

# PRODUCT INFORMATION PACKET

Model No: 254THTNA8058

Catalog No: Y509

Blue Max® Inverter Duty Encoder Motor, 15 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 254TC Frame, TENV



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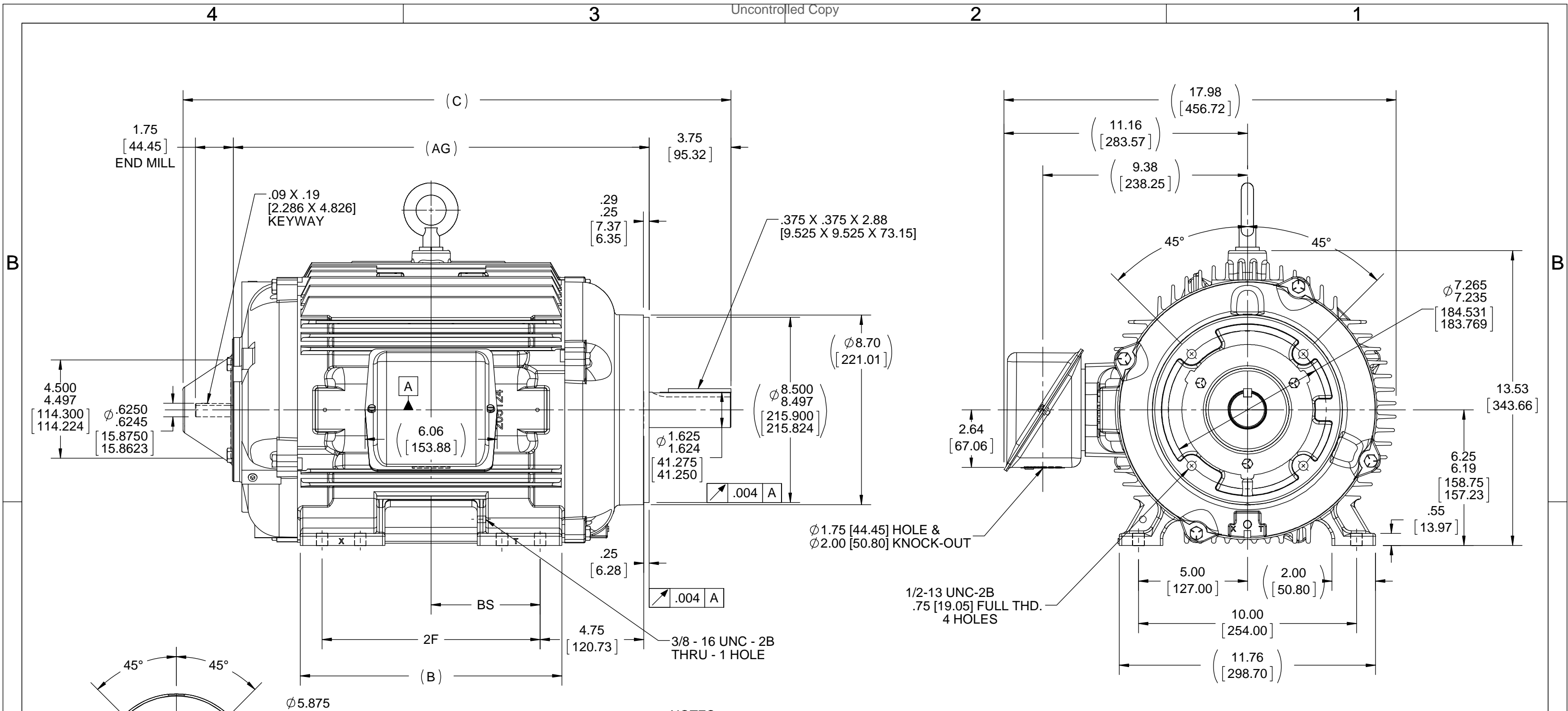
### Nameplate Specifications

Output HP	15 Hp	Output KW	11.2 kW
Frequency	60 Hz	Voltage	230/460 V
Current	40.5/20.2 A	Speed	1772 rpm
Service Factor	1	Phase	3
Efficiency	93 %	Power Factor	74.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	K
Frame	254TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

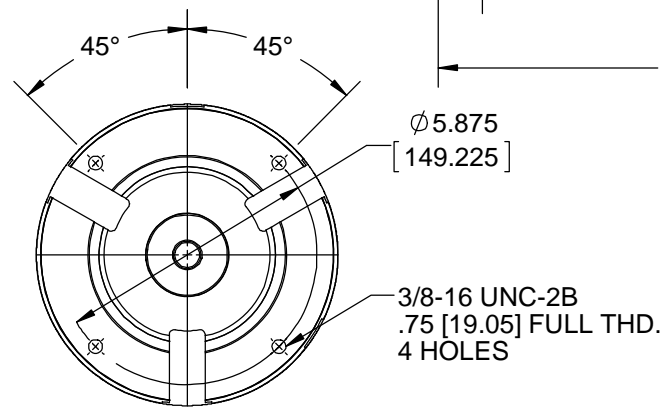
### Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.44 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	23.38 in
Frame Length	10.50 in	Shaft Diameter	1.625 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS203158-1050	Connection Drawing	A-EE7308T





- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
  2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
  3. MOTOR HAS F2 CAPABILITY.



