

PRODUCT INFORMATION PACKET

Model No: 256THFCD8038

Catalog No: Y598A

Blue Max® Inverter Duty Encoder Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 256TC Frame, TEFC



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Nameplate Specifications

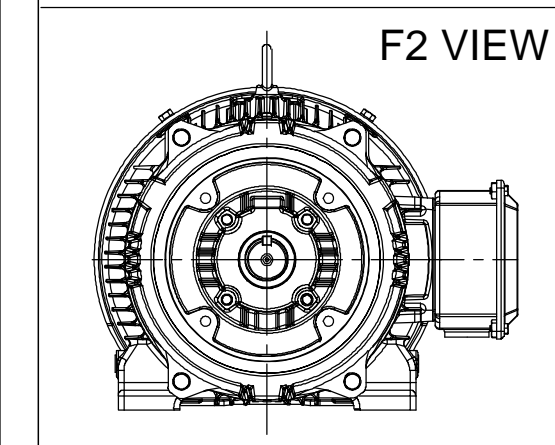
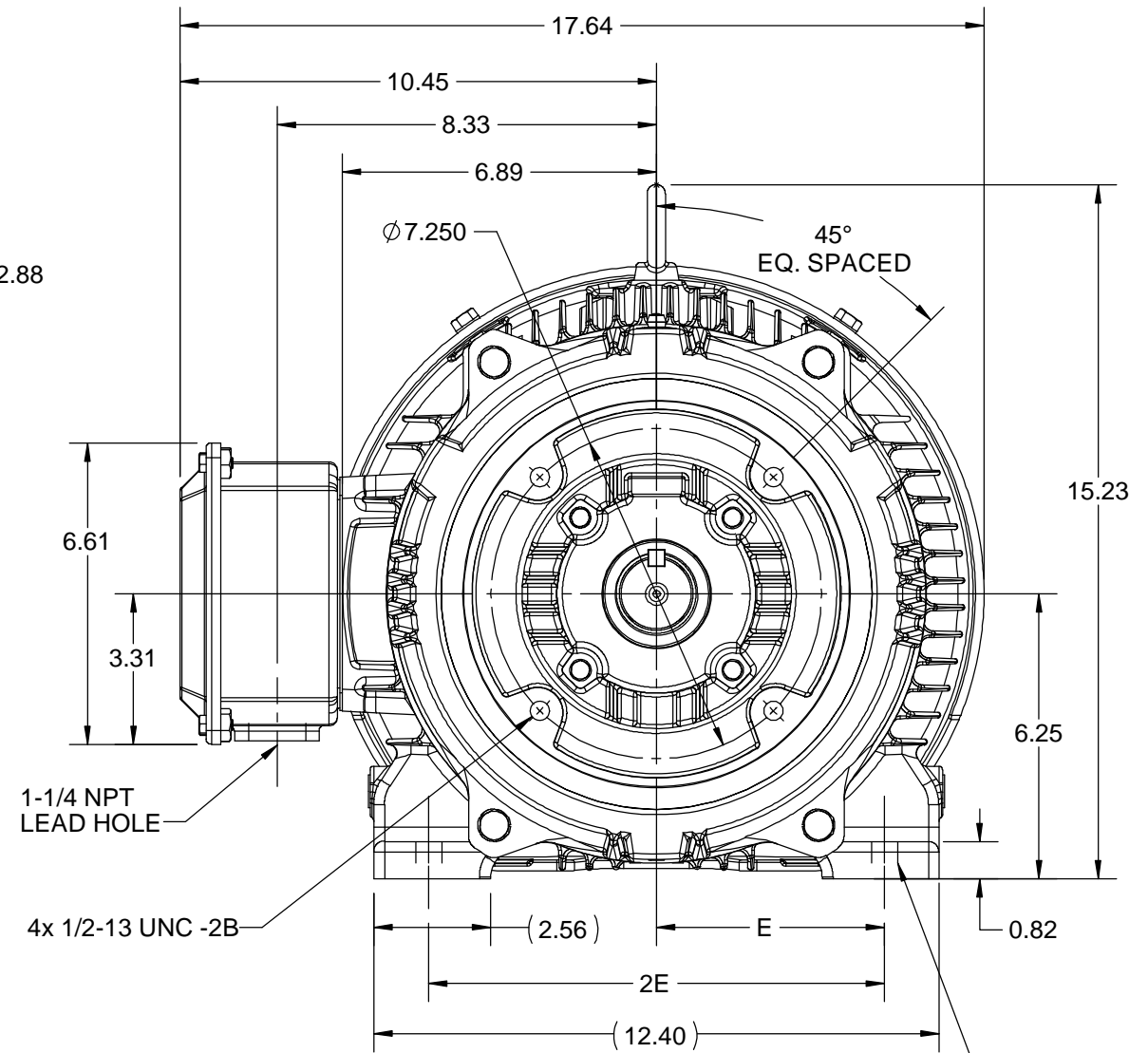
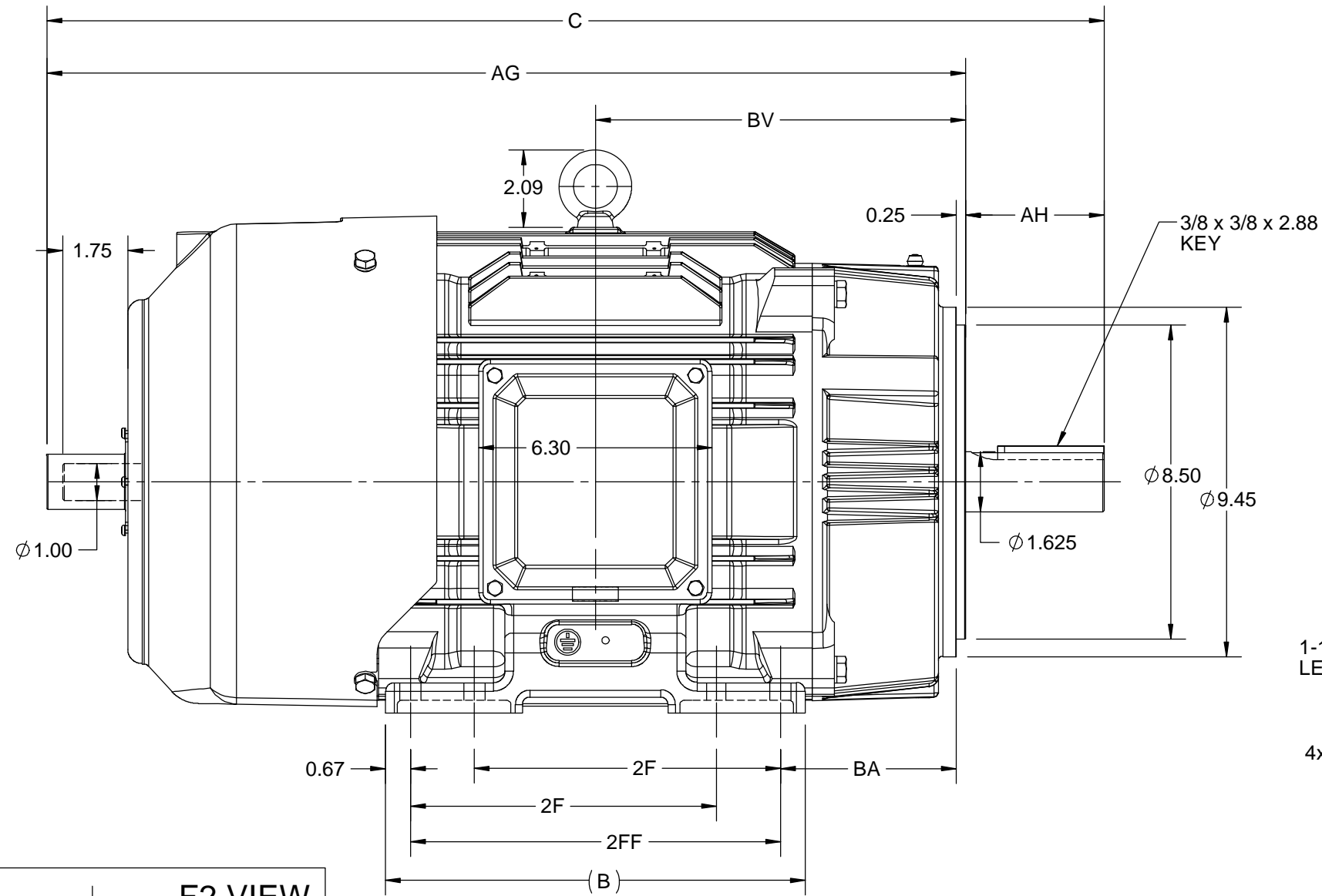
Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	230/460 V
Current	46.0/23.0 A	Speed	1772 rpm
Service Factor	1	Phase	3
Efficiency	92 %	Power Factor	86.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	K
Frame	256TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
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	.4209 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	1.625 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2000:1
Connection Drawing	EE7308T	Outline Drawing	SS209619-200

