

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324THFPA8028

Catalog No: Y571

Blue Max® Inverter Duty Encoder Motor, 40 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 324T Frame, TEFC



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RegalRexnord



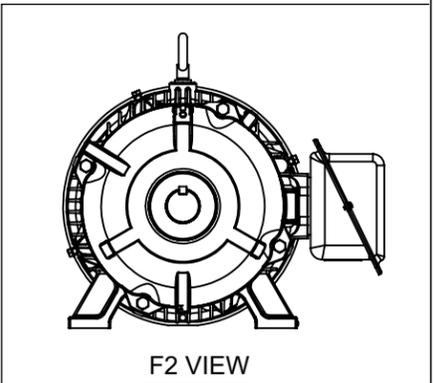
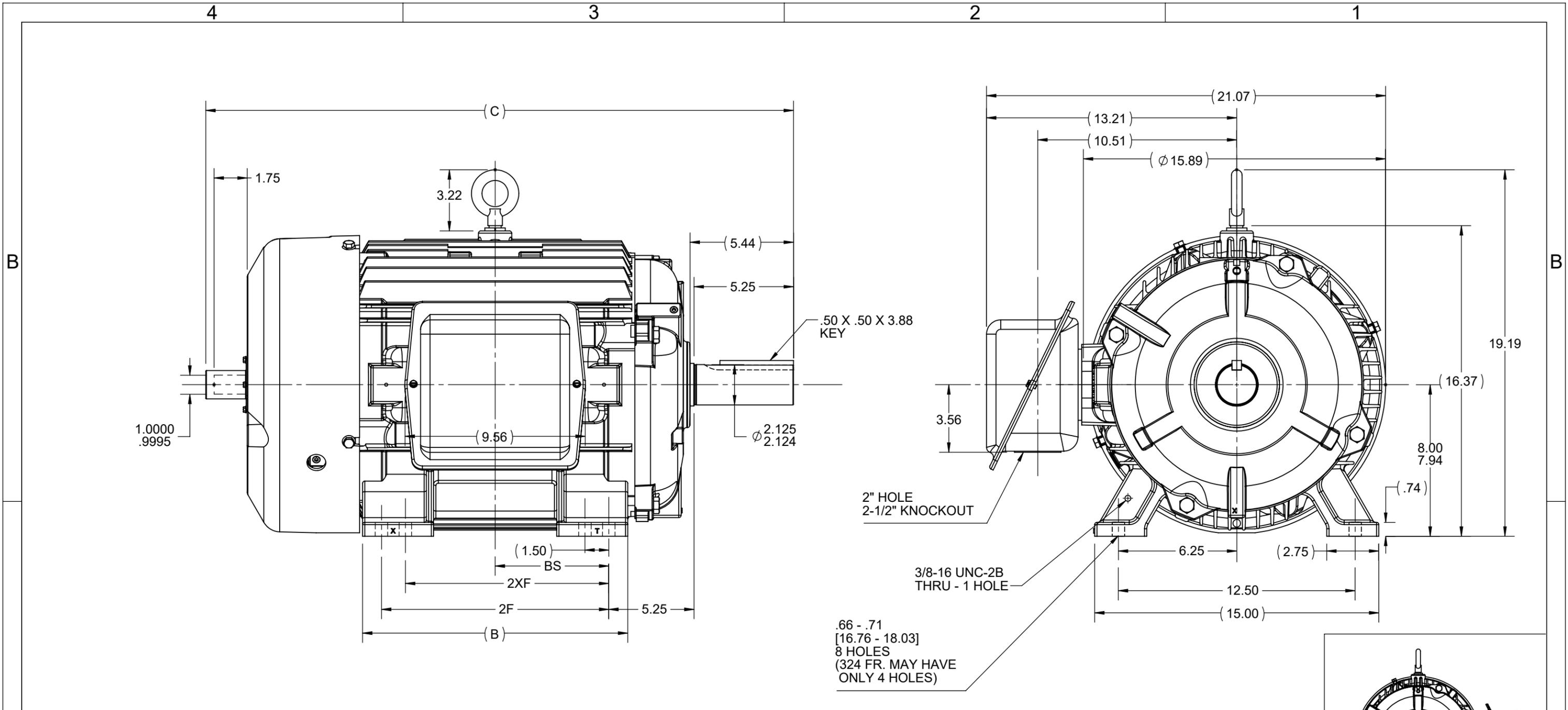
Nameplate Specifications