DASH	FRAME	B	C	AG	2F	2FF	BS
1050	254TC	10.25	23.38	17.31	8.25	---	4.12
1225	256TC	12.00	25.13	19.06	10.00	---	5.00

DRAWING REVISION	REVISION BY	DATE
K		
ECO	APPROVED BY	DATE
ECO-0132637		
ECO DESCRIPTION		
UPDATED ODE KEYWAY		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45° CORNER FILLETS: R.02 [0.51]			
MACHINED SURFACES: 200 INCH/mm 5.1			
mm SHOWN IN [BRACKETS]			

DRAWN BY	DATE
J PETERSEN	11-7-2017
APPROVED BY	DATE
TLB	11-7-2017
REFERENCE	
THIRD ANGLE PROJECTION	

**REGAL**™ Regal Beloit America, Inc.

DESCRIPTION: **OUTLINE**  
250TC FR. - BB - C'FACE - TENV - STL. C'BOX

MATERIAL: \_\_\_\_\_ PROCESS/FINISH: \_\_\_\_\_

SIZE: **B** DRAWING NUMBER: **SS203158** SHEET: **1 OF 1**

**HIGH VOLTAGE**



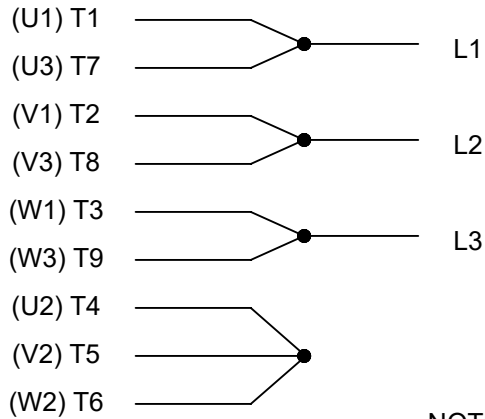
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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 <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	THIRD ANGLE PROJECTION	SIZE A

CERTIFICATION DATA SHEET

Model#: 254THTNA8058 BC WINDING#: K2544153 NONE 2  
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE  
 OUTLINE: B-SS203158-1050

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN				
15	11.2	1800	1772	254TC	TENV	K	INV				
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION		
3	60	230/460	40.5/20.2	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300		
FULL LOAD EFF: 93		3/4 LOAD EFF: 93		1/2 LOAD EFF: 91.7		GTD. EFF		ELEC. TYPE		NO LOAD AMPS	
FULL LOAD PF: 74.5		3/4 LOAD PF: 66.5		1/2 LOAD PF: 53		91.7		SQ CAGE INV DUTY		23.6 / 11.8	
F.L. TORQUE		LOCKED ROTOR AMPS		L.R. TORQUE		B.D. TORQUE		F.L. RISE°C			
44.5 LB-FT		309.9 / 155		120 LB-FT 270		180 LB-FT 404		95			
SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT					
62 dBA	72 dBA	2.5 LB-FT^2	- LB-FT^2	- SEC.	-	334 LBS.					

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.29862	0.23625	1.0395	1.41372	22.5477
RM	ZREF	XR	TD	TD0
2173.5	18.9	4.6	0.015	0.27

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

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6309	6210						

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

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 2.0 X BASE SPEED
ENCODER: PROVISIONS ONLY NORTHSTAR ST56 NONE NONE PPR
BRAKE: PROVISIONS ONLY NONE NONE P/N NONE

\*  
N  
O  
T  
E  
S  
\*

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 10:14:22 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 6/19/2017

