marathon®

Vertical Pump Motors

Model No: 405TTDS16010
Catalog No: M753

Vertical Pump Motor, 150 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 405HPV Frame, DP

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Product Information Packet: Model No: 405TTDS16010, Catalog No: M753 Vertical Pump Motor, 150 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 405HPV Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**150 Hp**
Output KW	**112.0 kW**	Voltage	**460 V**
Speed	**3565 r/min**	Synchronous RPM	**3600 r/min**
Service Factor	**1.15**	Frame	**405HPV**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**95 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**165.0 A**
Power Factor	**89.5**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**7312**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**22**	Number of Speeds	**1**

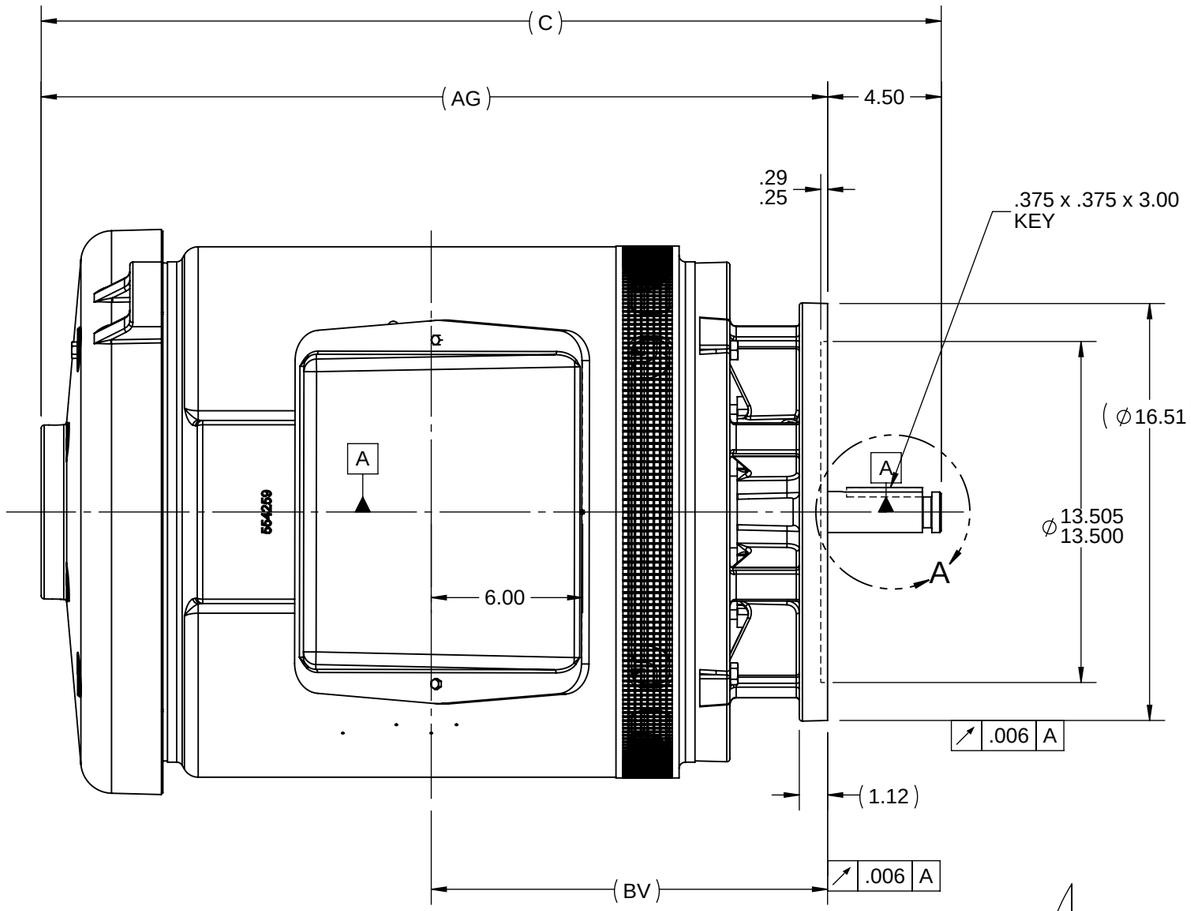
Technical Specifications

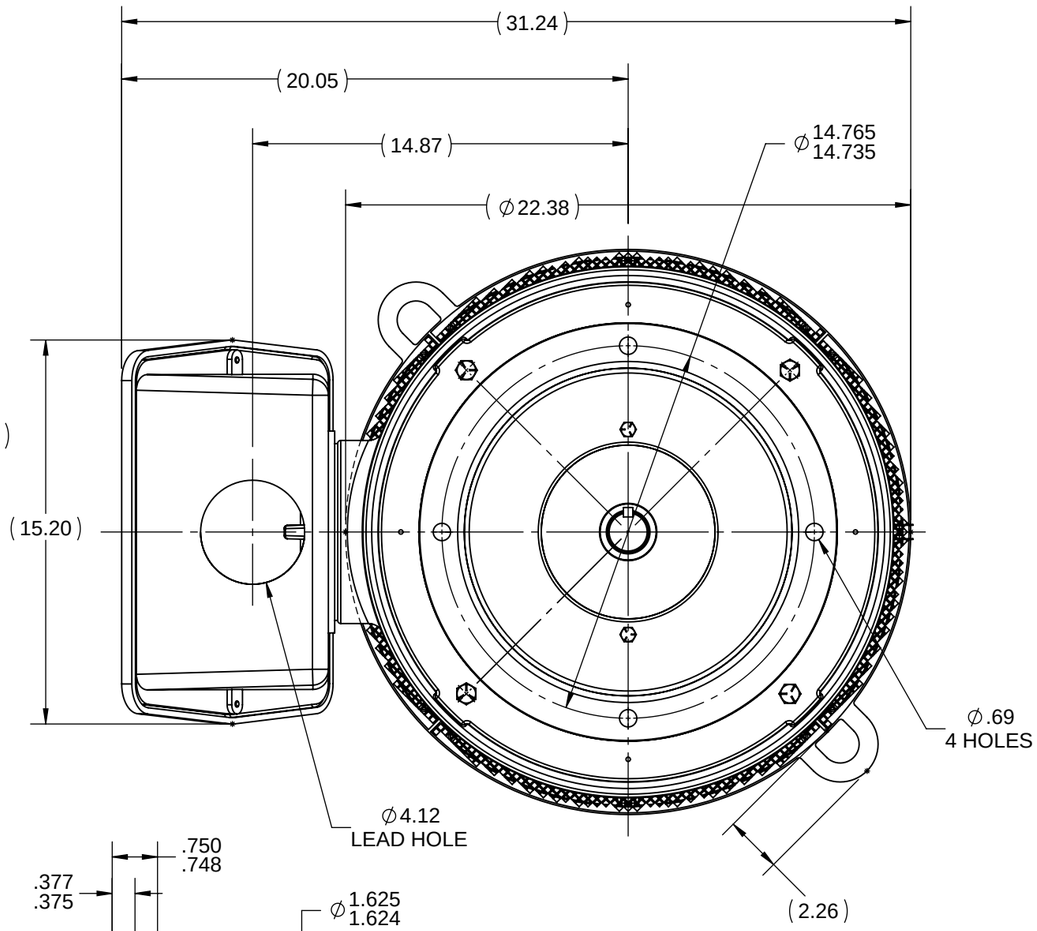
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Across The Line**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.0395 O**	Mounting	**Round**
Motor Orientation	**Shaft Down**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Duplex Tandem Angular Contact**	Frame Material	**Cast Iron**
Shaft Type	**HP**	Overall Length	**35.64 in**
Frame Length	**20.88 in**	Shaft Diameter	**1 5/8 in**
Shaft Extension	**4.5 in**	Assembly/Box Mounting	**F1/F2 Capable**

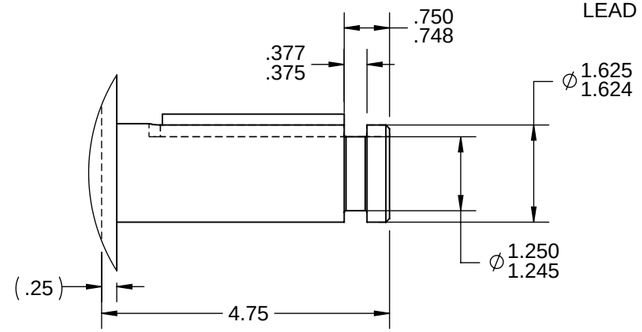
Drawings

Connection Drawing	**EE7300U**	Outline Drawing	**B-SS555070-2088**

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DETAIL OF SHAFT EXT.

