

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	INSUL. CLASS		H	
NEMA NOM. EFF	97.3		GUARANTEED EFFICIENCY			96.7		POWER FACTOR		99.1						
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.

Parts List

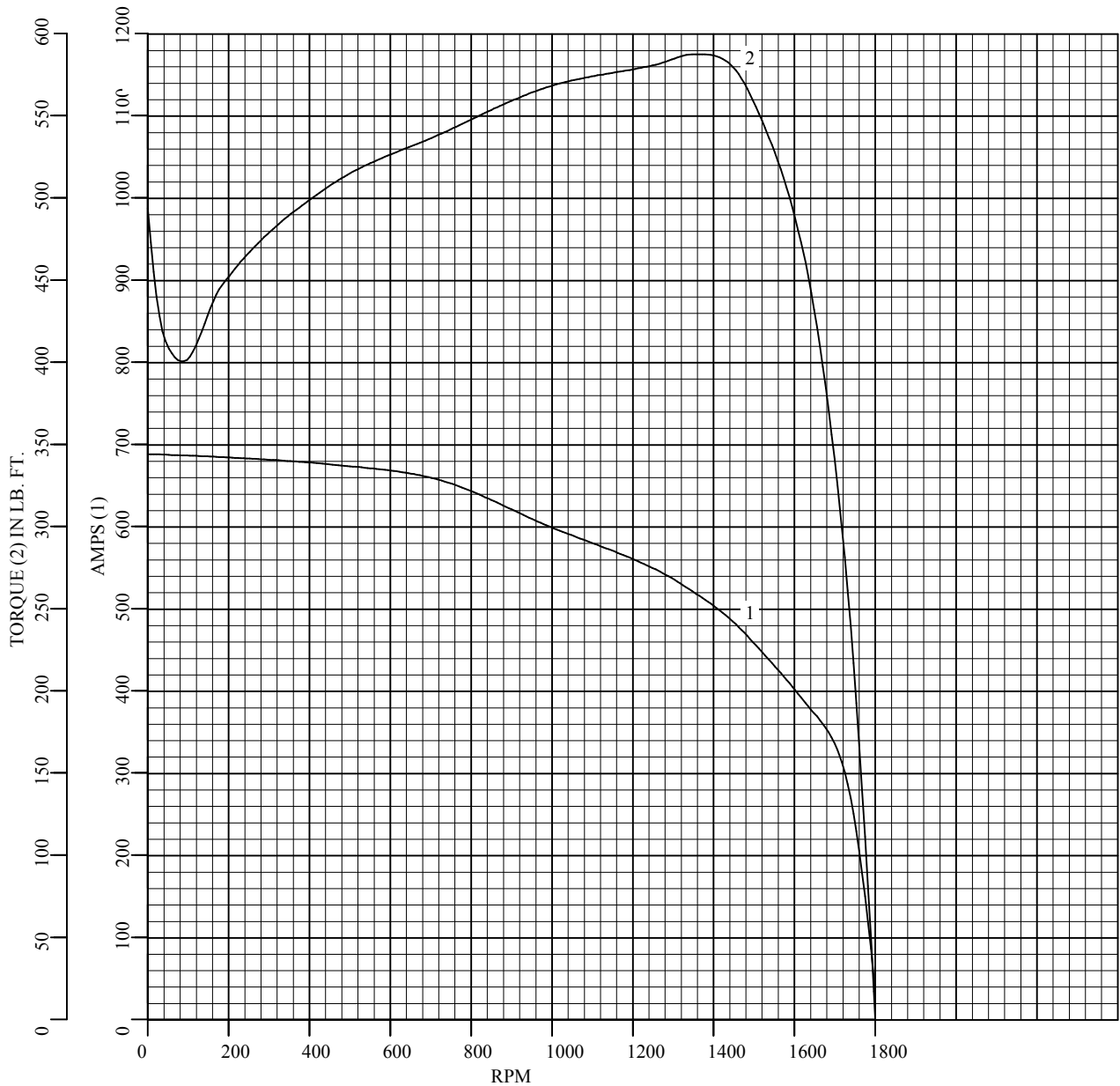
Part number	Description	Quantity
WS313105	WS H40-A000-0001	1.000 ea
RA309334	RA H40-A000-0001	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000613007QF	NP,RPM AC - XE WITH CERTIFIED LOGO	1.000 ea
000613006ABP	RPM-XE,EXTREME EFFICIENCY,UL LISTED	1.000 ea
000692000VY	PERMANENT MAGNET MOTOR NAMEPLATE	1.000 ea
422927001	C/D LABEL	1.000 ea
004824007AB	PAINT,XT	0.100 ea
810106004AAC	BRKT,ODE,LSPM280 (FL400)	1.000 ea
810106003AAA	BRKT,DE,LSPM280 (FL400)	1.000 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
004824015A	GREASE POLYREX EM	0.300 lb
036600014AB	FLTW MOTOR MTG.	2.000 ea
415045002F	SLINGER	1.000 ea
415045002P	SLINGER	1.000 ea
400638001G	WAVEN (Customer number 43699)	1.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001BA	ALFTG 1/8" 1688-B-use 1B (bs)	1.000 ea
036100070KA	METRIC HSHCS	3.000 ea
036100070JA	HSHCS M8 70MM UNPLATED	3.000 ea
036140001D	EYEBOLT - 360	2.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
609830005G	TBOLT VERSION 3	4.000 ea
415000003E	T/LUG #4AWG-1/0AWG W/HOLE FOR .375 BOLT	1.000 ea
415072001B	CLAMP	1.000 ea
417733004J	GASKT	3.000 ea

