ABB BALDOR RELIANCE

Customer information packet

ZDPM21040-BV

40HP, 1800, 460V, FL2162, TEBC, F3

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11/14/2026 3:14:43 PM

Specifications

Enclosure	TEBC
Frame	FL2162Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	40.000 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	43.200 A @ 460.0 V
Duty Rating	CONT
Feedback Device	RESOLVER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	43.2 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	33.06 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	PM3927A
Layout	617517-475
Eff. date	01-19-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-11-2021

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

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	40	1800	43.2	460	60
CONT	40	3000	41.3	460	100

CAT.NO.	ZDPM21040-BV		**SPEC. NO.**	F21-A000-0471			
SER.NO		**FR**	FL2162Z	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	PM3927A	**TYPE**		**ENCL.**	TEAO-BC		
S.F.	1.00	**D.E. BRG.**	50BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	45BC02JPP30A				
	IP44						

000692000VY

MEAS OPEN CIRCUIT VOLTAGE

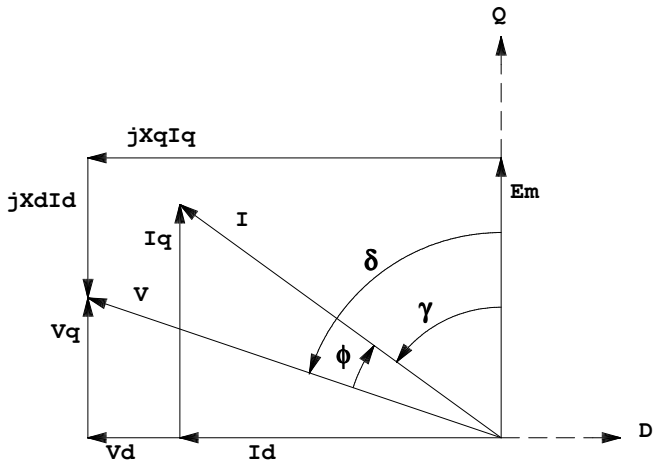
IS **VOLTS AT** **RPM.**

S.O.	0	VOLTS	460	TYPE	IPM	STATOR RES.@ 25 °C	.2423
FRAME	FL2162	AMPS	43	ENCLOSURE	TEBC		OHMS (BETWEEN LINES)
HP	40	DUTY	CONT	MAX SAFE RPM	5000		
BASE SPEED	1800	S.F.	1.0	WK^2 (Lb-Ft^2)	2.14		
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	MAX INSTANTANEOUS OVERLOAD AMPS		129	

VARIABLE SPEED PERFORMANCE

HP	AMPS (rms)	RPM	GAMMA*	POWER FACT.	EFF.	VOLTS (L-L) (rms)	Em (L-N) (rms)	Lq (mH)	Ld (mH)
OpenCkt**	N/A	1800	5.0	N/A	N/A	N/A	187	N/A	N/A
OpenCkt,hot	N/A	1800	5.0	N/A	N/A	N/A	161	N/A	N/A
8.40	10.8	1800	30.6	95.8	93.3	375	161	45.3	7.60
18.7	21.5	1800	39.8	94.7	94.4	418	161	32.6	7.30
29.0	32.2	1800	44.4	93.3	94.7	439	161	26.1	7.10
40.0	43.0	1800	49.0	92.1	94.5	460	161	23.2	6.80

Remarks: TYPICAL DATA
CONSTANT TORQUE 0-1800 RPM, CONSTANT POWER 1800-3000 RPM
200% OVERLOAD BELOW BASE SPEED TAPERED TO 100% AT 3000 RPM



