

ABB BALDOR RELIANCE III



Customer information packet

ZDPM18020C-BV

20HP, 1800RPM, 3PH, 60HZ, 1844C, TEBC, FOOT,

Specifications

Enclosure	TEAO
Frame	FL1844C
Frame Material	Aluminum
Frequency	60.00 Hz
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	No Grease
Current @ Voltage	21.700 A @ 460.0 V
Duty Rating	CONT
Feedback Device	TACHOMETER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	21.7 a
Insulation Class	H
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	25.96 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	PM3925A
Layout	617232-329
Eff. date	12-21-2021
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000692000VY

MEAS OPEN CIRCUIT VOLTAGE

IS VOLTS AT RPM.

000613006MY

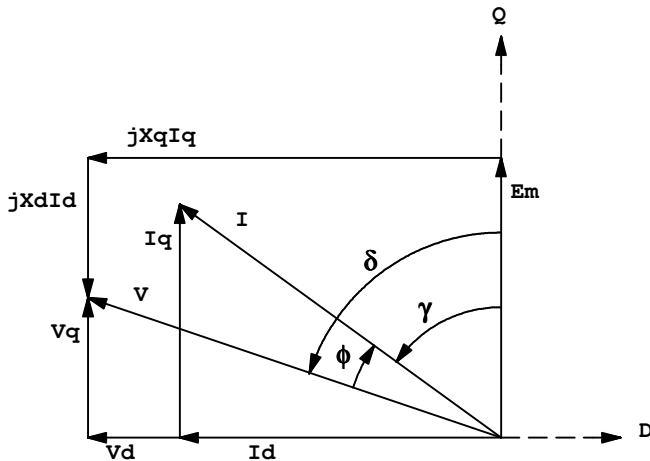
	DUTY	HP	RPM	AMPS	VOLTS	HZ	
	CONT	20	1800	21.7	460	60	
	CONT	20	3000	20.7	460	100	
CAT.NO.	ZDPM18020C-BV		SPEC. NO.	P18M0503			
SER.NO		FR	FL 1844C	INSUL	H		
PH.	3	MAX SAFE SPEED	7200	AMB.	40	MIN. AMB.	-25
DESIGN NO.	PM3925A	TYPE		ENCL.	TEAO-BC		
S.F.	1.0	D.E. BRG.	45BC02JPP30A				
ENCL MOD		O.D.E. BRG.	35BC02JPP30A				

S.O. 0	VOLTS 460	TYPE IPM	STATOR RES.@ 25 °C .4902
FRAME FL1844	AMPS 21.2	ENCLOSURE TEBC	OHMS (BETWEEN LINES)
HP 20	DUTY CONT	MAX SAFE RPM 7200	
BASE SPEED 1800	S.F. 1.0	WK ² (Lb-Ft ²) .77	
PHASE/HERTZ 3/60	AMB °C/INSUL 40/H	MAX INSTANTANEOUS OVERLOAD AMPS 63.6	

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	186	N/A	N/A
OpenCkt, hot	N/A	1800	5.0	N/A	N/A	N/A	167	N/A	N/A
4.00	5.3	1800	29.3	97.6	92.0	366	167	80.0	11.5
9.10	10.6	1800	36.9	96.0	93.7	413	167	59.0	11.3
14.4	15.9	1800	40.7	94.6	94.6	436	167	47.0	11.1
20.0	21.2	1800	44.5	93.5	94.7	459	167	41.0	10.9

