

ABB BALDOR RELIANCE III

Customer information packet

IDDRPM251004ED

100HP, 1750, 460V, RL2586, DPFV, F1

Specifications

Enclosure	DPFV
Frame	RL2586Z
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	119.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	RL
Heater Indicator	No Heater
High Voltage Full Load Amps	119.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	38.69 IN
Product Family	Extruder
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.124 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1760 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L9489A
Layout	617222-051
Eff. date	03-23-2023
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	03-02-2023

Thermal Device - Bearing	None
Thermal Device - Winding	Thermostat And RTD

Nameplate

000613006ABS									
	DUTY	HP	RPM	AMPS	VOLTS	HZ			
	CONT	100	1760		119	460	60		
	CONT	100	2300		116	460	78.4		
CAT.NO.	IDDRPM251004ED		SPEC. NO.		R25-A000-0412				
SER.NO			FR	RL2586Z	INSUL	H			
PH.	3	MAX SAFE SPEED		5000	AMB.	40	MIN. AMB.	-25	
DESIGN NO.	L9489A		TYPE		ENCL.	DPG-FV			
S.F.	1.00		D.E. BRG.		65BC03J30X				
ENCL MOD			O.D.E. BRG.		416821-100FL				
	IP23								

FRAME	RL2586	AMPS	119	MAX SAFE SPEED	5000				
HP	100	DUTY	CONT	IM (AMPS)	41.3	R1	.0597	X1	.231
BASE SPEED	1760	S.F.	1.0	P.F. @NL / FL	.057/.875	R2	.0360	X2	.250
PHASE/HZ	3/60	AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	4.2			XM	6.59

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1758	100	299	460	60	119
MAX SPEED	2296	100	229	460	78.4	116
MIN SPEED	0	0	299	21.3	1.38	119

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	40.5
1/4	1791	25.0	73	460	60	49.9
1/2	1781	50.1	148	460	60	68.6
3/4	1770	75.0	223	460	60	92.3
FULL LOAD	1758	100	299	460	60	119
0/L	1700	193	597	460	60	246

REMARKS:



