

ABB BALDOR RELIANCE III

Customer information packet

XEFRPM401004

100HP, 1800, 460V, HL405T, TEFC, F1

Specifications

Enclosure	TEFC
Frame	HL405T
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	100.000 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	98.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	HL
Heater Indicator	No Heater
High Voltage Full Load Amps	98.0 a
Insulation Class	H
KVA Code	F
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	40.56 IN
Product Family	Fan - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.874 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible

Part Detail

Revision	G
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	LS7024A
Layout	619705-001
Eff. date	04-23-2019
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	06-03-2016

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

Nameplate
000613007QF

	DUTY	HP	RPM	AMPS	VOLTS	HZ																	
	CONT	100	1800	98	460	60																	
CAT.NO.	XEFRPM401004		SPEC. NO.		H40-A000-0001																		
SER.NO			FRAME SIZE		HL405T		TYPE PSM																
AMB.	40	S.F.	1.15	ENCL.	TEFC		PH	3	DESIGN	B	CODE	F											
NEMA NOM. EFF	97.3		GUARANTEED EFFICIENCY		96.7		POWER FACTOR		99.1		INSUL. CLASS		H										
D.E. BRG.	75BC02J30X		O.D.E. BRG.		55BC02J30X																		
VPWM INVERTER DUTY @1.0SF	CHP HZ	60-90		CT HZ	1-60		VT HZ	0-60															
	X/T																						

