

PRODUCT INFORMATION PACKET

Model No: LM28137

Catalog No: LM28137

Elevator Duty Motor, 20 HP, 3 Ph, 30 Hz, 200 V, 900 RPM, 324T Frame, DP



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Nameplate Specifications

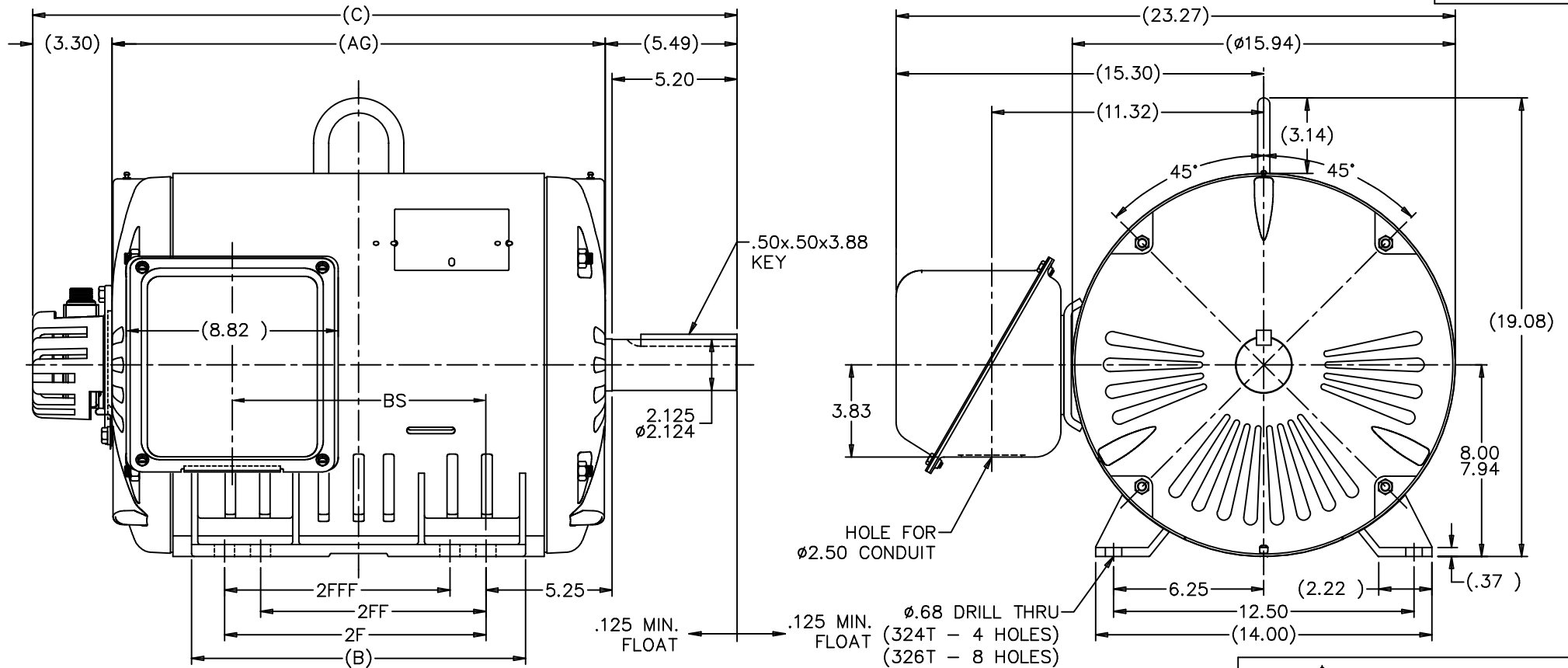
Output HP	20 Hp	Output KW	14.9 kW
Frequency	30 Hz	Voltage	200 V
Current	62.0 A	Speed	880 rpm
Service Factor	1	Phase	3
Efficiency	91 %	Power Factor	75.5
Duty	Elevator	Insulation Class	F
Design Code	INV	KVA Code	L
Frame	324T	Enclosure	Drip Proof
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	311	Opp Drive End Bearing Size	309
UL	Recognized	CSA	Y
CE	N	IP Code	22
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.55 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Overall Length	29.30 in
Frame Length	15.63 in	Shaft Diameter	2.125 in
Shaft Extension	5.2 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7340D-LN	Outline Drawing	XG2D1ES33B-1507

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XG2D1ES33B



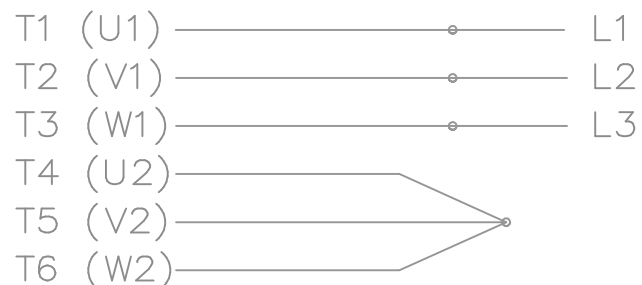
- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	C	AG	B	2F	2FF	2FFF	BS
1507	324T	29.30	20.51	13.52	10.50			10.51
1657	326T	30.80	22.01	15.02	12.00	10.50	10.50	12.01

