

PRODUCT INFORMATION PACKET



Model No: LM80138

Catalog No: LM80138

Fire Pump Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM, 404TS Frame,
DP



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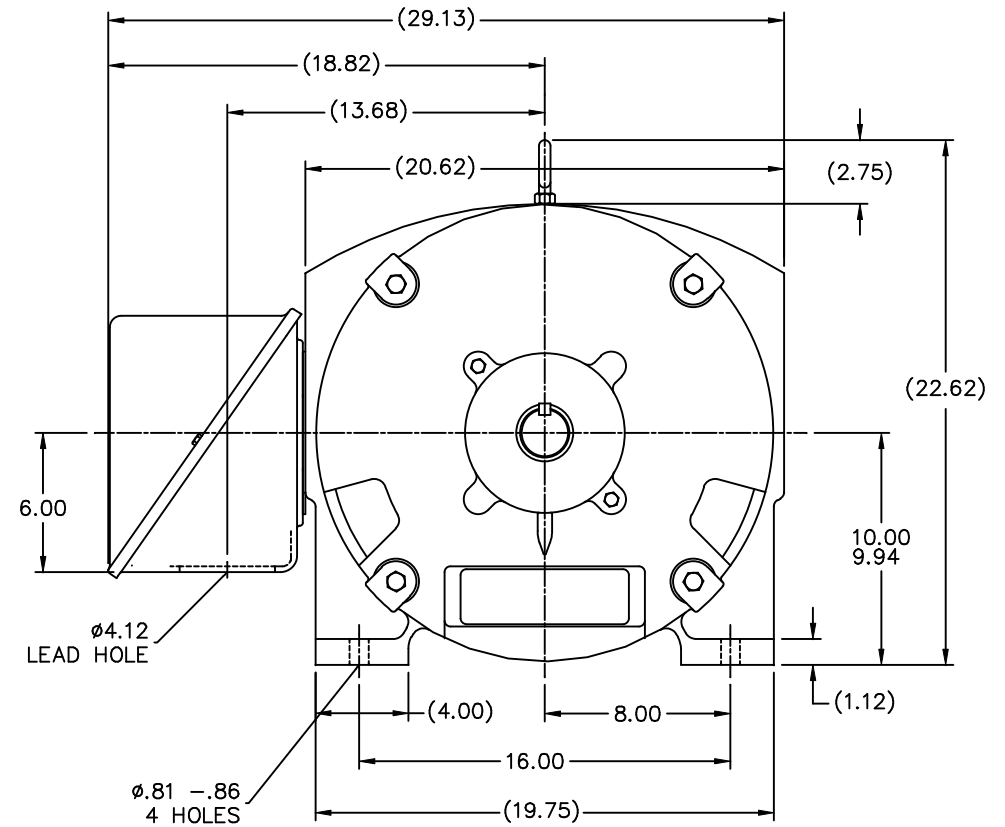
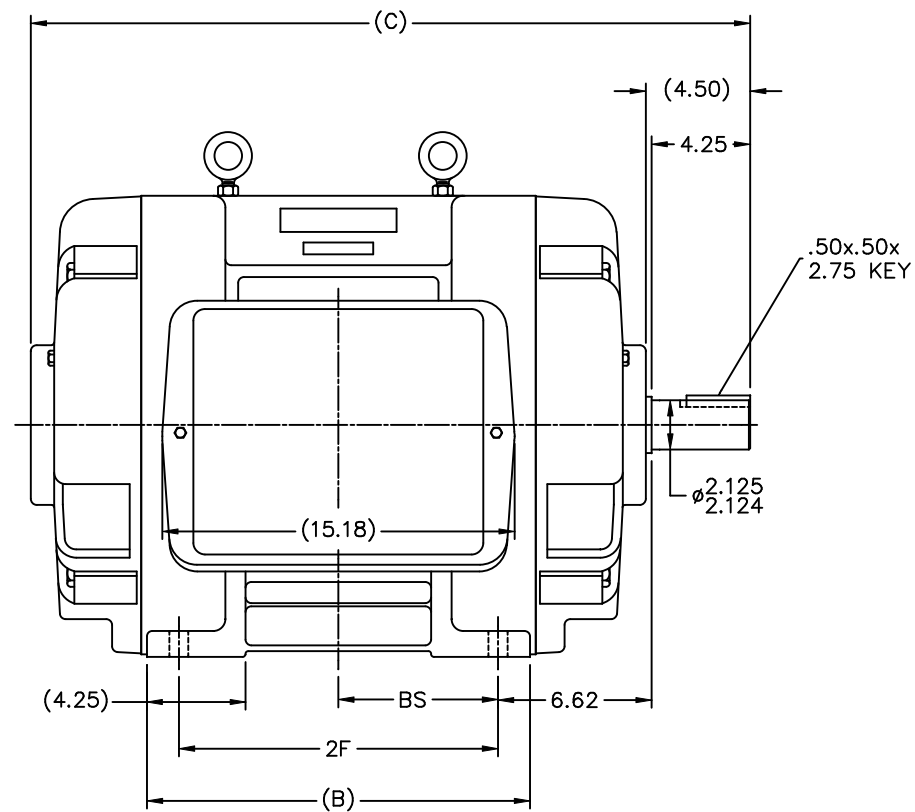


