PRODUCT INFORMATION PACKET

Model No: 213TTFS6531
Catalog No: E476
XRI®-SD Severe Duty Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM, 213T Frame, TEFC

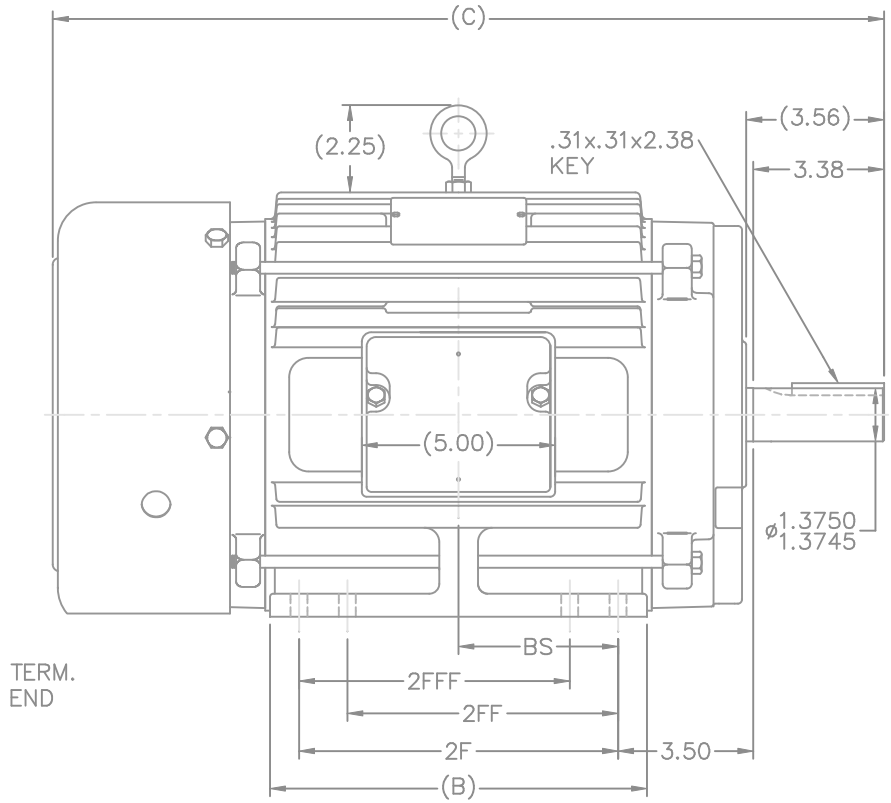
marathon® Motors

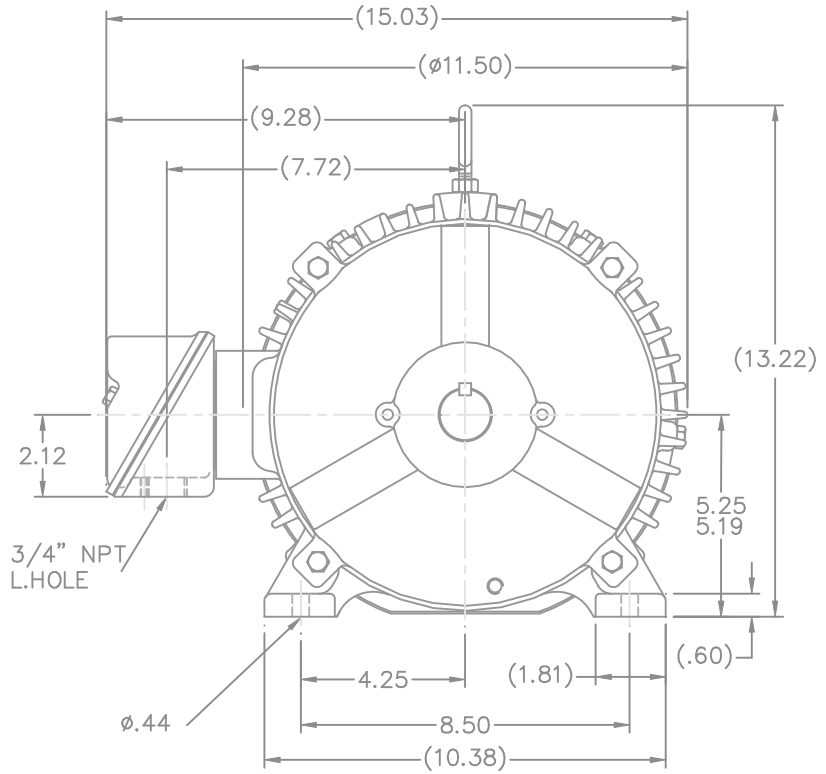
Nameplate Specifications

Phase	3	Output HP	7.50 & 5 Hp
Output KW	5.6 & 3.7 kW	Voltage	230/460 & 190/380 V
Speed	1770 & 1475 rpm	Service Factor	1.15 & 1.15
Frame	213T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 89.5 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	19.2/9.6 & 16.8/8.4 A	Power Factor	80
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	54
Number of Speeds	1	Hazardous Location	DIVISION 2 T2B

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	1.17 Ohms	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	1.375 in
Shaft Extension	3.56 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 20:1		
Connection Drawing	A-EE7308	Outline Drawing	SS84236-875





DASH	FRAME	B	2F	2FF	2FFF	BS	FOOT HOLE QTY.	MOUNTING	C CAST FAN GUARD	C STEEL FAN GUARD
725	213T	7.00	5.50	–	–	2.75	4	F1 OR F2	18.22	18.74
