

# PRODUCT INFORMATION PACKET

Model No: 215THFS8029

Catalog No: Y596

Encoder Motor, 10 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 215TC Frame, TEFC



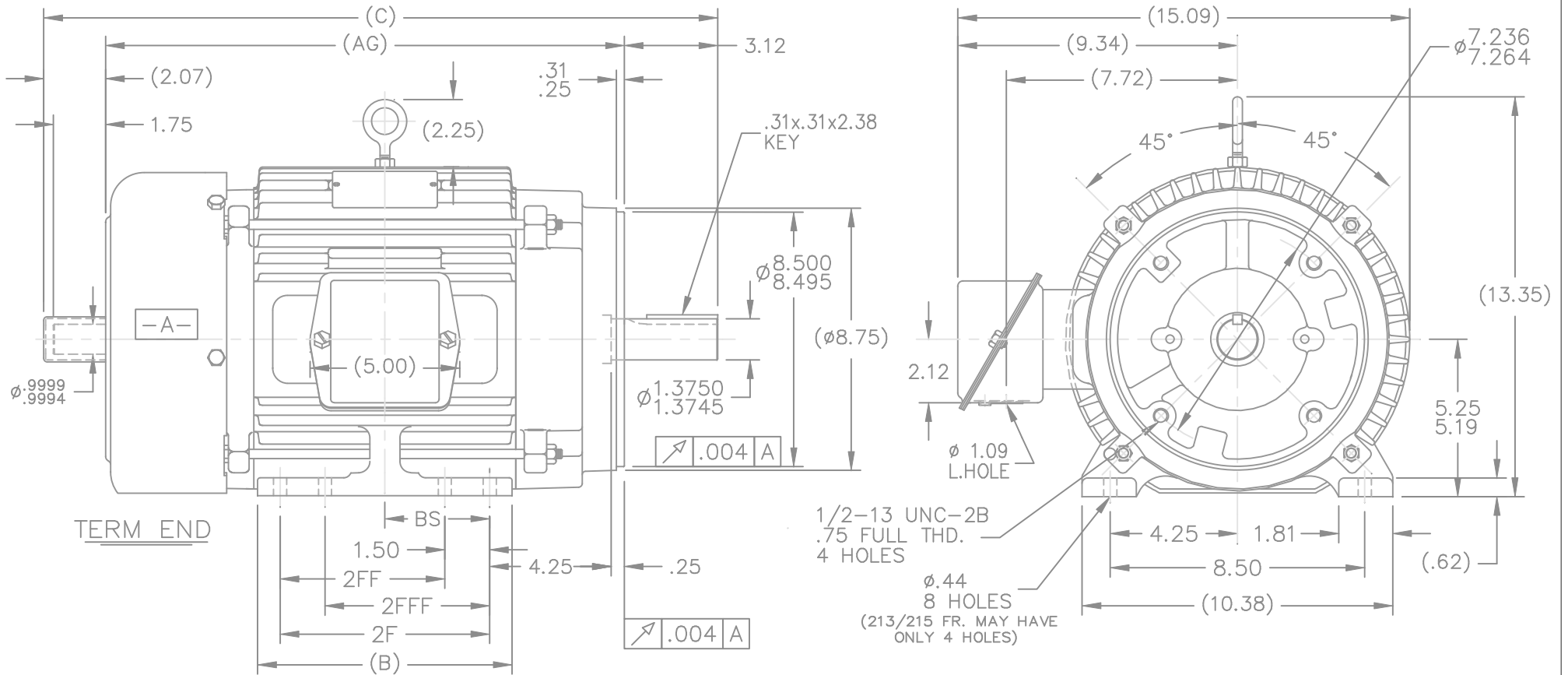
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### Nameplate Specifications

