

PRODUCT INFORMATION PACKET

Model No: 286THTCD7036

Catalog No: Y394A

Black Max® Inverter Duty Encoder Motor, 30 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 286TC Frame, TENV



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Nameplate Specifications

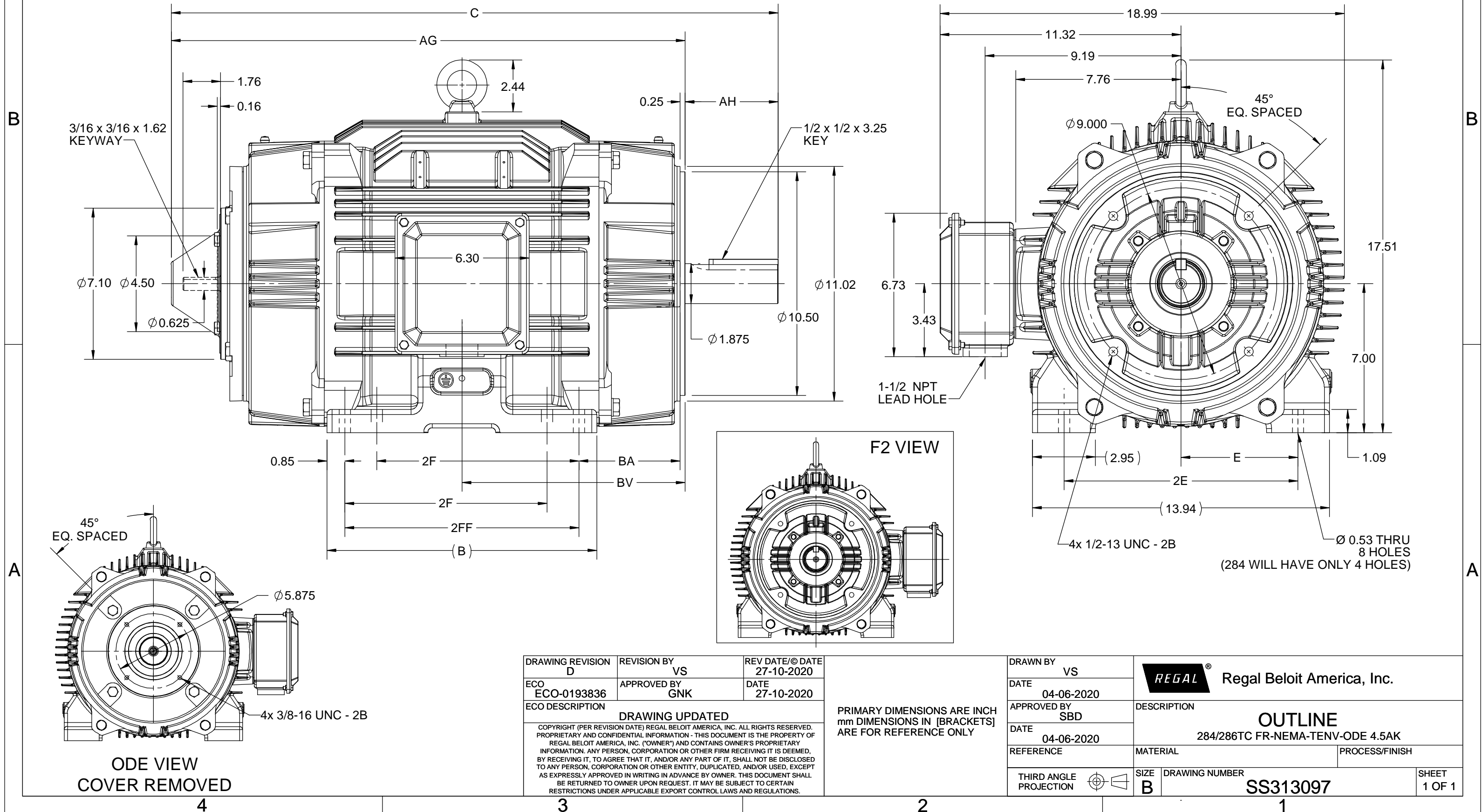
Output HP	30 Hp	Output KW	22.4 kW
Frequency	60 Hz	Voltage	575 V
Current	29.6 A	Speed	1780 rpm
Service Factor	1	Phase	3
Efficiency	93.8 %	Power Factor	80.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	K
Frame	286TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6311
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.193 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	1.875 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 1000:1
Outline Drawing	SS313097-200	Connection Drawing	EE7300T