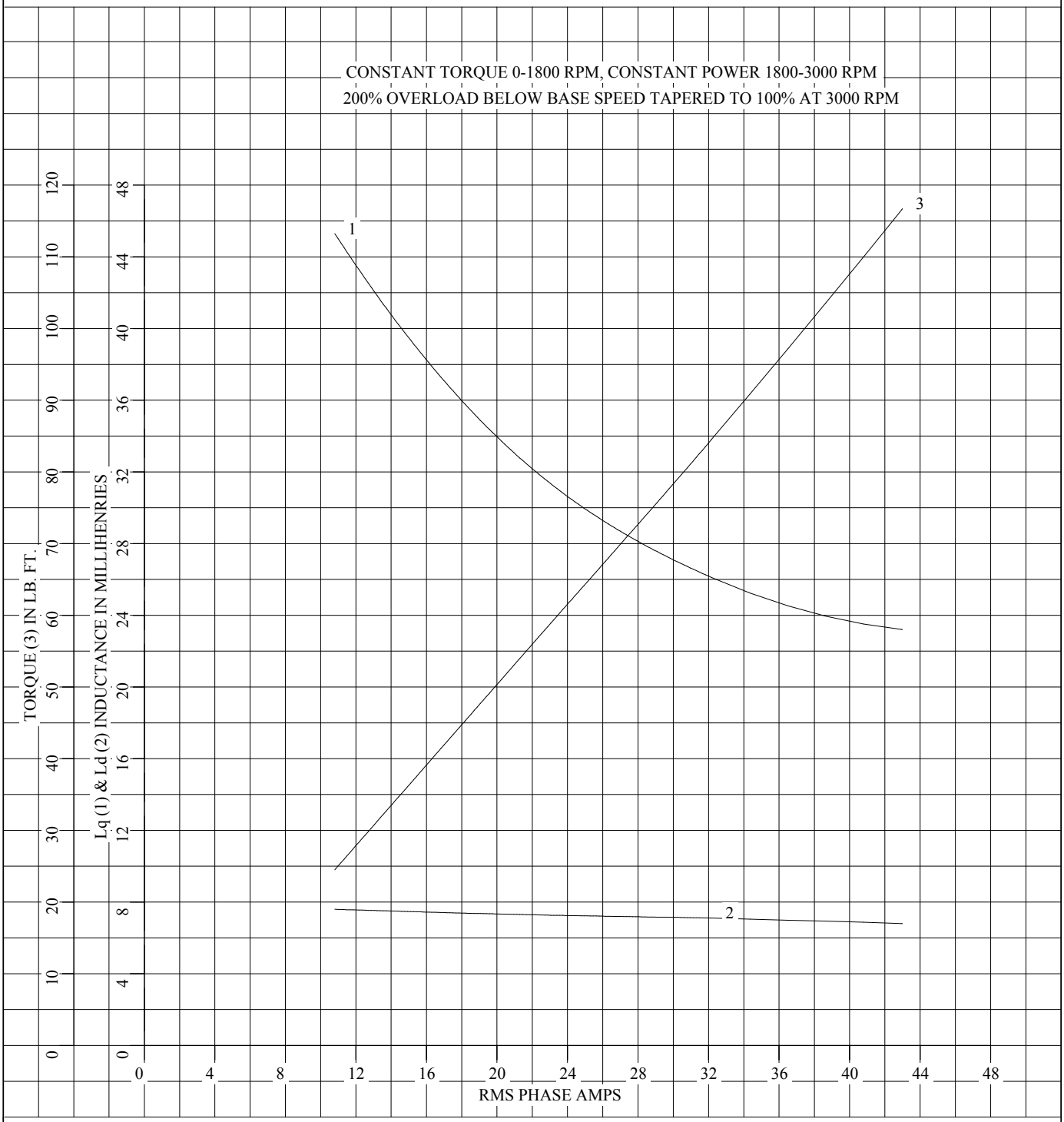
*Gamma is the current angle relative to counter emf, defined to be positive when current leads counter emf.

Equivalently, Gamma is positive when Id is negative.

