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Fire Pump Motors

Model No: 405TSTFS14007
Catalog No: Y1628

Fire Pump Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 405TS Frame, TEFC

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Product Information Packet: Model No: 405TSTFS14007, Catalog No: Y1628 Fire Pump Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 405TS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**100 & 75 Hp**
Output KW	**75.0 & 56.0 kW**	Voltage	**230/460 & 190/380 V**
Speed	**3565 & 2970 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**405TS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**94.1 & 93.6 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**224/112 & 204/102 A**
Power Factor	**89**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6313**
Opp Drive End Bearing Size	**6313**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**43**	Number of Speeds	**1**

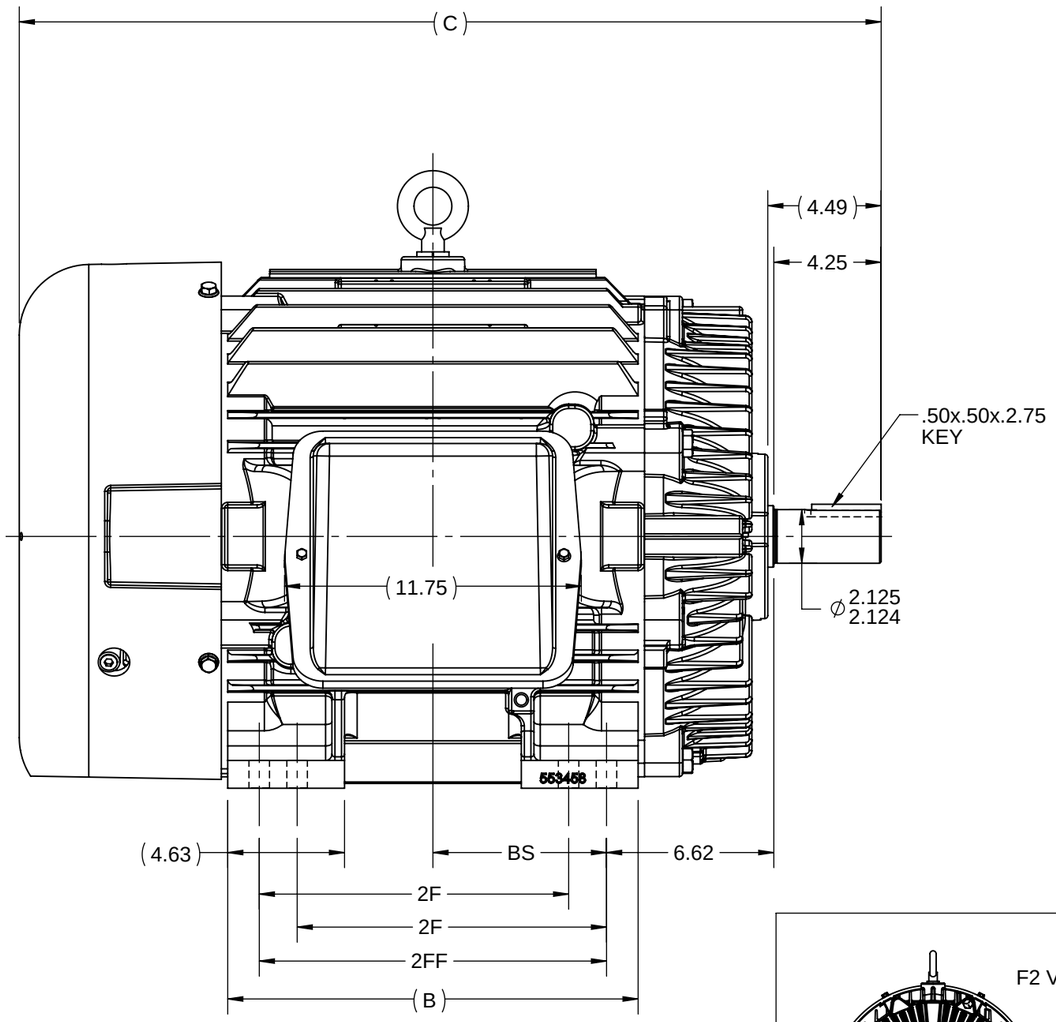
Technical Specifications

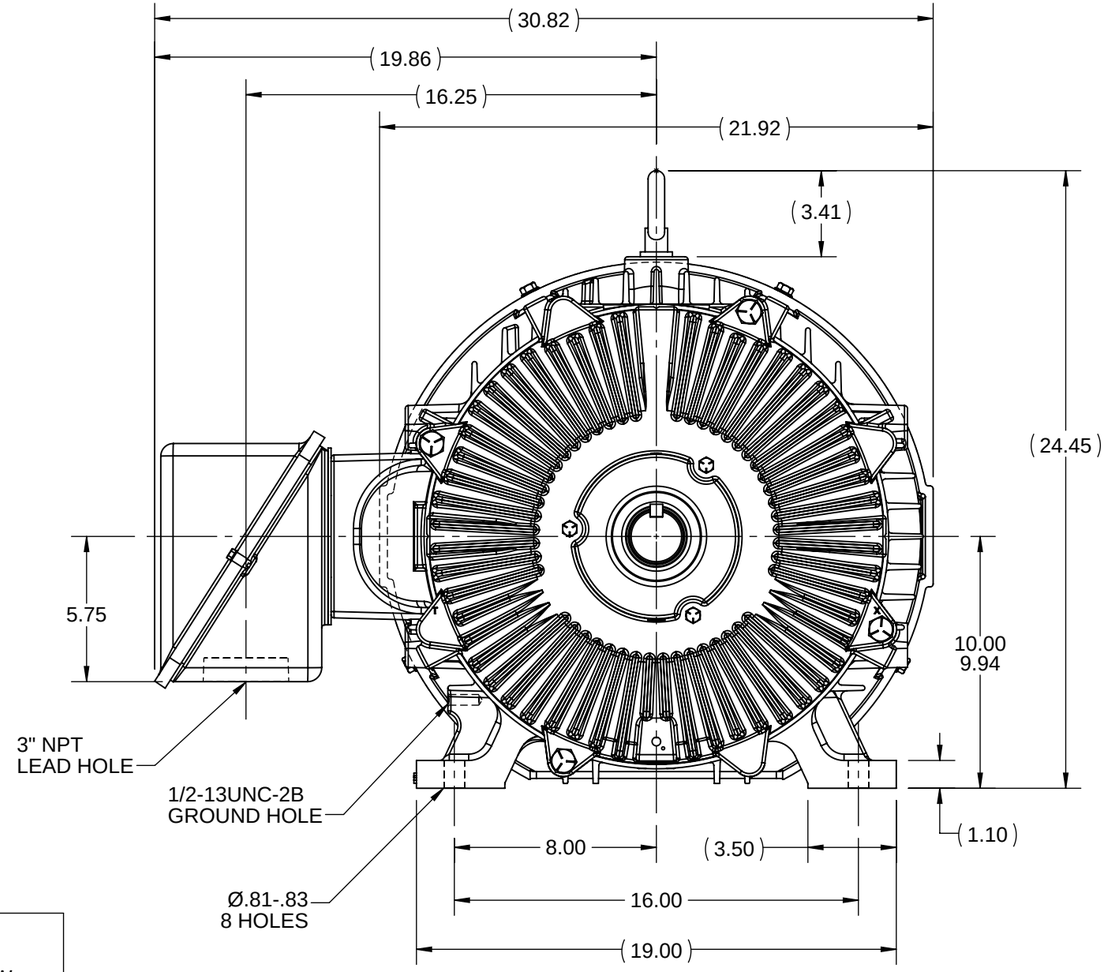
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Part Wdg Start Low Volt Only & Wye Start Delta Run**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.06 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**34.13 in**
Frame Length	**16.75 in**	Shaft Diameter	**2 1/8 in**
Shaft Extension	**4.5 in**	Assembly/Box Mounting	**F1/F2 Capable**

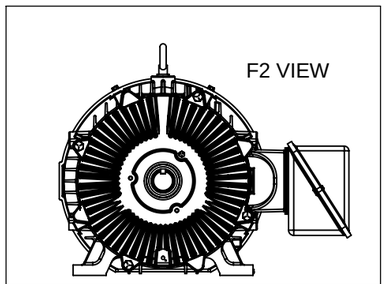
Drawings

Connection Drawing	**EE7308AA**	Outline Drawing	**SS559579-1675**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

