

# PRODUCT INFORMATION PACKET

Model No: LM22839

Catalog No: LM22839

Speed Ratio Motors, TEFC, 15 HP, 3 Ph, 60 Hz, 230/460 V, 1770 RPM, 254TC Frame



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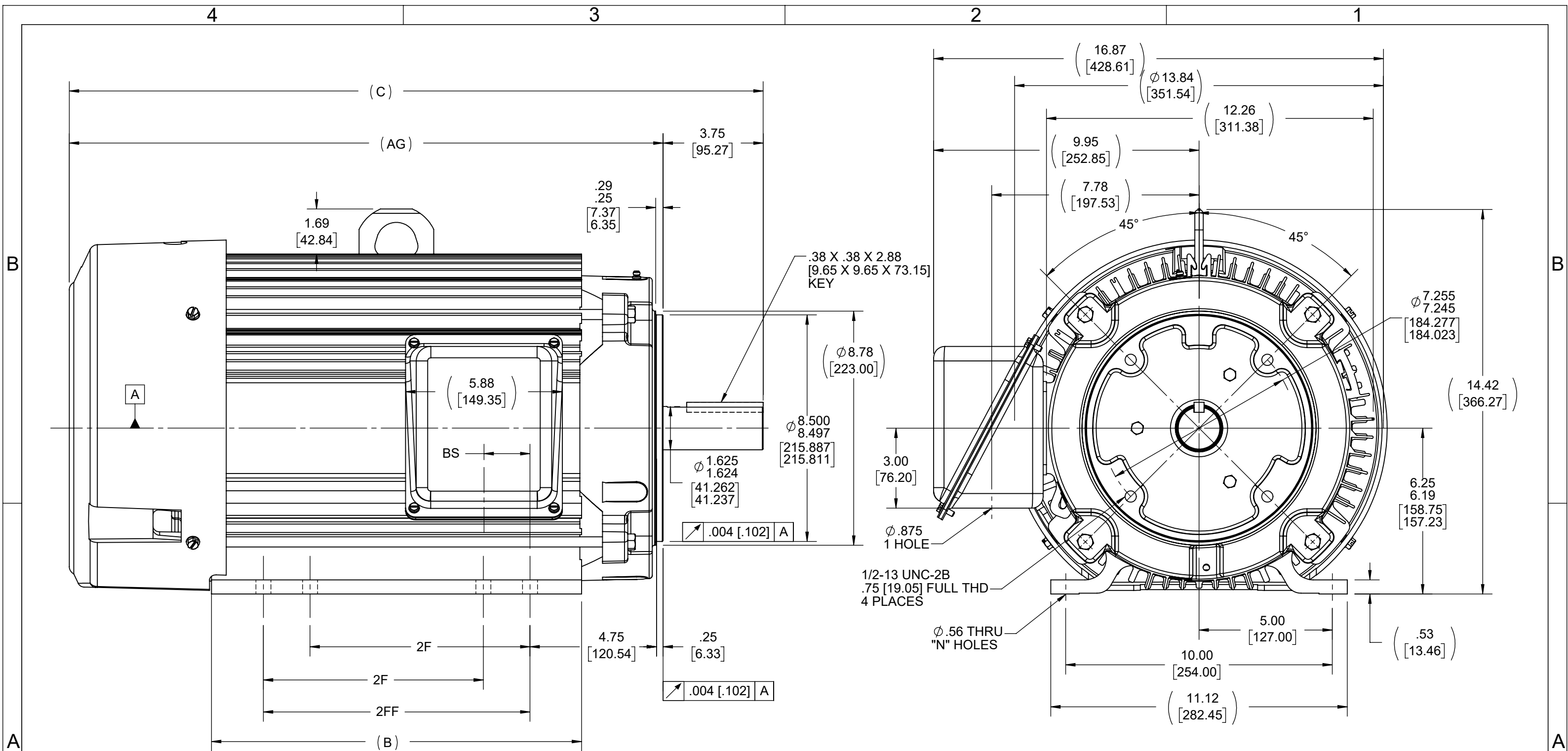
**Nameplate Specifications**

Output HP	<b>15 Hp</b>	Output KW	<b>11.2 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>39.0/19.5 A</b>	Speed	<b>1770 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>91 %</b>	Power Factor	<b>79</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>INV</b>	KVA Code	<b>G</b>
Frame	<b>254TC</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>309</b>	Opp Drive End Bearing Size	<b>208</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 Inverter Duty</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.69 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>Aluminum</b>
Shaft Type	<b>T</b>	Overall Length	<b>24.00 in</b>
Frame Length	<b>12.13 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>4 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Inverter Load	<b>CONSTANT 4:1</b>		
Connection Drawing	<b>A-EE7308T-LN</b>	Outline Drawing	<b>B-SS321103LN-1200</b>





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

DASH	FRAME	C	B	BS	2F	2FF	AG	N
1200	254TC	24.28 [616.71]	12.13 [308.10]	1.73 [43.94]	8.25 [209.55]	-----	20.53 [521.46]	4
1375	254/6TC	26.03 [661.16]	13.88 [352.55]	1.73 [43.94]	8.25 [209.55]	10.00 [254.00]	22.28 [565.91]	8

