

PRODUCT INFORMATION PACKET



Model No: LM80086

Catalog No: LM80086

Fire Pump Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 380-415 V, 1800 & 1500 RPM, 324T Frame,
TEFC



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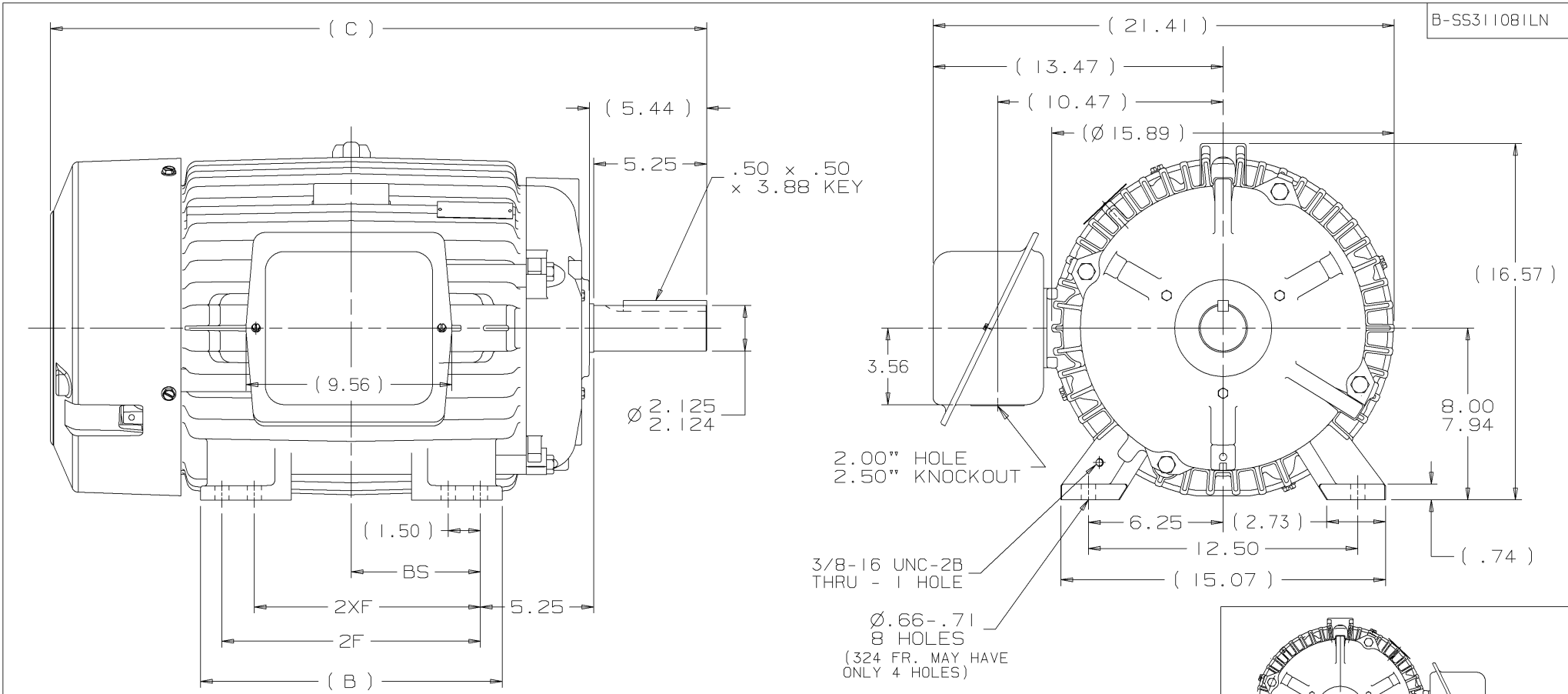


Nameplate Specifications

Phase	3	Output HP	40 & 30 Hp
Output KW	30.0 & 22.4 kW	Voltage	230/460 & 380-415 V
Speed	1762 & 1470 rpm	Service Factor	1.15 & 1.15
Frame	324T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93 & 93.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	100/50 & 45.5-45 A	Power Factor	81
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	312	Opp Drive End Bearing Size	311
UL	No	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Wye Start Delta Run
Poles	4	Rotation	Reversible
Resistance Main	.165 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	28.97 in
Frame Length	14.75 in	Shaft Diameter	2.125 in
Shaft Extension	5.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS311081LN-1475	Connection Drawing	A-EE7358-LN



