

PRODUCT INFORMATION PACKET



Model No: LM80161
Catalog No: LM80161
250 HP Fire Pump Motor, 3 phase, 1800 RPM, 400 V, 445TS Frame, ODP
Fire Pump Motors



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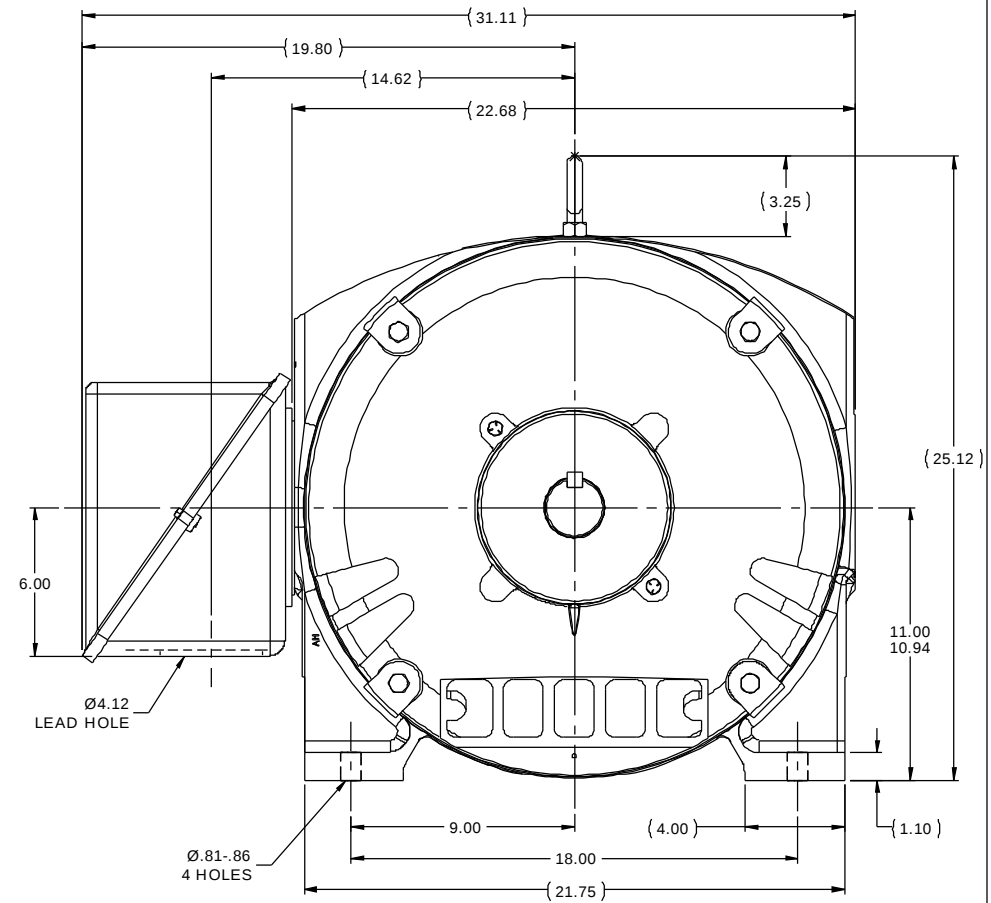
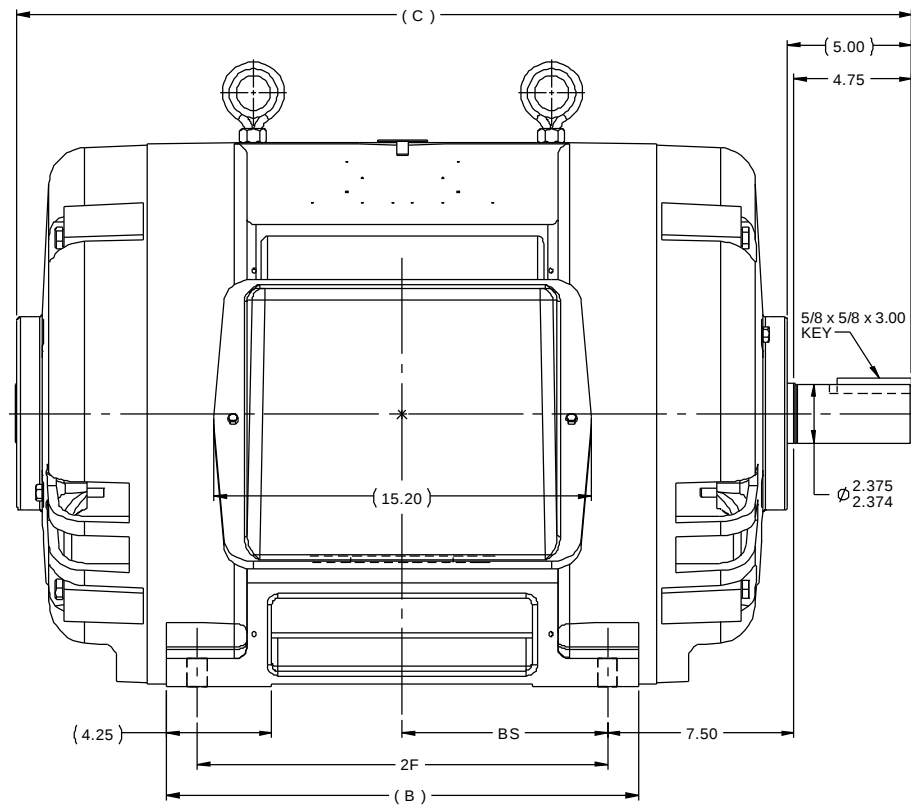
Nameplate Specifications

