

# PRODUCT INFORMATION PACKET

Model No: LM20707

Catalog No: LM20707

Automotive Duty Motor, 3 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 184U Frame, TEFC



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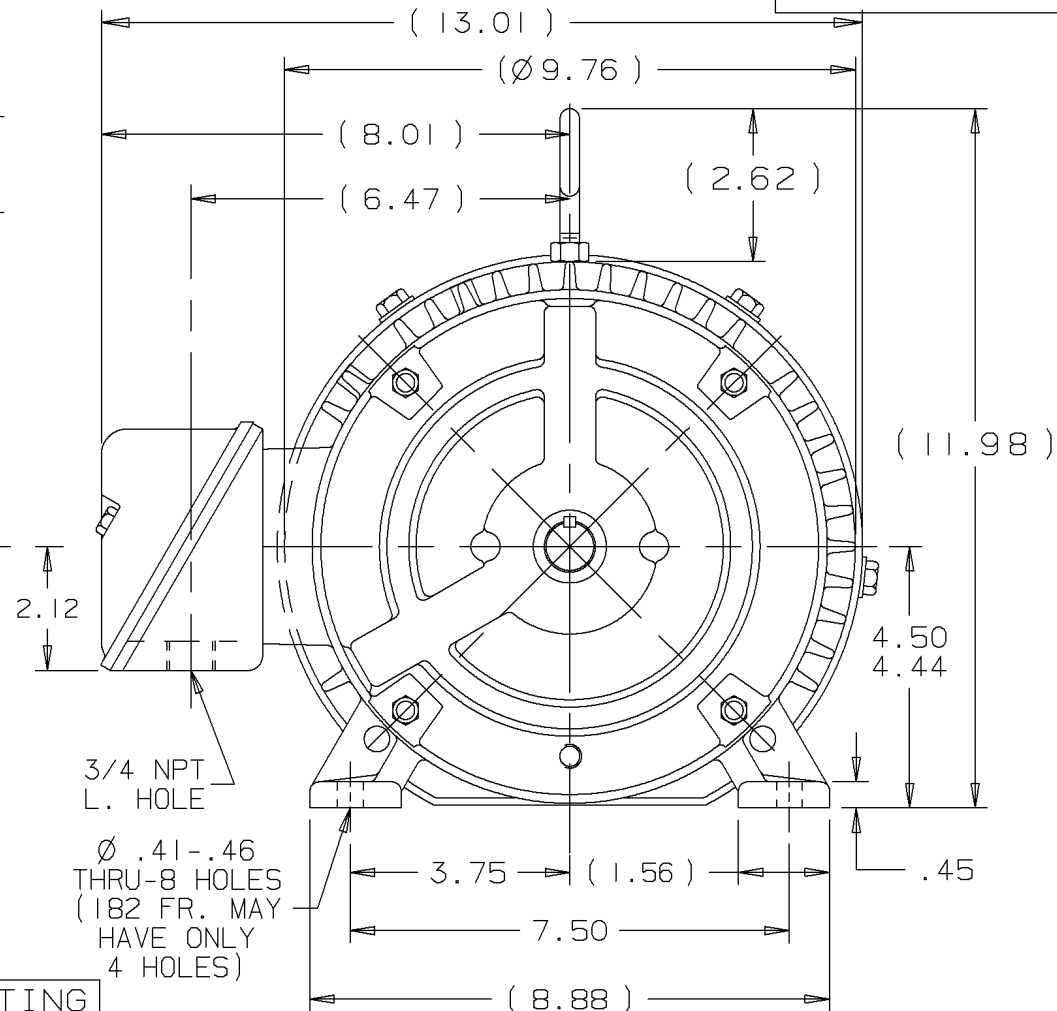
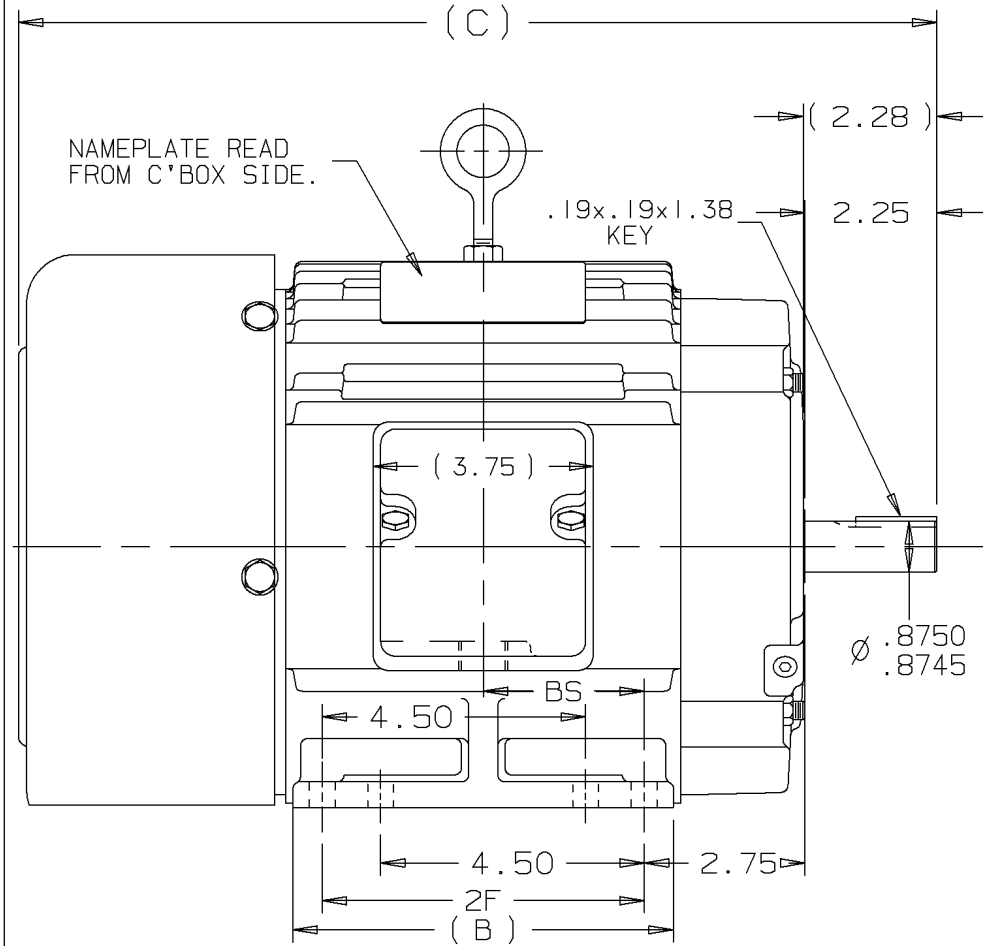
### Nameplate Specifications