000692000VY

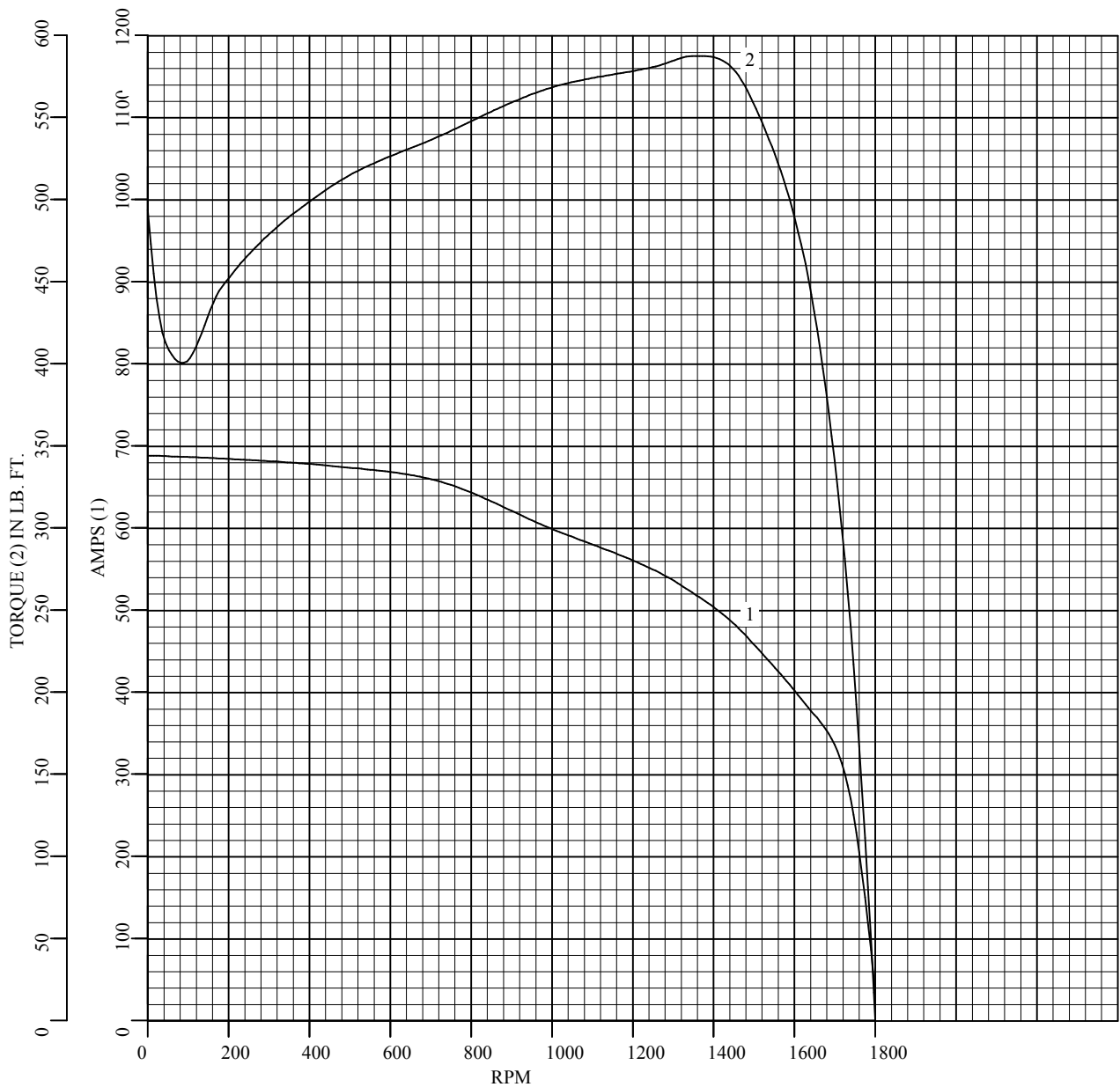
MEAS OPEN CIRCUIT VOLTAGE

IS VOLTS AT RPM.

S.O.	FRAME	HP	TYPE	PHASE	HERTZ	RPM
--	HL405T	100	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB [°] C	INSUL	S.F.	NEMA DESIGN
460	96.9	CONT	40	H	1.15	B
CODE LETTER	ENCL	ROTOR INERTIA (lb-ft ²)	STATOR RES. @ 25 [°] C OHMS (BETWEEN LINES)	TYPICAL DATA		
F	TEFC	11.1	.06784	TYPICAL DATA		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	32.1	1800	3.50	N/A	
1/4	25.0	28.3	1800	86.8	95.3	
2/4	49.9	49.0	1800	98.7	96.8	
3/4	74.9	72.6	1800	99.4	97.2	
4/4	99.8	96.9	1800	99.1	97.3	
5/4	125	122	1800	98.3	97.2	
SPEED TORQUE						
	RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES		
LOCKED ROTOR	0	169	493.9	688.0		
PULL OUT	1800	220	642.1	275.6		
FULL LOAD	1800	100	291.5	96.9		
THIS IS A PERMANENT MAGNET MOTOR GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25[°]C = 22.1 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		
				LS7024A ISSUE DATE 05/25/2016		

S.O.	--	HERTZ	60	AMB ^o C	40	CODE LETTER	F
FRAME	HL405T	RPM	1800	INSUL	H	WK ² (lb-ft ²)	11.1
HP	100	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	96.9	ENCL	TEFC	STATOR RES. @ 25 ^o C	.06784
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY CAD
CK. BY RFM
APP. BY RFM
DATE 05/25/2016

