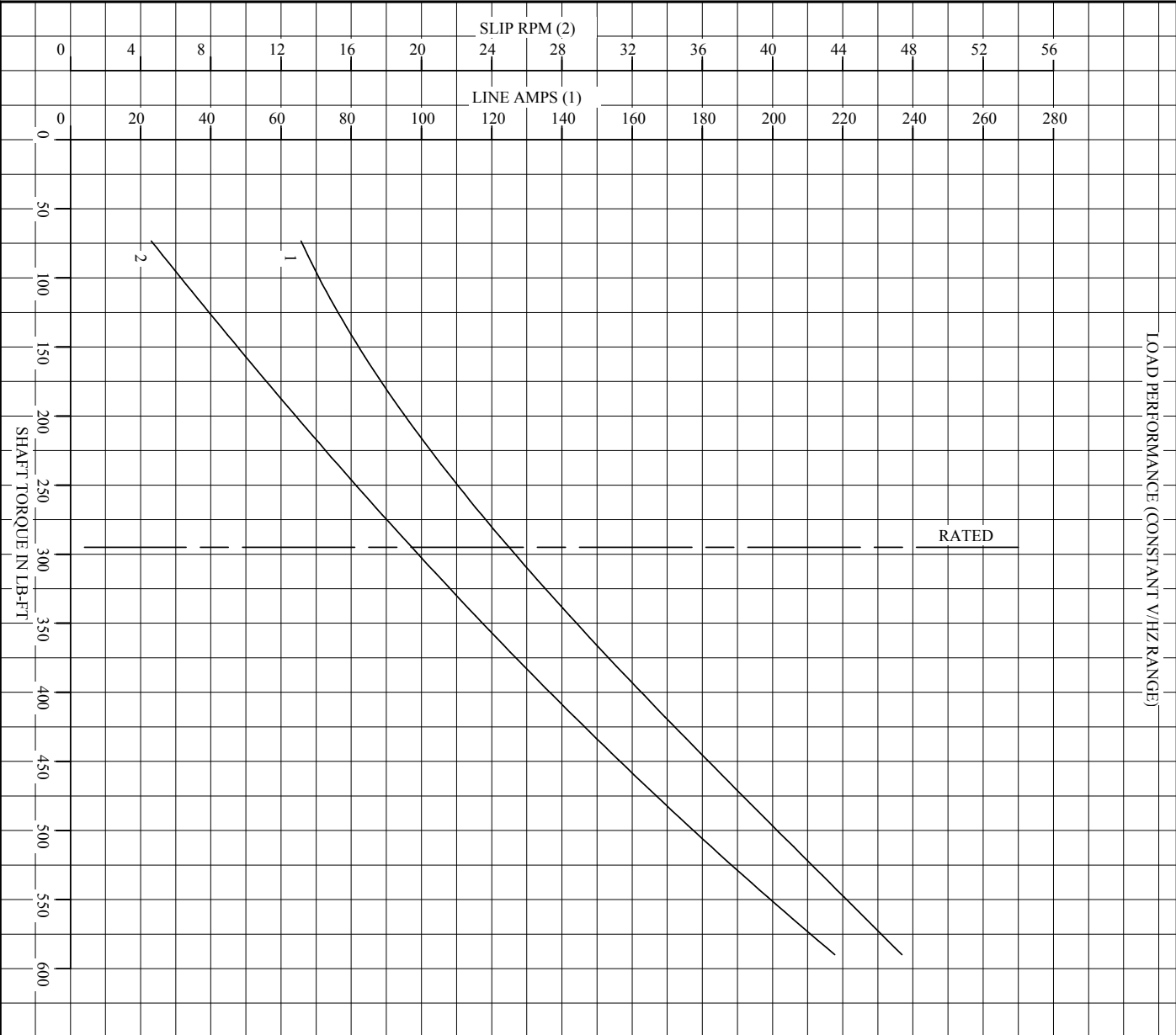


**BALDOR**  
A MEMBER OF THE ABB GROUP

DR. BY R. SMITH  
CK. BY K. SMITH  
APP. BY S. EVON  
DATE 6-27-08

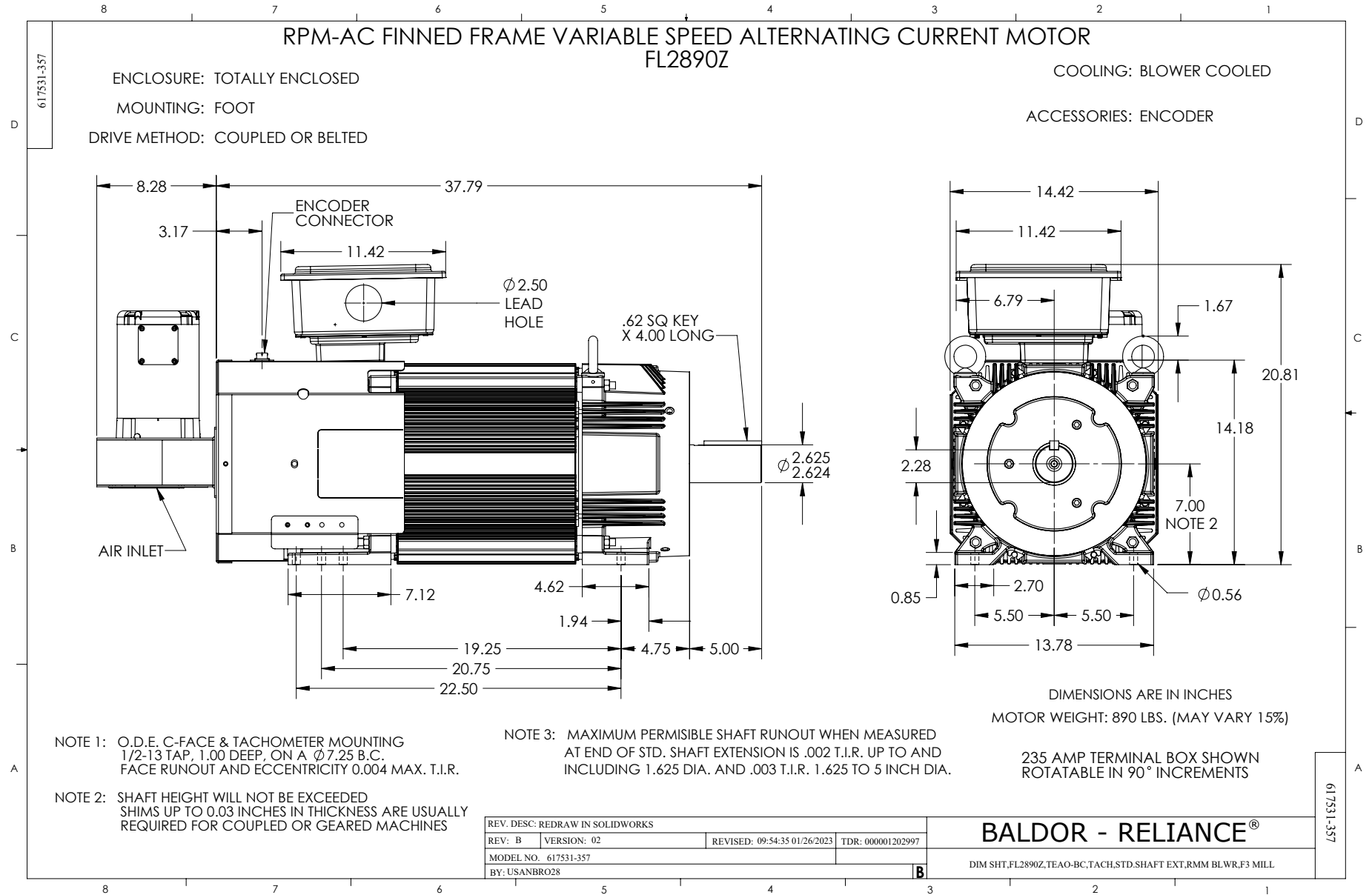
**A-C MOTOR PERFORMANCE CURVES**  
L4052A  
SH 1 OF 2  
ISSUE DATE 6-27-08

REL. S. O.	-	VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)
FRAME	FL2890	AMPS	124	MAX SAFE RPM	4800	R1 .0288 X1 .200
HP	100	DUTY	CONT	IM (AMPS)	59	R2 .0185 X2 .254