NOTE:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF THE MOTOR.

DASH	FRAME	C	AG	BV
2088	400PV	35.64	31.14	15.70

DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	05/28/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026424	RMS	05/28/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±0.5°
.XX	±0.01	[±0.3]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

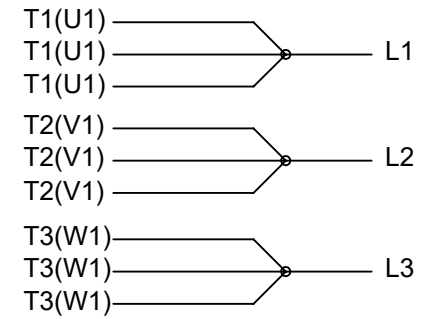
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 125 INCH / 3.2 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	
CJR	
DATE	
03-01-2012	
APPROVED BY	
DJK	
DATE	
03-01-2012	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS555070 / SHEET 1 OF 1

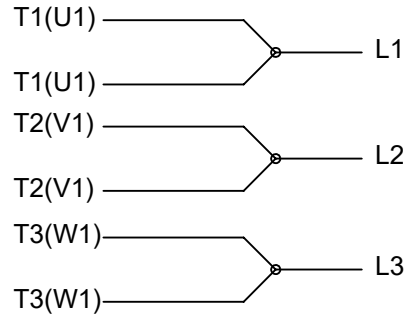
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DESCRIPTION
OUTLINE
400PV FR. - DR. PR. - VERTICAL

