Fire Pump Motors

Model No: 404TSTDCD4031
Catalog No: U1119A

Fire Pump Motor, 100 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 404TS Frame, DP

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marathon®

Product Information Packet: Model No: 404TSTDCD4031, Catalog No: U1119A Fire Pump Motor, 100 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 404TS Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**100 Hp**
Output KW	**75.0 kW**	Voltage	**575 V**
Speed	**1783 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**404TS**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**94.1 %**	Ambient Temperature	**50 °C**
Frequency	**60 Hz**	Current	**90.5 A**
Power Factor	**87.7**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6316**
Opp Drive End Bearing Size	**6314**	UL	**Listed**
CSA	**Y**	CE	**Y**
IP Code	**22**	Number of Speeds	**1**

Technical Specifications

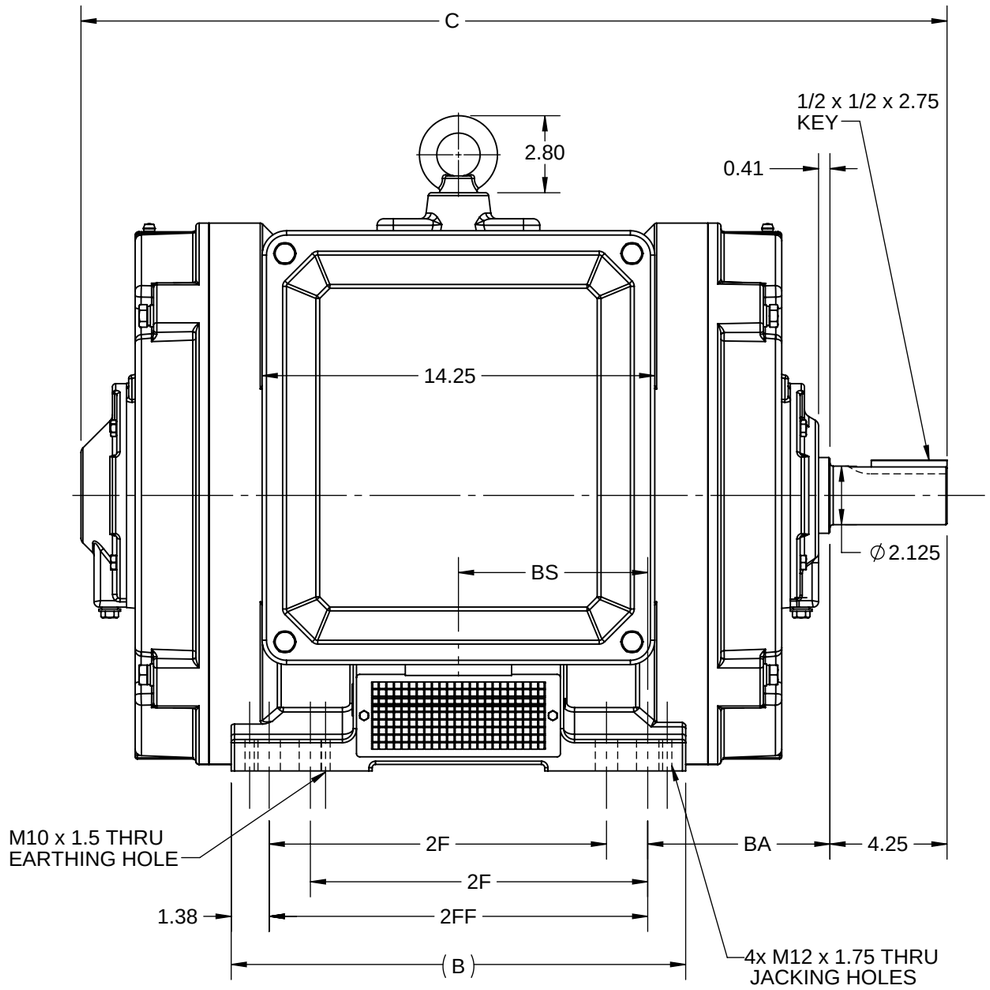
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Part Wdg Start & Wye Start Delta Run**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.089 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**2.125 in**
Assembly/Box Mounting	**F1/F2 Capable**		

