

PRODUCT INFORMATION PACKET



Model No: 170087.60

Catalog No: 170087.60

WATTSaver® General Purpose Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V,
1800 & 1500 RPM, 405T Frame, TEFC



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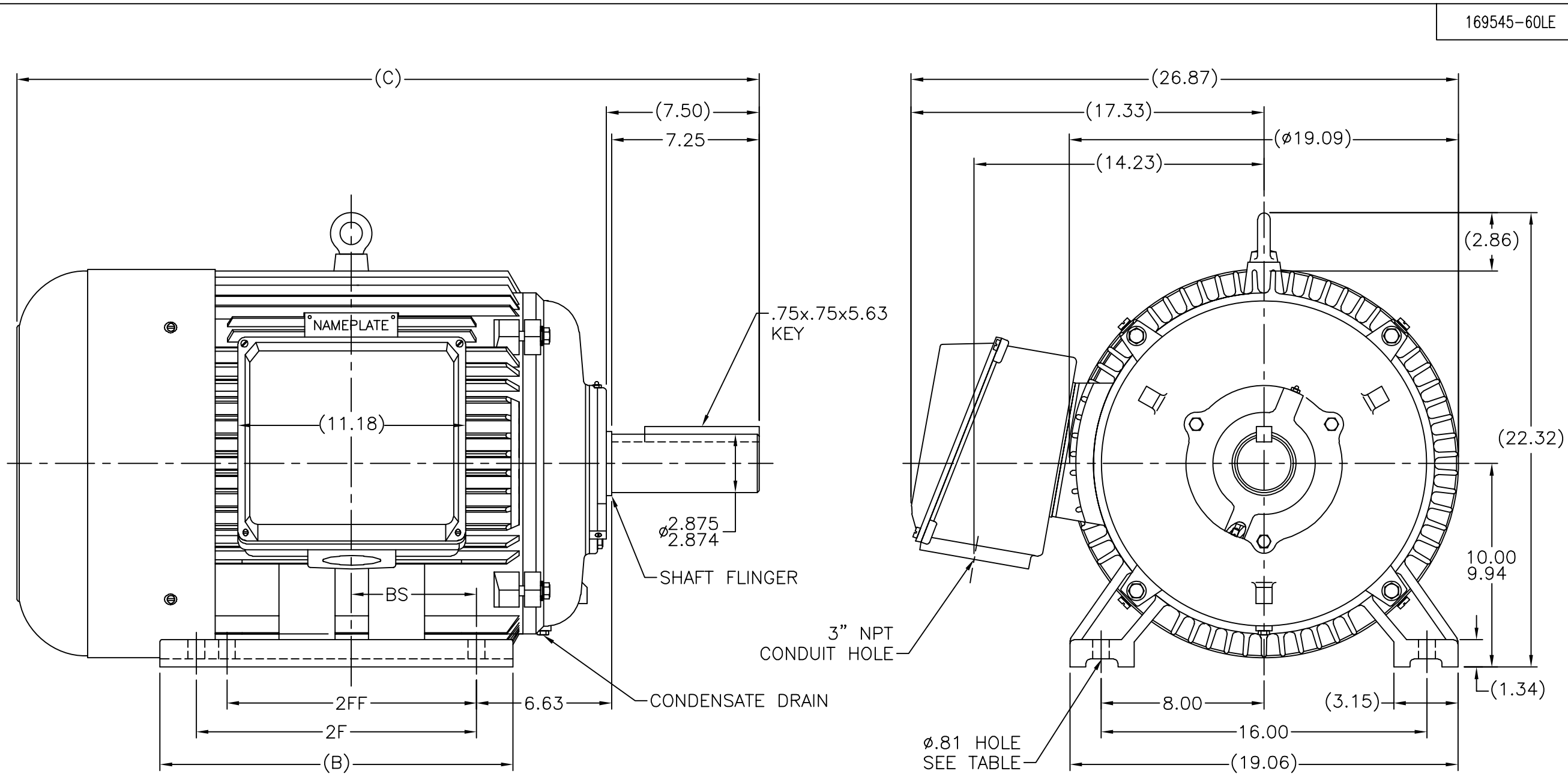


Nameplate Specifications

Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	208-230/460 & 190/380 V
Speed	1785 & 1485 rpm	Service Factor	1.15 & 1.15
Frame	405T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	254-225/112.5 & 201/100.5 A	Power Factor	87.1
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6314
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

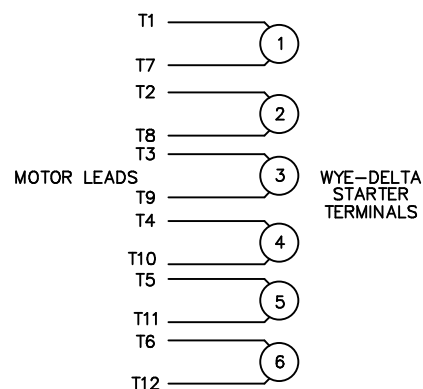
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.045 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	37.91 in
Frame Length	18.31 in	Shaft Diameter	2.875 in
Shaft Extension	7.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	004172.01	Outline Drawing	16954560LE



