

ABB BALDOR RELIANCE III

Customer information packet

IDCRPM18104

10HP, 1800, 460V, FL1838, TEFC, F3

Specifications

Enclosure	TEFC
Frame	FL1838Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	10.000 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 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	10.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	10.0 a
Insulation Class	H
KVA Code	G
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	21.76 IN
Product Family	Blower - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding

Part Detail

Revision	H
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	LS6940A
Layout	617229-001
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	03-30-2016

Shaft Rotation	Reversible
Speed	1800 rpm
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate
000613007QF

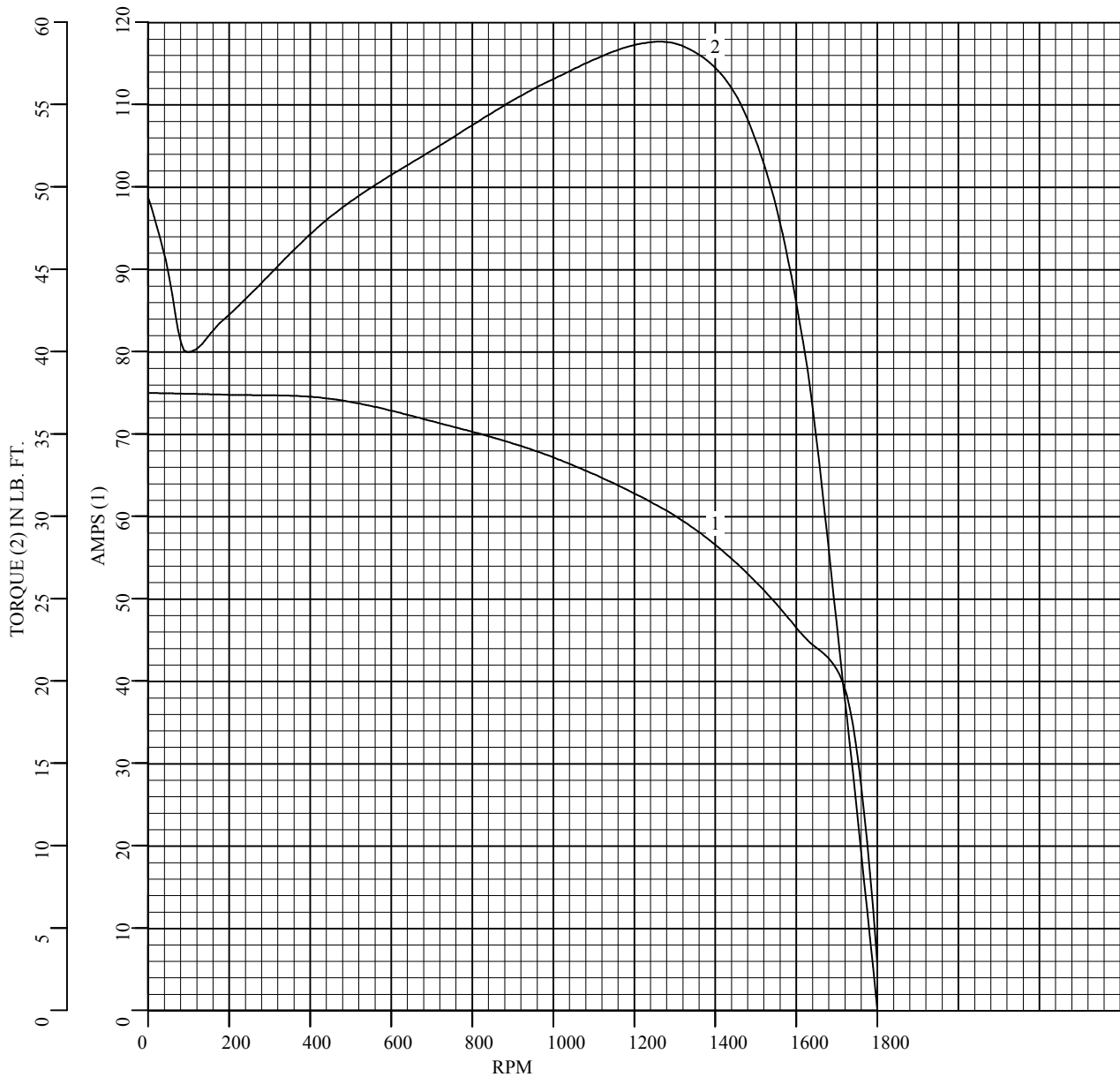
	DUTY	HP	RPM	AMPS	VOLTS	HZ					
	CONT	10	1800	10.0	460	60					
CAT.NO.	IDCRPM18104		SPEC. NO.		F18-A000-0100						
SER.NO			FRAME SIZE		FL1838Z		TYPE PSM				
AMB.	40	S.F.	1.15	ENCL.	TEFC	PH	3	DESIGN	B	CODE	G
NEMA NOM. EFF	94.6	GUARANTEED EFFICIENCY			93.7	POWER FACTOR			98.1	INSUL. CLASS H	
D.E. BRG.	45BC02J30X		O.D.E. BRG.		35BC02J30X						
VPWM INVERTER DUTY @1.0SF	CHP HZ	60-90		CT HZ	1-60		VT HZ	0-60			
	X/T										

000692000VY		
MEAS OPEN CIRCUIT VOLTAGE		
IS		VOLTS AT
		RPM.

