

ABB BALDOR RELIANCE III

Customer information packet

XEFRPM32404

40HP, 1800, 460V, HL324T, TEFC, F1

Specifications

Enclosure	TEFC
Frame	HL324T
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	40.000 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	40.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	HL
Heater Indicator	No Heater
High Voltage Full Load Amps	40.0 a
Insulation Class	H
KVA Code	G
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	28.81 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.	LS7020A
Layout	619698-001
Eff. date	04-23-2019
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	05-10-2016

Speed	1800 rpm
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate
000613007QF

	DUTY	HP	RPM	AMPS	VOLTS	HZ														
	CONT	40	1800	40	460	60														
CAT.NO.	XEFRPM32404		SPEC. NO.		H32-A000-0002															
SER.NO			FRAME SIZE		HL324T		TYPE PSM													
AMB.	40	S.F.	1.15	ENCL.	TEFC		PH	3	DESIGN	B	CODE	G								
NEMA NOM. EFF	96.4		GUARANTEED EFFICIENCY		95.6		POWER FACTOR		93.3		INSUL. CLASS		H							
D.E. BRG.	65BC03J30X		O.D.E. BRG.		50BC03J30X															
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

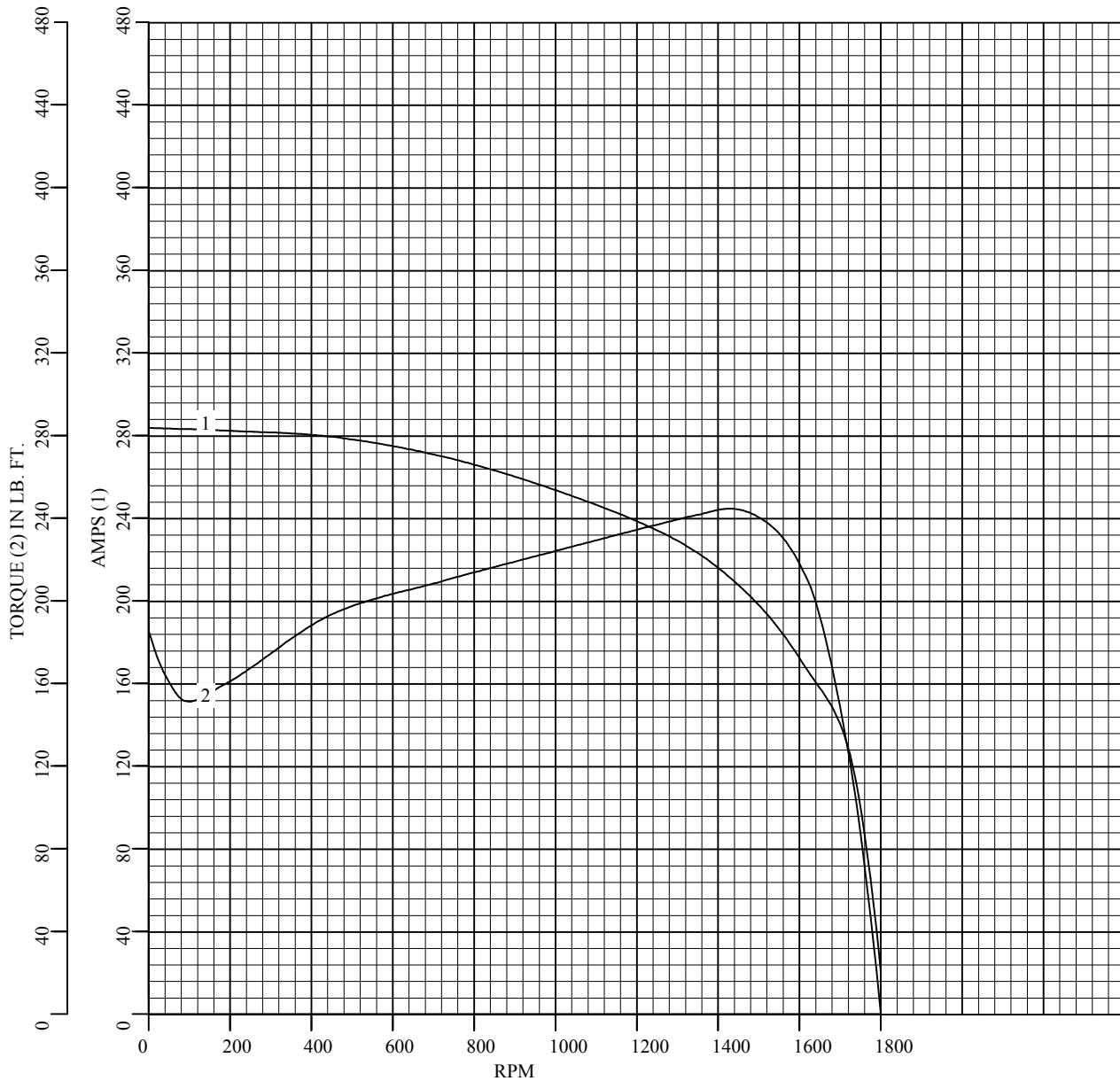
Part number	Description	Quantity
WS311996	WS H32-A000-0002	1.000 ea
RA308221	RA H32-A000-0002	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000613007QF	NP,RPM AC - XE WITH CERTIFIED LOGO	1.000 ea
000613006ABP	RPM-XE,EXTREME EFFICIENCY,UL LISTED	1.000 ea
000692000VY	PERMANENT MAGNET MOTOR NAMEPLATE	1.000 ea
422927001	C/D LABEL	1.000 ea
004824007AB	PAINT,XT	0.100 ea
810103004AAC	BRKT,ODE,LSPM250 (FL250)	1.000 ea
810103003AAA	BRKT,DE,LSPM250 (FL250)	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	0.200 lb
415045002G	SLGR	1.000 ea
415045002E	SLGR	1.000 ea
400638001H	SPRING WASHER (Customer number 43699)	1.000 ea
036610010AB	MHSLW M10 PLATED	4.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
036100080KA	M10-1.50X 80MM HXSOCHDCS	3.000 ea
036100080KA	M10-1.50X 80MM HXSOCHDCS	3.000 ea
036140001C	EYEBOLT - 400	2.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
609830005AN	TBOLT PURGE MTR	4.000 ea
415000103A	T/LUG #14AWG-#4AWG W/HOLE FOR .250 BOLT	1.000 ea
415072001B	CLAMP	1.000 ea
417733004T	GASKET CONDUIT BOX	2.000 ea

