

PRODUCT INFORMATION PACKET



Model No: 825127.00

Catalog No: 825127.00

Explosion Proof Motor, 5 HP, 3 Ph, 60 Hz, 230/460 V, 3600 RPM, 184TC Frame, EPFC



Regal and Leeson are trademarks of Regal Rexnord Corporation or one of its affiliated companies.

©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E





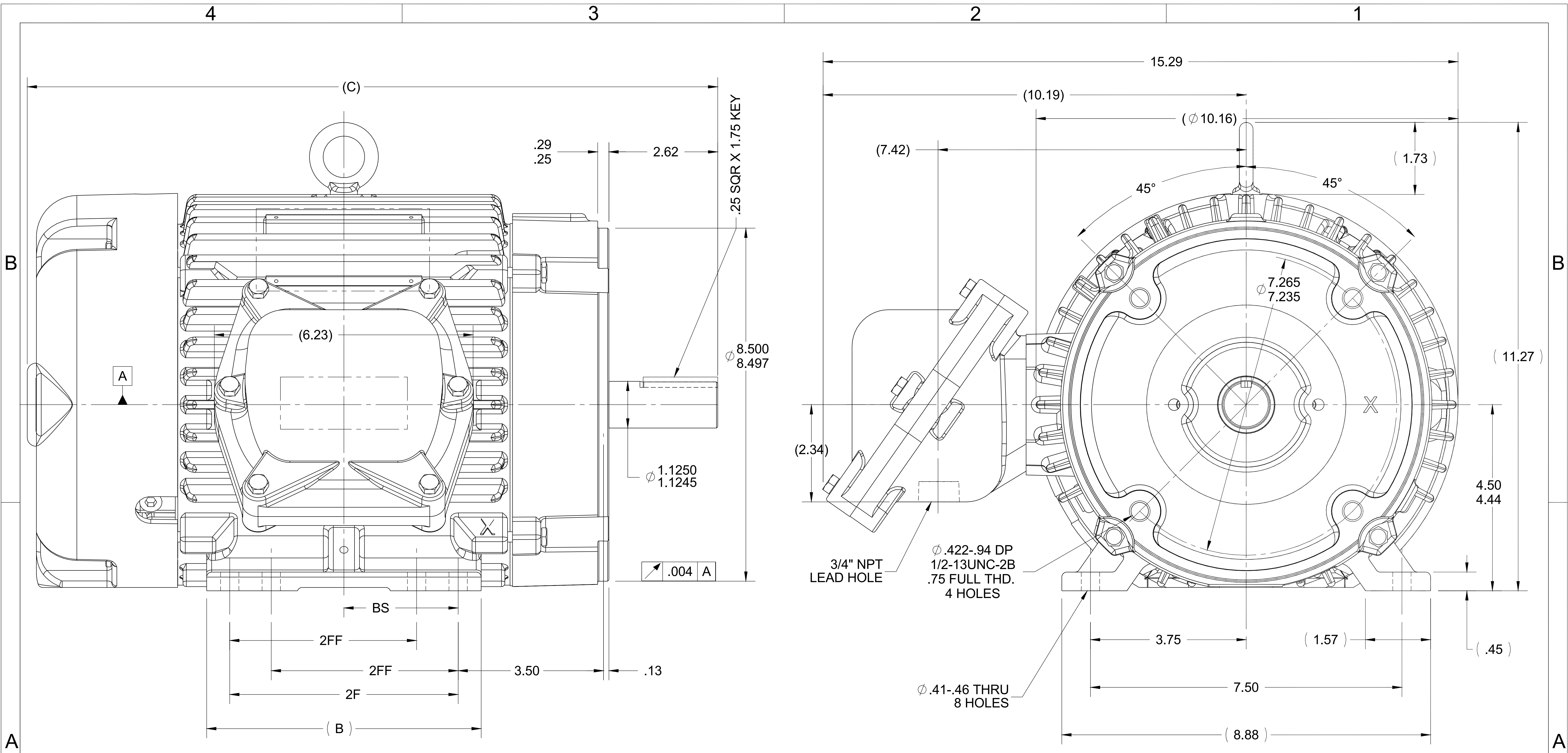
Nameplate Specifications

Output HP	5 Hp	Output KW	3.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	11.8/5.9 A	Speed	3505 rpm
Service Factor	1.15	Phase	3
Efficiency	88.5 %	Power Factor	88.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	J
Frame	184TC	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	207	Opp Drive End Bearing Size	206
UL	UL Listed; also, UL Certified for Canada	CSA	N
CE	N	IP Code	54
Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B	Number of Speeds	1

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	2.32 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	18.62 in
Frame Length	10.00 in	Shaft Diameter	1.125 in
Shaft Extension	2.75 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Connection Drawing	EE7308T-LE	Outline Drawing	035673-1000

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:11/28/2022



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

1000	182/184	18.62	8.61	7.50	5.50	3.75
800	182/184	16.62	6.61	5.50	4.50	2.75
DASH	FRAME	C	B	2F	2FF	BS

DRAWING REVISION B	REVISION BY KIR	DATE 01/21/16
ECO ECO-0092270	APPROVED BY GR	DATE 01/21/16
ECO DESCRIPTION TITLE BLOCK UPDATED		
<small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>		

TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	± 0.1	[± 2.5]	$\pm 7' 30''$
.XX	± 0.03	[± 0.76]	
.XXX	± 0.005	[± 0.127]	
.XXXX	± 0.0005	[± 0.0127]	

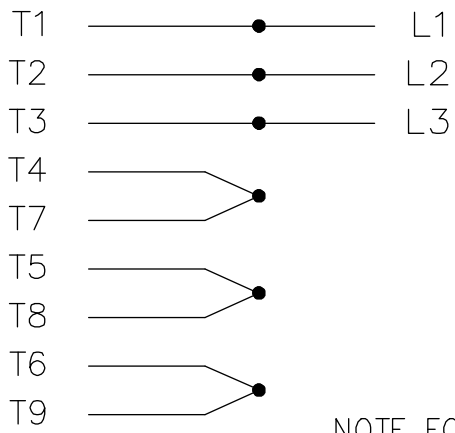
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45°
 CORNER FILLETS: R.02 [.51]
 MACHINED SURFACES: 200 INCH / 5.1 mm

DRAWN BY TJW 3/25/2008
DATE
APPROVED BY SW 3/26/2008
DATE
REFERENCE
THIRD ANGLE PROJECTION

REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 180 FR. EPFC - C FACE - CAST C'BOX	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER 035673
SHEET 1 OF 1	

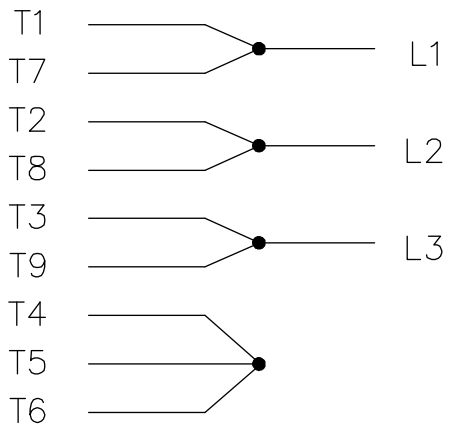
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

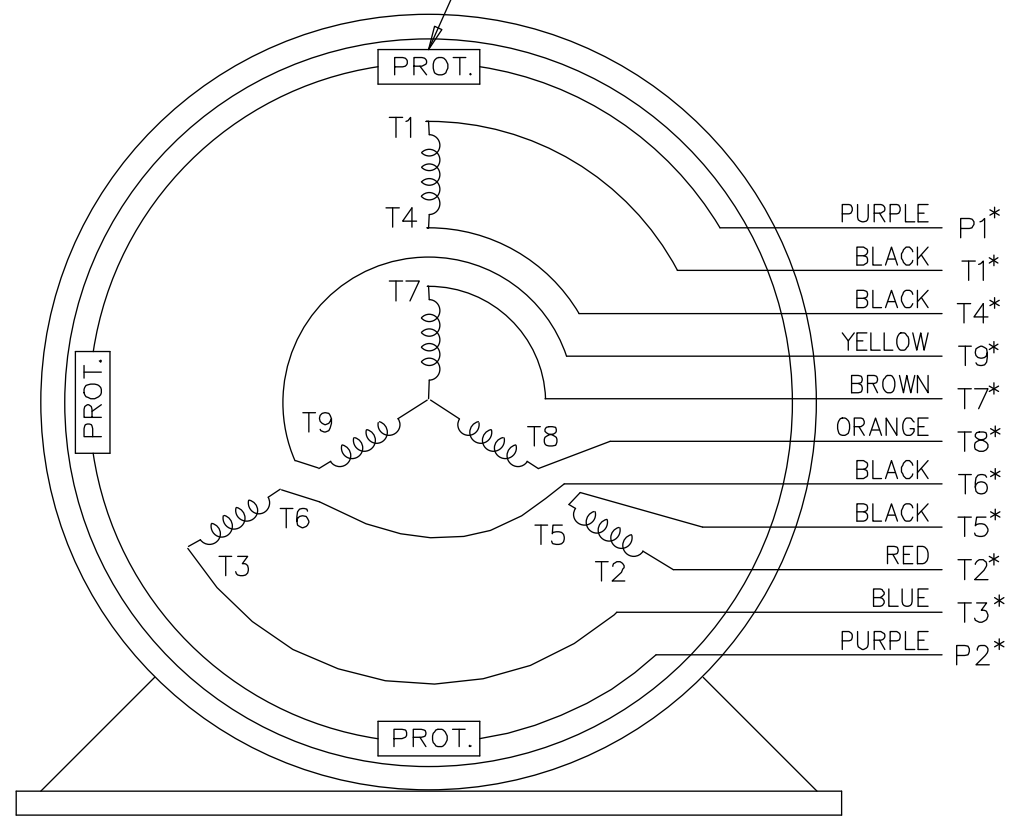


NOTE FOR FACTORY USE ONLY:
 TO SURGE TEST FOR COMMON CONNECT:
 HIGH VOLT: CONNECT P1 TO T1
 THEN P2 TO L1
 LOW VOLT: CONNECT P1 TO T1 & T7,
 THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

* USE LEADS AS PER PLANT STANDARD IRRWSPECTIVE OF THEIR COLOUR.

