

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 284THFPA8028

Catalog No: Y569

Blue Max® Inverter Duty Encoder Motor, 25 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 284T Frame, TEFC



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RegalRexnord

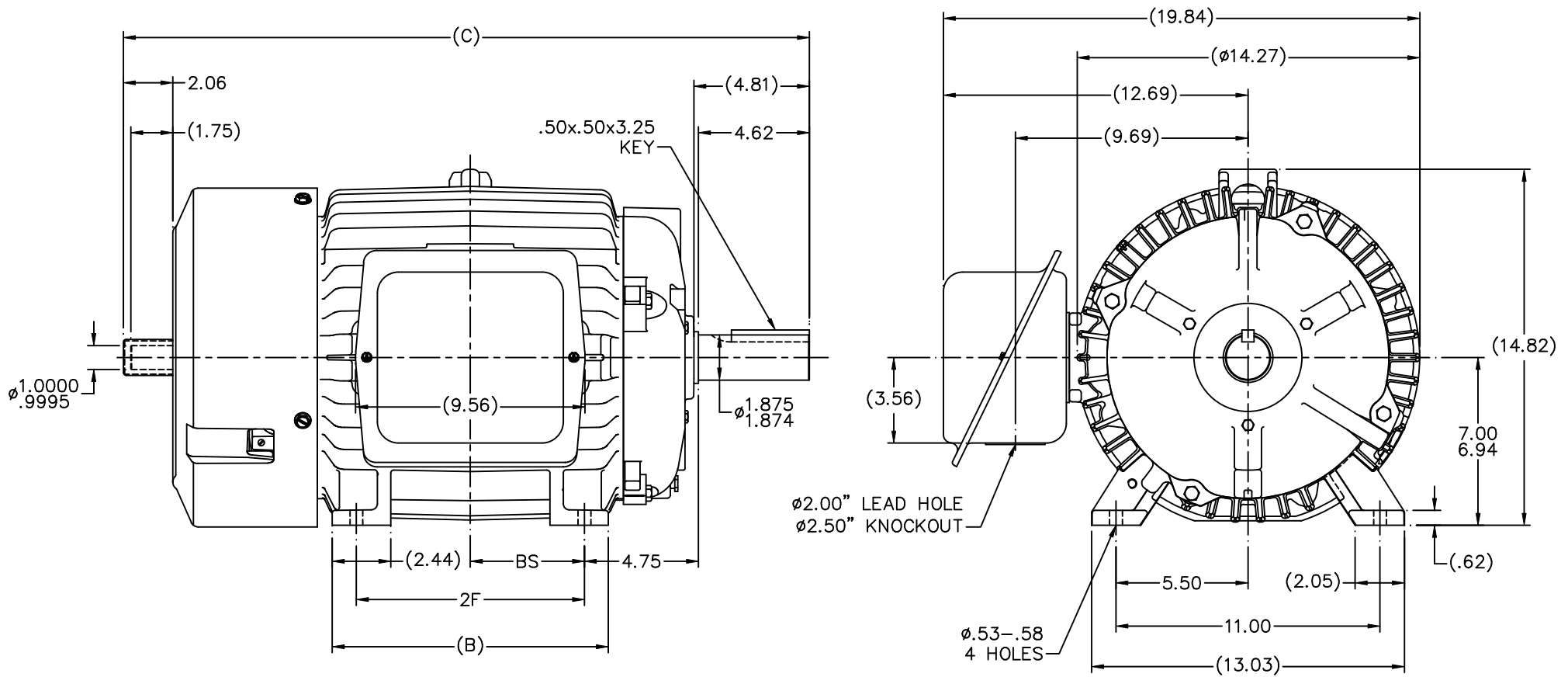


Nameplate Specifications

Output HP	25 Hp	Output KW	18.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	63.0/31.5 A	Speed	1765 rpm
Service Factor	1	Phase	3
Efficiency	91.7 %	Power Factor	82
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	G
Frame	284T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.325 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	28.58 in
Frame Length	12.75 in	Shaft Diameter	1.875 in
Shaft Extension	4.81 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS311075-1275	Connection Drawing	A-EE7308T



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. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

(B-SS311038)

