PRODUCT INFORMATION PACKET

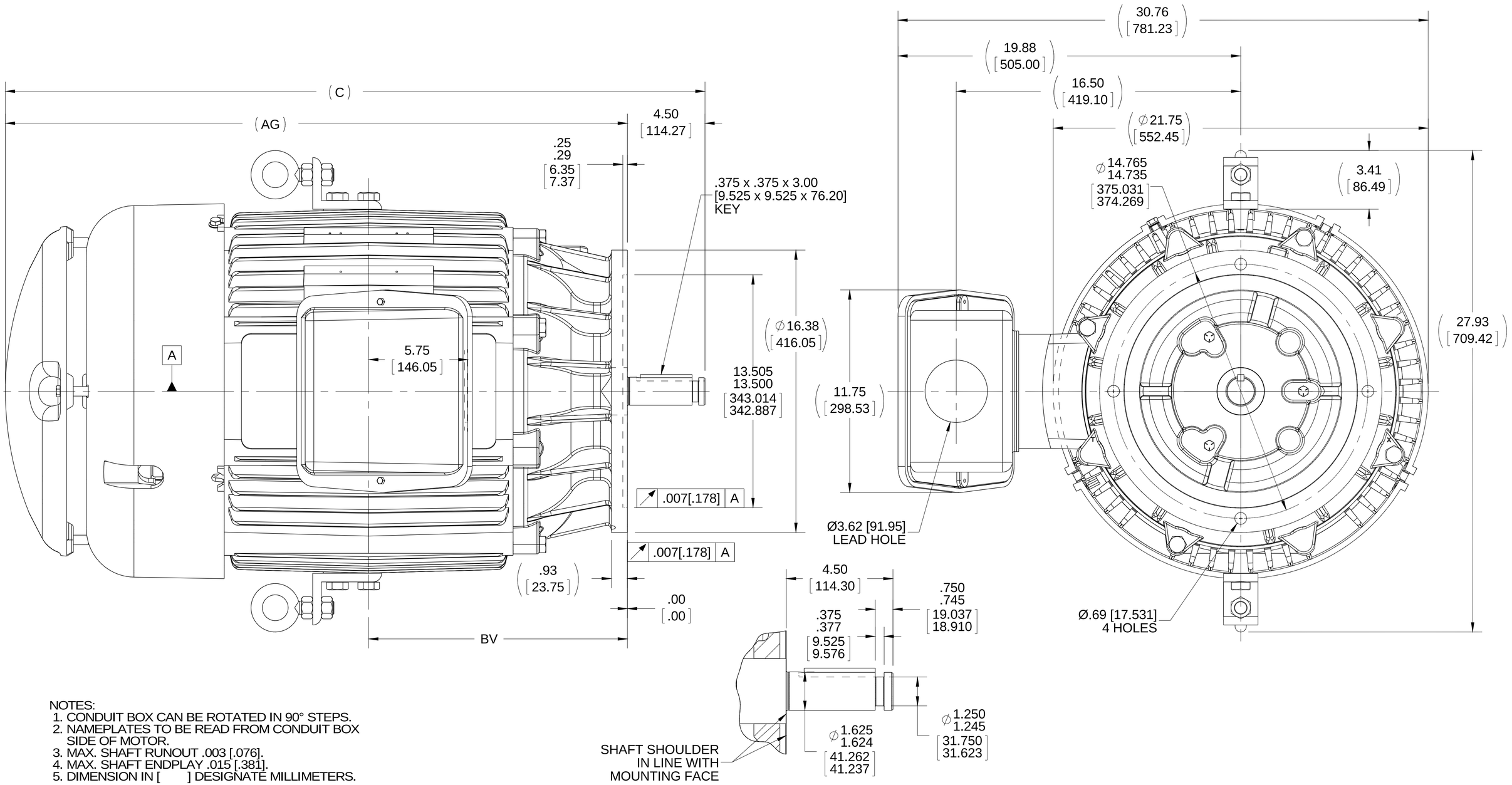
Model No: 405TTFS16129
Catalog No: M921B
100 HP Vertical Solid Shaft P-Base Motor, 3 phase, 1800 RPM, 230/460 V, 405HPV Frame, TEFC
Vertical Pump Motors

