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Severe Duty Motors

Model No: 445TSHFCD9028
Catalog No: W617A

Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445TS Frame, TEFC

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Product Information Packet: Model No: 445TSHFCD9028, Catalog No: W617A Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**200 Hp**
Output KW	**149.0 kW**	Voltage	**460 V**
Speed	**1790 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**445TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**96.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**219.0 A**
Power Factor	**88.5**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6319**
Opp Drive End Bearing Size	**6317**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

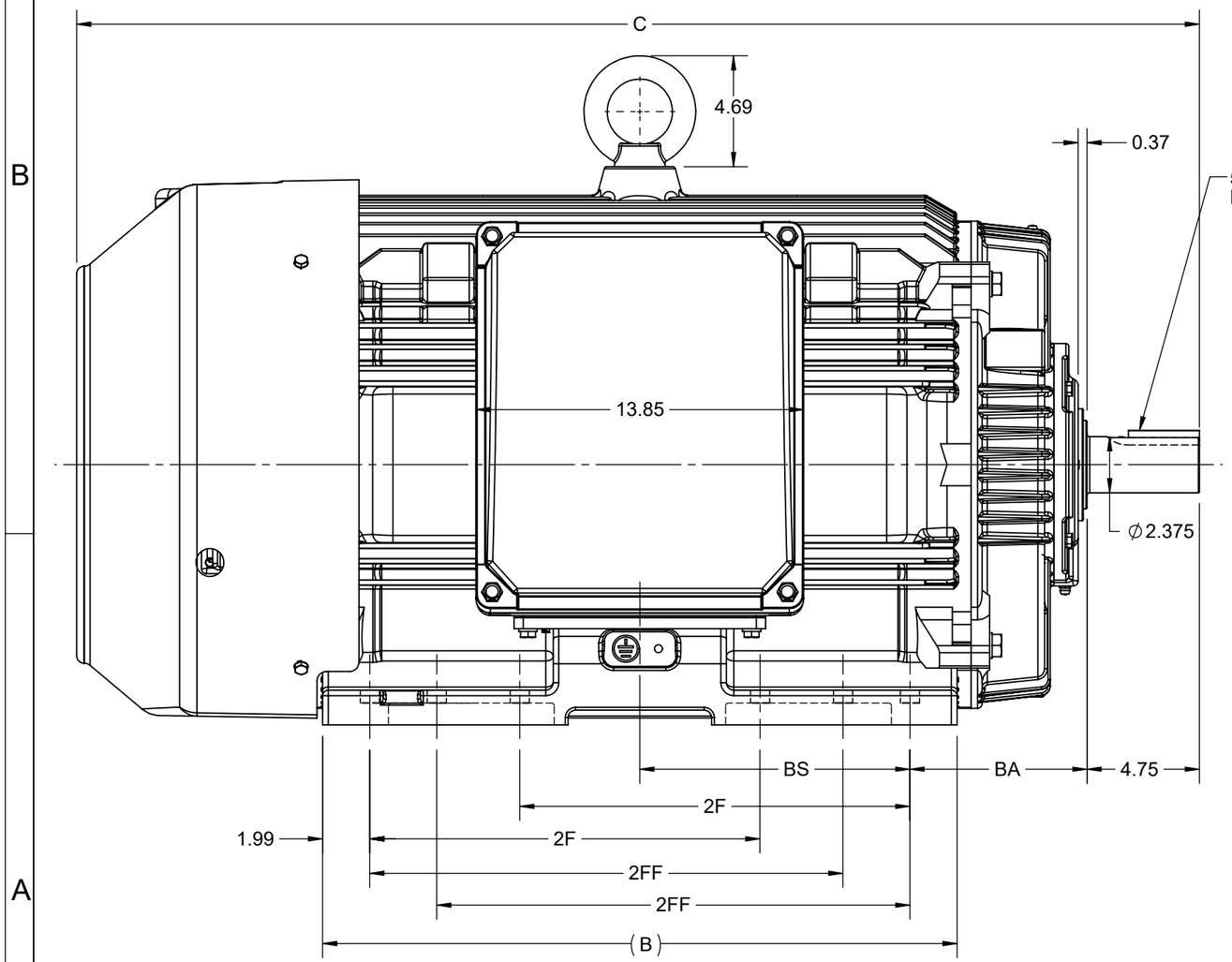
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.0184 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**2.375 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

