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Severe Duty Motors

Model No: 445TSHFCD9005
Catalog No: W616A

Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 445TS Frame, TEFC

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Product Information Packet: Model No: 445TSHFCD9005, Catalog No: W616A Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 445TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**200 Hp**
Output KW	**149.0 kW**	Voltage	**460 V**
Speed	**3580 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**445TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**95.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**217.0 A**
Power Factor	**90.5**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**A**
KVA Code	**H**	Drive End Bearing Size	**6314**
Opp Drive End Bearing Size	**6314**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

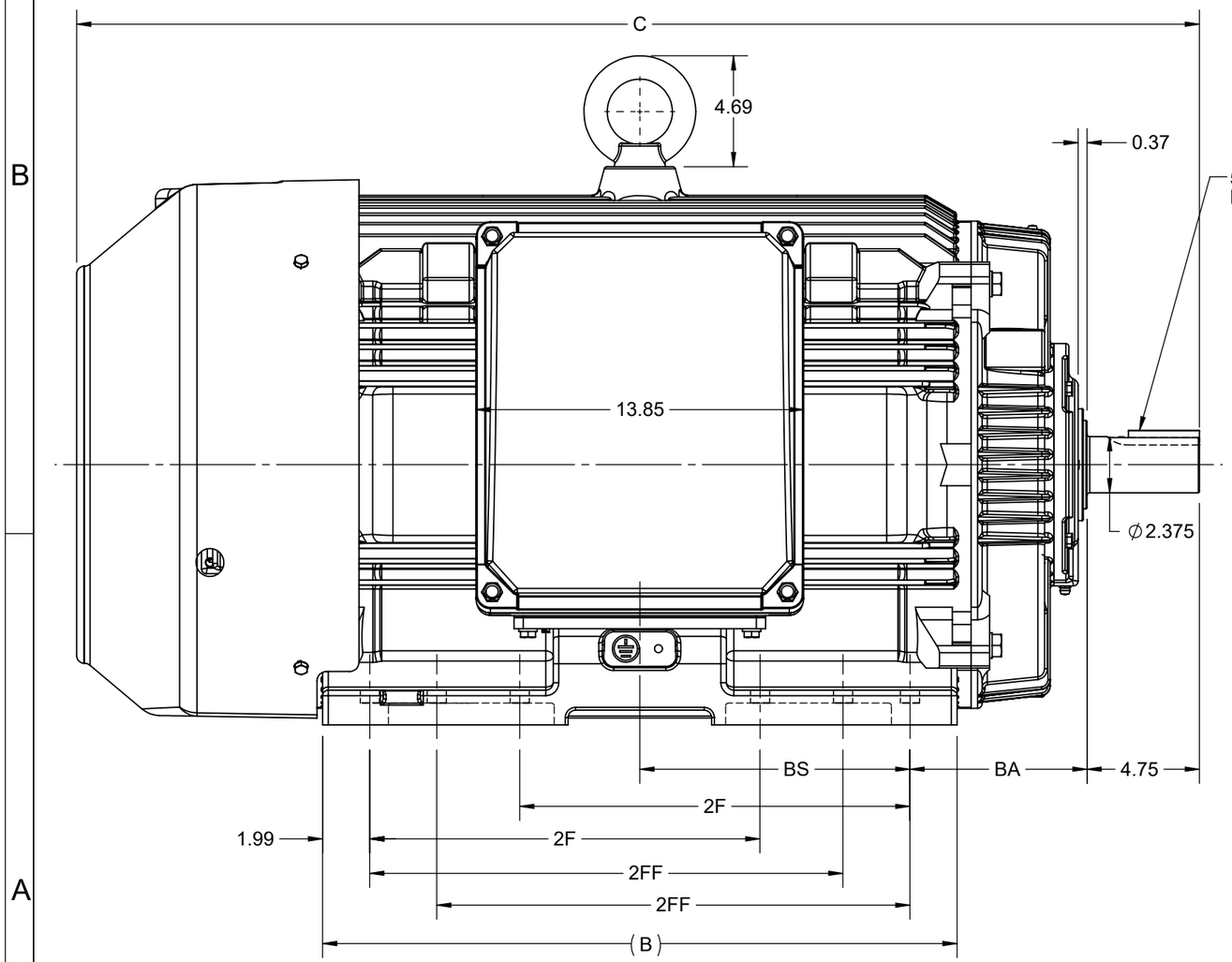
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.16 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**2.375 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