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



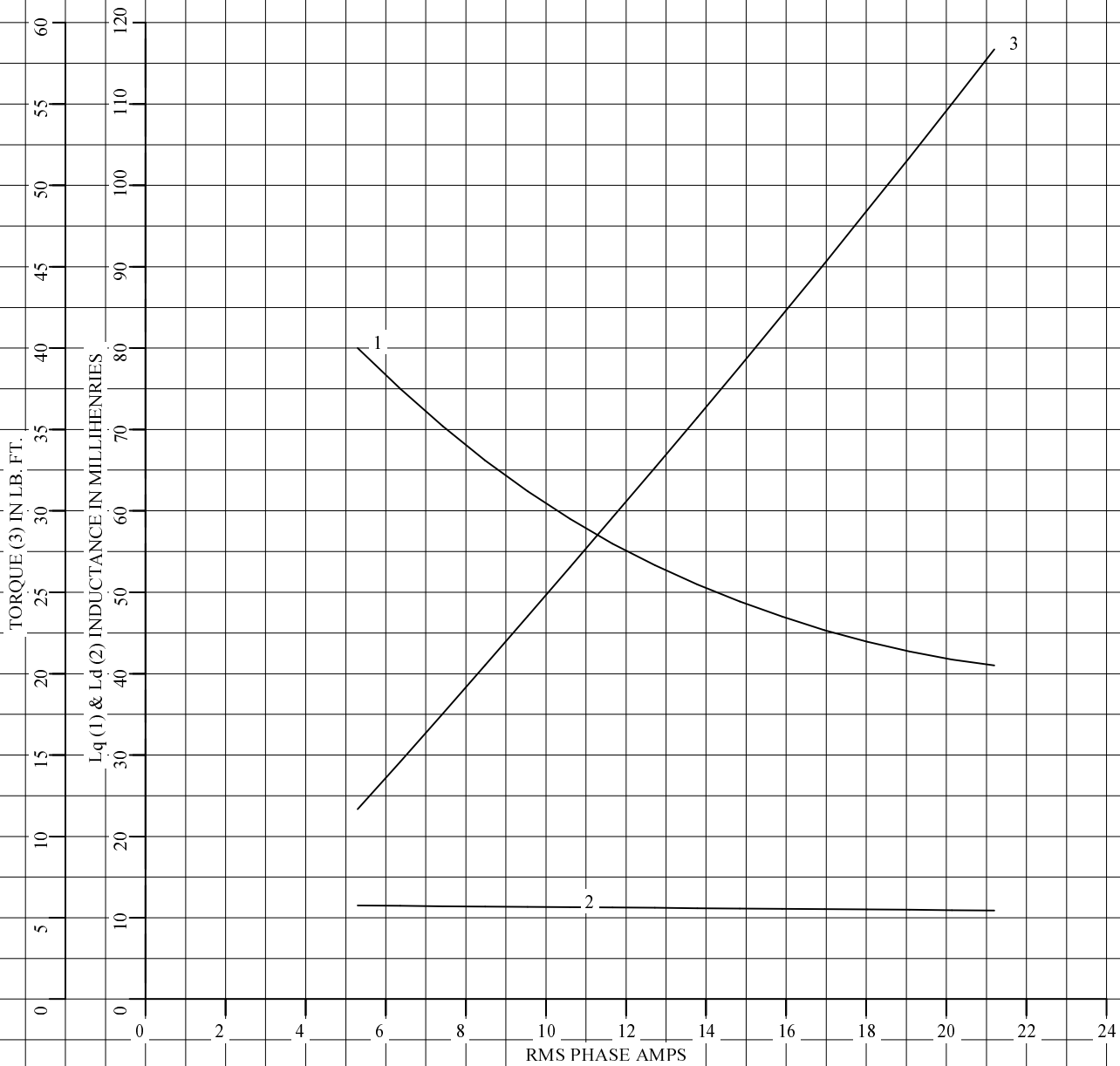
DR. BY CD
 CK. BY RM
 APP. BY RM
 DATE 4/23/10

IPM MOTOR
PERFORMANCE DATA PM3925A
 ISSUE DATE 4/23/10

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Lq, Ld, & Torque vs. RMS Phase Amps