DRAWN BY: A. BROOKINS
CHECKED BY: B. GRANT
APPROVED BY: J. MARTIN
DATE: 3-1-23

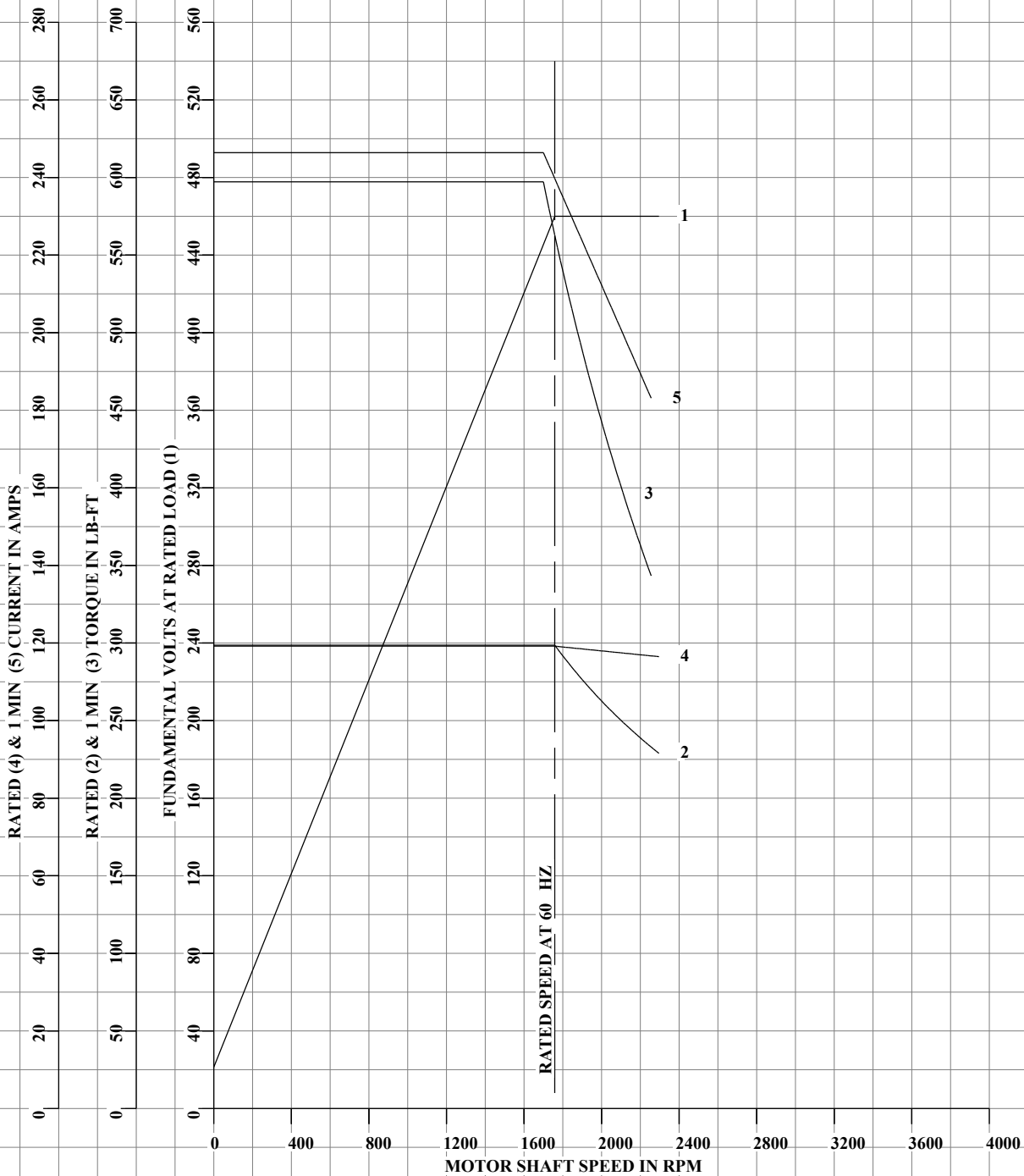
**AC MOTOR
PERFORMANCE
DATA**

L9489A

ISSUE DATE 3-10-23

FRAME	RL2586	VOLTS	460	ENCLOSURE	DPFV	WYE CONN	EQ CKT	OHMS PER PHASE
HP	100	AMPS	119	MAX SAFE SPEED	5000	(AT BASE RATING, 25°C)		
BASE SPEED	1760	DUTY	CONT	IM (AMPS)	41.3	R1	.0597	X1 .231
PHASE/HZ	3/60	S.F.	1.0	P.F. @NL / FL	.057/.875	R2	.0360	X2 .250
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	4.2		XM	6.59

