

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 449TSTDN16040

Catalog No: U796

XRI® General Purpose General Purpose Motor, 450 & 350 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V,  
1800 & 1500 RPM, 449TS Frame, DP



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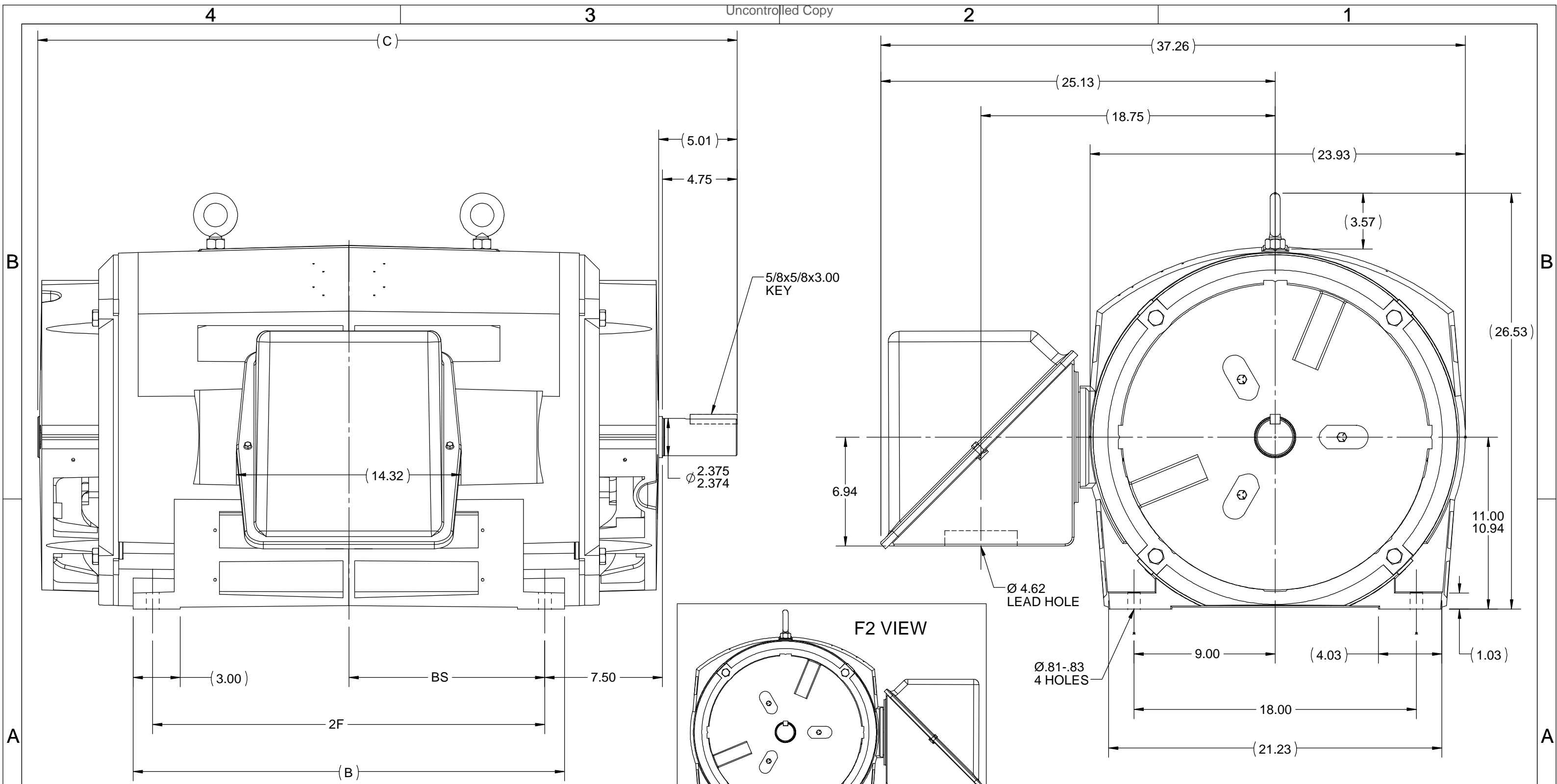
RegalRexnord

### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>450 &amp; 350 Hp</b>
Output KW	<b>340.0 &amp; 260.0 kW</b>	Voltage	<b>460 &amp; 380 V</b>
Speed	<b>1782 &amp; 1482 rpm</b>	Service Factor	<b>1.0 &amp; 1.0</b>
Frame	<b>449TS</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>96.2 &amp; 95.8 %</b>
Ambient Temperature	<b>50 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>505 &amp; 475 A</b>	Power Factor	<b>86</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>F</b>
Drive End Bearing Size	<b>6314</b>	Opp Drive End Bearing Size	<b>6314</b>
UL	<b>No</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>12</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Part Wdg Start &amp; Wye Start Delta Run</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.008 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>TS</b>	Overall Length	<b>44.50 in</b>
Frame Length	<b>29.38 in</b>	Shaft Diameter	<b>2.375 in</b>
Shaft Extension	<b>5 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>A-EE7300BH</b>	Outline Drawing	<b>B-SS514570-2938</b>



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

DASH	FRAME	C	B	2F	BS
2438	447TS	39.58	22.50	20.00	10.00
2938	449TS	44.58	27.50	25.00	12.50

DRAWING REVISION C	REVISION BY JP	DATE 06-08-2018
ECO ECO-0146457	APPROVED BY DJK	DATE 06-08-2018
ECO DESCRIPTION MU129250/NMR-0154521		
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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 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1 mm SHOWN IN [BRACKETS]

DRAWN BY KL	DATE 06-19-1993
APPROVED BY JL	DATE 06-20-1993
REFERENCE	
THIRD ANGLE PROJECTION	

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 447/449TS FR. - DR. PR.	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS514570</b>
	SHEET 1 OF 1



VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED		REGAL REGAL - BELOIT CORPORATION	DRAWN RJW 02-11-2005				
				DEC.	INCHES		CHK	ML	02-11-2005		
				.X	±.1		APPD	GK	02-11-2005		
				.XX	±.02	TITLE CONNECTION DIAGRAM		SCALE			
D	CHANGED TO REGAL TITLE BLOCK	ECO-0108299	WGJ 08/22/2016	EMH	.XXX ±.005	12 LEAD- SINGLE VOLTAGE		REF			
1	ADDED IEC TERMINAL MARKINGS	CN 41429	JJB 05/24/2007	ML	.XXXX ±.0005	MAT'L.		FMF			
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	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 02-11-2005	CAD FILE ee7300bh	SIZE A	DRAWING NO. EE7300BH	PAGE OF	REV. C
						DIST LB					

**CERTIFICATION DATA SHEET**

**Model#:** 449TSTDN16040 AA      **WINDING#:** T4494183 NONE 1  
**CONN. DIAGRAM:** A-EE7300BH      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS514570-2938

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
450&350	340&260	1800	1782&1482	449TS	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	505&475	PWS & YDRUN	CONTINUOUS	F1	1.0/1.0	50	3300

FULL LOAD EFF: 96.2&95.8	3/4 LOAD EFF: 96.5	1/2 LOAD EFF: 96.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86&86	3/4 LOAD PF: 84	1/2 LOAD PF: 77	95.8	SQ CAGE IND RUN	155

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1324 LB-FT	2950	2500 LB-FT 188	3000 LB-FT 234	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	92 LB-FT^2	1600 LB-FT^2	15 SEC.	1	2850 LBS.

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	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	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6314	6314						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

\*  
N  
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\*

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

DATE: 06/21/2017 06:47:59 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 6/20/2017

