

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 213THFND9030
Catalog No: W533A
7.5,1800,TEFC,213T,3/60/575
IEEE 841



Regal and Marathon are trademarks of Regal Beloit Corporation or one of its affiliated companies.
©2018 Regal Beloit Corporation, All Rights Reserved. MC017097E

REGAL



Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	575 V
Current	7.7 A	Speed	1765 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	H	Frame	213T
Enclosure	Totally Enclosed Fan Cooled	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6307
Opp Drive End Bearing Size	6208	UL	Recognized
CSA	Y	CE	Y
IP Code	56		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Mounting	Rigid base	Motor Orientation	HORIZONTAL
Drive End Bearing	BALL	Opp Drive End Bearing	BALL
Frame Material	Cast Iron	Shaft Type	T
Overall Length	19.62 in	Frame Length	9.12 in
Shaft Diameter	1.375 in	Shaft Extension	3.38 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Outline Drawing	038221-912	Connection Diagram	A-EE7300

4

3

Uncontrolled Copy

2

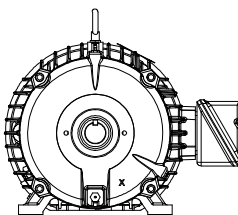
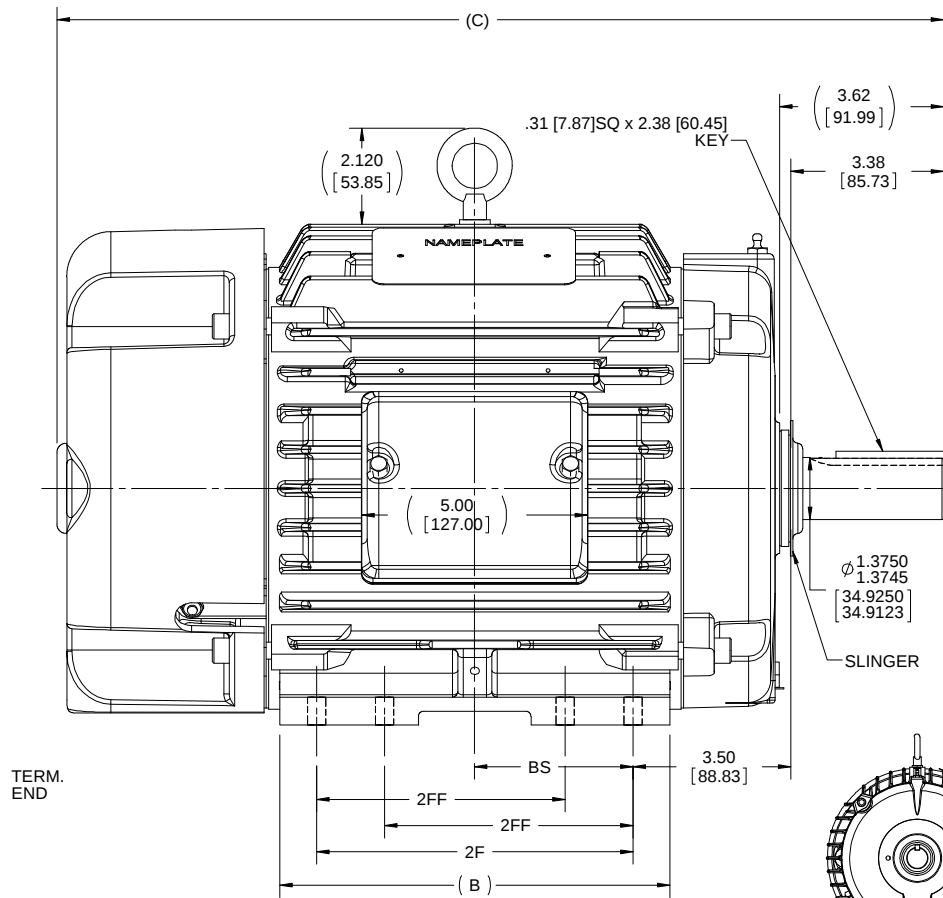
1