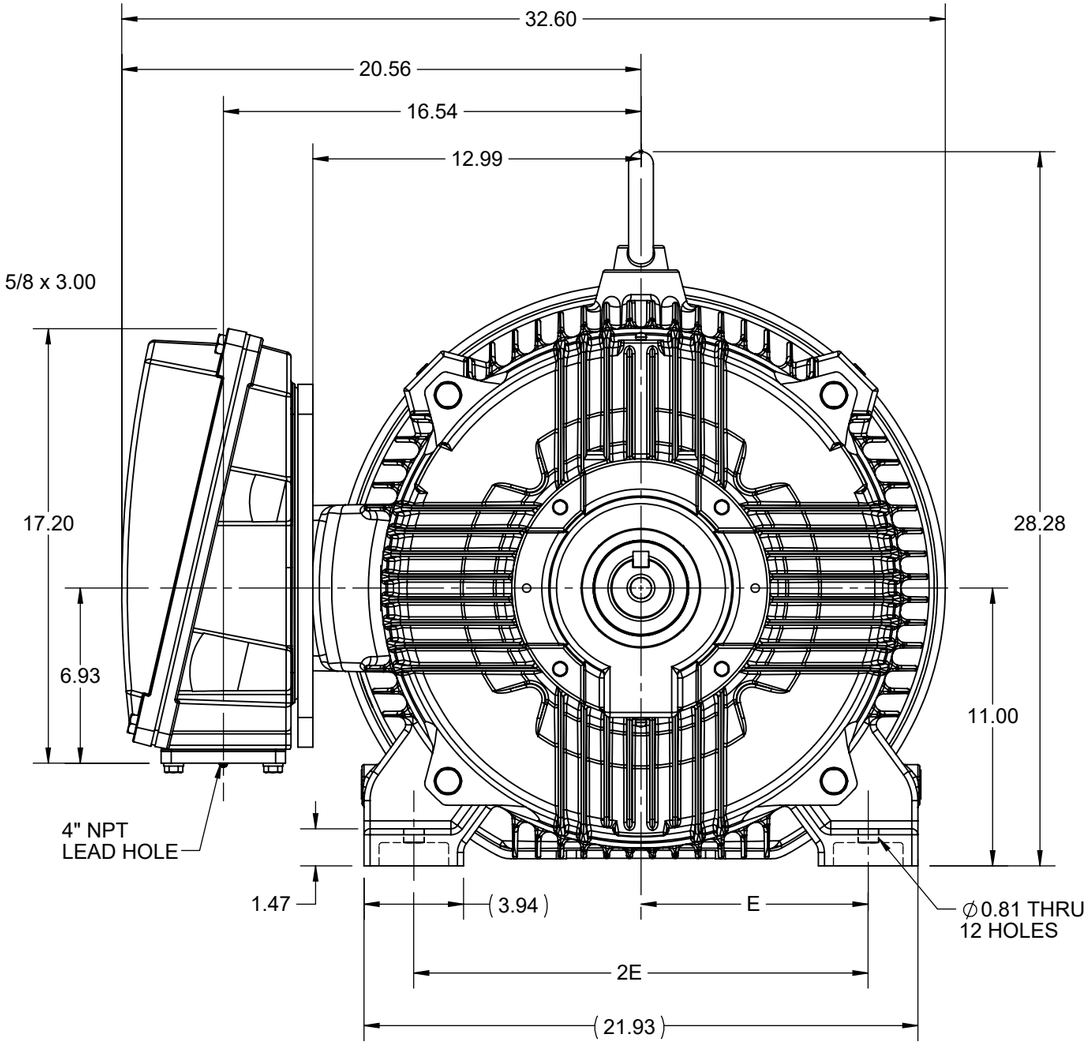
Drawings

Connection Drawing	**EE7300U**	Outline Drawing	**SS557889**

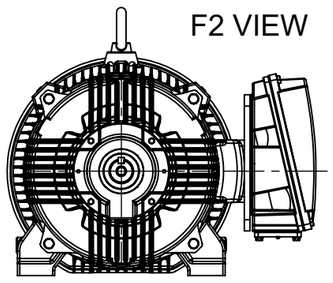
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B	C	E	2E	2F	2FF	BA	BS	MOUNTING
26.81	47.45	9.00	18.00	16.50	20.00	7.50	11.42	F1 OR F2