BASE SPEED	1780	S.F.	1.0	P.F. @NL/FL	.035/.805	XM 4.49
PHASE/HERTZ	3/60	AMB °C/INSUL	45/H	WK 2 (LB-Ft 2)	9.7	



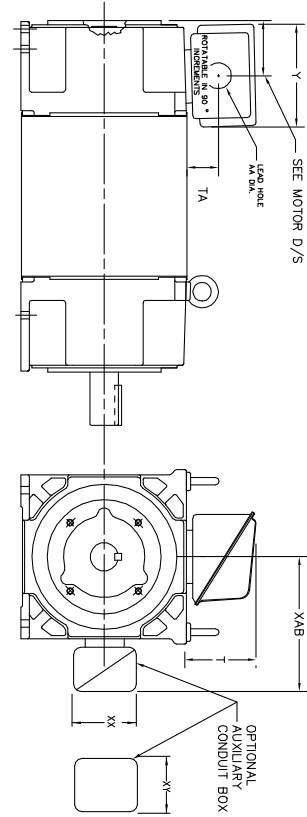
REMARKS: TYPICAL DATA  
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

<b>BALDOR</b>	DR. BY R. SMITH	<b>A-C MOTOR</b>	<b>LA052A</b>
<b>A MEMBER OF THE ABB GROUP</b>	CK. BY R. SMITH	<b>PERFORMANCE</b>	SH 2 OF 2
	APP. BY S. EVON	<b>CURVES</b>	ISSUE DATE 6-27-08
	DATE 6-27-08		