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DASH NO.	4			3					2			1
	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	26.85	5.00	10.00	---	8.25	23.10	3.75	4.75	9.14	F1 OR F2	254TC
200	11.34	28.58			8.25	10.00	24.83			10.00		254/256TC



DRAWING REVISION B	REVISION BY BISWA	REV DATE/© DATE 15-09-2020
ECO ECO-0192056	APPROVED BY SBD	DATE 15-09-2020
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DRAWN BY VS
DATE 08-06-2020
APPROVED BY SBD
DATE 08-06-2020
REFERENCE
THIRD ANGLE PROJECTION

REGAL Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 254/256TC FR-TEFC-CAST IRON-TACH MTG.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS209619
SHEET 1 OF 1	

HIGH VOLTAGE



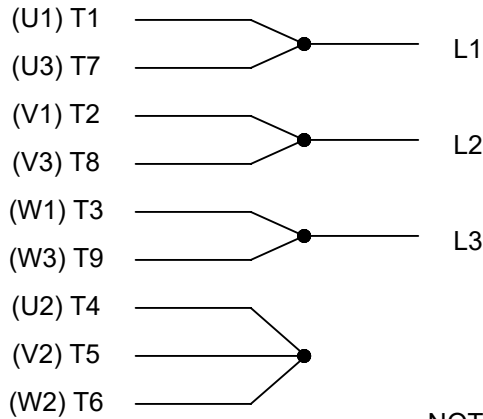
**THREE PHASE
DUAL VOLTAGE MOTOR**

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	THIRD ANGLE PROJECTION	SIZE A



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #: _____
CONN. DIAGRAM: EE7308T
OUTLINE: SS209619-200
WINDING: HA31604031 NONE 2
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 256THFCD8038
CAT #: Y598A
CUSTOMER PART #: _____
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1772	256TC	TEFC	TFS	K	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	46/23	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	92.0	3/4 LD EFF	92.9	1/2 LD EFF	92.2	GTD EFF	ELECT. TYPE
F.L. PF	86.5	3/4 LD PF	83.0	1/2 LD PF	73.9	91.5	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
59.3 LB-FT	193	97.3 LB-FT	164%	200 LB-FT 337%

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
62 dBA	71 dBA		0.675 LB-FT ²	30 LB-FT ²	25 SEC.	2	335 LB.	

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

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

DE	ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6309	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
TSTATS (NIC)	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
0.262	0.182	1.106	0.961	30.175	0.150	ODE

NOTES	INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: DYNAPAR HS35 NONE					
	BRAKE: NONE NONE					
	FT-LB: NA VOLTAGE: NONE					

PREPARED BY: _____ DATE: 9/27/2021	UL: V-INS, CONST, OVERHEAT PRT DEV UL REC
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FORM: 3531 REV_4 2/27/06

Data Sheet

Date: 9/27/2021
 Customer: _____
 Attention: _____
 Submitted by: _____



256THFCD8038

Submittal

Data @ 460 V

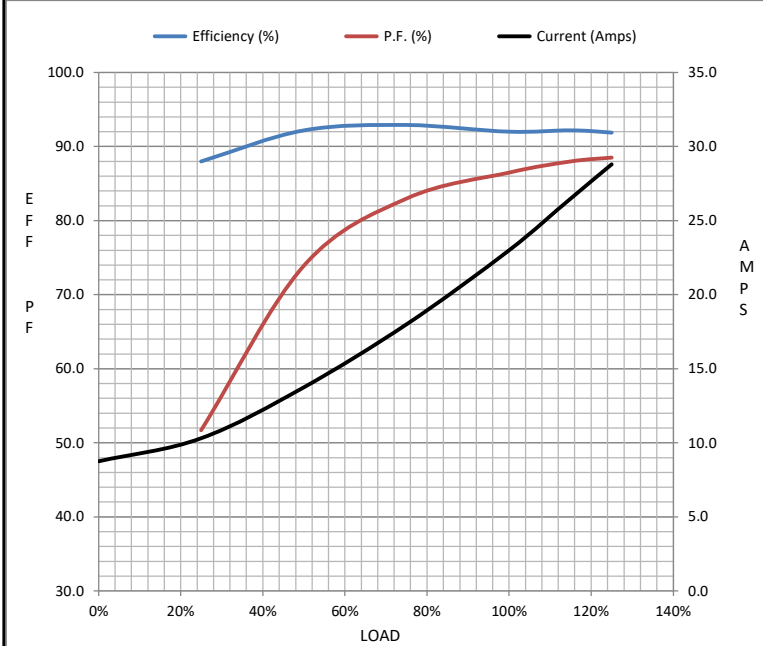
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.8	10.3	13.8	18.0	23.0	26.5	28.8	193
Torque (ft-lb)	0.00	14.7	29.4	44.3	59.3	68.4	74.5	97.3
RPM	1800	1793	1787	1780	1772	1,767	1764	0
Efficiency (%)		88.0	92.2	92.9	92.0	92.2	91.9	
P.F. (%)	6.7	51.7	73.9	83.0	86.5	88.0	88.5	34.4