034180012FA	KEY 3/8X3/8X1-1/2 L - 360	1.000 ea
078547001T	FAN 078547001P	1.000 ea
708534505A	BLOWER SHROUD,HL320	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	4.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
406673002AE	2" CAP PLUG	1.000 ea
036620008AB	M6 METRIC EXT LOCKWASHER	1.000 ea
418010012J	CONDUIT BOX SPACER	1.000 ea
036601008AB	M6 FLAT WASHER	4.000 ea
075460062B	+C/B - 280	1.000 ea
075461011A	+CBOX CVR BLKT - 280	1.000 ea
065591000C	GASK 250-280	1.000 ea
032018008AK	HHCS 1/4-20X1 PLATED	2.000 ea
036000050HB	MHHCS M6X50MM PLATED	4.000 ea
034180032GA	KEY 1/2X1/2X4 L	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
--	HL324T	40	PSM	3	60	1800
VOLTS	AMPS	DUTY	AMB [°] C	INSUL	S.F.	NEMA DESIGN
460	41.7	CONT	40	H	1.15	B
CODE LETTER	ENCL	ROTOR INERTIA (lb-ft ²)	STATOR RES. @ 25 [°] C OHMS (BETWEEN LINES)	TYPICAL DATA		
G	TEFC	2.96	.2444			
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	20.4	1800	3.70	N/A	
1/4	10.0	17.7	1800	57.2	93.0	
2/4	20.0	23.3	1800	84.0	95.7	
3/4	30.0	31.9	1800	91.4	96.3	
4/4	40.0	41.6	1800	93.3	96.4	
5/4	50.0	52.2	1800	93.1	96.1	
SPEED TORQUE						
	RPM	TORQUE (% FULL LOAD)	TORQUE (lb-ft)	AMPERES		
LOCKED ROTOR	0	159	185.4	283.6		
PULL OUT	1800	217	254.0	130.4		
FULL LOAD	1800	100	116.8	41.6		
THIS IS A PERMANENT MAGNET MOTOR GENERATED OPEN CIRCUIT LINE-LINE VOLTAGE at 25[°]C = 18.5 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		
				LS7020A ISSUE DATE 05/25/2016		

S.O.	--	HERTZ	60	AMB°C	40	CODE LETTER	G
FRAME	HL324T	RPM	1800	INSUL	H	WK ² (lb-ft ²)	2.96
HP	40	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	41.7	ENCL	TEFC	STATOR RES. @ 25°C	.2444
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