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DASH NO.	4				3				2			1
	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	
100	10.83	27.00	5.50	11.00	---	9.50	22.63	4.38	4.75	9.76	F1 OR F2	284TC
200	12.68	28.50			9.50	11.00	24.13			10.48		284/286TC



DRAWING REVISION D	REVISION BY VS	REV DATE/© DATE 27-10-2020
ECO ECO-0193836	APPROVED BY GNK	DATE 27-10-2020
ECO DESCRIPTION		
DRAWING UPDATED		
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PRIMARY DIMENSIONS ARE INCH
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DRAWN BY VS	DATE 04-06-2020
APPROVED BY SBD	DATE 04-06-2020
REFERENCE	
THIRD ANGLE PROJECTION	

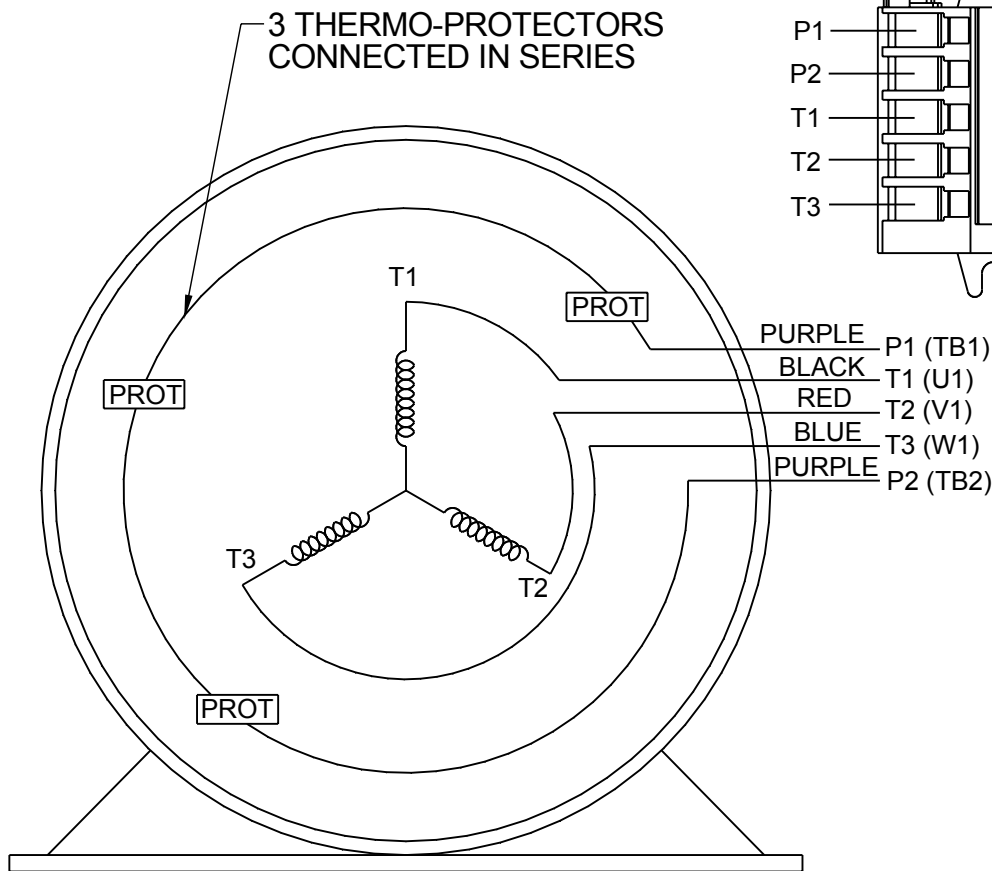
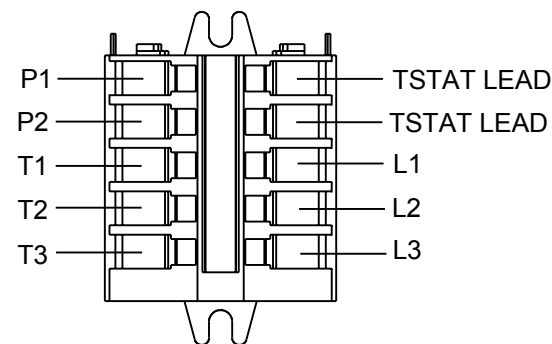
REGAL Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 284/286TC FR-NEMA-TENV-ODE 4.5AK	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS313097
SHEET 1 OF 1	