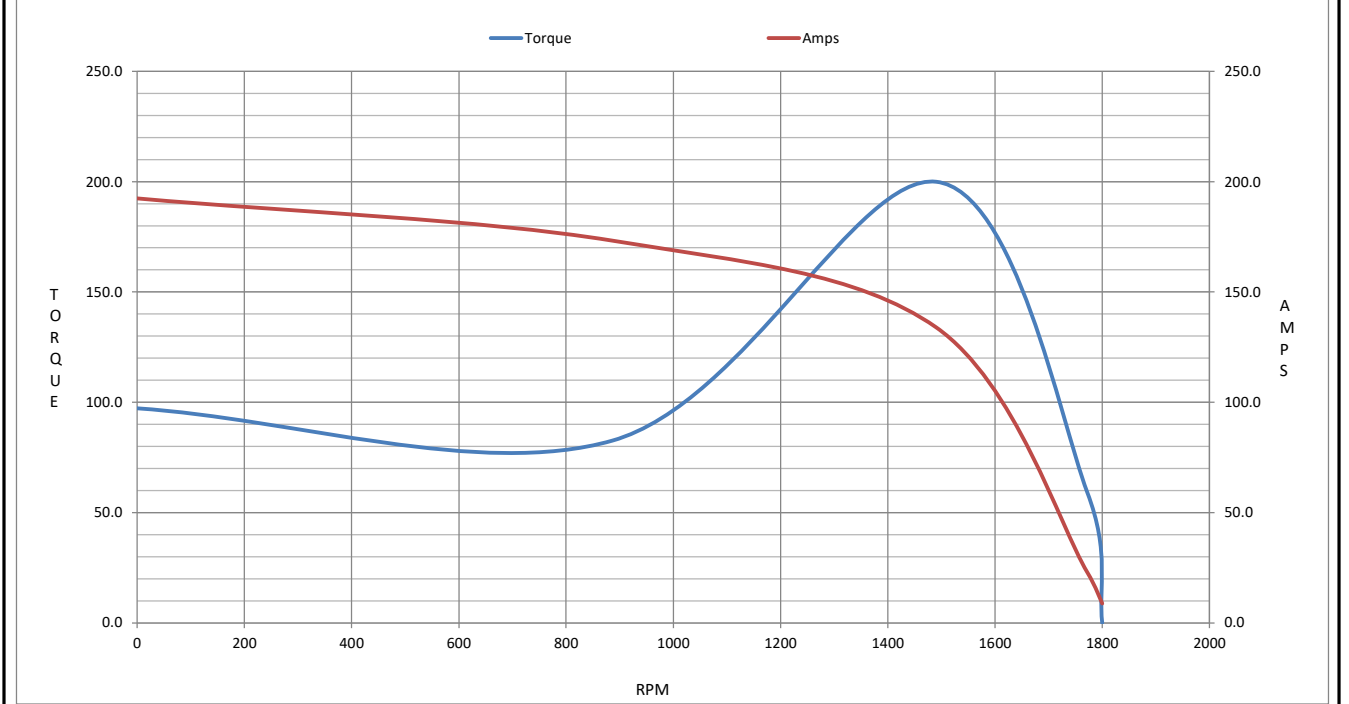
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	886	1490	1772	1800
Current (Amps)	193	173	134	23.0	8.8
Torque (ft-lb)	97.3	82.7	200	59.3	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	0.675 Lb-F ²			
Ref Wdg	HA31604031 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS209619-200			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2620	0.1820	1.1060	0.9610	30.1750



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 : 256THFCD8038

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

Catalog No : Y598A

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