

**BALDOR® • RELIANCE** 

**Product Information Packet**

**ZDPM25100-BV**

**100HP, 1800RPM, 3PH, 60HZ, 2586, TEBC, FOOT,**

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	PM3758A	CD Diagram:	422927-001	Mfg Plant:	
Mech. Spec:		Layout:	617581-349	Poles:	04	Created Date:	04-09-2015
Base:		Eff. Date:	10-24-2019	Leads:			

Specs			
Catalog Number:	ZDPM25100-BV		
Enclosure:	TEBC		
Frame:	FL2586		
Frame Material:	Exposed Laminations		
Output @ Frequency:	100.000 HP @ 60 HZ		
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ		
Voltage @ Frequency:	460.0 V @ 60 HZ		
Agency Approvals:	CCSA US		
Auxillary Box:	No Auxillary Box		
Base Indicator:	Rigid		
Bearing Grease Type:	No Grease		
Current @ Voltage:	110.600 A @ 460.0 V		
Duty Rating:	CONT		
Feedback Device:	TACHOMETER		
Frame Prefix:	FL		
Heater Indicator:	No Heater		
Insulation Class:	H		
Mounting Arrangement:	F3		

<b>Product Family:</b>	General Industrial		
<b>Pulley End Bearing Type:</b>	Ball		
<b>Pulley Face Code:</b>	Standard		
<b>Shaft Ground Indicator:</b>	No Shaft Grounding		
<b>Shaft Rotation:</b>	Reversible		
<b>Motor Standards:</b>	NEMA		
<b>Thermal Device - Bearing:</b>	None		
<b>Thermal Device - Winding:</b>	Normally Closed Thermostat		

Nameplate 000692000VY		
IS	<input type="text"/>	MEAS OPEN CIRCUIT VOLTAGE
		VOLTS AT <input type="text"/>
		RPM.
EXCEED	<input type="text"/>	MTR PH CURRENT SHOULD NOT
		AMPS RMS PEAK TO
	AVOID DEMAGNETIZATION	

Nameplate 000613006NS										
	<b>DUTY</b>	<b>HP</b>	<b>RPM</b>	<b>AMPS</b>	<b>VOLTS</b>	<b>HZ</b>				
	CONT	100	1800	110.6	460	60				
	CONT	100	3000	104.3	460	100				
<b>CAT.NO.</b>	ZDPM25100-BV		<b>SPEC. NO.</b>	P25M0502						
<b>SER.NO.</b>			<b>FR</b>	FL 2586	<b>INSUL</b>	H				
<b>PH.</b>	3		<b>MAX SAFE SPEED</b>	5000	<b>AMB.</b>	40			<b>MIN. AMB.</b>	-25
<b>DESIGN NO.</b>	PM3758A		<b>TYPE</b>		<b>ENCL.</b>	TEAO-BC				
<b>S.F.</b>	1.0		<b>D.E. BRG.</b>	65BC03JPP30A						
<b>ENCL MOD</b>			<b>O.D.E. BRG.</b>	50BC03JPP30A						

Nameplate 000692000VY		
IS	<input type="text"/>	MEAS OPEN CIRCUIT VOLTAGE
		VOLTS AT <input type="text"/>
		RPM.
EXCEED	<input type="text"/>	MTR PH CURRENT SHOULD NOT
		AMPS RMS PEAK TO
	AVOID DEMAGNETIZATION	

Parts List		
Part Number	Description	Quantity
WS286729	WS P25M0502	1.000 EA
RA282937	RA P25M0502	1.000 EA
418018122A	LABEL	2.000 EA
000692000VY	PERMANENT MAGNET MOTOR NAMEPLATE	1.000 EA
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 EA
000692000NH	LABEL DIRECTION AIR FL	1.000 EA
000692000VD	LABEL WARNING	1.000 EA
418057747A	METAL FASTENER	8.000 EA
000613006NS	RPM AC WITH CERTIFIED LOGO	1.000 EA
000692000VY	PERMANENT MAGNET MOTOR NAMEPLATE	1.000 EA
418056062B	NP AC BLOWER DATA	1.000 EA
422927001	C/D LABEL	1.000 EA
036100080KA	M10-1.50X 80MM HXSOCHDCS	3.000 EA
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 EA
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 EA
036610010AB	MHSLW M10 PLATED	4.000 EA
400638001H	SPRING WASHER (Customer number 43699)	1.000 EA
418057491A	LIFTING LUG	2.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
609830005ABP	TBOLT	4.000 EA
807582003AAA	BRKT,DE,250AC	1.000 EA
807582004AAB	BRKT,ODE,L250	1.000 EA
032018004AK	HHCS 1/4-20X1/2 PLATED	2.000 EA