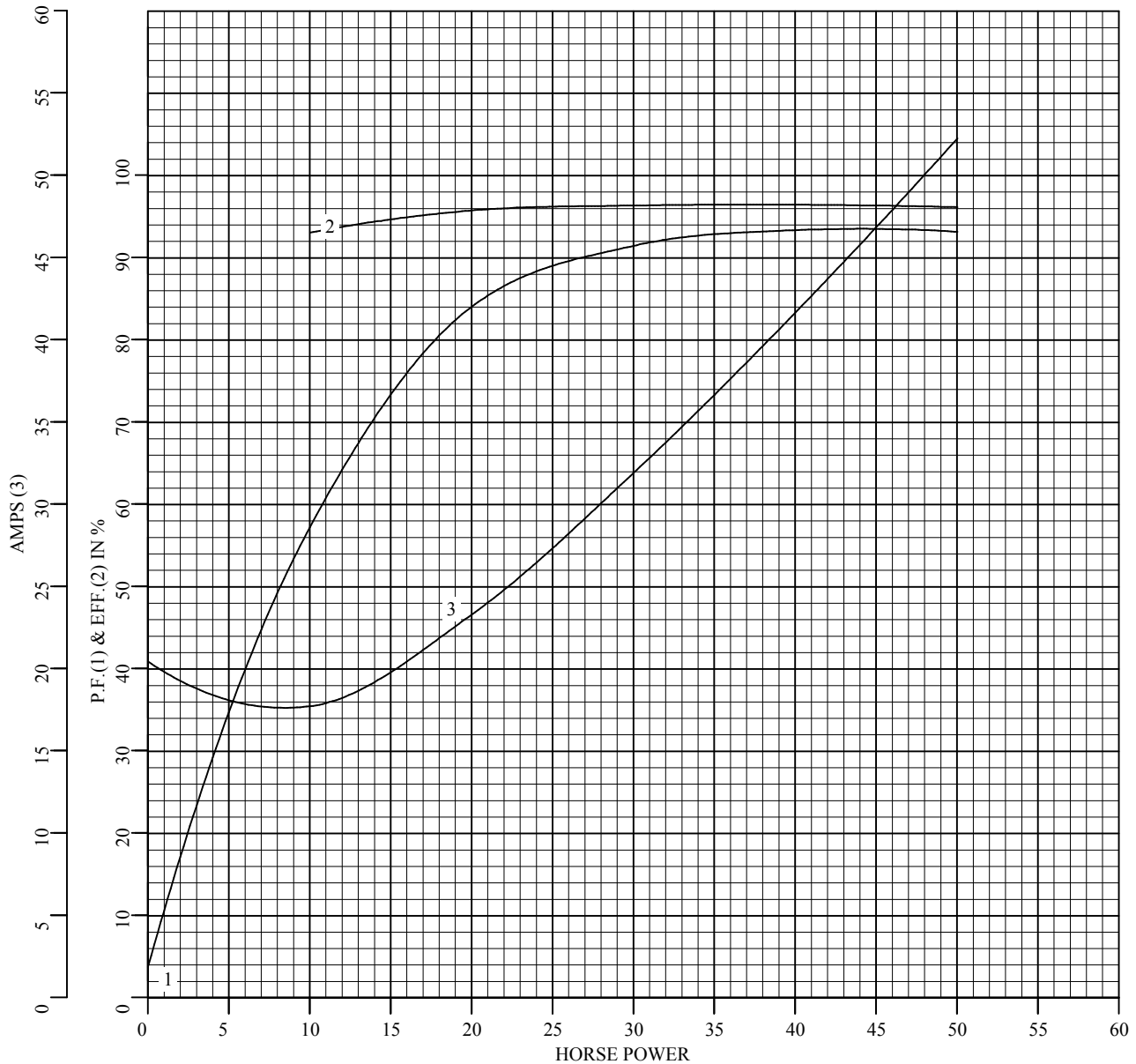
Amps & Torque vs. RPM During Acceleration



TYPICAL DATA

S.O.	--	HERTZ	60	AMB ^o C	40	CODE LETTER	G
FRAME	HL324T	RPM	1800	INSUL	H	WK ² (lb-ft ²)	2.96
HP	40	VOLTS	460	S.F.	1.15	NEMA DESIGN	B
TYPE	PSM	AMPS	41.7	ENCL	TEFC	STATOR RES. @ 25 ^o C	.2444
PHASE	3	DUTY	CONT			OHMS (BETWEEN LINES)	