Output HP	<b>10 Hp</b>	Output KW	<b>7.5 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>25.4/12.7 A</b>	Speed	<b>1765 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>90.2 %</b>	Power Factor	<b>81</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>H</b>
Frame	<b>215TC</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6207</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>43</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Duty</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.9 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>22.53 in</b>
Frame Length	<b>8.75 in</b>	Shaft Diameter	<b>1.375 in</b>
Shaft Extension	<b>3.12 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Inverter Load	<b>CONSTANT 2000:1</b>		
Outline Drawing	<b>A-SS88574-875</b>	Connection Drawing	<b>A-EE7308T</b>



DASH	FRAME	C	AG	B	2F	2FF	2FFF	BS
725	213T	21.03	15.84	7.00	5.50	-	-	2.75
875	215T	22.53	17.34	8.50	7.00	-	-	3.50
875	213/5T	22.53	17.34	8.50	7.00	5.50	5.50	3.50
1000	213T	23.78	18.59	9.75	8.25	5.50	5.50	4.12
1000	215T	23.78	18.59	9.75	8.25	7.00	7.00	4.12

- NOTES:
1. BOX CAN BE ROTATED IN 90° STEPS.
  2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
  3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

				TOLERANCES UNLESS SPECIFIED			DRAWN DRS 11-15-2001							
				DEC.	INCHES		CHK	ML 01-09-2002						
4	UPDATED DRAWING			TJW	05/04/2007	.X	±.1	APPD	TB 01-09-2002					
3	REVISED FOOT HOLE NOTE	CN 29200-2241		NJS	02-18-2002	DRS	.XX	±.03	SCALE	1=5				
2	UPDATED C'BOX GEOMETRY	CN 28426		DRS	01-25-2002	ML	.XXX	±.005	REF					
1	NEW DRAWING	CN 28945		DRS	10-09-2002		.XXXX	±.0005	FMF					
NO.	REVISION			BY & DATE		CHK	ANG	±'30"	FINISH	PREV				
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT						RFP	CAD FILE ss88574			SIZE	DRAWING NO.	PAGE	OF	REV.
						DIST	LB		A	SS88574			4	

**HIGH VOLTAGE**



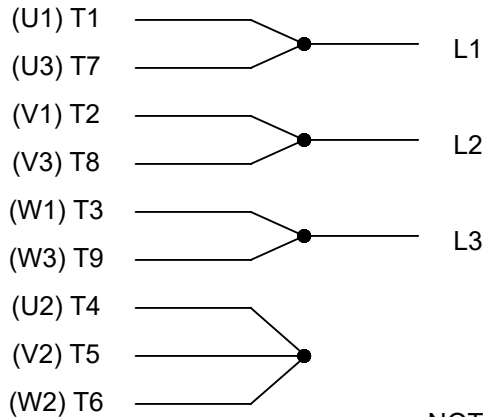
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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 <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T

**CERTIFICATION DATA SHEET**

**Model#:** 215THFS8029 CT  
**CONN. DIAGRAM:** A-EE7308T  
**OUTLINE:** A-SS88574-875

**WINDING#:** K2154382 R6 6  
**ASSEMBLY:** F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

<b>HP</b>	<b>KW</b>	<b>SYNC. RPM</b>	<b>F.L. RPM</b>	<b>FRAME</b>	<b>ENCLOSURE</b>	<b>KVA CODE</b>	<b>DESIGN</b>		
10	7.5	1800	1765	215TC	TEFC	H	INV		
<b>PH</b>	<b>Hz</b>	<b>VOLTS</b>	<b>FL AMPS</b>	<b>START TYPE</b>	<b>DUTY</b>	<b>INSL</b>	<b>S.F</b>	<b>AMB°C</b>	<b>ELEVATION</b>
3	60	230/460	25.4/12.7	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300
<b>FULL LOAD EFF: 90.2</b>		<b>3/4 LOAD EFF: 90.2</b>		<b>1/2 LOAD EFF: 88.5</b>		<b>GTD. EFF</b>		<b>ELEC. TYPE</b>	
<b>FULL LOAD PF: 81</b>		<b>3/4 LOAD PF: 76.5</b>		<b>1/2 LOAD PF: 66.5</b>		88.5		SQ CAGE INV DUTY	
<b>F.L. TORQUE</b>		<b>LOCKED ROTOR AMPS</b>		<b>L.R. TORQUE</b>		<b>B.D. TORQUE</b>		<b>F.L. RISE°C</b>	
29.8 LB-FT		164 / 82		66.5 LB-FT 223		75 LB-FT 252		55	
<b>SOUND PRESSURE @ 3 FT.</b>	<b>SOUND POWER</b>	<b>ROTOR WK^2</b>	<b>MAX. WK^2</b>	<b>SAFE STALL TIME</b>	<b>STARTS /HOUR</b>	<b>APPROX. MOTOR WGT</b>			
72 dBA	82 dBA	1.1 LB-FT^2	0 LB-FT^2	0 SEC.	0	252 LBS.			

**EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)**

<b>R1</b>	<b>R2</b>	<b>X1</b>	<b>X2</b>	<b>XM</b>
0.53676	0.44588	2.0306	3.0814	48.422
<b>RM</b>	<b>ZREF</b>	<b>XR</b>	<b>TD</b>	<b>TD0</b>
1905.64	28.4	4.2	0.017	0.305

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

<b>DE BRACKET TYPE</b>	<b>ODE BRACKET TYPE</b>	<b>MOUNT TYPE</b>	<b>ORIENTATION</b>	<b>SEVERE DUTY</b>	<b>HAZARDOUS LOCATION</b>	<b>DRIP COVER</b>	<b>SCREENS</b>	<b>PAINT</b>
C-FACE	ENCODER	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

<b>BEARINGS</b>		<b>GREASE</b>	<b>SHAFT TYPE</b>	<b>SPECIAL DE</b>	<b>SPECIAL ODE</b>	<b>SHAFT MATERIAL</b>	<b>FRAME MATERIAL</b>
<b>DE</b>	<b>OPE</b>	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6309	6207						

<b>THERMO-PROTECTORS</b>				<b>THERMISTORS</b>	<b>CONTROL</b>	<b>SPACE /n HEATERS</b>
<b>THERMOSTATS</b>	<b>PROTECTORS</b>	<b>WDG RTDs</b>	<b>BRG RTDs</b>	NONE	FALSE	NONE VOLTS
TSTATS (N/C)	NOT	NONE	NONE			

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: PROVISIONS ONLY
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE

\*  
N  
O  
T  
E  
S  
\*

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 11:13:30 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 6/20/2017

215THFS8029

Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

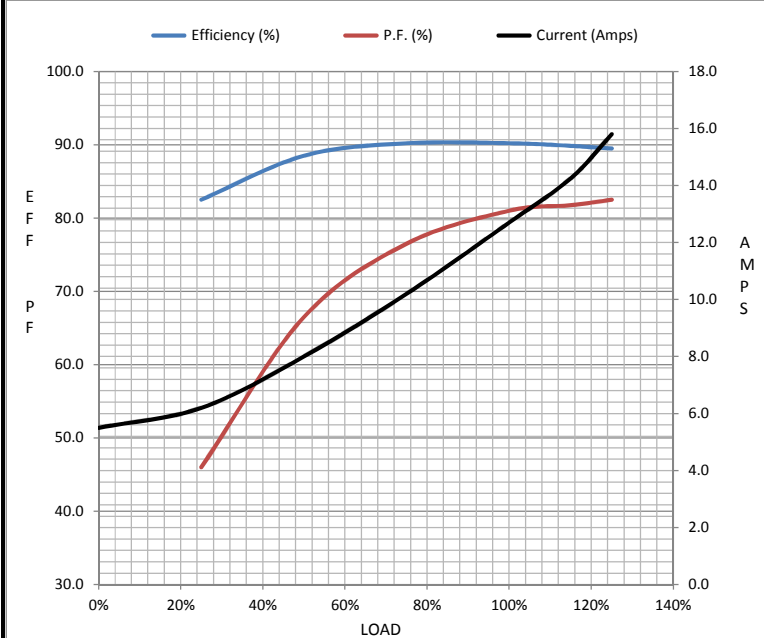
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	5.5	6.2	8.0	10.2	12.7	14.3	15.8	82.0
Torque (ft-lb)	0.00	7.4	14.8	22.2	29.8	33.7	37.5	66.5
RPM	1800	1790	1782	1775	1765	1,760	1752	0
Efficiency (%)		82.5	88.5	90.2	90.2	89.9	89.5	
P.F. (%)	7.0	46.0	66.5	76.5	81.0	81.8	82.5	42.5

