

ABB BALDOR RELIANCE III

Customer information packet

IDCRPM21254

25HP, 1800, 460V, FL2158, TEFC, F3

Specifications

Enclosure	TEFC
Frame	FL2158Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US NEMA PREMIUM
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	1-60
Current @ Voltage	25.200 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	25.2 a
Insulation Class	H
KVA Code	G
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	25.49 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	LS6782A
Layout	617513-073
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	10-20-2021

Speed	1800 rpm
Starting Method	Full Voltage
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate
000613007QF

	DUTY	HP	RPM	AMPS	VOLTS	HZ					
	CONT	25	1800	25.2	460	60					
CAT.NO.	IDCRPM21254		SPEC. NO.		F21-A000-0451						
SER.NO			FRAME SIZE		FL2158Z		TYPE PSM				
AMB.	40	S.F.	1.15	ENCL.	TEFC	PH	3	DESIGN	B	CODE	G
NEMA NOM. EFF	95.4	GUARANTEED EFFICIENCY			94.5	POWER FACTOR			95.2	INSUL. CLASS H	
D.E. BRG.	50BC03JPP30A		O.D.E. BRG.		45BC02JPP30A						
VPWM INVERTER DUTY @1.0SF	CHP HZ	60-90		CT HZ	1-60		VT HZ	0-60			
	IP54 X/T										