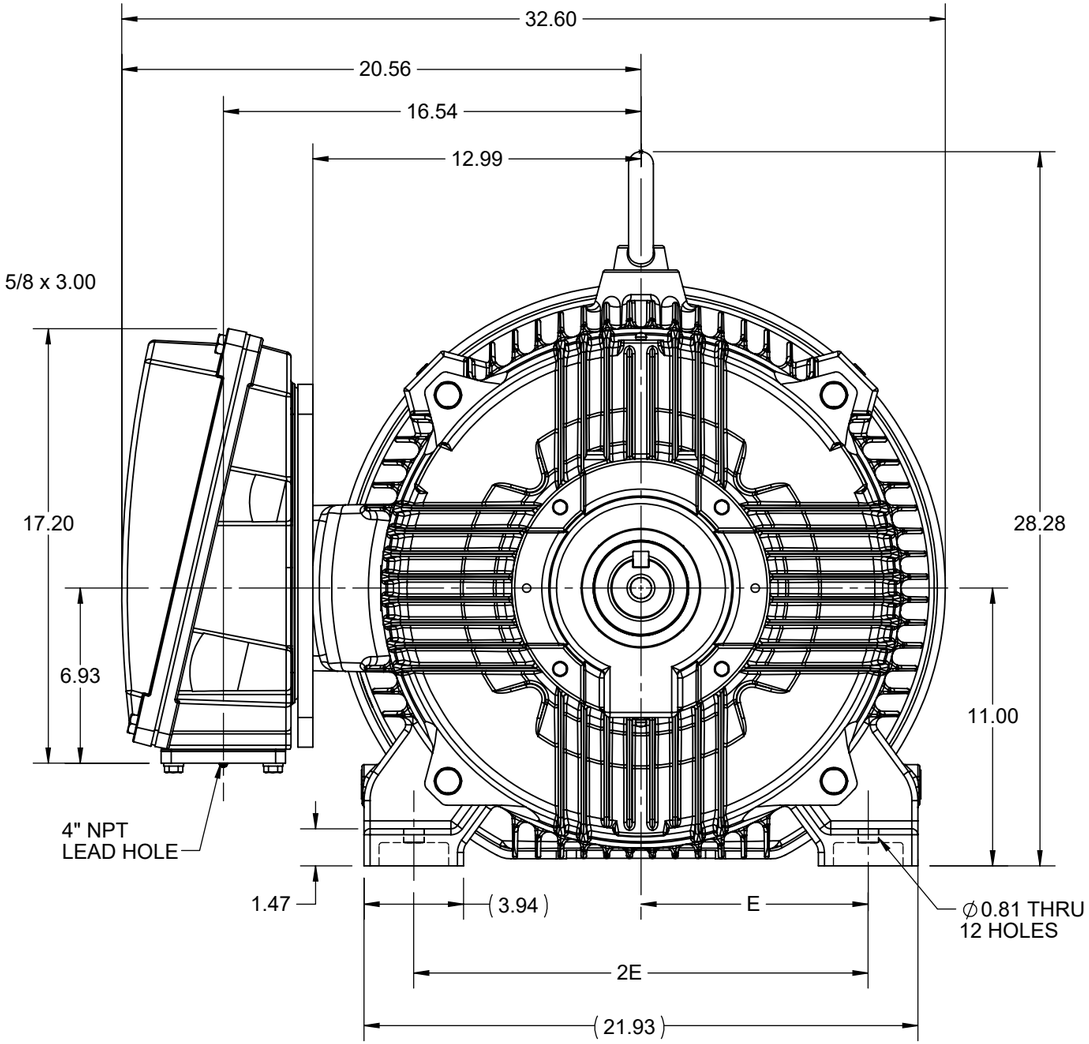
Drawings

Connection Drawing	**EE7300**	Outline Drawing	**SS557889**

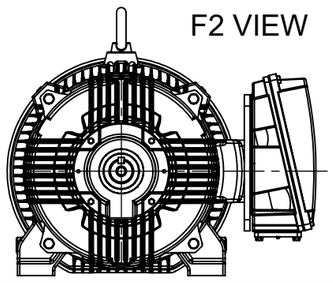
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B	C	E	2E	2F	2FF	BA	BS	MOUNTING
26.81	47.45	9.00	18.00	16.50	20.00	7.50	11.42	F1 OR F2





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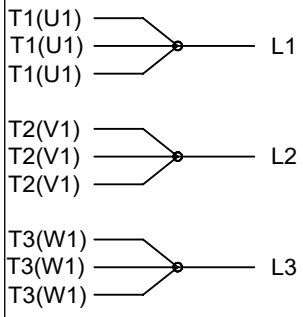
DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE	445/447TS FR NEMA-SD & IEEE841
23/05/2019	
APPROVED BY	
SBD	
DATE	
23/05/2019	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS557889 / SHEET 1 OF 1

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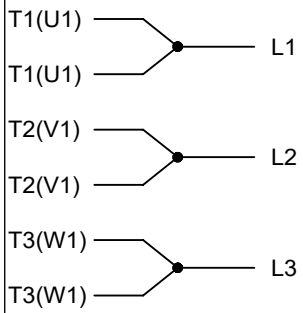
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

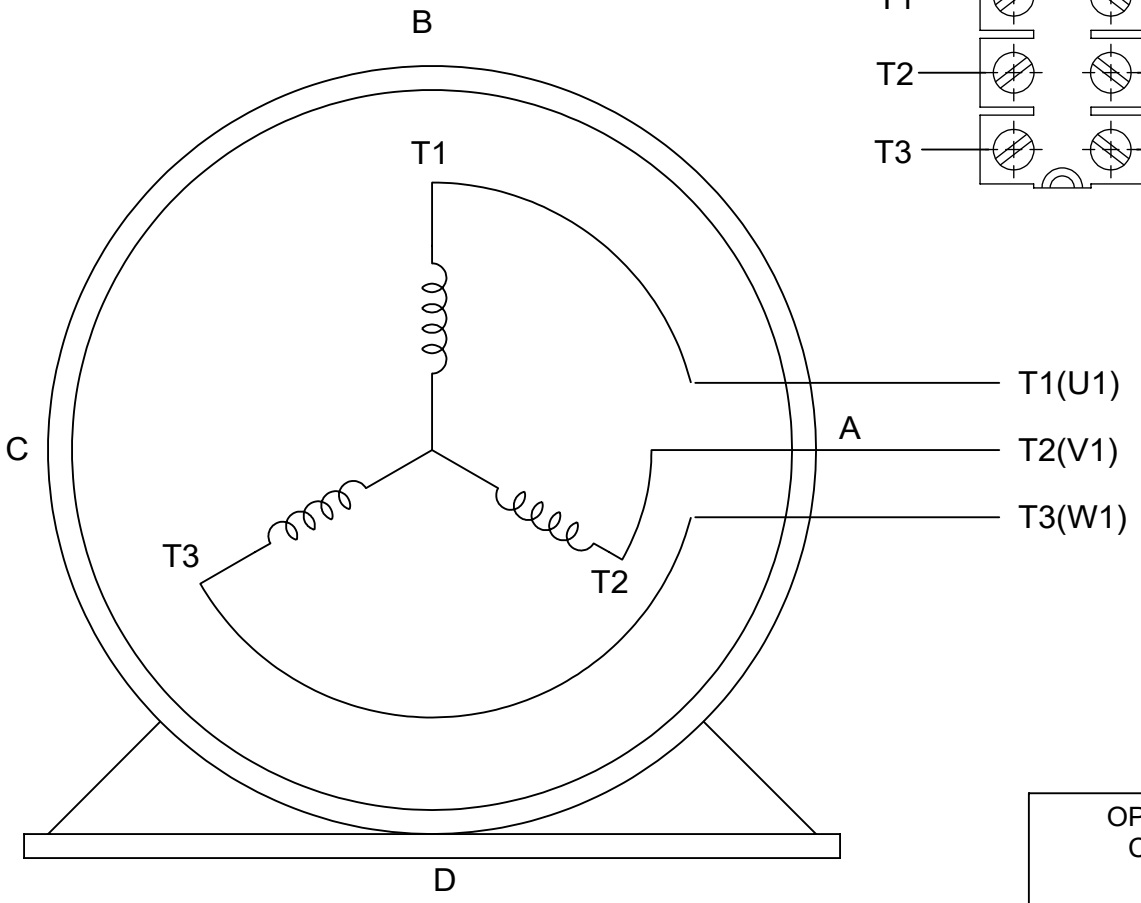
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



