

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 284TTDBD7202

Catalog No: Y493A

Multispeed Motor, 20 & 5 HP, 3 Ph, 60 & 60 Hz, 460 & 460 V, 1800 & 1800 RPM, 284T Frame, DP



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RegalRexnord

Nameplate Specifications

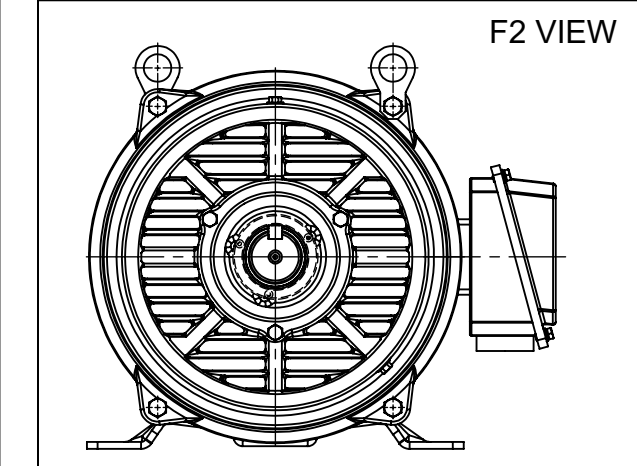
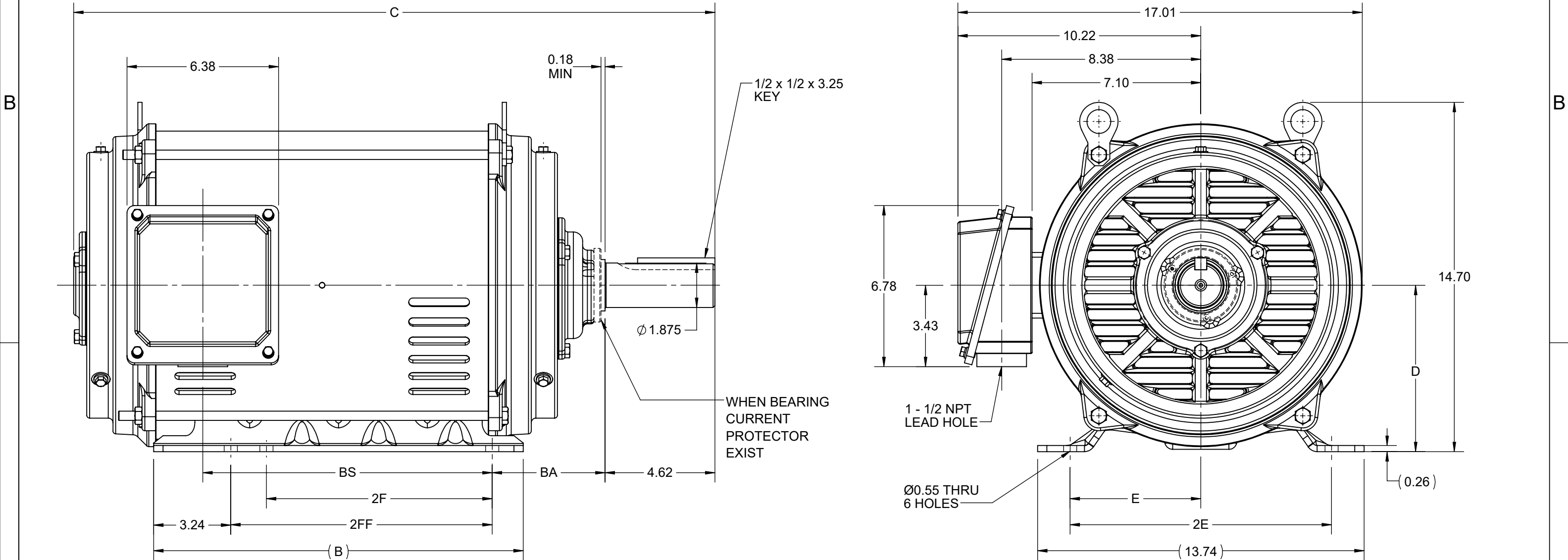
Phase	3	Output HP	20 & 5 Hp
Output KW	14.9 & 3.7 kW	Voltage	460 & 460 V
Speed	1775 & 880 rpm	Service Factor	1.15 & 1.15
Frame	284T	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	90.2 & 85 %
Ambient Temperature	40 °C	Frequency	60 & 60 Hz
Current	27 & 9 A	Power Factor	76
Duty	Continuous	Insulation Class	F
Design Code	1VT	KVA Code	H
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	22
Number of Speeds	2		



Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4/8	Rotation	Reversible
Resistance Main	.4842 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Shaft Diameter	1.875 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Outline Drawing	SS620687-100	Connection Drawing	EE7322

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4				3				2			1
DASH NO.	B	C	D	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	15.55	25.60	7.00	5.50	11.00	9.50	11.00	4.75	10.80	F1 OR F2	284T
200		26.98							12.18		286T

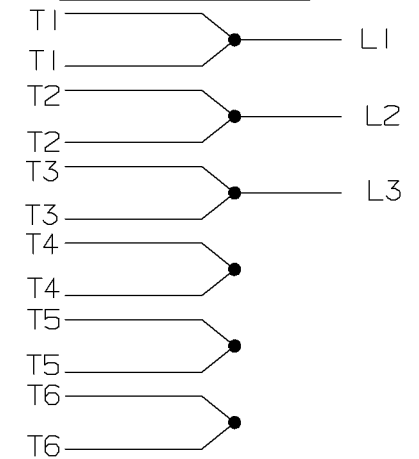


DRAWING REVISION E		REVISION BY GOPI J		REV DATE/© DATE 01/02/2022		DRAWN BY XZ		<div></div> <div>Regal Beloit America, Inc.</div>		
REQUEST NUMBER CR-0006669		APPROVED BY SBD		DATE 01/02/2022		DATE 17/04/2017				
REQUEST NUMBER DESCRIPTION VIEWS UPDATED AS PER 3D						PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY		DESCRIPTION <div>OUTLINE</div> <div>284/286T FR NEMA ODP RS</div>		
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						APPROVED BY		MATERIAL		PROCESS/FINISH
						DATE				
						REFERENCE				
						THIRD ANGLE PROJECTION		<div></div>		SHEET 1 OF 1
						SIZE B		DRAWING NUMBER SS620687		

