

PRODUCT INFORMATION PACKET

Model No: 256THFCD9001

Catalog No: W551A

XRI®-841 Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 256T Frame, TEFC



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Nameplate Specifications

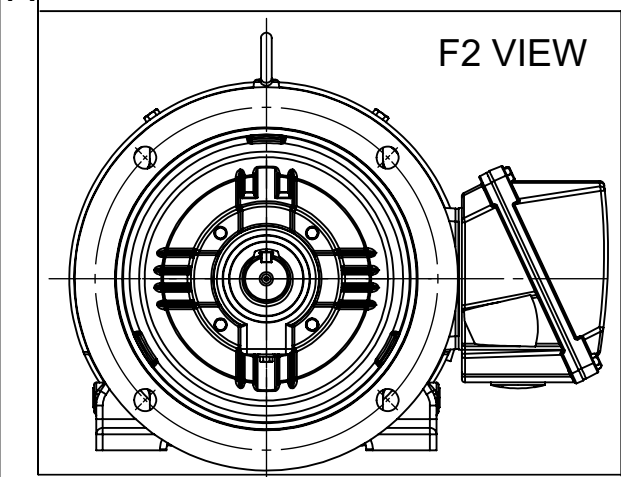
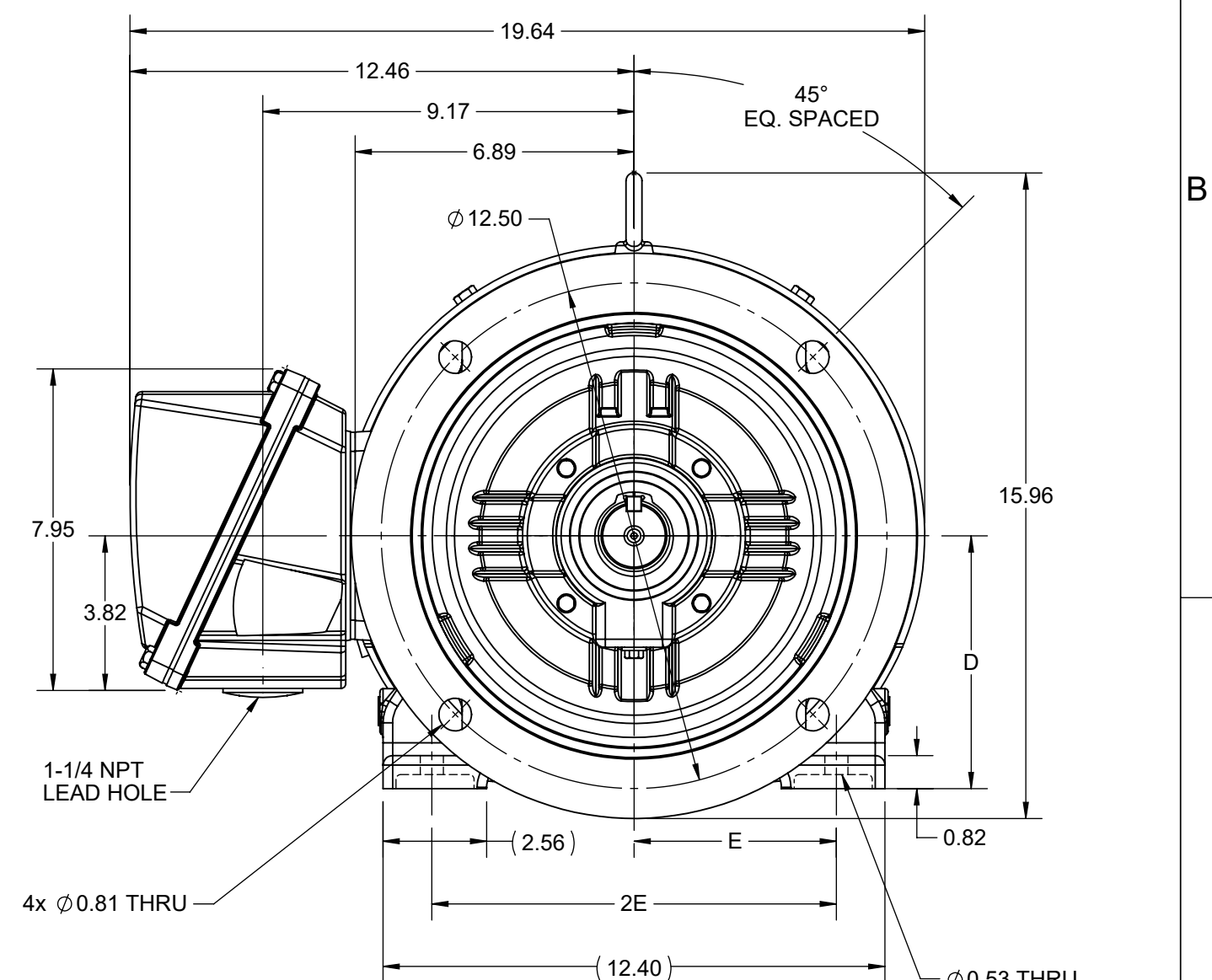
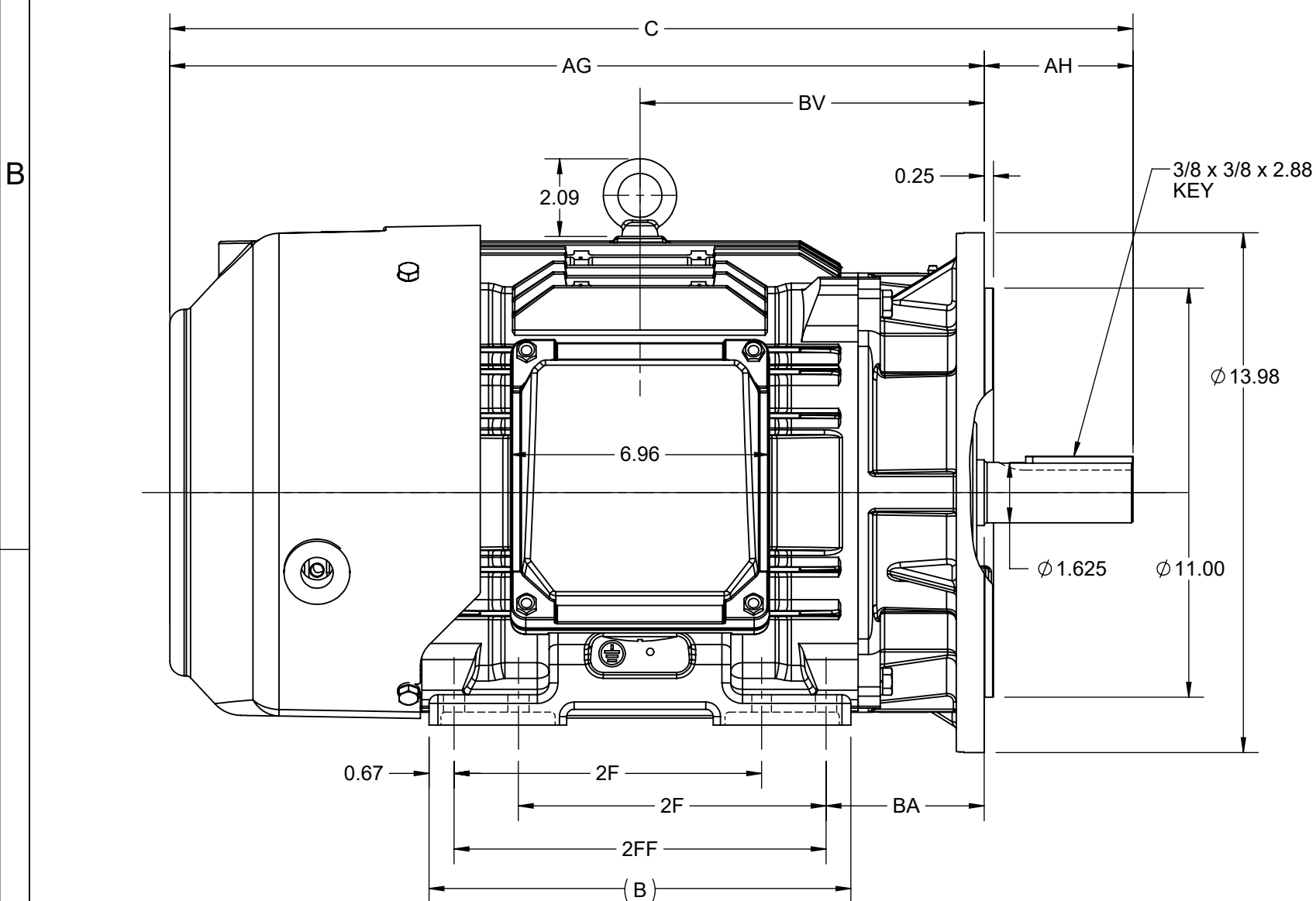
Phase	3	Output HP	20 Hp
Output KW	14.9 kW	Voltage	460 V
Speed	3540 rpm	Service Factor	1.15
Frame	256T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	23.7 A	Power Factor	87.5
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	Listed	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1	Hazardous Location	DIVISION 2 T2B

