

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 256THFCD19056

Catalog No: W553A-P

XRI®-841 Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 256T Frame, TEFC



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**RegalRexnord**

## Nameplate Specifications

Phase	3	Output HP	20 Hp
Output KW	14.9 kW	Voltage	460 V
Speed	1768 rpm	Service Factor	1.15
Frame	256T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	24.2 A	Power Factor	83.5
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

## Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.513 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 10:1/VARIABLE 10:1
Connection Drawing	EE7300	Outline Drawing	SS208560-200

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**3 of 7**

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

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS

TERMINAL BLOCK WHEN SPECIFIED

IF MOTOR HAS 9 LEADS

T1(U1) T1(U1) T1(U1) → L1

T2(V1) T2(V1) T2(V1) → L2

T3(W1) T3(W1) T3(W1) → L3

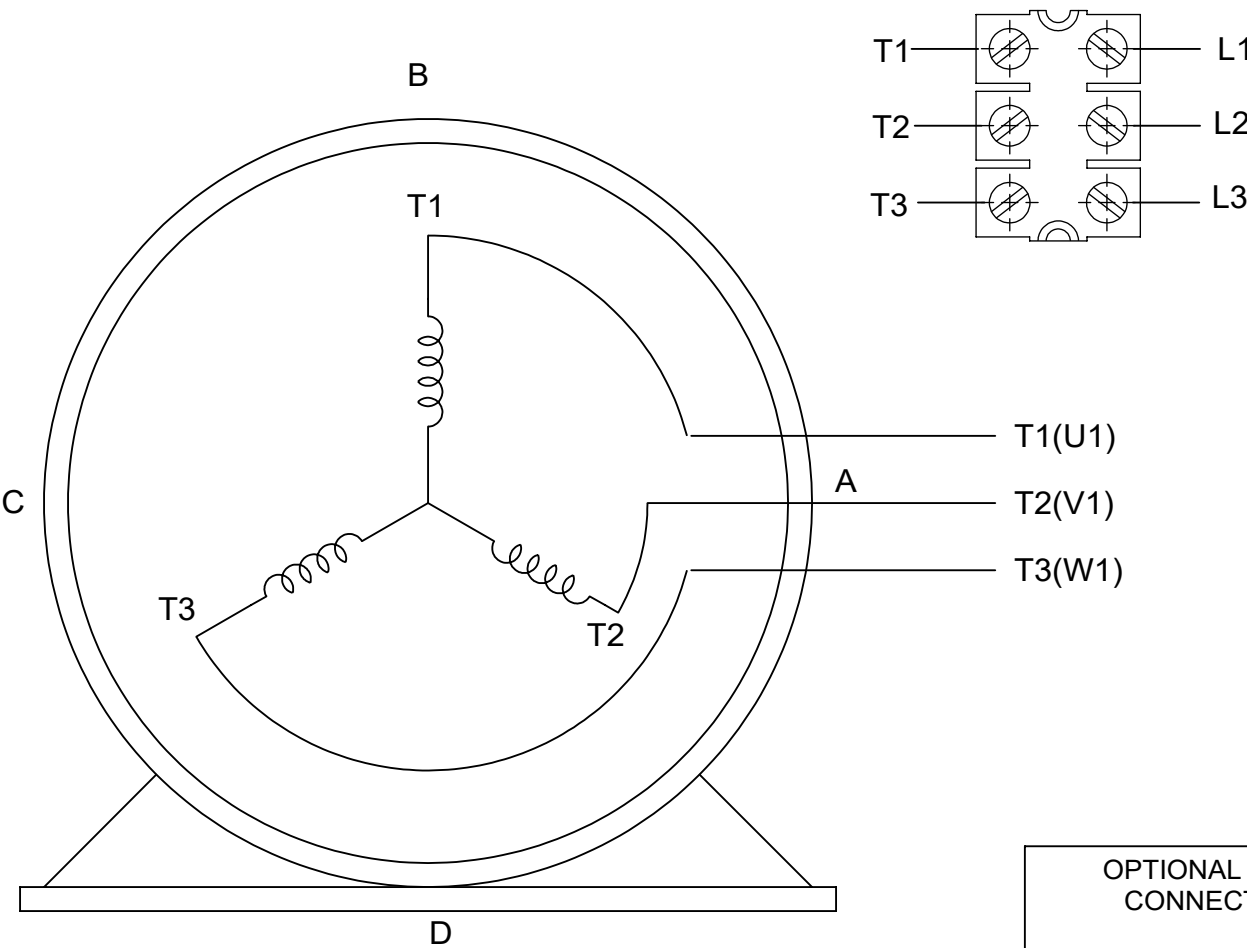
IF MOTOR HAS 6 LEADS

T1(U1) T1(U1) → L1

T2(V1) T2(V1) → L2

T3(W1) T3(W1) → L3

A-9806 DECAL




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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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

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  
 REFERENCE MODEL #: 256THFCD19056  
 OUTLINE: SS208560  
 CAT #: W553A-P  
 WINDING: HA31604018 NONE 8  
 MOUNTING: F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1768	256T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	460	24.2	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.0	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE
F.L. PF	83.5	3/4 LD PF	79.0	1/2 LD PF	69.0	92.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
59.4 LB-FT	144	119 LB-FT 200%	146 LB-FT 246%	60

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
65 dBA	74 dBA	3.8 LB-FT²	125 LB-FT²	20 SEC.	2	344 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	NONE	NO	NONE	BLUE (EPOXY)

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

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)
0.341	0.203	1.037	1.25	26.98	0.080

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

PREPARED BY: _____ DATE: 5/13/2020	BRAKE: NONE NONE FT-LB: NA VOLTAGE: NONE HZ:
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FORM: 3531 REV\_4 2/27/06  
 \*\* Subject to change without notice.