DASH	FRAME	B	C	2F	2FF	BS
1675	404/405TS	16.25	34.13	12.25	13.75	6.88

DRAWING REVISION A	REVISION BY	REV DATE/© DATE
REQUEST NUMBER NMR-0241100	APPROVED BY	DATE
REQUEST NUMBER DESCRIPTION NEW DRAWING		

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.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: 200 INCH / 5.1 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

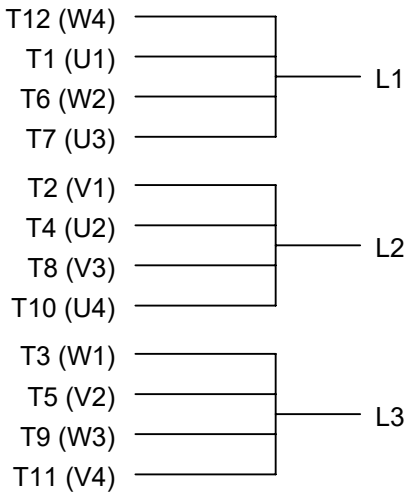
DRAWN BY	SB
DATE	10/28/2026
APPROVED BY	BISWA
DATE	10/28/2026
REFERENCE	SS504698
THIRD ANGLE PROJECTION	

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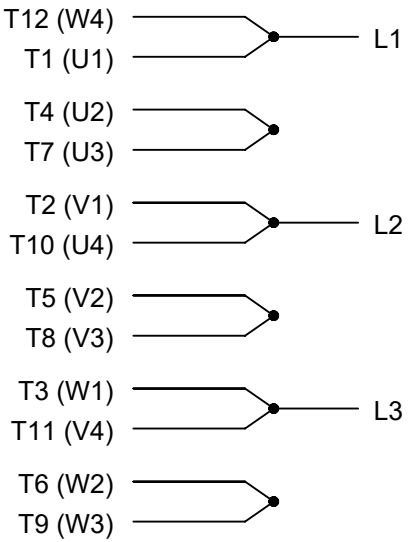
DESCRIPTION: OUTLINE
400TS FR.-TEFC-STD - P

MATERIAL | PROCESS/FINISH

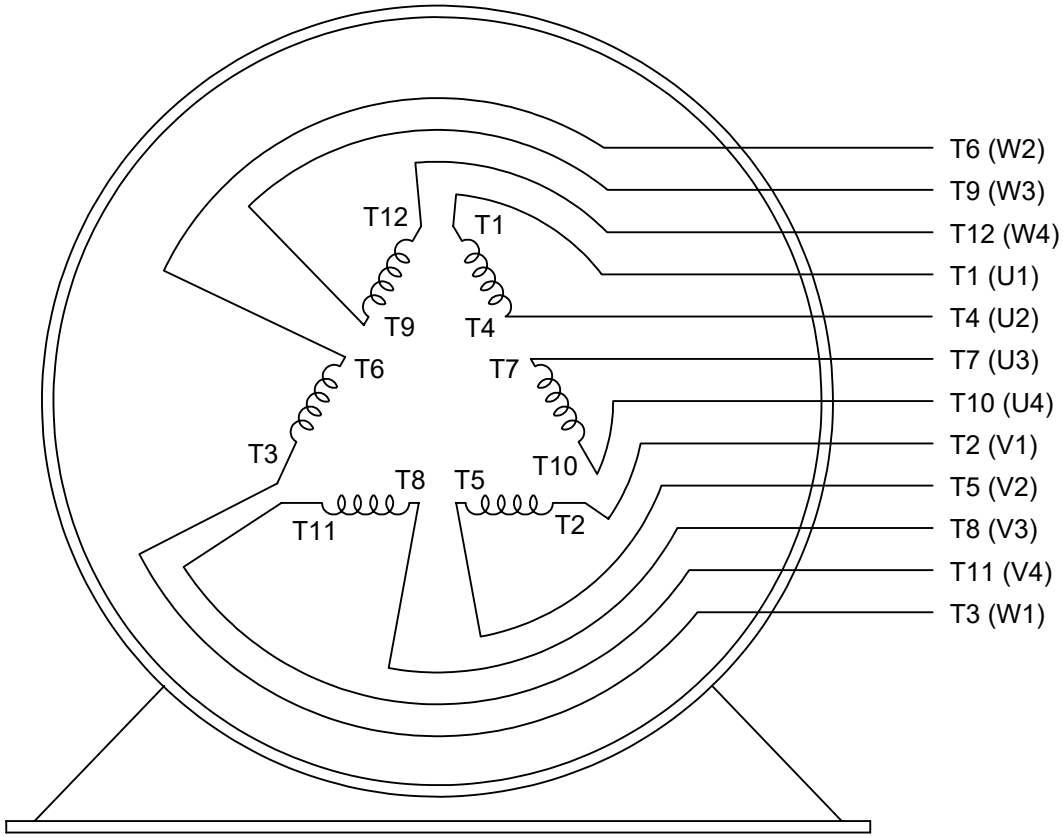
SIZE B | DRAWING NUMBER SS559579 | SHEET 1 OF 1