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

**TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS**

**NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1**

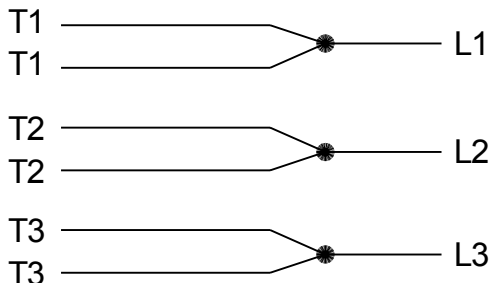
TERMINAL BLOCK WHEN SPECIFIED



- PURPLE P1 (TB1)
- BLACK T1 (U1)
- RED T2 (V1)
- BLUE T3 (W1)
- PURPLE P2 (TB2)

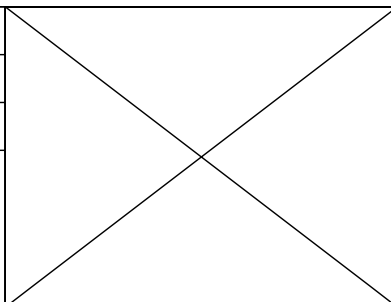
- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

**IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S**



A-9806 DECAL

DRAWING REVISION AB	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T.VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8		
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DRAWN BY LZ	Regal Beloit America, Inc.	
DATE 01-04-1994		
APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
DATE 01-20-1994	MATERIAL	
REFERENCE	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER EE7300T
		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 #: _____ **REFERENCE MODEL #:** 286THTCDD7036
CONN. DIAGRAM: EE7300T **CAT #:** Y394A
OUTLINE: SS313097-200 **CUSTOMER PART #:** _____
WINDING: HA31804024 NONE 3 **MOUNTING:** F1/F2 CAPABLE
SPEED: _____ **FAN:** 504205B

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
30	22.4	1800	1780	286TC	TENV	TTC	K	INF

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	29.6	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	93.8	3/4 LD EFF	93.7	1/2 LD EFF	92.5	GTD EFF	ELECT. TYPE
F.L. PF	80.5	3/4 LD PF	73.5	1/2 LD PF	60.5	93.5	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
88.5 LB-FT	307	194 LB-FT 219%	409 LB-FT 462%	105

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
62 dBA	71 dBA	5.3 LB-FT²	40 LB-FT²	20 SEC.	2	0 LB.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	BRAKE OR ENCODER	RIGID	HORIZONTAL	NO	NONE	NO	NONE	BLACK (ENAMEL)

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

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.189	0.137	0.851	0.805	21.153	0.080	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 1000:1 INV. HP SPEED RANGE: 2.0 X BASE SPEED					
	ENCODER: NORTHSTAR ST56 NONE NONE PPR					
	BRAKE: NONE NONE NONE					
	FT-LB: NA VOLTAGE: NONE HZ:					

