

PRODUCT INFORMATION PACKET

Model No: 286THFNA8028

Catalog No: Y570

Blue Max® Inverter Duty Encoder Motor, 30 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 286T Frame, TEFC



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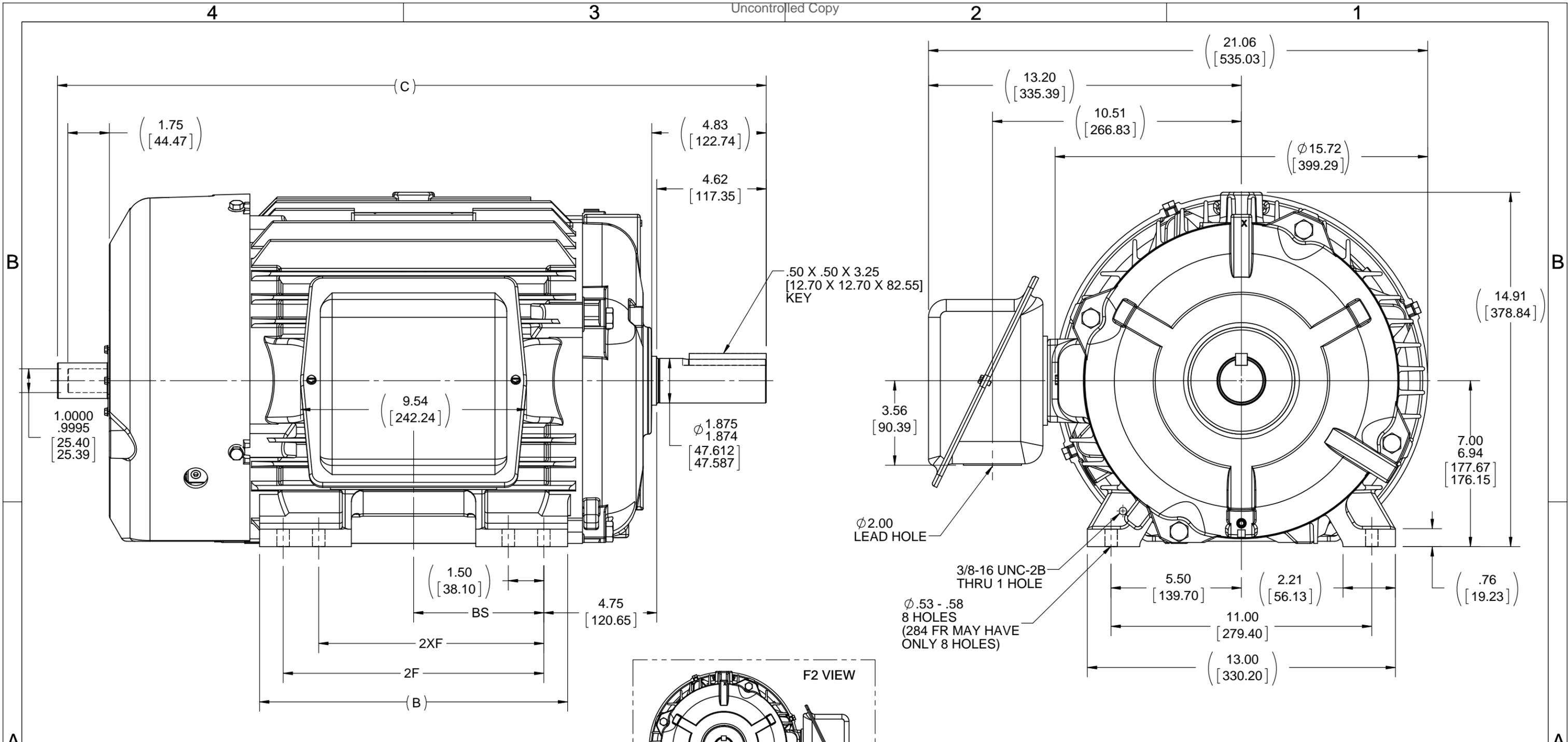
Nameplate Specifications

Output HP	30 Hp	Output KW	22.4 kW
Frequency	60 Hz	Voltage	230/460 V
Current	77.0/38.5 A	Speed	1776 rpm
Service Factor	1	Phase	3
Efficiency	93 %	Power Factor	78.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	J
Frame	286T	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		

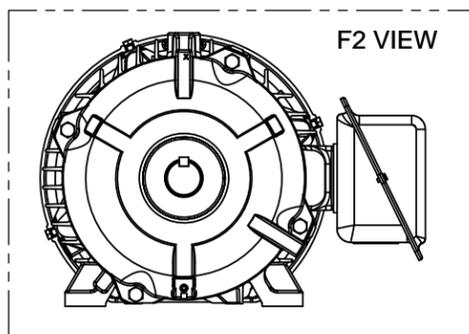
Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.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	29.91 in
Frame Length	14.25 in	Shaft Diameter	1.875 in
Shaft Extension	4.81 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS311271-1425