000692000VY

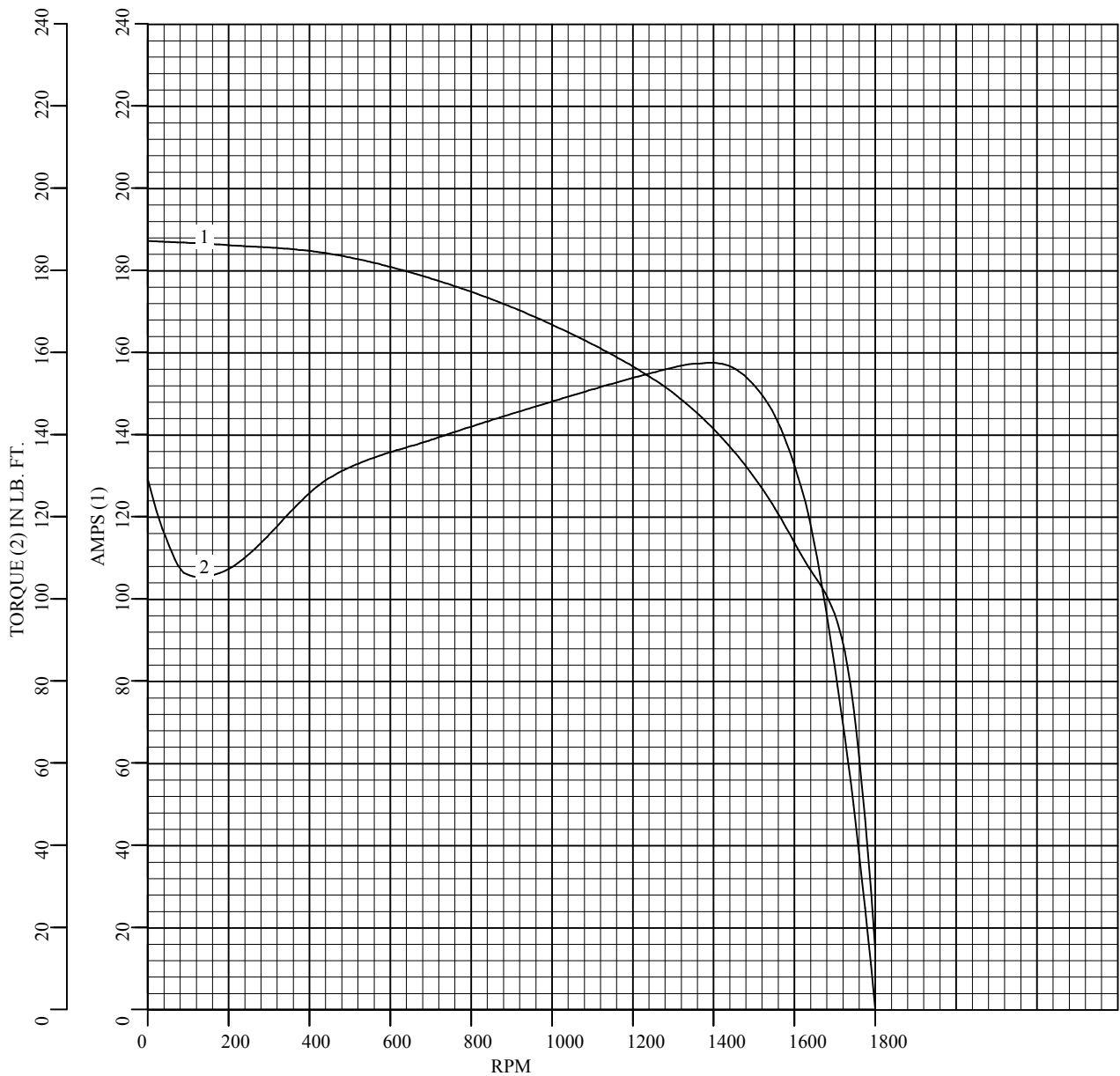
MEAS OPEN CIRCUIT VOLTAGE

IS VOLTS AT RPM.

S.O.	FRAME	HP	TYPE	PHASE	HERTZ	RPM
--	FL2158	25	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB ⁰ C	INSUL	S.F.	NEMA DESIGN
460	25.8	CONT	40	H	1.15	B
CODE LETTER	ENCL	ROTOR INERTIA (lb-ft ²)	STATOR RES. @ 25 ⁰ C OHMS (BETWEEN LINES)			
G	TEFC	1.82	.4081	TYPICAL DATA		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	14.4	1800	3.90	N/A	
1/4	6.25	11.9	1800	53.5	91.6	
2/4	12.5	14.7	1800	83.8	94.8	
3/4	18.7	19.9	1800	92.7	95.4	
4/4	25.0	25.8	1800	95.2	95.4	
5/4	31.2	32.2	1800	95.6	95.1	
SPEED TORQUE						
		RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES	
LOCKED ROTOR		0	177	129.2	187.1	
PULL OUT		1800	253	184.6	94.7	
FULL LOAD		1800	100	72.9	25.8	
THIS IS A PERMANENT MAGNET MOTOR GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25⁰C = 20.0 VOLTS PER 100 RPM REMARKS:						
		DR. BY CAD CK. BY RFM APP. BY RFM DATE 05/25/2016		LSPM MOTOR PERFORMANCE DATA LS6782A ISSUE DATE 05/25/2016		

S.O.	--	HERTZ	60	AMB ⁰ C	40	CODE LETTER	G
FRAME	FL2158	RPM	1800	INSUL	H	WK ² (lb-ft ²)	1.82
HP	25	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	25.8	ENCL	TEFC	STATOR RES. @ 25 ⁰ C	.4081
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

