

**BALDOR • RELIANCE**

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# 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

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

**Nameplate**

**000613007QF**

	<b>DUTY</b>	<b>HP</b>	<b>RPM</b>	<b>AMPS</b>	<b>VOLTS</b>	<b>HZ</b>					
	CONT	100	1800	98	460	60					
<b>CAT.NO.</b>	XEFRPM401004		<b>SPEC. NO.</b>		H40-A000-0001						
<b>SER.NO.</b>			<b>FRAME SIZE</b>		HL405T	<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>	97.3		<b>GUARANTEED EFFICIENCY</b>		96.7		<b>POWER FACTOR</b>	99.1		<b>INSUL. CLASS</b>	H
<b>D.E. BRG.</b>	75BC02J30X		<b>O.D.E. BRG.</b>		55BC02J30X						
<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
--	HL405T	100	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB <sup>OC</sup>	INSUL	S.F.	NEMA DESIGN
460	96.9	CONT	40	H	1.15	B

CODE LETTER	ENCL	ROTOR INERTIA (lb-ft <sup>2</sup> )	STATOR RES. @ 25°C OHMS (BETWEEN LINES)	TYPICAL DATA
F	TEFC	11.1	.06784	


**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**

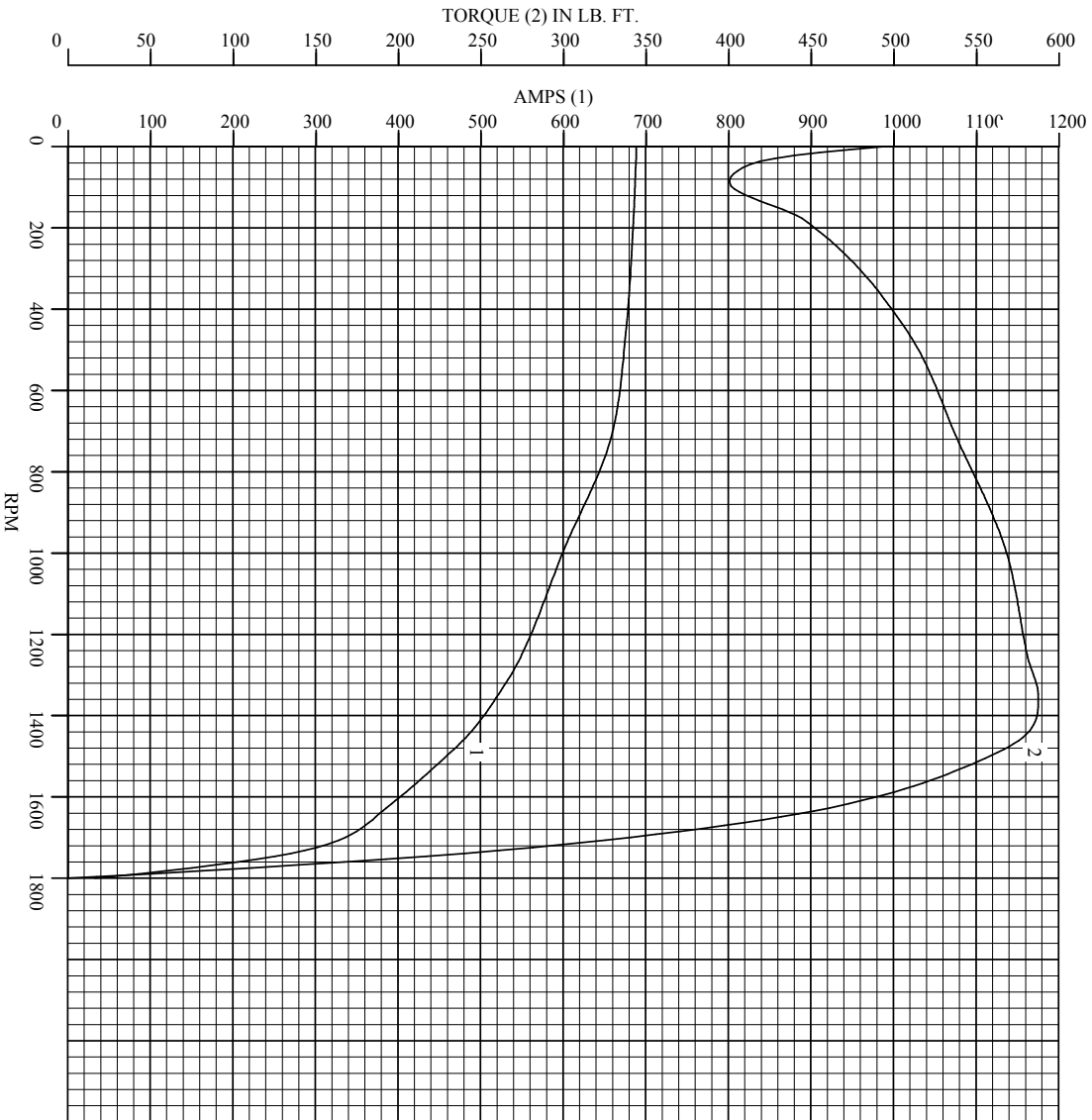
	RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES
LOCKED ROTOR	0	169	493.9	688.0
PULL OUT	1800	220	642.1	275.6
FULL LOAD	1800	100	291.5	96.9

