marathon®

Severe Duty Motors

Model No: 215THFS9101
Catalog No: W522

Severe Duty Motor, 3 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 215T Frame, TEFC

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Product Information Packet: Model No: 215THFS9101, Catalog No: W522 Severe Duty Motor, 3 HP, 3 Ph, 60 Hz, 460 V, 900 RPM, 215T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**3 Hp**
Output KW	**2.2 kW**	Voltage	**460 V**
Speed	**875 r/min**	Synchronous RPM	**900 r/min**
Service Factor	**1.15**	Frame	**215T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**86.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**5.0 A**
Power Factor	**66.5**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**H**	Drive End Bearing Size	**6307**
Opp Drive End Bearing Size	**6206**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

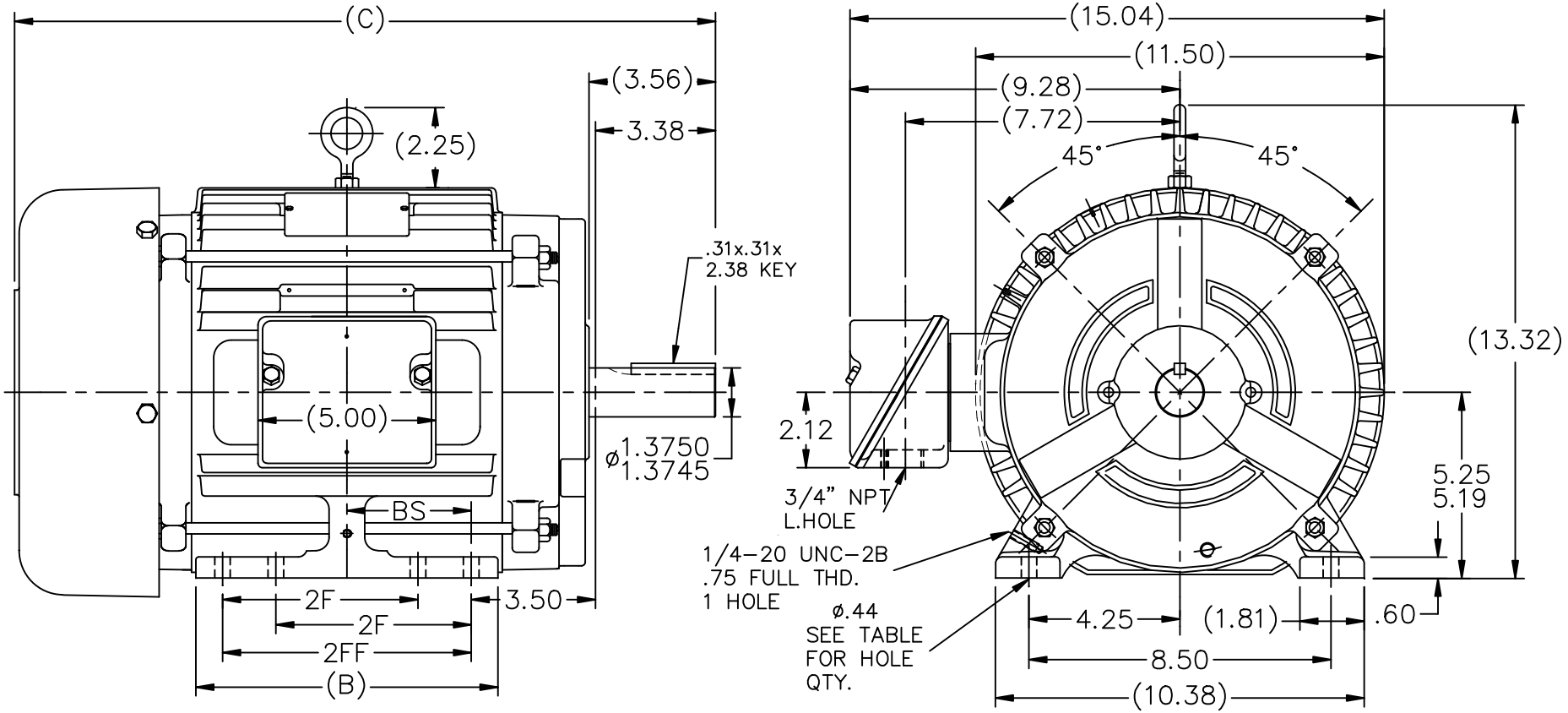
Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**8**	Rotation	**Reversible**
Resistance Main	**3.5 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**19.72 in**
Frame Length	**8.75 in**	Shaft Diameter	**1 3/8 in**
Shaft Extension	**3.56 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 20:1**		