Performance Data vs. HP At Synchronous Speed



TYPICAL DATA



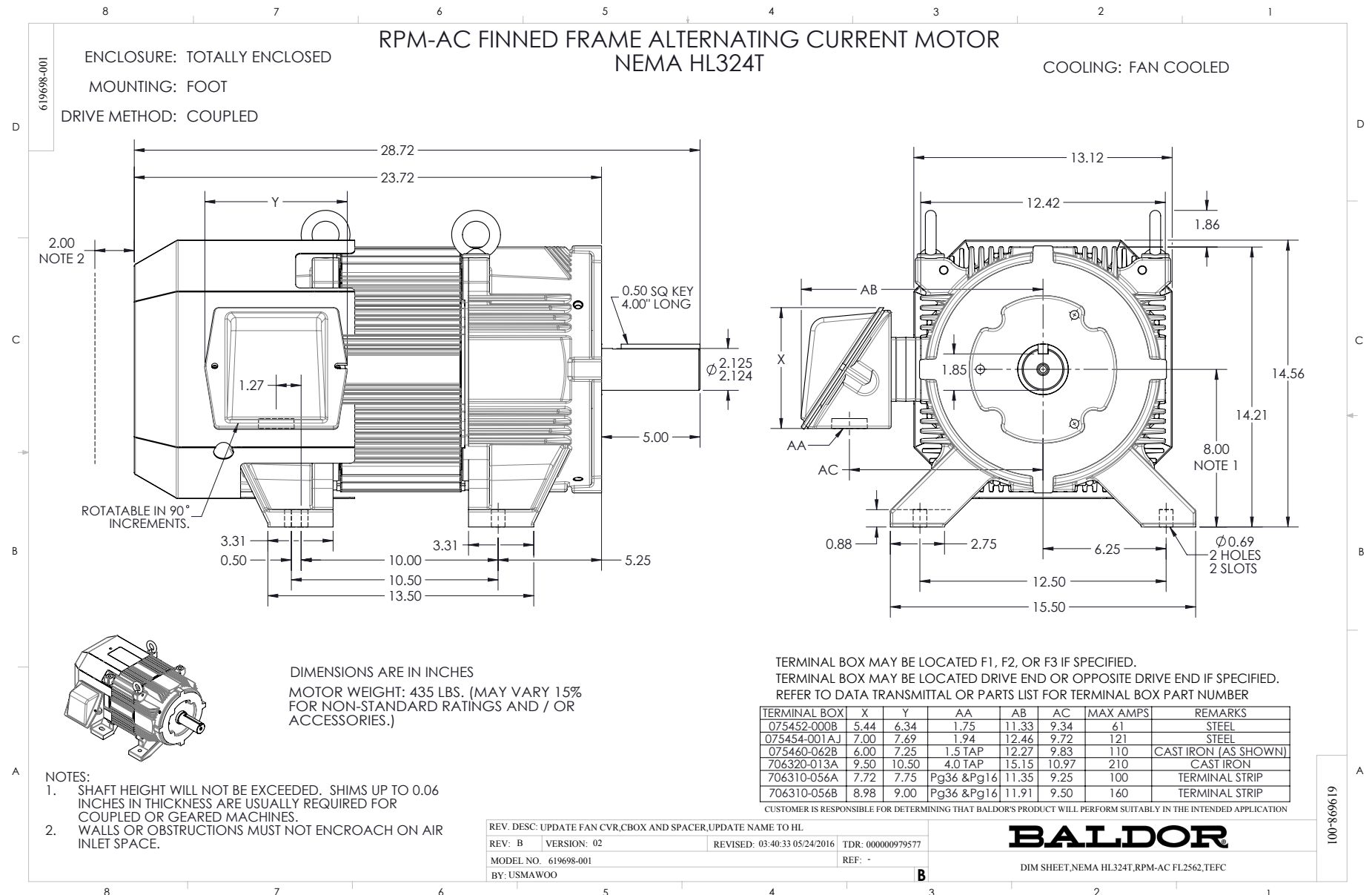
DR. BY	CAD
CK. BY	RFM
APP. BY	RFM
DATE	05/25/2016

**LSPM MOTOR
PERFORMANCE
CURVES**

LS7020A

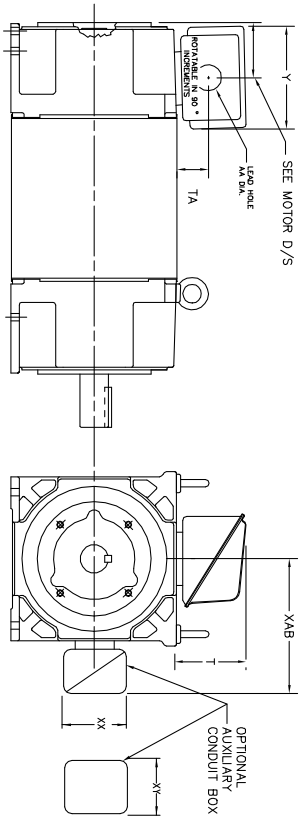
ISSUE DATE

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	Y/N	75	706320003A	6.12	2.36	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/3.00
FL180	CAST IRON	Y/N	208	706320004C	6.75	2.50	4.38	1.0/1.75
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	075452001A	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL210 & RL210	CAST IRON	N	110	075460052B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310056A	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y/N	235	706310056B	11.42	4.00	6.72	2.50