S.O.	FRAME	HP	TYPE	PHASE	HERTZ	RPM
--	FL1838	10	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB [°] C	INSUL	S.F.	NEMA DESIGN
460	10.1	CONT	40	H	1.15	B
CODE LETTER	ENCL	ROTOR INERTIA (lb-ft ²)	STATOR RES. @ 25 [°] C OHMS (BETWEEN LINES)			
H	TEFC	.60	1.113	TYPICAL DATA		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	5.6	1800	4.90	N/A	
1/4	2.50	4.4	1800	59.6	89.9	
2/4	4.99	5.6	1800	89.4	93.7	
3/4	7.49	7.7	1800	96.5	94.5	
4/4	9.99	10.1	1800	98.1	94.6	
5/4	12.5	12.6	1800	98.3	94.4	
SPEED TORQUE						
	RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES		
LOCKED ROTOR	0	169	49.4	75.0		
PULL OUT	1800	299	87.2	39.5		
FULL LOAD	1800	100	29.1	10.1		
THIS IS A PERMANENT MAGNET MOTOR GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25[°]C = 20.3 VOLTS PER 100 RPM REMARKS:						
		DR. BY <u>CAD</u> CK. BY <u>RFM</u> APP. BY <u>RFM</u> DATE <u>05/25/2016</u>		LSPM MOTOR PERFORMANCE DATA		
				LS6940A ISSUE DATE 05/25/2016		

S.O.	--	HERTZ	60	AMB ^o C	40	CODE LETTER	H
FRAME	FL1838	RPM	1800	INSUL	H	WK ² (lb-ft ²)	.60
HP	10	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	10.1	ENCL	TEFC	STATOR RES. @ 25 ^o C	1.113
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

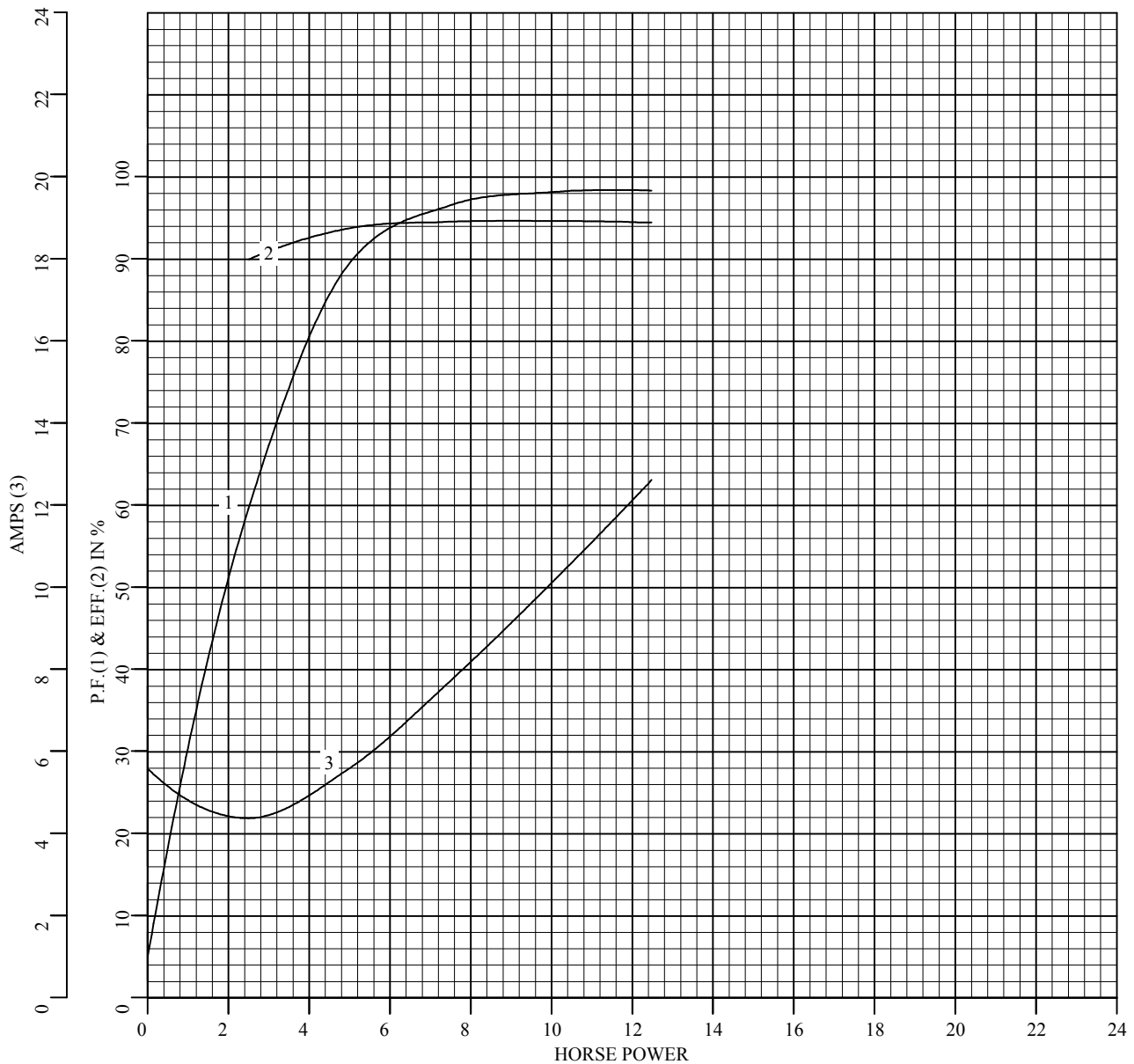
Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