Nameplate Specifications

Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	226.0/113.0 A	Speed	1780 rpm
Service Factor	1.15	Phase	3
Efficiency	95.4 %	Power Factor	87.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405HPV	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
Resistance Main	.051 Ohms	Mounting	Round
Motor Orientation	Shaft Down	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	HP	Overall Length	40.58 in
Frame Length	16.75 in	Shaft Diameter	1.625 in
Shaft Extension	4.50 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS508404-1675	Connection Drawing	A-EE7308K



DETAIL OF SHAFT EXTENSION

NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
3. MAX. SHAFT RUNOUT .003 [.076].
4. MAX. SHAFT ENDPLAY .015 [.381].
5. DIMENSION IN [ ] DESIGNATE MILLIMETERS.

DASH	FRAME	C	AG	BV
1675	400HPV	40.58 [1030.73]	36.08 [916.43]	15.00 [381.00]

DRAWING REVISION: G	REVISION BY: JJB	DATE: 09-08-2016
ECO: ECO-0104950	APPROVED BY: JHA	DATE: 09-08-2016

ECO DESCRIPTION: UPDATED TO CURRENT STANDARDS

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: DD	
DATE: 04-28-1993	
APPROVED BY: TB	
DATE: 04-30-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

REGAL™ Regal Beloit America, Inc.

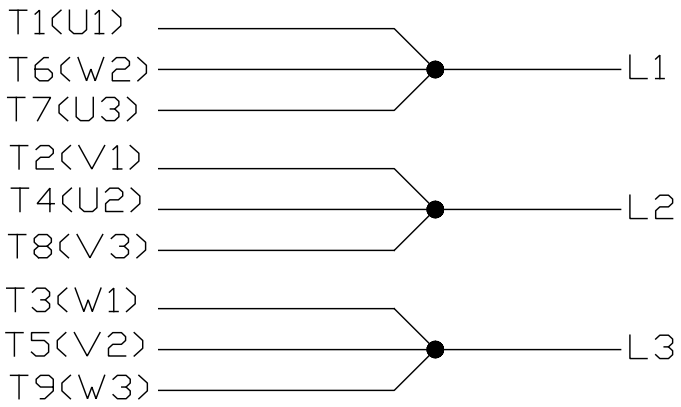
DESCRIPTION: OUTLINE
400HPV FR. - TEFC - 'P'--BASE - VERT. - SPL. EXT.

MATERIAL | PROCESS/FINISH

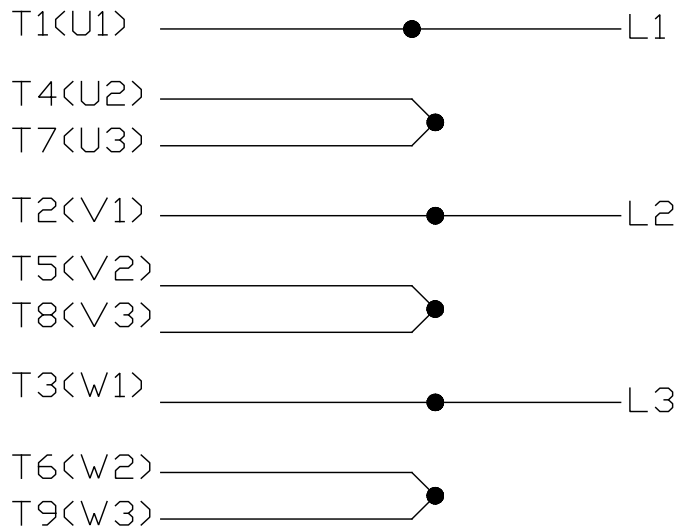
SIZE	DRAWING NUMBER	SHEET
B	SS508404	1 OF 1