Parts List (continued)		
Part Number	Description	Quantity
036000045HB	MHHCS M6X45MM PLATED	4.000 EA
036000012HB	HHCS M6X12MM LONG PLATED	3.000 EA
036620008AB	M6 METRIC EXT LOCKWASHER	1.000 EA
036310010FB	RHMS TERM/BLK MTG	2.000 EA
418057461B	PLATE, ENCODER	1.000 EA
036320008CB	M2.5 SCREW	4.000 EA
036500006AB	M4-0.7 METRIC HEX NUT	2.000 EA
065591000B	GASK 250-280	1.000 EA
075454001AJ	C/BOX, PAINTED 250-280	1.000 EA
075455000A	CBOXC, PAINTED 250-280	1.000 EA
406673002C	.75 CAP PLUG	1.000 EA
415000103A	T/LUG #14AWG-#4AWG W/HOLE FOR .250 BOLT	1.000 EA
422962051BW	STUB SHAFT	1.000 EA
800123015A	RESOLVER DYNAPAR	1.000 EA
417733004AC	GASK C/BOX	2.000 EA
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 EA
418057260A	SCREW PHILLIPS PAN HD	4.000 EA
418057373A	SCREW SHEET METAL	7.000 EA
417077-141	BLWR MTR	1.000 EA
708533003A	PLATE, BTM FAN/BLOWER	2.000 EA
708534003A	BAFFLE, FAN/BLOWER	1.000 EA
418010012J	CONDUIT BOX SPACER	1.000 EA
708534050B	GRILL, FAN COVER	1.000 EA
708534051A	FL250 FAN GRILL	1.000 EA

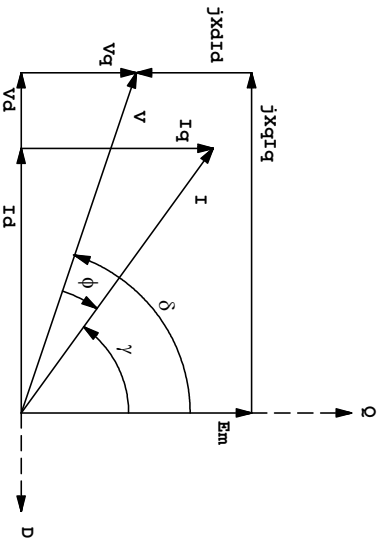
000640000P	TAG WINDING THERMOST	1.000 EA
004824007K	SPECIAL PAINT	0.100 EA
034180024GA	KEY 1/2X1/2X3 L	1.000 EA

S.O. 0	VOLTS 460	TYPE IPM	STATOR RES. @ 25 °C .0584
FRAME FT2586	AMPS 111.7	ENCLOSURE TEBC	OHMS (BETWEEN LINES)
HP 60	DUTY CONT	MAX SAFE RPM 5000	
BASE SPEED 1800	S.F. 1.0	WK2 (lb-Ft <sup>2</sup> ) 5.83	
PHASE/HERTZ 3/60	AMB °C/INSUL 40/H	MAX INSTANTANEOUS OVERLOAD AMPS 335.1	

**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	167	N/A	N/A
OpenCkt, hot	N/A	1800	5.0	N/A	N/A	N/A	142	N/A	N/A
20.1	27.9	1800	32.2	96.2	95.0	339	142	16.3	2.18
45.9	55.9	1800	38.1	92.9	95.7	399	142	11.9	2.20
72.2	83.8	1800	41.1	90.3	95.9	428	142	9.40	2.23
100	112	1800	44.0	87.9	95.7	458	142	8.20	2.25

