

PRODUCT INFORMATION PACKET



Model No: LM80073

Catalog No: LM80073

Fire Pump Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM, 256T Frame,
TEFC



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Nameplate Specifications

Phase	3	Output HP	20 & 15 Hp
Output KW	14.9 & 11.2 kW	Voltage	230/460 & 190/380 V
Speed	1765 & 1470 rpm	Service Factor	1.15 & 1.15
Frame	256T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91 & 91 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	50/25 & 45/22.5 A	Power Factor	82
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Drive End Bearing Size	309	Opp Drive End Bearing Size	210
UL	No	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
Resistance Main	.468 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	25.27 in
Frame Length	12.26 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS203015LN-1225	Connection Drawing	A-EE7308-LN

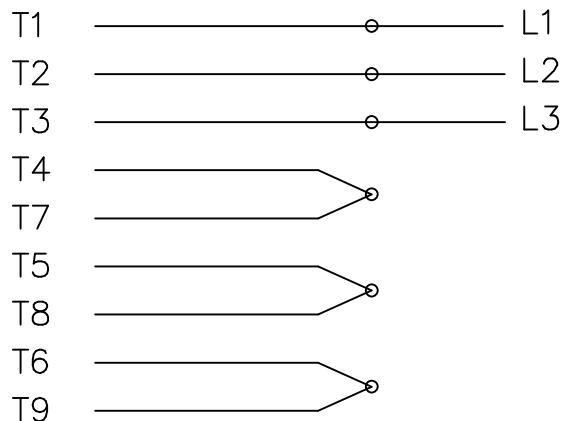
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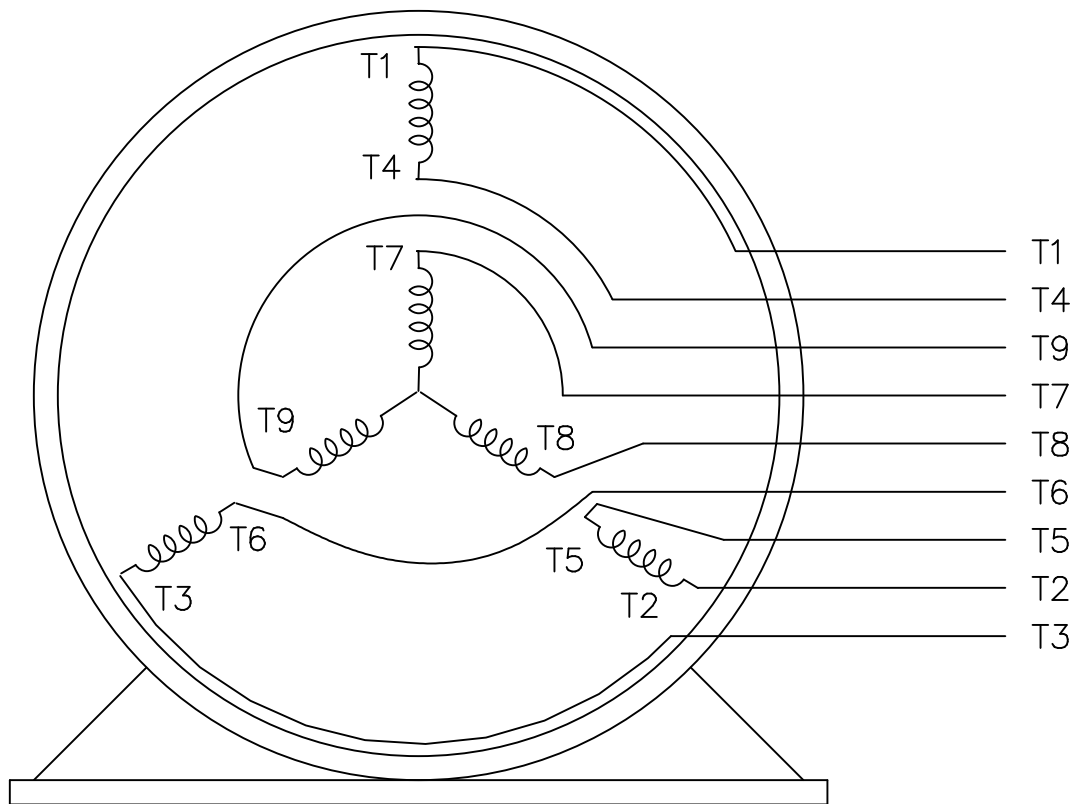
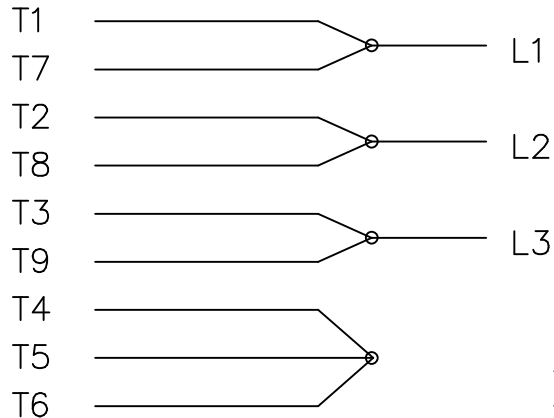
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THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD
CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN	DATE	
				DEC.	INCHES				
				.X	±.1		BLR	06/11/1999	
							ML	06/18/1999	
							GK	06/18/1999	
3	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XX	±.02	TITLE CONNECTION DIAGRAM		SCALE 1=1	
2	RE-ISSUE, ADDED '-' TO PART NUMBER	BLR 08/09/1999	GK	.XXX	±.005	3∅ - DUAL VOLTAGE MOTOR		REF	
1	NEW DRAWING	BLR 06/18/1999	GK	.XXXX	±.0005	MAT'L.		FMF	
				ANG	±7'30"			PREV	
				RFP	CAD FILE EE7308LN		SIZE	DRAWING NO. PAGE OF	REV.
				DIST WP			A	EE7308-LN 3	3