**LSPM MOTOR
PERFORMANCE
CURVES**

LS7024A

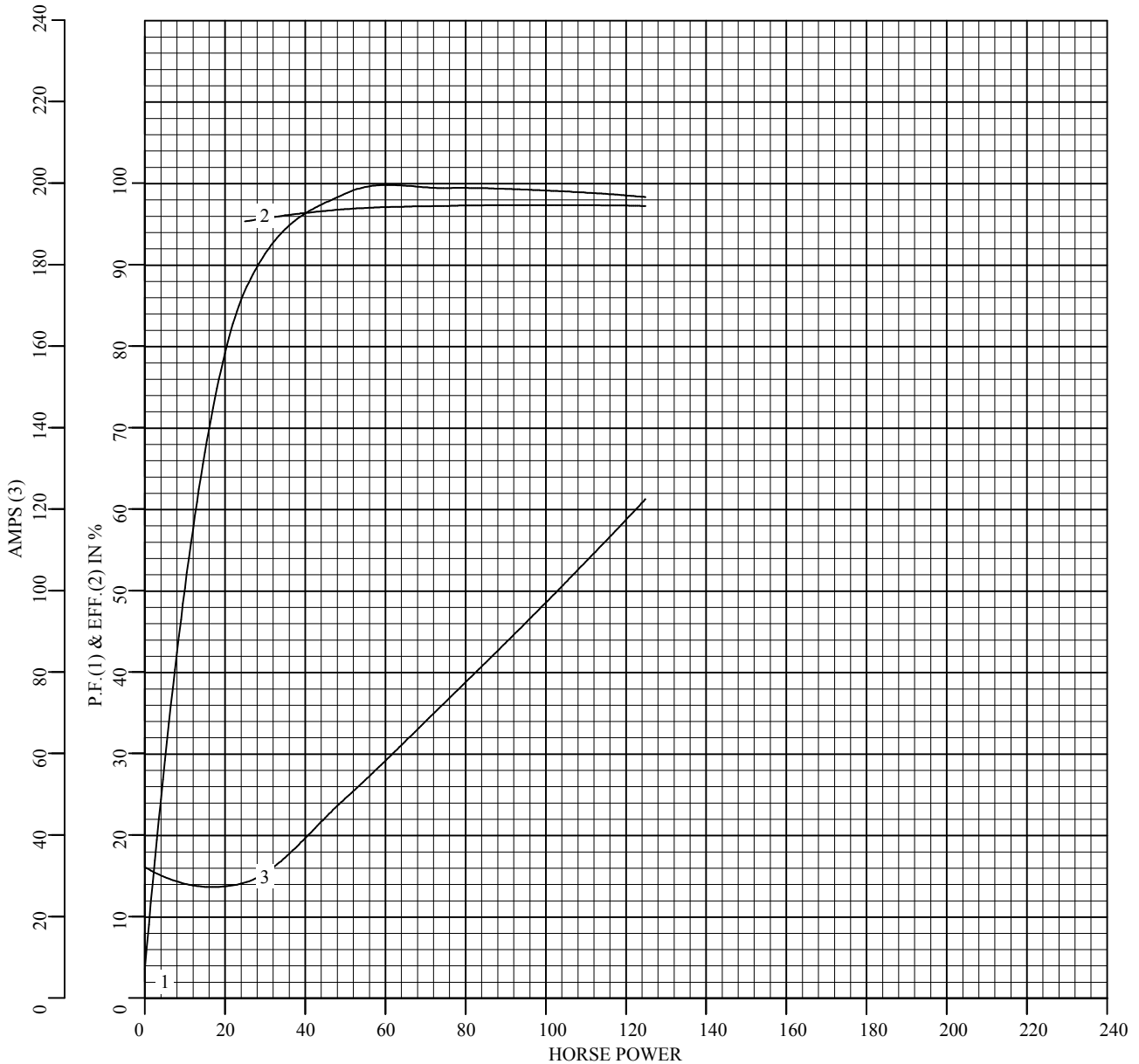
ISSUE DATE

05/25/2016

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Performance Data vs. HP At Synchronous Speed