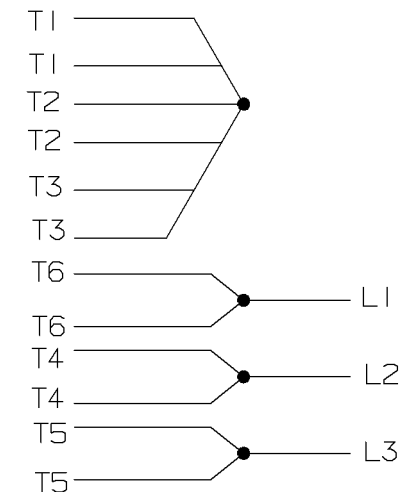
A- EE7322

FOR DUAL LEADS

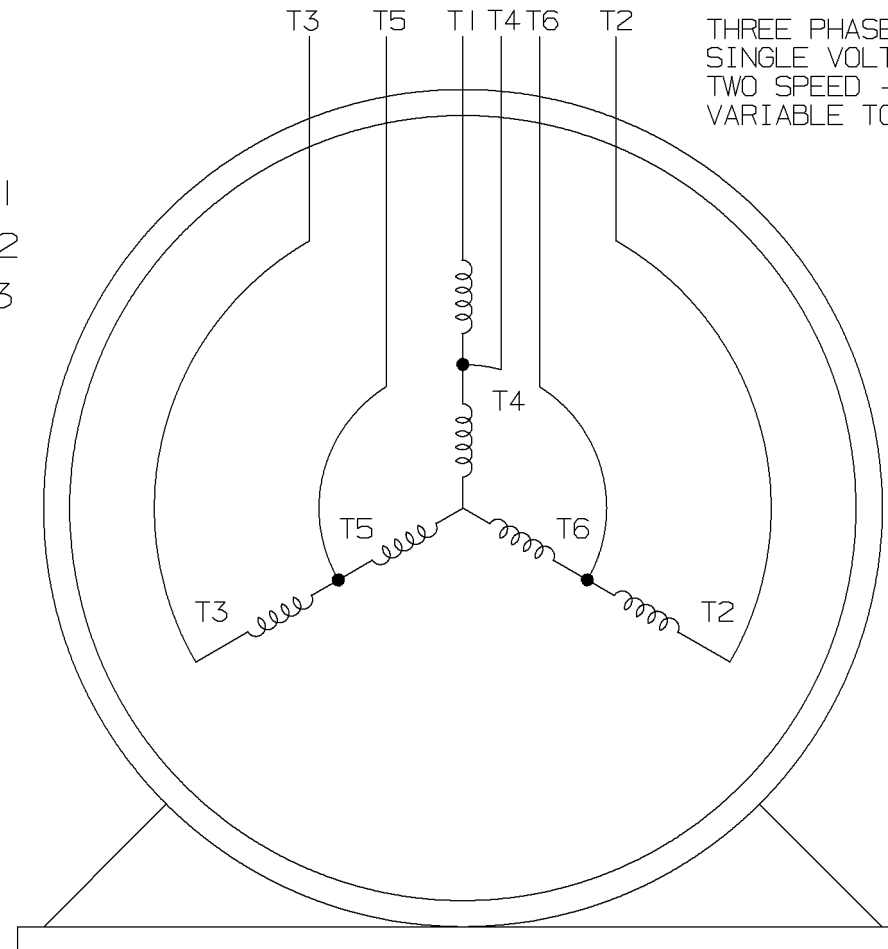
LOW SPEED



HIGH SPEED

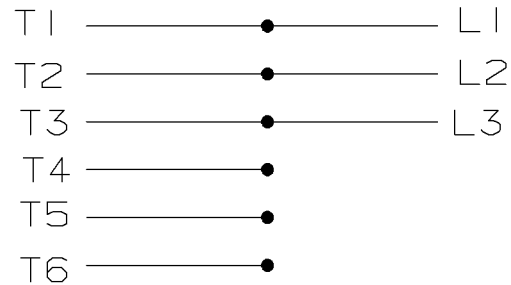


THREE PHASE MOTOR
SINGLE VOLTAGE
TWO SPEED - SGL. WDG.
VARIABLE TORQUE

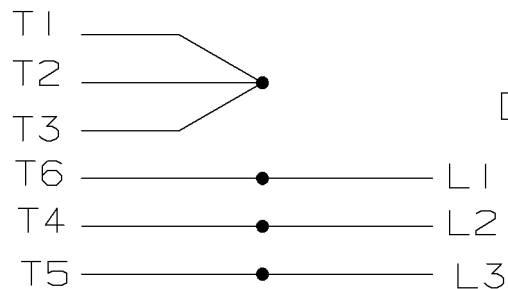


VIEW OF TERMINAL END

LOW SPEED




HIGH SPEED



T612C

T48B

				✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± XXX± .005 XXXX± .0005 ANGLES±					
				MATL SPEC				DRAWN BY PGK	12-26-1996	
								CHKD BY ML	01-07-1997	
				FINISH						
7	01-08-1997	REDRAWN ON CADD		PGK	REFERENCE DRW.	WAUSAU, WISCONSIN 54401			APPD BY TB	01-07-1997

SHOP BOOK

PURCHASED

DISTRIBUTION - WA - LB - WP - LM - BR

CADD FILE NO.

EE7322

Data Sheet

Date: 12/15/2021
 Customer: _____
 Attention: _____
 Submitted by: SHERYL KUEHMICHEL



284TTDBD7202

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	16.0	17.0	19.0	22.5	27.0	30.0	32.0	171	
Torque(ft-lb)	0.00	14.5	29.5	44.0	59.0	67.9	74.0	115	
RPM	1800	1795	1790	1785	1775	1,775	1770	0	
Efficiency (%)		82.0	88.8	90.7	90.2	90.9	90.7		
P.F. (%)	6.0	33.5	54.5	68.0	76.0	79.0	80.0	39.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	888	1640	1775	1800
Current (Amps)	171	153	104	27.0	16.0
Torque(ft-lb)	115	97.8	175	59.0	0.00

Information Block

HP	20.0
Sync. RPM	1800
Frame	284T
Enclosure	DP
Construction	TDR
Voltage	460 V
Frequency	60 Hz
Design	1VT
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	80 °C
Duty	CONT
Ambient	40 °C
Elevation	3,300 feet
Rotor/Shaft wk ²	0.00 Lb-Ft ²
Ref Wdg	HA3180(4-8)19 HS
Sound Pressure @ 1M	65 dBA
VFD Rating	NA
Outline Dwg	SS620687-100
Conn. Diag	EE7322

Additional Specifications:

CATALOG # Y493A

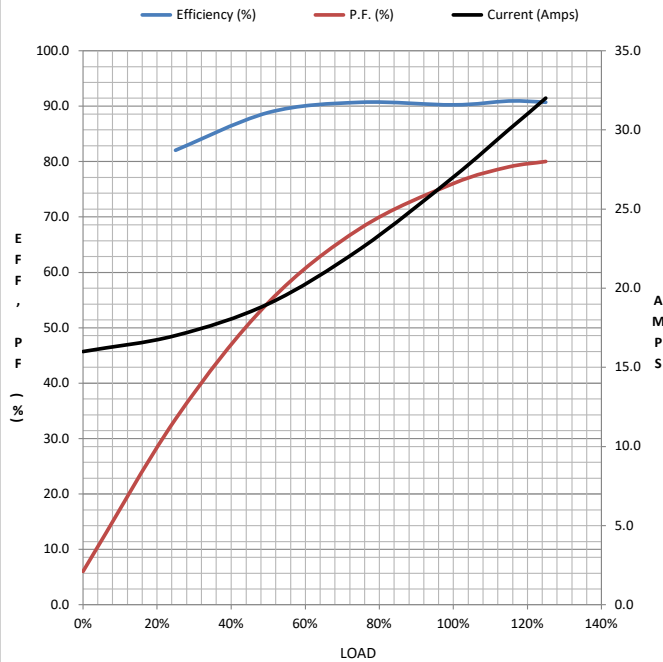
HIGH SPEED PERFORMANCE

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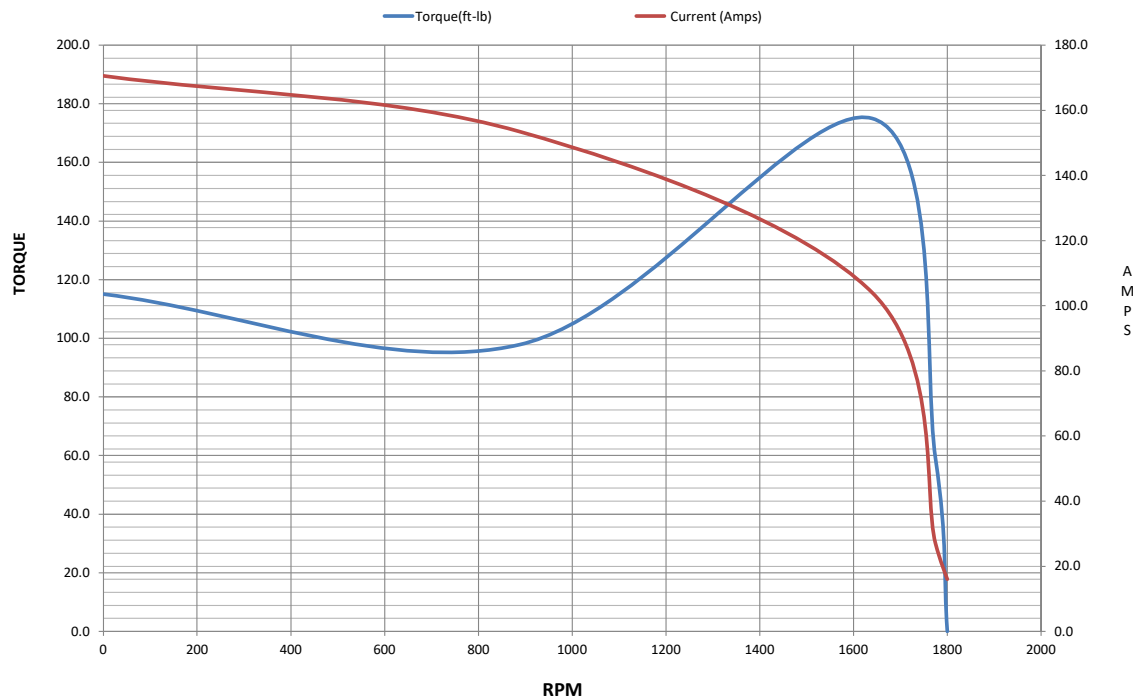
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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.3035	0.1347	0.9360	1.0324	16.9191



Speed -Torque Curve



Data Sheet

Date: 12/15/2021
 Customer: _____
 Attention: _____
 Submitted by: SHERYL KUEHMICHEL



284TTD7202

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	6.0	6.5	7.0	7.5	9.0	9.5	10.5	30.0	
Torque(ft-lb)	0.00	7.4	14.8	22.2	30.0	34.5	37.5	29.5	
RPM	900	895	890	890	880	880	875	0	
Efficiency (%)		74.0	83.5	86.0	85.0	87.2	87.0		
P.F. (%)	6.0	24.0	40.0	51.5	59.5	63.0	64.5	30.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	440	830	880	900
Current (Amps)	30.0	27.0	19.5	9.0	6.0
Torque(ft-lb)	29.5	25.1	60.0	30.0	0.00