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



449TSTDN16040

Submittal

Data @ 460 V

Motor Load Data

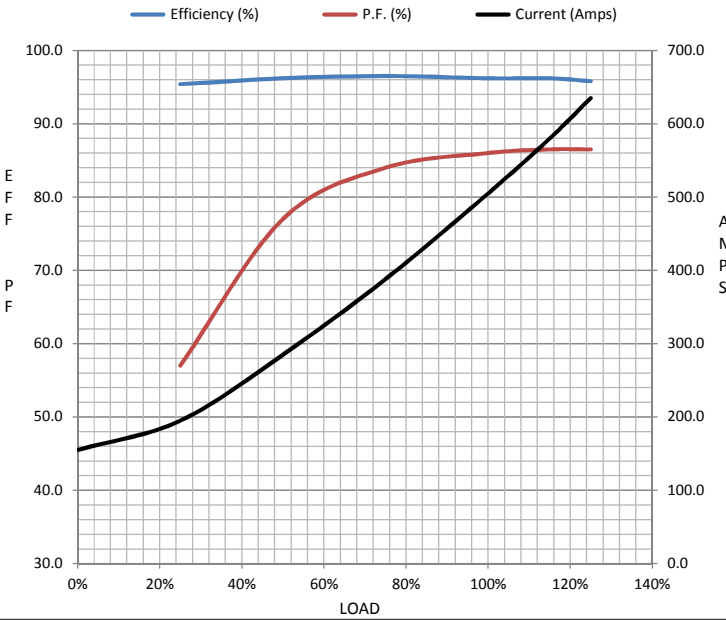
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	155	195	285	388	505	580	635	2,950
Torque (ft-lb)	0.00	329	659	992	1,324	1,526	1,661	2,500
RPM	1800	1795	1792	1788	1782	1,778	1775	0
Efficiency (%)		95.4	96.2	96.5	96.2	96.2	95.8	
P.F. (%)	3.0	57.0	77.0	84.0	86.0	86.5	86.5	32.0

Motor Speed Data

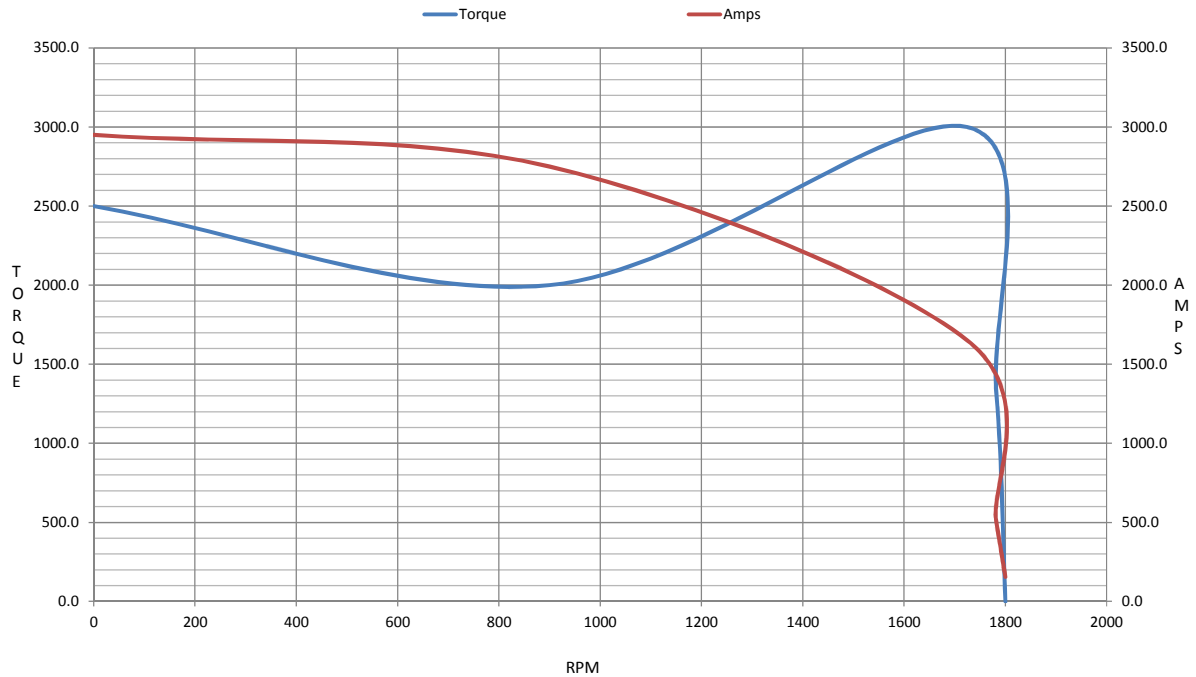
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1782	1800
Current (Amps)	2,950	2,750	1,650	505	155
Torque (ft-lb)	2,500	2,000	3,000	1,324	0.00

Information Block

HP	450.0			
Sync. RPM	1800			
Frame	449			
Enclosure	DP			
Construction	TDN			
Voltage	460#380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	75 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	92.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T4494183 NONE			
Sound Pressure @ 1M	82 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS514570-2938			
Conn. Diag	A-EE7300BH			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0060	0.0050	0.0490	0.0770	1.7290



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 : 449TSTDN16040

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

Catalog No : U796

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**