254THTNA8058

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

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

Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

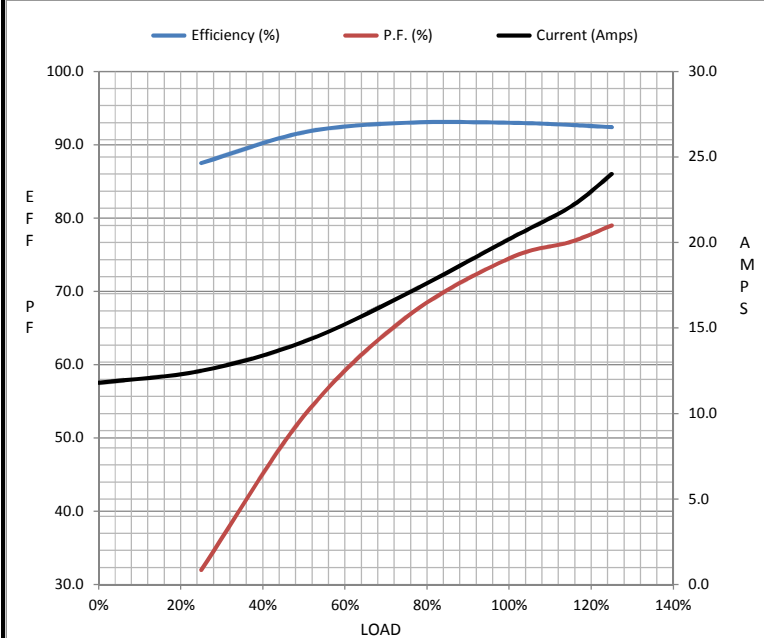
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	11.8	12.5	14.2	17.0	20.2	22.1	24.0	155
Torque (ft-lb)	0.00	11.0	22.0	33.2	44.5	50.3	56.0	120
RPM	1800	1792	1785	1780	1772	1,769	1765	0
Efficiency (%)		87.5	91.7	93.0	93.0	92.7	92.4	
P.F. (%)	4.0	32.0	53.0	66.5	74.5	76.8	79.0	40.0

Motor Speed Data

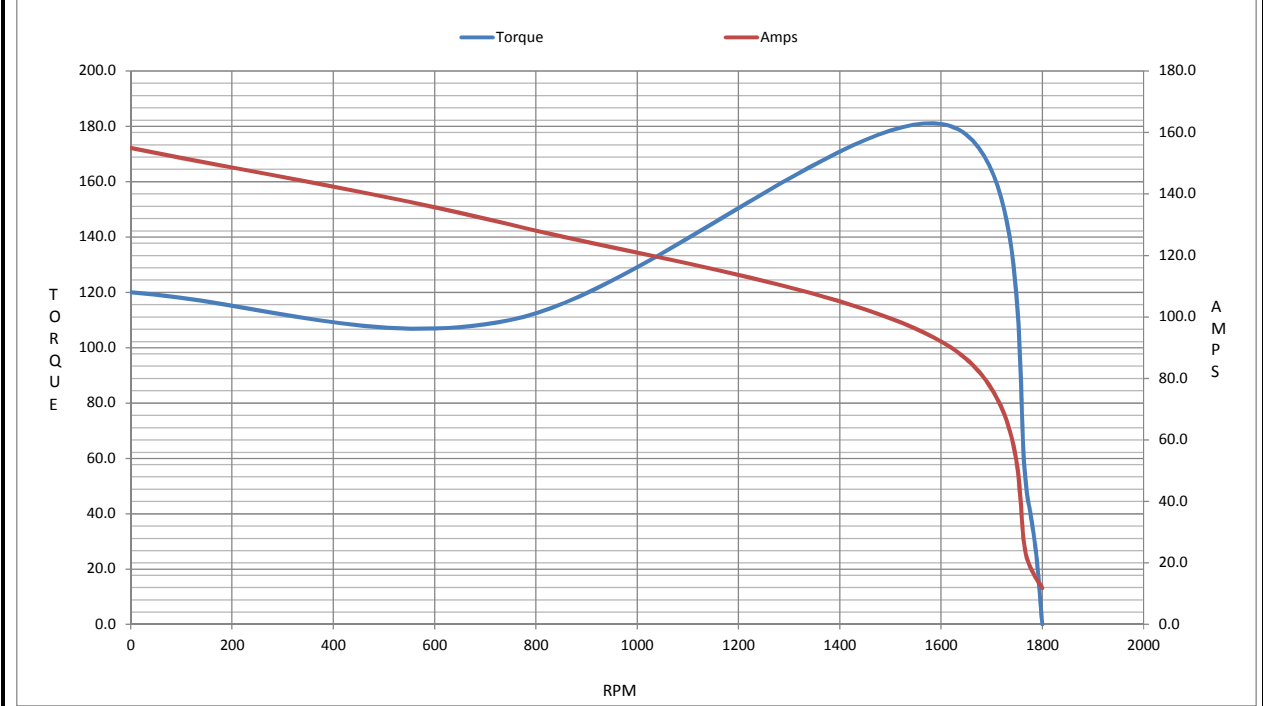
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	750	1620	1772	1800
Current (Amps)	155	130	90.0	20.2	11.8
Torque (ft-lb)	120	110	180	44.5	0.00

Information Block

HP	15.0			
Sync. RPM	1800			
Frame	254			
Enclosure	TENV			
Construction	TTN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	85 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.50 Lb-Ft <sup>2</sup>			
Ref Wdg	K2544153 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS203158-1050			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2990	0.2360	1.0400	1.4140	22.5480



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 : 254THTNA8058

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

Catalog No : Y509

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**