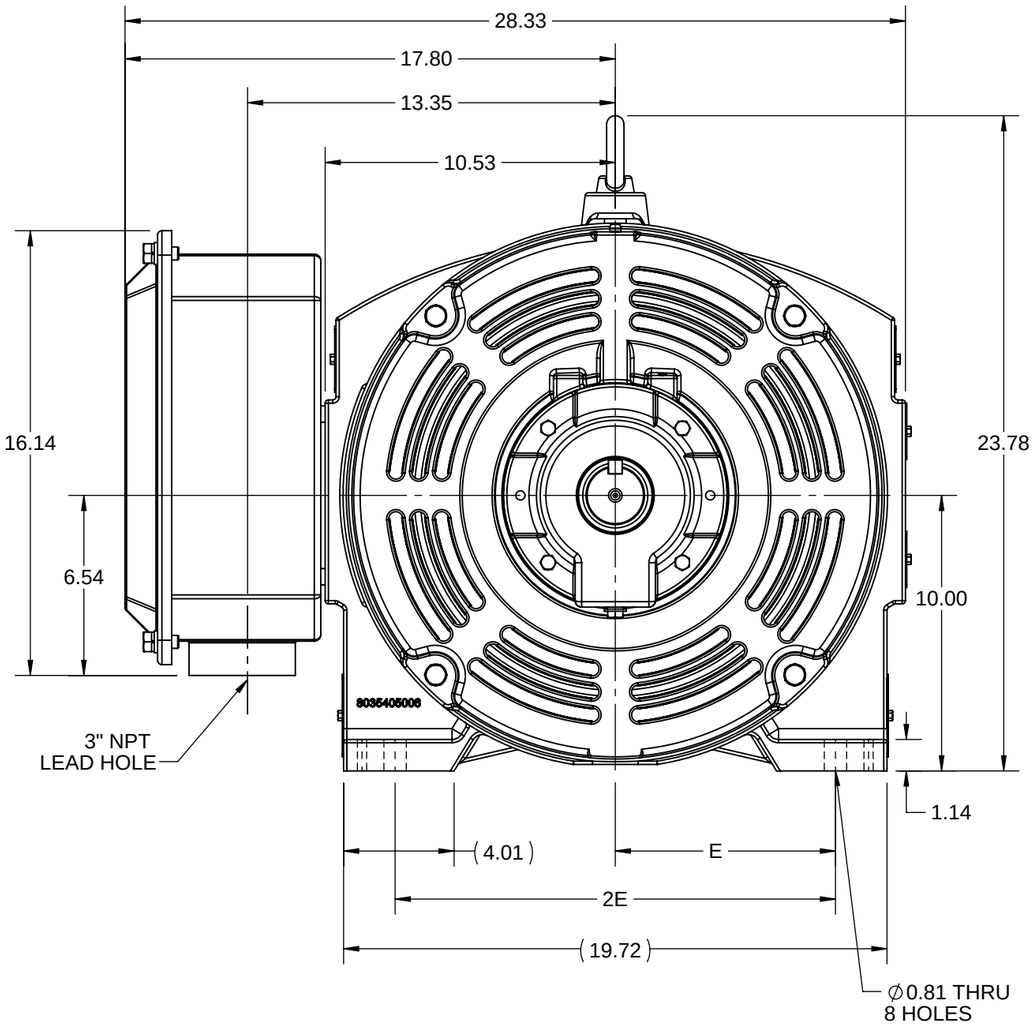
Drawings

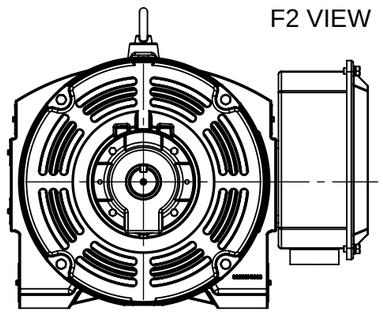
Connection Drawing	**EE7300BH**	Outline Drawing	**SS620989**

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B	C	E	2E	2F	2FF	BA	BS	MOUNTING
16.85	31.44	8.00	16.00	12.25	13.75	6.62	6.87	F1 OR F2







DRAWING REVISION	REVISION BY	REV DATE/© DATE
C	SB	05/29/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026424	RMS	05/29/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