F2 VIEW



DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	07/25/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023600	SBD	07/25/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

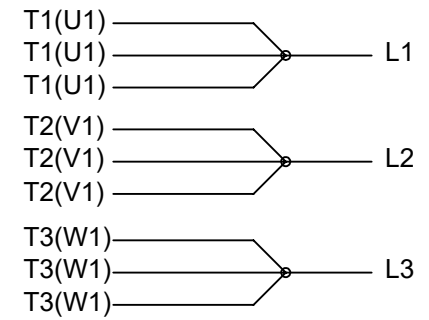
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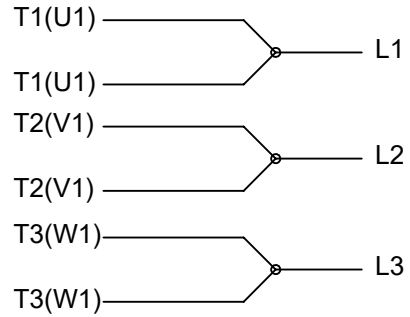
DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE	445/447TS FR NEMA-SD & IEEE841
23/05/2019	
APPROVED BY	
SBD	
DATE	
23/05/2019	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS557889 / SHEET 1 OF 1

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IF MOTOR HAS 9 LEADS

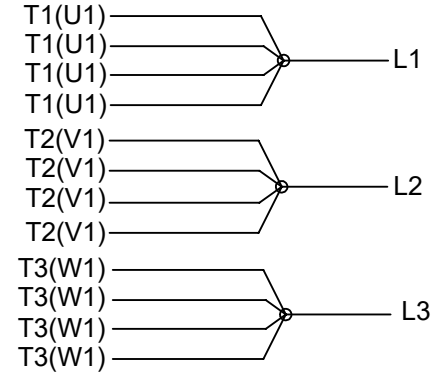


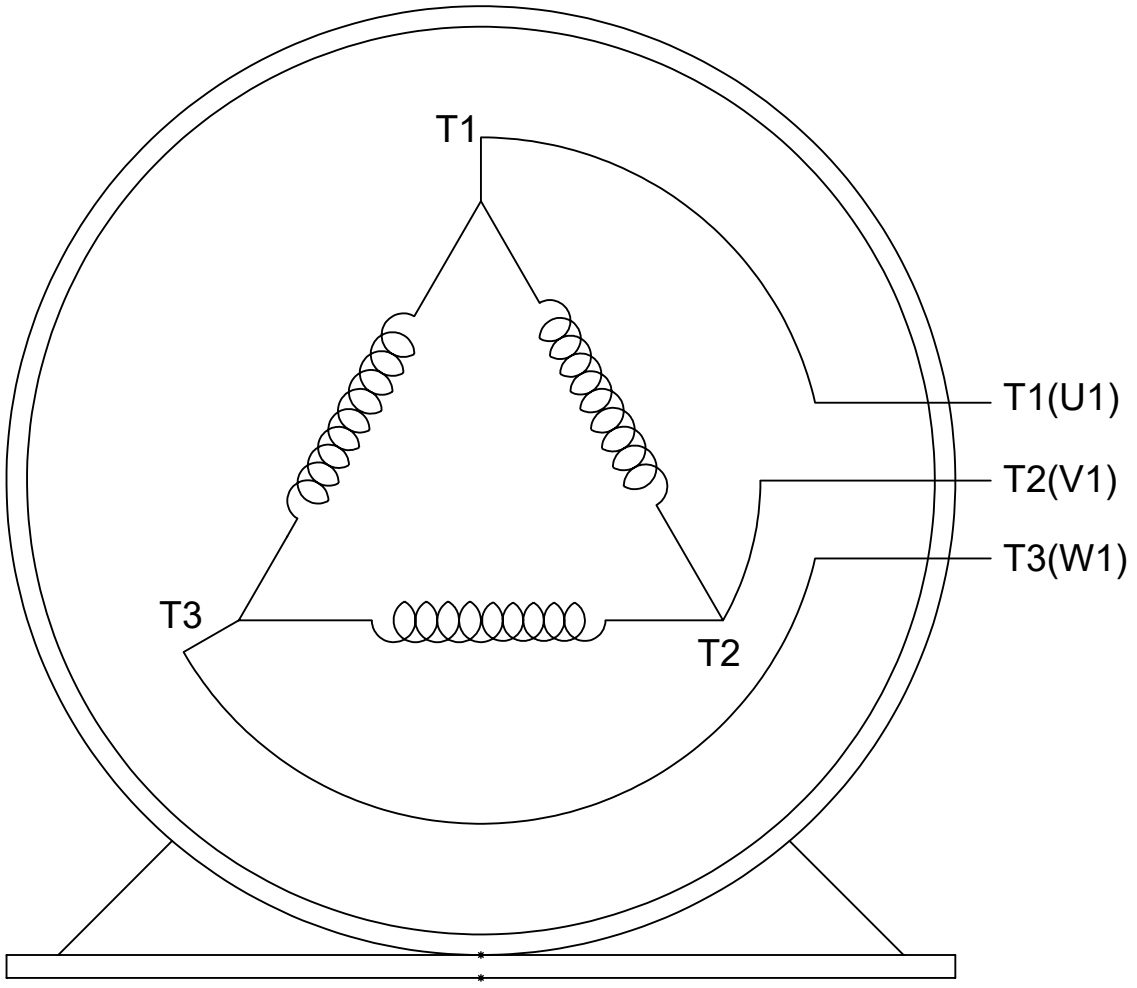
IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS





