

**BALDOR • RELIANCE**

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# Customer information packet

## XEFRPM32504

50HP, 1800, 460V, HL326T, TEFC, F1

## Specifications

Enclosure	TEFC
Frame	HL326T
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	50.000 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	49.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	HL
Heater Indicator	No Heater
High Voltage Full Load Amps	49.0 a
Insulation Class	H
KVA Code	F
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	30.81 IN
Product Family	Fan
Pulley End Bearing Type	Ball
Pulley Face Code	Other
Service Factor	1.15
Shaft Diameter	2.124 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible

## Part detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	LS7021A
Layout	619699-001
Eff. date	04-23-2019
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	05-06-2016

<b>Speed</b>	1800 rpm
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None

**Nameplate**

**000613007QF**

	<b>DUTY</b>	<b>HP</b>	<b>RPM</b>	<b>AMPS</b>	<b>VOLTS</b>	<b>HZ</b>					
	CONT	50	1800	49	460	60					
<b>CAT.NO.</b>	XEFRPM32504		<b>SPEC. NO.</b>		H32-A000-0001						
<b>SER.NO.</b>			<b>FRAME SIZE</b>		HL326T	<b>TYPE PSM</b>					
<b>AMB.</b>	40	<b>S.F.</b>	1.15	<b>ENCL.</b>	TEFC	<b>PH</b>	3	<b>DESIGN</b>	B	<b>CODE</b>	F
<b>NEMA NOM. EFF</b>	96.6		<b>GUARANTEED EFFICIENCY</b>		95.9	<b>POWER FACTOR</b>		97.2	<b>INSUL. CLASS</b>		H
<b>D.E. BRG.</b>	65BC03J30X		<b>O.D.E. BRG.</b>		50BC03J30X						
<b>VPWM INVERTER DUTY @1.0SF</b>	<b>CHP HZ</b>	60-90		<b>CT HZ</b>	1-60		<b>VT HZ</b>	0-60			
	X/T										

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000692000VY

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**MEAS OPEN CIRCUIT VOLTAGE**

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IS  VOLTS AT  RPM.

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S. O.	FRAME	HP	TYPE	PHASE	HERTZ	RPM
--	HL326T	50	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB <sup>OC</sup>	INSUL	S.F.	NEMA DESIGN
460	49.8	CONT	40	H	1.15	B
CODE LETTER	ENCL	ROTOR INERTIA (lb-ft <sup>2</sup> )		STATOR RES. @ 25°C OHMS (BETWEEN LINES)		
F	TEFC	3.89		.1878		TYPICAL DATA


**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	19.8	1800	3.80	N/A
1/4	12.5	16.5	1800	75.4	94.1
2/4	24.9	25.7	1800	94.8	96.1
3/4	37.4	37.4	1800	97.2	96.6
4/4	49.9	49.8	1800	97.2	96.6
5/4	62.4	63.1	1800	96.2	96.4