**Data at 25°C - all other data at rated temperature

S.O.	0	VOLTS	460	TYPE	IPM	STATOR RES.@ 25 °C	.2423
FRAME	FL2162	AMPS	43	ENCLOSURE	TEBC		OHMS (BETWEEN LINES)
HP	40	DUTY	CONT	MAX SAFE RPM	5000		
BASE SPEED	1800	S.F.	1.0	WK^2 (Lb-Ft^2)	2.14		
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	MAX INSTANTANEOUS OVERLOAD AMPS		129	

Lq, Ld, & Torque vs. RMS Phase Amps



REMARKS: TYPICAL DATA

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY	CD
CK. BY	RM
APP. BY	RM
DATE	5/3/10

IPM MOTOR PERFORMANCE DATA

PM3927A

ISSUE DATE 5/3/10

RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR

617517-475

ENCLOSURE: TOTALLY ENCLOSED

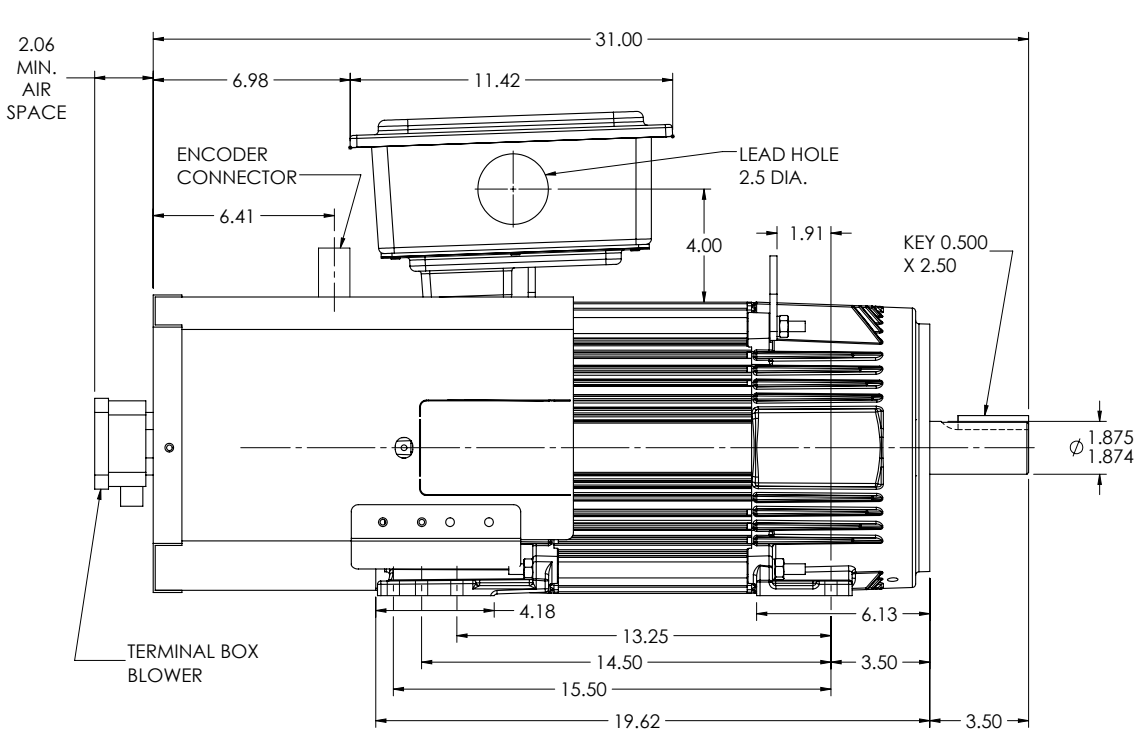
UFL/FL2162Z

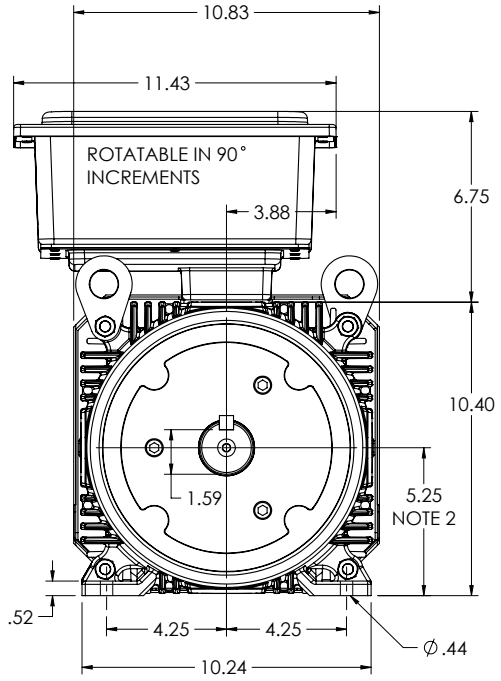
COOLING: BLOWER COOLED

MOUNTING: FOOT

ACCESSORIES: ENCODER

DRIVE METHOD: COUPLED OR BELTED





NOTE 1: C-FACE MOUNTING
1/2-13 TAP 1.00 DEEP, ON A 7.25 DIA. BOLT CIRCLE FACE RUNOUT AND ECCENTRICITY .004 MAX T.I.R.

NOTE 2: SHAFT HEIGHT WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.

NOTE 3: MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 1.625 DIA. AND .003 T.I.R. 1.625 TO 5 INCH DIA.

235 AMP MILL TERMINAL BOX SHOWN

MOTOR WEIGHT 290 LBS. (MAY VARY 15%)

DIMENSIONS ARE IN INCHES SCALE 1.00

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

REV. DESC: INITIAL RELEASE			
REV: -	VERSION: 00	REVISED: 02:52:48 11/11/2021	TDR: 000001181027
MODEL NO. 617517-475			
BY: USANBRO28			B

BALDOR - RELIANCE®

DIM SHT FL2162Z RPM AC TEAO/BC ENCODER F3 MILL BOX

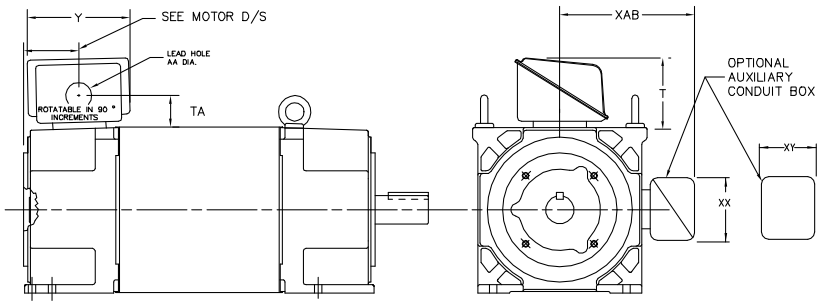
617517-475

616779-050

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	706320005A	6.12	2.38	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	7.62	2.00	7.00	2.50/3.00