Drawings

Connection Drawing	**A-EE7300**	Outline Drawing	**A-SS87301-875**

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DASH	FR.	C	B	BS	2F	2FF	FOOT HOLE QTY.	MOUNTING
725	213T	18.22	7.00	2.75	–	5.50	4	F1 OR F2
875	215T	19.72	8.50	3.50	–	7.00	4	F1 OR F2
875	213/5T	19.72	8.50	3.50	5.50	7.00	8	F1 OR F2
1000	215T	20.97	9.75	4.12	7.00	8.25	8	F1 OR F2

NOTES:
1. BOX CAN BE ROTATED IN 90° STEPS.
2. 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.

10-08-1999

NO.	REVISION	BY & DATE	CHK
11	UPDATED DRAWING	TJW 04/30/2007	
10	REVISED TOL. WAS 5.22/5.16 NOW 5.25/5.19	RJW 05-01-2006	ML
9	ADDED FOOT HOLE QTY. & MTG. TO TABLE CN 37322	TAT 01-14-2004	ML
8	REMOVED NOTE 'SEE FRAME WHEN REQ'D'	DRS 04-23-2001	
8	FROM GROUND HOLE CN 29200-1698		
7	UPDATED C' BOX GEOMETRY CN 28426	HLB 11-10-2000	

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±7'30"

MARATHON ELECTRIC

TITLE OUTLINE
213-15T FR. – BB – TEFC

MAT'L.
FINISH

DRAWN	PGK 07-29-1997
CHK	ML 08-07-1997
APPD	PH 08-11-1997
SCALE	7=32
REF	
FMF	
PREV	

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RFP
DIST LB
CAD FILE ss87301

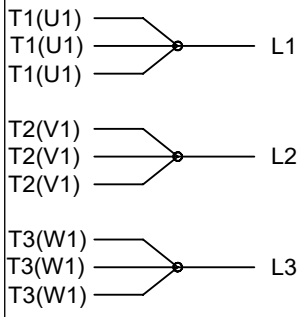
SIZE	DRAWING NO.	PAGE	OF	REV.
A	SS87301			11

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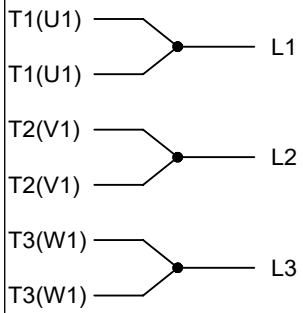
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