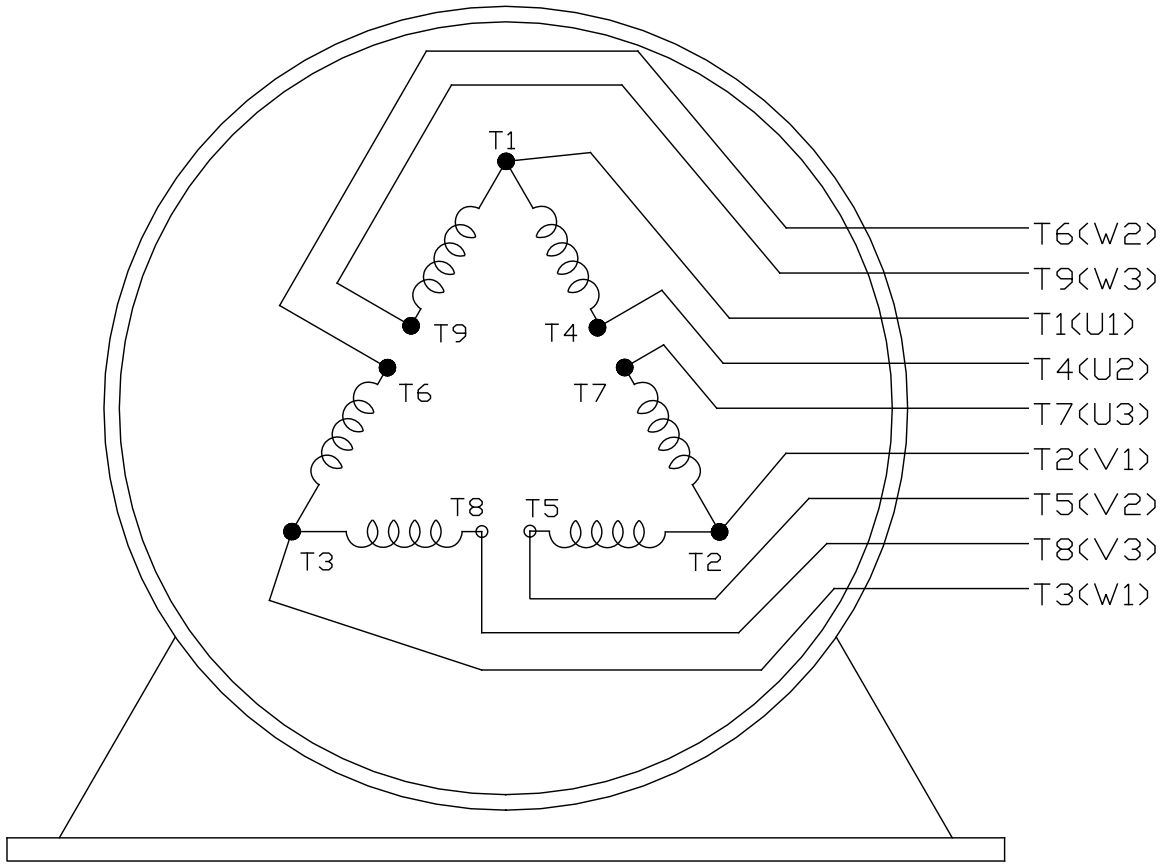
EE7308K

LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

NO.	REVISION	BY & DATE	CHK
E	CORRECTED IEC MARKINGS ECO-0111208	WGJ 01-23-2017	EMH
D	RE-DRAWN WITH REGAL LOGO ECO-0110493	WGJ 09-30-2016	EMH
8	ADDED IEC DESIGNATIONS MU95020	TJW 4/30/2010	MJS
7	REVISD HIGH VOLTAGE L2 WAS L3 CN52600-354	MRB 09-21-1998	
6	REDRAWN ON CADD	PGK 06-05-1997	

TOLERANCES UNLESS SPECIFIED: DEC. INCHES; .X ±.1; .XX ±.02; .XXX ±.005; .XXXX ±.0005; ANG ±7'30"

