marathon®

Severe Duty Motors

Model No: 405THFCD19101
Catalog No: W590A

Severe Duty Motor, 60 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 405T Frame, TEFC

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Product Information Packet: Model No: 405THFCD19101, Catalog No: W590A Severe Duty Motor, 60 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 405T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**60 Hp**
Output KW	**45.0 kW**	Voltage	**460 V**
Speed	**888 r/min**	Synchronous RPM	**900 r/min**
Service Factor	**1.15**	Frame	**405T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**92.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**74.5 A**
Power Factor	**81**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6316**
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

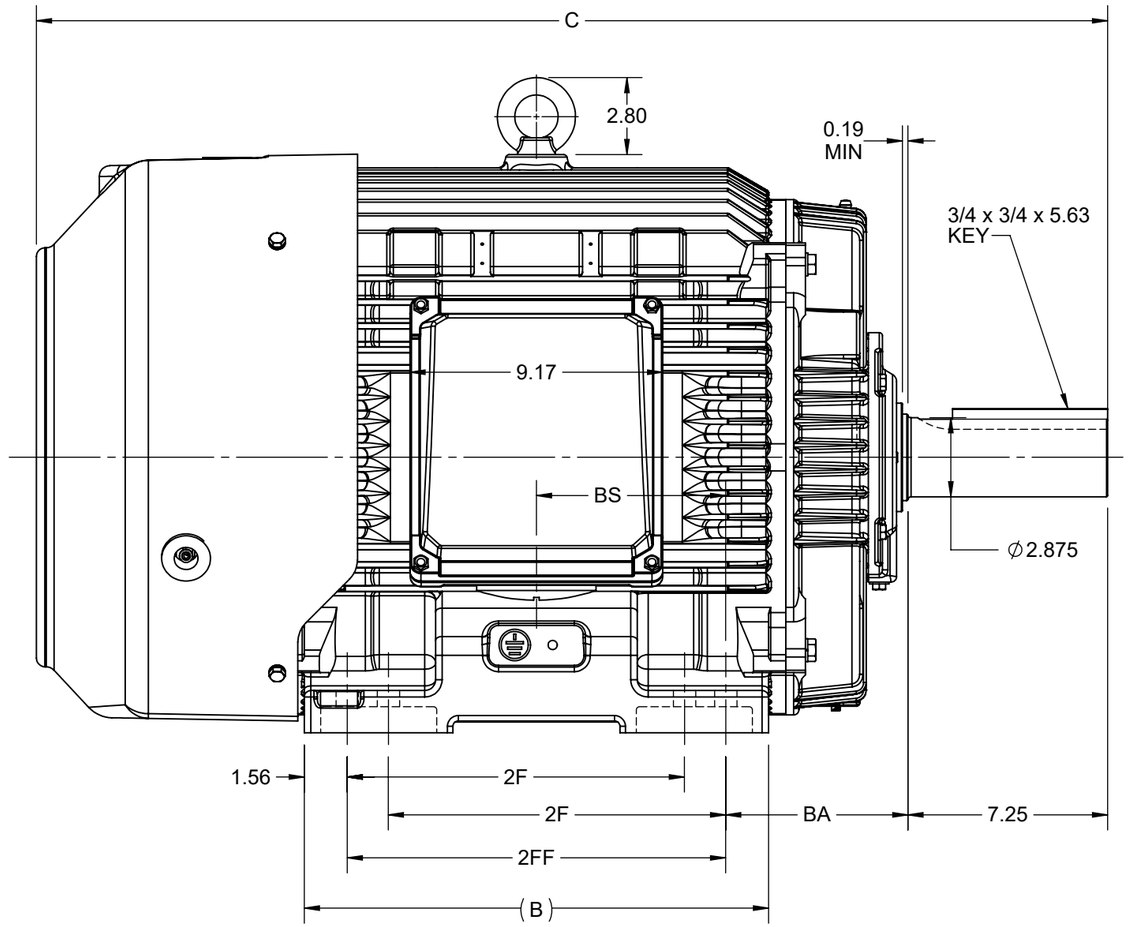
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**8**	Rotation	**Reversible**
Resistance Main	**.1203 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 2:1/Variable 10:1**		

