

PRODUCT INFORMATION PACKET

Model No: 256THTCD7036

Catalog No: Y563A

Black Max® Inverter Duty Encoder Motor, 20 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 256TC Frame, TENV



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Nameplate Specifications

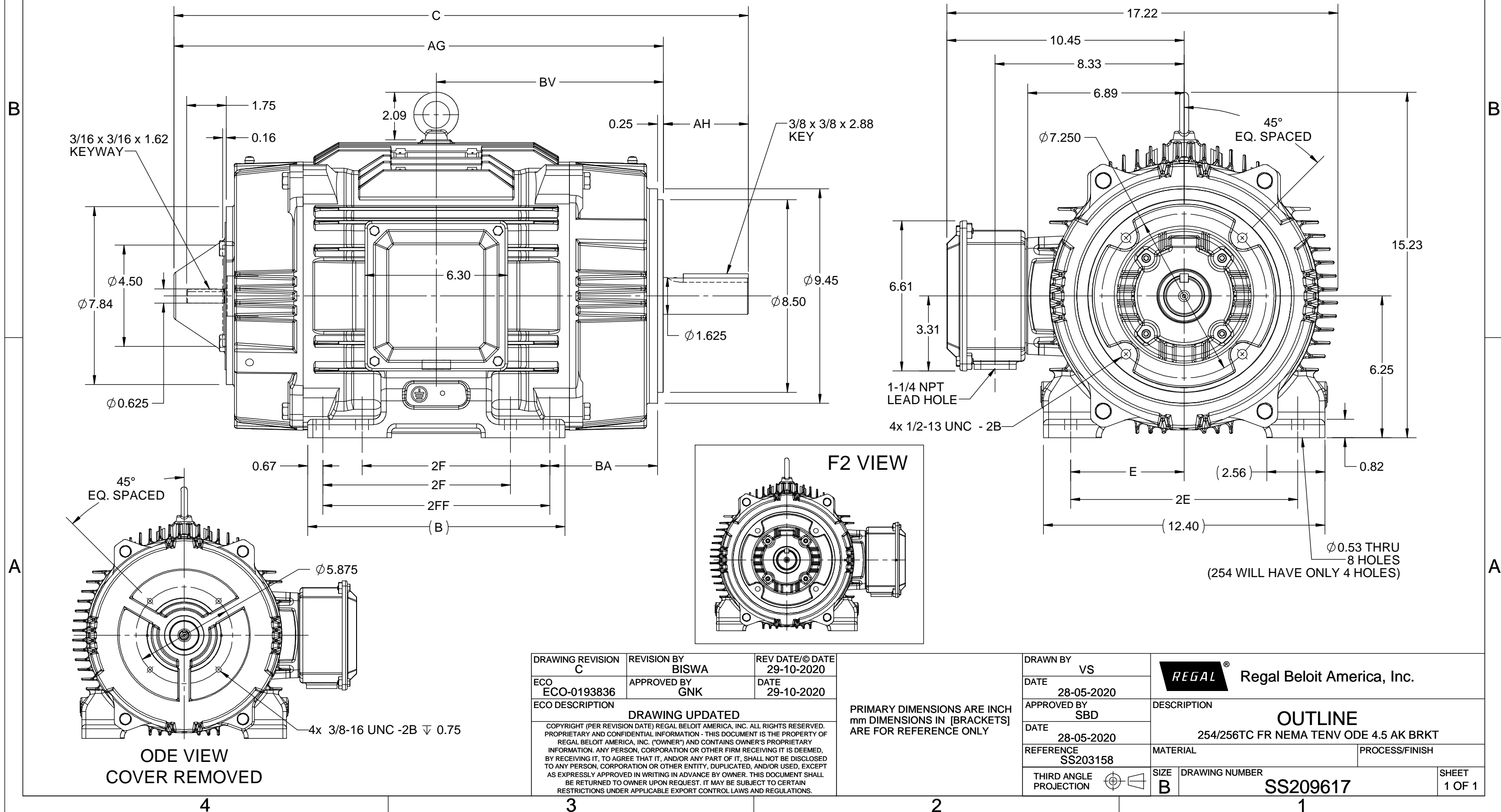
Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	575 V
Current	19.6 A	Speed	1778 rpm
Service Factor	1	Phase	3
Efficiency	93.6 %	Power Factor	84
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	M
Frame	256TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient 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	.333 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 1000:1
Connection Drawing	EE7300T	Outline Drawing	SS209617-200

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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	23.56	5.00	10.00	---	8.25	19.72	3.75	4.75	9.14	F1 OR F2	254TC
200	11.34	25.31			8.25	10.00	21.56			10.00		254/256TC



DRAWING REVISION C	REVISION BY BISWA	REV DATE/© DATE 29-10-2020
ECO ECO-0193836	APPROVED BY GNK	DATE 29-10-2020
ECO DESCRIPTION		
DRAWING UPDATED		
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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