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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7308-LN
OUTLINE: B-SS203015LN-1225
WINDING: K2564181

CAT #: LM80073

NONE 6

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1765	256T	TEFC	TFN	F	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	50/25&45/22.5	ACROSS THE LINE	CONT	F	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	91.0	1/2 LD EFF	90.2	GTD EFF	ELECT. TYPE
F.L. PF	82.0	3/4 LD PF	79.5	1/2 LD PF	70.0	89.5	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
59.5 LB-FT	140	108 LB-FT 182%	145 LB-FT 244%	70

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
68 dBA	77 dBA		2.70 LB-FT²	125 LB-FT²	25 SEC.	0	380 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	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
309	210						

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
0.301	0.223	1.017	1.416	26.128	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: 8/31/2018

BRAKE: NONE
NONE
NONE
FT-LB: NA
VOLTAGE: NONE
UL: NONE

Data Sheet

Date: 8/31/2018

LM80073



Data @ **460 V**

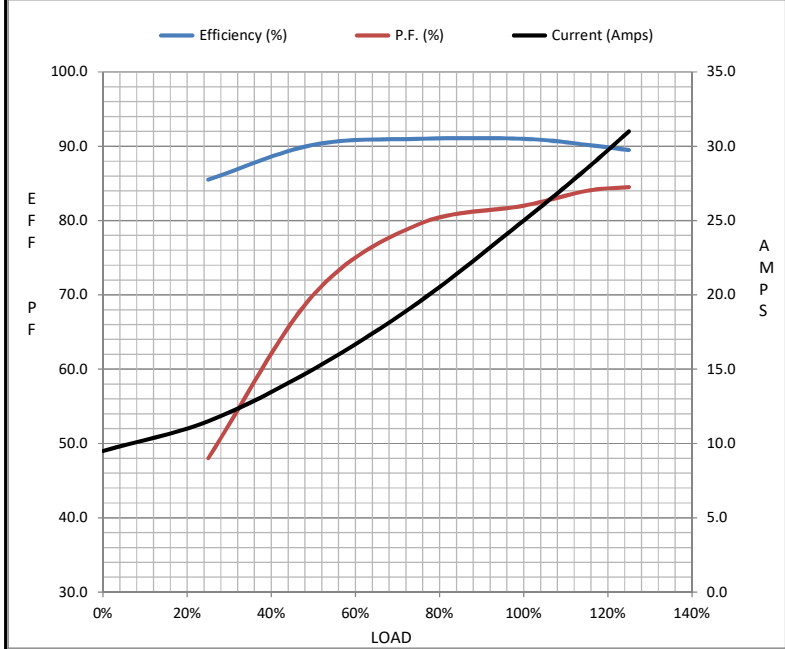
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	9.5	11.5	15.0	19.5	25.0	28.5	31.0	140
Torque (ft-lb)	0.00	14.5	29.5	44.5	59.5	68.5	75.0	108
RPM	1800	1790	1785	1775	1765	1,760	1755	0
Efficiency (%)		85.5	90.2	91.0	91.0	90.2	89.5	
P.F. (%)	7.0	48.0	70.0	79.5	82.0	84.0	84.5	41.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1765	1800
Current (Amps)	140	125	86.0	25.0	9.5
Torque (ft-lb)	108	94.0	145	59.5	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460#190/380 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	2.70 Lb-Ft ²			
Ref Wdg	K2564181 NONE			
Sound Pressure @ 1M	68 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS203015LN-1225			
Conn. Diag	A-EE7308-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3010	0.2230	1.0170	1.4160	26.1280



Speed - Torque Curve