B

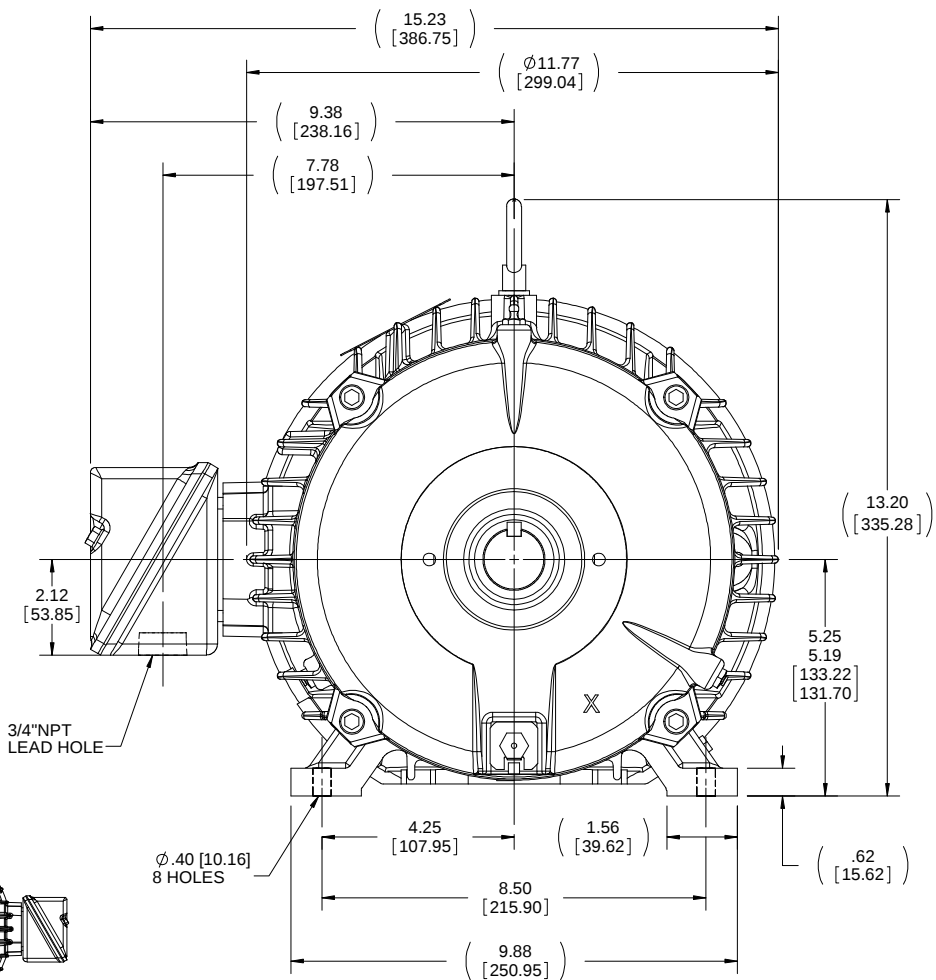
B

A

A



F2 VIEW



NOTES:

1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED IN OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	C	B	2F	2FF	BS
912	19.62 [498.34]	8.63 [295.40]	7 [177]	5.5 [139.7]	3.5 [88.9]

DRAWING REVISION	REVISION BY	DATE
ECO-0144882	APPROVED BY	DATE
ECO DESCRIPTION		
OUTLINE CONVERSION PROJECT		
COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.		
PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. (OWNER) AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.		

TOLERANCES UNLESS OTHERWISE SPECIFIED:	ANGLE
DEC. INCH. mm	±0.5°
.X ±0.1 [±2.5]	
.XX ±0.01 [±0.25]	
.XXX ±0.005 [±0.127]	
.XXXX ±0.0005 [±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381]	
CORNER FILLETS: .02 [51]	
MACHINED SURFACES: 125/3.2	
mm SHOWN IN [BRACKETS]	