**SPEED TORQUE**

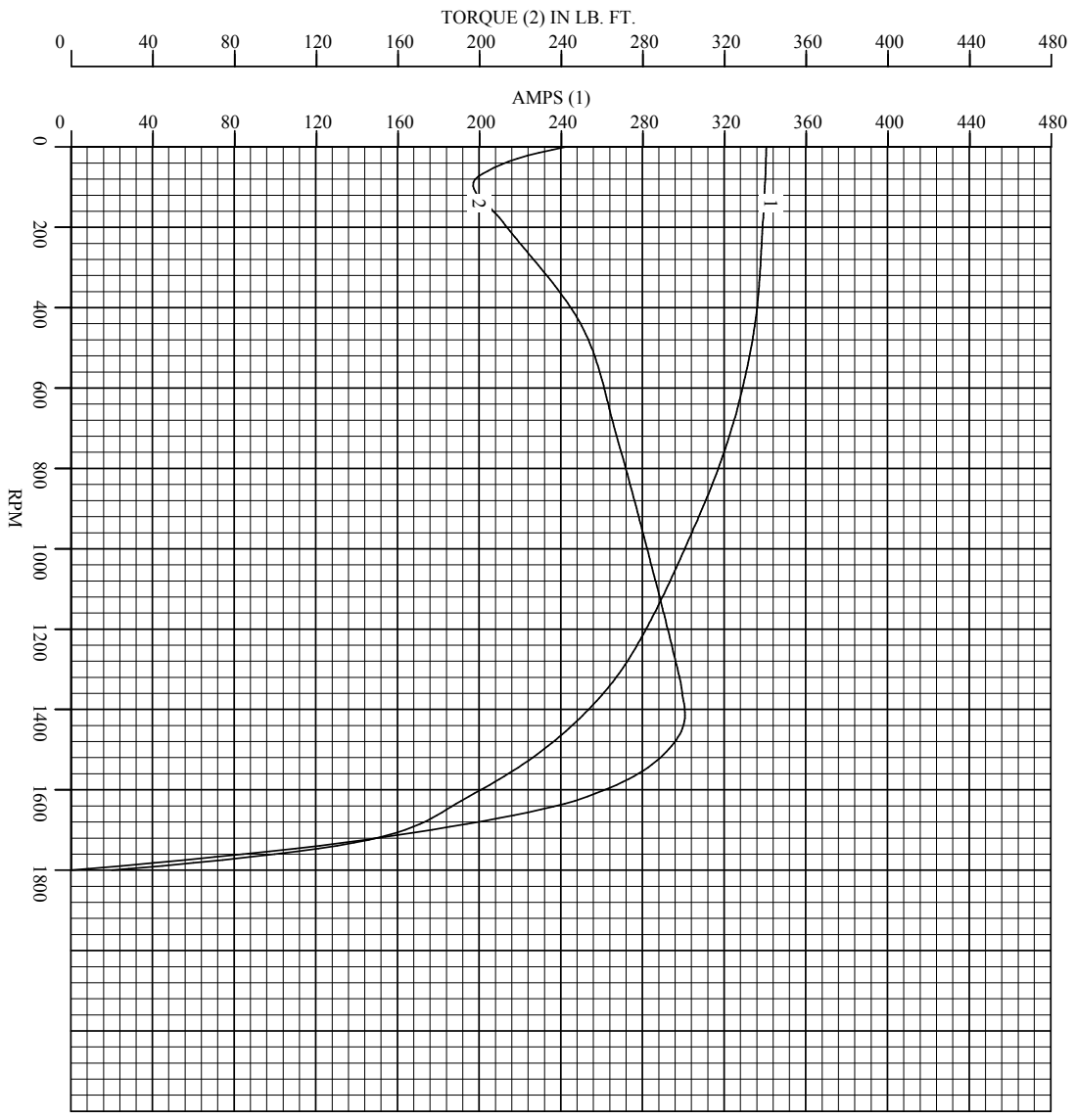
	RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES
LOCKED ROTOR	0	166	242.2	340.5
PULL OUT	1800	208	302.5	132.4
FULL LOAD	1800	100	145.7	49.8

THIS IS A PERMANENT MAGNET MOTOR  
 GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25°C = 20.4 VOLTS PER 100 RPM  
 REMARKS:

 A MEMBER OF THE ABB GROUP	DR. BY CAD	<b>ISPM MOTOR PERFORMANCE DATA</b> LS7021A ISSUE DATE 05/25/2016
	CK. BY REM	
	APP. BY REM	
	DATE 05/25/2016	

S. O.	--	HERTZ	60	AMB°C	40	CODE LETTER	F
FRAME	HL326T	RPM	1800	INSUL	H	WK <sup>2</sup> (lb-ft <sup>2</sup> )	3.89
HP	50	VOLTS	460	S. F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	49.8	ENCL	TEFC	STATOR RES. @ 25°C	.1878
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

### Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

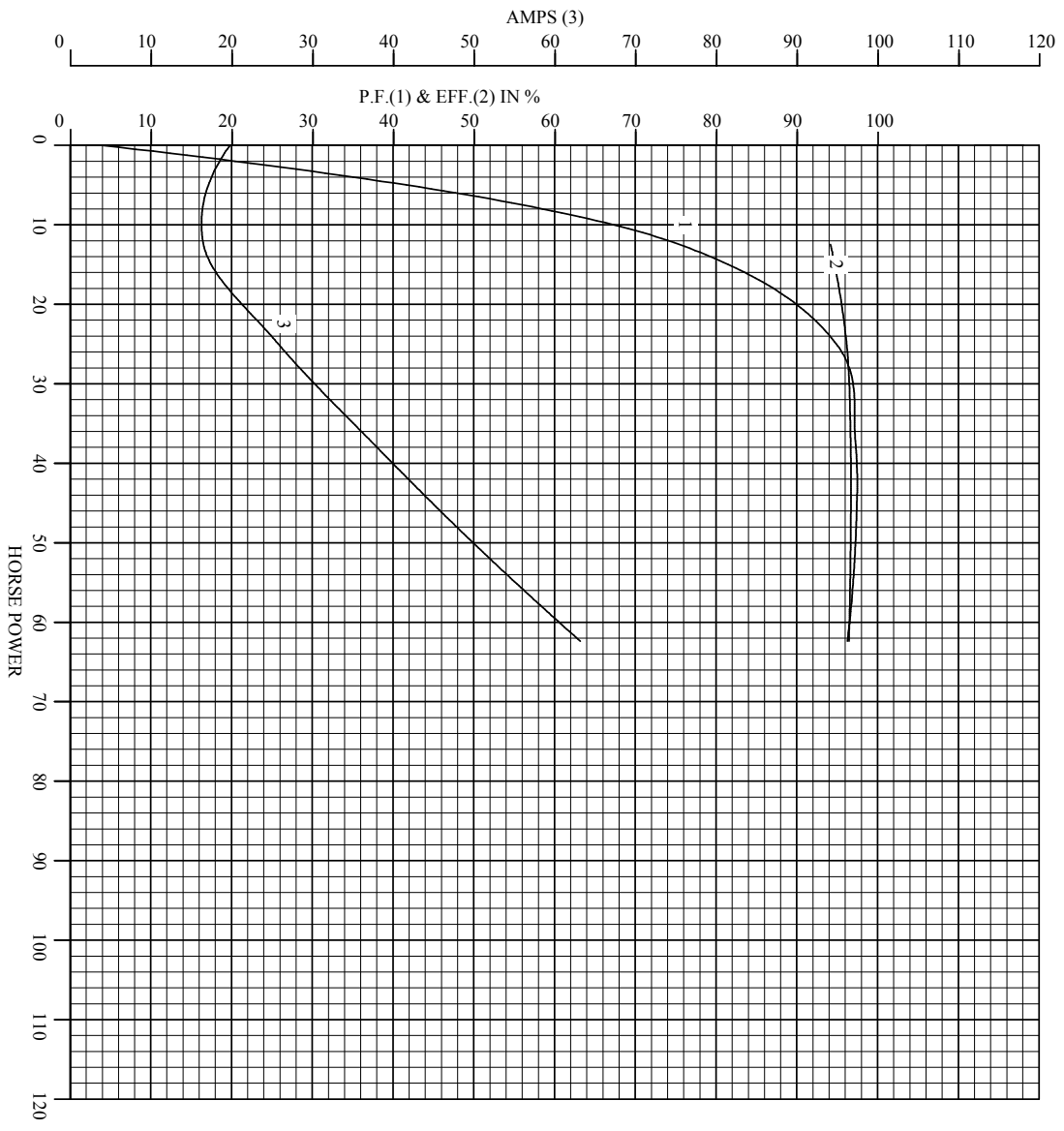


DR. BY \_\_\_\_\_ CAD  
 CK. BY \_\_\_\_\_ RIM  
 APP. BY \_\_\_\_\_ RIM  
 DATE 05/25/2016

**ISPM MOTOR PERFORMANCE CURVES**  
 ISSUE DATE **L57021A**  
 05/25/2016

S. O.	--	HERTZ	60	AMB°C	40	CODE LETTER	F
FRAME	HL326T	RPM	1800	INSUL	H	WK <sup>2</sup> (lb-ft <sup>2</sup> )	3.89
HP	50	VOLTS	460	S. F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	49.8	ENCL	TEFC	STATOR RES. @ 25°C	.1878
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