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- NOTES:
1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR
 3. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°



DASH	FRAME	B	C	2F	2XF	BS
1275	284T	12.50 [317.50]	28.41 [721.61]	9.50 [241.30]	-----	4.75 [120.65]
1425	284/286T	13.00 [330.20]	29.91 [759.71]	11.00 [279.40]	9.50 [241.30]	5.50 [139.70]

DRAWING REVISION	REVISION BY	DATE
D	W. JOERGER	03-03-2017
ECO-0118522	E. HEIL	03-03-2017

RE-DRAWN TO CURRENT STANDARDS
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

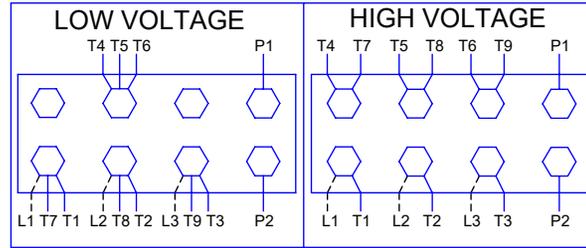
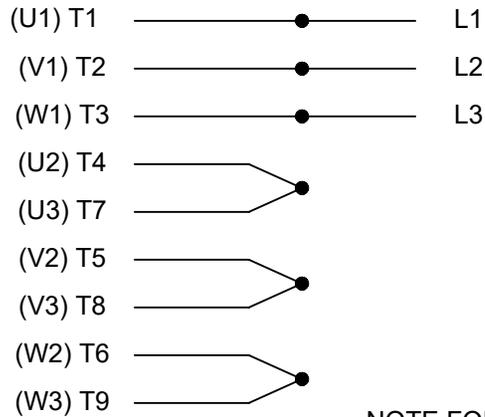
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°
 CORNER FILLETS: R.02 [0.51]
 MACHINED SURFACES: 200 INCH/mm 5.1
 mm SHOWN IN [BRACKETS]

DRAWN BY	DRS
DATE	01-15-2002
APPROVED BY	TB
DATE	01-16-2002
REFERENCE	
THIRD ANGLE PROJECTION	

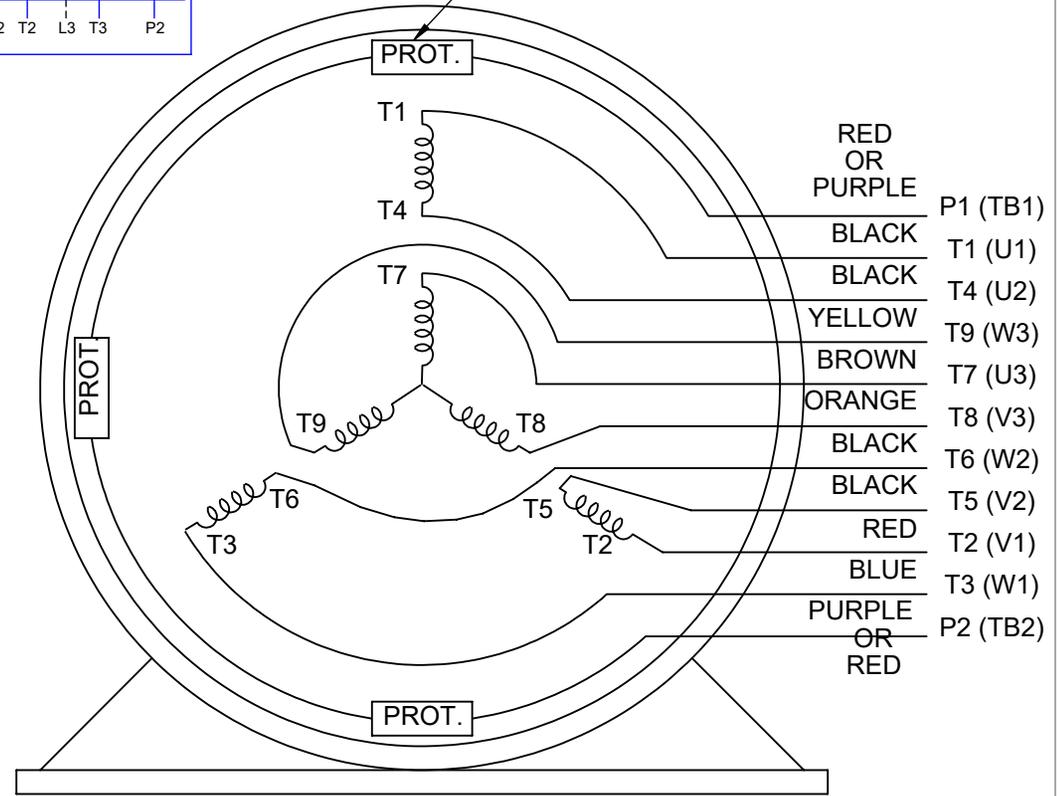
Regal Beloit America, Inc.	
DESCRIPTION	
280T FR - TEFC - TGN - BB - STD - 12.50 LAM	
MATERIAL	PROCESS/FINISH
SIZE	DRAWING NUMBER
B	SS311271
SHEET 1 OF 1	