PREPARED BY: _____ **DATE:** 11/28/2022
 FORM: 3531 REV_4 2/27/06 **UL:** V-INS, CONST, OVERHEAT PRT DEV UL REC

Data Sheet

Date: 11/28/2022
 Customer: _____
 Attention: _____
 Submitted by: _____



286THTCD7036

NONE FAN

Submittal

Data @ **575 V**

Motor Load Data

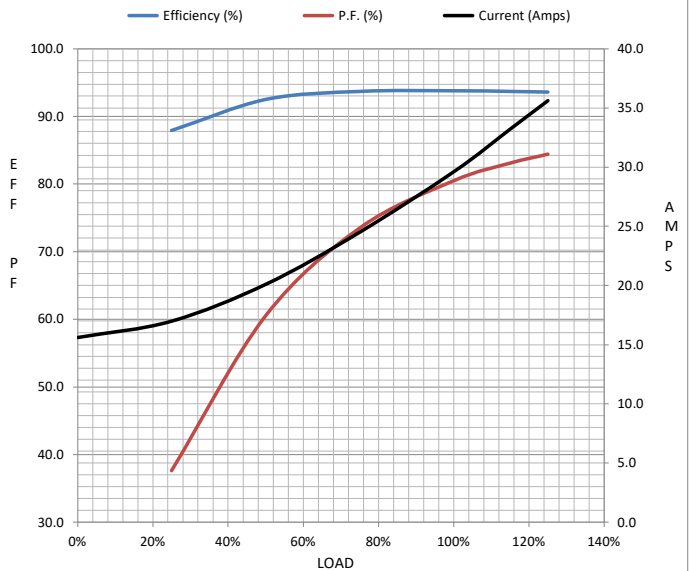
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	15.6	17.0	20.1	24.5	29.6	33.2	35.6	307
Torque (ft-lb)	0.00	22.0	44.0	66.2	88.5	102	111	194
RPM	1800	1795	1790	1785	1780	1,777	1775	0
Efficiency (%)		87.9	92.5	93.7	93.8	93.7	93.6	
P.F. (%)	4.6	37.6	60.5	73.5	80.5	83.1	84.4	33.3

Motor Speed Data

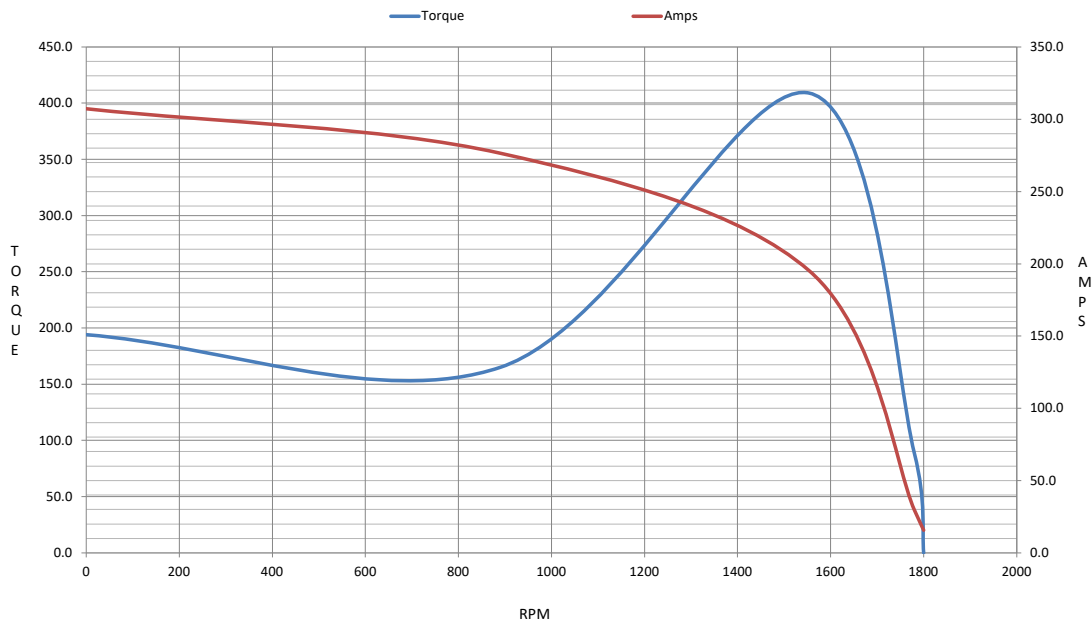
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	890	1554	1780	1800
Current (Amps)	307	276	195	29.6	15.6
Torque (ft-lb)	194	165	409	88.5	0.00

Information Block

HP	30.0			
Sync. RPM	1800			
Frame	286			
Enclosure	TENV			
Construction	TTC			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	K			
Service Factor	1			
Temp Rise @ FL	105 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	5.3 Lb-Ft ²			
Ref Wdg	HA31804024 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 1000:1			
Outline Dwg	SS313097-200			
Conn. Diag	EE7300T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1890	0.1370	0.8510	0.8050	21.1530



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 : 286THTCD7036

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

Catalog No : Y394A

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