

# PRODUCT INFORMATION PACKET

Model No: LM21893

Catalog No: LM21893

Automotive Duty Motor, 25 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 324USC Frame, TEFC



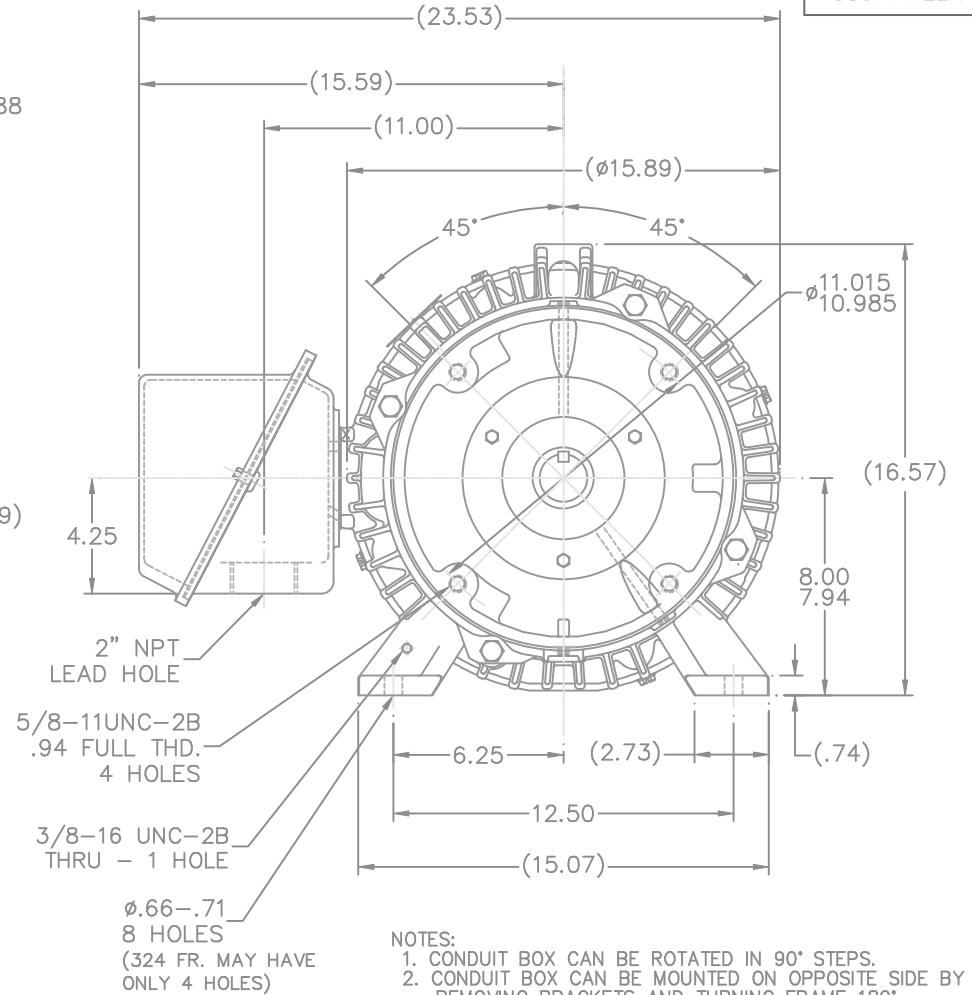
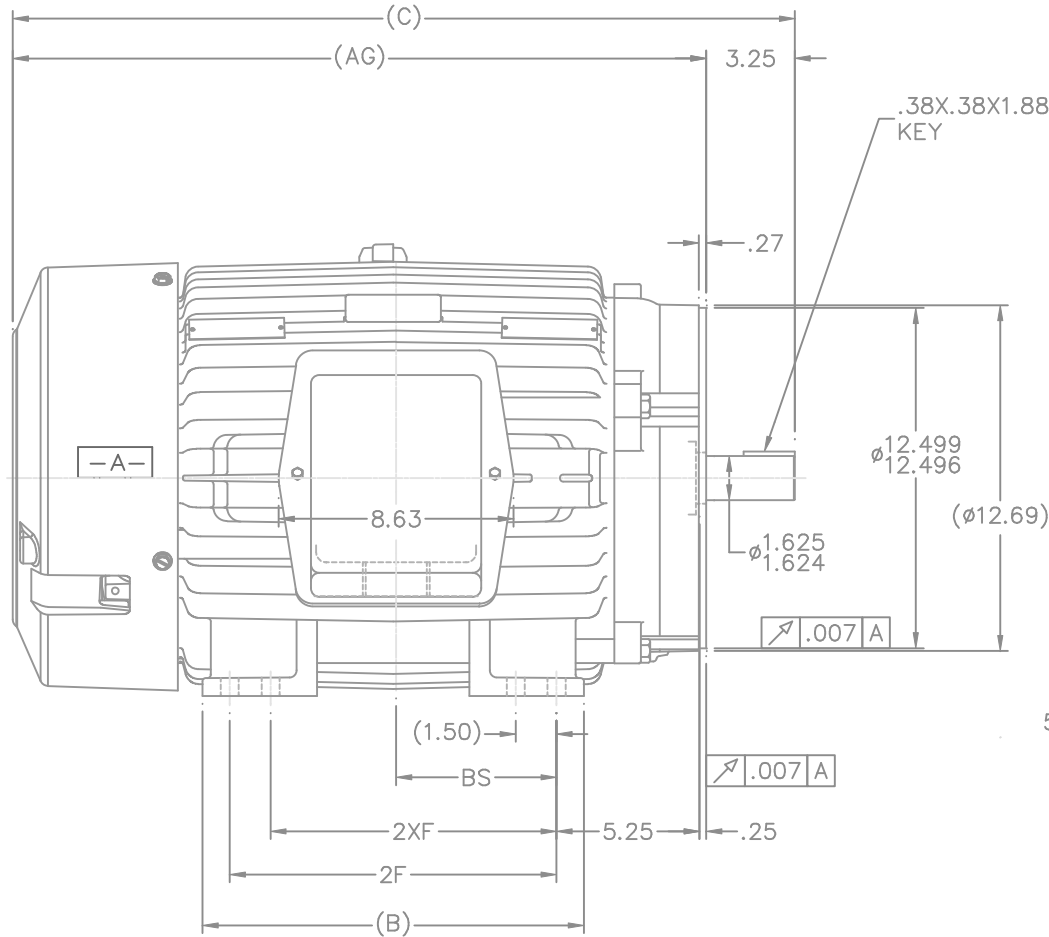
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### Nameplate Specifications