HIGH VOLTAGE



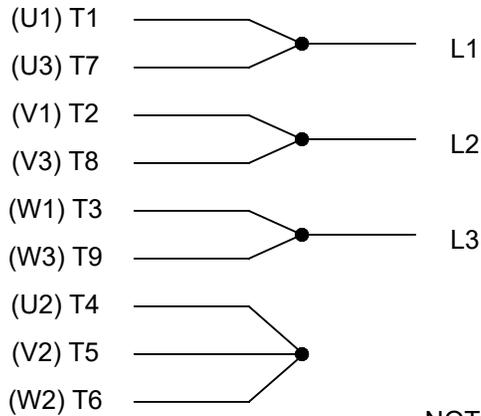
**THREE PHASE
DUAL VOLTAGE MOTOR**

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	SIZE A	DRAWING NUMBER EE7308T	SHEET 1 OF 1
			THIRD ANGLE PROJECTION			

CERTIFICATION DATA SHEET

Model#: 286THFNA8028 AB WINDING#: K2864201 R4 3
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS311271-1425

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN		
30	22.4	1800	1776	286T	TEFC	J	INV		
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	77/38.5	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300
FULL LOAD EFF: 93	3/4 LOAD EFF: 93	1/2 LOAD EFF: 91	GTD. EFF		ELEC. TYPE	NO LOAD AMPS			
FULL LOAD PF: 78.5	3/4 LOAD PF: 72	1/2 LOAD PF: 61	91.7		SQ CAGE INV DUTY	36 / 18			
F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE		F.L. RISE°C				
88.7 LB-FT	540 / 270	205 LB-FT 231	285 LB-FT 321		60				
SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT			
68 dBA	78 dBA	4.6 LB-FT^2	- LB-FT^2	- SEC.	-	497 LBS.			

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.112574	0.101222	0.589358	0.76626	13.6224
RM	ZREF	XR	TD	TD0
702.878	9.46	6.5	0.0235	0.38

*** 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	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6311	6210						

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

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1
INV. HP SPEED RANGE: 2.0 X BASE SPEED
ENCODER: PROVISIONS ONLY
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE

*
N
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*

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 10:55:57 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 20-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



286THFNA8028

Submittal

Data @ 460 V

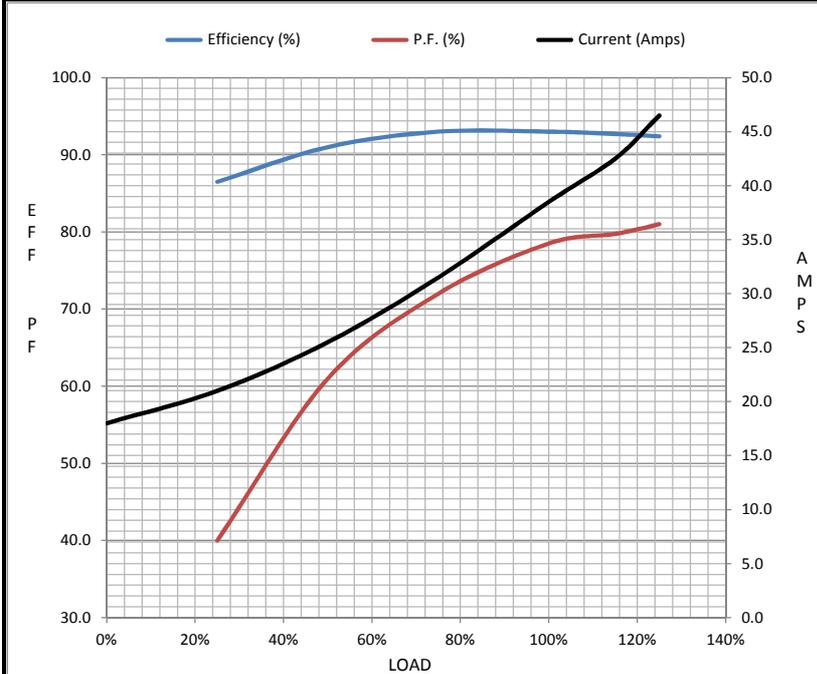
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	18.0	21.0	25.5	31.5	38.5	42.5	46.5	270
Torque (ft-lb)	0.00	22.0	44.0	66.5	88.7	99.9	111	205
RPM	1800	1794	1788	1782	1776	1,774	1770	0
Efficiency (%)		86.5	91.0	93.0	93.0	92.7	92.4	
P.F. (%)	7.5	40.0	61.0	72.0	78.5	79.8	81.0	36.0