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

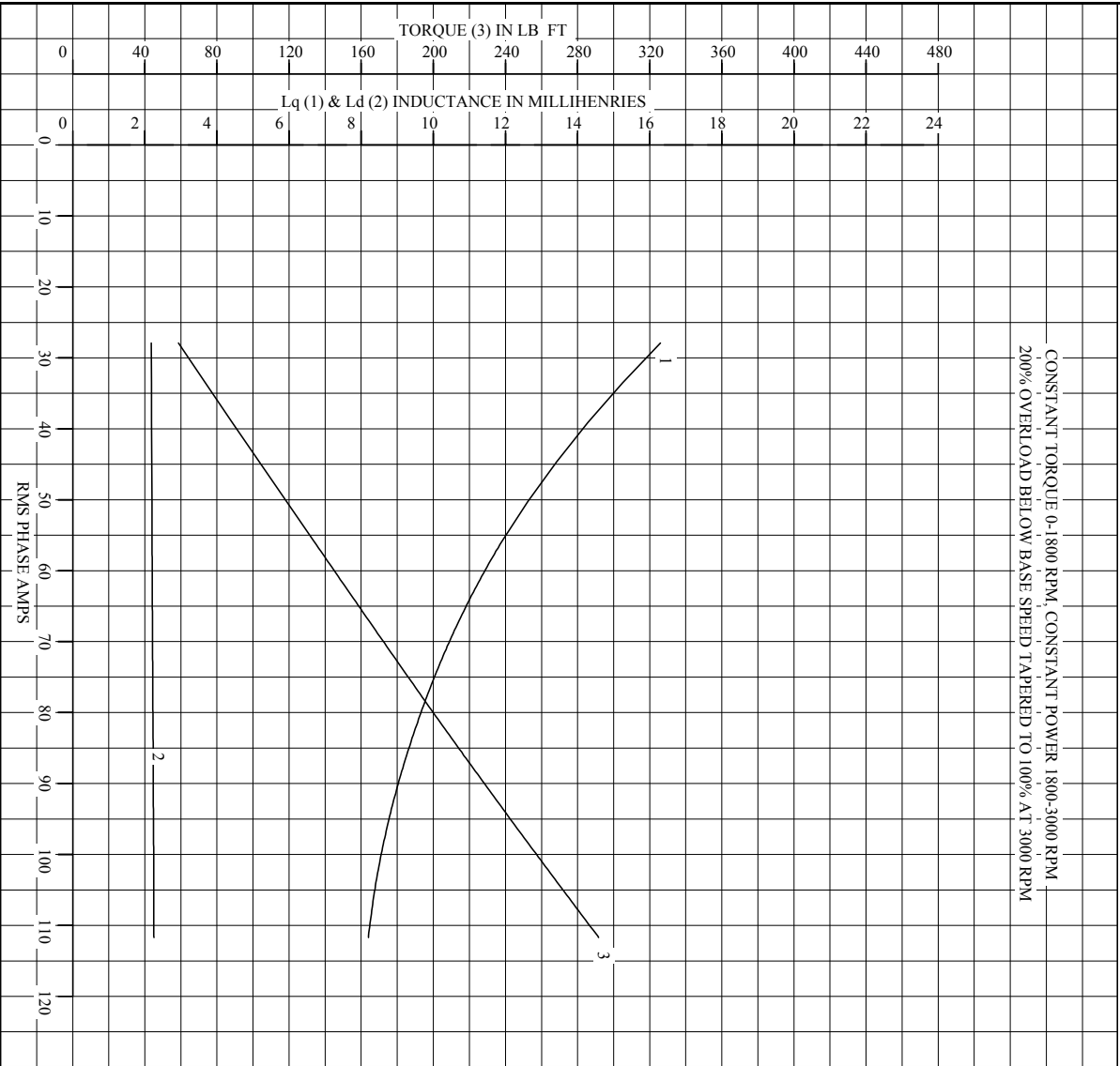


\*Gamma is the current angle relative to counter emf, defined to be positive when current leads counter emf.  
 Equivalently, Gamma is positive when Id is negative.  
 \*\*Data at 25°C - all other data at rated temperature

<b>BALDOR</b> A MEMBER OF THE ABB GROUP	DR. BY	CD	<b>IPM MOTOR</b>
	CK. BY	RM	
	APP. BY	RM	<b>PERFORMANCE DATA</b>
	DATE	5/10/10	ISSUE DATE 5/10/10

S.O. 0	VOLTS 460	TYPE IPM	STATOR RES. @ 25 °C .0584
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HP 60	DUTY CONT	MAX SAFE RPM 5000	
BASE SPEED 1800	S.F. 1.0	WK2 (lb-Ft <sup>2</sup> ) 5.83	
PHASE/HERTZ 3/60	AMB °C/INSUL 40/H	MAX INSTANTANEOUS OVERLOAD AMPS	335.1

