

# PRODUCT INFORMATION PACKET

Model No: 256THTCD7026

Catalog No: Y552A

Black Max® Inverter Duty Encoder Motor, 20 HP, 3 Ph, 60 Hz, 230/460 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	230/460 V
Current	49.0/24.5 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		

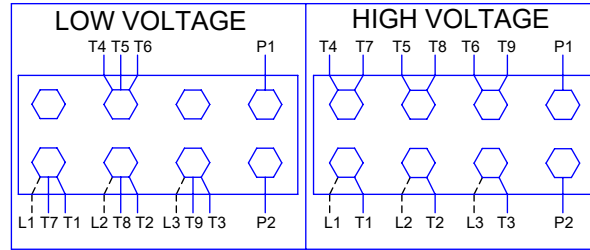
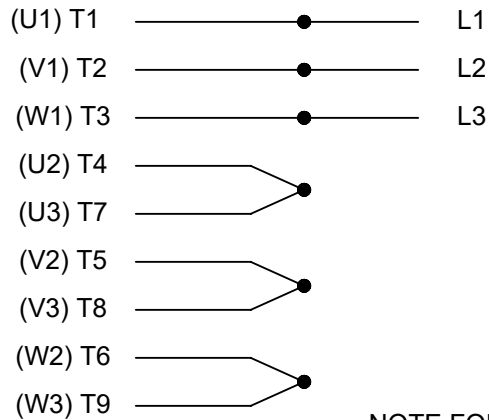
### Technical Specifications

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	EE7308T	Outline Drawing	SS209617-200

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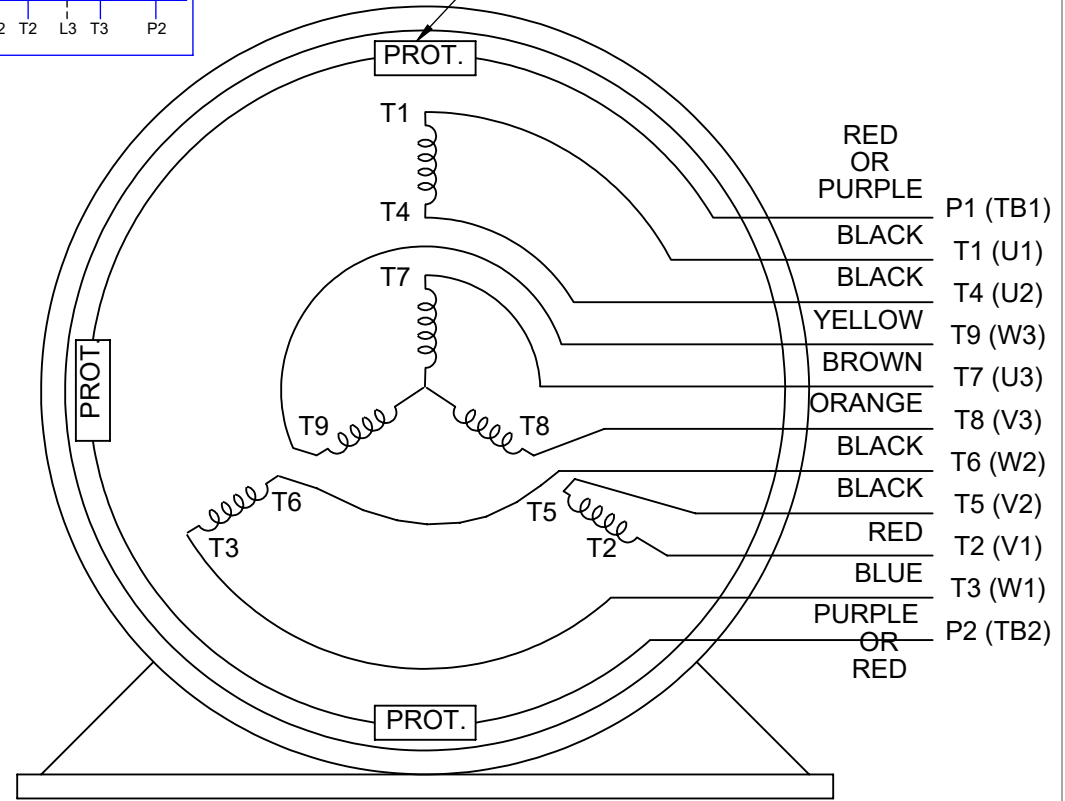


**HIGH VOLTAGE**



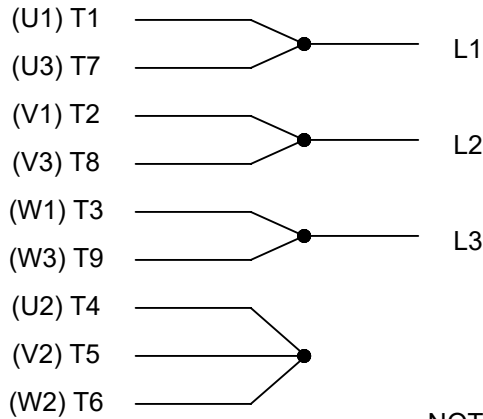
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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 <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
<small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>				DATE 05-13-1992	MATERIAL
			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T



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 #:** 256THTCD7026  
**CONN. DIAGRAM:** EE7308T **CAT #:** Y552A  
**OUTLINE:** SS209617-200 **CUSTOMER PART #:** \_\_\_\_\_  
**WINDING:** HA31604035 NONE 2 **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	230/460	49/24.5	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	260	180 LB-FT 305%	260 LB-FT 441%	105

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
62 dBA	71 dBA	3.5 LB-FT²	30 LB-FT²	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
0.208	0.135	0.729	0.681	21.043	0.150	ODE