875	215T	8.50	7.00	–	–	3.50	4	F1 OR F2	19.72	20.24
875	213/5T	8.50	7.00	5.50	5.50	3.50	8	F1 OR F2	19.72	20.24
1000	213T	9.75	8.25	5.50	5.50	4.12	8	F1 OR F2	20.97	21.49
1000	215T	9.75	8.25	7.00	7.00	4.12	8	F1 OR F2	20.97	21.49

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.

NO.	REVISION	BY & DATE	CHK
13	REMOVED NOTE "SEE TABLE FOR HOLE QTY."	RDH 11-18-2003	ML
12	-875'S FOOT HOLE QTYS. WERE SWITCHED CN37323	ERH 10-21-2003	ML
11	REVISED TABLE TO CLARIFY MOUNTINGS CN37301	TAT 9-29-2003	ML
10	CORRECTEDCONDUIT BOX VIEWS CN28426	BLR 1-5-2000	
9	REVISED CONDUIT BOX CN28426	BLR 1-4-2000	
8	REVISED DASH TABLE AND FOOT HOLE DIM.	MRB 3-26-1999	

TOLERANCES UNLESS SPECIFIED: DEC. INCHES; .X ±.1; .XX ±.03; .XXX ±.005; .XXXX ±.0005; ANG ±7'30"

MARATHON ELECTRIC

TITLE OUTLINE
210T FR. – TEFC

MAT'L.

FINISH

CAD FILE ss84236

RFP

DIST LB

DRAWN	RM 1-11-1993
CHK	ML 1-12-1993
APPD	GK 1-12-1993
SCALE	5=16
REF	
FMF	
PREV	

SIZE B | DRAWING NO. SS84236 | PAGE OF | REV. 13

EE7308

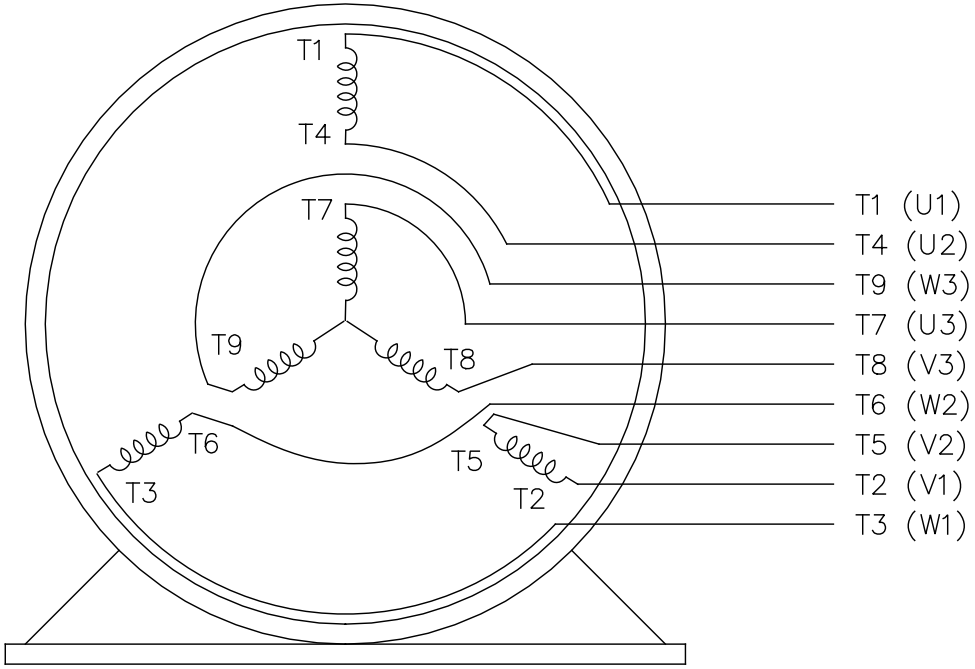
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