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



REMARKS: TYPICAL DATA

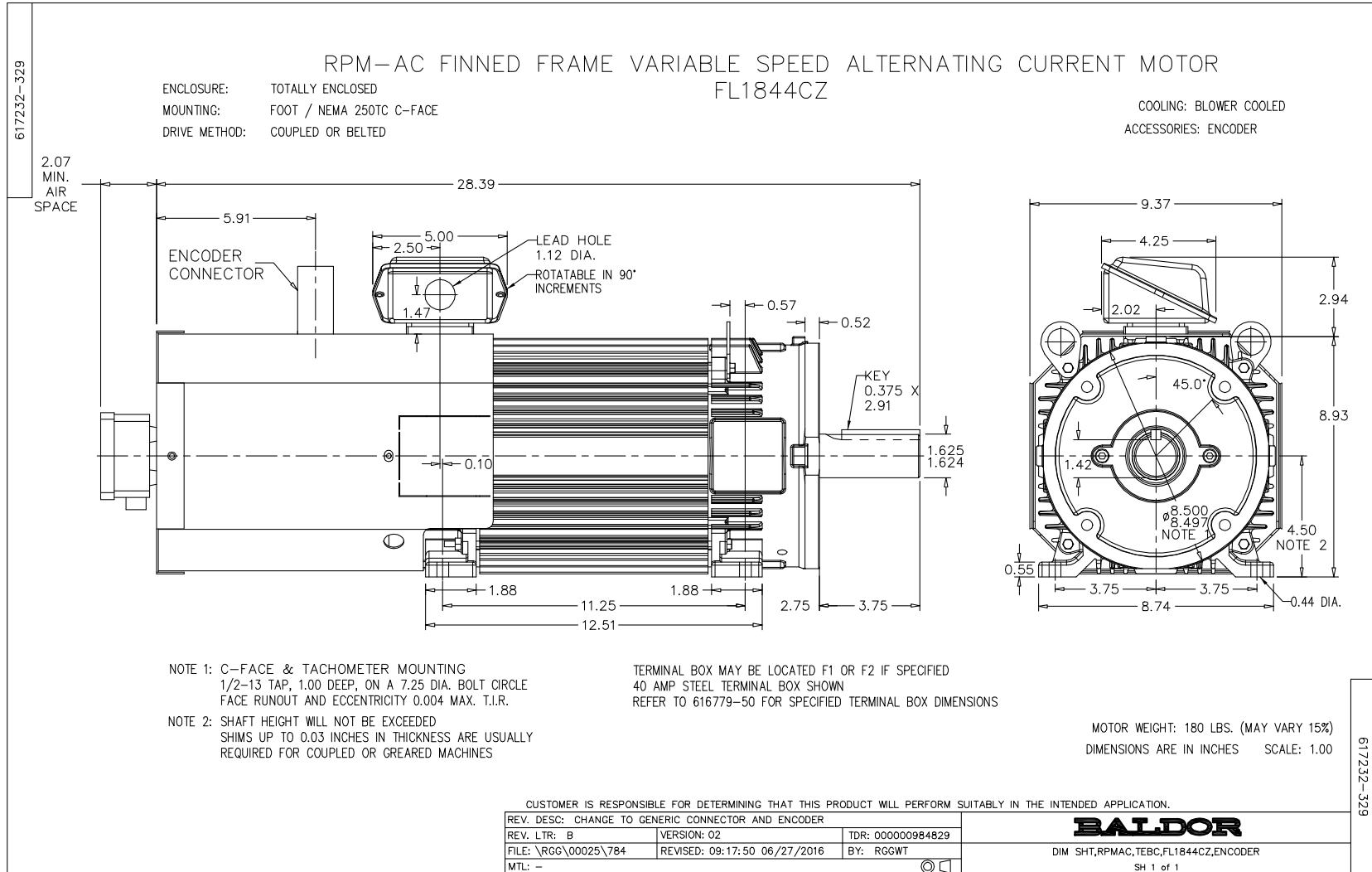


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**IPM MOTOR
PERFORMANCE
DATA**

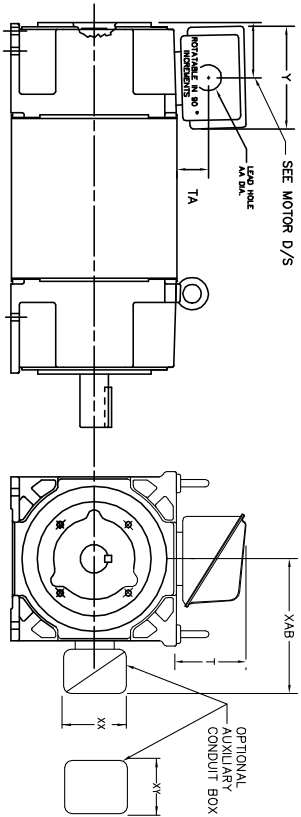
PM3925A

ISSUE DATE 4/23/10



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	2.50/2.00
FL180	CAST IRON	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	0754520010	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	125	0754520011	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	7063100225R	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
FL210 & RL210	MILL	Y	400	7063100637A	14.39	7.43	12.15	BLANK
FL250 & RL250	STEEL	N	61	0754520008	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	0754520009	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	125	0754520010	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	MILL	Y	100	7063100225R	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/FL120/RL210/FL132	7.38	4.25	4.25	602007-26-A	FL120/FL120/RL210/FL132	10.88	8.00	8.00	706310-3-B
FL250/FL160/RL280/FL180	8.44	4.25	4.25	602007-26-A	FL250/FL160/RL280/FL180	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