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWING NO.	PAGE	OF	REV.
					DEC.	INCHES					
05	ADDED * NOTE PER ECN # 26921	UD 01-30-2013	JD	DEC.	INCHES						
04	ADDED COLORS TO "T & P" LEADS CN 40494	MSG 08-08-2006	ML	.X	±.1						
03	RE-ISSUE	NJS 04-21-2004	JET	.XX	±.02						
02	REDRAWN	TAT 04-20-2004	ML	.XXX	±.005						
01	NEW DRAWING CN 34708	TJB 05-08-2002	ML	.XXXX	±.0005						
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_LE	SIZE A	DRAWING NO. EE7308T-LE	PAGE 05
							DIST LB-WP-LE				



ELECTRIC MOTORS
GEARMOTORS
AND DRIVES

TITLE CONNECTION DIAGRAM
3 PHASE - DUAL VOLTAGE MOTOR

DRAWN	TJB	05-07-2002
CHK	ML	05-08-2002
APPD	TB	05-08-2002
SCALE	1=1	
REF		
FMF		
PREV		



CERTIFICATION DATA SHEET

**1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-377-8810**

CONN. DIAGRAM: A-EE7308T-LE

CATALOG #: 825127.00

OUTLINE: 035673LE-1000

MOUNTING: F1 ONLY

WINDING #: 1842180 FN 1

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
5	3.70	3600	3505	184TC	EPFC	J	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	11.8/5.9	LINE OR INVERTER	CONTINUOUS	F3	1.15	40

FULL LOAD EFF:	88.5	3/4 LOAD EFF:	89	1/2 LOAD EFF:	88.4	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	88.5	3/4 LOAD PF:	85.5	1/2 LOAD PF:	77.5	86.5	SQ CAGE INV RATED		

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
7.5 LB-FT	90 / 45	15.7 LB-FT 209 %	24.2 LB-FT 323 %	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	0.3 LB-FT^2	5 LB-FT^2	15 SEC.	2	125 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	TRUE	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE - LEESON (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
207	206						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

*
N
O
T
E

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE FT-LB NONE V NONE HZ

Data Sheet

Date: 1/29/2018

825127.00



Data @ 460 V

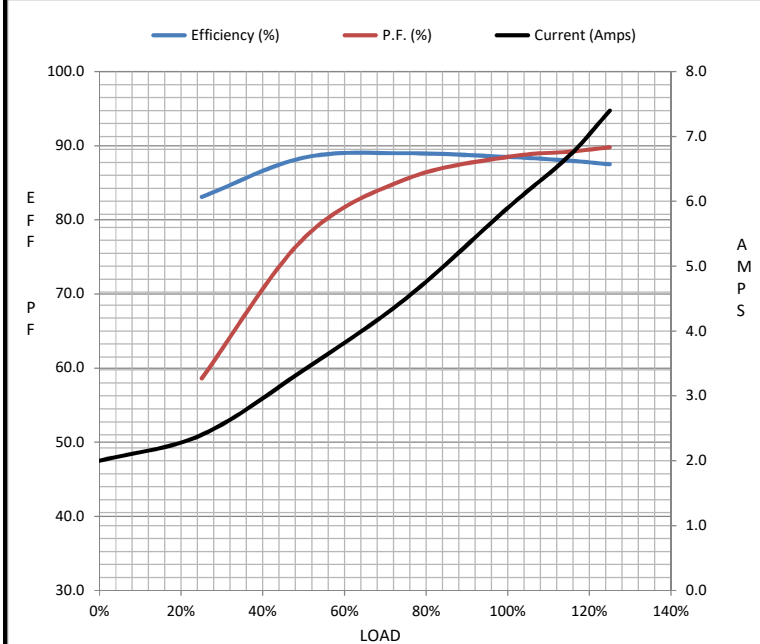
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	2.00	2.40	3.4	4.5	5.9	6.7	7.4	45.0
Torque (ft-lb)	0.00	1.80	3.7	5.5	7.5	8.6	9.4	15.7
RPM	3600	3580	3560	3535	3505	3,490	3480	0
Efficiency (%)		83.1	88.4	89.0	88.5	88.0	87.5	
P.F. (%)	11.5	58.6	77.5	85.5	88.5	89.2	89.8	43.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	650	2914	3505	3600
Current (Amps)	45.0	43.5	28.7	5.9	2.00
Torque (ft-lb)	15.7	13.5	24.2	7.5	0.00

Information Block				
HP	5.0			
Sync. RPM	3600			
Frame	184			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	50 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	0.30 Lb-Ft ²			
Ref Wdg	1842180 FN			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	035673LE-1000			
Conn. Diag	A-EE7308T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.3920	1.1300	4.8110	1.8460	124.9600



Speed - Torque Curve