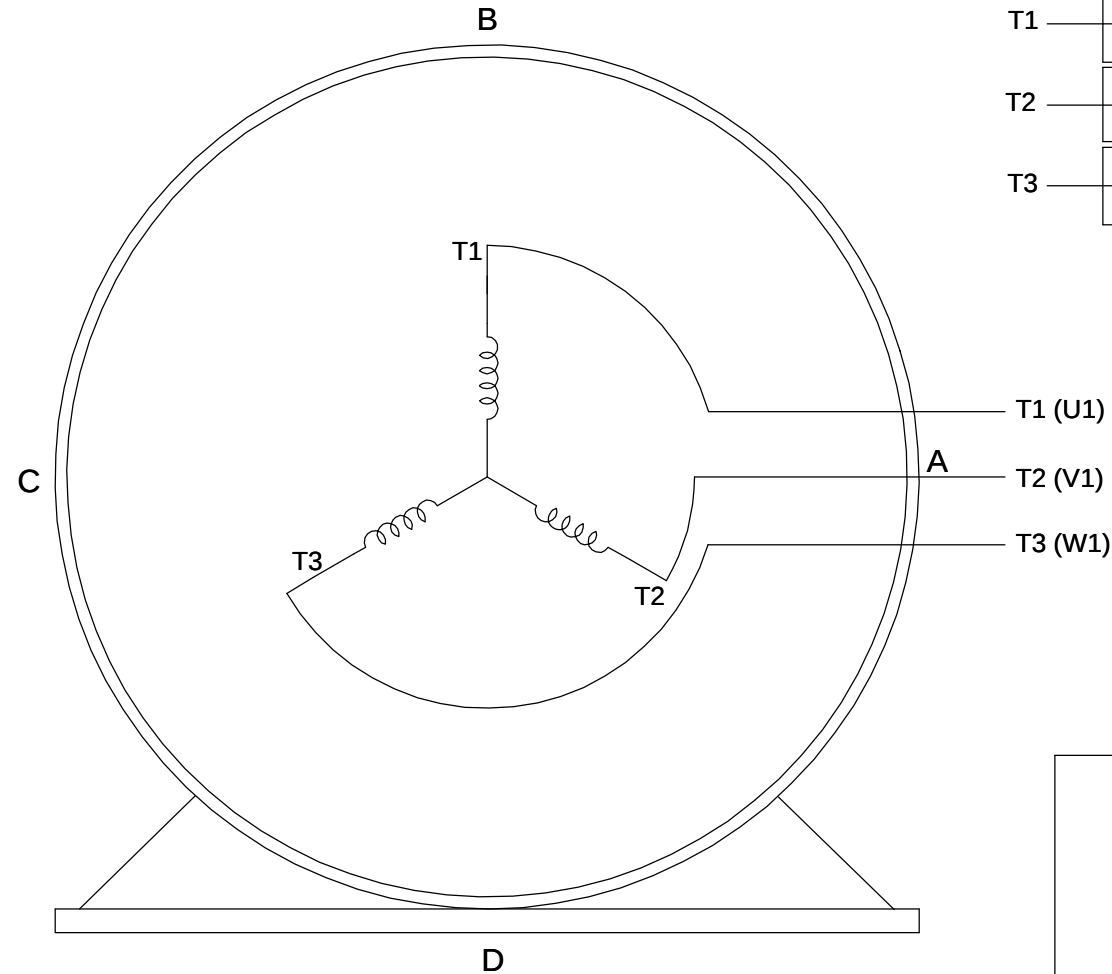
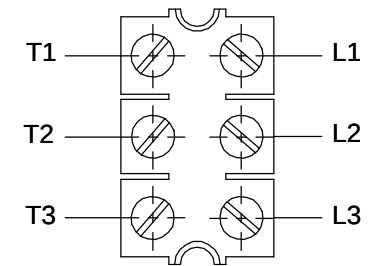
DRAWN BY	DATE
H. ADIKE	4/12/2018
APPROVED BY	DATE
ST	05/14/2018
PROCESS/FINISH	THIRD ANGLE PROJECTION

REGAL™	Regal Beloit America, Inc.
DESCRIPTION	OUTLINE
MATERIAL	
SIZE	B
DRAWING NUMBER	038221
SHEET	1 OF 1

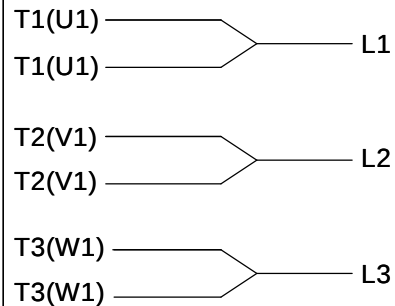
THREE PHASE - SINGLE VOLTAGE MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

TERMINAL BLOCK WHEN SPECIFIED



IF MOTOR HAS 6 LEADS



A-9806 DECAL

OPTIONAL CORD CONNECTION



VIEW OF TERMINAL END

DRAWING REVISION AB	REVISION BY JJB	DATE 06-27-2017
ECO ECO-0125361	APPROVED BY TB	DATE 06-27-2017
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.		