**Performance Data vs. HP  
At Synchronous Speed**



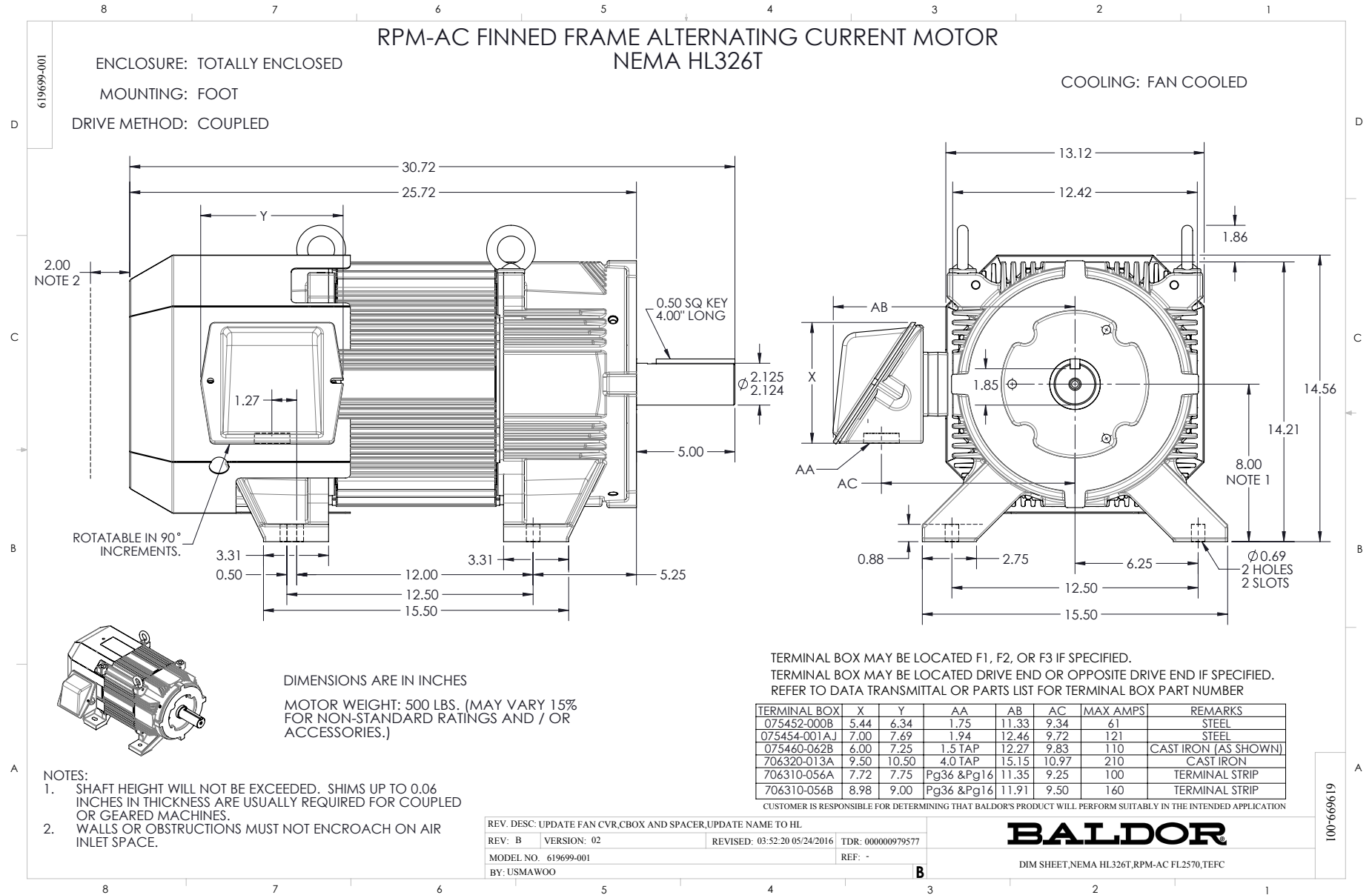
TYPICAL DATA



DR. BY \_\_\_\_\_ CAD  
 CK. BY \_\_\_\_\_ RIM  
 App. BY \_\_\_\_\_ RIM  
 DATE 05/25/2016

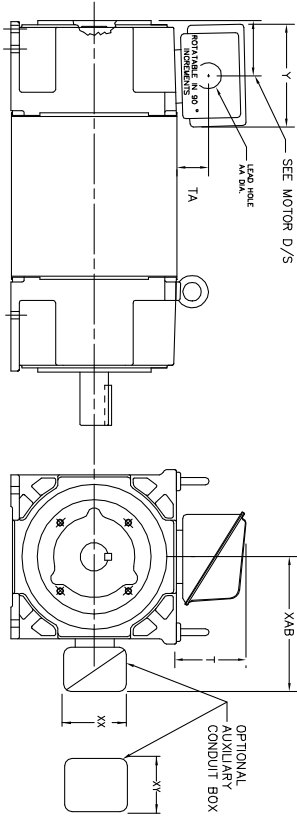
**ISPM MOTOR  
 PERFORMANCE  
 CURVES** ISSUE DATE 05/25/2016