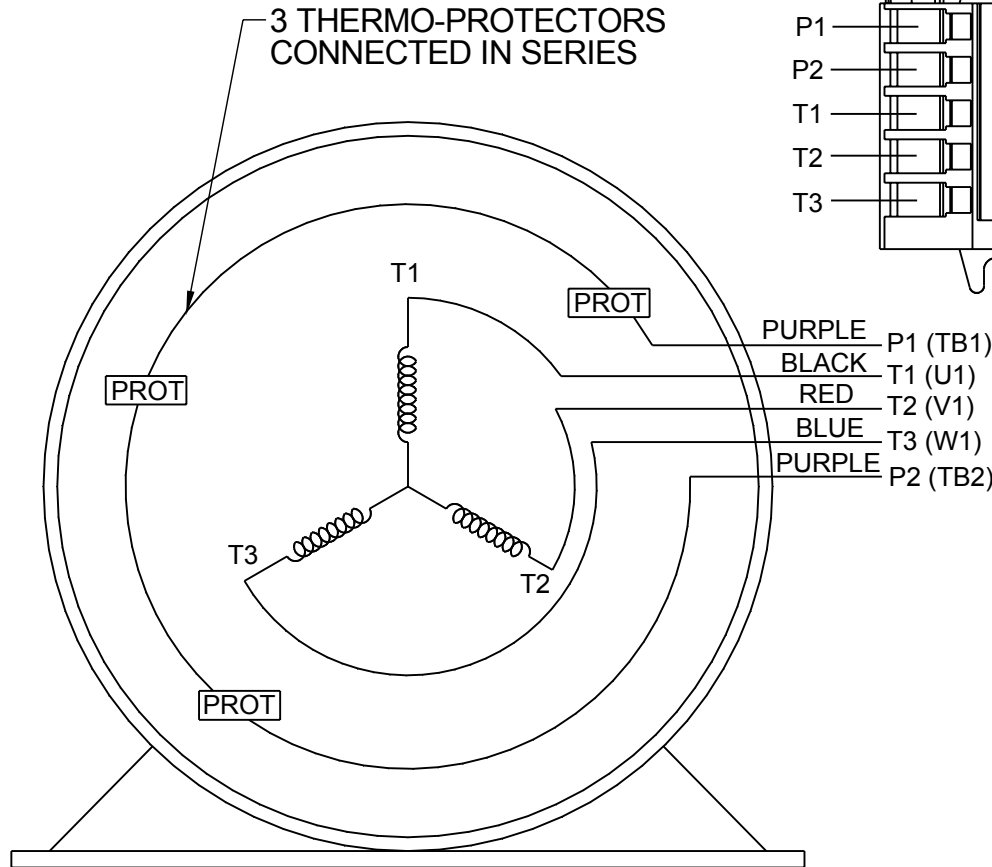
DRAWN BY VS	Regal Beloit America, Inc.
DATE 28-05-2020	
APPROVED BY SBD	DESCRIPTION
DATE 28-05-2020	OUTLINE
REFERENCE SS203158	254/256TC FR NEMA TENV ODE 4.5 AK BRKT
THIRD ANGLE PROJECTION	MATERIAL
SIZE B	PROCESS/FINISH
DRAWING NUMBER SS209617	SHEET 1 OF 1

**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**

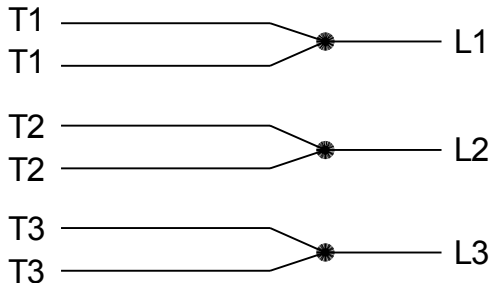
TERMINAL BLOCK WHEN SPECIFIED



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

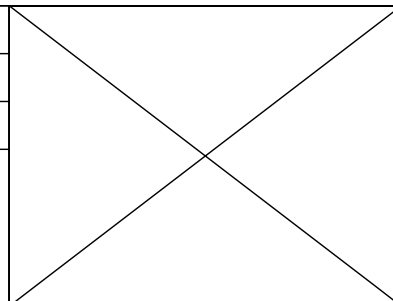
T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

**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 #:** 256THTCD7036
CONN. DIAGRAM: EE7300T **CAT #:** Y563A
OUTLINE: SS209617-200 **CUSTOMER PART #:** _____
WINDING: HA31604035 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
20	14.9	1800	1778	256TC	TENV	TTC	M	INF

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	19.6	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	93.6	3/4 LD EFF	93.4	1/2 LD EFF	92.7	GTD EFF	ELECT. TYPE
F.L. PF	84.0	3/4 LD PF	79.3	1/2 LD PF	67.4	92.7	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
59.0 LB-FT	208	180 LB-FT 305%	260 LB-FT 441%	105

SOUND PRESSURE	SOUND	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.
62 dBA	71 dBA	3.5 LB-FT ²	30 LB-FT ²	18 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						
6309	6209						

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
0.326	0.21	1.139	1.064	32.88	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 1000:1 INV. HP SPEED RANGE: 2.0 X BASE SPEED					
	ENCODER: NONE					
	NONE					
	NONE PPR					