034180014FA	KEY 3/8X3/8X1-3/4L	1.000 ea
078548001T	FAN 250	1.000 ea
708535505A	FAN COVER HL360	1.000 ea
036000016KB	HHCSM10-1.5X16MM PLTD-280	4.000 ea
036000016KB	HHCSM10-1.5X16MM PLTD-280	2.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	3.000 ea
033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
406673002AE	2" CAP PLUG	1.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
036620010AB	M10 EXT. TOOTH LK WASHER	2.000 ea
034630001AJ	1/8" PIPE COUPLING	1.000 ea
418014004A	609185004cDPT/BOX	2.000 ea
034530016AB	P/NIP 1/8X2 PLATED - 320	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
076709000A	C/B Cover - 360	1.000 ea
067053000B	GASK 320-400	1.000 ea
036000080JB	HHCS BRHLDR MTG	4.000 ea
034180048JA	KEY 3/4X3/4X6L	1.000 ea
004824007K	SPECIAL PAINT	0.100 ea
LB1549	LABEL, BLANK 1.375 X 2.250 IMPRINTABLE	1.000 ea

S.O.	FRAME	HP	TYPE	PHASE	HERTZ	RPM
--	HL405T	100	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB ^o 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 ^o C OHMS (BETWEEN LINES)			
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^oC = 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)	

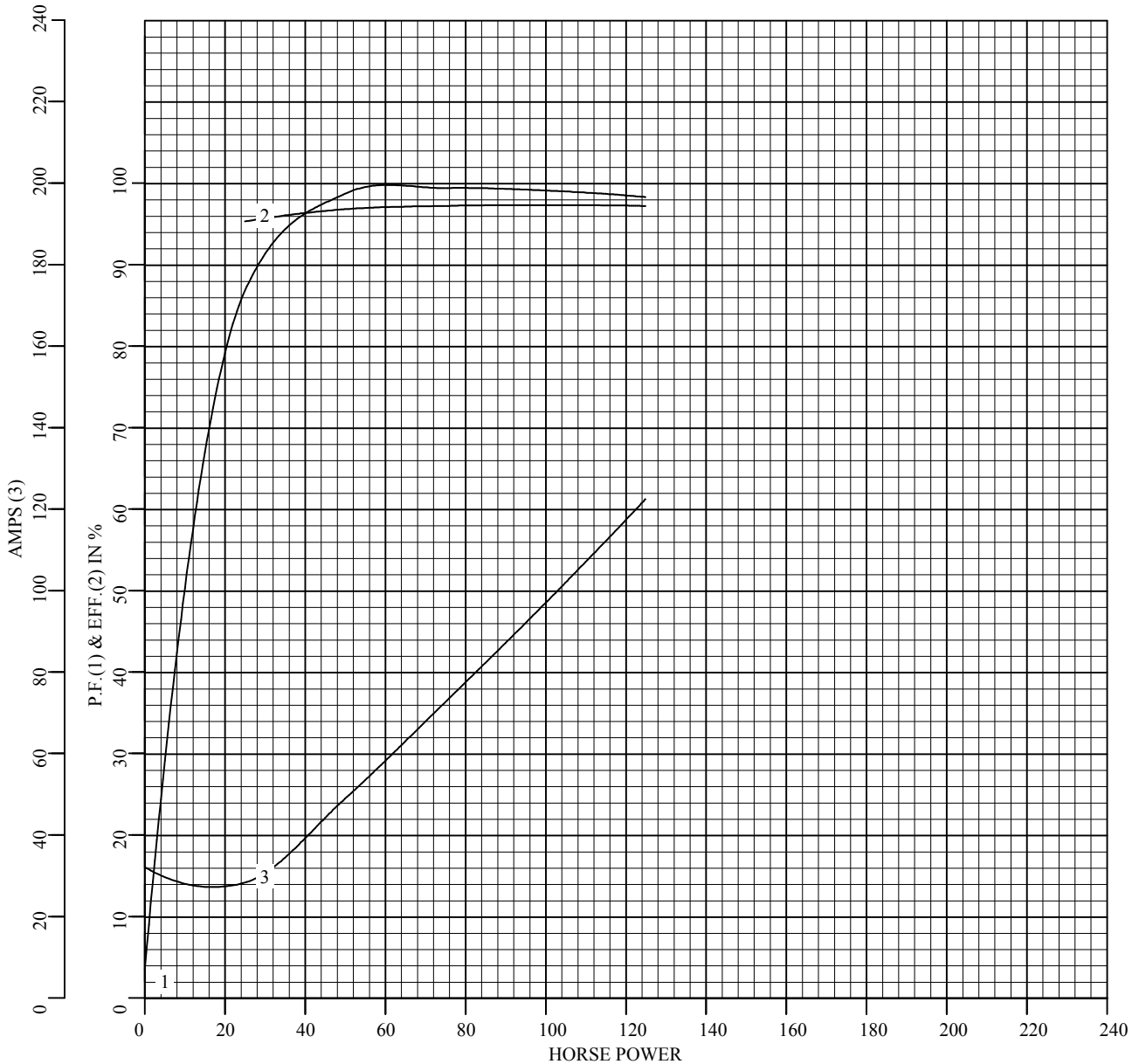
Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