FL180	CAST IRON	Y/N	60	706320004C	5.75	2.38	4.38	1.0 TAP
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	075454001AJ	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	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210 FDL13 & RDL13	MILL	Y	100	706310225R 706310056A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210 FDL13 & RDL13	MILL	Y	160	706310226R 706310056B	9.00	3.06	5.40	PG36/PG16
FL210 & RL210 FDL13 & RDL13	MILL	Y/N	235	706310637A	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	075454001AJ	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	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 FDL16 & RDL16	MILL	Y	100	706310225R 706310056A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250 FDL16 & RDL16	MILL	Y	160	706310226R 706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250 FDL16 & RDL16	MILL	Y/N	235	706310637A	11.42	4.00	6.72	2.50
FL250 & RL250 FDL16 & RDL16	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK
FL280 & RL280	STEEL	N	160	706320009A	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 FDL18 & RDL18	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL280 & RL280 FDL18 & RDL18	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280 FDL18 & RDL18	MILL	Y/N	235	706310637A	11.42	4.00	6.72	2.50
FL280 & RL280 FDL18 & RDL18	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
FL210/FDL132/RL210/RDL132	7.38	4.25	4.25	602007-26-A	FL210/FDL132/RL210/RDL132	10.88	8.00	8.00	706310-3-B
FL250/FDL160/RL250/RDL160	8.44	4.25	4.25	602007-26-A	FL250/FDL160/RL250/RDL160	11.88	8.00	8.00	706310-3-B
FL280/FDL180/RL280/RDL180	9.12	4.25	4.25	602007-26-A	FL280/FDL180/RL280/RDL180	12.62	8.00	8.00	706310-3-B