PREPARED BY: _____ DATE: 11/28/2022	BRAKE: NONE					
	NONE NONE					
	FT-LB: NA					
	VOLTAGE: NONE HZ:					

FORM: 3531 REV_4 2/27/06

Data Sheet

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



256THTCD7036
 NONE FAN
Submittal
 Data @ 575 V

Motor Load Data

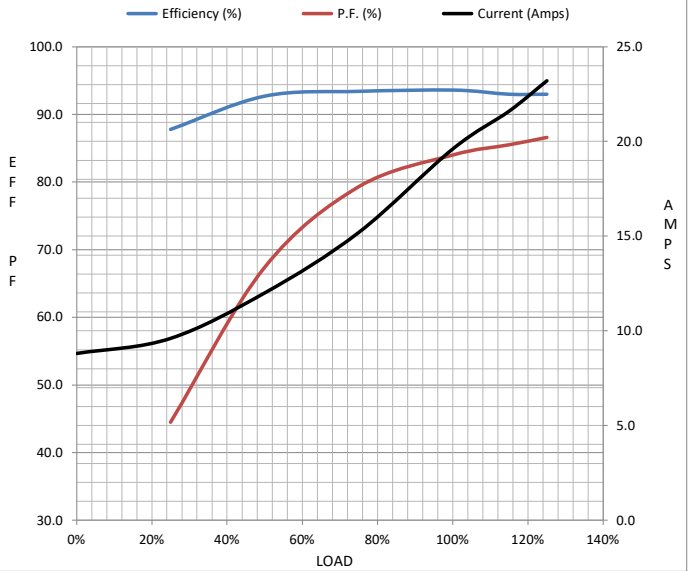
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.8	9.6	12.0	15.2	19.6	21.6	23.2	208
Torque (ft-lb)	0.00	14.6	29.4	44.2	59.0	68.0	74.0	180
RPM	1800	1795	1790	1785	1778	1,776	1774	0
Efficiency (%)		87.8	92.7	93.4	93.6	93.0	93.0	
P.F. (%)	5.7	44.5	67.4	79.3	84.0	85.5	86.6	40.0

Motor Speed Data

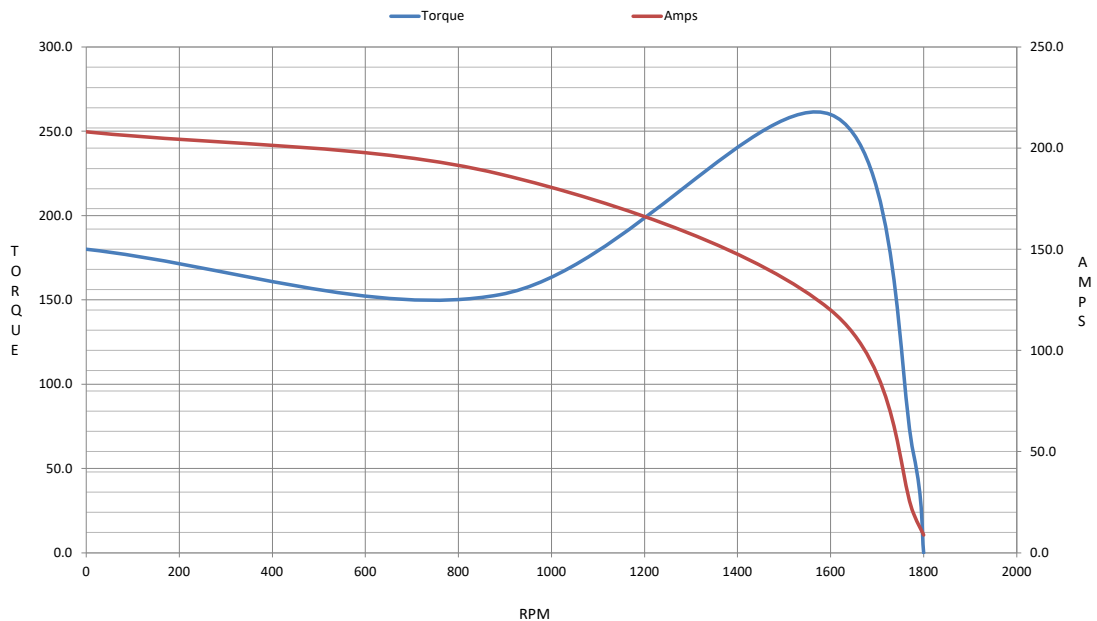
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	889	1600	1778	1800
Current (Amps)	208	187	120	19.6	8.8
Torque (ft-lb)	180	153	260	59.0	0.00

Information Block

HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TENV			
Construction	TTC			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	M			
Service Factor	1			
Temp Rise @ FL	105 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	3.5 Lb-Ft ²			
Ref Wdg	HA31604035 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 1000:1			
Outline Dwg	SS209617-200			
Conn. Diag	EE7300T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3260	0.2100	1.1390	1.0640	32.8800



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 : 256THTCD7036

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

Catalog No : Y563A

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