Information Block

HP	5.0
Sync. RPM	900
Frame	284T
Enclosure	DP
Construction	TDR
Voltage	460 V
Frequency	60 Hz
Design	1VT
LR Code letter	E
Service Factor	1.15
Temp Rise @ FL	70 °C
Duty	CONT
Ambient	40 °C
Elevation	3,300 feet
Rotor/Shaft wk ²	0.00 Lb-Ft ²
Ref Wdg	HA3180(4-8)19 HS
Sound Pressure @ 1M	54 dBA
VFD Rating	NA
Outline Dwg	SS620687-100
Conn. Diag	EE7322

Additional Specifications:

CATALOG # Y493A

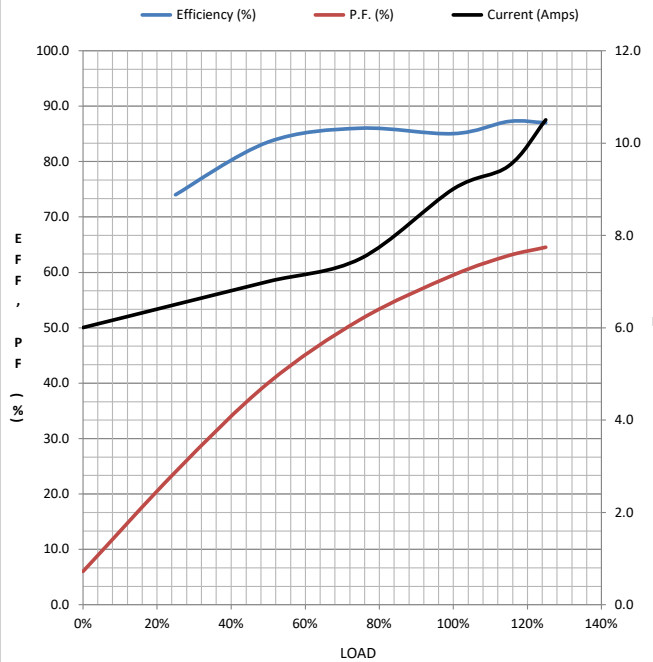
LOW SPEED PERFORMANCE

0

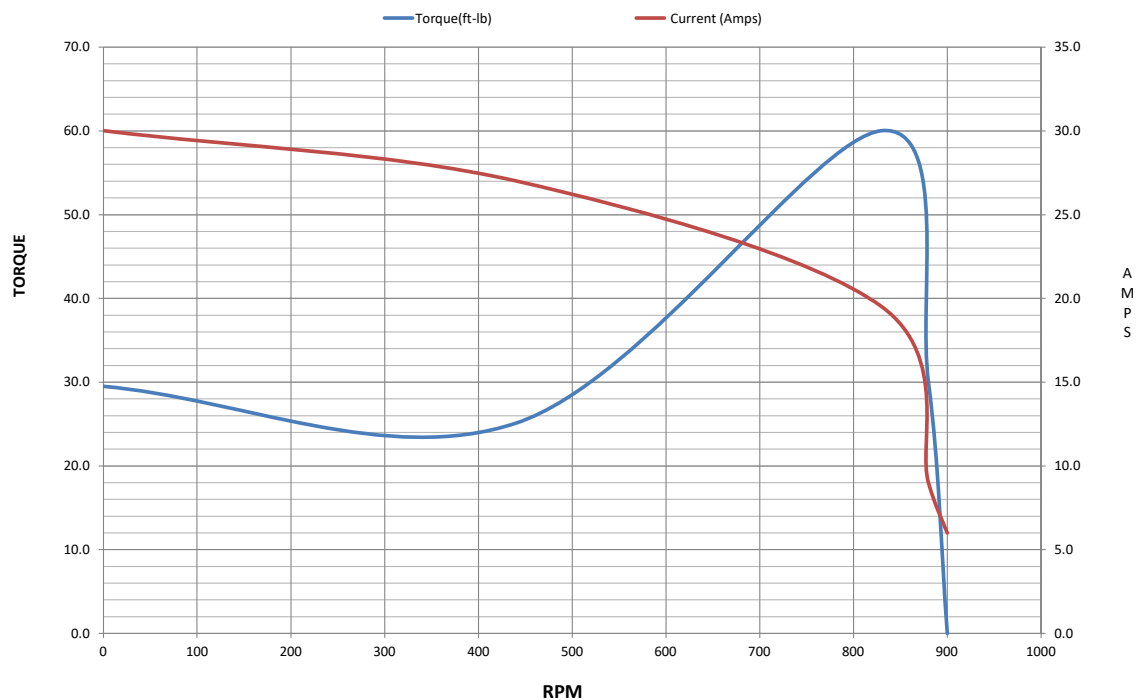
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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
1.1684	0.7090	3.9250	6.3186	38.3994



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 : 284TTDBD7202

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

Catalog No : Y493A

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