Output HP	40 Hp	Output KW	30.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	100.0/50.0 A	Speed	1770 rpm
Service Factor	1	Phase	3
Efficiency	91.7 %	Power Factor	81.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	G
Frame	324T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6311
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	.124 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	31.03 in
Frame Length	14.75 in	Shaft Diameter	2.125 in
Shaft Extension	5.43 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS311259-1475	Connection Drawing	A-EE7308T

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

DASH	FRAME	C	B	2F	2XF	BS
1475	324T	31.03	14.00	10.50	---	5.25
1625	326T	32.53	14.00	12.00	10.5	6.00

DRAWING REVISION 4	REVISION BY BG	REV DATE/© DATE 6/30/2021
ECO CR-0003325	APPROVED BY VJR	DATE 6/30/2021
ECO DESCRIPTION DXF TEMPLATE RELEASE IN IDS		
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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.02	[±0.5]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200/5.1 INCH/mm

mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY
MSG

DATE
11/27/2001

APPROVED BY
DD

DATE
11/28/2001

REFERENCE

THIRD ANGLE PROJECTION

REGAL Regal Beloit America, Inc.

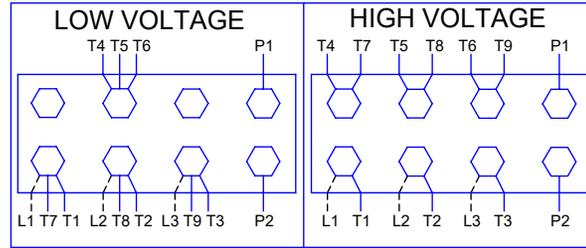
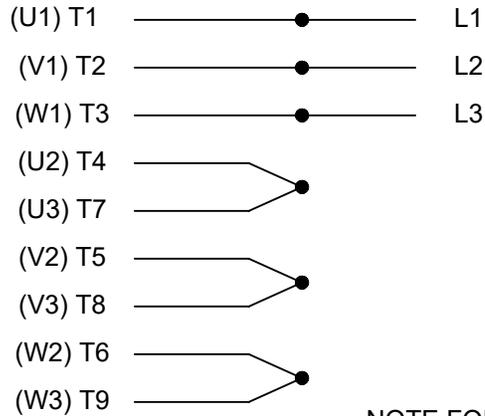
DESCRIPTION
OUTLINE
320 FR. - BB - STD - 12.50 LAM

MATERIAL

PROCESS/FINISH

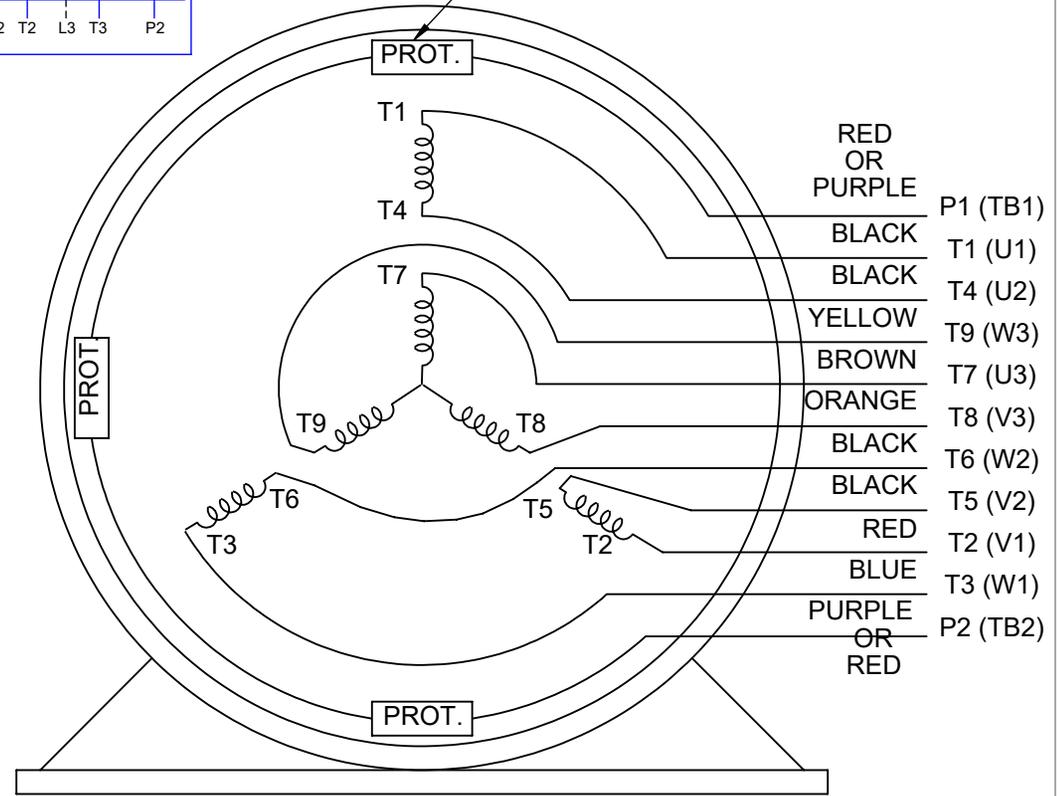
SIZE **B** DRAWING NUMBER **SS311259** SHEET 1 OF 1