IF MOTOR HAS 9 LEADS

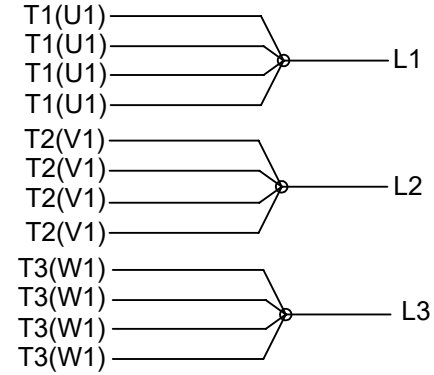


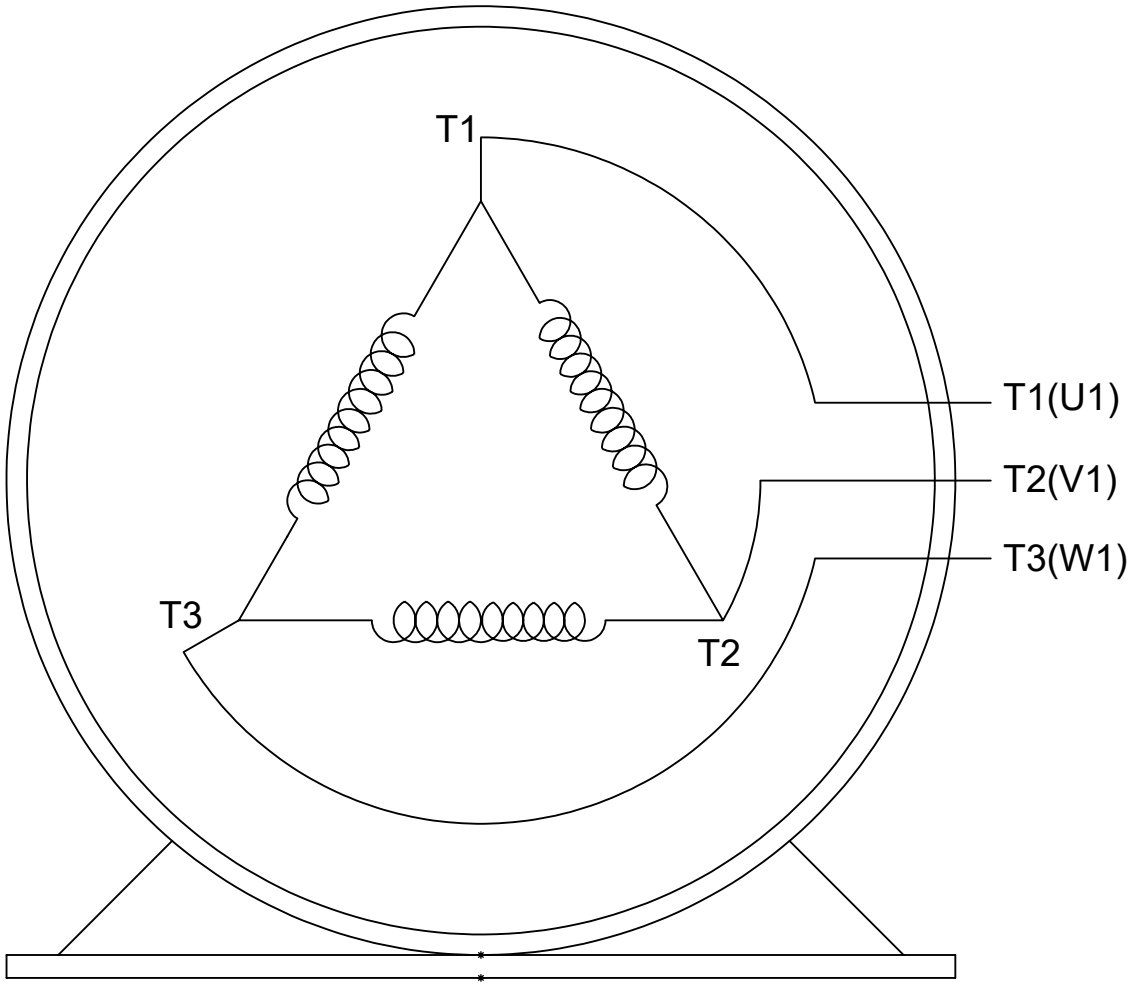
IF MOTOR HAS 6 LEADS



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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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

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: 6/19/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

405TTDS16010

Submittal

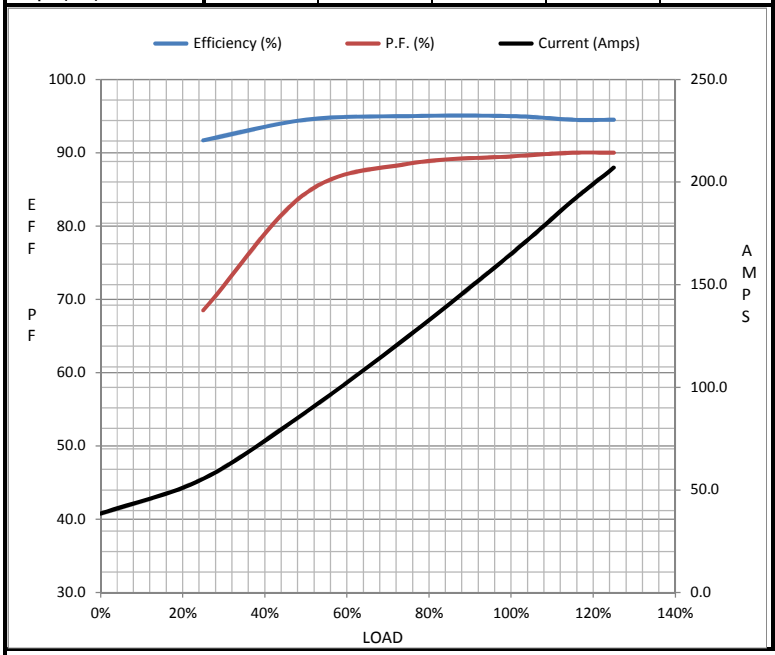
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	38.5	55.5	88.0	125	165	191	207	1,020	
Torque (ft-lb)	0.00	55.0	110	165	221	255	276	290	
RPM	3600	3592	3585	3575	3565	3,560	3555	0	
Efficiency (%)		91.7	94.5	95.0	95.0	94.5	94.5		
P.F. (%)	7.5	68.5	84.5	88.5	89.5	90.0	90.0	31.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3400	3565	3600
Current (Amps)	1,020	915	610	165	38.5
Torque (ft-lb)	290	240	560	221	0.00