## Data Sheet

Date: 5/6/2020

256THFCD19056

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

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

Submitted by: \_\_\_\_\_



Submittal

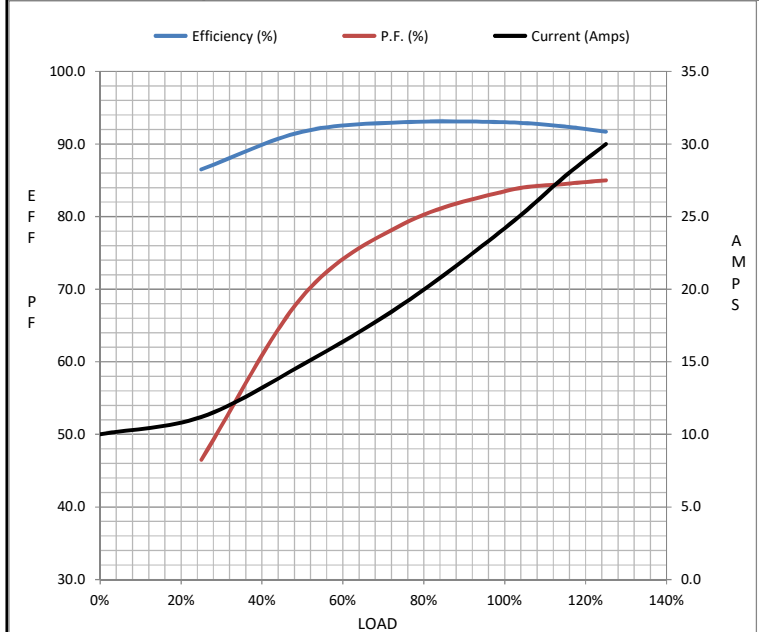
Data @ 460 V

## Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	10.0	11.2	14.8	19.0	24.2	27.8	30.0	144	
Torque (ft-lb)	0.00	14.6	29.5	44.4	59.4	68.5	74.7	119	
RPM	1800	1792	1785	1778	1768	1,762	1760	0	
Efficiency (%)		86.5	91.7	93.0	93.0	92.4	91.7		
P.F. (%)	5.0	46.5	69.0	79.0	83.5	84.5	85.0	42.0	

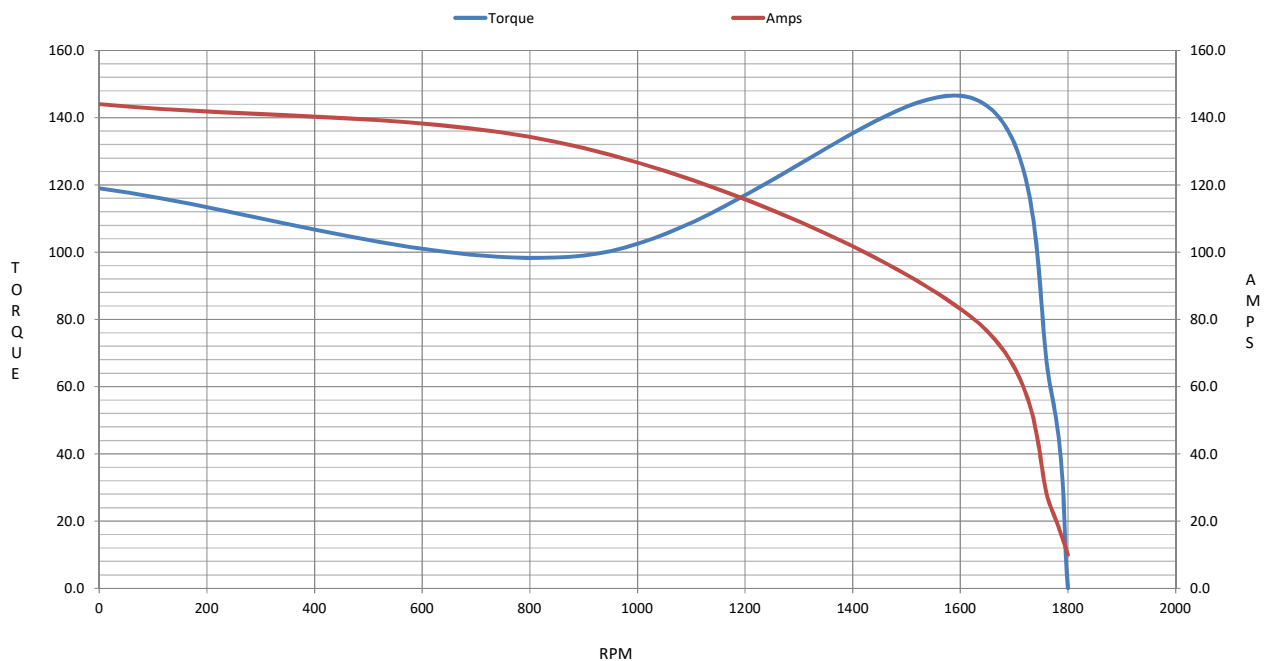
## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1618	1768	1800
Current (Amps)	144	131	81.0	24.2	10.0
Torque (ft-lb)	119	99.0	146	59.4	0.00



Information Block				
HP		20.0		
Sync. RPM		1800		
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		40	° C	
Elevation		3,300	feet	
Rotor/Shaft wk²		3.8	Lb-Ft²	
Ref Wdg		HA31604018 NONE		
Sound Pressure @ 1M		65	dBA	
VFD Rating		CONSTANT 10:1/VARIABLE 10:1		
Outline Dwg		SS208560		
Conn. Diag		EE7300		
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3410	0.2030	1.0370	1.2500	26.9800

## 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 : 256THFCD19056

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

Catalog No : W553A-P

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**