VIEW OF TERMINAL END

TERMINAL BLOCK WHEN SPECIFIED

OPTIONAL CORD
CONNECTION

L1	WHITE
L2	RED
L3	BLACK

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

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DRAWN BY: DA	
DATE: 03-26-1993	
APPROVED BY: TB	
DATE: 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

Uncontrolled Copy

Data Sheet

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

marathon® Motors

445TSHFCD9028

Submittal

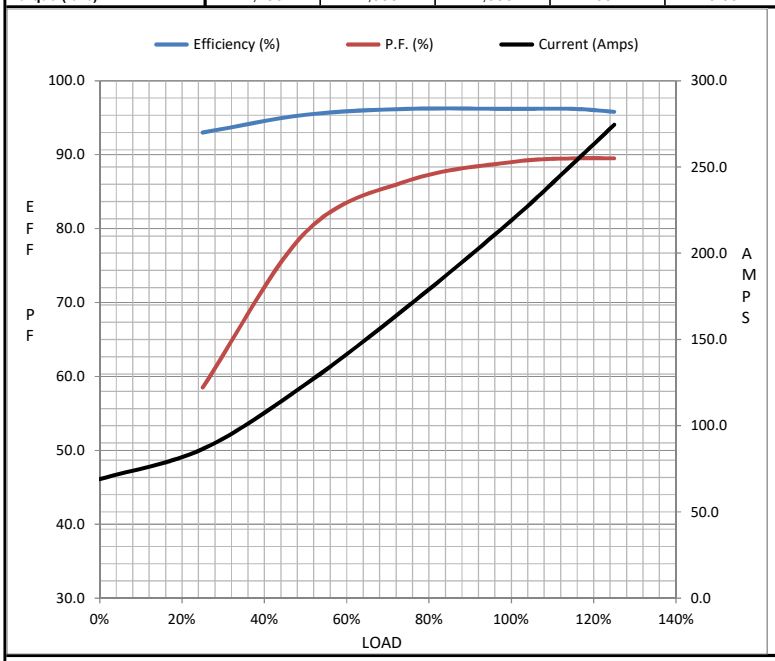
Data @ 460 V

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 wk²	88.0	Lb-Ft²
Ref Wdg	HA32804009 NONE	
Sound Pressure @ 1M	80	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	037898-912	
Conn. Diag	EE7300	

