

PRODUCT INFORMATION PACKET



Model No: LM80178
Catalog No: LM80178

Fire Pump Motor, 400 & 350 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 & 1500 RPM, 447TS Frame, DP



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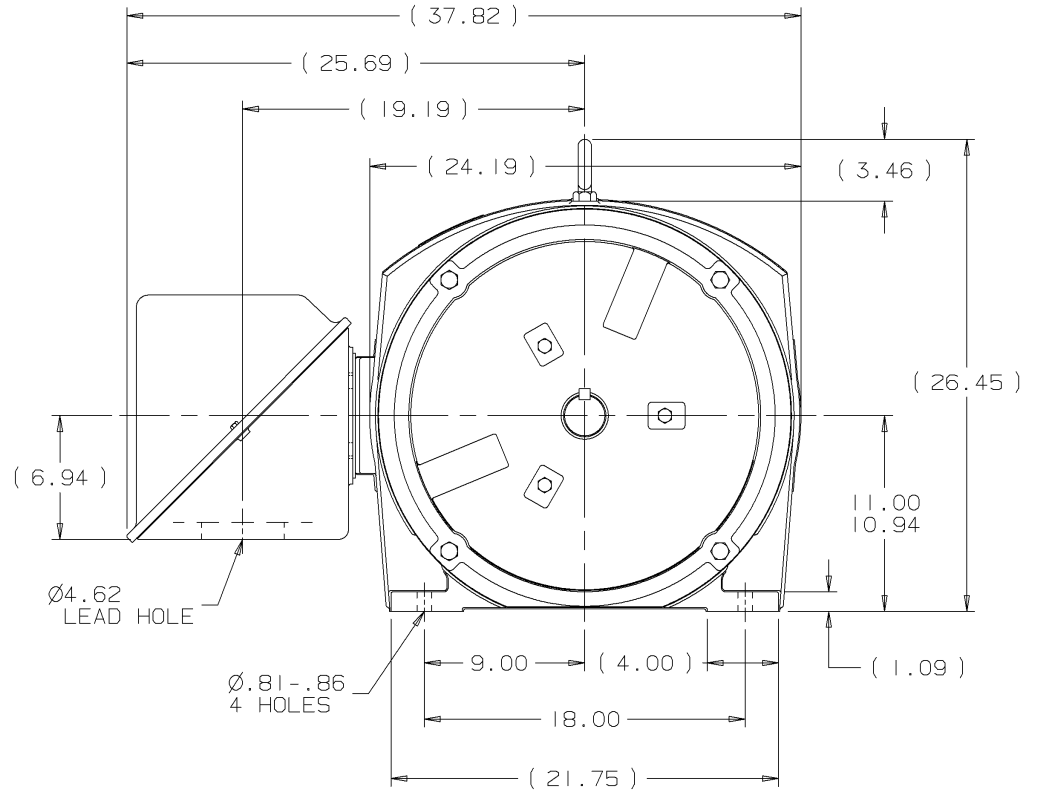
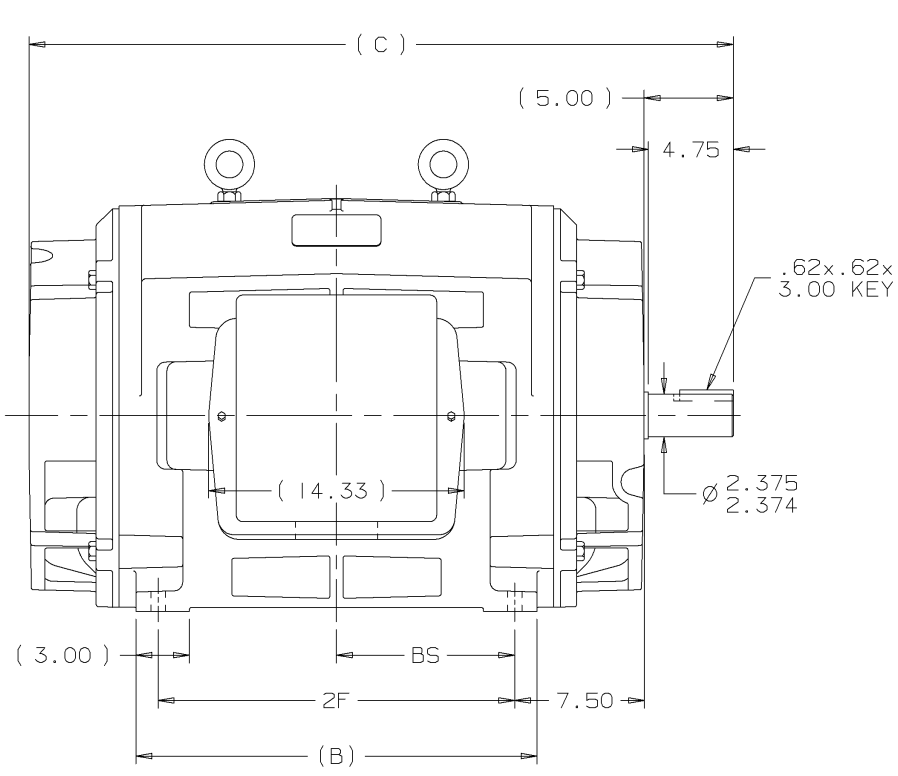