Nameplate Specifications

Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	404TS	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	94.1 & 93.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	236/118 & 216/108 A	Power Factor	84.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
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	Wye Start Delta Run
Poles	4	Rotation	Reversible
Resistance Main	.052 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	29.50 in
Frame Length	15.51 in	Shaft Diameter	2.125 in
Shaft Extension	4.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7308AA-LN	Outline Drawing	B-SS509257LN-1550



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. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

(B-SS511744)

										TOLERANCES UNLESS SPECIFIED				DRAWN KL 07-20-2004											
								DEC.		INCHES				CHK ML 07-22-2004											
								.X		±.1				APPD JES 07-22-2004											
								.XX		±.03		TITLE OUTLINE 400TS FR. – DR.PR.		SCALE 3=16											
								.XXX		±.005				REF											
								.XXXX		±.0005		MAT'L		FMF MU60811											
						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 07-23-2004		CAD FILE SS509257LN		SIZE B		DRAWING NO. PAGE OF SS509257LN		REV.	
																DIST WA									
DASH	FRAME	B	C	2F	BS																				
1550	404TS	15.00	29.50	12.25	6.12																				
1700	405TS	16.50	31.00	13.75	6.88																				

T12 _____
 T1 _____
 T6 _____ L1
 T7 _____

T2 _____
 T4 _____
 T8 _____ L2
 T10 _____

T3 _____
 T5 _____
 T9 _____ L3
 T11 _____

LOW VOLTAGE

T12 _____ L1
 T1 _____

T4 _____
 T7 _____

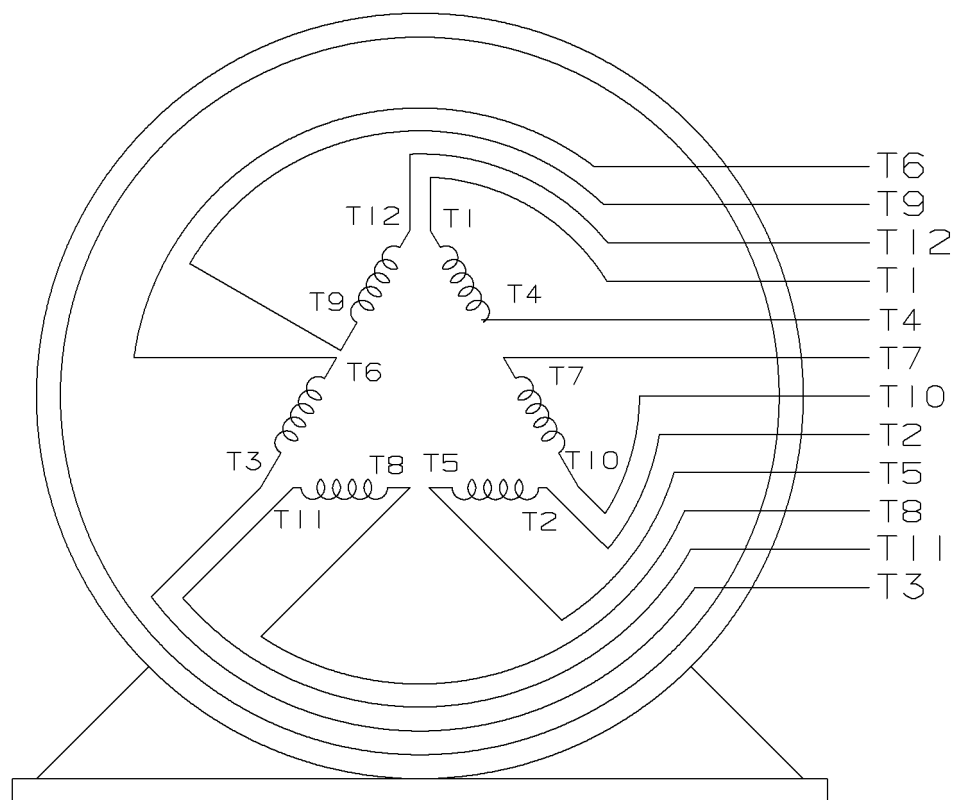
T2 _____ L2
 T10 _____

T5 _____
 T8 _____

T3 _____ L3
 T11 _____

T6 _____
 T9 _____

HIGH VOLTAGE



VIEW OF TERMINAL END

					✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7°30"		
2	08-09-1999	RE-ISSUE, ADDED '-' TO PART NUMBER	BLR		MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED		DRAWN BY TRB 07-16-1999
					FINISH		CHKD BY ML 06-18-1999
1	06-18-1999	NEW DRAWING	TRB		MATERIAL		APPD BY GK 06-18-1999
