

PRODUCT INFORMATION PACKET

Model No: 405TTGS6589

Catalog No: E577

Explosion Proof Motor, 75 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 405T Frame, EPFC



Regal and are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E

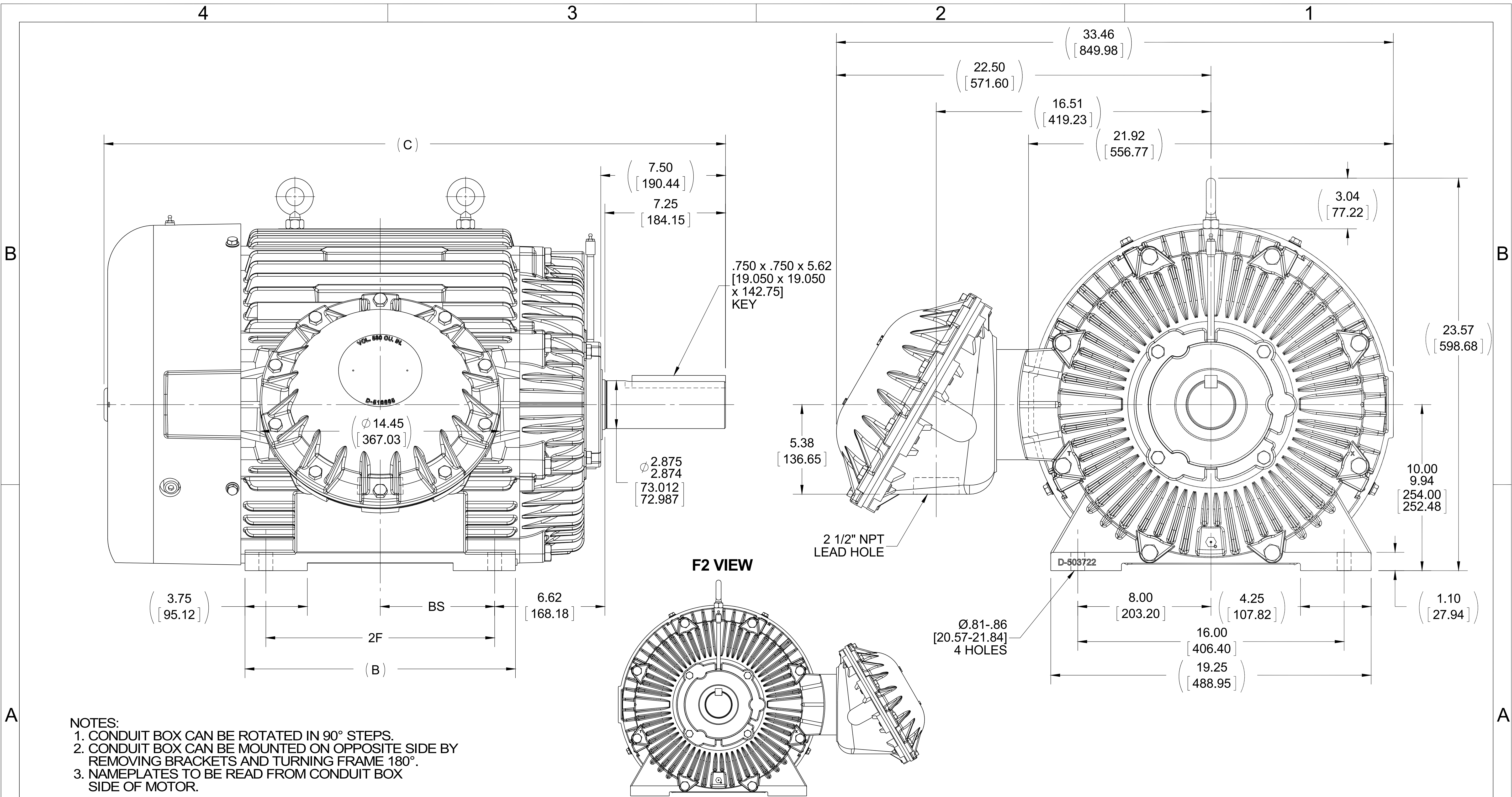
Nameplate Specifications

Output HP	75 Hp	Output KW	56.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	180.0/90.0 A	Speed	1185 rpm
Service Factor	1.15	Phase	3
Efficiency	94.5 %	Power Factor	83
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405T	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6313
UL	UL Listed And CSA Certified	CSA	Y
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	6	Rotation	Reversible
Resistance Main	.092 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	37.75 in
Frame Length	16.75 in	Shaft Diameter	2.875 in
Shaft Extension	7.5 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 2:1		
Outline Drawing	B-SS518936-1675	Connection Drawing	A-EE7308T