S.O.	--	HERTZ	60	AMB°C	40	CODE LETTER	H
FRAME	FL1838	RPM	1800	INSUL	H	WK ² (lb-ft ²)	.60
HP	10	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	10.1	ENCL	TEFC	STATOR RES. @ 25°C	1.113
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

Performance Data vs. HP At Synchronous Speed



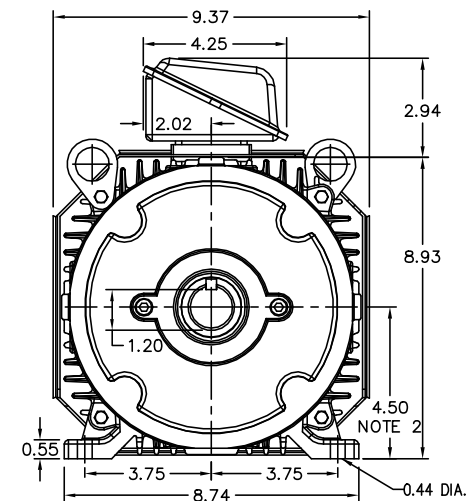
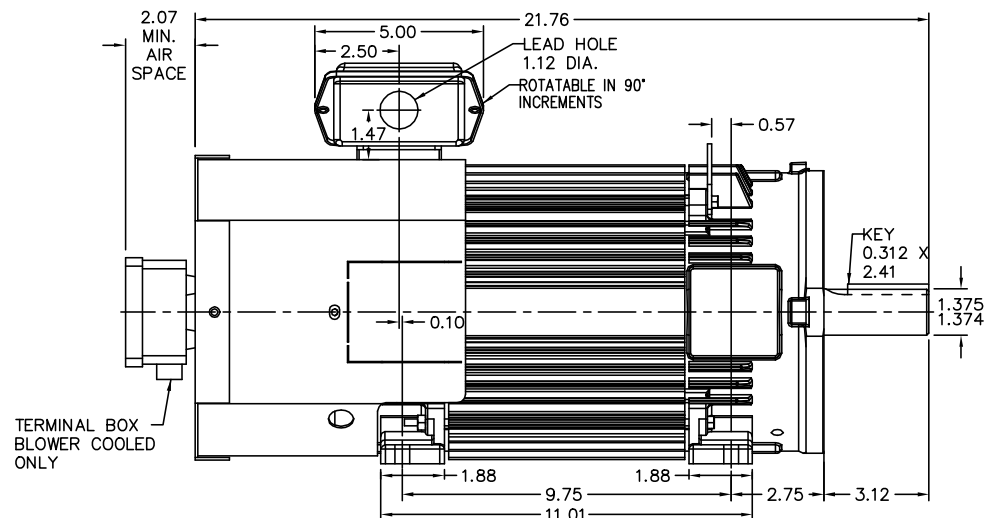
TYPICAL DATA

617229-001

**RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR
FL1838Z**

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT
DRIVE METHOD: COUPLED OR BELTED

COOLING: BLOWER COOLED or
FAN COOLED
ACCESSORIES: PROVISIONS FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED



NOTE 1: C-FACE & TACHOMETER MOUNTING
1/2-13 TAP, 1.00 DEEP, ON A 7.25 DIA. BOLT CIRCLE
FACE RUNOUT AND ECCENTRICITY 0.004 MAX. T.I.R.