REGAL - BELOIT CORPORATION

DRAWN PGK 06-04-1997
CHK ML 06-05-1997
APPD GK 06-15-1997

TITLE: CONNECTION DIAGRAM
DELTA CON. - 3Ø - 9 LEADS

SCALE
REF
MAT'L.
FMF
FINISH
PREV
CAD FILE EE7308K
RFP
DIST

SIZE A | DRAWING NO. EE7308K | PAGE OF | REV. E

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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: A-EE7308K
OUTLINE: B-SS508404-1675
WINDING: T4054176 NONE 1
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 405TTFS16129
CAT #: M921B
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1780	405HPV	TEFC	TFS	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	226/113	ACROSS THE LINE	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.8	1/2 LD EFF	95.8	GTD EFF	ELECT. TYPE
F.L. PF	87.5	3/4 LD PF	85.5	1/2 LD PF	79.0	95.0	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE		B.D. TORQUE		F.L. RISE (°C)	
295 LB-FT	725	435 LB-FT	147%	720 LB-FT	244%	80	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
72 dBA	81 dBA	26.5 LB-FT²	550 LB-FT²	25 SEC.	2	1350 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
P-BASE	STANDARD	ROUND	SHAFT DOWN	NO	NONE	YES	NONE	BLUE (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6314	BALL 6313	POLYREX EM	HP	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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
0.04	0.026	0.29	0.264	8.406	0.150	ODE

*
NOTES
*

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE PPR

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE HZ:

PREPARED BY: FAREEDA DUDEKULA
DATE: 9/11/2018

FORM: 3531 REV_4 2/27/06

UL: V-INS, CONST UL REC

Data Sheet

Date: 12/3/2018
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

405TTFS16129

Submittal

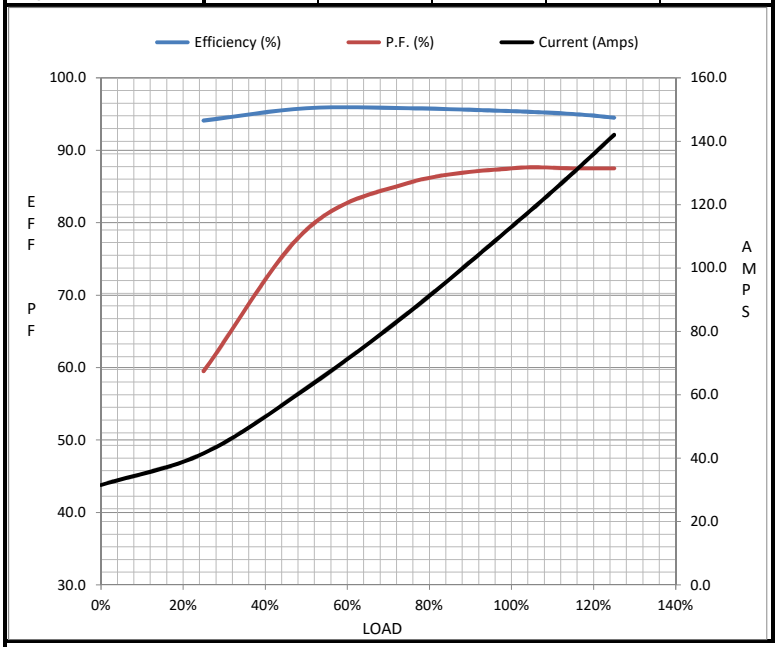
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	31.5	41.5	62.0	86.0	113	130	142	725	
Torque (ft-lb)	0.00	73.0	147	221	295	340	370	435	
RPM	1800	1795	1790	1785	1780	1,775	1775	0	
Efficiency (%)		94.1	95.8	95.8	95.4	95.0	94.5		
P.F. (%)	2.5	59.5	79.0	85.5	87.5	87.5	87.5	26.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1705	1780	1800
Current (Amps)	725	653	413	113	31.5
Torque (ft-lb)	435	370	720	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 wk²	26.5	Lb-Ft²
Ref Wdg	T4054176 NONE	
Sound Pressure @ 1M	72	dBA
VFD Rating	NONE	
Outline Dwg	B-SS508404-1675	
Conn. Diag	A-EE7308K	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0400	0.0260	0.2900	0.2640	8.4060