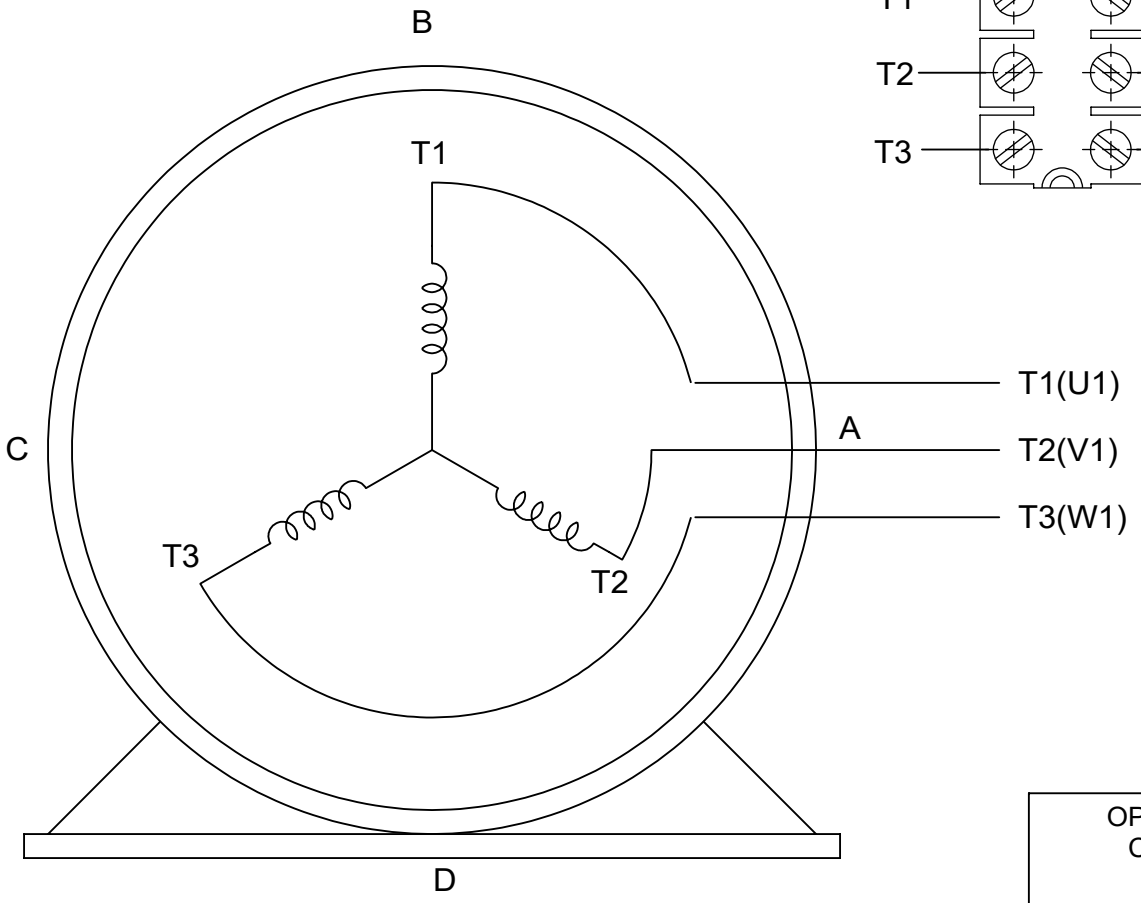
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



VIEW OF TERMINAL END

TERMINAL BLOCK WHEN SPECIFIED

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

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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ARE FOR REFERENCE ONLY

DRAWN BY: DA	
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: 6/16/2017
Customer:
Attention:
Submitted by: EARL BABBITTS

marathon electric

215THFS9101

Submittal

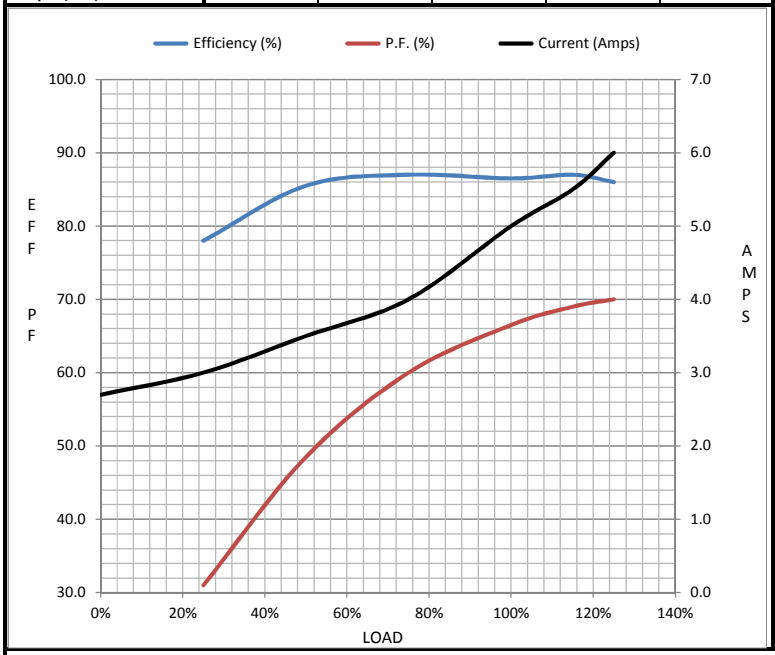
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	2.70	3.0	3.5	4.0	5.0	5.5	6.0	24.0	
Torque (ft-lb)	0.00	4.5	9.0	13.5	18.0	20.5	22.5	27.5	
RPM	900	893	887	880	875	872	865	0	
Efficiency (%)		78.0	85.5	87.0	86.5	87.0	86.0		
P.F. (%)	7.0	31.0	48.5	60.0	66.5	69.0	70.0	40.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	770	875	900
Current (Amps)	24.0	21.5	16.0	5.0	2.70
Torque (ft-lb)	27.5	24.5	46.0	18.0	0.00



