

# PRODUCT INFORMATION PACKET



Model No: LM18307  
Catalog No: LM18307  
100 HP Special Voltage Motor, 3 phase, 1800 RPM, 575 V, 405T Frame, TEFC  
Special Voltage Motors



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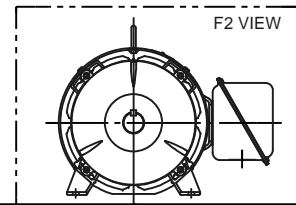
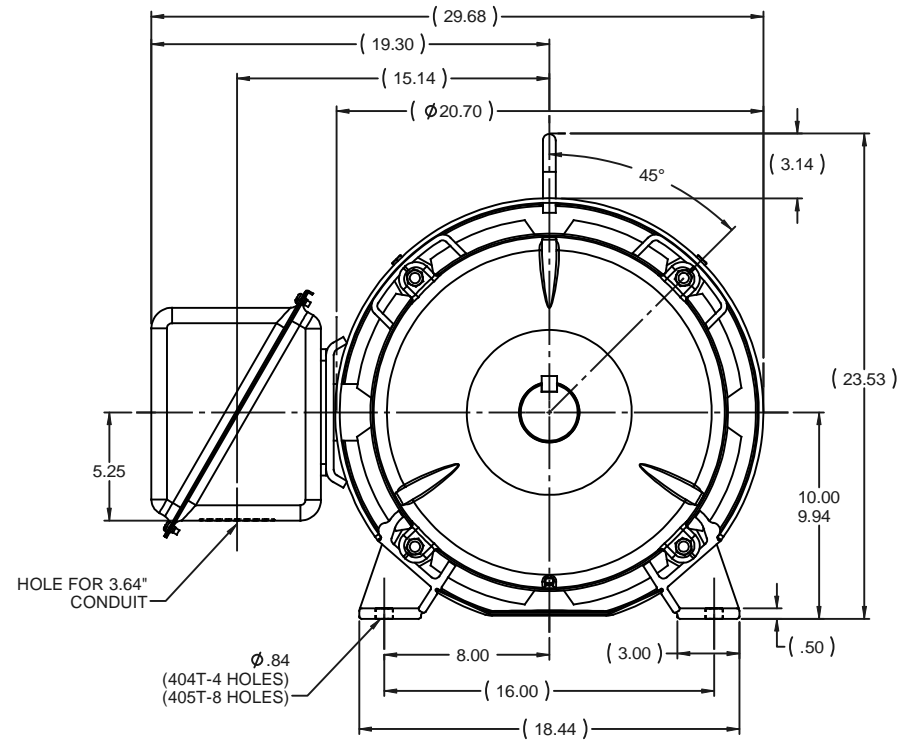
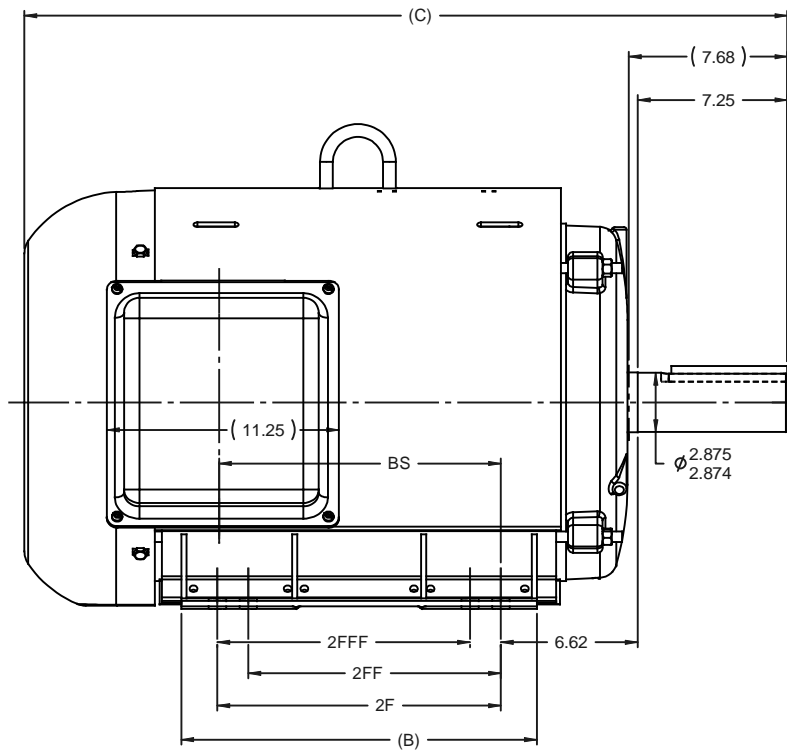
**Nameplate Specifications**