VIEW OF TERMINAL END

DRAWING REVISION	REVISION BY	REV DATE/© DATE
M	SB	08/01/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023654	SBD	08/01/2025

REQUEST NUMBER DESCRIPTION
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DRAWN BY	DRS
DATE	09-27-1996
APPROVED BY	GK
DATE	09-30-1996
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø SINGLE VOLTAGE

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300U	1 OF 1

Data Sheet

Date: 5/6/2020
Customer:
Attention:
Submitted by:

marathon® Motors

445TSHFCD9005

Submittal

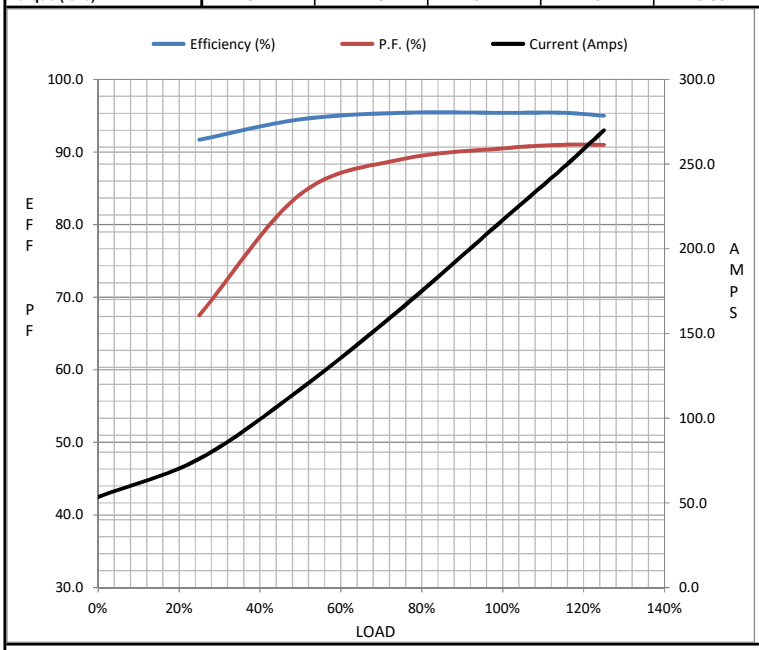
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	53.5	76.0	117	165	217	248	270	1,450	
Torque (ft-lb)	0.00	73.0	146	220	294	338	368	512	
RPM	3600	3595	3590	3585	3580	3,578	3575	0	
Efficiency (%)		91.7	94.5	95.4	95.4	95.4	95.0		
P.F. (%)	8.0	67.5	84.2	89.0	90.5	91.0	91.0	29.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1200	3478	3580	3600
Current (Amps)	1,450	1,262	857	217	53.5
Torque (ft-lb)	512	420	821	294	0.00