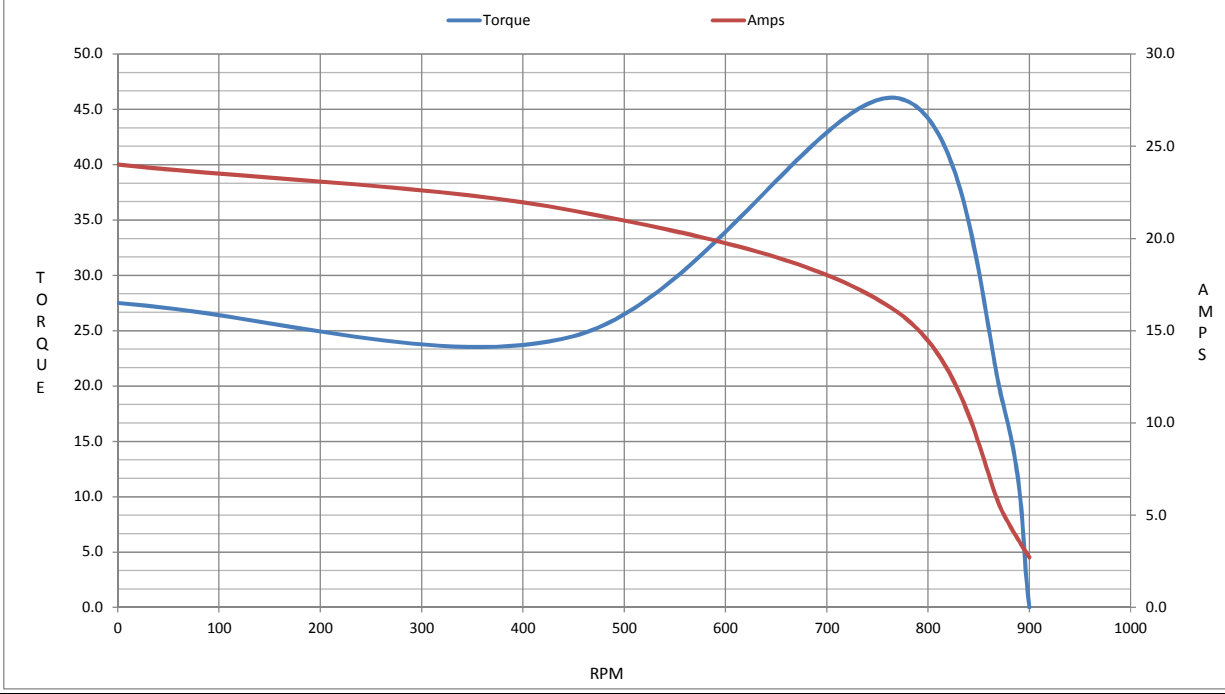
Information Block

HP	3.0	
Sync. RPM	900	
Frame	215	
Enclosure	TEFC	
Construction	TFN	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	H	
Service Factor	1.15	
Temp Rise @ FL	40	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	0.95	Lb-Ft²
Ref Wdg	215838 FS	
Sound Pressure @ 1M	52	dBA
VFD Rating	CONSTANT 20:1	
Outline Dwg	A-SS87301-875	
Conn. Diag	A-EE7300	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
2.1000	2.2610	8.8640	10.6900	82.9640

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	215THFS9101 DD	**WINDING#:**	215838 FS 7
CONN. DIAGRAM:	A-EE7300	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	A-SS87301-875		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3	2.24	900	875	215T	TEFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	5	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 86.5	3/4 LOAD EFF: 87	1/2 LOAD EFF: 85.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 66.5	3/4 LOAD PF: 60	1/2 LOAD PF: 48.5	84	SQ CAGE INV RATED	2.7

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
18 LB-FT	24	27.5 LB-FT 150	46 LB-FT 256	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
52 dBA	62 dBA	0.95 LB-FT^2	- LB-FT^2	20 SEC.	4	215 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6307	BALL 6206	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	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: CONSTANT 20:1
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

*
NOTES
*

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