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	Y/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	075452001A	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	336	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	075452001A	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	336	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	7063100637A	14.39	7.43	12.15	BLANK

FRAME SIZE	YAB	XX	XY	PART NUMBER	FRAME SIZE	YAB	XX	XY	PART NUMBER
FL120/FL160/FL200/FL180	7.38	4.25	4.25	602007-26-A	FL120/FL160/FL200/FL180	10.88	8.00	8.00	706310-3-B
FL250/FL180/FL280/FL180	8.44	4.25	4.25	602007-26-A	FL250/FL180/FL280/FL180	11.88	8.00	8.00	706310-3-B
FL280/FL180/FL280/FL180	9.12	4.25	4.25	602007-26-A	FL280/FL180/FL280/FL180	12.62	8.00	8.00	706310-3-B

FRAME SIZE	YAB	XX	XY	PART NUMBER	FRAME SIZE	YAB	XX	XY	PART NUMBER
FL120 & RL280	STEEL	N	160	7063100637A	7.26	3.50	7.06	2.50	
FL120 & RL280	STEEL	N	300	706320016A	9.00	4.12	8.44	4.89	
FL120 & RL280	STEEL	N	500	702656001C	14.62	7.56	12.70	5.00	
FL120 & RL280	CAST IRON	N	140	706320017A	9.25	4.81	8.56	3.0 TAP	
FL120 & RL280	CAST IRON	N	210	706320015A	10.50	4.88	9.00	4.0 TAP	
FL120 & RL280	CAST IRON	N	310	706320014D	15.00	7.56	12.81	5.0 TAP	
FL120 & RL280	MILL	Y	100	706310056A	7.75	2.30	4.40	PC29/PG16	
FL120 & RL280	MILL	Y	160	706310056B	9.00	3.06	5.40	PC36/PG16	
FL120 & RL280	MILL	Y/N	235	7063100637A	11.42	4.00	6.72	2.50	
FL120 & RL280	MILL	Y	400	7063100638B	14.39	7.43	12.15	BLANK	

(1) 7/8" PIPE TAP  
(2) CUSTOMER TO PROVIDE W/LE TYP CONDUIT.  
(3) DIM SA ON 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.

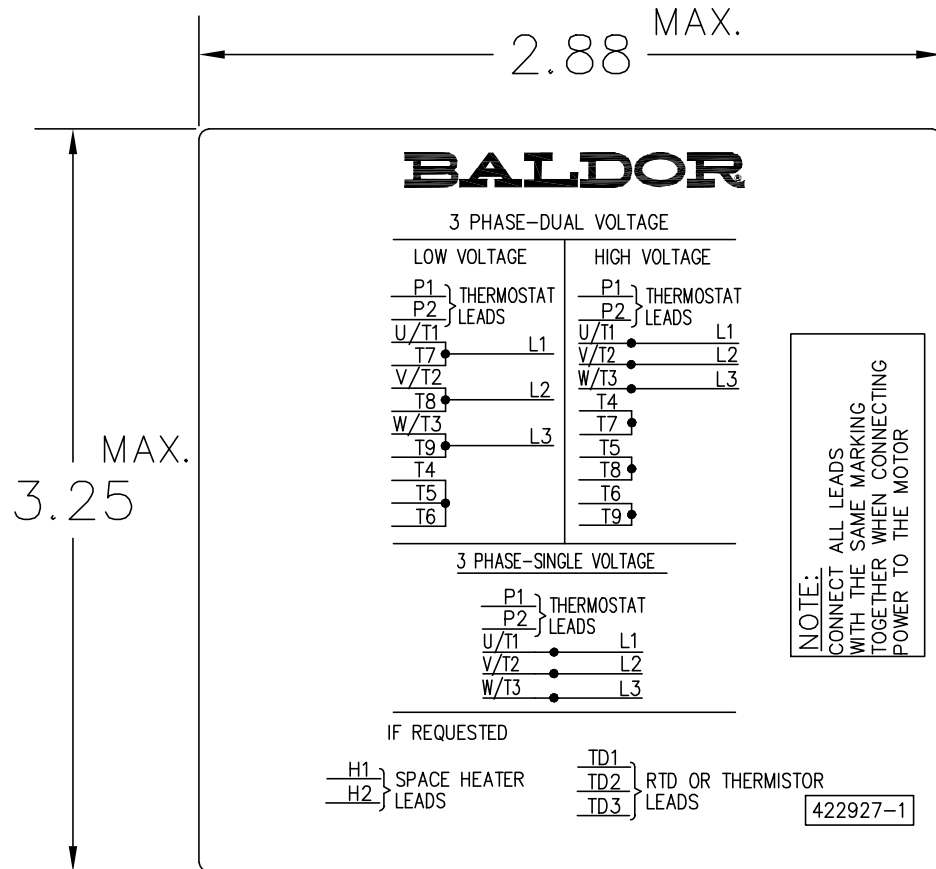
050-677919

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  
SH 1 of 1

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