

# PRODUCT INFORMATION PACKET

Model No: 445TSHFCD9028

Catalog No: W617A

Severe Duty Motors, TEFC, 200 HP, 3 Ph, 60 Hz, 460 V, 1790 RPM, 445TS Frame

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**Nameplate Specifications**

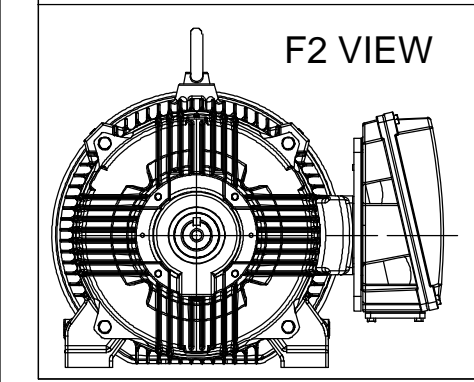
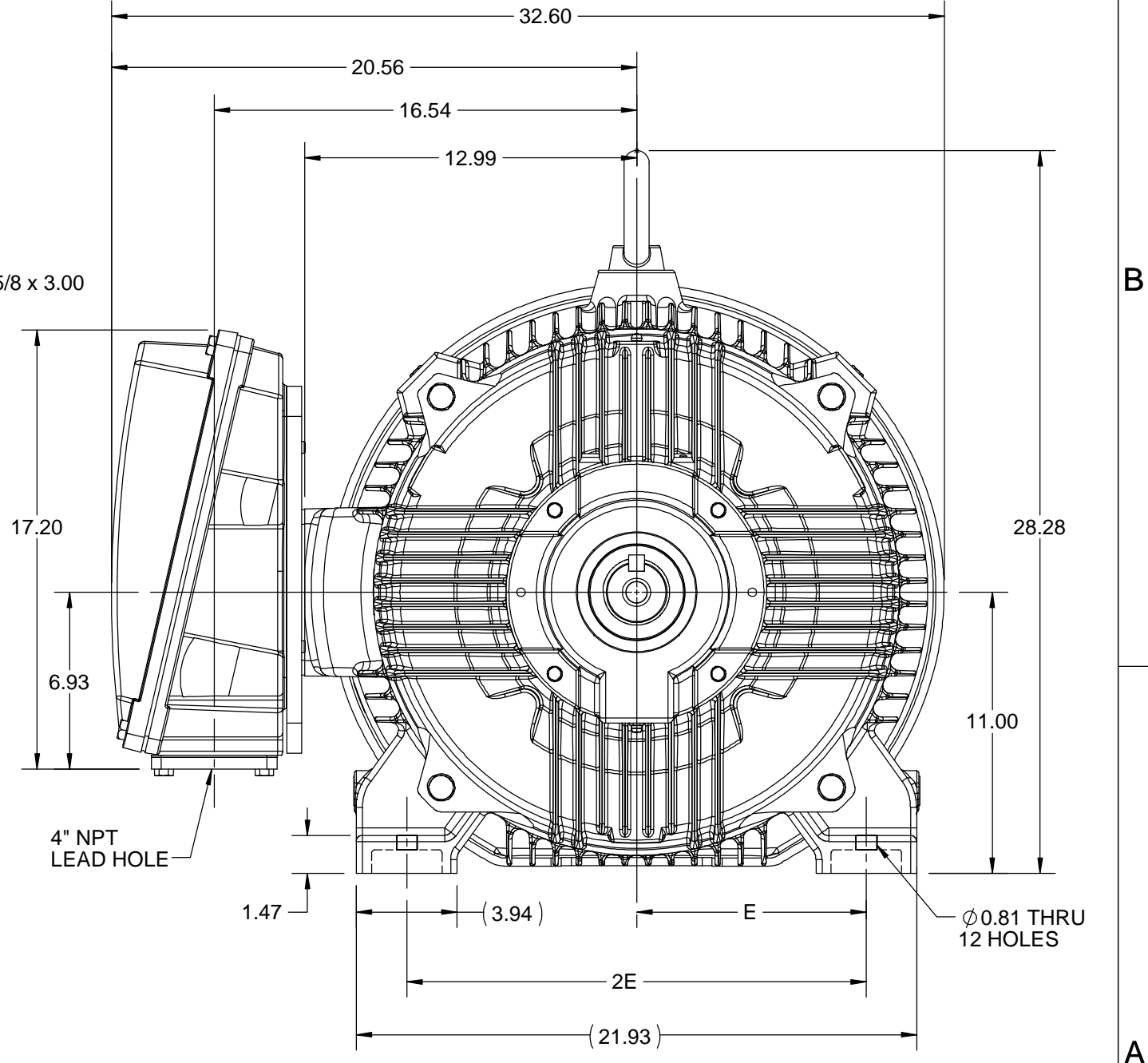
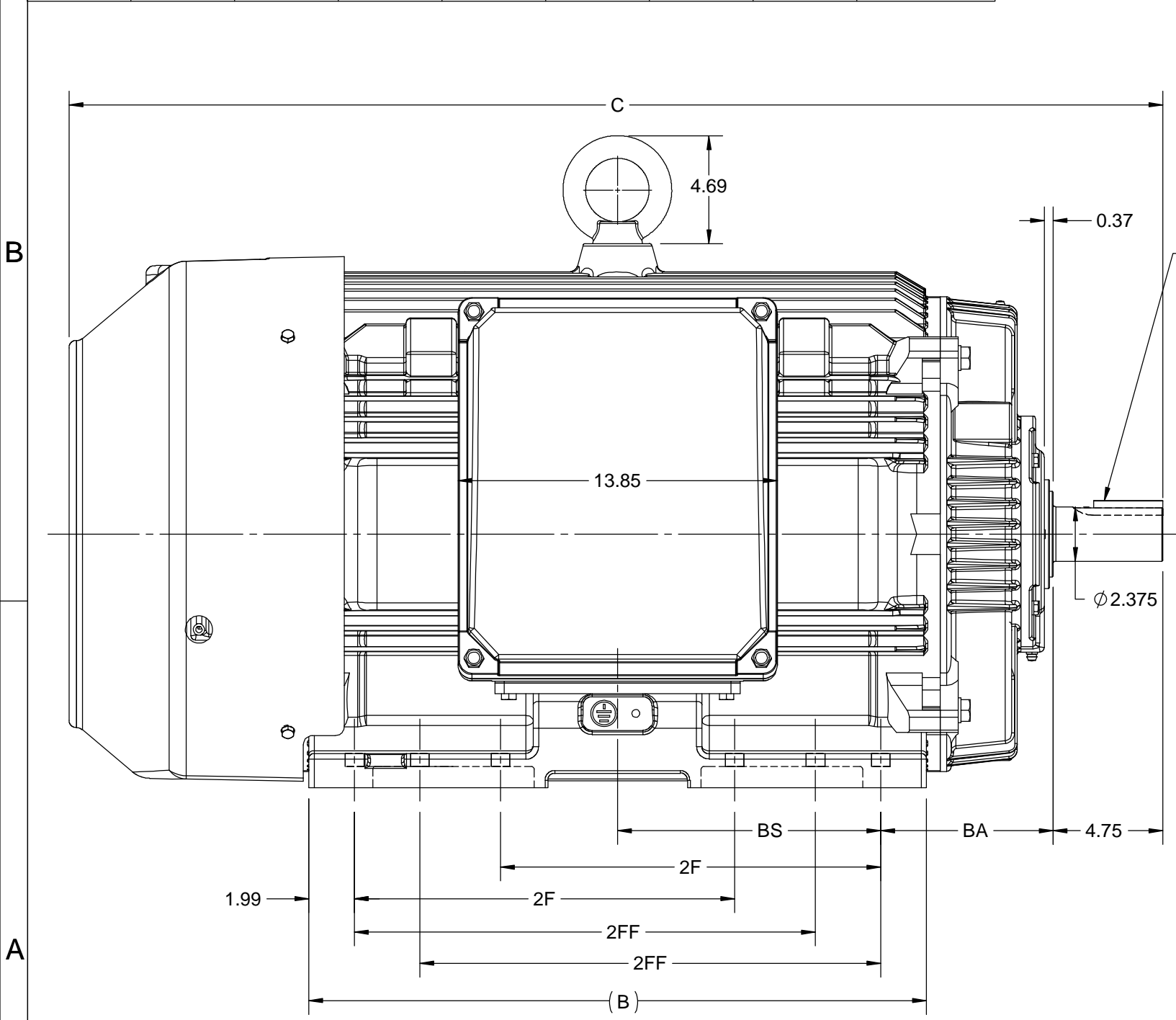
Output HP	<b>200 Hp</b>	Output KW	<b>149.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>219.0 A</b>	Speed	<b>1790 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>96.5 %</b>	Power Factor	<b>89</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>445TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6319</b>	Opp Drive End Bearing Size	<b>6317</b>
UL	<b>Listed</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>56</b>
Hazardous Location	<b>DIVISION 2 T2B</b>	Number of Speeds	<b>1</b>