VARIABLE SPEED AC MOTOR CURVES



DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



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 DATE: 3-1-23

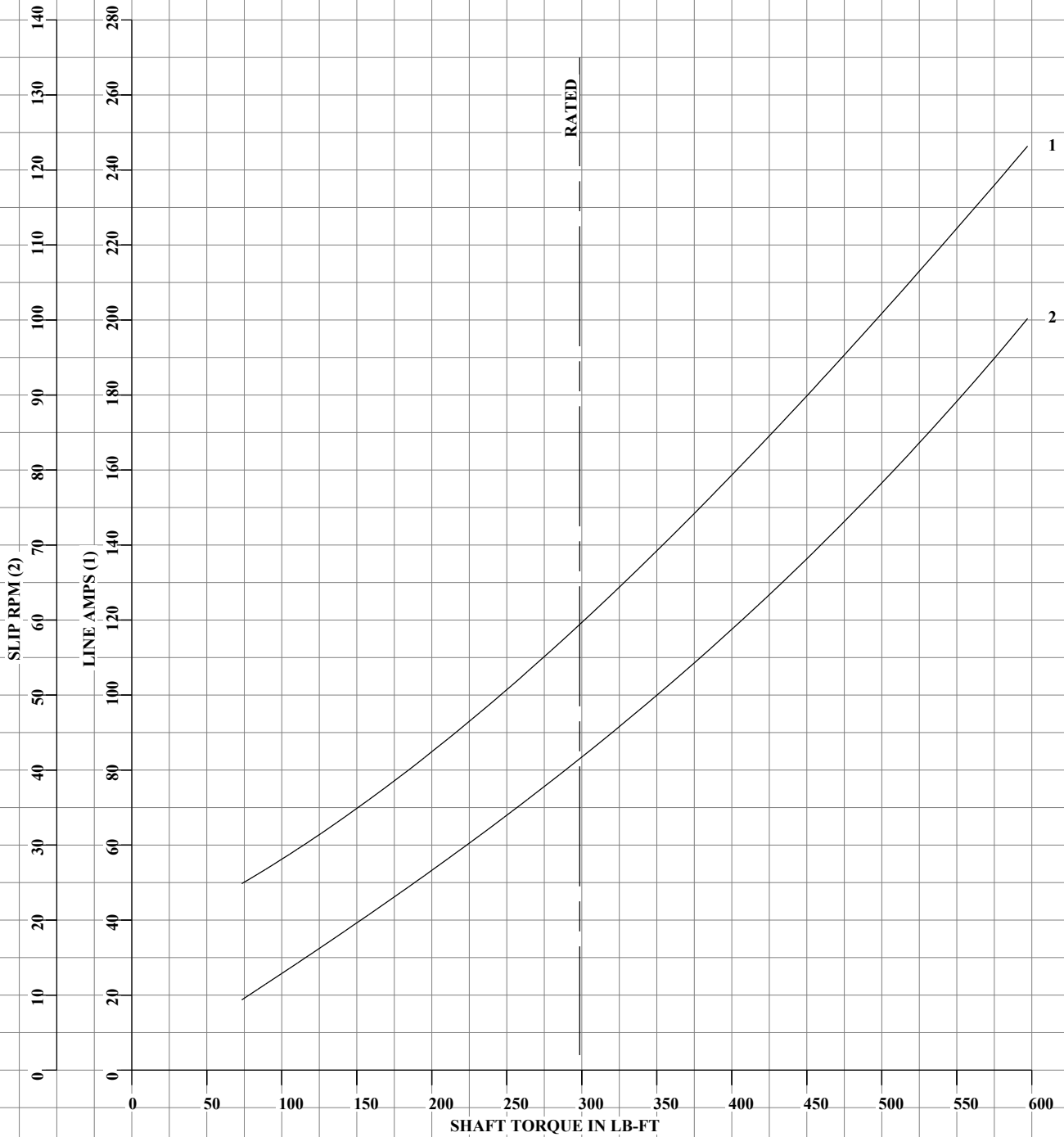
**AC MOTOR
PERFORMANCE
DATA**

L9489A

ISSUE DATE: 3-10-23

FRAME	RL2586	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)		
HP	100	AMPS	119	MAX SAFE SPEED	5000	R1	.0597	X1 .231
BASE SPEED	1760	DUTY	CONT	IM (AMPS)	41.3	R2	.0360	X2 .250
PHASE/HZ	3/60	S.F.	1.0	P.F. @NL / FL	.057/.875			XM 6.59
		AMB.°C / INSUL	40/H	WK ² (Lb-Ft ²)	4.2			