S.O.	--	HERTZ	60	AMB°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°C	.06784
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

Performance Data vs. HP At Synchronous Speed



TYPICAL DATA



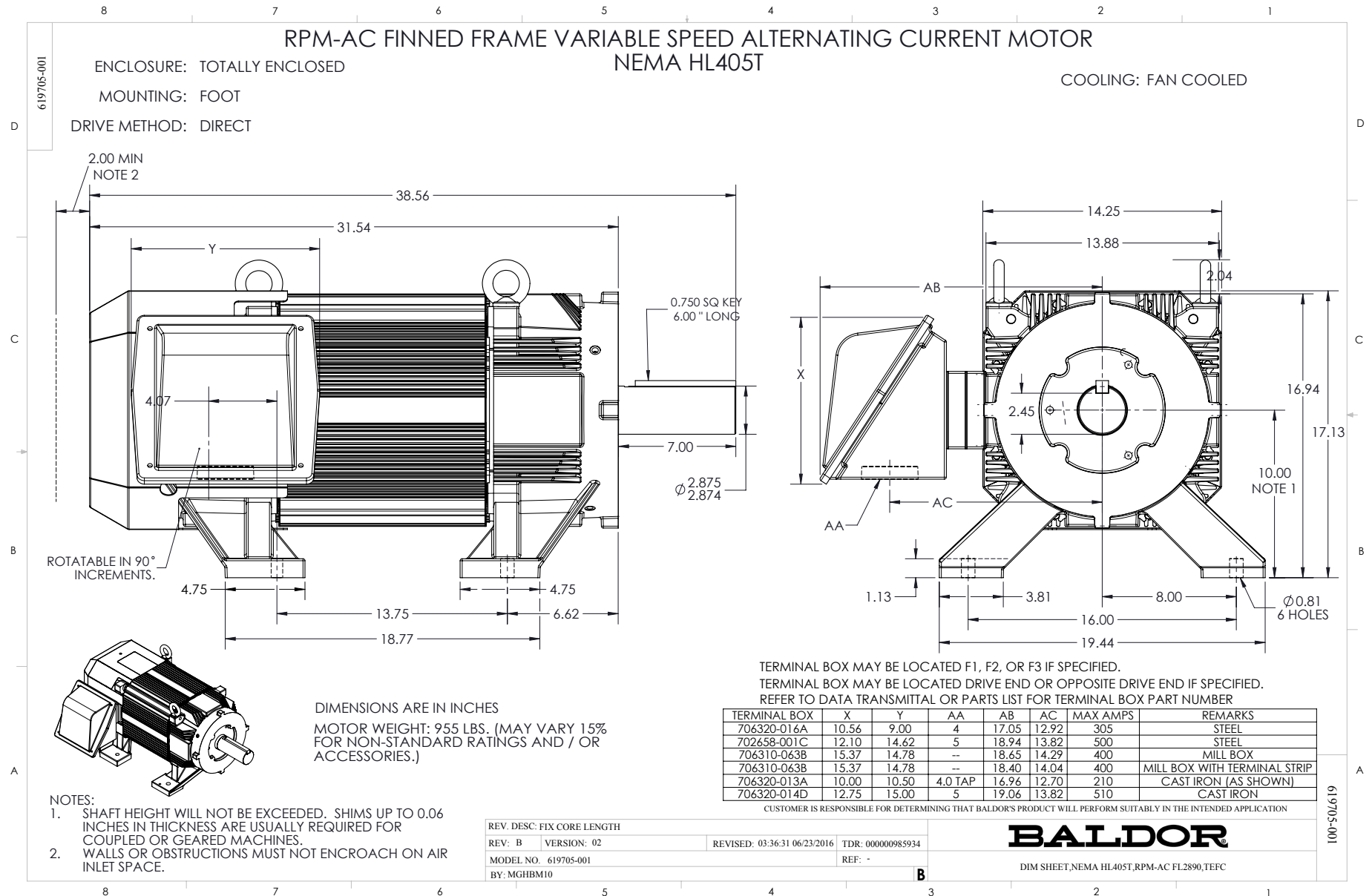
DR. BY CAD
CK. BY RFM
APP. BY RFM
DATE 05/25/2016