NO.	REVISION	BY & DATE	CHK
5	CHG TO REGAL LOGO	SL 09/10/2015	AB
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS
1	REDRAWN	RM 11/20/1990	

TOLERANCES UNLESS SPECIFIED

ANG	DEC.	INCHES
	.X	±.1
	.XX	±.02
	.XXX	±.005
	.XXXX	±.0005
ANG		±7'30"

Regal Beloit America, Inc.

TITLE CONNECTION DIAGRAM
3ø – DUAL VOLTAGE MOTOR

MAT'L.
FINISH
CAD FILE ee7308
RFP
DIST WP

DRAWN RM	11/20/1990
CHK ML	11/21/1990
APPD SAS	04/24/2003
SCALE	1=1
REF	
FMF	
PREV	

SIZE	DRAWING NO. PAGE OF	REV.
A	EE7308	5

CERTIFICATION DATA SHEET

Model#:	213TTFS6531 EU	**WINDING#:**	K2134158 NONE 6
CONN. DIAGRAM:	A-EE7308	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	SS84236-875		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2&5	5.6&3.7	1800	1770&1475	213T	TEFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	19.2/9.6&16.8/8.4	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 91.7&89.5	3/4 LOAD EFF: 91	1/2 LOAD EFF: 90.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80&76	3/4 LOAD PF: 74	1/2 LOAD PF: 63	89.2	SQ CAGE INV RATED	9 / 4.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
22.3 LB-FT	127 / 63.5	52 LB-FT 233	72 LB-FT 323	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.95 LB-FT^2	75 LB-FT^2	25 SEC.	2	170 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: 1.5 X BASE SPEED

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

*
NOTES
*

DATE: 06/22/2017 05:46:39 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 6/19/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

213TTFS6531

Submittal

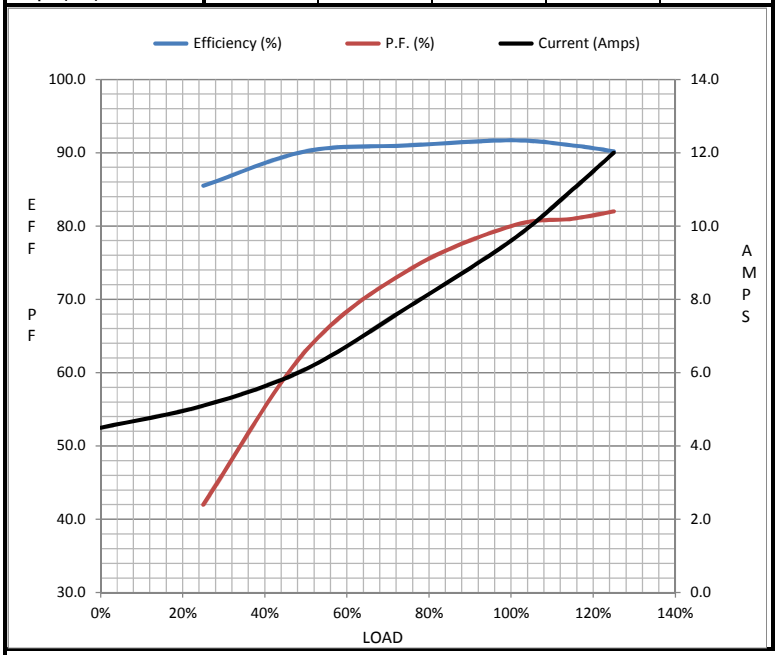
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.5	5.1	6.1	7.8	9.6	11.0	12.0	63.5	
Torque (ft-lb)	0.00	5.5	11.0	16.5	22.3	25.5	28.0	52.0	
RPM	1800	1790	1785	1775	1770	1,765	1760	0	
Efficiency (%)		85.5	90.2	91.0	91.7	91.0	90.2		
P.F. (%)	5.5	42.0	63.0	74.0	80.0	81.0	82.0	45.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1600	1770	1800
Current (Amps)	63.5	57.0	45.0	9.6	4.5
Torque (ft-lb)	52.0	49.0	72.0	22.3	0.00



