

PRODUCT INFORMATION PACKET



Model No: LM20390
Catalog No: LM20390
10 HP Automotive Duty Motor, 3 phase, 1800 RPM, 460 V, 256U Frame, TEFC
Automotive Duty Motors



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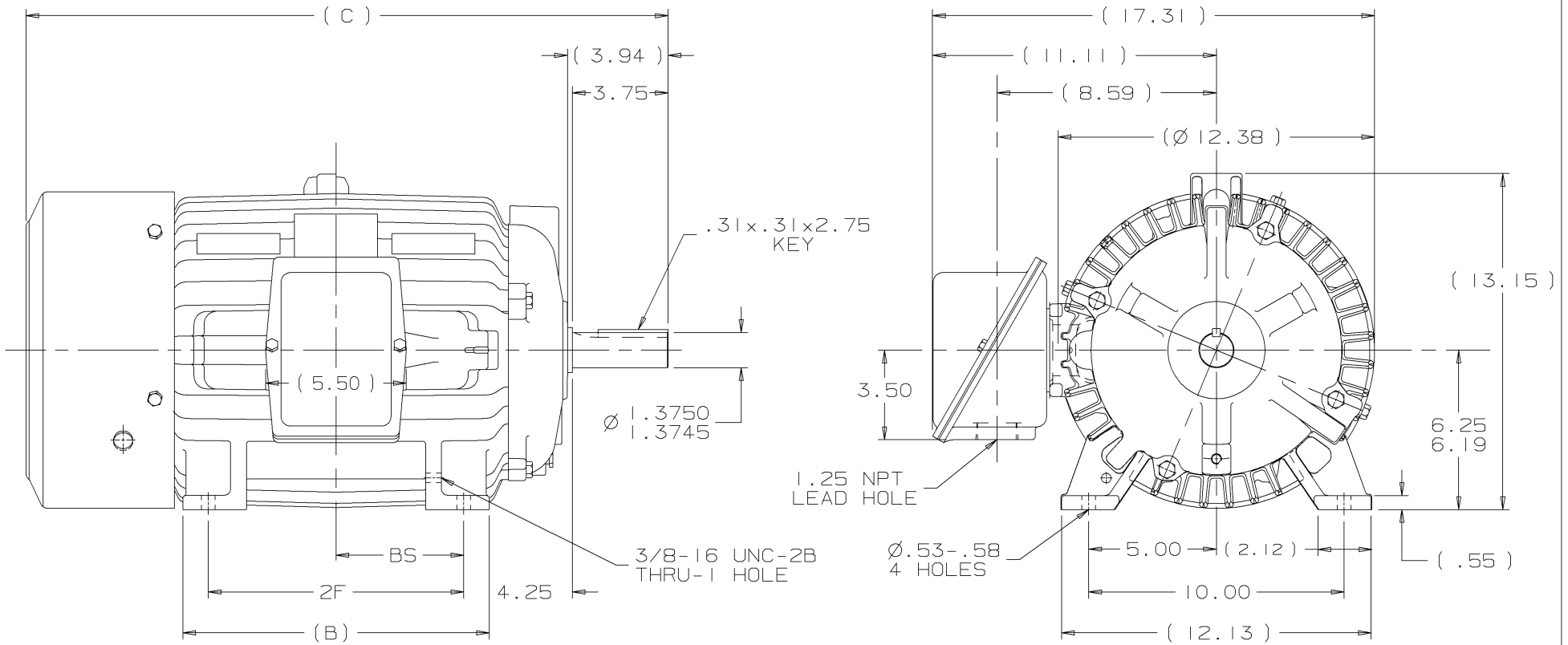
Nameplate Specifications

Output HP	10 Hp	Output KW	7.5 kW
Frequency	60 Hz	Voltage	460 V
Current	12.5 A	Speed	1765 rpm
Service Factor	1	Phase	3
Efficiency	91.7 %	Power Factor	82
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	256U	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	65 °C
Drive End Bearing Size	309	Opp Drive End Bearing Size	207
UL	Recognized	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	.894 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	U	Overall Length	25.19 in
Frame Length	13.50 in	Shaft Diameter	1.375 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS203580LN-1350	Connection Drawing	A-EE7300-LN

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- NOTES:
1. C.BOX CAN BE ROTATED IN 90° STEPS
 2. C.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