TYPICAL DATA



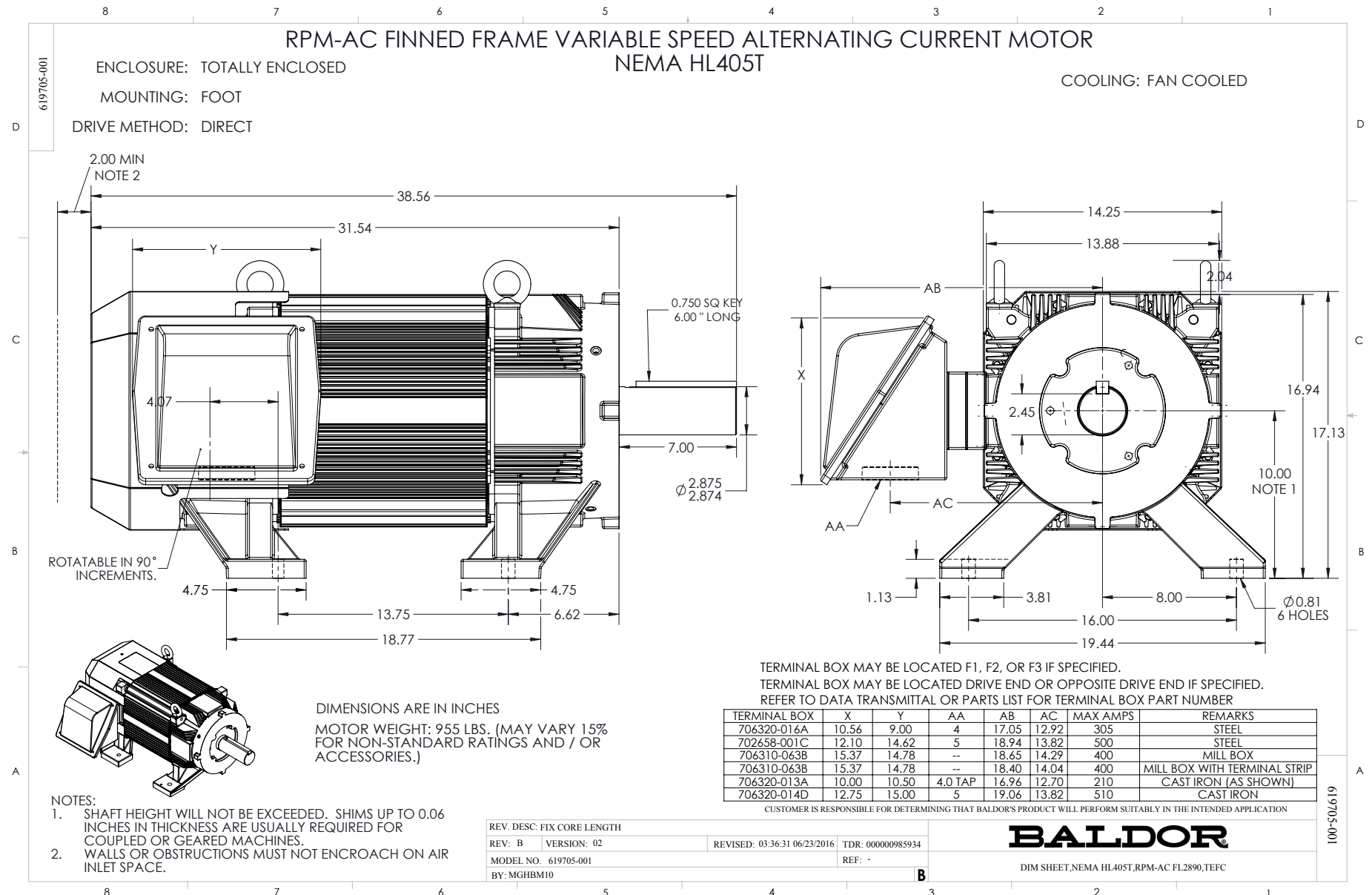
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**LSPM MOTOR
PERFORMANCE
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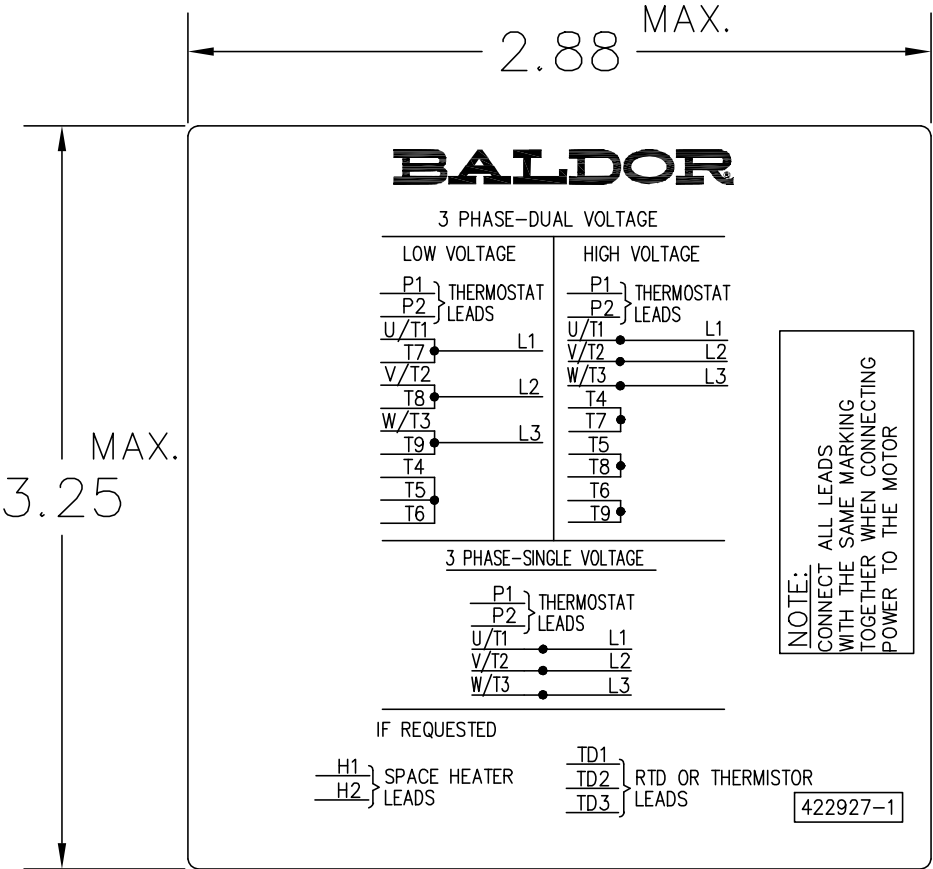
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422927-001



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