HIGH VOLTAGE



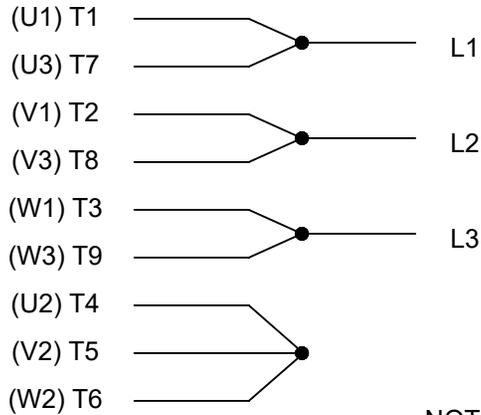
**THREE PHASE
DUAL VOLTAGE MOTOR**

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	THIRD ANGLE PROJECTION	SIZE A



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

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: A-EE7308T
OUTLINE: B-SS311259-1475
WINDING #: K2864202 R2 3

CUSTOMER PO#:
MODEL #: 324THFPA8028 AC
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40	30.0	1800	1770	324T	TEFC	G	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	100/50	INVERTER ONLY	CONTINUOUS	H4	1.0	40

FULL LOAD EFF:	91.7	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	90.2	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	81.5	3/4 LOAD PF:	77	1/2 LOAD PF:	68	90.2		SQ CAGE INV DUTY	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
119 LB-FT	600 / 300	235 LB-FT 197 %	320 LB-FT 269 %	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
66 dBA	76 dBA	4.7 LB-FT^2	- LB-FT^2	- SEC.		545 LBS.

***** 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	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312	6311						

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

* ENCODER PROVISIONS
ALUM GROUND RING BRKT ODE

INVERTER TORQUE:	CONSTANT 2000:1
INV. HP SPEED RANGE:	1.5 X BASE SPEED
ENCODER:	PROVISIONS ONLY
NONE	NONE
NONE	NONE PPR
BRAKE:	NONE NONE
NONE	P/N NONE
NONE	NONE
NONE	FT-LB NONE V NONE Hz

N
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T
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S

*

PREPARED BY: Dinesh
Suddula **DATE:**
02/18/2019 01:01:40 AM
FORM 3531 REV.3 02/07/99
** Subject to change without
notice.

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



324THFA8028

Submittal

Data @ 460 V

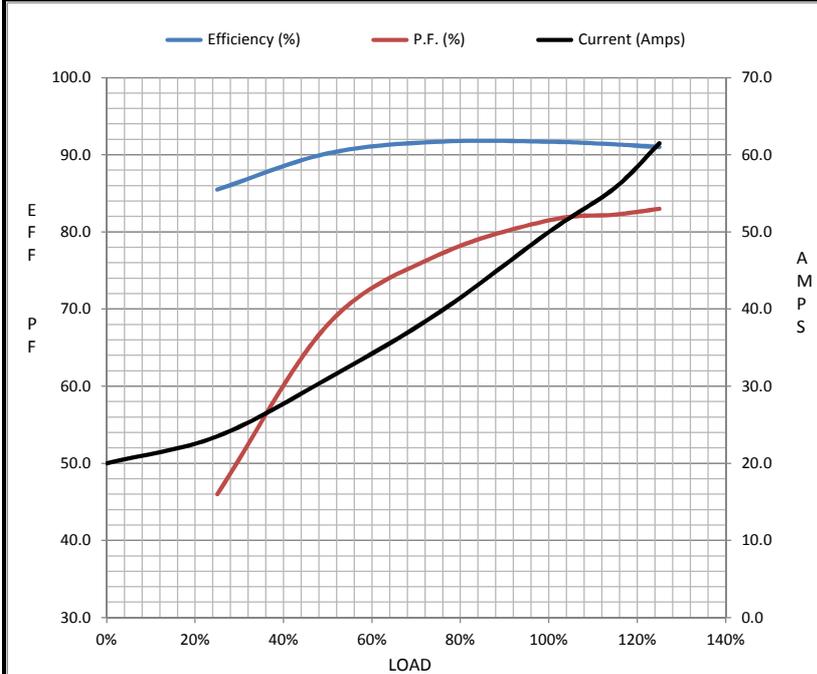
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	20.0	23.5	31.0	39.5	50.0	55.8	61.5	300
Torque (ft-lb)	0.00	29.5	59.0	88.5	119	134	148	235
RPM	1800	1794	1786	1778	1770	1,765	1758	0
Efficiency (%)		85.5	90.2	91.7	91.7	91.4	91.0	
P.F. (%)	7.5	46.0	68.0	77.0	81.5	82.3	83.0	36.0