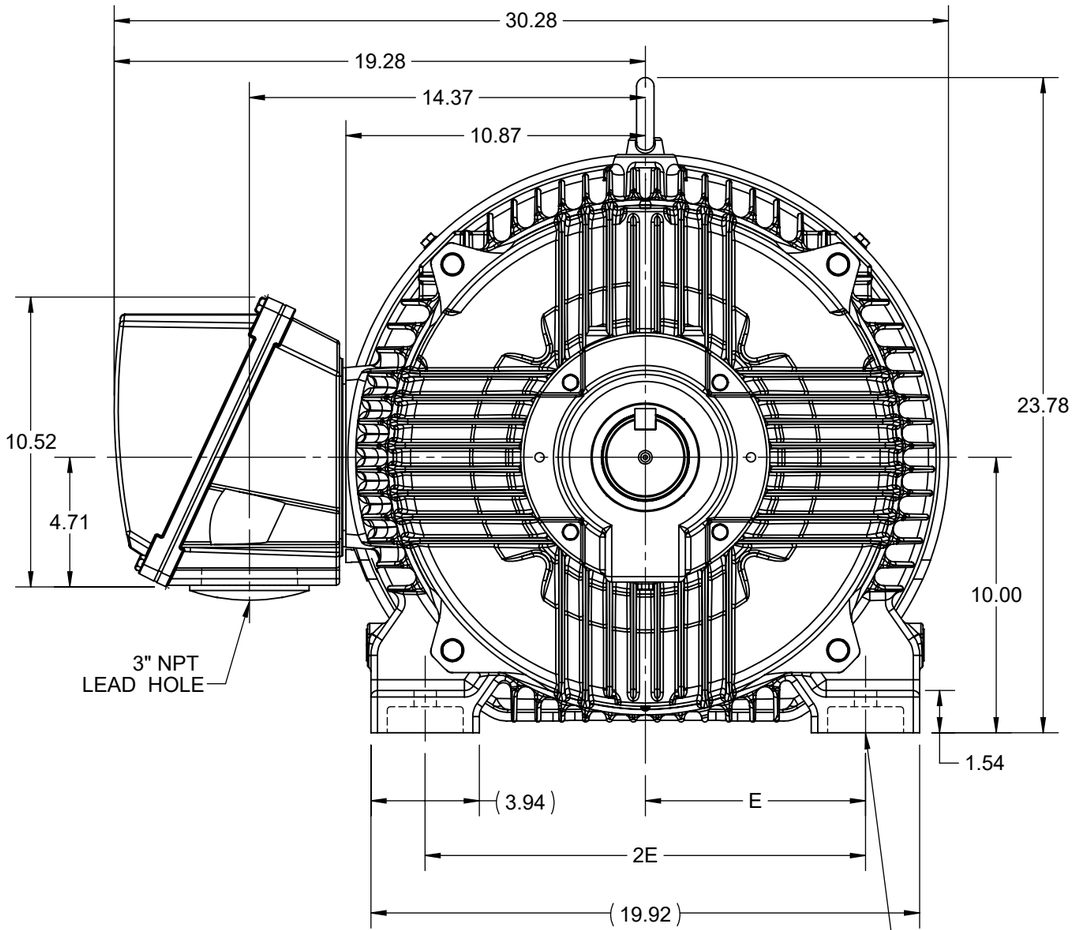
Drawings

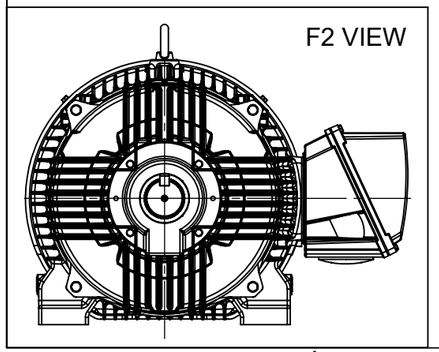
Connection Drawing	**EE7300**	Outline Drawing	**SS557665**

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B	C	E	2E	2F	2FF	BA	BS	MOUNTING
16.85	38.88	8.00	16.00	12.25	13.75	6.62	6.87	F1 OR F2







DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	07/23/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	07/23/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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DRAWN BY	DESCRIPTION	
BISWA	OUTLINE	
DATE	404/405T FR-SD & IEEE841	
12/24/2018		
APPROVED BY	MATERIAL	PROCESS/FINISH
SBD		
DATE		
12/24/2018		
REFERENCE		