FL250 & RL250	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	306	706320016A	9.00	4.12	8.44	4.59
FL250 & RL250	CAST IRON	N	110	075460052B	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	706310229A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL250 & RL250	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FL280 & RL280	STEEL	N	160	706320029A	7.25	3.50	7.06	2.50
FL280 & RL280	STEEL	N	306	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/N	235	706310057A	11.42	4.00	6.72	2.50
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	YAB	XA	XY	PART NUMBER	FRAME SIZE	YAB	XA	XY	PART NUMBER
FL210/RL210/FL112	7.38	4.25	4.25	602007-26-A	FL210/RL210/FL112	10.88	8.00	8.00	706310-3-B
FL250/RL250/FL160	8.44	4.25	4.25	602007-26-A	FL250/RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/RL280/FL280/180	9.12	4.25	4.25	602007-26-A	FL280/RL280/FL280/180	12.62	8.00	8.00	706310-3-B

(1) 1/4" CONDUIT.
(2) 1/4" PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
(4) 2" DIA. OR 1" DIA. DIA. OR 1" DIA. DIA.

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

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

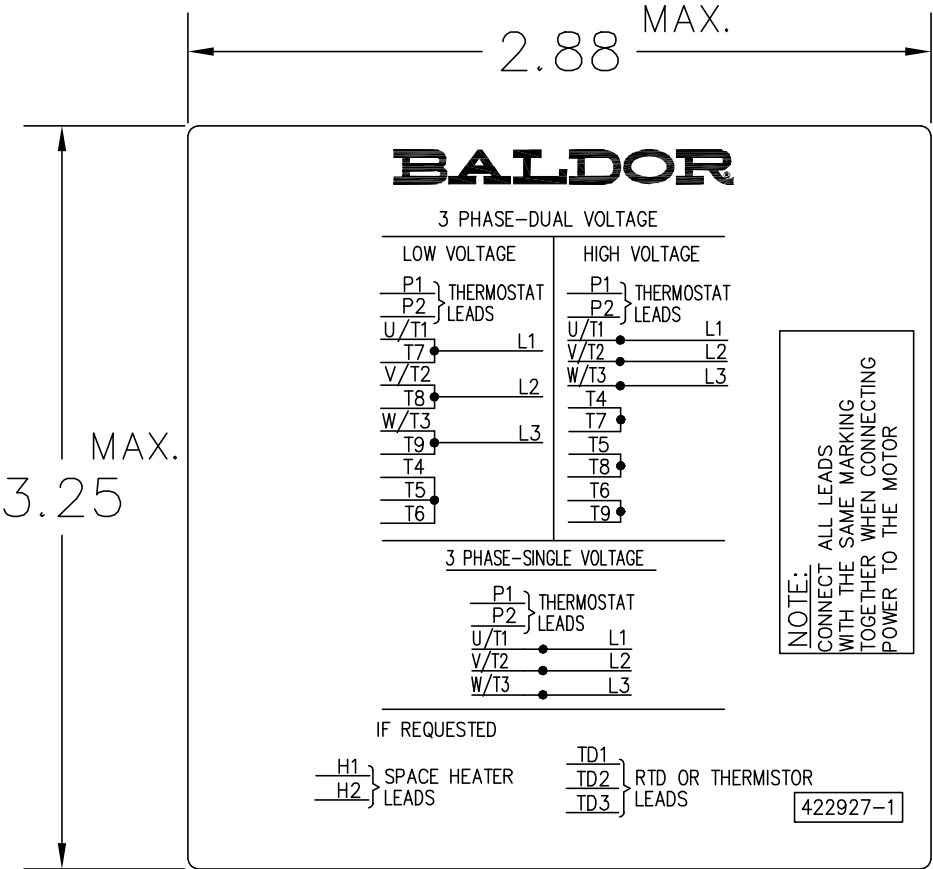
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REV. LTR: F	VERSION: 06
FILE: \RGG\00003\692	REVISED: 11:08:56 10/26/2021
MTL: -	BY: RCGRWM

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
SH 1 of 1