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:10/26/2022



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

DASH	FRAME	B	C	2F	BS
1525	404T	14.75 [374.65]	35.85 [910.59]	12.25 [311.15]	6.12 [155.45]
1675	405T	16.25 [412.75]	37.35 [948.69]	13.75 [349.25]	6.88 [174.75]

DRAWING REVISION E	REVISION BY JJB	DATE 02-19-2016
ECO ECO-0091102	APPROVED BY JHA	DATE 02-19-2016
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS 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.		

TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±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
 mm SHOWN IN [BRACKETS]

DRAWN BY MSG
DATE 03-06-2002
APPROVED BY JES
DATE 03-20-2002
REFERENCE
THIRD ANGLE PROJECTION

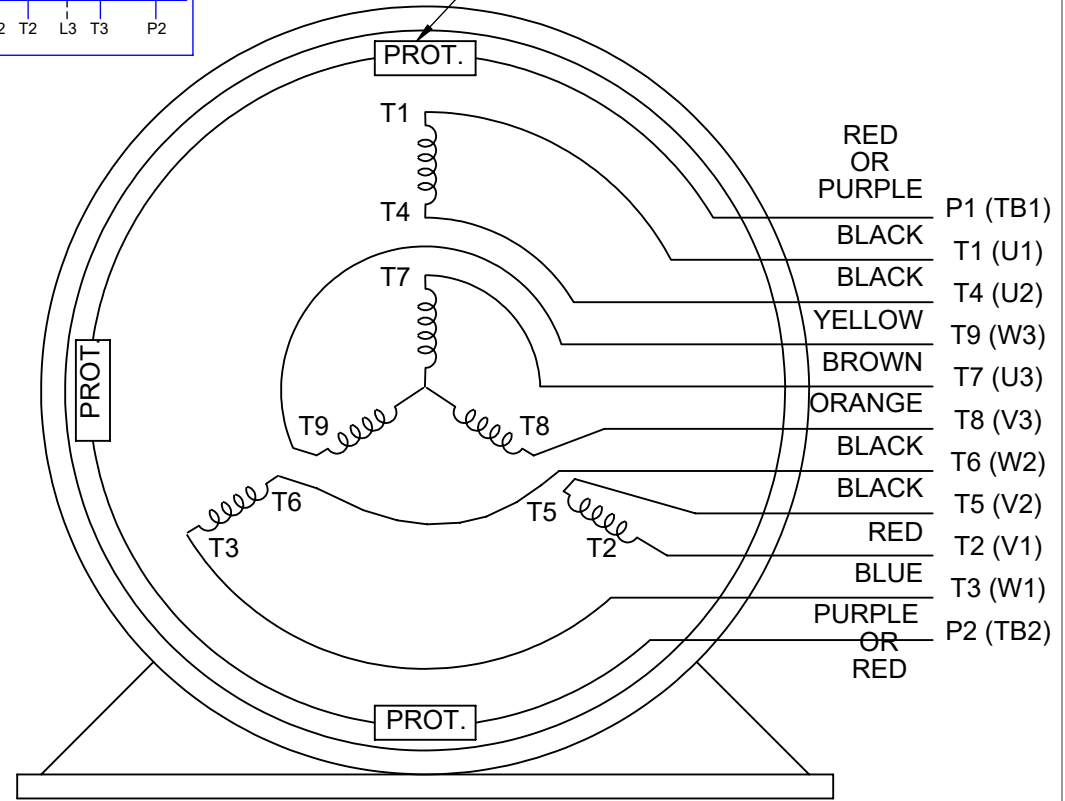
REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 400T FR. - TEFC - EXP. PR. - (STD.)	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS518936
	SHEET 1 OF 1