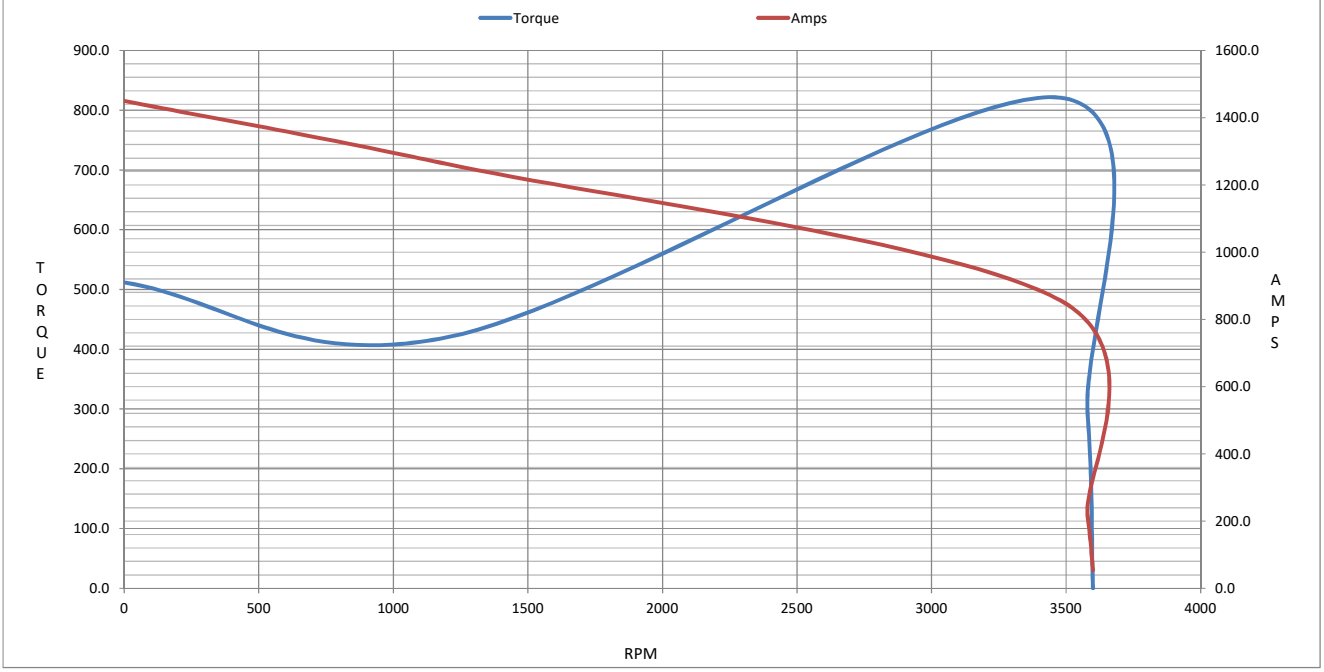


Information Block		
HP	200.0	
Sync. RPM	3600	
Frame	445	
Enclosure	TEFC	
Construction	TFC	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	70	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	51.0	Lb-Ft²
Ref Wdg	HA32802008 NONE	
Sound Pressure @ 1M	85	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	SS557889	
Conn. Diag	EE7300U	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0100	0.0070	0.0840	0.1340	4.9560

Speed -Torque Curve



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

REFERENCE MODEL #: 445TSHFCD9005
CONN. DIAGRAM: EE7300U **CAT #:** W616A
OUTLINE: SS557889
WINDING: HA32802008 NONE 1 **MOUNTING:** F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
200	149	3600	3580	445TS	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	460	217	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	94.5	GTD EFF	ELECT. TYPE
F.L. PF	90.5	3/4 LD PF	89.0	1/2 LD PF	84.2	95.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
294 LB-FT	1,450	512 LB-FT 174%	821 LB-FT 279%	70	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
85 dBA	94 dBA	51.0 LB-FT²	130 LB-FT²	15 SEC.	2	2303 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 DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6314	BALL 6314	POLYREX EM	TS	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)	
0.01	0.007	0.084	0.134	4.956	0.080	

NOTES
*
*

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
NONE NONE **PPR**

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

PREPARED BY:
DATE: 5/13/2020

FORM: 3531 REV_4 2/27/06
** Subject to change without notice.