* N O T E S *	<b>INVERTER TORQUE: CONSTANT 1000:1</b> <b>INV. HP SPEED RANGE: 2.0 X BASE SPEED</b>					
	<b>ENCODER: NORTHSTAR</b> ST56 NONE <span style="float: right;">NONE PPR</span>					
	<b>BRAKE: NONE</b> NONE <span style="float: right;">NONE</span>					
	<b>FT-LB: NA</b> <b>VOLTAGE: NONE</b> <span style="float: right;"><b>HZ:</b></span>					
	<b>UL: V-INS, CONST, OVERHEAT PRT DEV UL REC</b>					

**PREPARED BY:** \_\_\_\_\_ **DATE:** 11/28/2022

FORM: 3531 REV\_4 2/27/06

**Data Sheet**

Date: 11/28/2022  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



256THTCD7026  
 NONE FAN  
**Submittal**  
 Data @ **460** V

**Motor Load Data**

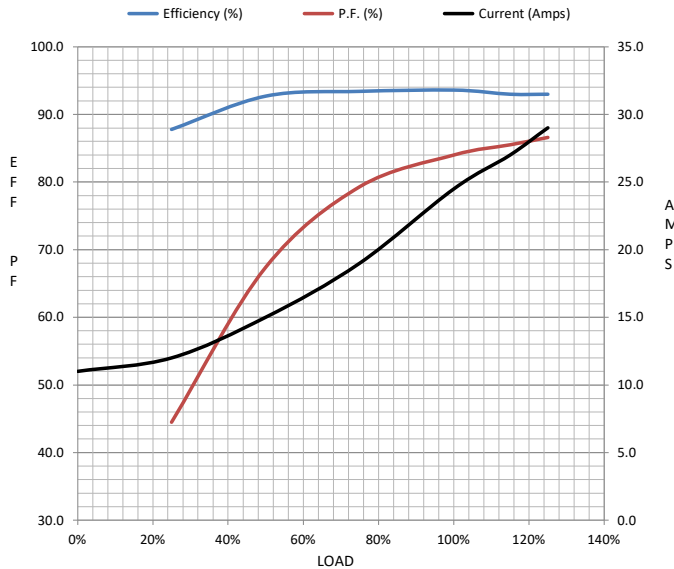
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	11.0	12.0	15.0	19.0	24.5	27.0	29.0	260
Torque (ft-lb)	0.00	14.6	29.4	44.2	59.0	68.0	74.0	180
RPM	1800	1795	1790	1785	1778	1,776	1774	0
Efficiency (%)		87.8	92.7	93.4	93.6	93.0	93.0	
P.F. (%)	5.7	44.5	67.4	79.3	84.0	85.5	86.6	40.0

**Motor Speed Data**

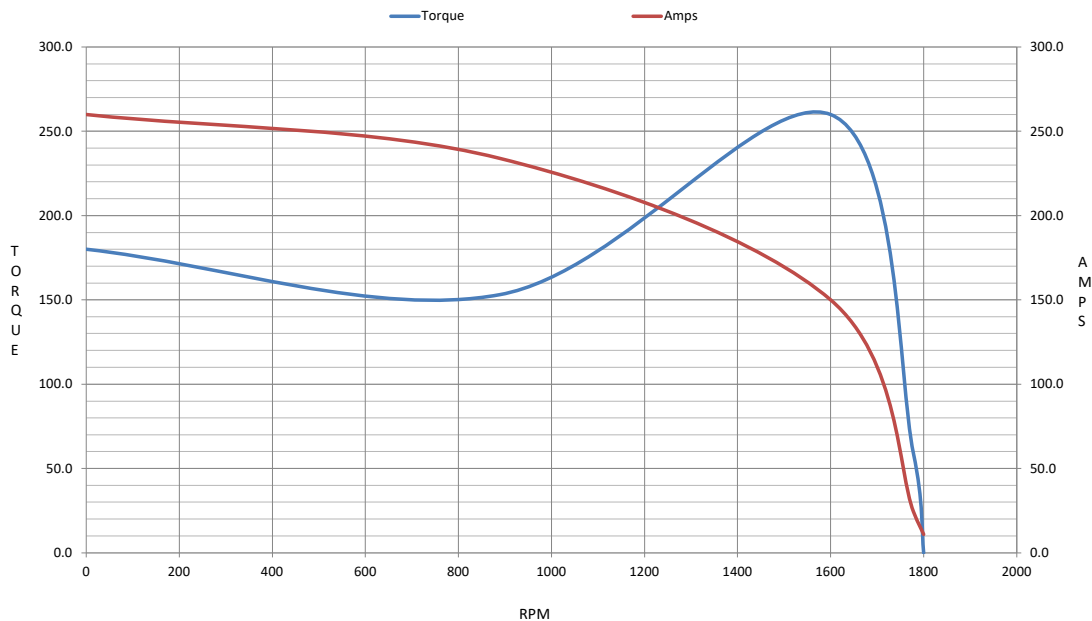
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	889	1600	1778	1800
Current (Amps)	260	234	150	24.5	11.0
Torque (ft-lb)	180	153	260	59.0	0.00

**Information Block**

HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TENV			
Construction	TTC			
Voltage	230/460 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 <sup>2</sup>	3.5 Lb-Ft <sup>2</sup>			
Ref Wdg	HA31604035 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 1000:1			
Outline Dwg	SS209617-200			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2080	0.1350	0.7290	0.6810	21.0430



**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 : 256THTCD7026

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

Catalog No : Y552A

Rework No : N/A

Directives :

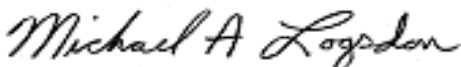
Low Voltage Directive 2014/35/EU

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**