DASH	FRAME	B	C	2F	BS	REV	DATE	CHANGE	NAME	PART NAME	DRWG NO
1175	254U	10.25	23.44	8.25	4.12	I	08-02-2000	NEW DRAWING	NJS	250U FR. - BB - TS - STD. CAST C.BOX	B-SS203580LN
1350	256U	12.00	25.19	10.00	5.00						



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOL. ON XX±.03 XXX±.005 XXXX±.0005 ANGLES± 7'30"

MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED

FINISH

MATERIAL

DRAWN BY NJS 08-02-2000

CHKD BY ML 08-02-2000

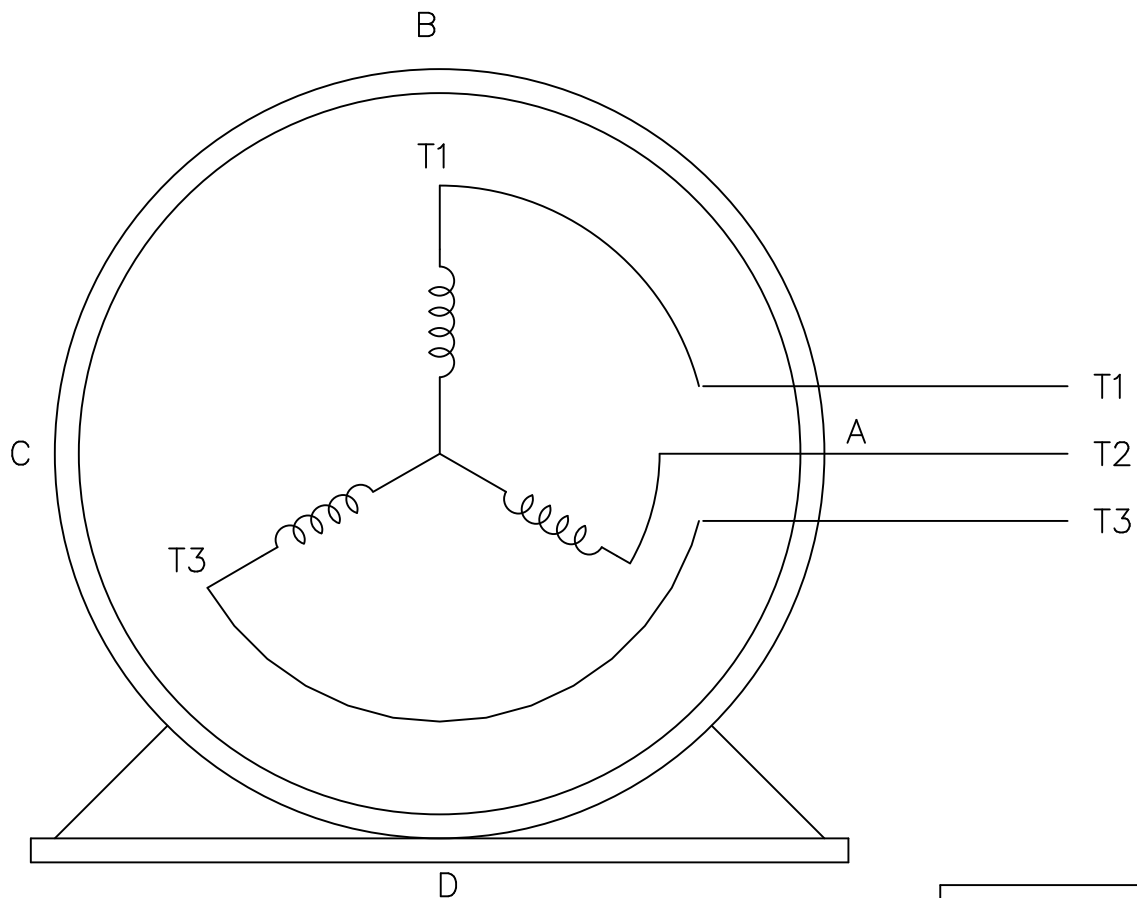
APPD BY TB 08-02-2000

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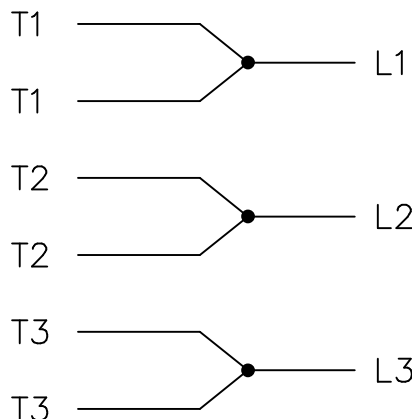
THREE PHASE – SINGLE VOLTAGE
MOTOR – CONDUIT BOX @ 'A'