LOW VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

DRAWING REVISION: L	REVISION BY: SB	REV DATE/© DATE: 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY: LZ	marathon™
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025		DATE: 01-12-1994	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED				APPROVED BY: GK	DESCRIPTION: CONN DIAGRAM-EXTERNAL 3Ø-2/1 DELTA-12 LEADS
				DATE: 01-14-1994	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7308AA / SHEET: 1 OF 1

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Data Sheet

Date: 29-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

405TSTFS14007

Submittal

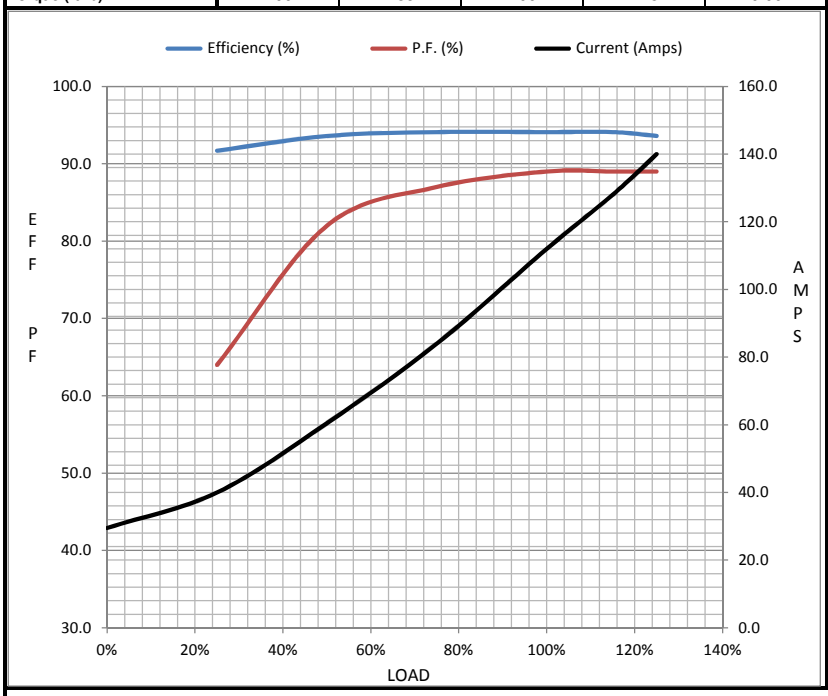
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	29.5	40.0	60.5	84.0	112	128	140	720	
Torque (ft-lb)	0.00	36.5	73.5	111	148	170	185	200	
RPM	3600	3590	3582	3575	3565	3,560	3555	0	
Efficiency (%)		91.7	93.6	94.1	94.1	94.1	93.6		
P.F. (%)	6.5	64.0	82.0	87.0	89.0	89.0	89.0	26.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3375	3565	3600
Current (Amps)	720	650	425	112	29.5
Torque (ft-lb)	200	185	400	148	0.00



Information Block

HP	100.0
Sync. RPM	3600
Frame	405
Enclosure	TEFC
Construction	TFS
Voltage	230/460#190/38(V
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	75 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	14.2 Lb-Ft²
Ref Wdg	T405251 NONE
Sound Pressure @ 1M	80 dBA
VFD Rating	NONE
Outline Dwg	SS504698-1675
Conn. Diag	A-EE7308AA

Additional Specifications:

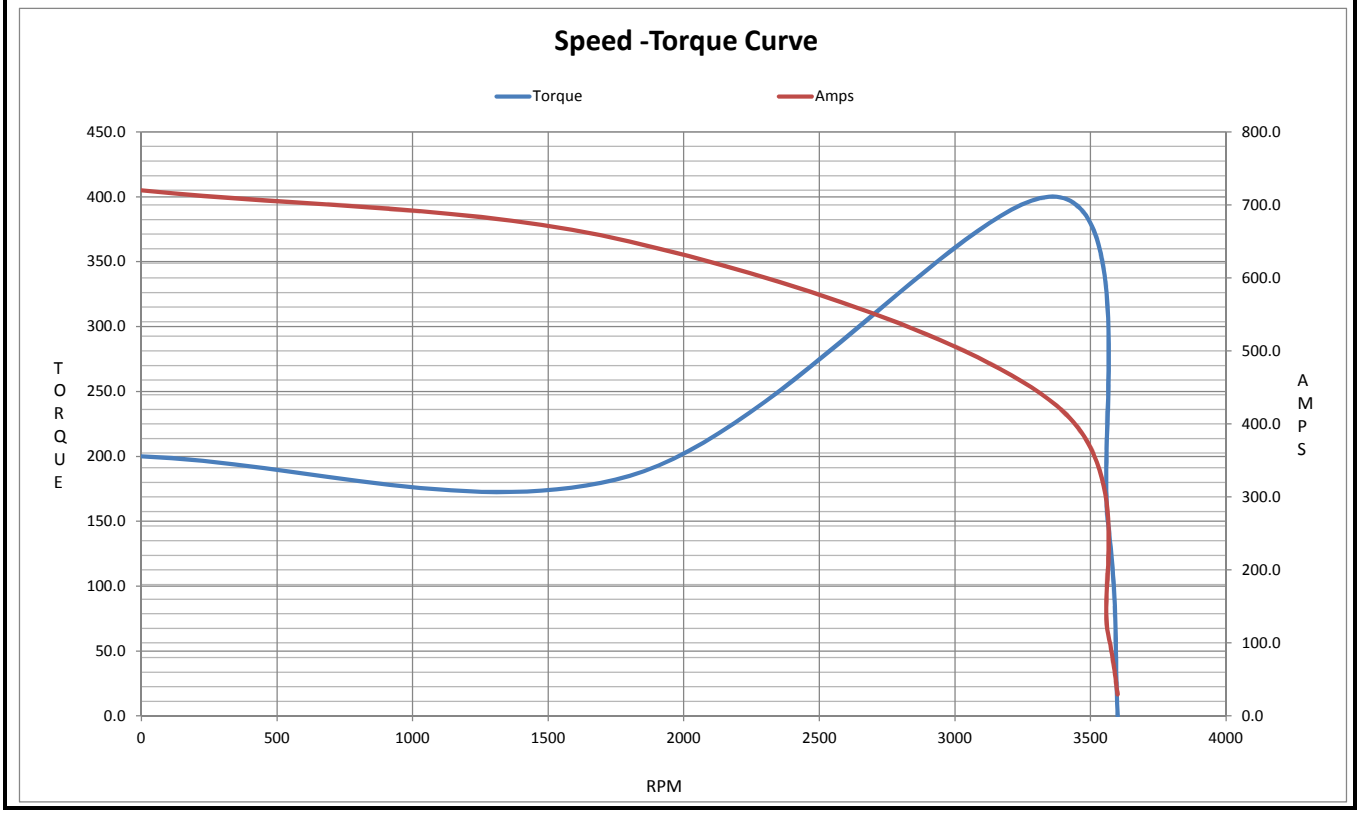
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0380	0.0240	0.2870	0.1750	9.1050

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	405TSTFS14007 AN	**WINDING#:**	T405251 NONE 3
CONN. DIAGRAM:	A-EE7308AA	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	SS504698-1675		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100&75	75&56	3600	3565&2970	405TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	224/112&204/102	PWS(LV ONLY) & YDRUN	CONTINUOUS	F1	1.15/1.15	40	3300

FULL LOAD EFF: 94.1&93.6	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89&89	3/4 LOAD PF: 87	1/2 LOAD PF: 82	93	SQ CAGE IND RUN	59 / 29.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
148 LB-FT	1440 / 720	200 LB-FT 135	400 LB-FT 270	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	14.2 LB-FT^2	- LB-FT^2	15 SEC.	-	1150 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	RED (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6313	BALL 6313	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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
- FT-LB NONE V NONE Hz

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