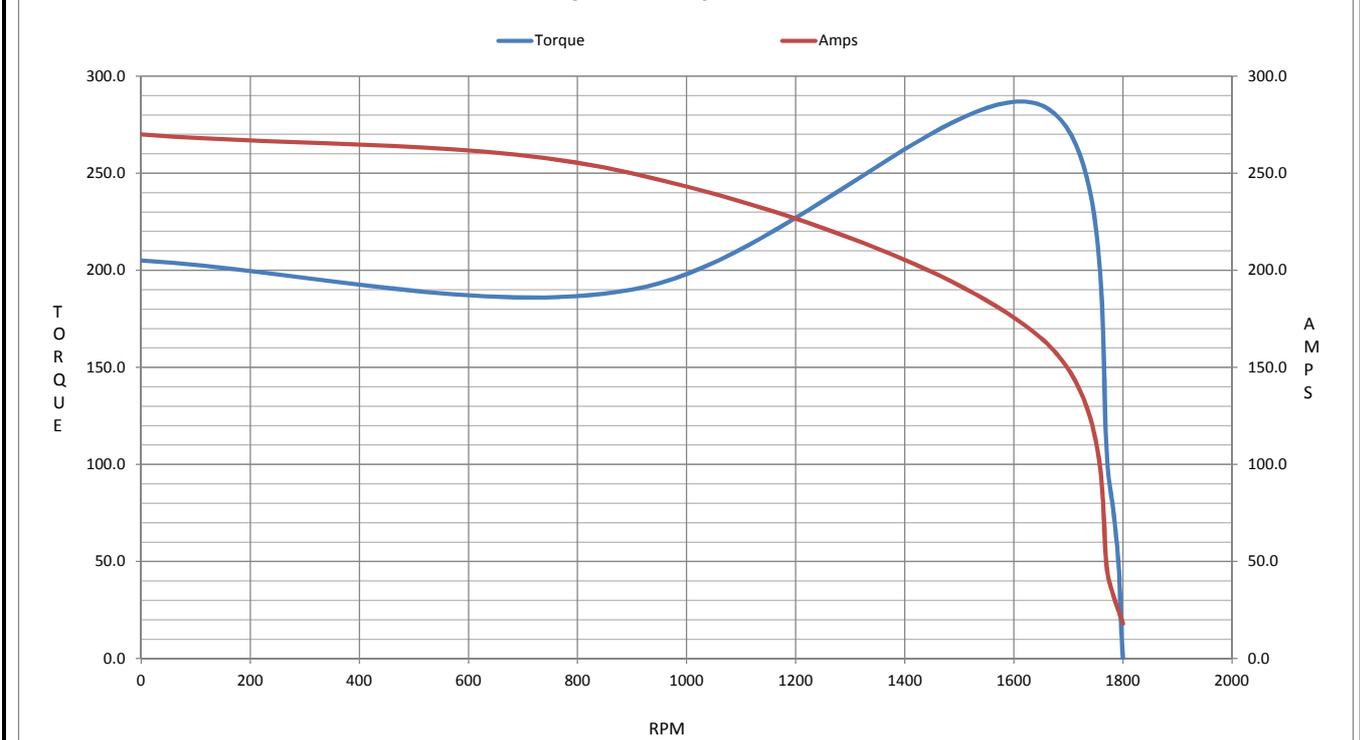
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1776	1800
Current (Amps)	270	250	165	38.5	18.0
Torque (ft-lb)	205	190	285	88.7	0.00

Information Block				
HP	30.0			
Sync. RPM	1800			
Frame	286			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	J			
Service Factor	1.0			
Temp Rise @ FL	60 °C			
Duty	SPL			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.6 Lb-Ft ²			
Ref Wdg	K2864201 R4			
Sound Pressure @ 1M	68 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS311271-1425			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1130	0.1010	0.5890	0.7660	13.6220



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 : 286THFNA8028

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

Catalog No : Y570

Rework No : N/A

Directives :

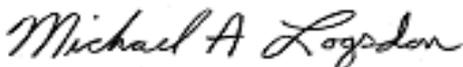
Low Voltage Directive 2014/35/EU

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