

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 284THFNA19102

Catalog No: W543

10 HP Severe Duty Motor, 3 phase, 900 RPM, 460 V, 284T Frame, TEFC  
Severe Duty Motors



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**RegalRexnord**

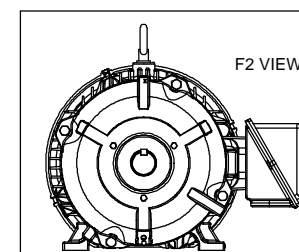
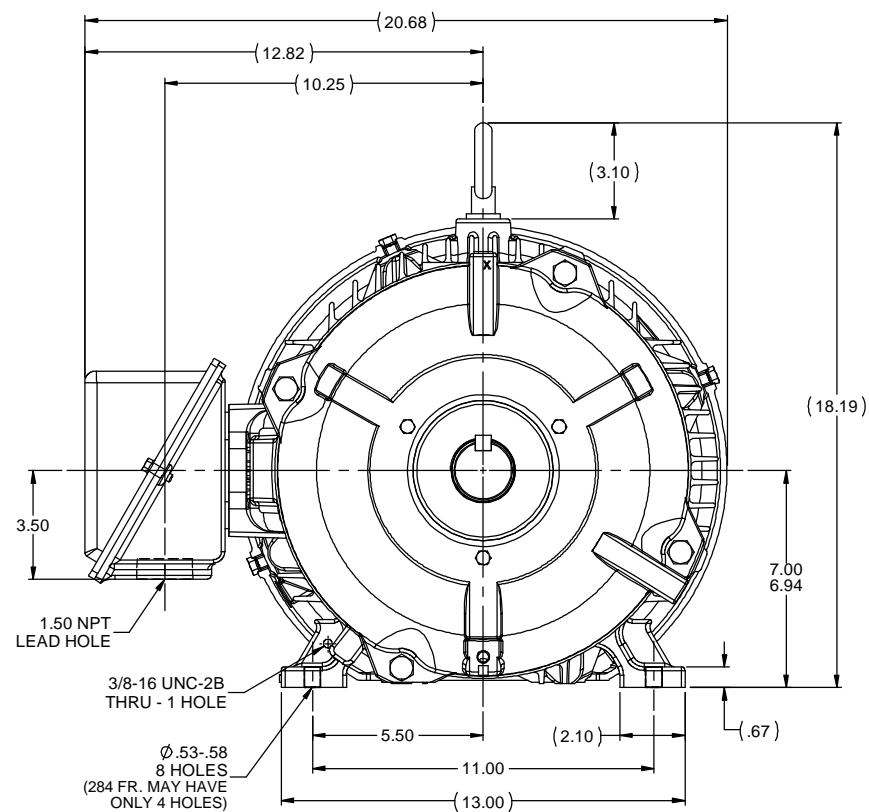
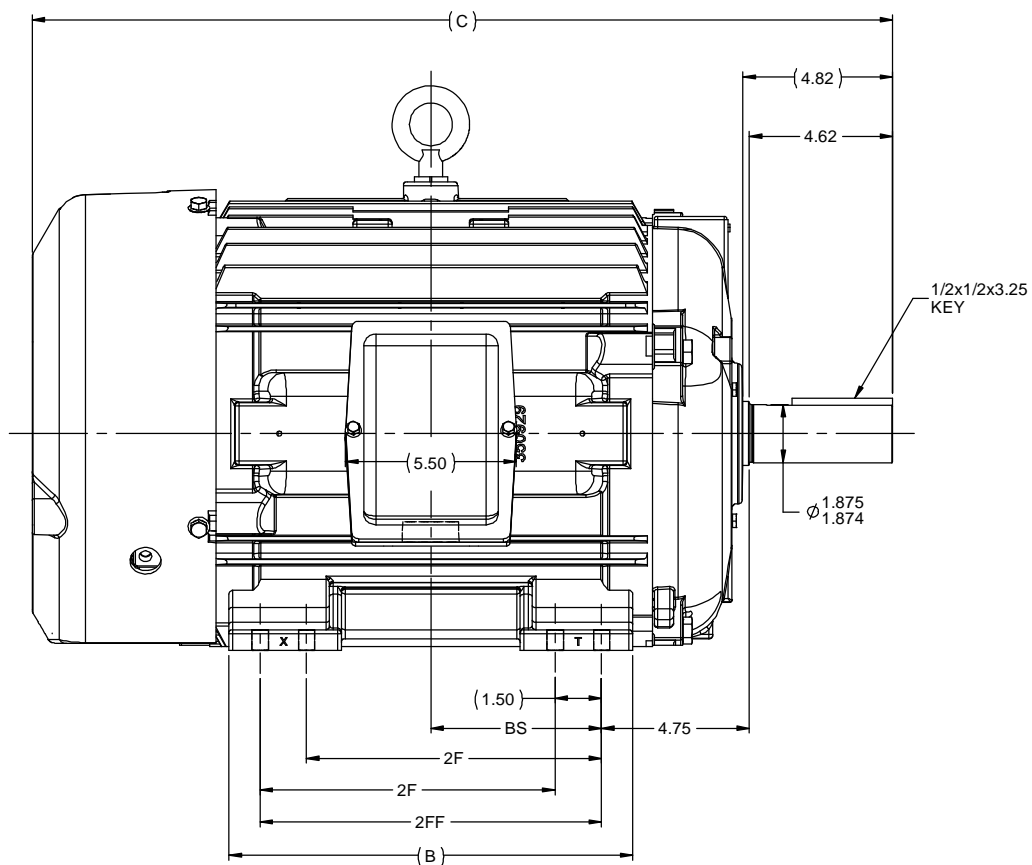
**Nameplate Specifications**

Output HP	10 Hp	Output KW	7.5 kW
Frequency	60 Hz	Voltage	460 V
Current	15.5 A	Speed	880 rpm
Service Factor	1.15	Phase	3
Efficiency	90.2 %	Power Factor	67
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Frame	284T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

**Technical Specifications**

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	8	Rotation	Reversible
Resistance Main	.715 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	26.21 in
Frame Length	12.75 in	Shaft Diameter	1.875 in
Shaft Extension	4.82 in	Assembly/Box Mounting	F1/F2 Capable
Connection Drawing	A-EE7300	Outline Drawing	B-SS311057-1275

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- NOTES:
1. CONDUIT BOX CAN BE ROTATED UP TO 270 ° FROM ITS ORIGINAL POSITION.
  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.