(1) 'AA' CONDUIT.
(2) 'AA' PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
(4) 2' DIN -5A or 1' TAP DIN -4C

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-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.

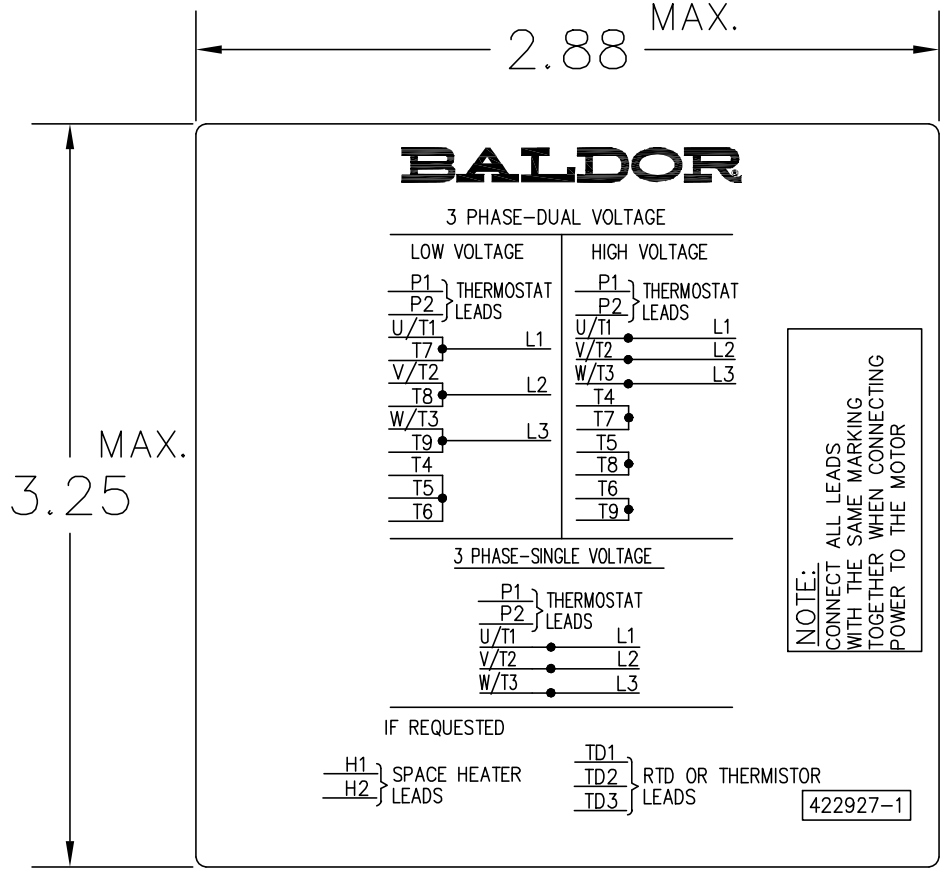
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REV. DESC: ADD 706310-637 & 639 BOX		TDR: 00000118O260
REV. LTR: F	VERSION: 06	
FILE: \RGV\00003\692	REVISED: 11:08:56 10/26/2021	BY: RGGRWM
MTL: -		

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180
SH 1 of 1

616779-050

422927–001



NOTE:
DATA TO BE SIZED SO THAT IT FITS INTO MATERIAL DECAL DIMENSIONS. MAKE LETTERS & NUMBERS AS LARGE AS POSIBLE.

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