Output HP	<b>3 Hp</b>	Output KW	<b>2.2 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>3.8 A</b>	Speed	<b>3525 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>87.5 %</b>	Power Factor	<b>85</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>K</b>
Frame	<b>184U</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>65 °C</b>
Drive End Bearing Size	<b>206</b>	Opp Drive End Bearing Size	<b>205</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>43</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>3.56 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>U</b>	Overall Length	<b>15.69 in</b>
Frame Length	<b>6.75 in</b>	Shaft Diameter	<b>0.875 in</b>
Shaft Extension	<b>2.25 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>A-EE7300-LN</b>	Outline Drawing	<b>A-SS69291LN-675</b>

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DASH	FR.	C	B	2F	BS	MOUNTING
575	182U	14.69	5.50	4.50	2.25	F1 OR F2
675	182U	15.69	6.50	5.50	2.75	F1 ONLY
675	184U	15.69	6.50	5.50	2.75	F1 OR F2

BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS & TURNING FRAME 180°.

BOX CAN BE ROTATED IN 90° STEPS.

		TOLERANCES UNLESS SPECIFIED	
DEC.	TOLERANCE	DEC.	TOLERANCE
.X	± .1	.XX	± .03
.XXX	± .005	.XXXX	± .0005
		ANG	± 7'30"

		DRAWN CAV 08-08-2002	
		CHK ML 08-08-2002	
TITLE OUTLINE		APPD PH 08-09-2002	
180U FR. BB TS		SCALE	
SURFACE ROUGHNESS UNLESS SPECIFIED		REF	
MAT'L. FINISH		FMF	
		PREV	

