

# PRODUCT INFORMATION PACKET



Model No: LM80094  
Catalog No: LM80094  
100 HP Fire Pump Motor, 3 phase, 1800 RPM, 230/460 V, 405T Frame, TEFC  
Fire Pump Motors



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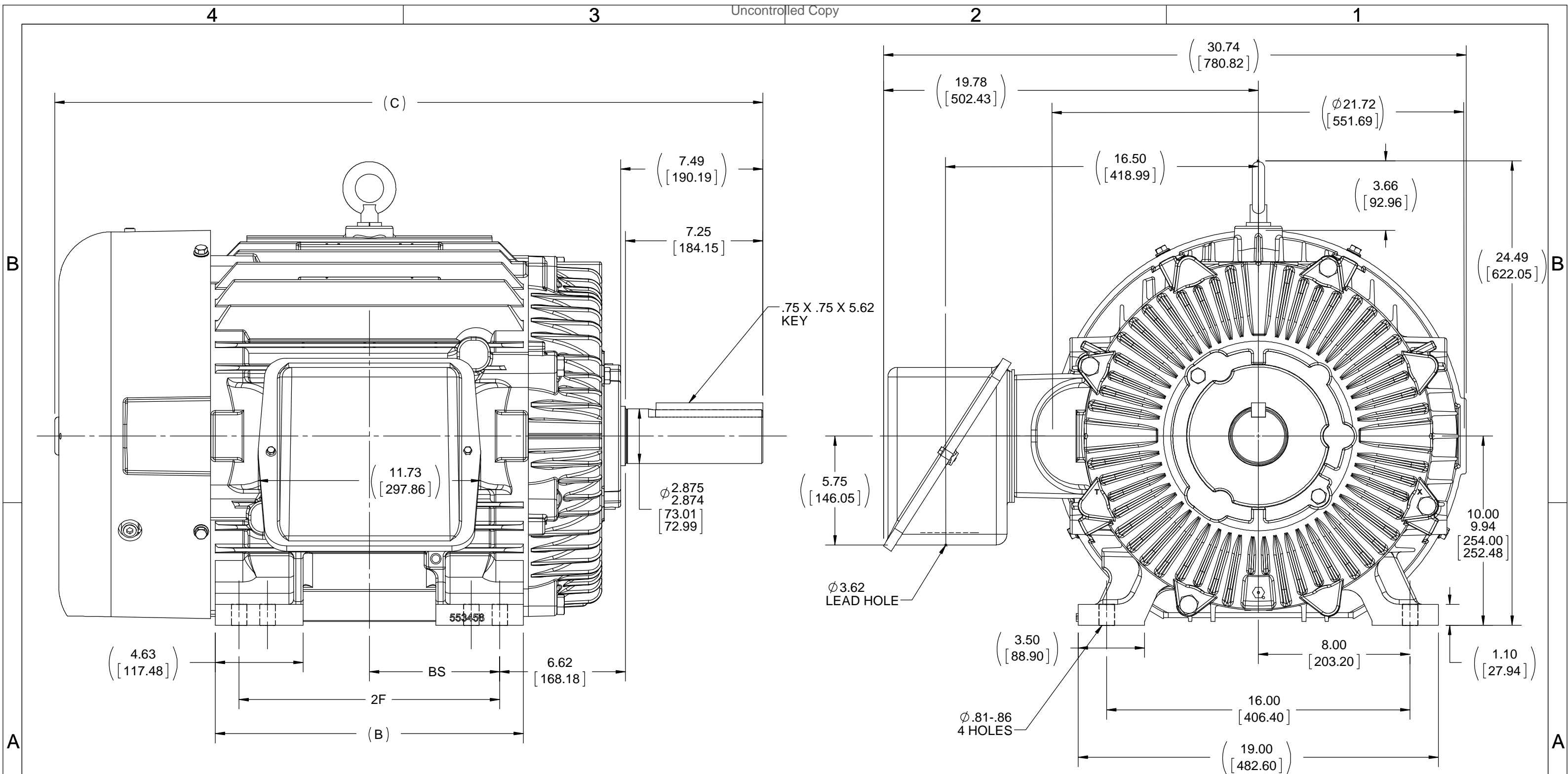
**Nameplate Specifications**

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>224.0/112.0 A</b>	Speed	<b>1780 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>94.5 %</b>	Power Factor	<b>88</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>6316</b>	Opp Drive End Bearing Size	<b>6313</b>
UL	<b>No</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>.058 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>T</b>	Overall Length	<b>37.12 in</b>
Frame Length	<b>16.75 in</b>	Shaft Diameter	<b>2.875 in</b>
Shaft Extension	<b>7.25 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>A-EE7308AA-LN</b>	Outline Drawing	<b>B-SS504699LN-1675</b>