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.546 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	1.626 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2:1/VARIABLE 10:1
Outline Drawing	SS208560-200	Connection Drawing	EE7300

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DASH NO.	B	C	D	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	24.16	6.25	5.00	10.00	-	8.25	20.16	4.00	4.25	8.39	F1 OR F2	254TD
200	11.34	25.89				8.25	10.00	21.89			9.25		254/256TD



DRAWING REVISION A	REVISION BY RAM	REV DATE/© DATE 29/06/2022
REQUEST NUMBER CR-0009883	APPROVED BY SBD	DATE 29/06/2022
REQUEST NUMBER DESCRIPTION NEW DRAWING RELEASE		
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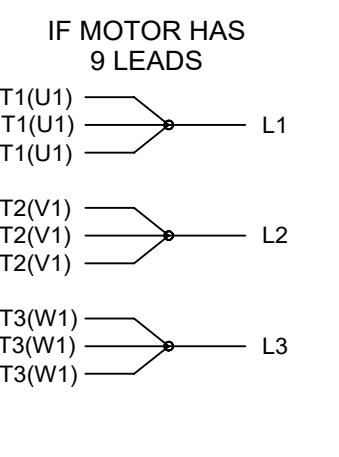
PRIMARY DIMENSIONS ARE INCH
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ARE FOR REFERENCE ONLY

DRAWN BY RAM	 Regal Beloit America, Inc.
DATE 29/06/2022	
APPROVED BY SBD	DESCRIPTION OUTLINE 254/256TD FR NEMA SD & IEEE841 D-FLANGE KIT
DATE 29/06/2022	MATERIAL
REFERENCE SS208560	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS208560B
	SHEET 1 OF 1

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

TERMINAL BLOCK WHEN SPECIFIED

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



VIEW OF TERMINAL END

OPTIONAL CORD CONNECTION

L1	WHITE
L2	RED
L3	BLACK

DRAWING REVISION AC	REVISION BY BS	REV DATE/© DATE 26/07/2022
REQUEST NUMBER CR-0010402	APPROVED BY SN	DATE 26/07/2022
REQUEST NUMBER DESCRIPTION DRAWING UPDATED		
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DRAWN BY DA
DATE 03-26-1993
APPROVED BY TB
DATE 03-26-1993
REFERENCE
THIRD ANGLE PROJECTION

		Regal Beloit America, Inc.	
DESCRIPTION CONNECTION DIAGRAM EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR			
MATERIAL		PROCESS/FINISH	
SIZE A	DRAWING NUMBER EE7300		SHEET 1 OF 1



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 OUTLINE: SS208560-256T
 WINDING: HE31602007 NONE 5

REFERENCE MODEL #: 256THFCD9001
 CAT #: W551A

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	3600	3540	256T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)
3	60	460	23.7	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	91.0	1/2 LD EFF	89.5	GTD EFF	ELECT. TYPE
F.L. PF	87.5	3/4 LD PF	84.0	1/2 LD PF	76.5	90.2	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
29.7 LB-FT	143	49.0 LB-FT 165%	74.0 LB-FT 249%	60

SOUND PRESSURE @	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
75 dBA	84 dBA	1.35 LB-FT²	25 LB-FT²	20 SEC.	2	338 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE BALL 6309	ODE BALL 6209	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.362	0.192	1.122	0.937	33.938	0.080	ODE

* N O T E S *			If Inverter equals NONE, contact factory for further information INVERTER TORQUE: VARIABLE 10:1 INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR

PREPARED BY: ANUSHA M DATE: 3/18/2020	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE	NONE NONE NONE HZ:
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FORM: 3531 REV. 4 2/27/06
 ** Subject to change without notice.