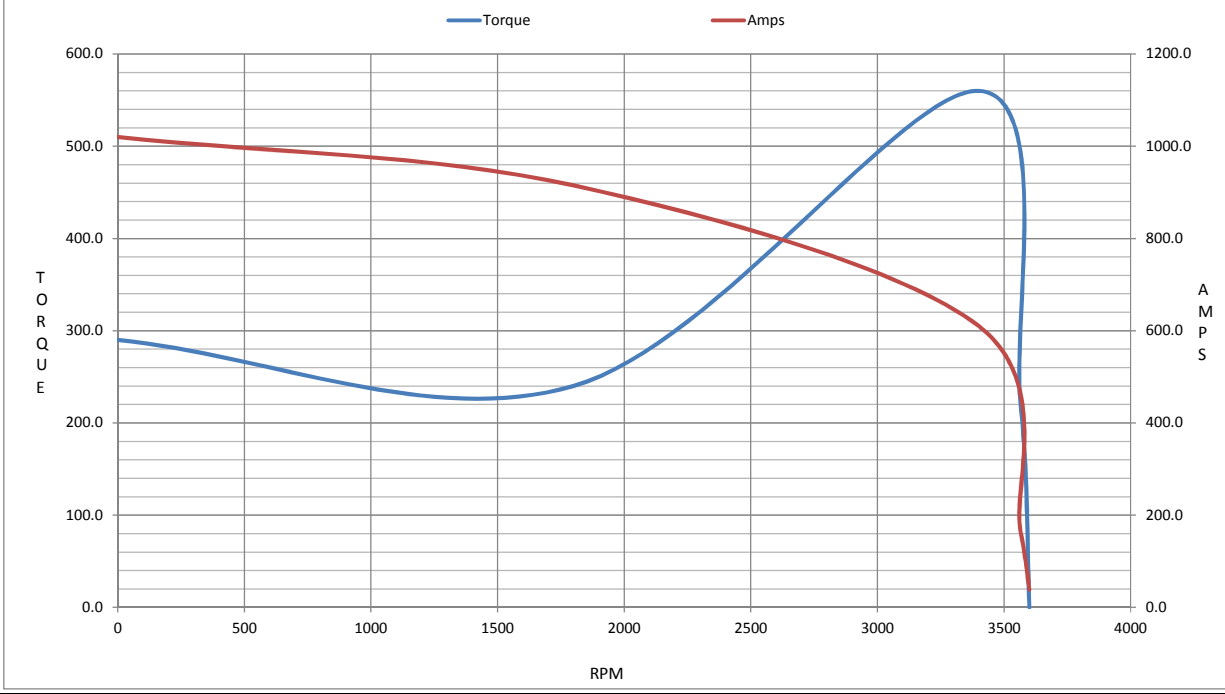
Information Block

HP	150.0	
Sync. RPM	3600	
Frame	405	
Enclosure	DP	
Construction	TDS	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	F	
Service Factor	1.15	
Temp Rise @ FL	45	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	16.5	Lb-Ft²
Ref Wdg	T405241 NONE	
Sound Pressure @ 1M	82	dBA
VFD Rating	NONE	
Outline Dwg	B-SS555070-2088	
Conn. Diag	A-EE7300U	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0220	0.0130	0.1870	0.1440	6.0900

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	405TTDS16010 AN	**WINDING#:**	T405241 NONE 2
CONN. DIAGRAM:	A-EE7300U	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS555070-2088		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150	112	3600	3565	405HPV	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	165	ACROSS THE LINE	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89.5	3/4 LOAD PF: 88.5	1/2 LOAD PF: 84.5	94.5	SQ CAGE IND RUN	38.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
221 LB-FT	1020	290 LB-FT 130	560 LB-FT 253	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	16.5 LB-FT^2	140 LB-FT^2	10 SEC.	2	1100 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
P-BASE	STANDARD	ROUND	SHAFT DOWN	FALSE	NONE	TRUE	RODENT	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	DUPLEX TANDEM ANGULAR CONTACT	POLYREX EM	HP	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312	7312 2						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: NONE
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

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FORM 3531 REV.3 02/07/99

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