Output HP	250 Hp	Output KW	187.0 kW
Frequency	60 Hz	Voltage	400 V
Current	328.0 A	Speed	1780 rpm
Service Factor	1.15	Phase	3
Efficiency	95.4 %	Power Factor	86
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Frame	445TS	Enclosure	Drip Proof
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	No	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start & Wye Start Delta Run
Poles	4	Rotation	Reversible
Resistance Main	.022 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	36.00 in
Frame Length	20.52 in	Shaft Diameter	2.375 in
Shaft Extension	4.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7300BH-LN	Outline Drawing	SS509642LN-2050

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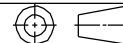
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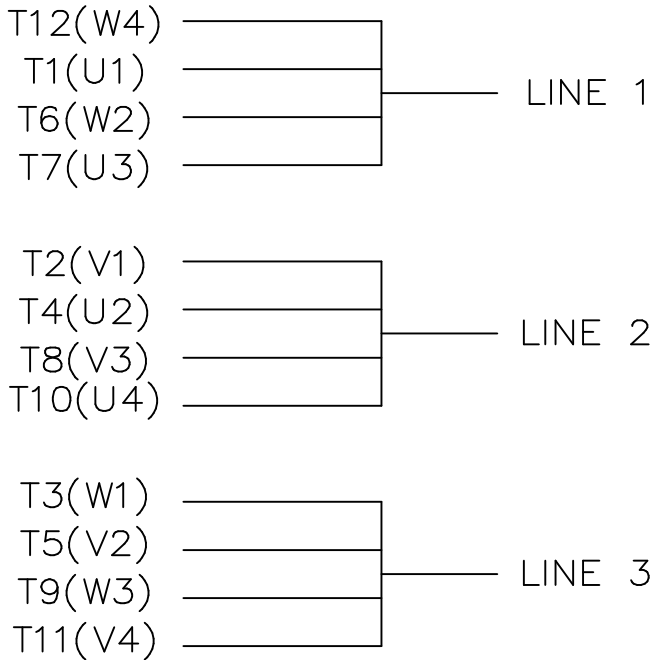
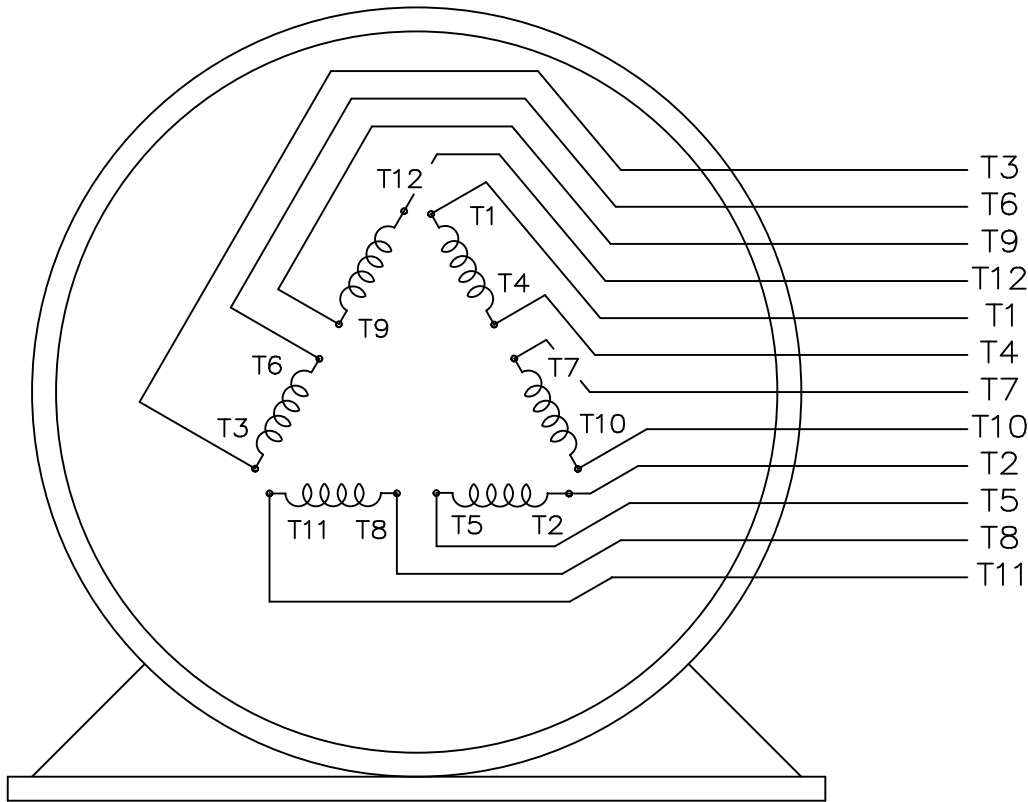
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	BS
1850	444TS	17.00	34.00	14.50	7.25
2050	445TS	19.00	36.00	16.50	8.25

				TOLERANCES UNLESS SPECIFIED				Lincoln MOTORS				DRAWN KL 07-31-2007			