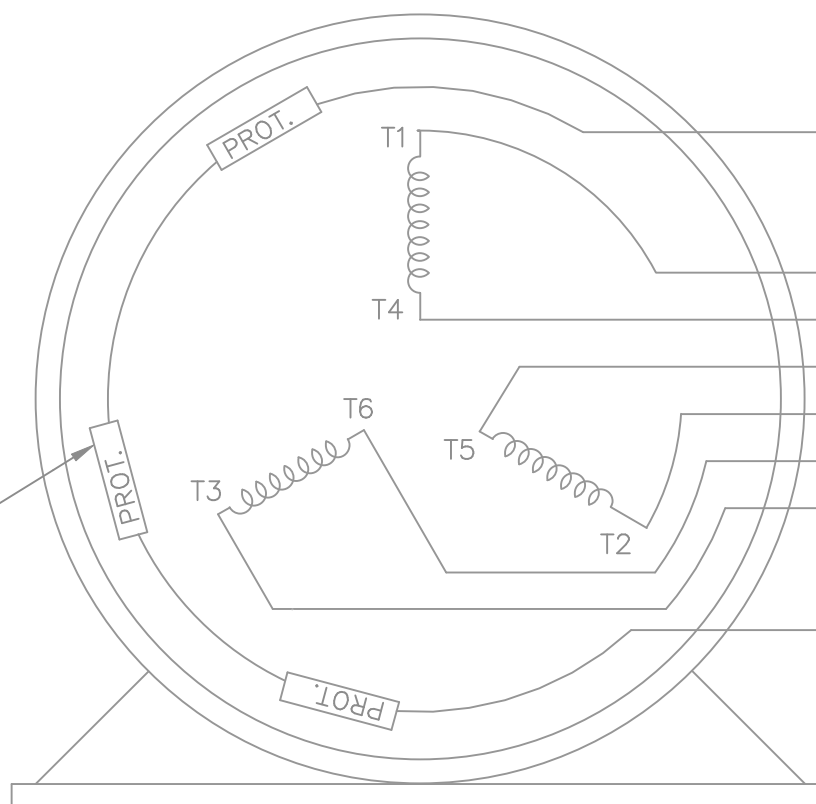
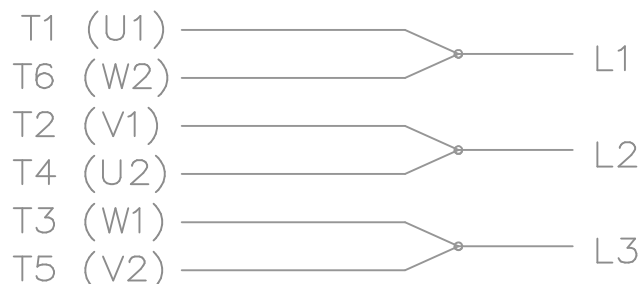
				TOLERANCES UNLESS SPECIFIED				DRAWN CTO 06-10-2002	
				DEC.	INCHES			CHK	ML 06-10-2002
				.X	±.1			APPD	HNH 06-10-2002
				.XX	±.03	TITLE		SCALE 1=4	
				.XXX	±.005	VVVF ELEVATOR HOIST MOTOR 320 ODP UE		REF	
1 NEW DRAWING				MU41735	CTO 06/10/02	HNH	.XXXX	±.0005	MAT'L
NO. REVISION				BY & DATE	CHK	ANG	±7'30"	FINISH	PREV
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT				RFP	CAD FILE		xg2d1es33b	SIZE	DRAWING NO.
				DIST	BY		B	XG2D1ES33B	
								REV. 1	

THREE PHASE
WYE START DELTA RUN

START

THERMO-PROTECTORS
CONNECTED IN SERIES

RUN



VIEW OF TERMINAL END

P1 (1T1)

T1 (U1)

T4 (U2)

T5 (V2)

T2 (V1)

T6 (W2)

T3 (W1)

P2 (1T2)

NOTE:

IEC LEAD MARKINGS ARE NOTED IN PARANTHESES

			TOLERANCES UNLESS SPECIFIED			DRAWN KL 11-10-2000		
			DEC.	INCHES		CHK DJK 11-10-2000		
			.X	±.1		APPD DJK 11-10-2000		
			.XX	±.02		SCALE 1=1		
2	ADDED IEC LEAD MARKINGS	MSG 10-08-2008	ML	.XXX ±.005	TITLE CONNECTION DIAGRAM — EXTERNAL — 3ø WYE START DELTA RUN — SINGLE VOLTAGE	REF		
1	NEW DRAWING MU34618	KL 11-10-2000	DJK	.XXXX ±.0005		FMF		
NO.	REVISION	BY & DATE	CHK	ANG ±7'30"	FINISH	PREV		
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT — DO NOT SCALE THIS PRINT			RFP	11-10-2000	CAD FILE EE7340D_LN	SIZE	DRAWING NO.	PAGE OF
			DIST			A	EE7340D_LN	2



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7340D-LN

CAT #: LM28137

OUTLINE: XG2D1ES33B-1507

WINDING: C3244035

NONE 2

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	900	880	324T	DP	TDR	L	INF

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	30	200	62	INVERTER ONLY	SPL	F	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	91.7	1/2 LD EFF	90.2	GTD EFF	ELECT. TYPE
F.L. PF	75.5	3/4 LD PF	67.0	1/2 LD PF	53.0	88.5	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
119 LB-FT	518	300 LB-FT 252%	440 LB-FT 370%	100

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA		8.0 LB-FT²	0 LB-FT²	0 SEC.	0	0 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	ENCODER	RIGID	HORIZONTAL	NO	NONE	NO	NONE	WATTSaver

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL						
311 309	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ROLLED STEEL

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.075	0.046	0.164	0.115	3.275	0.150	BOTH

* N O T E S *			INVERTER TORQUE: CONSTANT 1000:1 INV. HP SPEED RANGE: NONE
	ENCODER: DYNAPAR HS35 LINCOLN MS CONNECTOR 1024 PPR		
	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ:		
DATE: 8/21/2018	UL: V-OVER TEMP PROT 3, P1-P2		

Data Sheet

Date: 8/21/2018

LM28137



Data @ 200 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	35.7	40.3	44.9	52.9	62.1	67.9	73.6	518	
Torque (ft-lb)	0.00	29.5	58.5	89.0	119	135	150	300	
RPM	900	895	890	885	880	878	876	0	
Efficiency (%)		85.5	90.2	91.7	91.0	90.6	90.2		
P.F. (%)	5.0	31.0	53.0	67.0	75.5	78.0	80.5	44.0	

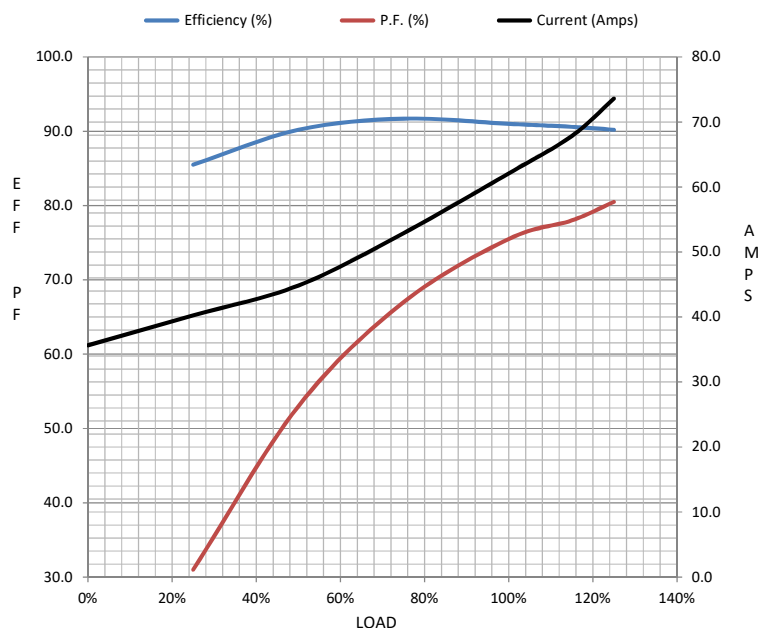
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	710	880	900
Current (Amps)	518	472	311	62.1	35.7
Torque (ft-lb)	300	270	440	119	0.00

MOTOR IS TOO HOT

Information Block

HP	#VALUE!			
Sync. RPM	NA			
Frame	324			
Enclosure	DP			
Construction	TDR			
Voltage	200		V	
Frequency	30		Hz	
Design	A			
LR Code letter	L			
Service Factor	HOT			
Temp Rise @ FL	100		° C	
Duty	SPL			
Ambient	40		° C	
Elevation	1,000		feet	
Rotor/Shaft wk²	8.0		Lb-Ft²	
Ref Wdg	C3244035 NONE			
Sound Pressure @ 1M	999		dBA	
VFD Rating	CONSTANT 1000:1			
Outline Dwg	XG2D1ES33B-1507			
Conn. Diag	A-EE7340D-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0750	0.0460	0.1640	0.1150	3.2750



Speed - Torque Curve