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.0184 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>TS</b>	Shaft Diameter	<b>2.375 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Connection Drawing	<b>EE7300</b>	Outline Drawing	<b>SS557889</b>

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4			3						2		1	
B	C	E	2E	2F	2FF	BA	BS	MOUNTING				
26.81	47.45	9.00	18.00	16.50	20.00	7.50	11.42	F1 OR F2				



DRAWING REVISION C	REVISION BY BISWA	REV DATE/© DATE 30/11/2020
ECO ECO-0195277	APPROVED BY GNK	DATE 30/11/2020
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DRAWN BY BISWA	DATE 23/05/2019
APPROVED BY SBD	DATE 23/05/2019
REFERENCE	
THIRD ANGLE PROJECTION	

Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 445/447TS FR NEMA-SD & IEEE841	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS557889</b>
SHEET 1 OF 1	

**THREE PHASE - SINGLE VOLTAGE  
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO  
LINE LEAD CONNECTIONS.**

**TERMINAL BLOCK WHEN SPECIFIED**



**VIEW OF TERMINAL END**

**IF MOTOR HAS  
6 LEADS**



A-9806 DECAL

**OPTIONAL CORD  
CONNECTION**

- L1 \_\_\_\_\_ WHITE
- L2 \_\_\_\_\_ RED
- L3 \_\_\_\_\_ BLACK

DRAWING REVISION <b>AB</b>	REVISION BY <b>JJB</b>	DATE <b>06-27-2017</b>
ECO <b>ECO-0125361</b>	APPROVED BY <b>TB</b>	DATE <b>06-27-2017</b>
ECO DESCRIPTION <b>UPDATED TO CURRENT STANDARDS</b>		
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DRAWN BY <b>DA</b>
DATE <b>03-26-1993</b>
APPROVED BY <b>TB</b>
DATE <b>03-26-1993</b>
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Beloit America, Inc.</b>		
		DESCRIPTION <b>CONNECTION DIAGRAM</b> EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR
MATERIAL	PROCESS/FINISH	
SIZE <b>A</b>	DRAWING NUMBER <b>EE7300</b>	SHEET <b>1 OF 1</b>



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: EE7300  
 REFERENCE MODEL #: 445TSHFCD9028  
 OUTLINE: SS557889  
 CAT #: W617A  
 WINDING: HA32804009 NONE 5  
 MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
200	149	1800	1790	445TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB(° C)	ELEV.(Ft)
3	60	460	219	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	96.2	3/4 LD EFF	96.2	1/2 LD EFF	95.4	GTD EFF	ELECT. TYPE
F.L. PF	89.0	3/4 LD PF	86.5	1/2 LD PF	79.5	95.8	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
587 LB-FT	1,450	1,256 LB-FT	25 282%	60

SOUND PRESSURE	SOUND	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
80 dBA	89 dBA	88.0 LB-FT <sup>2</sup>	1300 LB-FT <sup>2</sup>	25 SEC.	2	2231 LB.

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6319	6317						

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)
0.012	0.007	0.081	0.185	3.834	0.080

* N O T E S *	If Inverter equals NONE, contact factory for further information	
	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE PPR	

PREPARED BY: _____	BRAKE: NONE
DATE: 6/3/2020	NONE NONE
** Subject to change without notice.	FT-LB: NA
FORM: 3531 REV_4 2/27/06	VOLTAGE: NONE HZ:

Data Sheet

Date: 6/3/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_

445TSHFCD9028



Submittal

Data @ 460 V

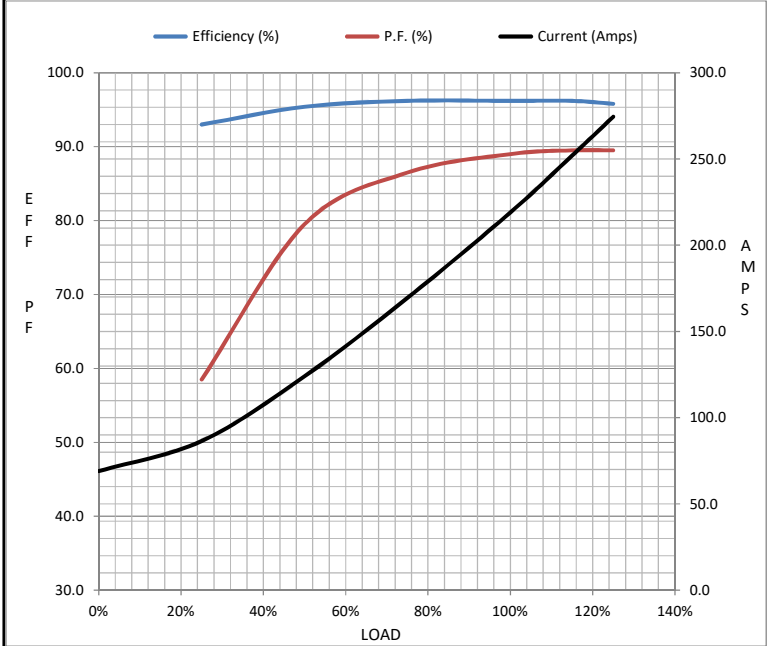
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	69.0	86.5	124	170	219	252	275	1,450
Torque (ft-lb)	0.00	146	293	440	587	676	735	1,256
RPM	1800	1798	1795	1792	1790	1,788	1788	0
Efficiency (%)		93.0	95.4	96.2	96.2	96.2	95.8	
P.F. (%)	4.5	58.5	79.5	86.5	89.0	89.5	89.5	38.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1750	1790	1800
Current (Amps)	1,450	1,160	815	219	69.0
Torque (ft-lb)	1,256	1,050	1,656	587	0.00

Information Block				
HP	200.0			
Sync. RPM	1800			
Frame	160L			
Enclosure	TEFC			
Construction	TFC			
Voltage	460 V			
Frequency	60 Hz			
Design	N			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	60 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	88.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HA32804009 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	037898-912			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0120	0.0070	0.0810	0.1850	3.8340



Speed - Torque Curve