				DEC INCHES								CHK GFH 07-31-2003			
				X ±.1								APPR JES 07-31-2003			
				XX ±.03				TITLE OUTLINE				SCALE 1:5			
				TDB XXX ±.005				444/445TS FR. - DR. PR. STD.				REF			
				KL 07-31-2007 XXXX ±.0005				MAT'L				FMF MU47677			
				CHK ANG ±1/2°				FINISH				PAGE OF			
				RFP 07-31-2003				PREV				SIZE B			
				NETWORK FILE NAME SS509642LN								DRAWING NO SS509642LN			
												REV 2			

THIRD ANGLE
PROJECTION





VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED						DRAWN KL 04-23-2002			
				DEC.	INCHES					CHK DJK 04-24-2002			
				.X	±.1					APPD EAB 04-24-2002			
				.XX	±.01	TITLE CONNECTION DIAGRAM – EXTERNAL 12 LEAD – SINGLE VOLTAGE				SCALE 1=1			
2	ADDED IEC TERMINAL MARKINGS CN 41429	JJB 05/24/2004	ML	.XXX	±.005					REF			
1	NEW DRAWING MU41562	KL 04-12-02		.XXXX	±.0005	MAT'L.				FMF			
NO.	REVISION		BY & DATE	CHK	ANG	±1/2"	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 ee7300bh_ln			SIZE	DRAWING NO. PAGE OF		REV.	
				DIST WA-SB					A	EE7300BH-LN		2	