Motor Speed Data

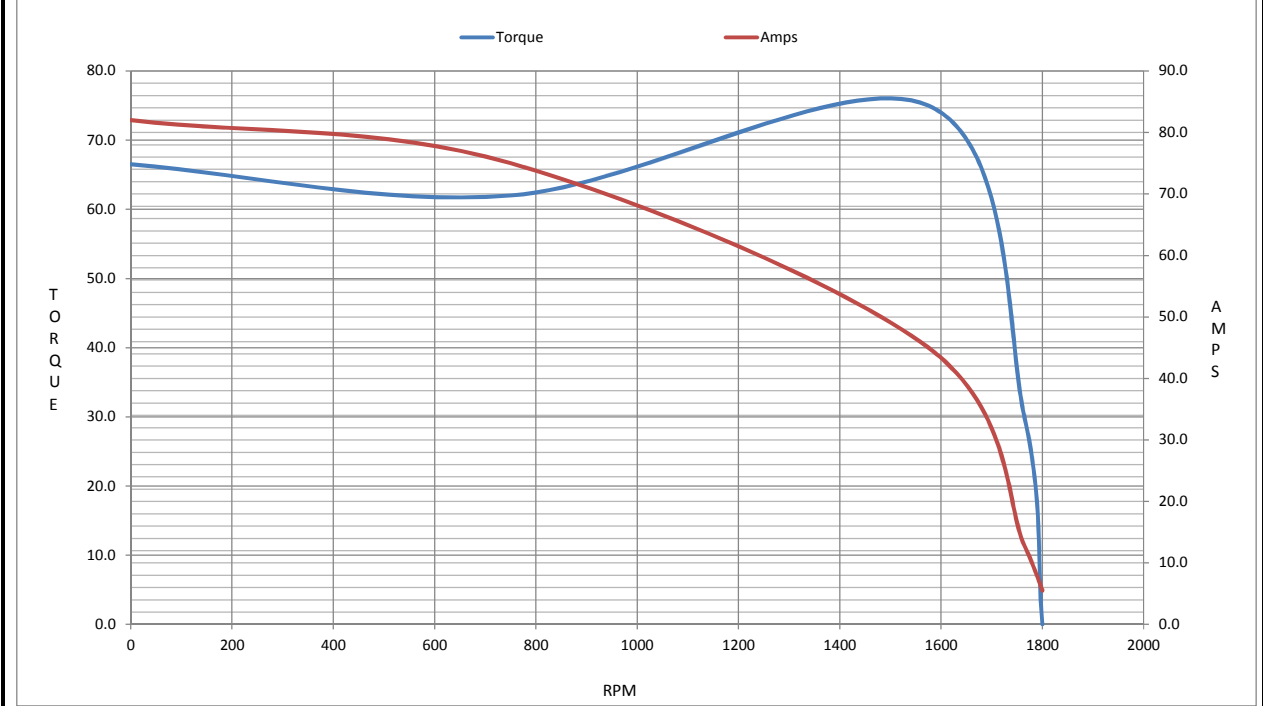
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	750	1575	1765	1800
Current (Amps)	82.0	75.0	45.0	12.7	5.5
Torque (ft-lb)	66.5	62.0	75.0	29.8	0.00

Information Block

HP	10.0			
Sync. RPM	1800			
Frame	215			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	H			
Service Factor	1.0			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	1.10 Lb-Ft <sup>2</sup>			
Ref Wdg	K2154382 R6			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	A-SS88574-875			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5370	0.4460	2.0310	3.0810	48.4220



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 : 215THFS8029

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

Catalog No : Y596

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**