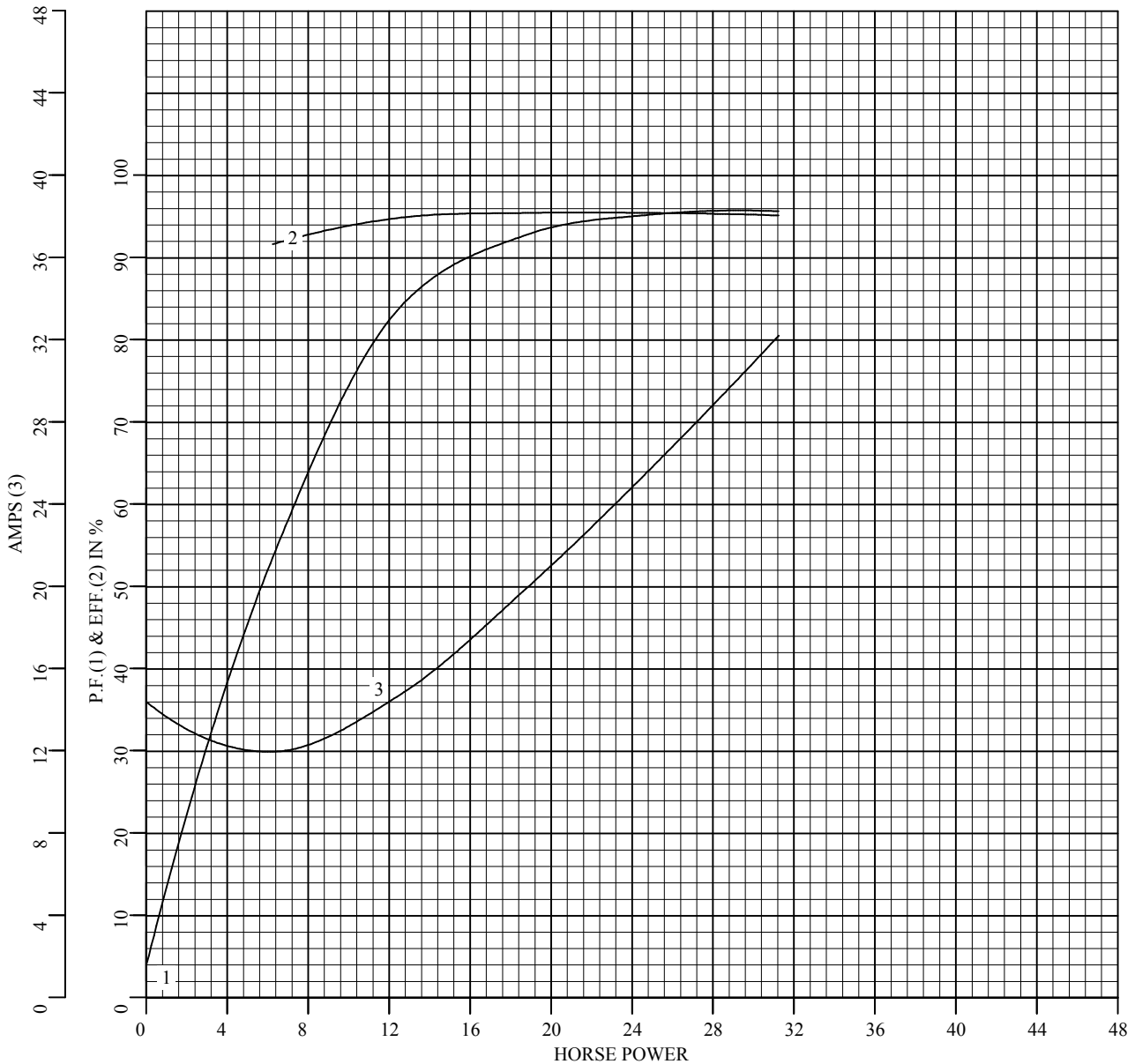
Amps & Torque vs. RPM During Acceleration