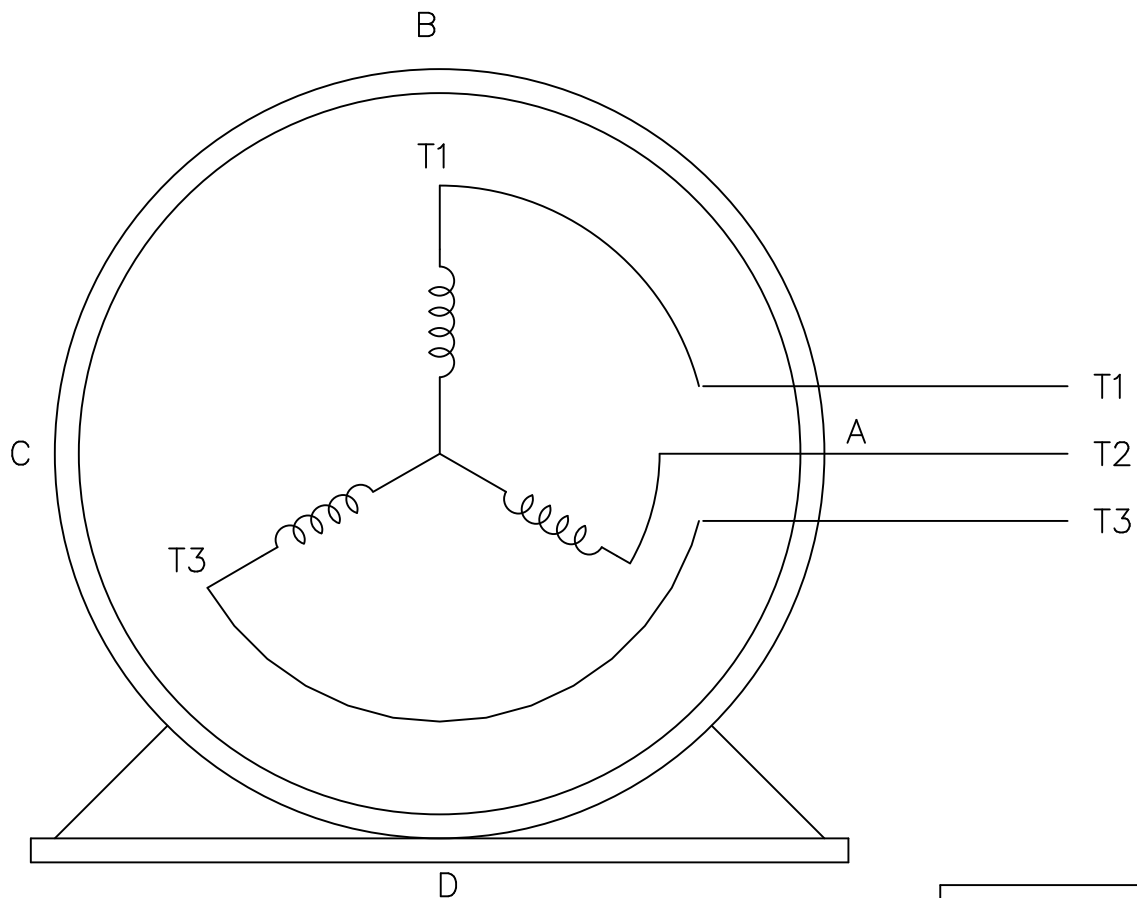
NO.		REVISION		BY DATE		CHK ANG		PURCHASED		CAD FILE SS69291LN		SHOP BOOK		SIZE		DRAWING NO.		REV.	
1		NEW DRAWING MU42917		CAV 08-09-2002		PH										SS69291LN			

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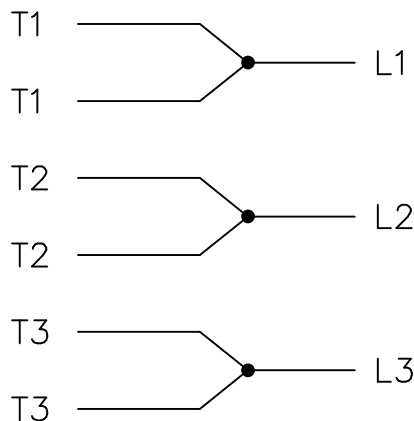
THREE PHASE – SINGLE VOLTAGE  
MOTOR – CONDUIT BOX @ 'A'