Output HP	<b>25 Hp</b>	Output KW	<b>18.7 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>28.1 A</b>	Speed	<b>3560 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>93.6 %</b>	Power Factor	<b>89</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>324USC</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>312</b>	Opp Drive End Bearing Size	<b>311</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

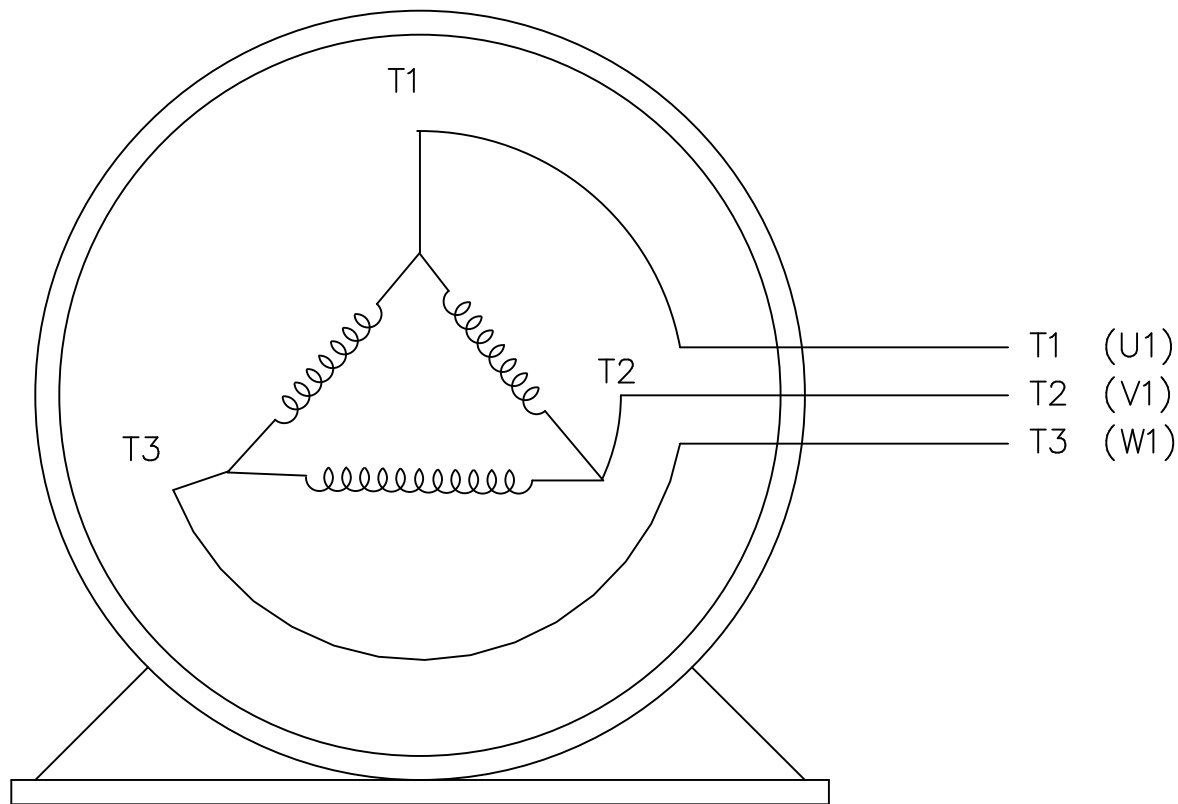
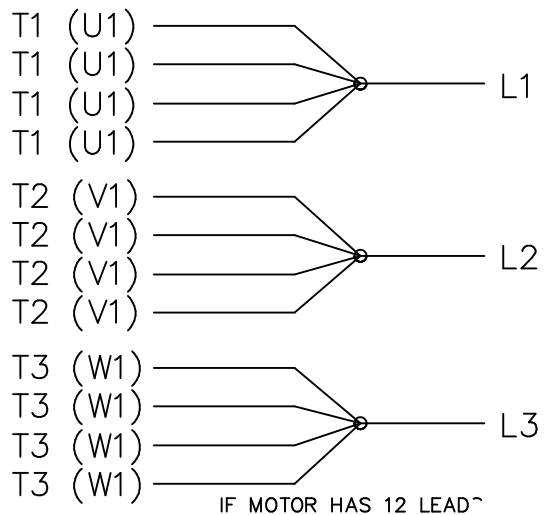
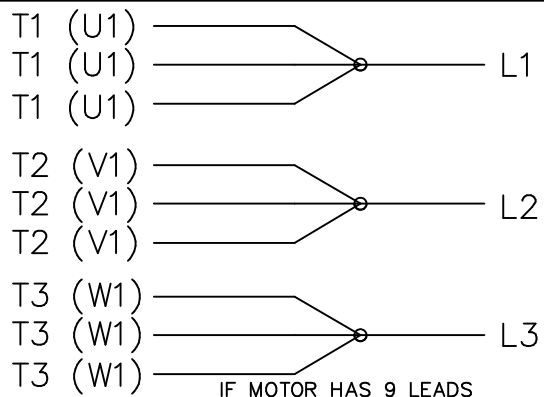
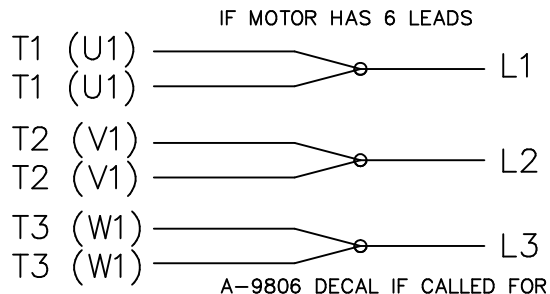
Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.356 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>US</b>	Overall Length	<b>27.22 in</b>
Frame Length	<b>14.75 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>3.25 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Outline Drawing	<b>B-SS311412LN-1475</b>	Connection Drawing	<b>A-EE7300U-LN</b>




- 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. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

1475	324US	27.22	23.97	14.00	10.50	4.39	
1625	326US	28.72	25.47	14.00	12.00	5.89	
DASH	FRAME	C	AG	B	2F	2FF	BS

		TOLERANCES UNLESS SPECIFIED		Lincoln MOTORS		DRAWN CAV 10-24-2002	
		DEC.	INCHES			CHK	ML 10-24-2002
4	CORRECTED SHAFT DIA. WAS 1.624/1.624 08-3818	RJW	8/22/2008	.X	±.1	APPD	DD 10-24-2002
3	REVISED SHAFT LENGTH WAS 3.00	RJW	08-14-2007	ML	.XX ±.03	SCALE	.22=1.00
2	REVISED SHAFT LENGTH	RJW	06-14-2006	ML	.XXX ±.005	REF	
1	NEW DRAWING MU43744	CAV	10-24-2002	BW	.XXXX ±.0005	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 ss311412ln	SIZE	DRAWING NO. PAGE OF REV.
				DIST	LB	B	SS311412LN 4



VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED			DRAWN KL 12-06-2000					
				DEC.	INCHES		CHK DJK 12-06-2000					
				.X	±.1		APPD DJK 12-06-2000					
				.XX	±.02		SCALE					
2	ADDED TABLES	CN39272	RJW 06-03-2005	ML	.XXX	±.005	TITLE EXTERNAL CONNECTION DIAGRAM 3Ø SINGLE VOLTAGE DELTA					
1	NEW DRAWING	MU34873	KL 12-06-2000		.XXXX	±.0005				REF		
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 EE7300U_LN			SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST	LE		A	EE7300U-LN				2



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

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7300U-LN

OUTLINE: B-SS311412LN-1475

CATALOG #: LM21893

WINDING #: K284261 R4 7

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25	18.7	3600	3560	324USC	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	460	28.1	ACROSS THE LINE	CONTINUOUS	F3	1.0	65

FULL LOAD EFF:	93.6	3/4 LOAD EFF:	93.6	1/2 LOAD EFF:	93	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	89	3/4 LOAD PF:	87.5	1/2 LOAD PF:	81.5	93		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
37 LB-FT	180	55 LB-FT 148 %	104 LB-FT 281 %	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	2.7 LB-FT^2	32 LB-FT^2	20 SEC.	2	450 LBS.

\*\*\* SUPPLEMENTAL INFORMATION \*\*\*

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	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	US	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
312	311						

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: 1/19/2018

LM21893



Data @ **460 V**

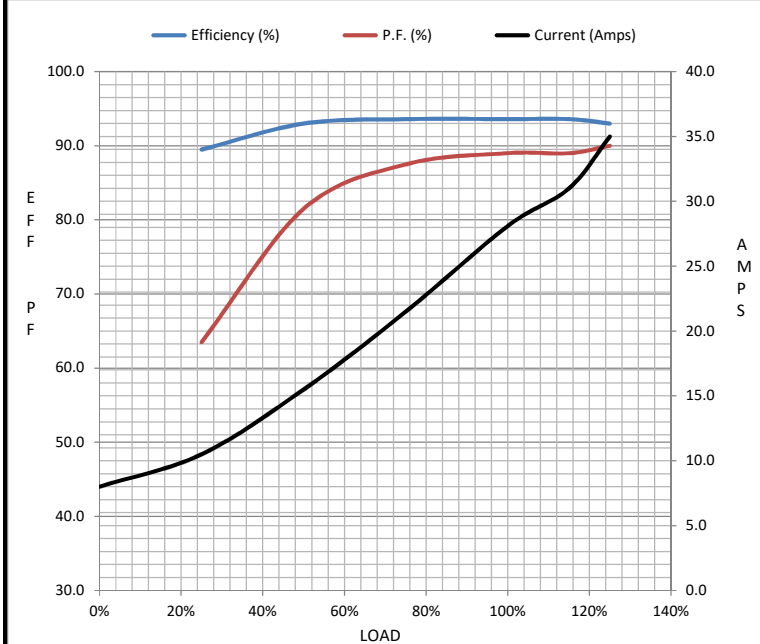
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.0	10.5	15.5	21.5	28.1	31.0	35.0	180
Torque (ft-lb)	0.00	9.0	18.5	27.5	37.0	42.0	46.5	55.0
RPM	3600	3590	3580	3565	3555	3,550	3545	0
Efficiency (%)		89.5	93.0	93.6	93.6	93.6	93.0	
P.F. (%)	14.5	63.5	81.5	87.5	89.0	89.0	90.0	34.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3350	3555	3600
Current (Amps)	180	165	110	28.1	8.0
Torque (ft-lb)	55.0	55.0	104	37.0	0.00

Information Block				
HP	25.0			
Sync. RPM	3600			
Frame	324			
Enclosure	TEFC			
Construction	TFP			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	45 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.70 Lb-Ft <sup>2</sup>			
Ref Wdg	K284261 R4			
Sound Pressure @ 1M	72 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS311412LN-1475			
Conn. Diag	A-EE7300U-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2050	0.1210	0.9230	0.6840	33.6740



Speed - Torque Curve