HIGH VOLTAGE



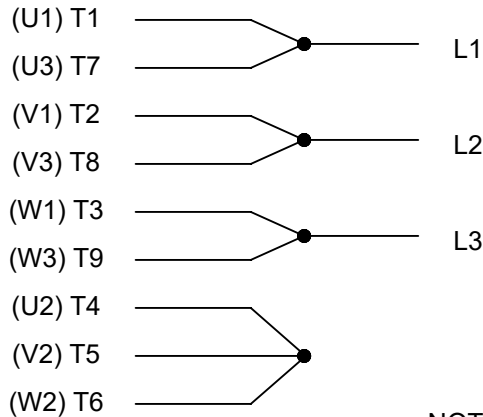
**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



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



VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR
<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>				DATE 05-13-1992	MATERIAL
			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T

CERTIFICATION DATA SHEET

Model#: 405TTGS6589 AR
CONN. DIAGRAM: A-EE7308T
OUTLINE: B-SS518936-1675

WINDING#: T405642 NONE 1
ASSEMBLY: F1 ONLY

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
75	56	1200	1185	405T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	180/90	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 94.5	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 83	3/4 LOAD PF: 79	1/2 LOAD PF: 71	94.1	SQ CAGE INV RATED	60 / 30

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
333 LB-FT	1070 / 535	650 LB-FT 195	750 LB-FT 225	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
68 dBA	78 dBA	38 LB-FT^2	1200 LB-FT^2	25 SEC.	2	1350 LBS.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

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

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

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2:1
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

*
N
O
T
E
S
*

DATE: 06/22/2017 01:07:00 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/19/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



405TTGS6589

Submittal

Data @ 460 V

Motor Load Data

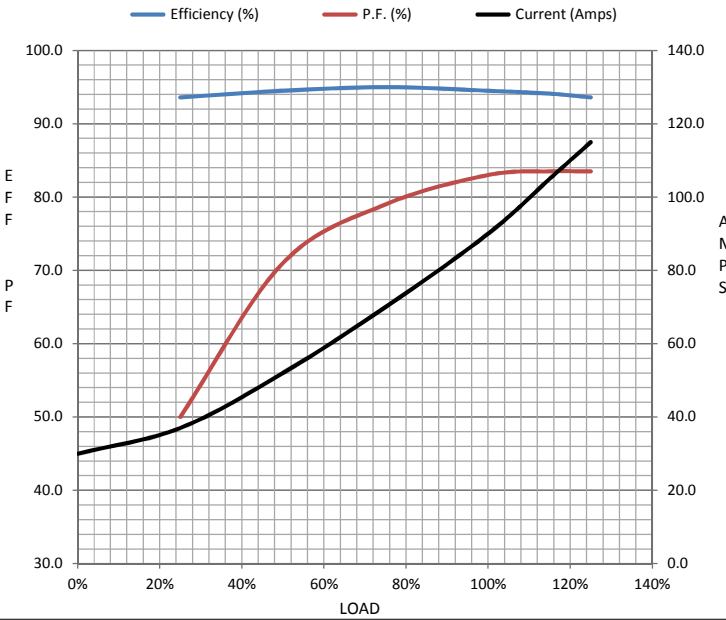
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	30.0	37.0	52.0	70.0	90.0	105	115	535
Torque (ft-lb)	0.00	82.5	165	248	333	385	417	650
RPM	1200	1196	1192	1188	1185	1,180	1175	0
Efficiency (%)		93.6	94.5	95.0	94.5	94.1	93.6	
P.F. (%)	4.0	50.0	71.0	79.0	83.0	83.5	83.5	37.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1050	1185	1200
Current (Amps)	535	475	300	90.0	30.0
Torque (ft-lb)	650	575	750	333	0.00

Information Block

HP	75.0			
Sync. RPM	1200			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	38.0 Lb-Ft ²			
Ref Wdg	T405642 NONE			
Sound Pressure @ 1M	68 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS518936-1675			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0680	0.0420	0.3250	0.5070	8.7320



Speed -Torque Curve