						TOLERANCES UNLESS SPECIFIED				DRAWN KL 10-26-2000	
						DEC.	INCHES			CHK	DJK 10-27-2000
						.XX	±.03	TITLE OUTLINE - ENCODER PROV. 280T FR. - TEFC - TFPA - 11.00" LAM.		SCALE 1=4	
2 CORRECTED C'BOX HOLE NOTE CN29200-1454 HLB 02-16-2001						.XXX	±.005			REF	
1 NEW DRAWING MU34251 KL 10-30-2000						.XXXX	±.0005	MATL		APPD DJK 10-27-2000	
NO. REVISION						CHK	ANG	FINISH		PREV	
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT						RFP	CAD FILE SS311075		SIZE	DRAWING NO.	PAGE OF
DASH	FRAME	B	C	2F	BS	DIST LB		B	SS311075	2	
1275	284T	11.50	28.58	9.50	4.75						
1425	286T	13.00	30.08	11.00	5.50						

HIGH VOLTAGE



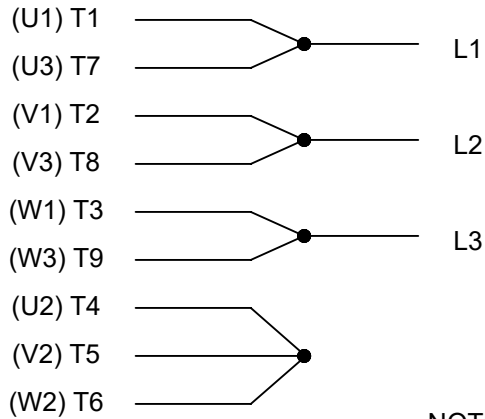
**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T

CERTIFICATION DATA SHEET

Model#: 284THFPA8028 AB WINDING#: K2564204 R13 1
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS311075-1275

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN			
25	18.7	1800	1765	284T	TEFC	G	INV			
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION	
3	60	230/460	63/31.5	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300	
FULL LOAD EFF: 91.7		3/4 LOAD EFF: 92.4		1/2 LOAD EFF: 91		GTD. EFF		ELEC. TYPE		NO LOAD AMPS
FULL LOAD PF: 82		3/4 LOAD PF: 75.5		1/2 LOAD PF: 65		90.2		SQ CAGE INV DUTY		28 / 14
F.L. TORQUE		LOCKED ROTOR AMPS		L.R. TORQUE		B.D. TORQUE		F.L. RISE°C		
74.4 LB-FT		364 / 182		147 LB-FT 198		195 LB-FT 262		65		
SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT				
75 dBA	85 dBA	2.7 LB-FT^2	- LB-FT^2	- SEC.	-	393 LBS.				

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.22686	0.17784	0.80712	1.09782	18.582
RM	ZREF	XR	TD	TD0
998.64	11.4	4.7	0.017	0.295

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	ENCODER	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311	6210						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: PROVISIONS ONLY
DYNAPAR HS35
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE

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Uncontrolled Copy

NONE	NONE	
- FT-LB	NONE V	NONE Hz

DATE: 06/23/2017 07:34:08 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 16-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



284THFA8028

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	14.0	15.5	20.0	25.0	31.5	35.3	39.0	182
Torque (ft-lb)	0.00	18.5	37.0	55.5	74.4	84.0	93.5	147
RPM	1800	1794	1785	1775	1765	1,763	1760	0
Efficiency (%)		86.5	91.0	92.4	91.7	91.4	91.0	
P.F. (%)	6.0	43.0	65.0	75.5	82.0	82.3	82.5	39.5

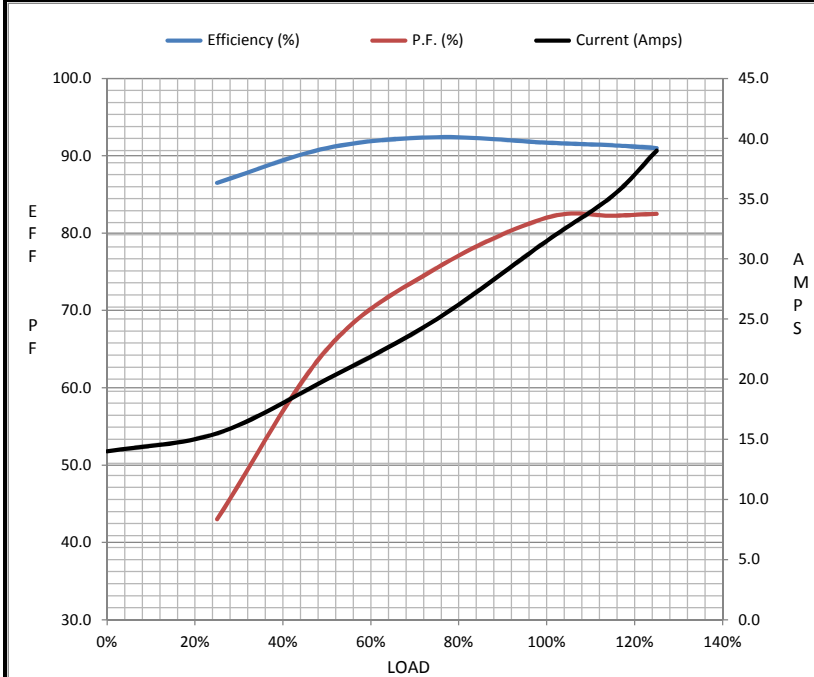
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1765	1800
Current (Amps)	182	165	115	31.5	14.0
Torque (ft-lb)	147	140	195	74.4	0.00