Nameplate Specifications

Phase	3	Output HP	400 & 350 Hp
Output KW	300.0 & 260.0 kW	Voltage	460 & 380 V
Speed	1782 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	447TS	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	95.4 & 95 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	450 & 482 A	Power Factor	87
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6314
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	.012 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	39.50 in
Frame Length	24.38 in	Shaft Diameter	2.375 in
Shaft Extension	4.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS514570LN-2438	Connection Drawing	A-EE7300BH-LN

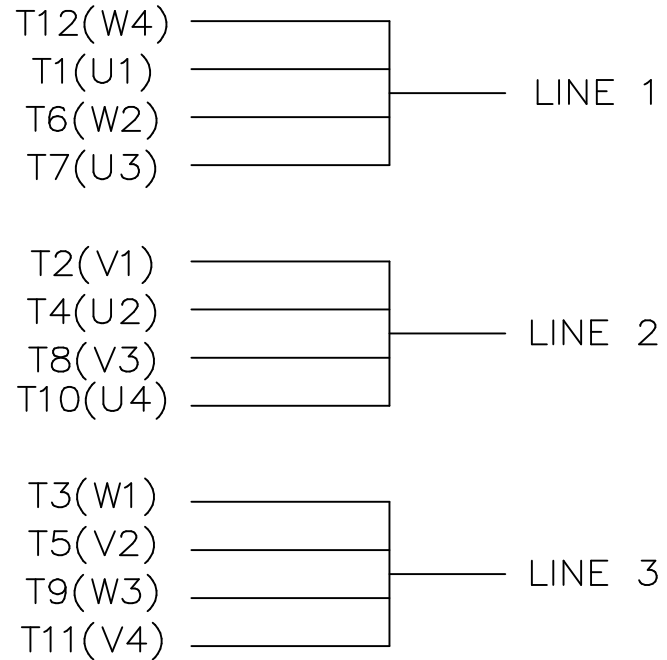
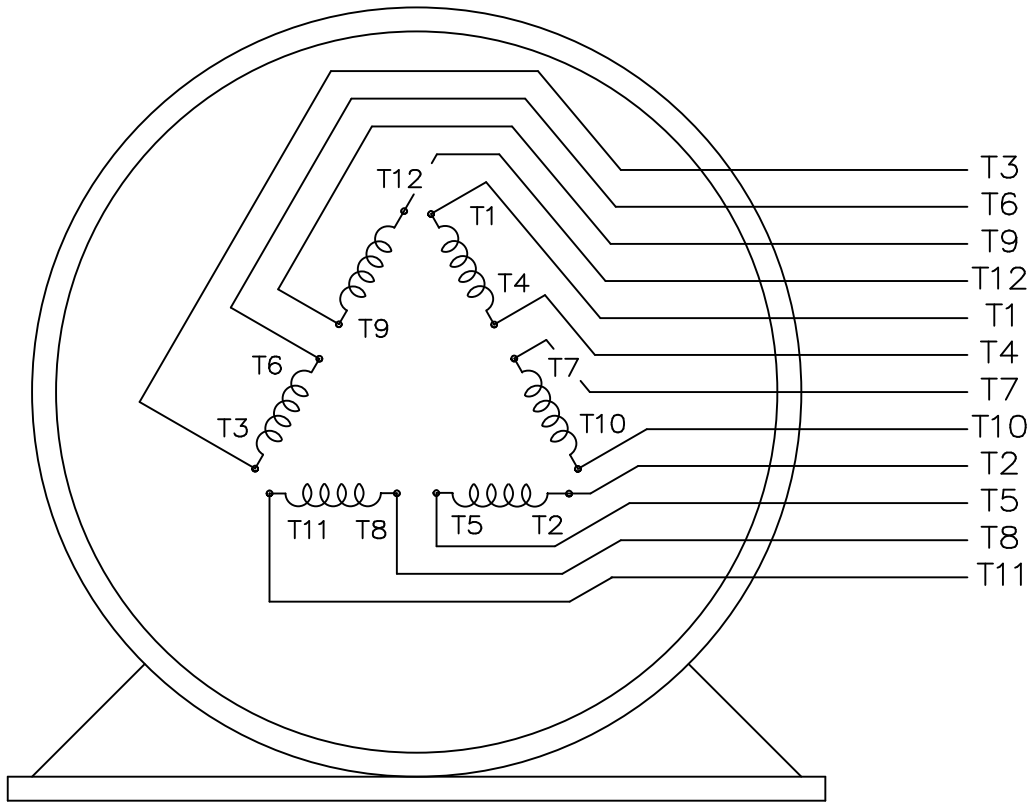


- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.