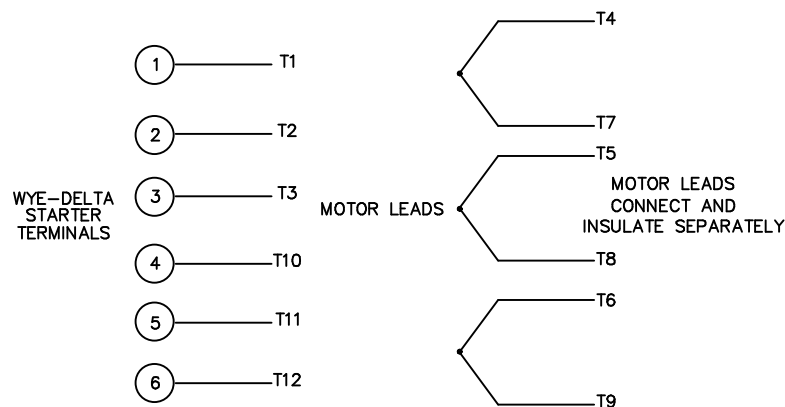
											TOLERANCES UNLESS SPECIFIED		<div><div>REGAL</div>REGAL - BELOIT CORPORATION</div>		DRAWN CTO 08/21/2002						
											DEC.	INCHES			CHK ML 08/29/2002						
											.X	±.1			APPD SB 08/30/2002						
								3	REVISED BS DIM. UPDATED TITLE BLOCK ECO-0048910						RFH 04/07/2014	EH	.XX	±.03	TITLE OUTLINE - RIGID 400T RF. - TEFC		SCALE N/A
2	CORRECTED FOOT MOUNTING HOLES DISCRIPTION				MOL 10/21/2011		.XXX	±.005	REF												
1681	404T	36.42	15.83	12.25	-	5.39	4	1	NEW DRAWING		CTO 06/30/2002	SB	.XXXX	±.0005	MAT'L		FMF				
1831	405T	37.91	17.32	13.75	12.25	6.90	6	NO.	REVISION		BY & DATE	CHK	ANG	±7'30"	FINISH		PREV				
DASH	FRAME	C	B	2F	2FF	BS	HOLE QTY	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 16954560le				SIZE	DRAWING NO.	PAGE 1 OF 1	REV.
													DIST					A	169545-60LE		3

WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

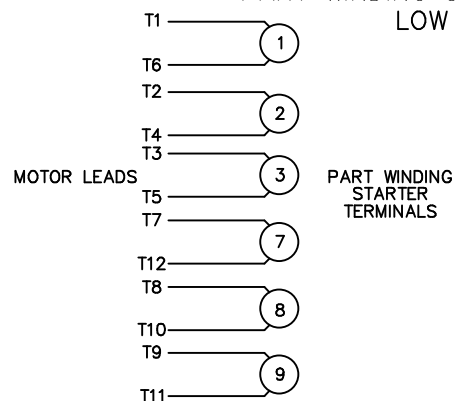


HIGH VOLTAGE CONNECTION



REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

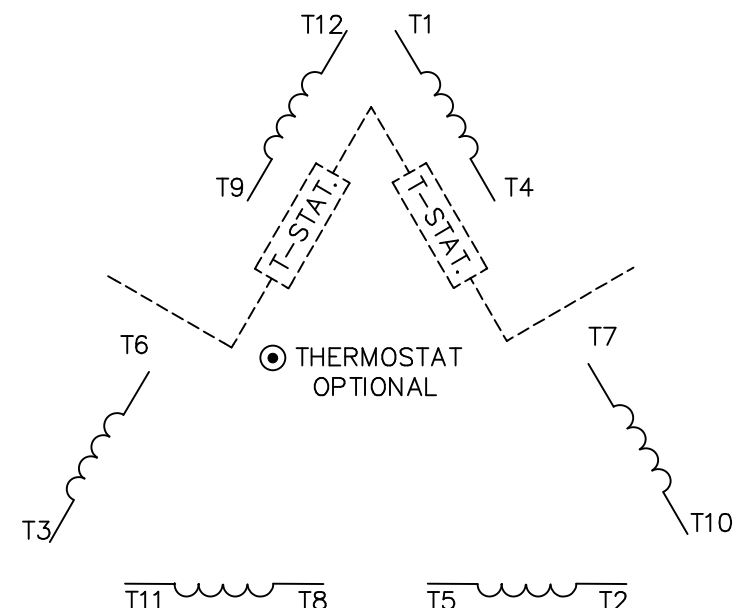
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



REFER TO THE PART WINDING
STARTER INSTRUCTIONS FOR PROPER
CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR
PROPER SELECTION OF OVERLOAD HEATER COILS.