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>94.5 A</b>	Speed	<b>1783 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95.4 %</b>	Power Factor	<b>83</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>405T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6315</b>	Opp Drive End Bearing Size	<b>6313</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>Wye Start Delta Run</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.049 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>Rolled Steel</b>
Shaft Type	<b>T</b>	Overall Length	<b>38.40 in</b>
Frame Length	<b>19.46 in</b>	Shaft Diameter	<b>2.875 in</b>
Shaft Extension	<b>7.25 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Outline Drawing	<b>XJ2F1SS1-1946</b>	Connection Drawing	<b>A-EE7340-LN</b>

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NOTES:  
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.  
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	2FFF	BS
1796	404T	15.75	36.90	12.25	--	--	12.17
1946	405T	17.25	38.40	13.75	12.25	12.25	13.67

REVISION				BY & DATE	CHK	ANG	±7'30"	FINISH	SCALE	PAGE	OF
3	REVISED DIM. TO DESIGN STANDARDS CN29200-2395	NJS	06-05-2002	ML	xx	±.03	TITLE	OUTLINE	1:6	3	3
2	DASH 1796 WAS 405T CN34267	TJB	10-19-2001	xxx		±.005	TITLE	400T FR. - TEFC - UE1	REF	B-XJ2F1SS1ME	
1	NEW DRAWING CN34267	MSG	09-24-2001	xxxx		±.0005	MATL		FMF	MU74245	
NO											

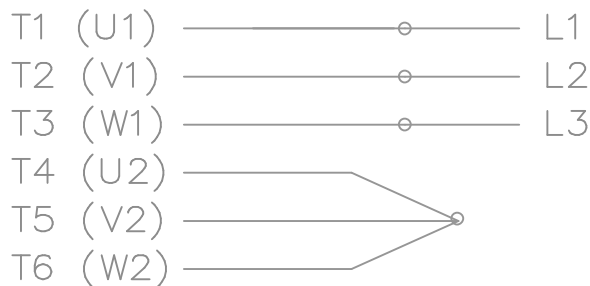
  

THIRD ANGLE PROJECTION		DRAWING NO		REV
NETWORK FILE NAME 202211		SIZE	B	XJ2F1SS1

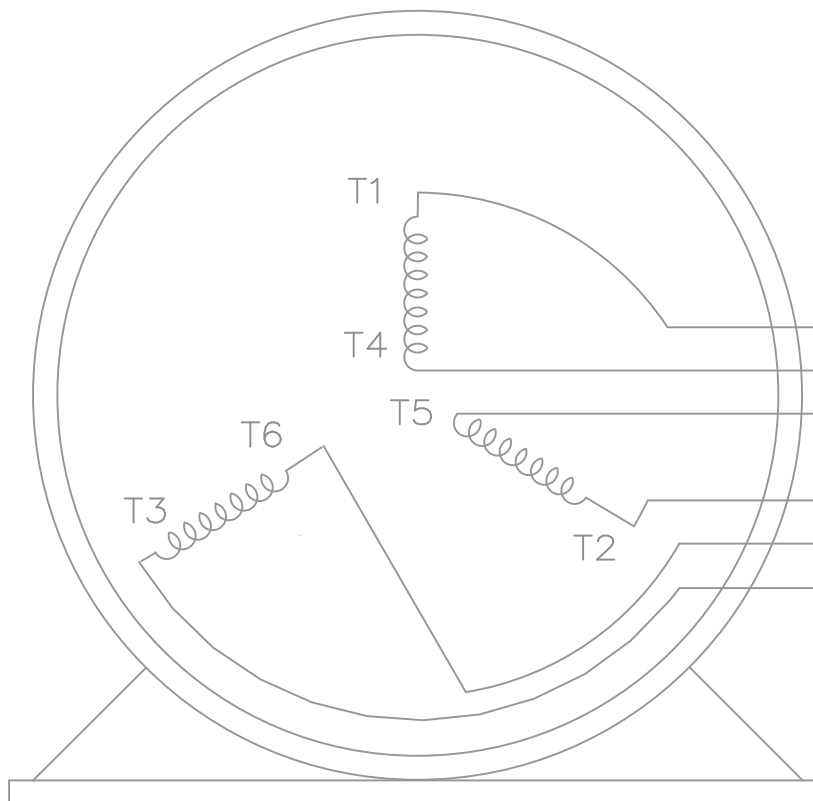
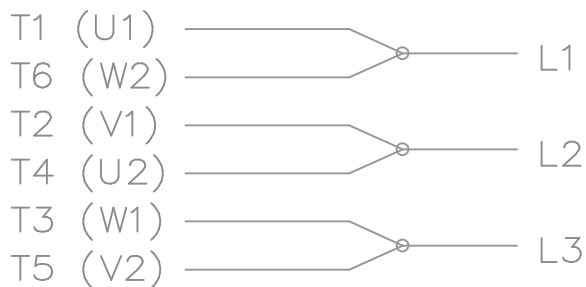