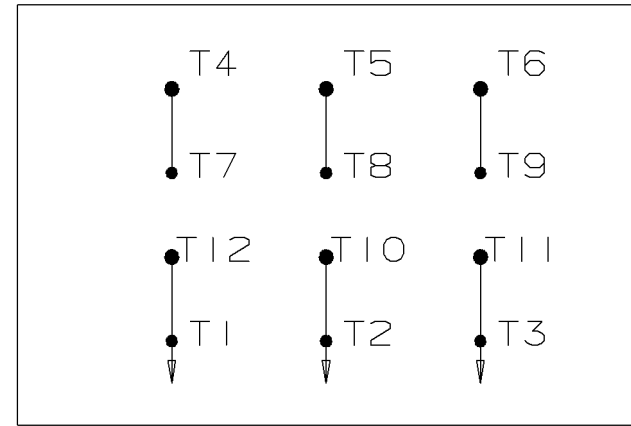
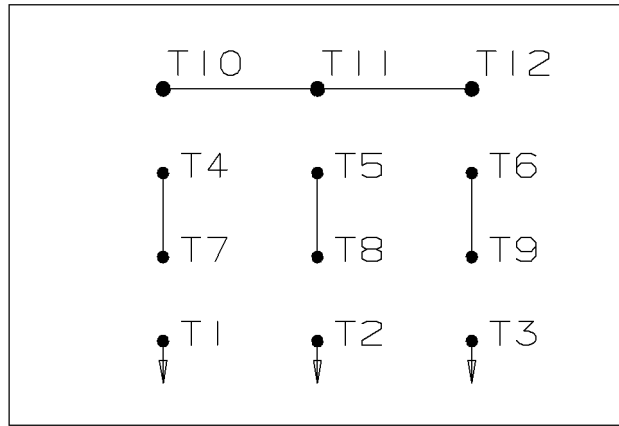
- NOTES:
1. CONDUIT BOX BE ROTATED IN 90° STEPS.
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
 3. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.

							TOLERANCES UNLESS SPECIFIED				DRAWN CTO 02-25-2002	
							DEC.	TOLERANCE			CHK DRS 02-25-2002	
							.X	± .1	APPD JMM 02-25-2002		SCALE	
							.XX	± .03	TITLE OUTLINE - TFPA		REF	
							.XXX	± .005	320 FR. - BB - STD. - 12.50 LAM.		FMF	
DASH	FRAME	B	C	2F	2XF	BS	JMM	±.0005	✓ SURFACE ROUGHNESS UNLESS SPECIFIED	MAT'L.	PREV	
1475	324T	14.00	28.97	10.50		5.25	CHK	ANG ±7'30"	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		PURCHASED	CAD FILE SS311081LN	SHOP BOOK	SIZE B
1625	324/6T	14.00	30.47	12.00	10.50	6.00	DIST WA - LB - WC - UX - DR - EX		DRAWING NO. SS311081LN	REV. 1		

WYE START

HIGH VOLTAGE

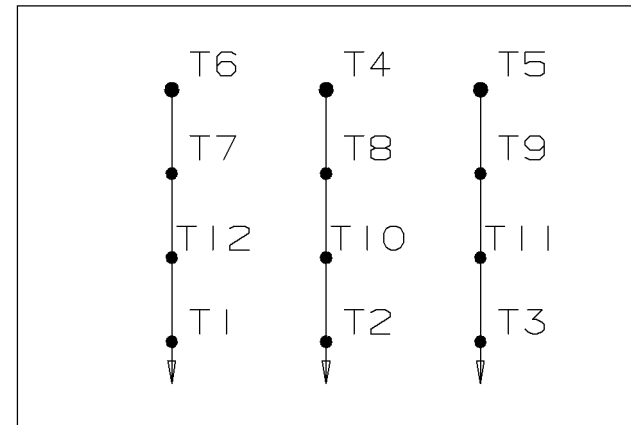
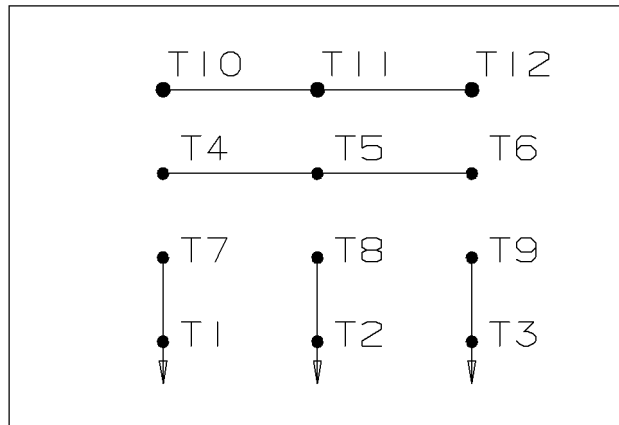
DELTA RUN