Data Sheet

Date: 3/10/2020
 Customer: _____
 Attention: _____
 Submitted by: ANUSHA M



256THFCD9001

Submittal

Data @ 460 V

Motor Load Data

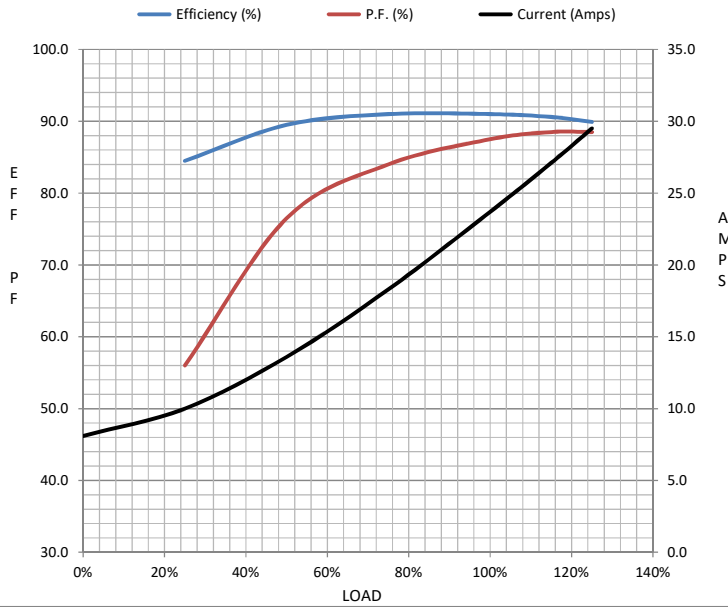
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.1	10.0	13.6	18.3	23.7	27.1	29.5	143
Torque (ft-lb)	0.00	7.3	14.7	22.0	29.7	34.0	37.0	49.0
RPM	3600	3585	3570	3555	3540	3,530	3522	0
Efficiency (%)		84.5	89.5	91.0	91.0	90.6	89.9	
P.F. (%)	9.0	56.0	76.5	84.0	87.5	88.5	88.5	38.0

Motor Speed Data

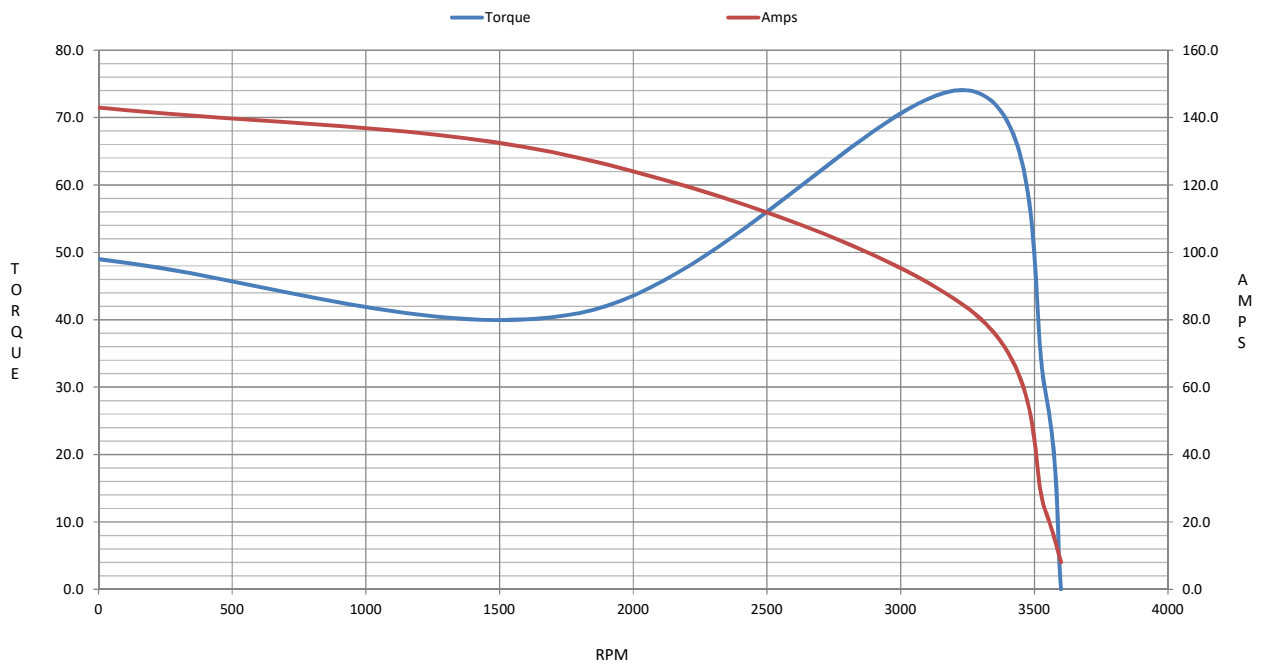
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3258	3540	3600
Current (Amps)	143	128	83.0	23.7	8.1
Torque (ft-lb)	49.0	41.0	74.0	29.7	0.00

Information Block

HP	20.0			
Sync. RPM	3600			
Frame	256			
Enclosure	TEFC			
Construction	TFC			
Voltage	460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	60 °C			
Duty	CONT			
Ambient	50 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	1.35 Lb-Ft ²			
Ref Wdg	HE31602007 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	SS208560-256T			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3620	0.1920	1.1220	0.9370	33.9380



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 : 256THFCD9001

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

Catalog No : W551A

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