DRAWING REVISION B	REVISION BY JVD	DATE 05/27/2021
ECO CR-0002792	APPROVED BY AS	DATE 05/27/2021
ECO DESCRIPTION REPLACED FAN GUARD 3C223-E3 TO 205016B		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 DEC. INCH mm ANGLE  
 .X  $\pm 0.1$  [ $\pm 2.5$ ]  $\pm 7' 30''$   
 .XX  $\pm 0.03$  [ $\pm 0.76$ ]  
 .XXX  $\pm 0.005$  [ $\pm 0.127$ ]  
 .XXXX  $\pm 0.0005$  [ $\pm 0.0127$ ]  
 REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°  
 CORNER FILLETS: R.02 [0.51]  
 MACHINED SURFACES: 200 INCH mm 5.1  
 mm SHOWN IN [BRACKETS]

DRAWN BY  
CTO  
 DATE  
05-11-2004  
 APPROVED BY  
TB  
 DATE  
05-11-2004  
 REFERENCE  
 THIRD ANGLE PROJECTION

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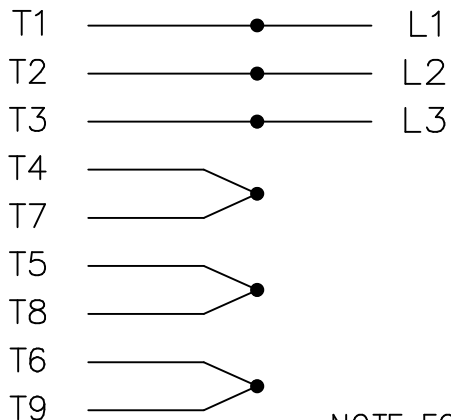
DESCRIPTION  
**OUTLINE**  
250TC FR - ALUM FR - TEFC

MATERIAL PROCESS/FINISH

SIZE B DRAWING NUMBER **SS321103LN** SHEET 1 OF 1

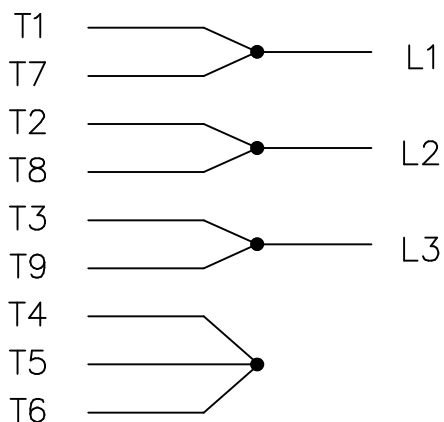
THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

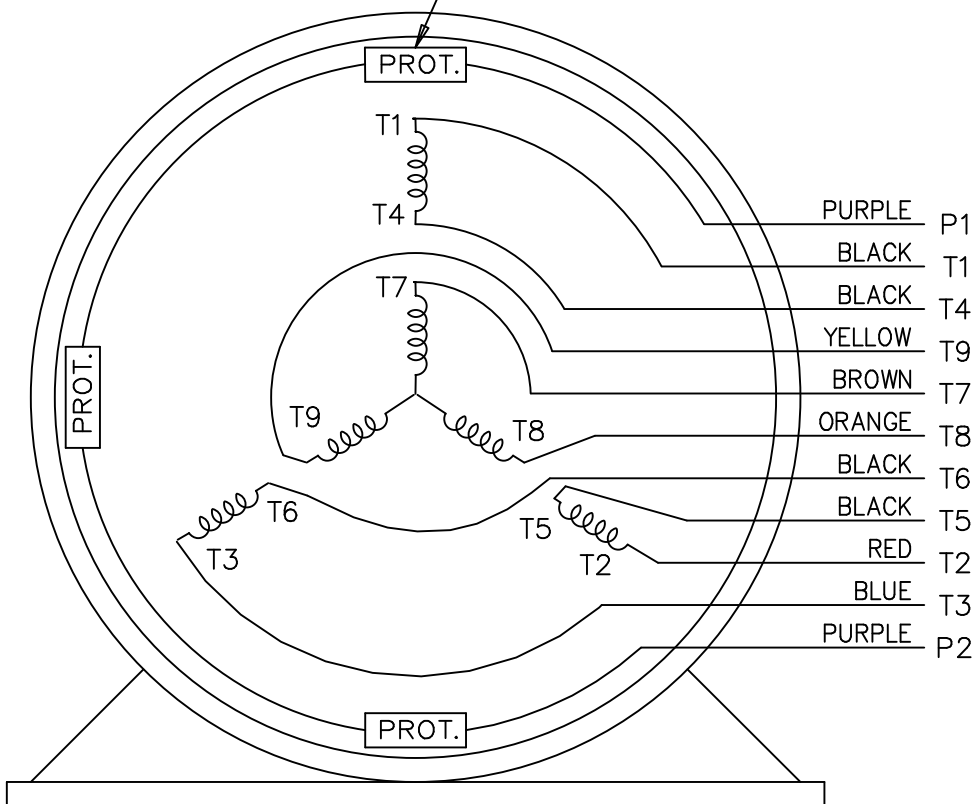


NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST FOR COMMON CONNECT:  
HIGH VOLT: CONNECT P1 TO T1  
THEN P2 TO L1  
LOW VOLT: CONNECT P1 TO T1 & T7,  
THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS  
CONNECTED IN SERIES.



VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED			DRAWN BJK 07-16-2002			
				DEC.	INCHES		CHK DRS 07-18-2002			
				.X	±.1		APPD GK 07-18-2002			
				.XX	±.02		SCALE 1=1			
2	ADDED COLORS TO "T & P" LEADS	CN 40494	MSG 08-08-2006	ML	.XXX	±.005	TITLE CONNECTION DIAGRAM 3 PHASE - DUAL VOLTAGE MOTOR		REF	
1	NEW DRAWING		BJK 07-18-2002	DRS	.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 ee7308t_ln			SIZE	DRAWING NO. PAGE OF	REV.
				DIST	LB			A	EE7308T-LN	2



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: A-EE7308T-LN  
OUTLINE: B-SS321103LN-1200  
WINDING: K2544169

CAT #: LM22839

R3 2

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
15	11.2	1800	1770	254TC	TEFC	TFY	G	INC

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	39/19.5	INVERTER ONLY	CONT	F	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	92.0	1/2 LD EFF	91.0	GTD EFF	ELECT. TYPE
F.L. PF	79.0	3/4 LD PF	73.0	1/2 LD PF	61.0	89.5	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
44.5 LB-FT	108	87.0 LB-FT 196%	128 LB-FT 288%	60

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
68 dBA	77 dBA		2.10 LB-FT²	0 LB-FT²	0 SEC.	0	300 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	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)	ALUMINUM
BALL	BALL						
309	208						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.444	0.238	1.408	1.629	28.142	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 4:1 INV. HP SPEED RANGE: NONE	
	ENCODER: NONE NONE NONE PPR	
	BRAKE: NONE NONE NONE	
	FT-LB: NA VOLTAGE: NONE HZ:	
	UL: V-INS, CONST UL REC	

DATE:	9/10/2018
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Data Sheet

Date: 9/10/2018

LM22839



Data @ **460 V**

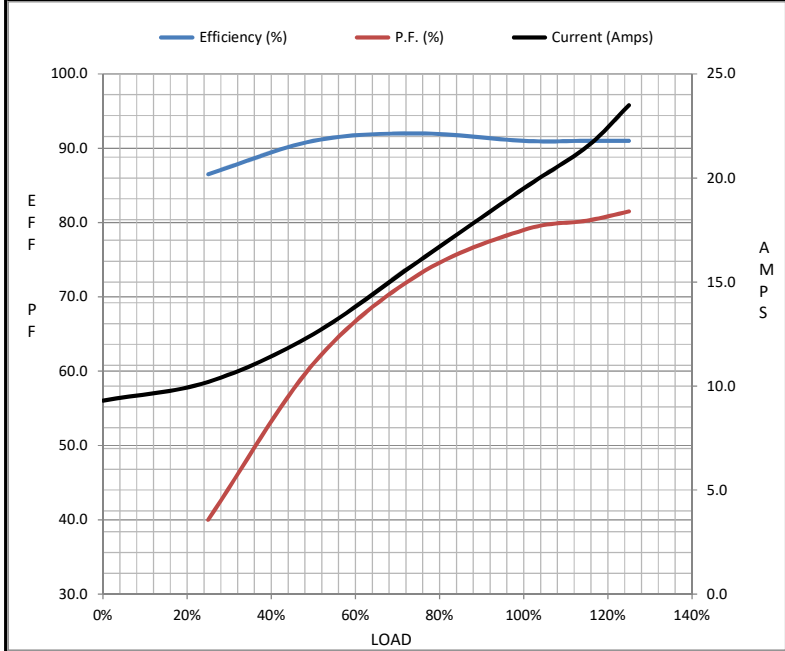
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	9.3	10.2	12.5	16.0	19.5	21.5	23.5	108
Torque (ft-lb)	0.00	11.0	22.0	33.2	44.5	50.3	56.0	87.0
RPM	1800	1792	1785	1780	1770	1,766	1760	0
Efficiency (%)		86.5	91.0	92.0	91.0	91.0	91.0	
P.F. (%)	5.5	40.0	61.0	73.0	79.0	80.3	81.5	42.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	750	1650	1770	1800
Current (Amps)	108	90.0	67.0	19.5	9.3
Torque (ft-lb)	87.0	72.0	128	44.5	0.00

Information Block				
HP	15.0			
Sync. RPM	1800			
Frame	254			
Enclosure	TEFC			
Construction	TFY			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.0			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.10 Lb-Ft <sup>2</sup>			
Ref Wdg	K2544169 R3			
Sound Pressure @ 1M	68 dBA			
VFD Rating	CONSTANT 4:1			
Outline Dwg	B-SS321103LN-1200			
Conn. Diag	A-EE7308T-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.4440	0.2380	1.4080	1.6290	28.1420



Speed - Torque Curve