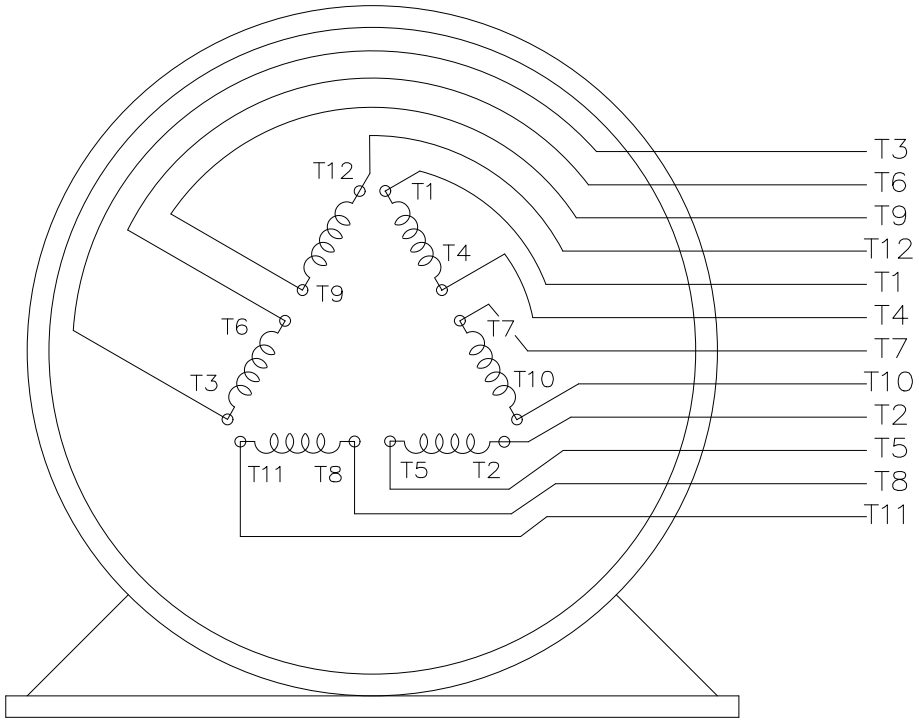
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DRAWN BY	DESCRIPTION
VS	OUTLINE
DATE	404/405TS FR NEMA ODP
11/01/2019	
APPROVED BY	
SBD	
DATE	
11/01/2019	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS620989 / SHEET 1 OF 1

marathon™

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VIEW OF TERMINAL END

T12(W4)
T1(U1)
T6(W2)
T7(U3)
LINE 1

T2(V1)
T4(U2)
T8(V3)
T10(U4)
LINE 2

T3(W1)
T5(V2)
T9(W3)
T11(V4)
LINE 3

DRAWING REVISION: E	REVISION BY: SB	REV DATE/ © DATE: 08/04/2025
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/04/2025
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED		

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DRAWN BY: RJW	marathon™	
DATE: 02/11/2005		
APPROVED BY: GK	DESCRIPTION: CONNECTION DIAGRAM 12 LEAD - SINGLE VOLTAGE	
DATE: 02/11/2005		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7300BH	SHEET: 1 OF 1

Data Sheet

Date: 11/17/2021
Customer:
Attention:
Submitted by:

marathon® Motors

404TSTDCD4031

Submittal

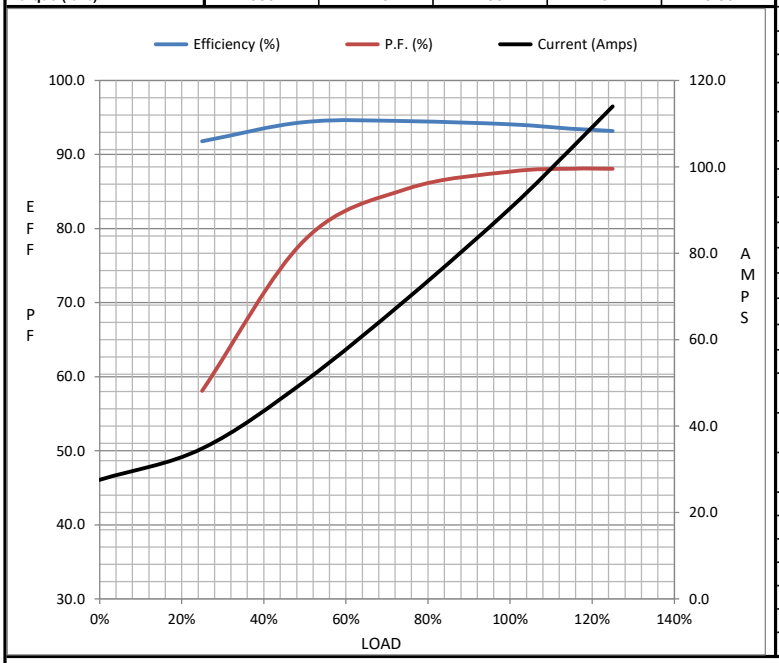
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	27.6	34.8	50.4	69.6	90.4	104	114	560	
Torque (ft-lb)	0.00	73.0	147	220	294	339	369	530	
RPM	1800	1796	1792	1787	1783	1,780	1777	0	
Efficiency (%)		91.8	94.4	94.5	94.1	93.5	93.2		
P.F. (%)	5.3	58.1	78.5	85.4	87.7	88.1	88.1	38.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1709	1783	1800
Current (Amps)	560	456	315	90.4	27.6
Torque (ft-lb)	530	470	735	294	0.00