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



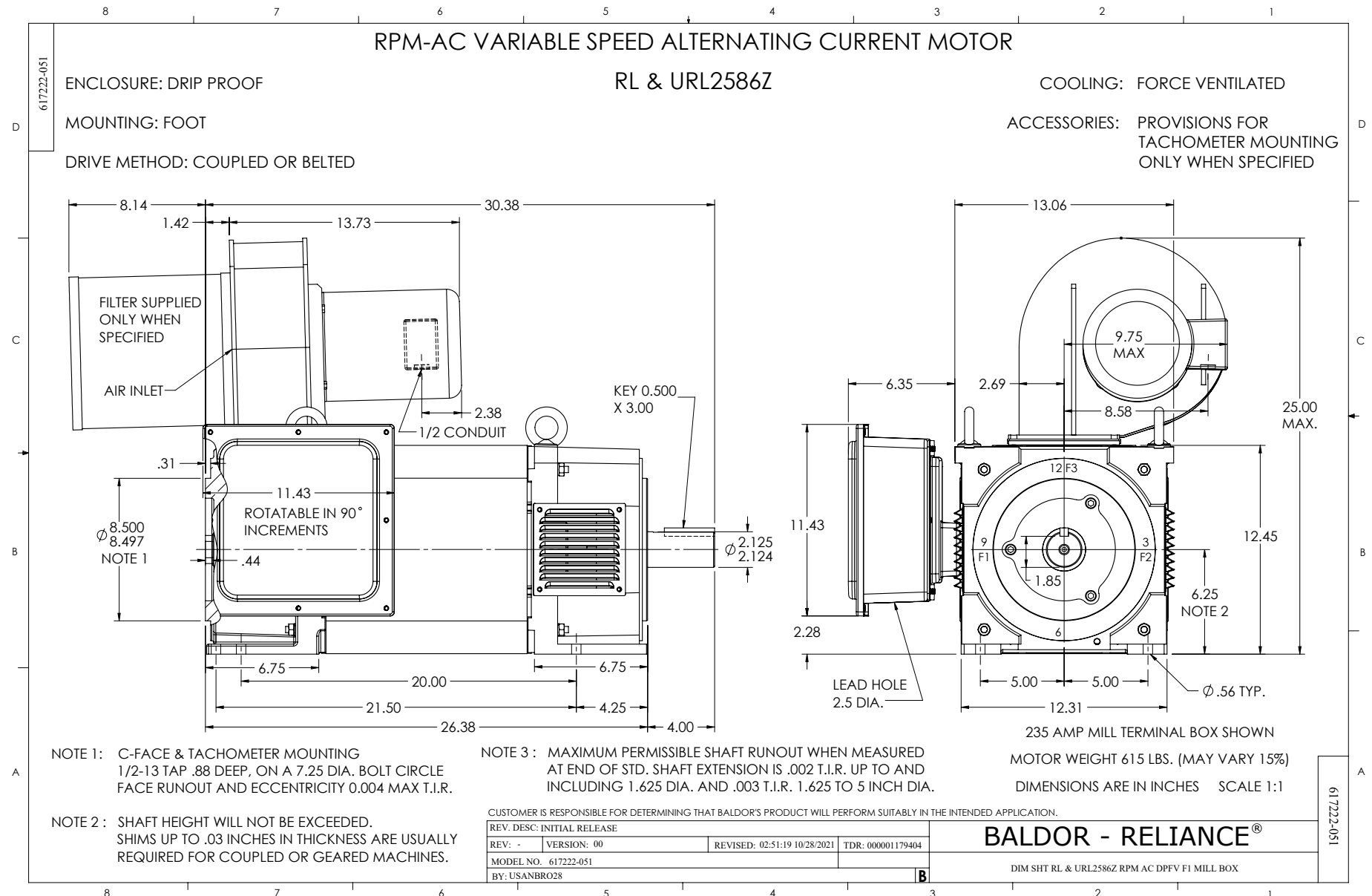
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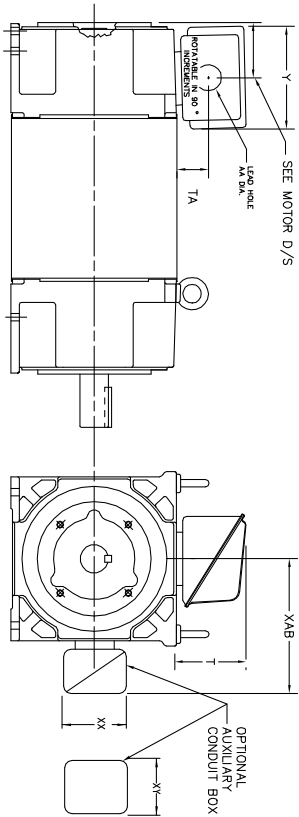
AC MOTOR
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L9489A
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INDUSTRIAL ALTERNATING CURRENT MOTORS
RPM AC