NOTE 2: SHAFT HEIGHT WILL NOT BE EXCEEDED
SHIMS UP TO 0.03 INCHES IN THICKNESS ARE USUALLY
REQUIRED FOR COUPLED OR GREARED MACHINES

TERMINAL BOX MAY BE LOCATED F1 OR F2 IF SPECIFIED
40 AMP STEEL TERMINAL BOX SHOWN
REFER TO 616779-50 FOR SPECIFIED TERMINAL BOX DIMENSIONS
REFER TO 616779-55 FOR SPECIFIED TACHOMETER DIMENSIONS

MOTOR WEIGHT: 158 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.

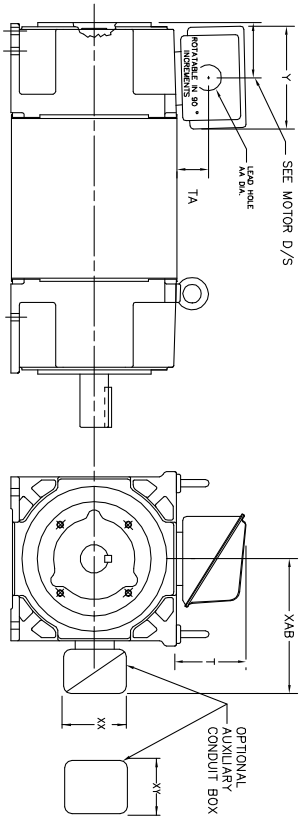
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MTL: -		

BALDOR • DODGE • RELIANCE
DIM SHT RPM AC TEFC OR FC FL1838Z FT MTG PROV FOR TACH
SH 1 of 1

617229-001

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

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.

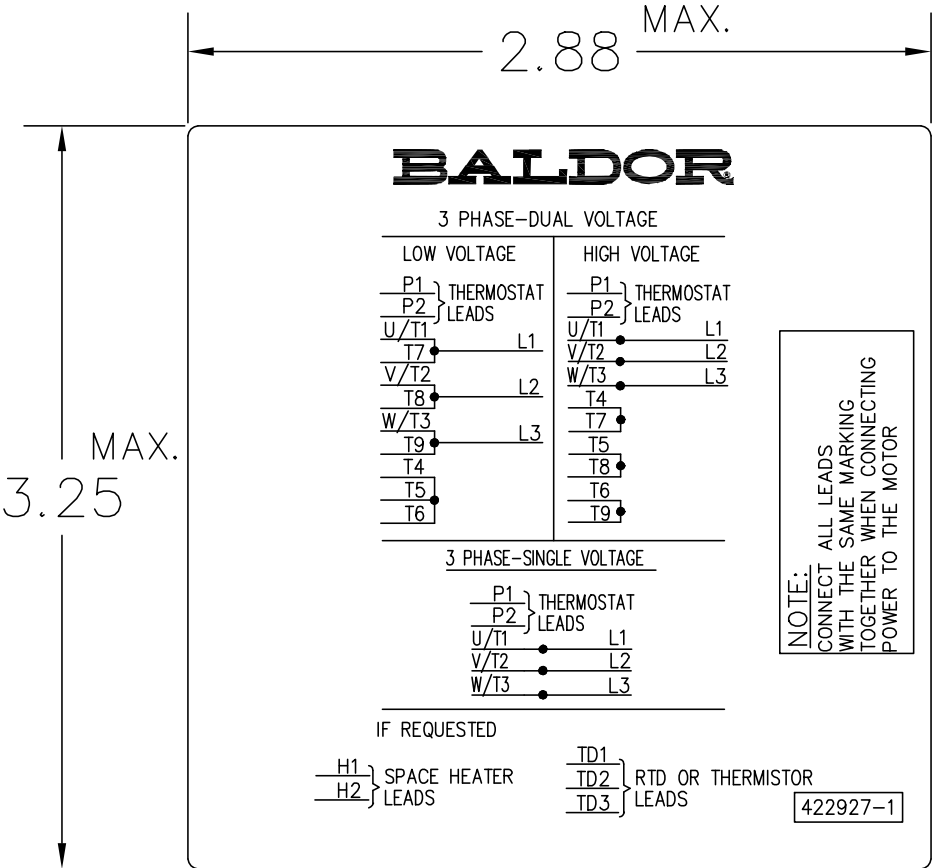
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD 706310-637 & 639 BOX	TDR: 000001180260
REV. LTR: F	VERSION: 06
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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