**Lq, Ld, & Torque vs. RMS Phase Amps**



REMARKS: TYPICAL DATA

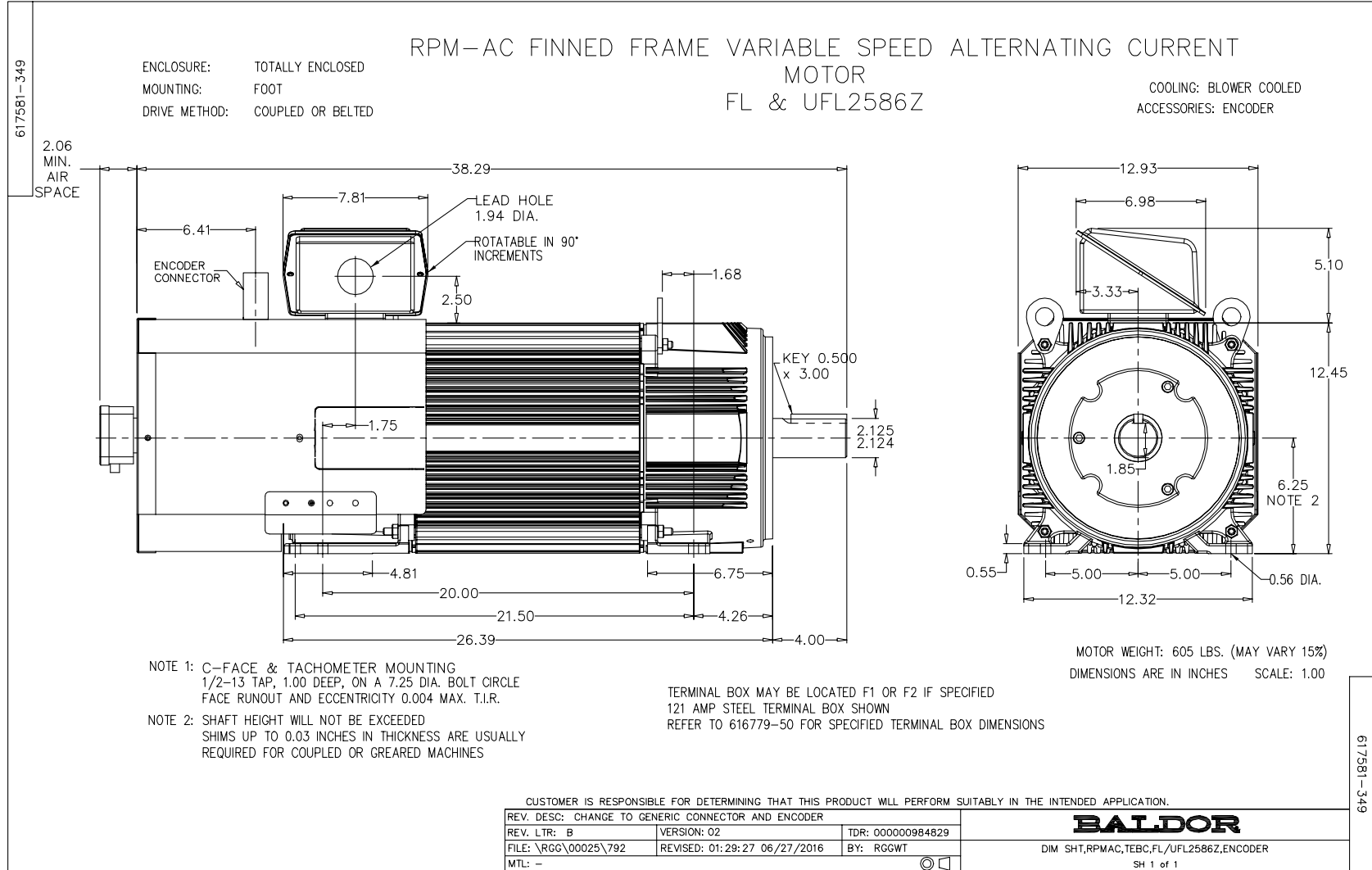


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DR. BY \_\_\_\_\_ CD \_\_\_\_\_  
 CR. BY \_\_\_\_\_ RM \_\_\_\_\_  
 APP. BY \_\_\_\_\_ RM \_\_\_\_\_  
 DATE 5/10/10