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	2.50/2.00
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	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" AW CONDUIT.
(2) 1" AW PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
(4) 2" DIA. SA OR 1" DIA. DIA. W/6

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.

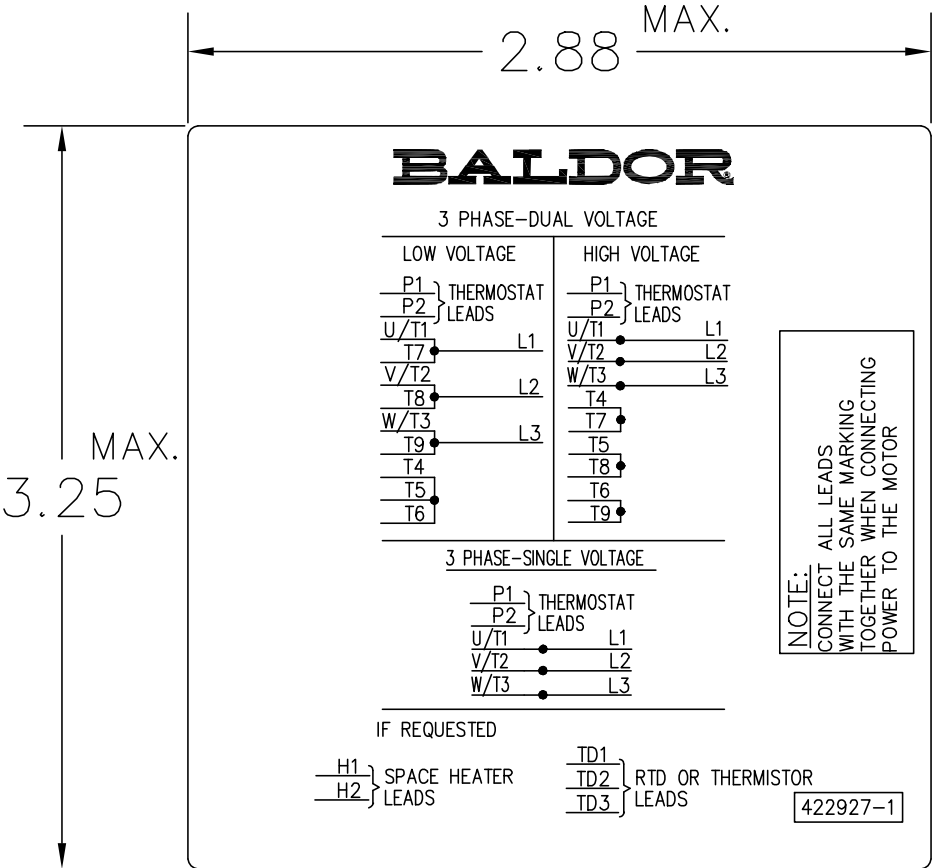
REV. DESC: ADD 706310-637 & 639 BOX	VERSION: 06	TDR: 000001180260
REV. LTR: F	REVISED: 11:08:56 10/26/2021	BY: RCGRWM
FILE: \\RGG\00003\692		
MTL: -		

BALDOR - RELIANCE®

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180

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

BALDOR

EXTERNAL CONNECTION LABEL

SH 1 of 1