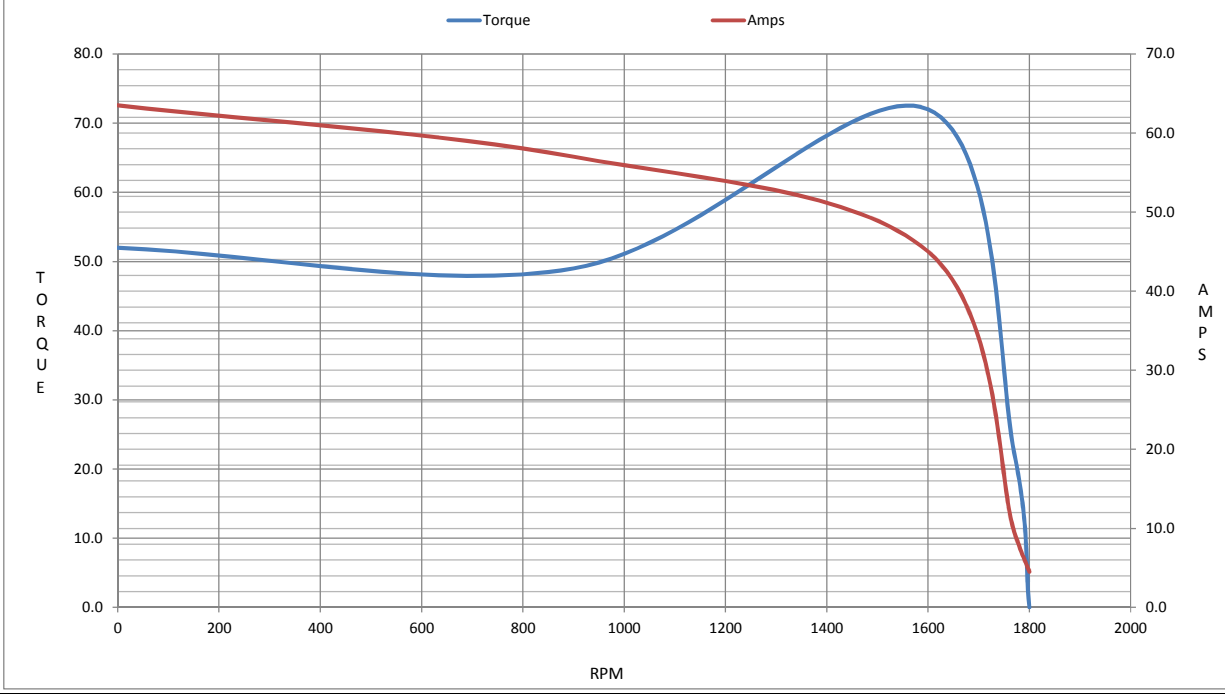
Information Block

HP	7.5
Sync. RPM	1800
Frame	213
Enclosure	TEFC
Construction	TFN
Voltage	230/460#190/380 V
Frequency	60 Hz
Design	B
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	50 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	0.95 Lb-Ft²
Ref Wdg	K2134158 NONE
Sound Pressure @ 1M	62 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	SS84236-875
Conn. Diag	A-EE7308
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.5970	0.4540	2.3440	3.5000	52.1640

Speed -Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 213TTFS6531

(Model No. may contain prefix and/or suffix characters)

Catalog No : E476

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)
EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:

Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:

Julian Clark
Marketing Engineer

Created on 10/08/2022

CE 22