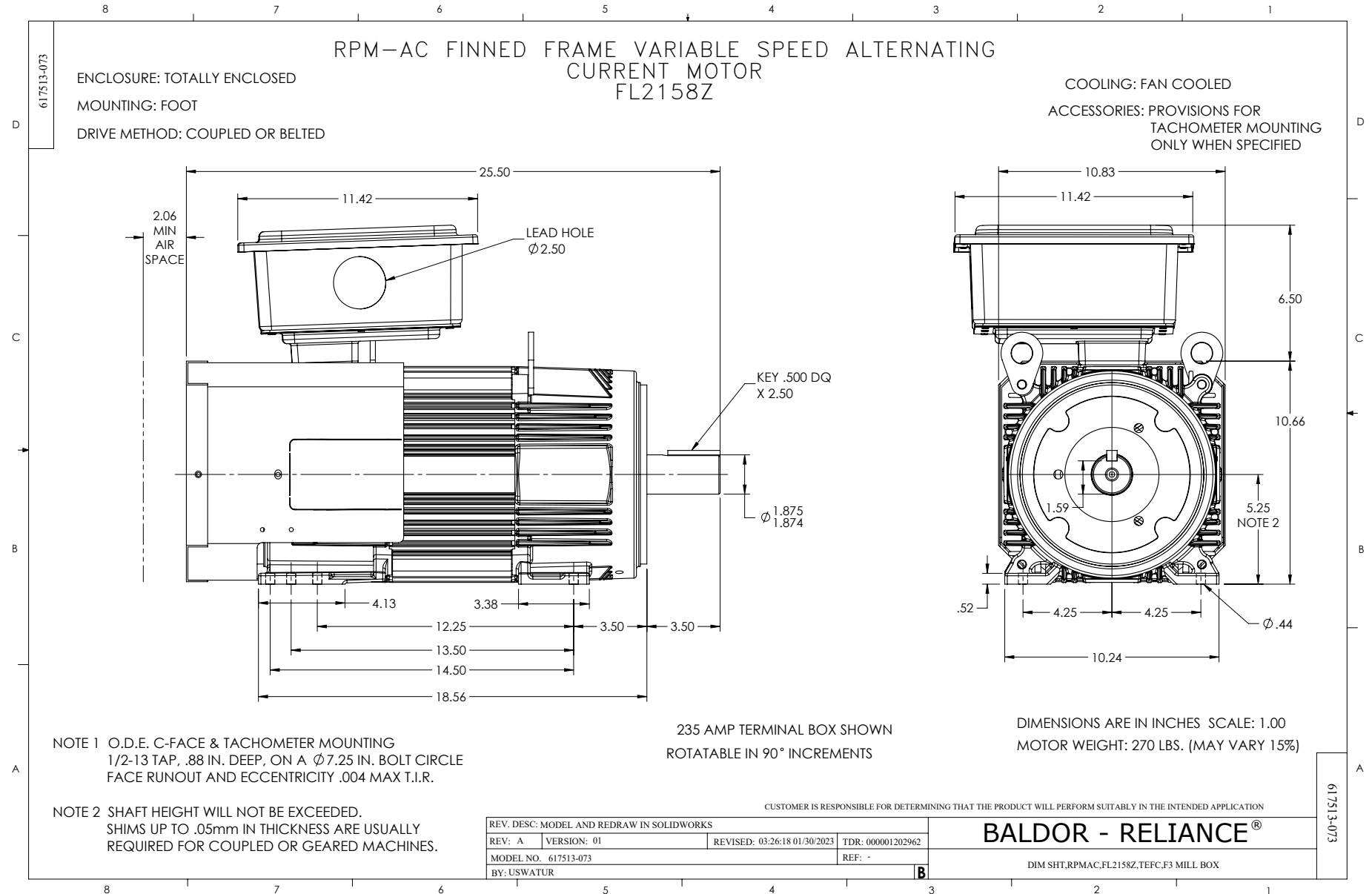
TYPICAL DATA

S.O.	--	HERTZ	60	AMB ⁰ C	40	CODE LETTER	G
FRAME	FL2158	RPM	1800	INSUL	H	WK ² (lb-ft ²)	1.82
HP	25	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	25.8	ENCL	TEFC	STATOR RES. @ 25 ⁰ C	.4081
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