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- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
  2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKET AND TURNING FRAME 180°.
  3. NAME PLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DRAWING REVISION B	REVISION BY NK	DATE 8/14/2018
ECO ECO-0150706	APPROVED BY SR	DATE 8/14/2018
ECO DESCRIPTION REDRAWN IN SOLIDWORKS		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±0.5°
.XX	±0.01	[±0.25]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

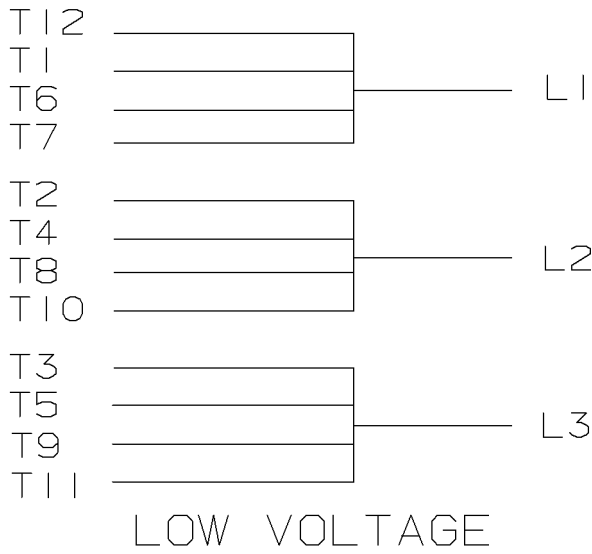
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°  
CORNER FILLETS: R.02 [0.51]  
MACHINED SURFACES: 125 INCH 3.2/mm

mm SHOWN IN [BRACKETS]

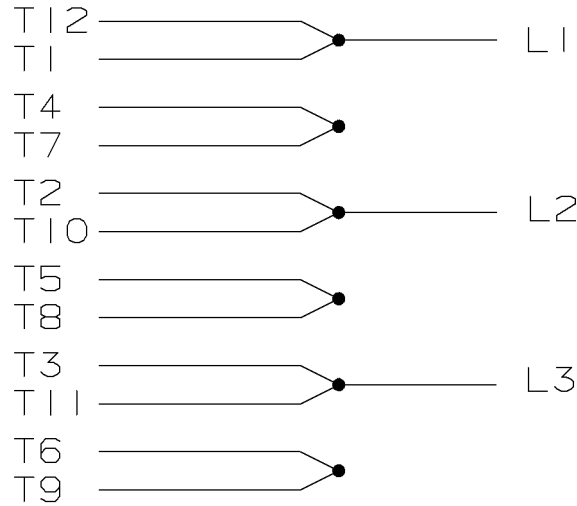
DRAWN BY KL	DATE 10-30-2000
APPROVED BY DJK	DATE 10-30-2000
REFERENCE B-SS504699LN	THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 400T FR. - TEFC - STD.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS504699LN
SHEET 1 OF 1	

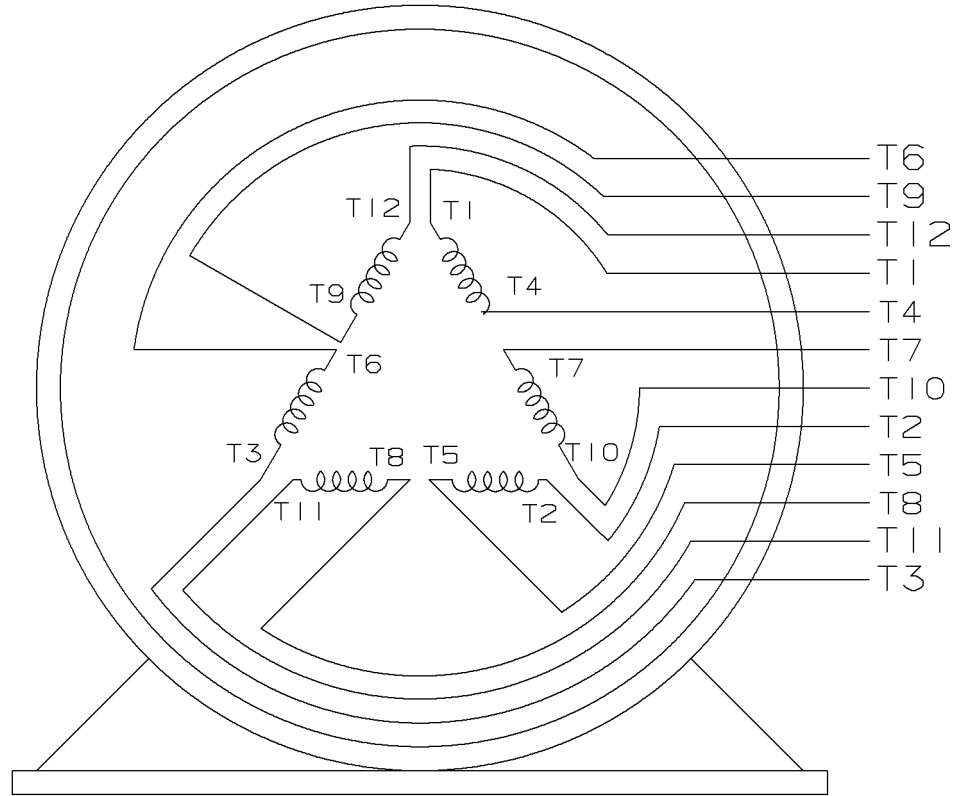
DASH	FRAME	B	C	2F	BS
1525	404T	14.75	35.62	12.25	6.12
1675	405T	16.25	37.12	13.75	6.88