THREE PHASE – Y START  
Δ RUN MOTOR

START

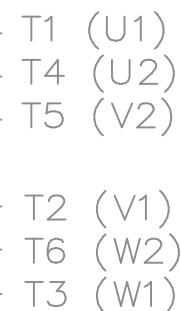


RUN




VIEW OF TERMINAL END

NOTE:  
IEC LEAD MARKINGS ARE NOTED  
IN PARENTHESES



T6CK  
T6BM  
T4CC  
T2DL  
T4C

				TOLERANCES UNLESS SPECIFIED			DRAWN BLR 10-04-1999		
				DEC.	INCHES		CHK DRS 10-04-1999		
				.X	±.1		APPD TB 10-04-1999		
3	REVISED TO MATCH M.E. ORIGINAL	TAT 07-25-2005	ML	.XX	±.02	TITLE CONNECTION DIAGRAM 3Ø – WYE START DELTA RUN	SCALE 1=1		
2	REVISED DRAWING MISTAKE CN 29200-2980	ERH 05-15-2003	ML	.XXX	±.005		REF		
1	NEW DRAWING	BLR 10-09-1999		.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 ee7340_In		SIZE	DRAWING NO. PAGE OF	REV.
				DIST	WA-LB-SB		A	EE7340-LN	3

P.O. BOX 8003  
 WAUSAU, WI 54401-8003  
 PH. 715-675-3311



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: A-EE7340-LN  
 OUTLINE: XJ2F1SS1-1946  
 WINDING: L4054044

CAT #: LM18307

NONE 5

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1783	405T	TEFC	TFR	G	BC

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	94.5	VYE START DELTA RU	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	95.0	GTD EFF	ELECT. TYPE
F.L. PF	83.0	3/4 LD PF	79.0	1/2 LD PF	69.5	94.1	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
294 LB-FT	580	600 LB-FT 204%	700 LB-FT 238%	65

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	23.0 LB-FT²	0 LB-FT²	0 SEC.	0	0 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	GRAY - LINCOLN

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ROLLED STEEL
BALL	BALL						
6315	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
0.058	0.036	0.373	0.399	9.053	0.150	ODE

* N O T E S *	INVERTER TORQUE: NONE					
	INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE					
	NONE NONE PPR					

DATE: 1/19/2018	BRAKE: NONE					
	NONE NONE NONE					
	FT-LB: NA					
	VOLTAGE: NONE HZ:					
UL: V-INS, CONST UL REC						

Data Sheet

Date: 1/19/2018

LM18307



Data @ 575 V

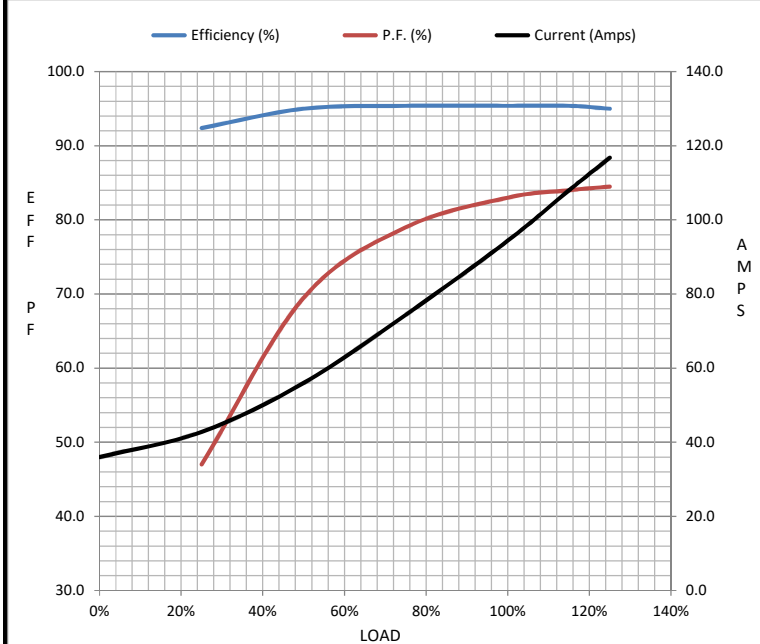
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	36.0	42.8	56.0	74.4	94.4	108	117	580
Torque (ft-lb)	0.00	73.0	147	220	294	339	369	600
RPM	1800	1795	1792	1788	1783	1.780	1778	0
Efficiency (%)		92.4	95.0	95.4	95.4	95.4	95.0	
P.F. (%)	2.5	47.0	69.5	79.0	83.0	84.0	84.5	33.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1783	1800
Current (Amps)	580	540	320	94.4	36.0
Torque (ft-lb)	600	510	700	294	0.00

Information Block				
HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFR			
Voltage	575 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	23.0 Lb-Ft <sup>2</sup>			
Ref Wdg	L4054044 NONE			
Sound Pressure @ 1M	999 dBA			
VFD Rating	NONE			
Outline Dwg	XJ2F1SS1-1946			
Conn. Diag	A-EE7340-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0580	0.0360	0.3730	0.3990	9.0530



Speed - Torque Curve