Performance Data vs. HP At Synchronous Speed

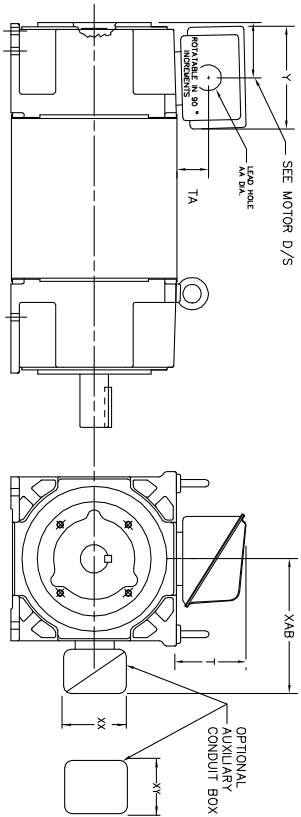


TYPICAL DATA



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	2.50/3.00
FL180	CAST IRON	Y/N	208	706320004C	6.75	2.50	4.38	1.0/1.50
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	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	306	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	235	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	XX	XY	PART NUMBER	FRAME SIZE	YAB	XX	XY	PART NUMBER
FL210/FL180&RL210/FL182	7.38	4.25	4.25	602007-26-A	FL210/FL180&RL210/FL182	10.88	8.00	8.00	706310-3-B
FL250/FL160&RL250/FL160	8.44	4.25	4.25	602007-26-A	FL250/FL160&RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/FL180&RL280/FL180	9.12	4.25	4.25	602007-26-A	FL280/FL180&RL280/FL180	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) E-ON-5A OR 1" TAP ON-4C

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.

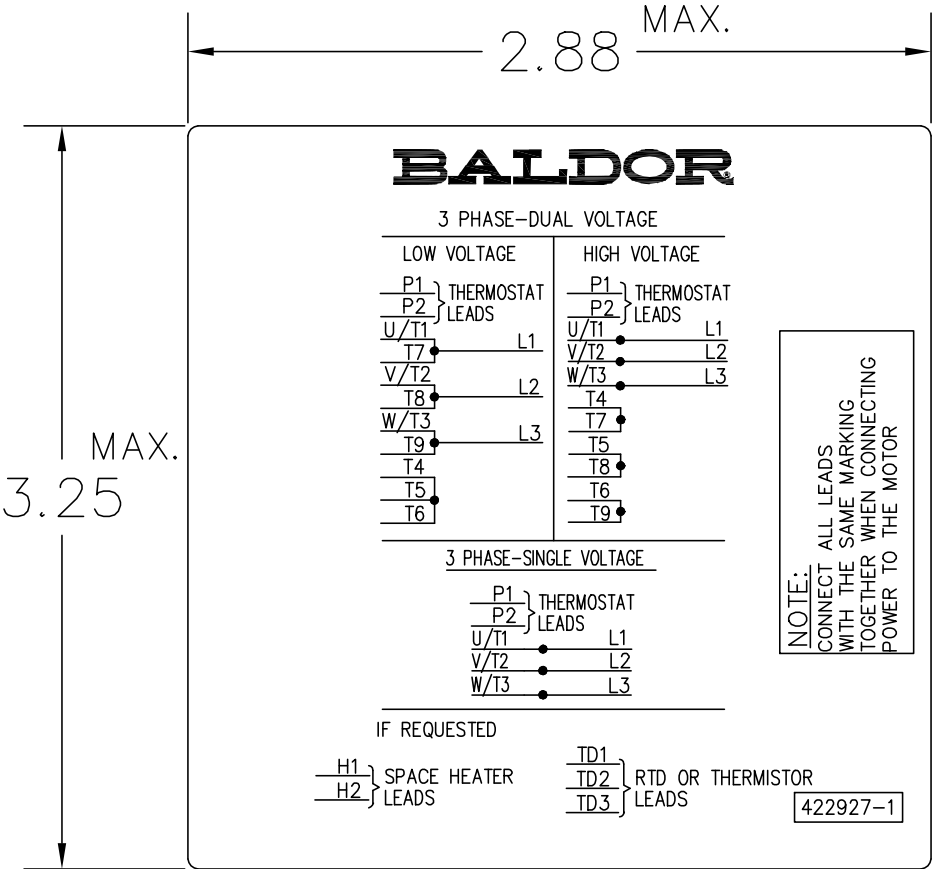
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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

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