DRAWN BY DA
DATE 03-26-1993
APPROVED BY TB
DATE 03-26-1993
REFERENCE

THIRD ANGLE
PROJECTION



Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL

PROCESS/FINISH

SIZE
A

DRAWING NUMBER

EE7300

SHEET
1 OF 1



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:		CUSTOMER P.O. #:	
ORDER #:	A-EE7300	REFERENCE MODEL #:	213THEND9030
CONN. DIAGRAM:	TBD	CAT #:	W533A
OUTLINE:	TBD	CUSTOMER PART #:	
WINDING:	K2134279	NONE	3
SPEED:		MOUNTING:	F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN					
7.5	5.6	1800	1765	213T	TEFC	TFN	H	B					
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.				
3	60	575	7.7	LINE OR INVERTER	CONT	F	1.15	40	3300				
F.L. EFF		91.7	3/4 LD EFF	92.2	1/2 LD EFF	91.6	GTD EFF	ELECT. TYPE					
F.L. PF		79.2	3/4 LD PF	72.9	1/2 LD PF	61.1	91.0	SO CAGE INV RATED					
F.L. TORQUE		LR AMPS @ 460 V		L.R. TORQUE		B.D. TORQUE		F.L. RISE (°C)					
22.3	LB-FT	54.0		52.9	LB-FT	237%	75.0	LB-FT	336%	50			
@ 3 FT.		POWER		ROTOR WK²		MAX. LOAD WK²		SAFE STALL TIME		STARTS/HOUR		MOTOR WGT	
62	dba	71	dba	0.85	LB-FT²	45	LB-FT²	25	SEC.	2		140	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	UM SEVERE	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)
BEARINGS			GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL
DE	ODE								
BALL	BALL	POLYREX EM			NONE		NONE		1144 STRESSPROOF (C-223)
6307	6208								CAST IRON
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		
1.188	1.731	3.841	4.958	78.772	0.080		ODE		
INVERTER TORQUE: CONSTANT 2:1									
INV. HP SPEED RANGE: NONE									
ENCODER: NONE									
NONE									
NONE									
NONE									
NONE									
NONE PPR									

PREPARED BY: FAREEDA DUDEKULA	
DATE: 9/12/2018	
FORM: 3531 REV_4 2/27/06	UL: V-LIME-INS.CONST UL REC

Data Sheet

Date: 9/12/2018

Customer:

Attention:

Submitted by:

FAREEDA DUDEKULA

213THFND9030



Submittal

Data @ 575 V

Motor Load Data

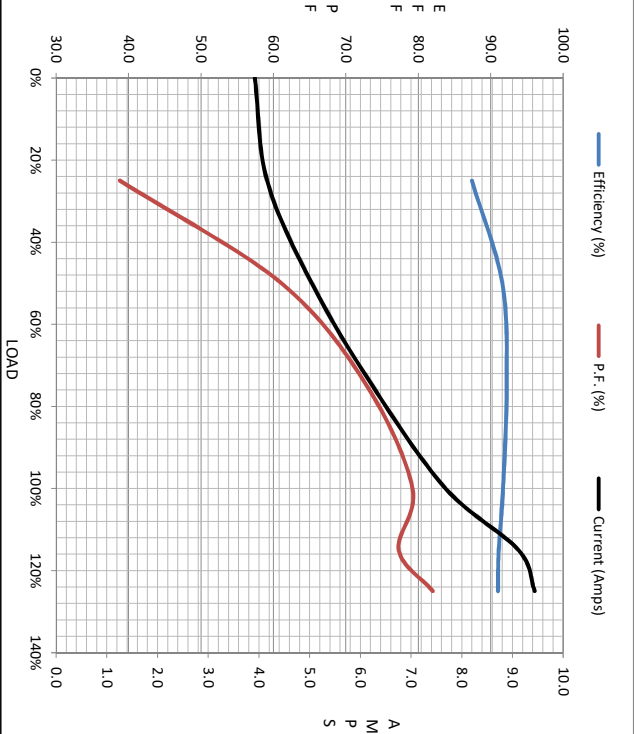
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	3.9	4.2	5.0	6.2	7.7	9.1	9.4	54.0
Torque (ft-lb)	0.00	5.5	11.0	16.6	22.3	25.5	28.0	52.9
RPM	1800	1792	1784	1775	1765	1,765	1756	0
Efficiency (%)		87.4	91.6	92.2	91.7	91.1	91.0	
P.F. (%)	4.7	38.8	61.1	72.9	79.2	77.3	82.0	42.6

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1600	1765	1800
Current (Amps)	54.0	45.6	32.8	7.7	3.9
Torque (ft-lb)		49.0	75.0	22.3	0.00

Information Block

HP	7.5			
Sync. RPM	1800			
Frame	213182TTC6080			
Enclosure	TEFC			
Construction	TFN			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
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	0.85 Lb-Ft²			
Ref Wdg	K2134279 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	TBD			
Conn. Diag	A-EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.1880	1.7310	3.8410	4.9580	78.7720



Speed - Torque Curve