EE7300-LN

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



IF MOTOR HAS
6 LEADS




A-9806 DECAL

VIEW OF TERMINAL END

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			
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 EE7300_LN			SIZE A	DRAWING NO. EE7300-LN	PAGE OF 2	REV. 2
			DIST	WP						



CERTIFICATION DATA SHEET

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

CONN. DIAGRAM: A-EE7300-LN

CATALOG #: LM20390

OUTLINE: B-SS203580LN-1350

WINDING #: K2154249 R9 2

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
10	7.46	1800	1765	256U	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	460	12.5	ACROSS THE LINE	CONTINUOUS	F3	1.0	65

FULL LOAD EFF:	91.7	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	91	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	82	3/4 LOAD PF:	78	1/2 LOAD PF:	68	90.2		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
29.8 LB-FT	80	60 LB-FT 201 %	81 LB-FT 272 %	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	1.1 LB-FT^2	192 LB-FT^2	20 SEC.	2	260 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
309	207						

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 FT-LB V NONE Hz

Data Sheet

Date: 1/29/2018

LM20390



Data @ **460 V**

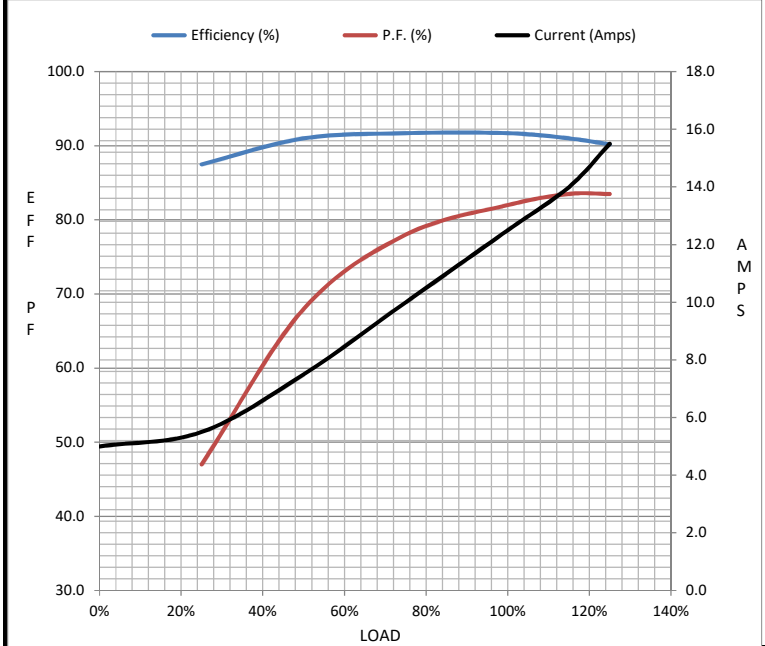
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	5.0	5.5	7.5	10.0	12.5	14.0	15.5	80.0
Torque (ft-lb)	0.00	7.5	14.5	22.0	29.8	34.5	37.5	60.0
RPM	1800	1790	1785	1775	1765	1755	1750	0
Efficiency (%)		87.5	91.0	91.7	91.7	91.0	90.2	
P.F. (%)	6.5	47.0	68.0	78.0	82.0	83.5	83.5	42.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1765	1800
Current (Amps)	80.0	72.0	46.0	12.5	5.0
Torque (ft-lb)	60.0	54.0	81.0	29.8	0.00

Information Block				
HP	10.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TEFC			
Construction	TFP			
Voltage	460 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 wk ²	1.10 Lb-Ft ²			
Ref Wdg	K2154249 R9			
Sound Pressure @ 1M	62 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS203580LN-1350			
Conn. Diag	A-EE7300-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5400	0.4880	2.0930	3.2090	51.1200



Speed - Torque Curve