**LSPM MOTOR
PERFORMANCE
CURVES**

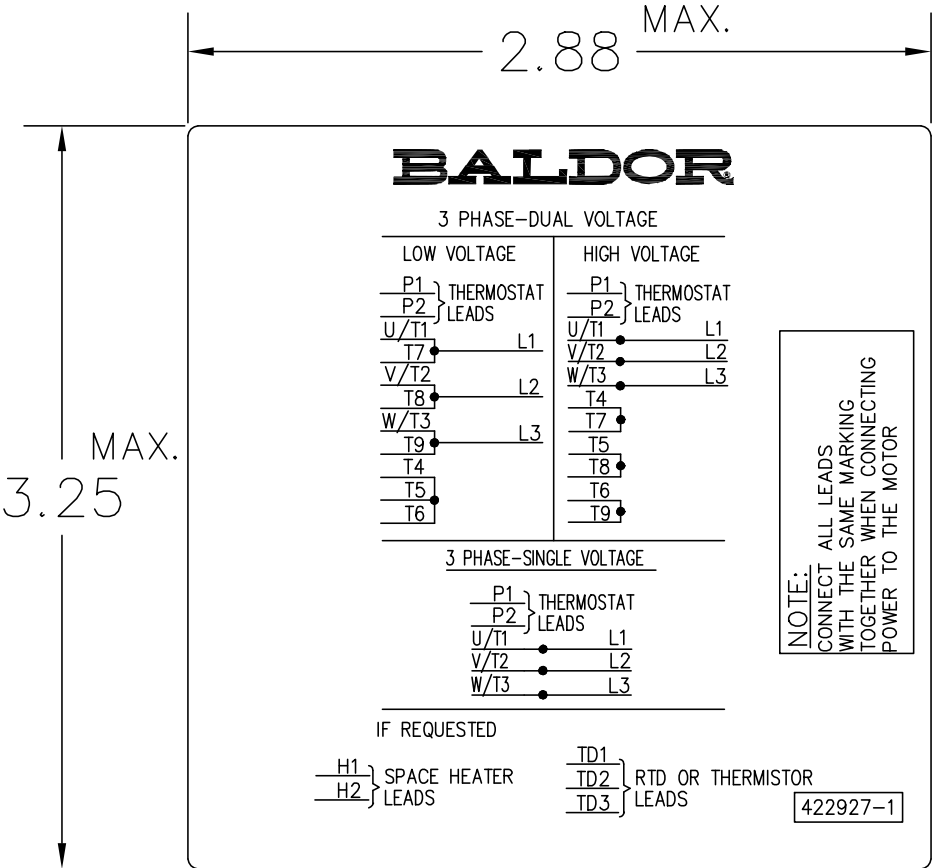
LS7024A

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05/25/2016



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.

NOTE:
CONNECT ALL LEADS
WITH THE SAME MARKING
TOGETHER WHEN CONNECTING
POWER TO THE MOTOR

422927-1

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