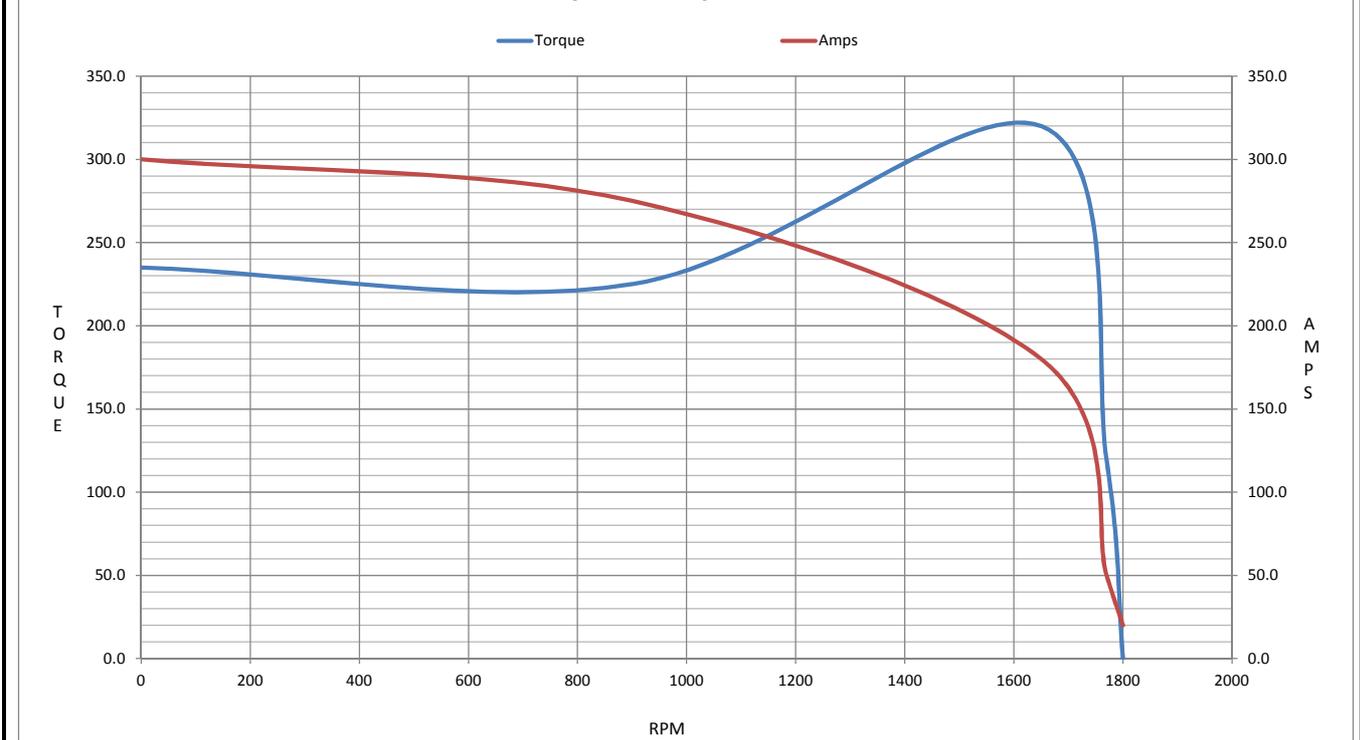
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1770	1800
Current (Amps)	300	275	180	50.0	20.0
Torque (ft-lb)	235	225	320	119	0.00

Information Block				
HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	TEFC			
Construction	TFP			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.0			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.7 Lb-Ft ²			
Ref Wdg	K2864202 R2			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS311259-1475			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0820	0.0770	0.4350	0.5920	10.2810



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 : 324THFPA8028

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

Catalog No : Y571

Rework No : N/A

Directives :

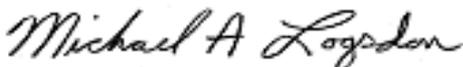
Low Voltage Directive 2014/35/EU

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