**IPM MOTOR**  
**PERFORMANCE**  
**DATA**

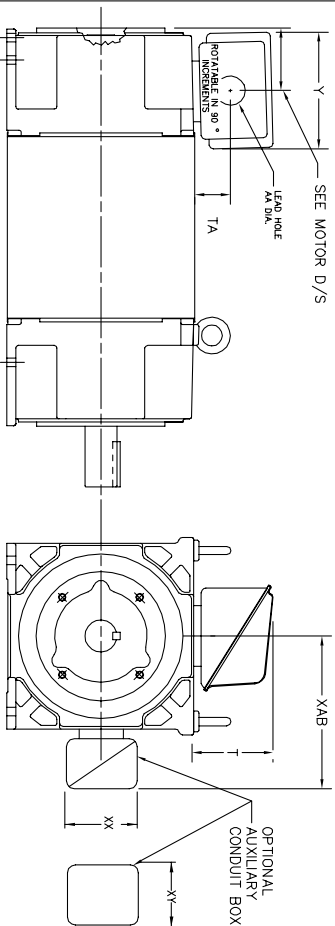
PM3758A  
 ISSUE DATE 5/10/10



# 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	Y/N	7/5	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 & FDL11	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	MILL	Y	100	706310225R	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310226R	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

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	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310226R	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	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	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	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	XAB	OPTIMAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)			
		XX	XY	PART NUMBER	
FL180/FL180/RL180	7.38	4.25	4.25	603C07-26-A	
FL210 & RL210	9.12	4.25	4.25	603C07-26-A	
FL250/FL180/RL250/FL180	7.38	4.25	4.25	603C07-26-A	
FL250/FL180/RL250/FL180	9.12	4.25	4.25	603C07-26-A	

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

TERMINAL BOX CAN BE KEPT FOR LEAD OUTLET AT TOP SIDES OR BOTTOM TERMINAL BOX CAN BE KEPT FOR LEAD OUTLET AT TOP SIDES OR BOTTOM SIDE. DIMENSIONS SPECIFIED IN BOX LOCATED ON TYP WHEN SPECIFIED.

050-667919

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

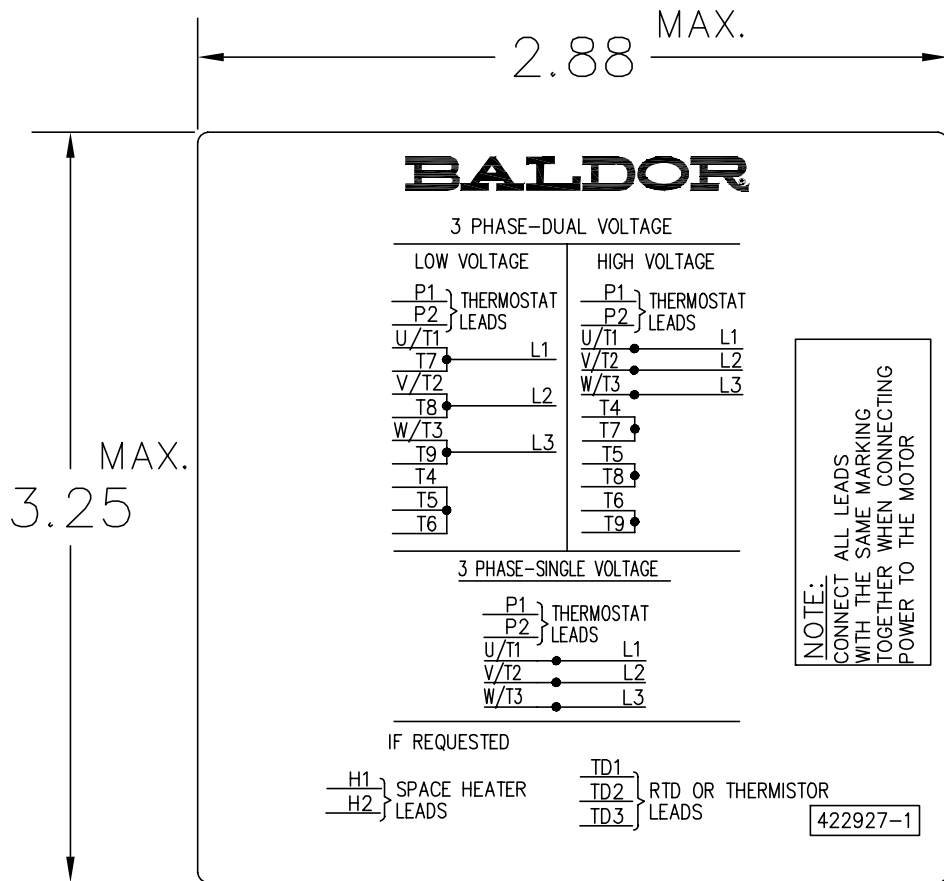
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REV. LTR: E	REVISED: 07: 27: 52 12/18/2018	BY: RGGWT
FILE: \RGG\00003\692		
MTL: -		

**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

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