FRAME SIZE	YAB	XX	XY	PART NUMBER	FRAME SIZE	YAB	XX	XY	PART NUMBER
FL120/FL120/RL210/FL132	7.38	4.25	4.25	602007-26-A	FL120/FL120/RL210/FL132	10.88	8.00	8.00	706310-3-B
FL250/FL160/RL280/FL180	8.44	4.25	4.25	602007-26-A	FL250/FL160/RL280/FL180	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) 7/8" CONDUIT.
(2) 1" PIPE TAP.
(3) CUSTOMER TO PROVIDE WIRE TYPE CONDUIT.
(4) 2" DIA. SA OR 1" DIA. DIA. W/2"

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.

050-677919

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

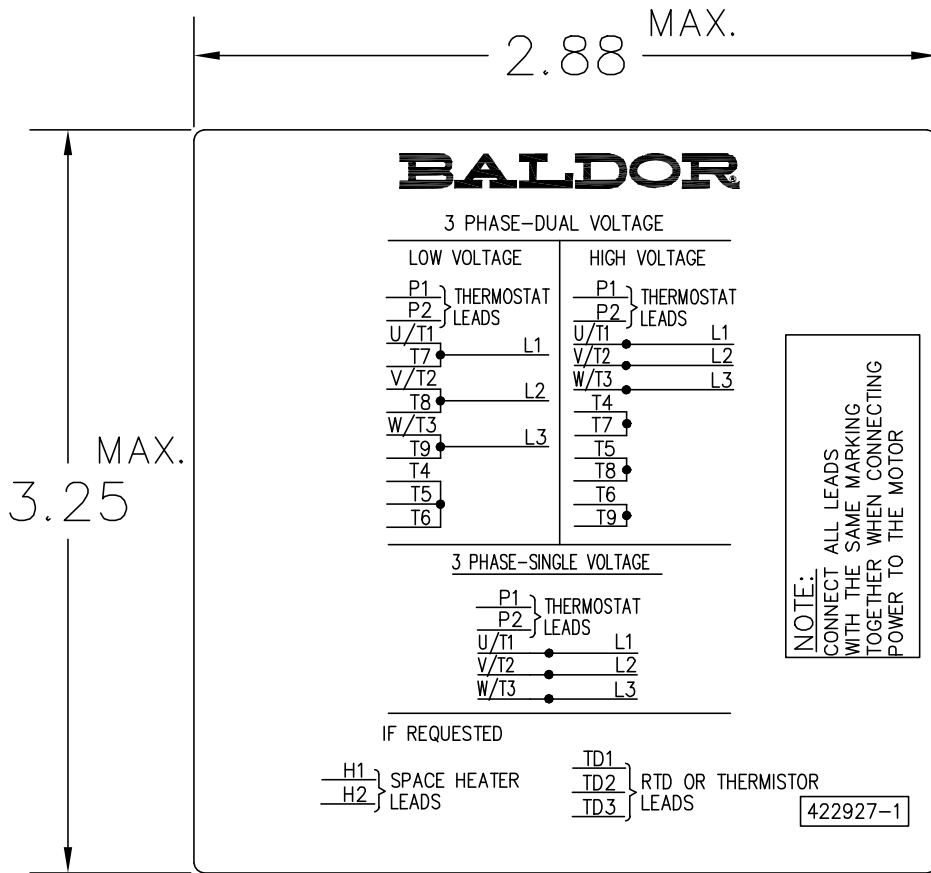
REV. DESC: ADD 706310-637 & 639 BOX	VERSION: 06	TDR: 000001180260
REV. LTR: F	REVISED: 11: 08: 56 10/26/2021	BY: RCGRWM
FILE: \RGG\00003\692		
MTL: -		

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