(B-SS514335)

DASH	FRAME	B	C	2F	BS	REV	DATE	CHANGE	NAME	MATERIAL	FINISH	MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.03 XXX±.005 XXXX±.0005 ANGLES± 7'30"	DRAWN BY	CHKD BY	APPD BY	DATE
2438	447TS	22.50	39.50	20.00	10.00	I	05-16-2001	NEW DRAWING	MU37352	KL	✓			KL	DJK	JES	05-16-2001
2938	449TS	27.50	44.50	25.00	12.50				447/9TS FR. - DR.PR.								05-16-2001

PURCHASED | L | DISTRIBUTION WA - LB - WP - LN - BY | CADD FILE NO. | SS514570LN



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		SCALE 1=1		
2	ADDED IEC TERMINAL MARKINGS	CN 41429	JJB 05/24/2004	ML	.XXX	±.005	TITLE CONNECTION DIAGRAM - EXTERNAL 12 LEAD - SINGLE VOLTAGE		
1	NEW DRAWING	MU41562	KL 04-12-02		.XXXX	±.0005	MAT'L.		
NO.	REVISION		BY & DATE	CHK	ANG	±1/2"	FINISH		
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	2



**2100 WASHINGTON ST.
GRAFTON, WI
PH. 262-277-8810**

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7300BH-LN

CATALOG #: LM80178

OUTLINE: B-SS514570LN-2438

WINDING #: T447440 1

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
400&350	300&260	1800	1782&1480	447TS	DP	F	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	460&380	450&482	PWS & YDRUN	CONTINUOUS	F1	1.15/1.15	40

FULL LOAD EFF:	95.4&95	3/4 LOAD EFF:	95.4	1/2 LOAD EFF:	95.4	GTD. EFF	95	ELEC. TYPE	SQ CAGE IND RUN
FULL LOAD PF:	87&87	3/4 LOAD PF:	85	1/2 LOAD PF:	79				

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1178 LB-FT	2650	1875 LB-FT 159 %	2550 LB-FT 216 %	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	70 LB-FT^2	1550 LB-FT^2	15 SEC.	1	2250 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	RED (ENAMEL)

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
6314	6314						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

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INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz

Data Sheet

Date: 1/29/2018

LM80178



Data @ 460 V

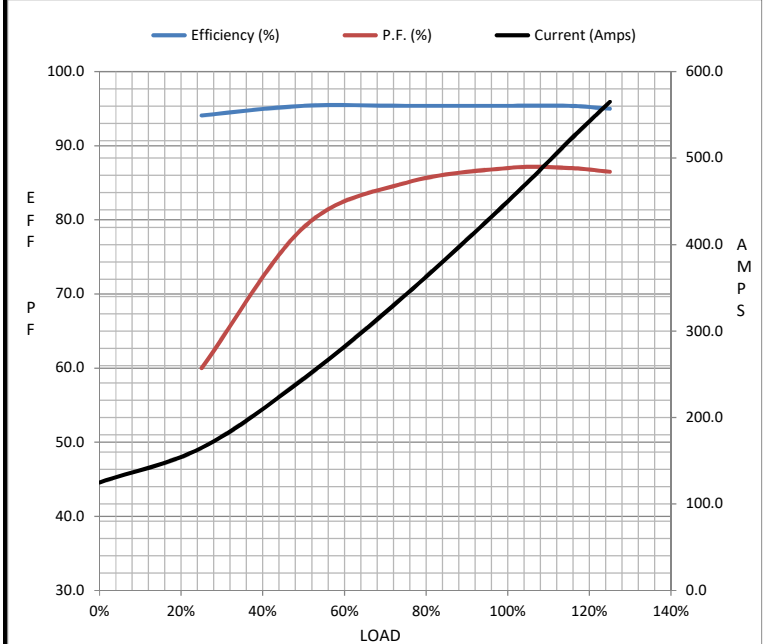
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	125	165	245	342	450	520	565	2,650
Torque (ft-lb)	0.00	292	586	882	1,178	1,358	1,478	1,875
RPM	1800	1795	1792	1785	1782	1,780	1775	0
Efficiency (%)		94.1	95.4	95.4	95.4	95.4	95.0	
P.F. (%)	3.5	60.0	79.0	85.0	87.0	87.0	86.5	30.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1782	1800
Current (Amps)	2,650	2,400	1,450	450	125
Torque (ft-lb)	1,875	1,700	2,550	1,178	0.00

Information Block				
HP	400.0			
Sync. RPM	1800			
Frame	447			
Enclosure	DP			
Construction	TDN			
Voltage	460#380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	70.0 Lb-Ft ²			
Ref Wdg	T447440 NONE			
Sound Pressure @ 1M	82 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS514570LN-2438			
Conn. Diag	A-EE7300BH-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0090	0.0060	0.0720	0.0790	2.1500



Speed - Torque Curve