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7300BH-LN

CAT #: LM80161

OUTLINE: B-SS509642LN-2025

WINDING: T445467

NONE 4

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
250	187	1800	1780	445TS	DP	TDS	F	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	400	328	PWS & YDRUN	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.8	1/2 LD EFF	95.8	GTD EFF		ELECT. TYPE	
F.L. PF	86.0	3/4 LD PF	85.0	1/2 LD PF	82.0	95.0		SQ CAGE IND RUN	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
738 LB-FT	1,783	925 LB-FT 125%	1,600 LB-FT 217%	65

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
80 dBA	89 dBA		46.0 LB-FT²	1050 LB-FT²	20 SEC.	2	1450 LB.

***** SUPPLEMENTAL INFORMATION *****

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

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6313 6313						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.012	0.007	0.107	0.098	2.845	0.150	ODE

* N O T E S *			INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR

DATE: 8/31/2018	BRAKE: NONE	
	NONE	NONE
	FT-LB: NA	
VOLTAGE: NONE		HZ:
UL: NONE		

Data Sheet

Date: 8/31/2018

LM80161



Data @ 400 V

Motor Load Data

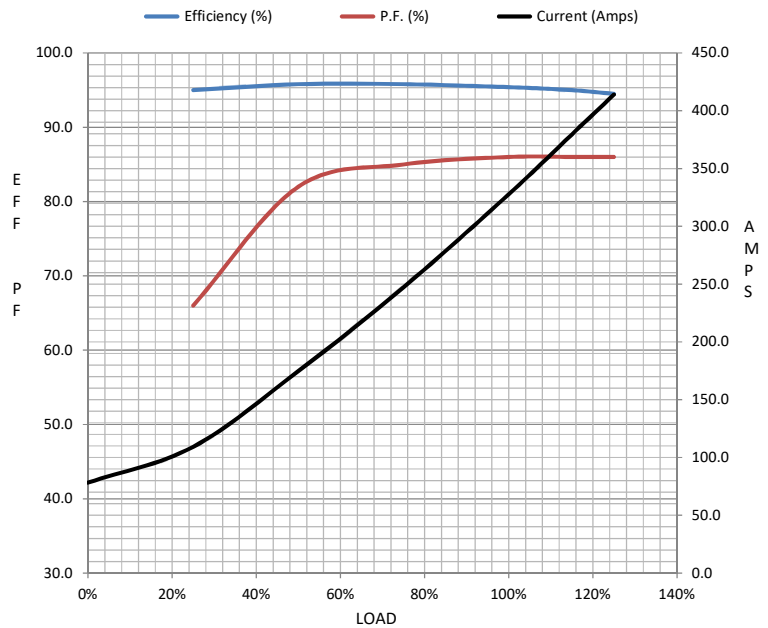
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	78.2	109	175	247	328	380	414	1,783	
Torque (ft-lb)	0.00	183	366	552	738	850	928	925	
RPM	1800	1795	1790	1785	1780	1,775	1772	0	
Efficiency (%)		95.0	95.8	95.8	95.4	95.0	94.5		
P.F. (%)	4.5	66.0	82.0	85.0	86.0	86.0	86.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1780	1800
Current (Amps)	1,783	1,610	1,035	328	78.2
Torque (ft-lb)	925	850	1,600	738	0.00

Information Block

HP	250.0			
Sync. RPM	1800			
Frame	445			
Enclosure	DP			
Construction	TDS			
Voltage	400	V		
Frequency	60	Hz		
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	65	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	46.0	Lb-Ft²		
Ref Wdg	T445467 NONE			
Sound Pressure @ 1M	80	dBA		
VFD Rating	NONE			
Outline Dwg	B-SS509642LN-2025			
Conn. Diag	A-EE7300BH-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0120	0.0070	0.1070	0.0980	2.8450



Speed - Torque Curve