THIS IS A PERMANENT MAGNET MOTOR  
 GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25°C = 22.1 VOLTS PER 100 RPM  
 REMARKS:

 A MEMBER OF THE ABB GROUP	DR. BY CAD	<b>ISPM MOTOR PERFORMANCE DATA</b> LS7024A 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	HL405T	RPM	1800	INSUL	H	WK2 (lb-ft <sup>2</sup> )	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)	

### Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

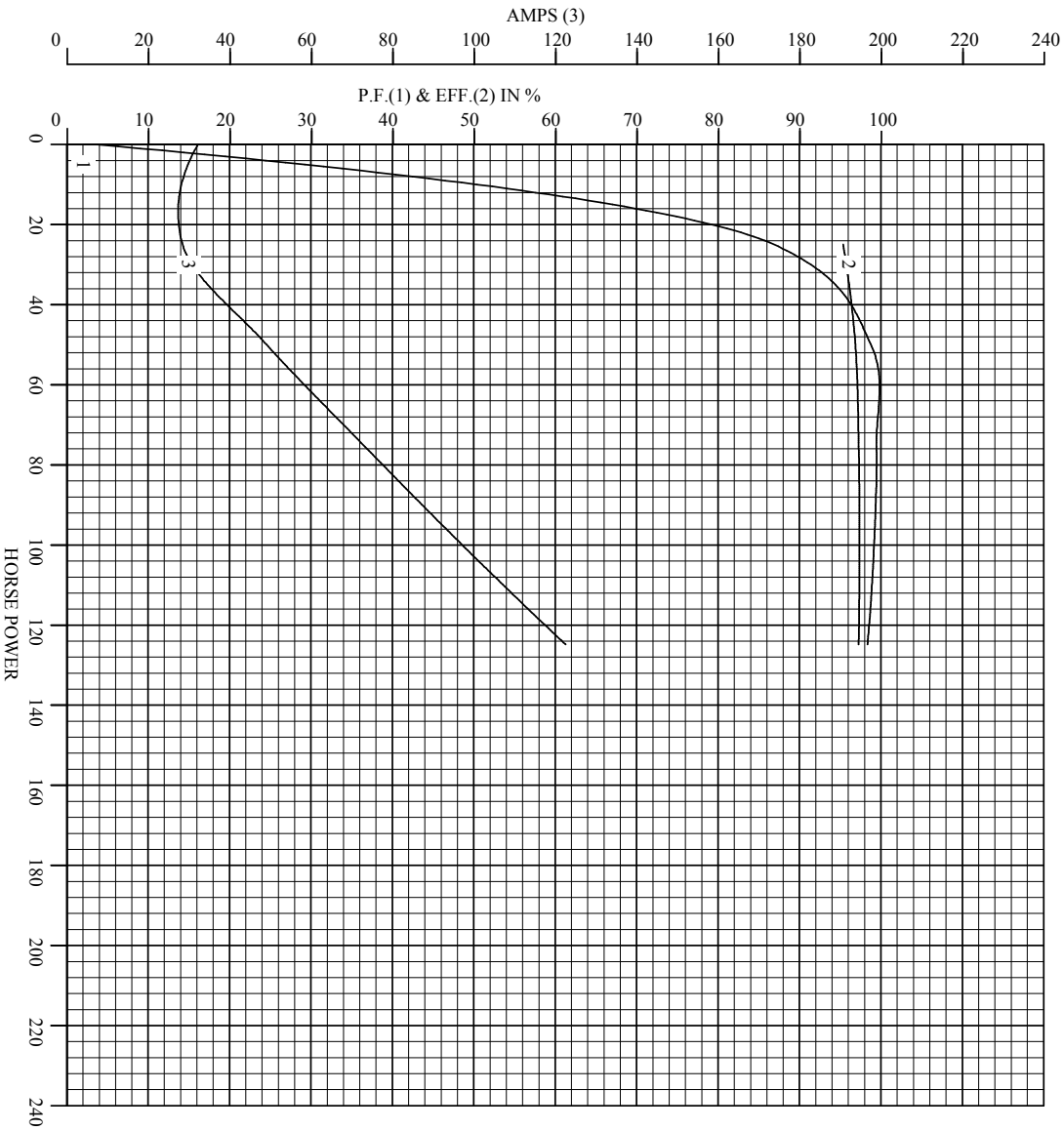


DR. BY \_\_\_\_\_ CAD  
 CK. BY \_\_\_\_\_ RIM  
 APP. BY \_\_\_\_\_ RIM  
 DATE 05/25/2016

**ISPM MOTOR PERFORMANCE CURVES**  
 ISSUE DATE **L57024A**  
 05/25/2016

S.O.	--	HERTZ	60	AMB°C	40	CODE LETTER	F
FRAME	HL405T	RPM	1800	INSUL	H	WK <sup>2</sup> (lb-ft <sup>2</sup> )	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**