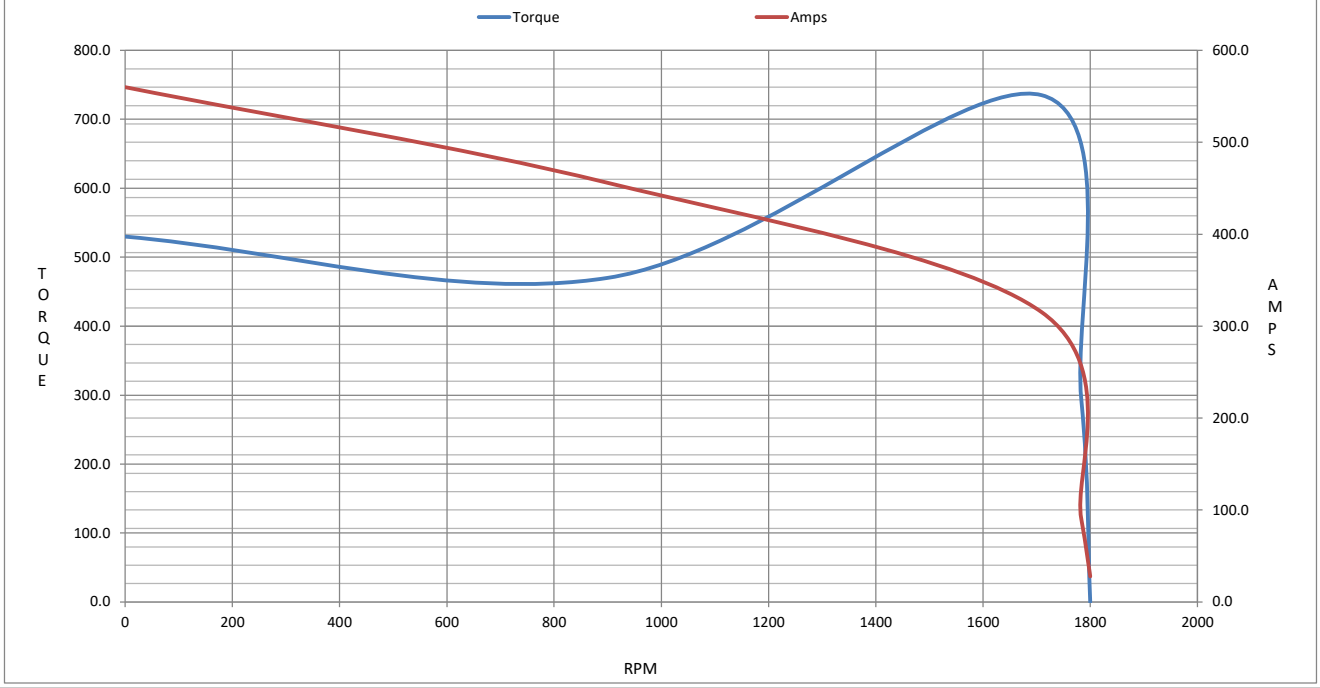
Information Block

HP	100.0	
Sync. RPM	1800	
Frame	404	
Enclosure	DP	
Construction	TDC	
Voltage	575	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	31.30	Lb-Ft²
Ref Wdg	HA22504104 NONE	
Sound Pressure @ 1M	78	dBA
VFD Rating	NONE	
Outline Dwg	SS620989	
Conn. Diag	EE7300BH	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0870	0.0360	0.3050	0.4950	11.7180

Speed -Torque Curve



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 575

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: EE7300BH
OUTLINE: SS620989
WINDING: HA22504104 NONE 4
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 404TSTDCD4031
CAT #: U1119A
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1783	404TS	DP	TDC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	90.5	PWS & YDRUN	CONT	F	1.15	50	3300

F.L. EFF	94.1	3/4 LD EFF	94.5	1/2 LD EFF	94.4	GTD EFF	ELECT. TYPE
F.L. PF	87.7	3/4 LD PF	85.4	1/2 LD PF	78.5	93.6	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
294 LB-FT	560	530 LB-FT 180%	735 LB-FT 250%	70	

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
78 dBA	87 dBA	31.30 LB-FT²	170 LB-FT²	22 SEC.	2	1070	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	NO	NONE	YES	RODENT	RED (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6314						

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)	FLOAT
0.1359375	0.05625	0.4765625	0.7734375	18.309375	0.150	ODE

* NOTES *

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE PPR

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

UL: NO LETTER - ALL BRANDS-UL LISTED FIRE PUMP MOTORS

PREPARED BY:
DATE: 11/17/2021

FORM: 3531 REV_4 2/27/06