LINE LEADS



ROTATION CAN BE REVERSED BY
INTERCHANGING ANY TWO LINE LEADS
● RED LEADS OR P1, P2, FOR N/C THERMOSTAT

ACROSS THE LINE START & RUN

	LINE 1	LINE 2	LINE 3	JOIN & INSULATE SEPARATELY
HIGH VOLT	T1,T12	T2,T10	T3,T11	(T4,T7) (T5,T8) (T6,T9)
LOW VOLT	T1,T6 T7,T12	T2,T4 T8,T10	T3,T5 T9,T11	

				TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN WLW 09/08/77	
				DEC.	INCHES			CHK RPB 09/12/77	
				.X	±.1			APPD JCW 09/12/77	
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00		.XX	±.01	TITLE DELTA – WYE CONNECTION DIAGRAM		SCALE 1=1	
02	ADDED T–STAT. NOTES PER ELECTRICAL	KMM 06/02/98		.XXX	±.005			REF	
01	REDRAWN TO CAD	DBT 06/02/97		.XXXX	±.0005	MAT'L.		FMF	
NO.	REVISION	BY & DATE	CHK	ANG	±1/2"	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 00417201		SIZE	DRAWING NO.	REV.
			DIST				A	004172–01	03



CERTIFICATION DATA SHEET

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

CONN. DIAGRAM: 004172.01

CATALOG #: 170087.60

OUTLINE: 16954560LE

MOUNTING: F1/F2 CAPABLE

WINDING #: T19604010 FR 3 A

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100&75	75.0&56.0	1800	1785&1485	405T	TEFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB° C
3	60/50	208- 230/460&190/380	254- 225/112.5&201/100.5	Y START D RUN OR INV	CONTINUOUS	F5	1.15/1.15	40

FULL LOAD EFF:	95.4	3/4 LOAD EFF:	95.5	1/2 LOAD EFF:	94.8	GTD. EFF		ELEC. TYPE
FULL LOAD PF:	87.1	3/4 LOAD PF:	85.7	1/2 LOAD PF:	80.4	-		SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
294 LB-FT	1450 / 725	660 LB-FT 224 %	675 LB-FT 230 %	73.9

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
- dBA	- dBA	- LB-FT^2	- LB-FT^2	- SEC.	-	- 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	BLUE (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	6314						

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

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INVERTER TORQUE: CONSTANT 2:1

INV. HP SPEED RANGE: NONE

ENCODER: NONE

NONE NONE

NONE NONE PPR

BRAKE: NONE NONE

NONE P/N NONE

NONE NONE

NONE FT-LB NONE V NONE Hz

Data Sheet

Date: 2/1/2018

170087.60



Data @ 460 V

Motor Load Data

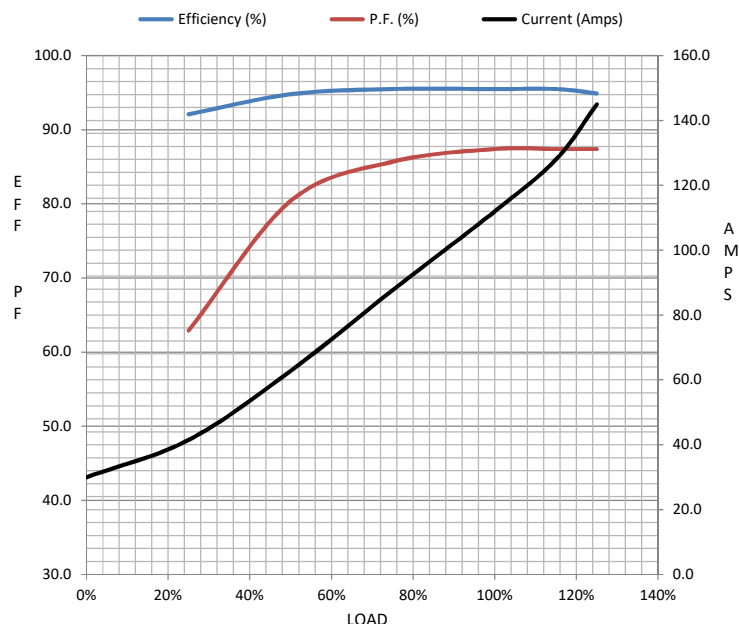
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	30.0	41.5	62.8	87.7	112	128	145	725	
Torque (ft-lb)	0.00	75.0	150	225	294	338	375	660	
RPM	1800	1796	1791	1788	1784	1782	1777	0	
Efficiency (%)		92.1	94.8	95.5	95.5	95.5	94.9		
P.F. (%)	6.2	62.9	80.4	85.7	87.4	87.4	87.4	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1784	1800
Current (Amps)	725	650	475	112	30.0
Torque (ft-lb)	660	560	675	294	0.00

Information Block

HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFC			
Voltage	208-230/460#190/380	V		
Frequency	60	Hz		
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	0.00	Lb-Ft²		
Ref Wdg	T19604010 FR			
Sound Pressure @ 1M	999	dBA		
VFD Rating	CONSTANT 2:1			
Outline Dwg	16954560LE			
Conn. Diag	004172.01			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



Speed - Torque Curve