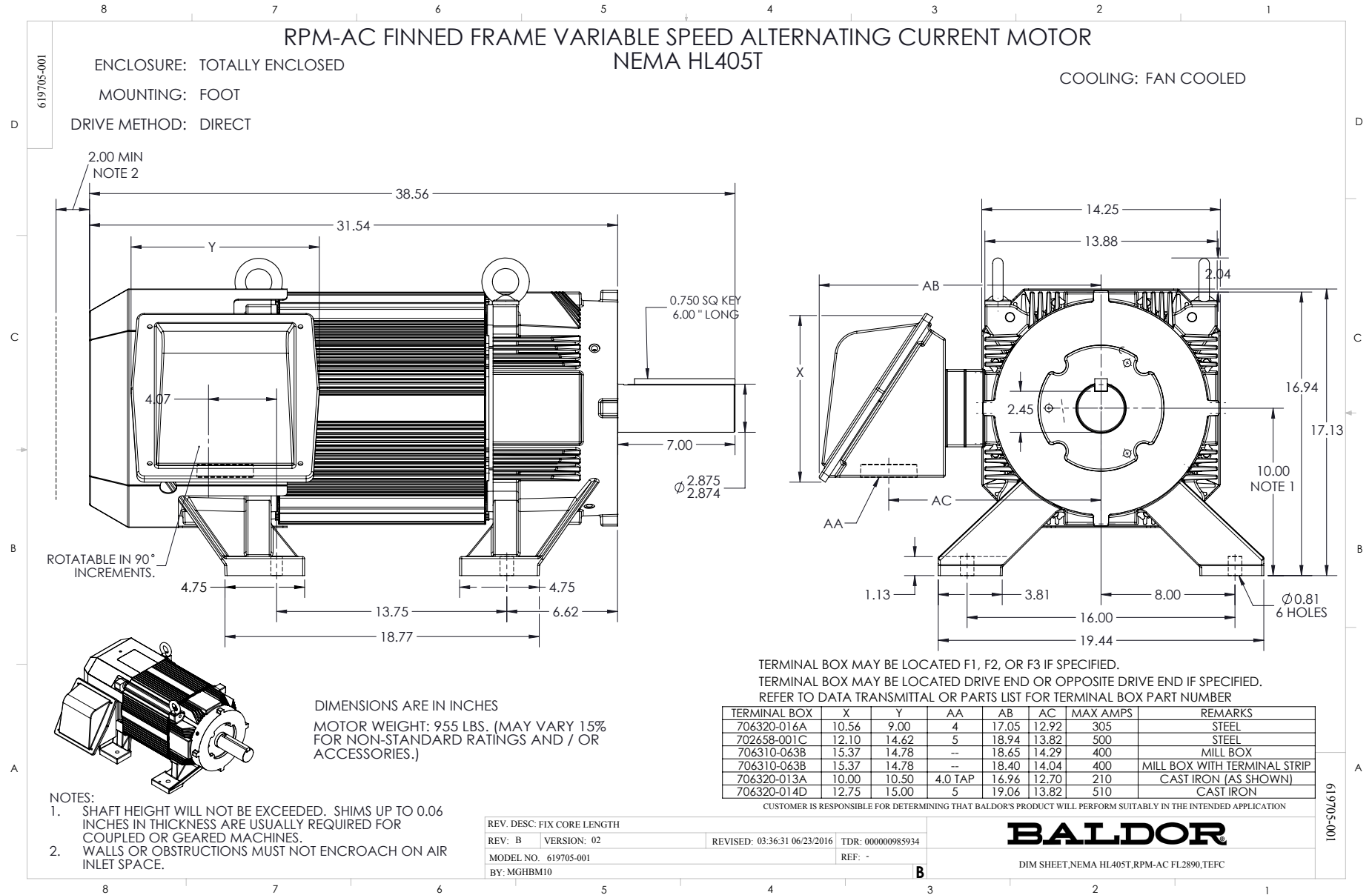
TYPICAL DATA



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

**ISPM MOTOR  
PERFORMANCE  
CURVES** ISSUE DATE **L57024A**  
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.

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