LOW VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

					✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7'30"		
2	08-09-1999	RE-ISSUE, ADDED '-' TO PART NUMBER	BLR		MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED		DRAWN BY TRB 07-16-1999
1	06-18-1999	NEW DRAWING	TRB	FINISH		CHKD BY ML 06-18-1999	
				MATERIAL		APPD BY GK 06-18-1999	
REV	DATE	CHANGE	NAME	PART NAME 3 PHASE CONNECTION DIAGRAM 2/1 DELTA - 12 LEADS			DRWG NO A- EE7308AA-LN

PURCHASED

CADD FILE NO.

EE7308AALN

ERROR: undefined  
OFFENDING COMMAND: Pscrip  
  
STACK:



CERTIFICATION DATA SHEET

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

CONN. DIAGRAM: A-EE7308AA-LN

OUTLINE: B-SS504699LN-1675

CATALOG #: LM80094

WINDING #: T4054168 2

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75.0	1800	1780	405T	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	224/112	WYE START DELTA RUN	CONTINUOUS	F1	1.15	40

FULL LOAD EFF:	94.5	3/4 LOAD EFF:	94.5	1/2 LOAD EFF:	94.1	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	88	3/4 LOAD PF:	87	1/2 LOAD PF:	82	93		SQ CAGE IND RUN	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
295 LB-FT	1410 / 705	450 LB-FT 152 %	700 LB-FT 236 %	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
66 dBA	76 dBA	27 LB-FT^2	555 LB-FT^2	25 SEC.	2	1400 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	RED (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6313						

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: 1/22/2018

LM80094



Data @ 460 V

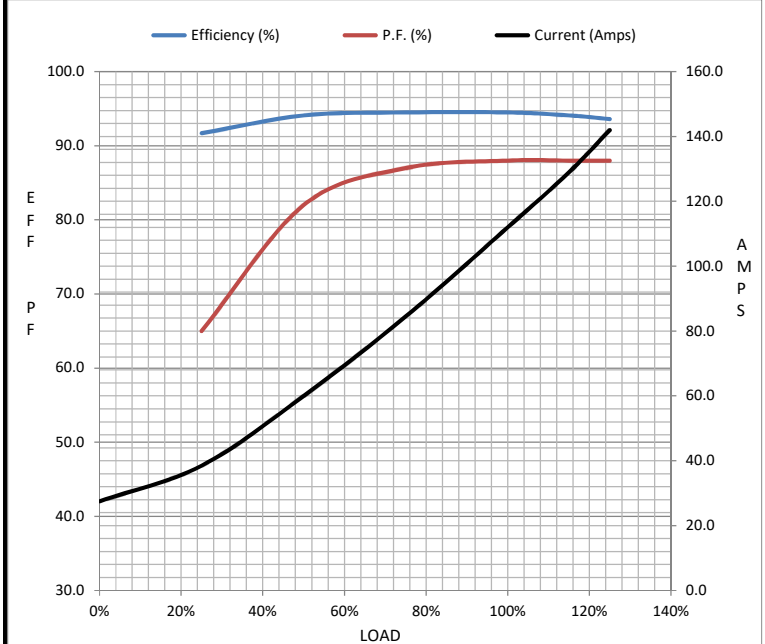
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	27.5	38.5	60.0	84.5	112	129	142	705
Torque (ft-lb)	0.00	73.5	147	221	295	340	370	450
RPM	1800	1795	1790	1785	1780	1775	1772	0
Efficiency (%)		91.7	94.1	94.5	94.5	94.1	93.6	
P.F. (%)	6.0	65.0	82.0	87.0	88.0	88.0	88.0	28.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1780	1800
Current (Amps)	705	625	400	112	27.5
Torque (ft-lb)	450	400	700	295	0.00

Information Block				
HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	27.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T4054168 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS504699LN-1675			
Conn. Diag	A-EE7308AA-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0430	0.0270	0.2980	0.2730	9.5000



Speed - Torque Curve