EE7300-LN

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS




IF MOTOR HAS  
6 LEADS



A-9806 DECAL

OPTIONAL CORD  
CONNECTION

L1 WHITE  
L2 RED  
L3 BLACK

				TOLERANCES UNLESS SPECIFIED			DRAWN BLR 08-13-1999				
				DEC.	INCHES		CHK ML 08-13-1999				
				.X	±.1		APPD GK 08-13-1999				
				.XX	±.02		SCALE 1=1				
2	ADDED OPTIONAL CORD CONNECTION PER MU47226	CTO 03-31-2004	PJB	.XXX	±.005	TITLE CONNECTION DIAGRAM SINGLE VOLT – 3Ø MOTOR	REF				
1	NEW DRAWING	CTO 08-13-1999		.XXXX	±.0005		MAT'L.	FMF			
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH	PREV				
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				DIST	WP	A	EE7300-LN				2



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

CONN. DIAGRAM: A-EE7300-LN

OUTLINE: A-SS69291LN-675

WINDING #: 182258 7

CATALOG #: LM20707

MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3	2.24	3600	3525	184U	TEFC	K	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	460	3.8	ACROSS THE LINE	CONTINUOUS	F3	1.0	65

FULL LOAD EFF:	87.5	3/4 LOAD EFF:	86.5	1/2 LOAD EFF:	84	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	85	3/4 LOAD PF:	79	1/2 LOAD PF:	70	85.5		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
4.5 LB-FT	29	9 LB-FT 200 %	16 LB-FT 356 %	35

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	0.23 LB-FT^2	4 LB-FT^2	15 SEC.	2	85 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	GRAY - LINCOLN

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	U	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
206	205						

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

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

Data Sheet

Date: 1/23/2018

LM20707



Data @ 460 V

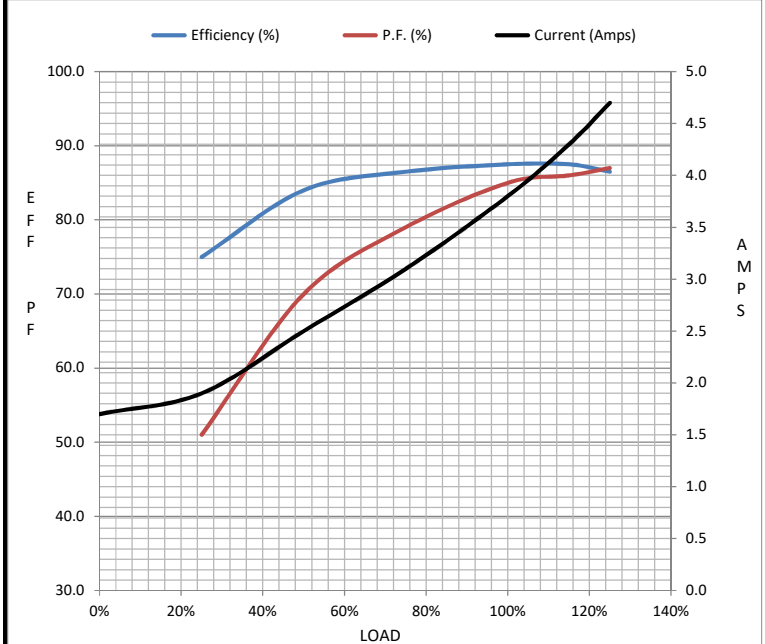
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	1.70	1.90	2.50	3.1	3.8	4.3	4.7	29.0
Torque (ft-lb)	0.00	1.10	2.20	3.3	4.5	5.2	5.6	9.0
RPM	3600	3582	3565	3545	3525	3,515	3505	0
Efficiency (%)		75.0	84.0	86.5	87.5	87.5	86.5	
P.F. (%)	11.0	51.0	70.0	79.0	85.0	86.0	87.0	42.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1100	2985	3525	3600
Current (Amps)	29.0	29.5	18.0	3.8	1.70
Torque (ft-lb)	9.0	10.5	16.0	4.5	0.00

Information Block				
HP	3.0			
Sync. RPM	3600			
Frame	182			
Enclosure	TEFC			
Construction	TFS			
Voltage	460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	32 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	0.23 Lb-Ft <sup>2</sup>			
Ref Wdg	182258 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	NONE			
Outline Dwg	A-SS69291LN-675			
Conn. Diag	A-EE7300-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.7780	2.0150	7.3220	2.4500	167.4420



Speed - Torque Curve