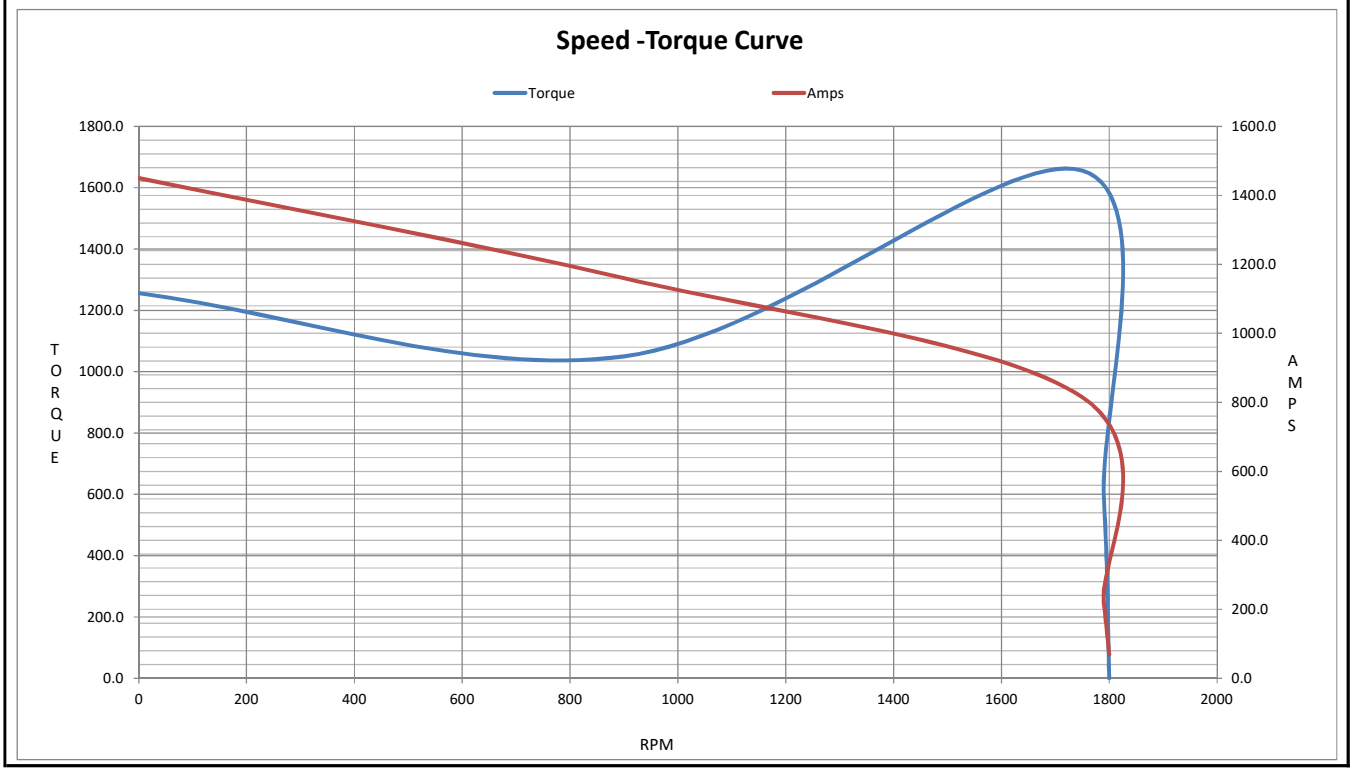
Additional Specifications:

0

0

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0120	0.0070	0.0810	0.1850	3.8340



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DATA VOLTS: 460

CERTIFICATION DATA SHEET

REFERENCE MODEL #: 445TSHFCD9028
CAT #: W617A

CONN. DIAGRAM: EE7300
OUTLINE: SS557889
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 214%	1,656 LB-FT 282%	60	

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
80 dBA	89 dBA	88.0 LB-FT²	1300 LB-FT²	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 DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6319	BALL 6317	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)	
0.012	0.007	0.081	0.185	3.834	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: 6/3/2020

** Subject to change without notice.

FORM: 3531 REV_4 2/27/06