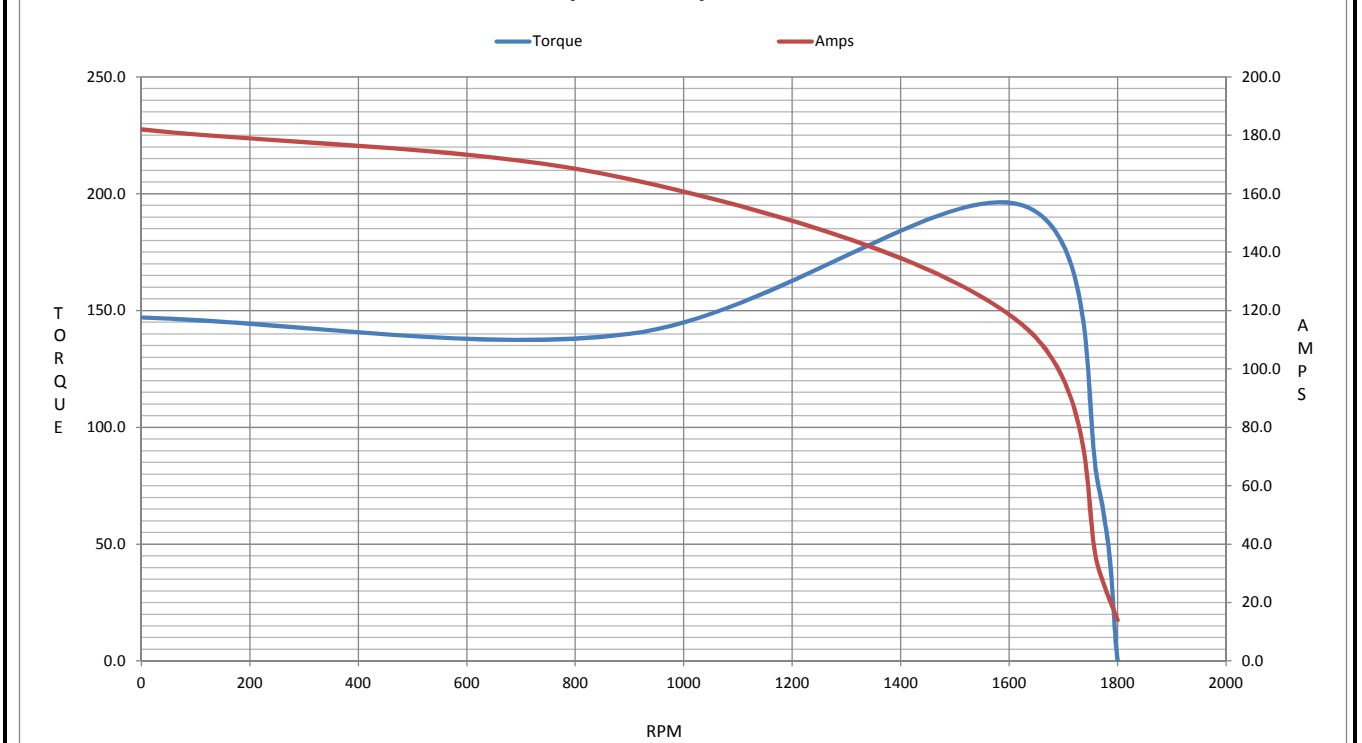
MOTOR IS TOO HOT

Information Block

HP	#VALUE!			
Sync. RPM	NA			
Frame	284			
Enclosure	TEFC			
Construction	TFP			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	HOT			
Temp Rise @ FL	65 °C			
Duty	SPL			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	2.70 Lb-Ft ²			
Ref Wdg	K2564204 R13			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS311075-1275			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2270	0.1780	0.8070	1.0980	18.5820



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 : 284THFPA8028

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

Catalog No : Y569

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 09/01/2022

CE 22