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	2.50/3.00
FL180	CAST IRON	N	40	706320003A	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	0754520009	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	336	706320016A	9.00	4.12	8.42	4.89
FL210 & RL210	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	7063100225A	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	706310637A	11.42	4.00	6.72	2.50
FL250 & RL250	STEEL	N	61	0754520009	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	336	706320016A	9.00	4.12	8.42	4.89
FL250 & RL250	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	MILL	Y	100	7063100225A	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	706310637A	11.42	4.00	6.72	2.50
FL250 & RL250	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME	TYPE	TERMINAL STRIP	AMPS	C/BOX	Y	TA	T	AA
FL280 & RL280	STEEL	N	160	706310056A	7.75	2.30	4.40	PC29/PG16
FL280 & RL280	STEEL	N	309	706320016A	9.00	4.12	8.42	4.89
FL280 & RL280	STEEL	N	500	702560010C	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	706320015A	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	PC29/PG16
FL280 & RL280	MILL	Y	160	706310056B	9.00	3.06	5.40	PC36/PG16
FL280 & RL280	MILL	Y/N	235	706310637A	11.42	4.00	6.72	2.50
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
FL107/FL160/FL210/FL182	7.38	4.25	4.25	602007-26-A	FL107/FL160/FL210/FL182	10.88	8.00	8.00	706310-3-B
FL250/FL180/FL280/FL180	8.44	4.25	4.25	602007-26-A	FL250/FL180/FL280/FL180	11.88	8.00	8.00	706310-3-B
FL280/FL180/FL280/FL180	9.12	4.25	4.25	602007-26-A	FL280/FL180/FL280/FL180	12.62	8.00	8.00	706310-3-B

(1) 7/8" PIPE TAP  
(2) 7/8" PIPE TAP  
(3) CUSTOMER TO PROVIDE THE LEAD WIRE CONDUIT.  
(4) 2" DIA. SA OR 1" DIA. DIA. W-6

TERMINAL BOX CAN BE ROTATED FOR LEAD INLET AT TOP, SIDES OR BOTTOM.  
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7.  
DR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

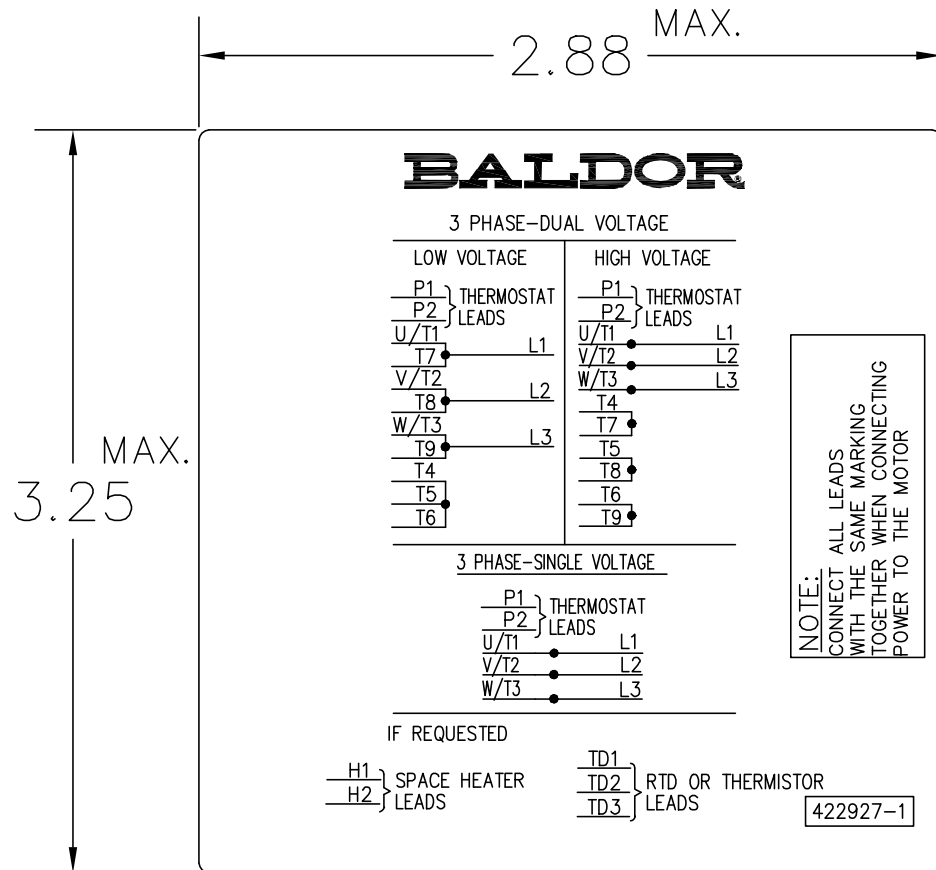
050-677919

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