THIRD ANGLE PROJECTION

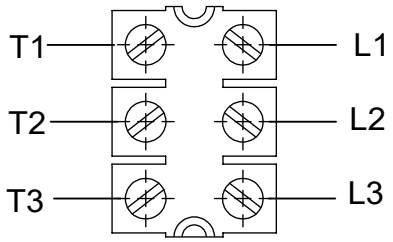
SIZE	DRAWING NUMBER	SHEET
B	SS557665	1 OF 1

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

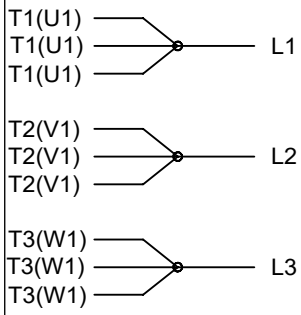
TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

TERMINAL BLOCK WHEN SPECIFIED

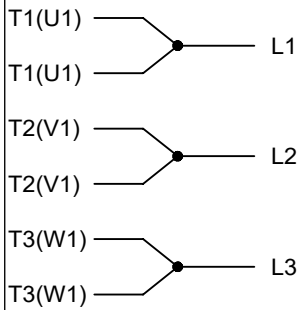


VIEW OF TERMINAL END

IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL

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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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

Data Sheet

Date: 7/28/2022
Customer:
Attention:
Submitted by:

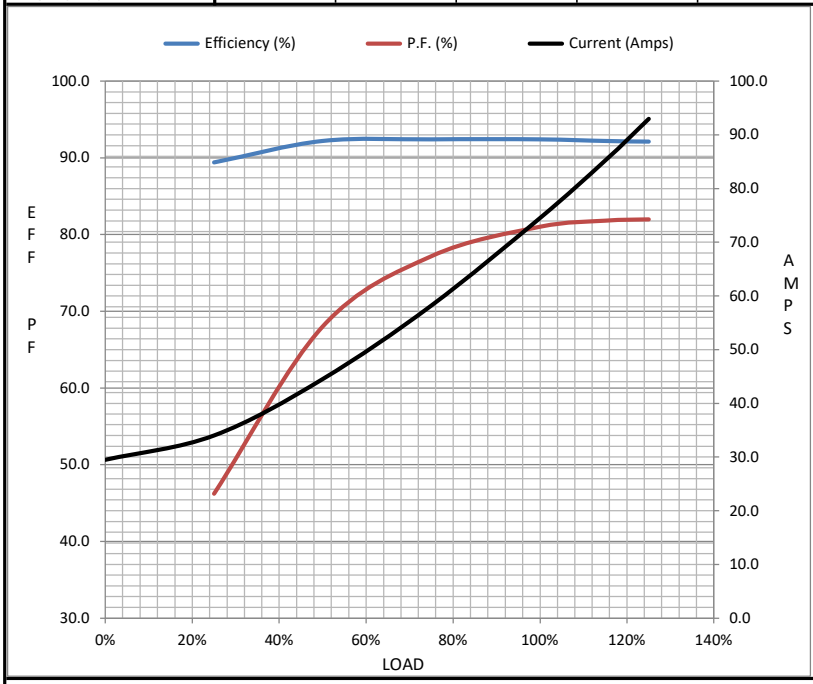
405THFCD19101
3D219-4 FAN
Submittal
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	29.5	34.0	44.5	58.2	74.5	85.2	93.0	395	
Torque (ft-lb)	0.00	88.0	176	265	355	410	445	630	
RPM	900	895	892	890	888	885	882	0	
Efficiency (%)		89.4	92.2	92.4	92.4	92.2	92.1		
P.F. (%)	5.0	46.2	68.0	77.2	81.0	81.8	82.0	36.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	850	888	900
Current (Amps)	395	315	210	74.5	29.5
Torque (ft-lb)	630	530	730	355	0.00



Information Block

HP	60.0	
Sync. RPM	900	
Frame	405	
Enclosure	TEFC	
Construction	TFC	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	F	
Service Factor	1.15	
Temp Rise @ FL	70	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	53.0	Lb-Ft²
Ref Wdg	HA32508002	NONE
Sound Pressure @ 1M	68	dBA
VFD Rating	ONSTANT 2:1/VARIABLE 10	
Outline Dwg	SS557665	
Conn. Diag	EE7300	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0770	0.0520	0.3490	0.6390	8.7810

Speed -Torque Curve