REV	DATE	CHANGE	NAME	PART NAME 3 PHASE CONNECTION DIAGRAM 2/1 DELTA - 12 LEADS			DRWG NO A- EE7308AA-LN
				PURCHASED	CADD FILE NO.	EE7308AALN	

ERROR: undefined
OFFENDING COMMAND: Pscrip
STACK:



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7308AA-LN

CAT #: LM80138

OUTLINE: B-SS509257LN-1550

WINDING: T404464

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1780	404TS	DP	TDS	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	236/118&216/108	HYE START DELTA RUN	CONT	F	1.15	40	3300

F.L. EFF	94.1	3/4 LD EFF	94.1	1/2 LD EFF	93.0	GTD EFF	ELECT. TYPE
F.L. PF	84.5	3/4 LD PF	80.5	1/2 LD PF	71.5	93.0	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
295 LB-FT	725	570 LB-FT 193%	800 LB-FT 271%	50

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
80 dBA	89 dBA		24.0 LB-FT²	550 LB-FT²	20 SEC.	2	1050 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
0.039	0.027	0.229	0.24	5.964	0.150	ODE

* N O T E S *			INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR
DATE: 8/30/2018			BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ: UL: NONE-INS UL REC

Data Sheet

Date: 8/30/2018

LM80138



Data @ 460 V

Motor Load Data

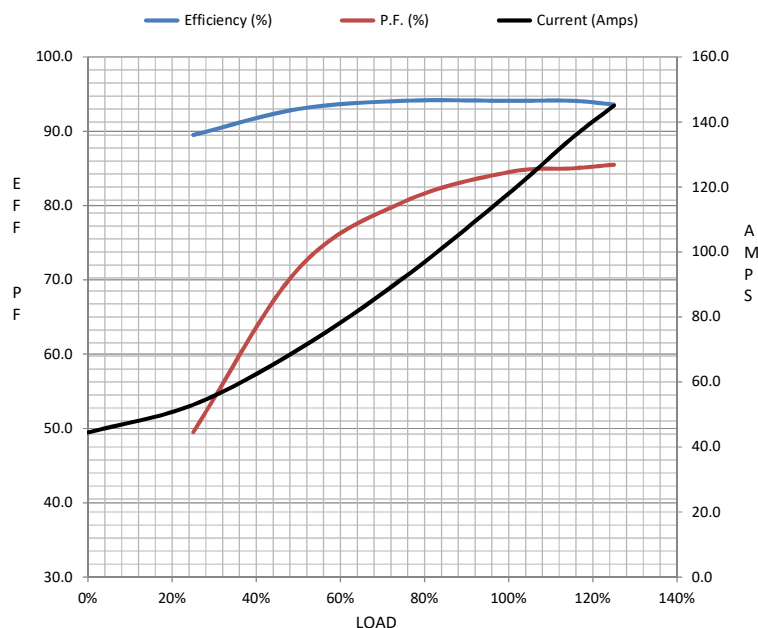
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	44.5	53.0	70.0	92.0	118	135	145	725	
Torque (ft-lb)	0.00	73.0	147	221	295	340	370	570	
RPM	1800	1795	1790	1785	1780	1,775	1772	0	
Efficiency (%)		89.5	93.0	94.1	94.1	94.1	93.6		
P.F. (%)	5.5	49.5	71.5	80.5	84.5	85.0	85.5	34.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1710	1780	1800
Current (Amps)	725	675	475	118	44.5
Torque (ft-lb)	570	525	800	295	0.00

Information Block

HP	100.0			
Sync. RPM	1800			
Frame	404			
Enclosure	DP			
Construction	TDS			
Voltage	230/460#190/380	V		
Frequency	60	Hz		
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	50	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	24.0	Lb-Ft²		
Ref Wdg	T404464	NONE		
Sound Pressure @ 1M	80	dBA		
VFD Rating	NONE			
Outline Dwg	B-SS509257LN-1550			
Conn. Diag	A-EE7308AA-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0390	0.0270	0.2290	0.2400	5.9640



Speed - Torque Curve

