

Severe Duty Motors

Model No: 405THFCD9086

Catalog No: W596A

Severe Duty Motor, 75 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 405T Frame, TEFC

Product Information Packet: Model No: 405THFCD9086, Catalog No: W596A Severe Duty Motor, 75 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 405T Frame, TEFC

Nameplate Specifications

Phase	3	Output HP	75 Hp
Output KW	56.0 kW	Voltage	460 V
Speed	1188 r/min	Synchronous RPM	1200 r/min
Service Factor	1.15	Frame	405T
Enclosure	Totally Enclosed Fan Cooled	Thermal Protection	No Protection
Efficiency	94.5 %	Ambient Temperature	40 °C
Frequency	60 Hz	Current	89.0 A
Power Factor	83.5	Duty	Continuous
Insulation Class	H	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	56	Number of Speeds	1
Hazardous Location	DIVISION 2 T2B		

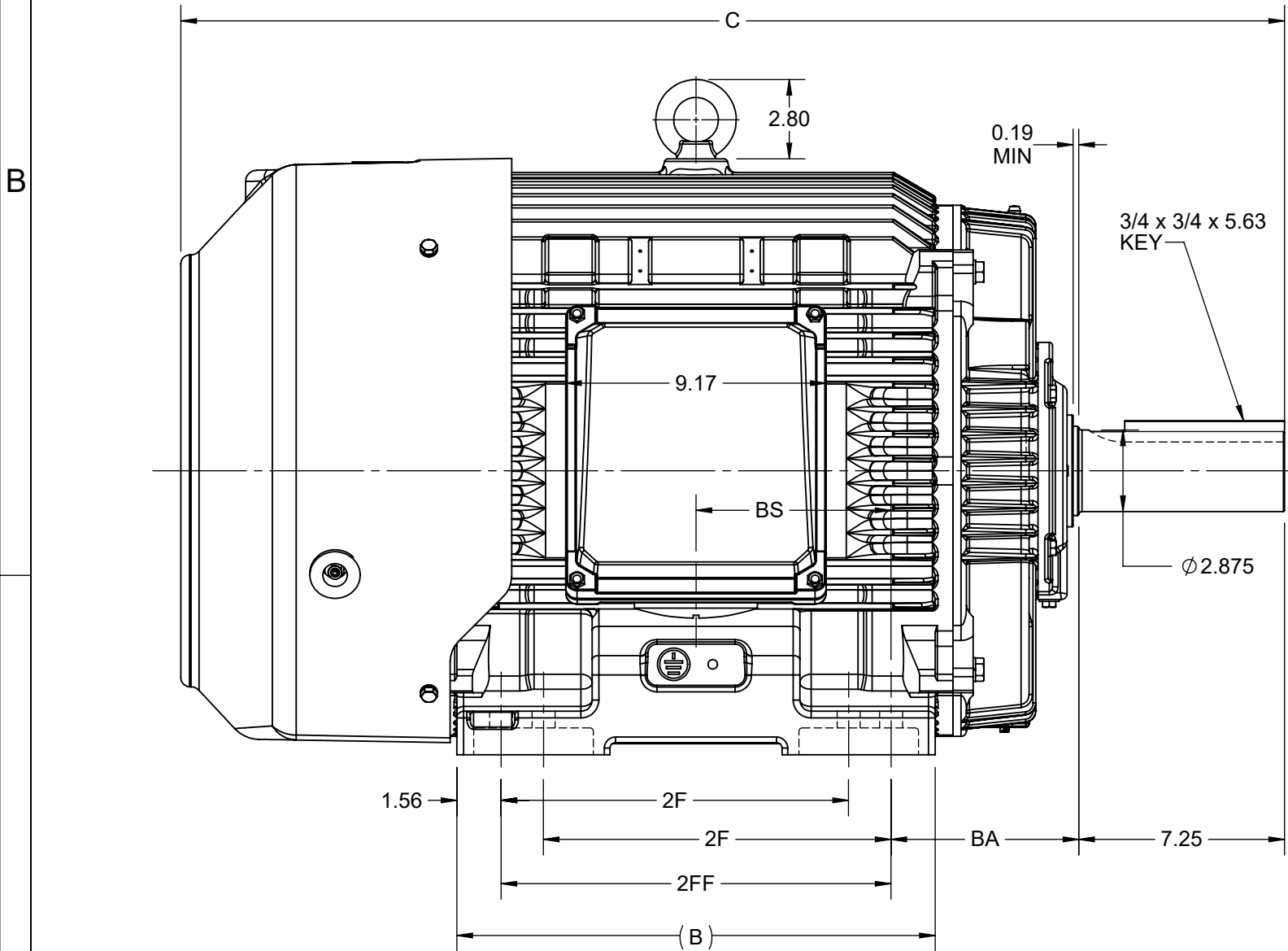
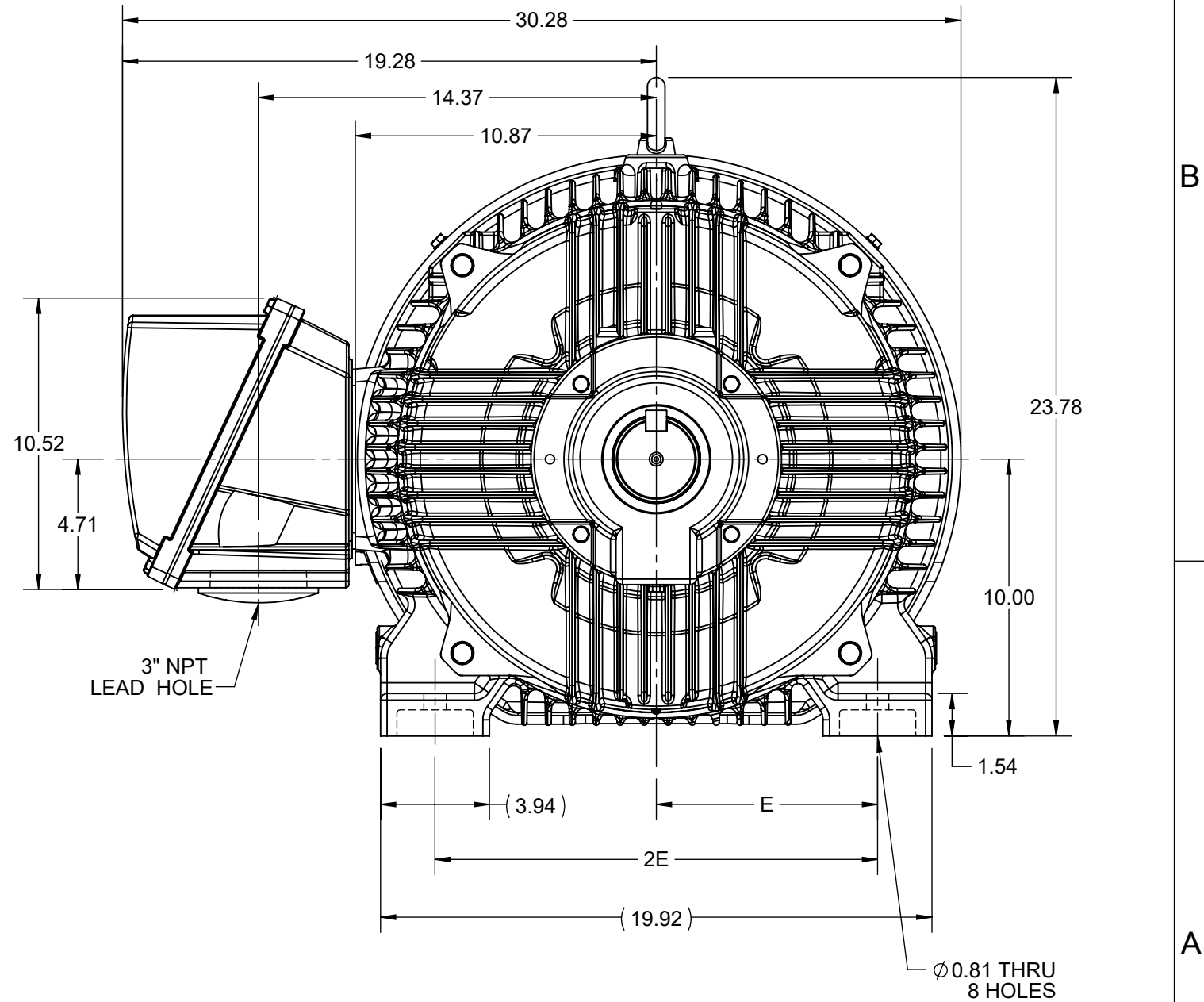
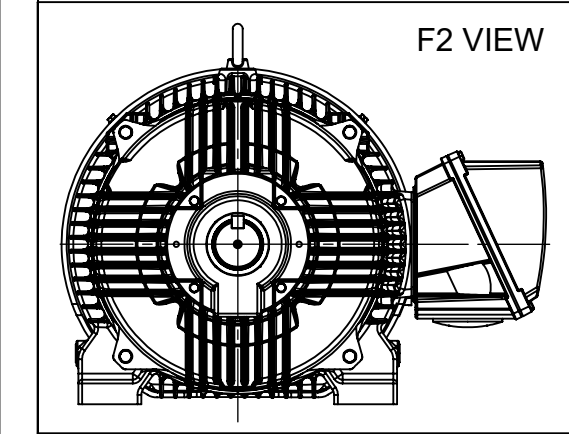
Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.0904 O	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	2.875 in
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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4					3			
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 D	REVISION BY SB	REV DATE/© DATE 07/23/2025
REQUEST NUMBER CR-0023556	APPROVED BY SBD	DATE 07/23/2025
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED		
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PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY BISWA		marathon™		
	DATE 12/24/2018				
	APPROVED BY SBD		DESCRIPTION OUTLINE 404/405T FR-SD & IEEE841		
	DATE 12/24/2018				
	REFERENCE		MATERIAL		PROCESS/FINISH
	THIRD ANGLE PROJECTION		SIZE B	DRAWING NUMBER SS557665	

PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
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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

IF MOTOR HAS 9 LEADS

T1(U1) T1(U1) T1(U1) → L1

T2(V1) T2(V1) T2(V1) → L2

T3(W1) T3(W1) T3(W1) → L3

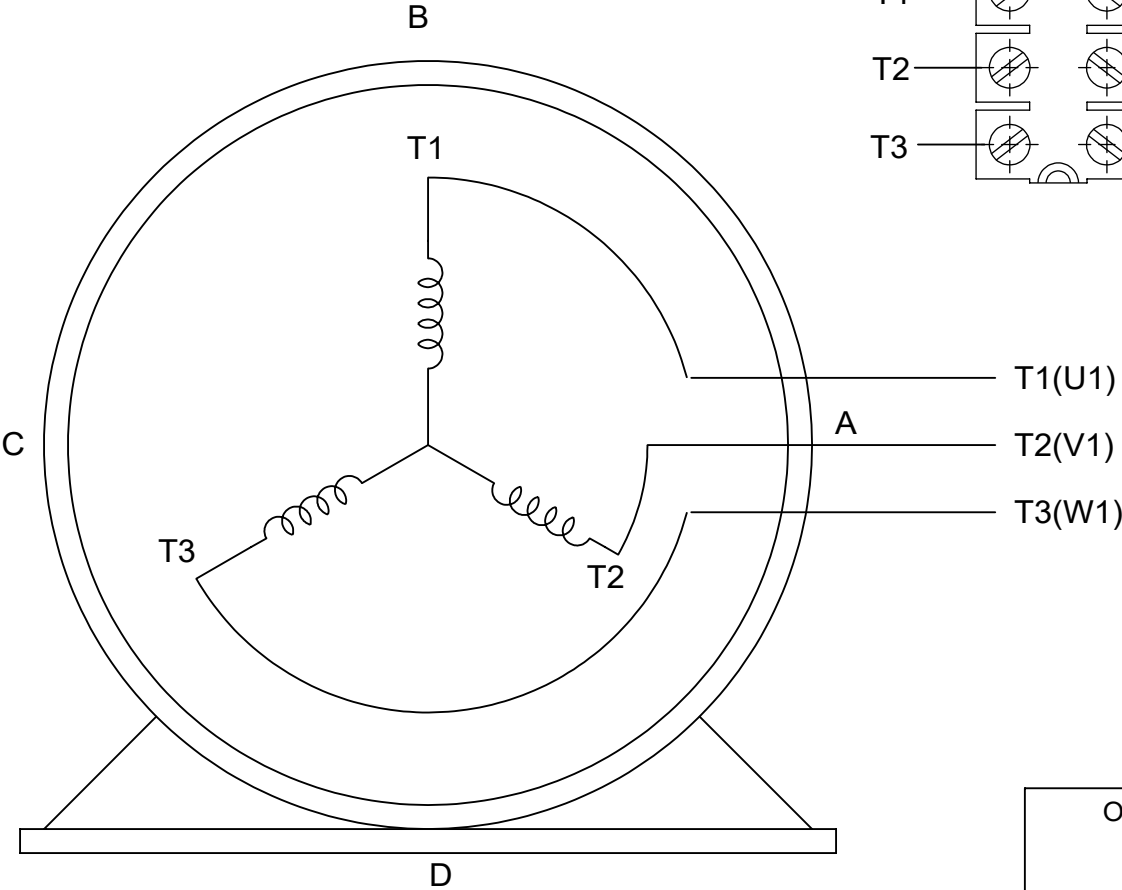
IF MOTOR HAS 6 LEADS

T1(U1) T1(U1) → L1

T2(V1) T2(V1) → L2

T3(W1) T3(W1) → L3

A-9806 DECAL



VIEW OF TERMINAL END

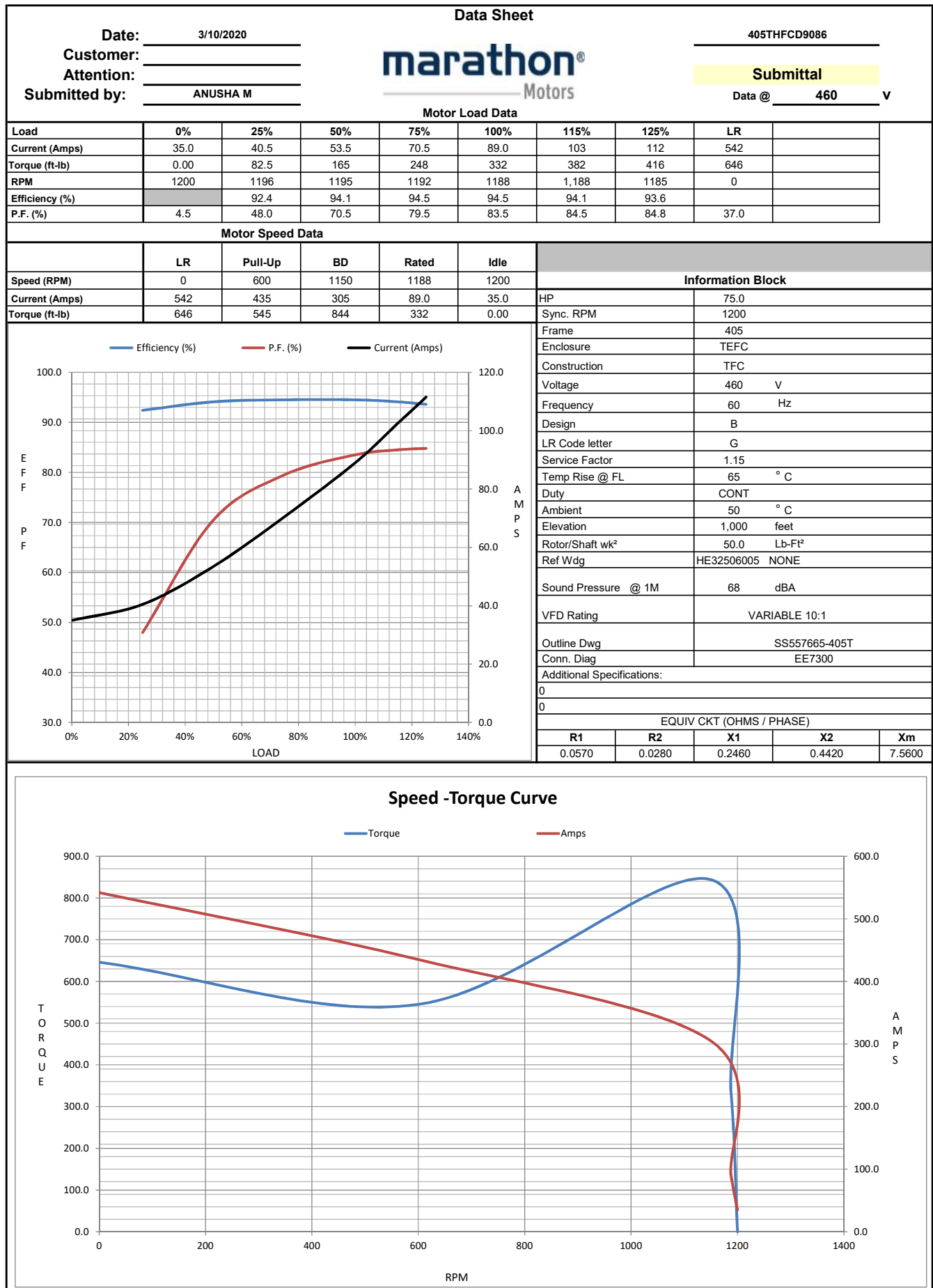
OPTIONAL CORD CONNECTION	
L1	WHITE
L2	RED
L3	BLACK

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	

marathon™		
DESCRIPTION CONNECTION DIAGRAM EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR		
MATERIAL	PROCESS/FINISH	
SIZE A	DRAWING NUMBER EE7300	SHEET 1 OF 1





DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 OUTLINE: SS557665-405T
 WINDING: HE32506005

NONE 4

MODEL #: 405THFCD9086
 CAT #: W596A

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
75	56	1200	1188	405T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)
3	60	460	89	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	94.5	3/4 LD EFF	94.5	1/2 LD EFF	94.1	GTD EFF	ELECT. TYPE		
F.L. PF	83.5	3/4 LD PF	79.5	1/2 LD PF	70.5	94.1	SQ CAGE INV RATED		

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
332 LB-FT	542	646 LB-FT 195%	844 LB-FT 254%	65

SOUND PRESSURE @	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APPROX. MOTOR
68 dBA	77 dBA	50.0 LB-FT²	1200 LB-FT²	25 SEC.	2	1381 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		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
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)
0.057	0.028	0.246	0.442	7.56	0.080

If Inverter equals NONE, contact factory for further information

* N O T E S *			INVERTER TORQUE: VARIABLE 10:1 INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR

PREPARED BY: ANUSHA M DATE: 3/10/2020	BRAKE: NONE NONE FT-LB: NA VOLTAGE: NONE	HZ:
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FORM: 3531 REV_4 2/27/06
 ** Subject to change without notice.