WYE START

LOW VOLTAGE

DELTA RUN



4/2 CKTY Δ

					<input checked="" type="checkbox"/> UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± .02 XXX± .005 XXXX± .0005 ANGLES± 7'30"			
						MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED	DRAWN BY DRS	12-07-1999
				FINISH	CHKD BY ML	12-07-1999		
				MATERIAL	APPD BY TB	12-07-1999		
REV	DATE	CHANGE	NAME	PART NAME CONNECTION DIAGRAM			DRWG NO A- EE7358-LN	
					PURCHASED	CADD FILE NO.	EE7358-LN	



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7358-LN
OUTLINE: B-SS311081LN-1475
WINDING: K2864234

CAT #: LM80086

NONE 6

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
40	30	1800	1762	324T	TEFC	TFP	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#380-415	100/50&45.5-45	VVE START DELTA RUN	CONT	F	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.6	1/2 LD EFF	93.6	GTD EFF	ELECT. TYPE
F.L. PF	81.0	3/4 LD PF	76.5	1/2 LD PF	66.5	91.7	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
119 LB-FT	282	220 LB-FT 185%	315 LB-FT 265%	75

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
68 dBA	77 dBA		4.7 LB-FT²	250 LB-FT²	25 SEC.	2	590 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	WATTS AVER

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
312	311						

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
0.104	0.106	0.557	0.674	11.628	0.150	ODE

* N O T E S *	INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE					
	ENCODER: NONE NONE NONE					
	BRAKE: NONE NONE NONE					
	FT-LB: NA VOLTAGE: NONE					
	UL: NONE					

DATE: 9/3/2018

BRAKE: NONE
NONE

FT-LB: NA
VOLTAGE: NONE HZ:

Data Sheet

Date: 1/23/2018

LM80086



Data @ **460 V**

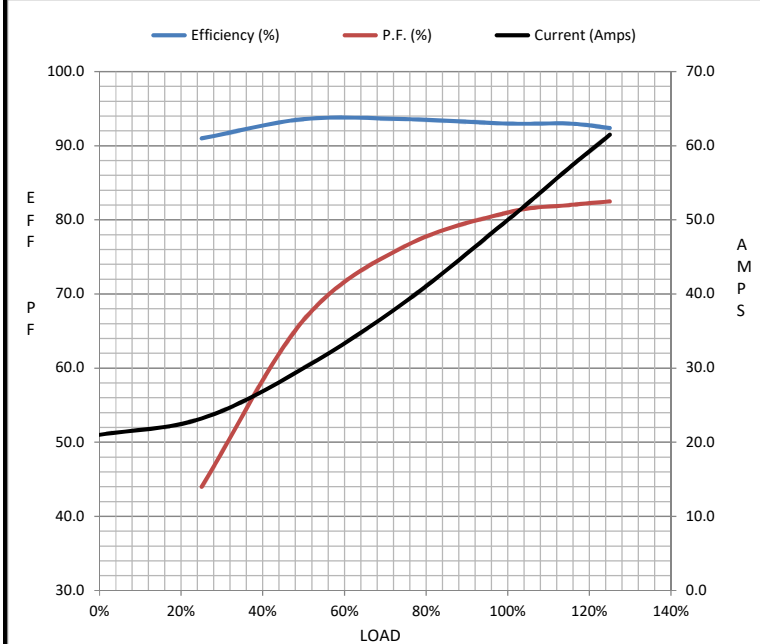
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	21.0	23.2	30.0	39.0	50.0	57.0	61.5	282
Torque (ft-lb)	0.00	29.5	59.0	89.0	119	137	150	220
RPM	1800	1792	1782	1775	1762	1,758	1750	0
Efficiency (%)		91.0	93.6	93.6	93.0	93.0	92.4	
P.F. (%)	4.0	44.0	66.5	76.5	81.0	82.0	82.5	36.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1762	1800
Current (Amps)	282	250	170	50.0	21.0
Torque (ft-lb)	220	210	315	119	0.00

Information Block				
HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	TEFC			
Construction	TFP			
Voltage	230/460#380-415 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.7 Lb-Ft ²			
Ref Wdg	K2864234 NONE			
Sound Pressure @ 1M	68 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS311081LN-1475			
Conn. Diag	A-EE7358-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1040	0.1060	0.5570	0.6740	11.6280



Speed - Torque Curve