				TOLERANCES UNLESS SPECIFIED		marathon <sup>®</sup> electric	DRAWN CAV 10-18-2000		
				DEC	INCHES		CHK	ML	10-18-2000
4	UPDATED TO NEW FRAME DESIGN	MU106205	MSG 08-22-2012	MSG	x	±.1	TITLE OUTLINE - TEFC - TGN 280T FR. - BB - STD - 12.50 LAM.		
3	REDRAWN IN AUTOCAD - NO CHANGE		TAT 06-29-2004	ML	xx	±.03			
2	ADDED NOTE 3	MU35810	DAH 02-06-2001	ML	xxx	±.005	SCALE 1:4		
1	NEW DRAWING	MU34031	MSG 08-23-2012	ML	xxxx	±.0005			
NO	REVISION	BY & DATE	CHK	ANG	±1/2°	FINISH	FMF	MU34031	
THIRD ANGLE PROJECTION							SIZE	DRAWING NO	REV
RFP 10-18-2000							B	SS311057	4
NETWORK FILE NAME SS311057									

# 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		
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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
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## CERTIFICATION DATA SHEET

Model#: 284THFNA19102 BB

WINDING#: K284842 NONE 7

CONN. DIAGRAM: A-EE7300

ASSEMBLY: F1/F2 CAPABLE

OUTLINE: B-SS311057-1275

## TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
10	7.5	900	880	284T	TEFC	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	15.5	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 90.2	3/4 LOAD EFF: 90.2	1/2 LOAD EFF: 88.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 67	3/4 LOAD PF: 60	1/2 LOAD PF: 48	89.5	SQ CAGE INV RATED	9

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
60 LB-FT	72	85 LB-FT 140	132 LB-FT 220	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
54 dBA	64 dBA	4 LB-FT^2	- LB-FT^2	20 SEC.	-	460 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	BALL						
6311	6210	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	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 10:1
INV. HP SPEED RANGE: NONE
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

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DATE: 06/23/2017 07:32:08 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.

## Data Sheet

Date: 15-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



284THFNA19102

Submittal

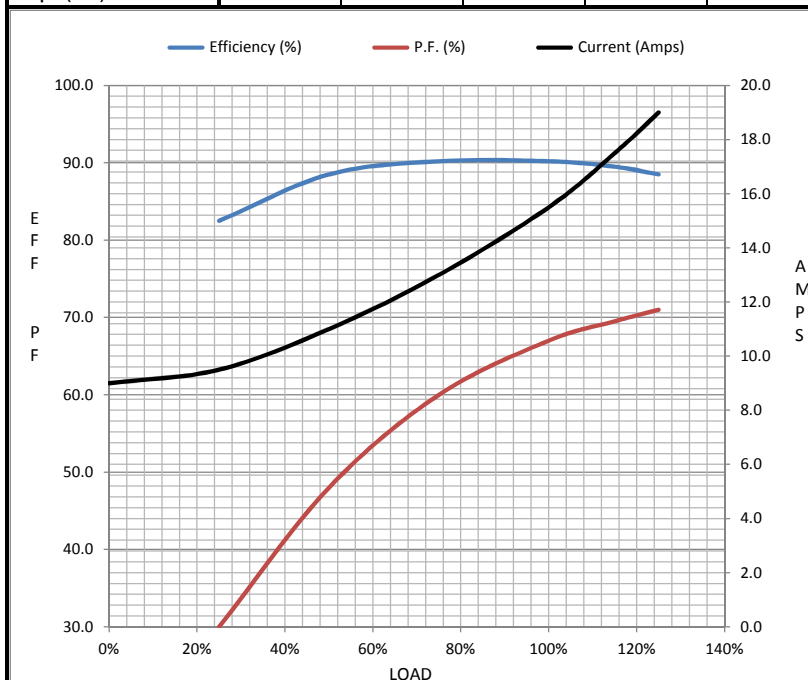
Data @ 460 V

## Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	9.0	9.5	11.0	13.0	15.5	17.5	19.0	72.0	
Torque (ft-lb)	0.00	14.5	29.5	44.5	60.0	69.5	76.0	85.0	
RPM	900	895	890	885	880	875	872	0	
Efficiency (%)		82.5	88.5	90.2	90.2	89.5	88.5		
P.F. (%)	5.0	30.0	48.0	60.0	67.0	69.5	71.0	28.0	

## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block	
Speed (RPM)	0	500	805	880	900	HP	10.0
Current (Amps)	72.0	68.0	42.0	15.5	9.0	Sync. RPM	900
Torque (ft-lb)	85.0	75.0	132	60.0	0.00	Frame	284



Frame	284			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	50 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	4.0 Lb-Ft²			
Ref Wdg	K284842 NONE			
Sound Pressure @ 1M	54 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS311057-1275			
Conn. Diag	A-EE7300			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.4690	0.4540	2.4990	3.8910	28.8260

## Speed -Torque Curve

