

# PRODUCT INFORMATION PACKET

Model No: 254THTNA8071

Catalog No: Y992

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



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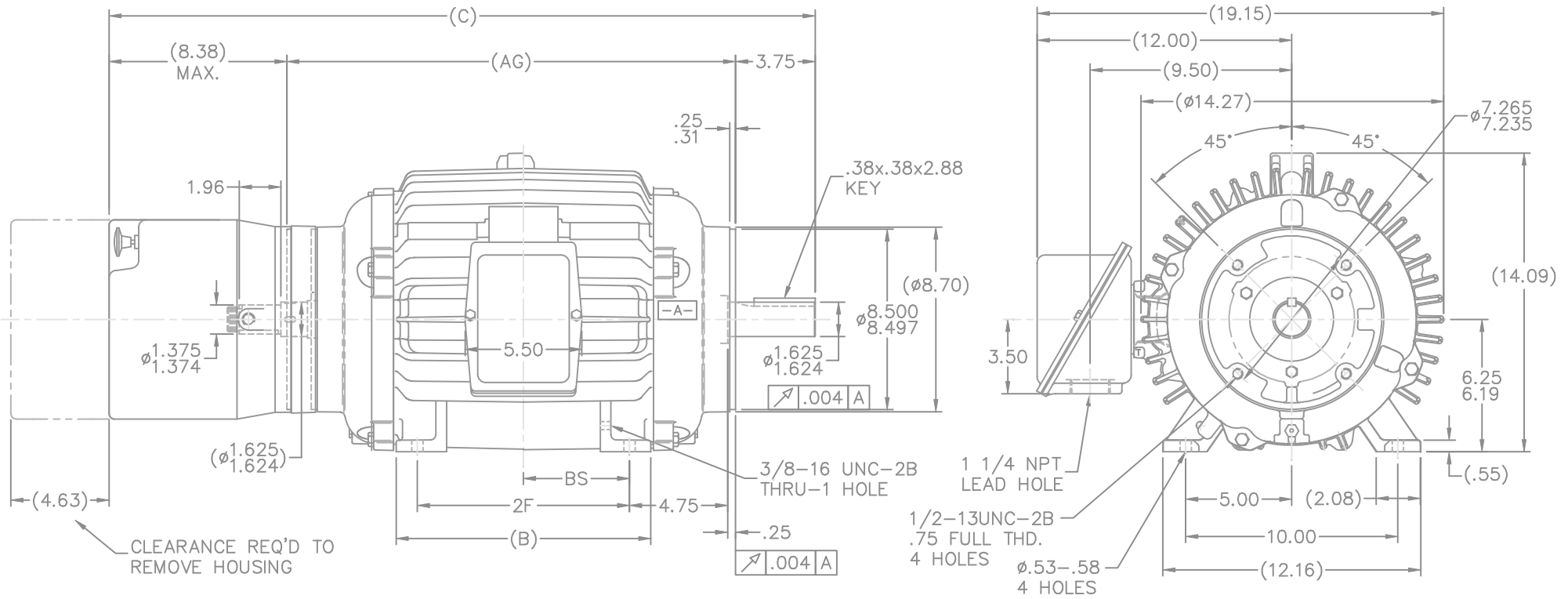
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>15 Hp</b>
Output KW	<b>11.2 kW</b>	Voltage	<b>230/460 V</b>
Speed	<b>1772 rpm</b>	Service Factor	<b>1</b>
Frame	<b>254TC</b>	Enclosure	<b>Totally Enclosed Non Ventilated</b>
Thermal Protection	<b>Thermostat</b>	Efficiency	<b>93 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>40.5/20.2 A</b>	Power Factor	<b>74.5</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>INV</b>	KVA Code	<b>K</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6309</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>.44 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>31.53 in</b>
Frame Length	<b>10.50 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>3.75 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Inverter Load	<b>CONSTANT 2000:1</b>		
Connection Drawing	<b>A-EE7308T</b>	Outline Drawing	<b>B-SS203666-1050</b>





NOTES:

1. BOX CAN BE ROTATED ON ITS AXIS.
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

1050	254T	31.53	19.40	10.25	8.25	4.12	
1225	256T	33.28	21.15	12.00	10.00	5.00	
DASH	FRAME	C	AG	B	2F	BS	

				TOLERANCES UNLESS SPECIFIED		DRAWN DAH 06-15-2001	
				DEC.	INCHES	CHK ML 06-15-2001	
4	REVISED, -154T WRONG - NOW 254T	TAT	10-20-2005	ML	.X	±.1	APPD BW 06-15-2001
3	REDRAWN IN AUTOCAD	TAT	06-24-2005	DRS	.XX	±.03	SCALE 7=32
2	UPDATED O.D.E. SHAFT EXTENSION	DRS	08-17-2001		.XXX	±.005	REF
1	NEW DRAWING MU37310	DAH	06-15-2001		.XXXX	±.0005	FMF
NO.	REVISION	BY & DATE		CHK	ANG	±7'30"	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 ss203666		SIZE DRAWING NO. PAGE OF REV.
				DIST	LB	B	SS203666 4



TITLE OUTLINE-250T FR.-TENV-BB-TS-STD. STEARNS BRAKE & PROV. FOR SL85 TACH.

**HIGH VOLTAGE**



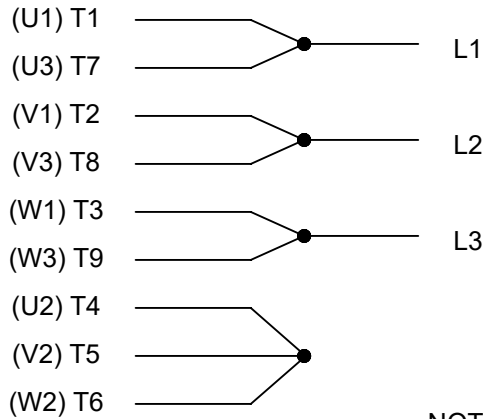
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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	SIZE A	DRAWING NUMBER EE7308T

**CERTIFICATION DATA SHEET**

**Model#:** 254THTNA8071 AB      **WINDING#:** K2544153 R1 2  
**CONN. DIAGRAM:** A-EE7308T      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS203666-1050

**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>			
15	11.2	1800	1772	254TC	TENV	K	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	40.5/20.2	INVERTER ONLY	CONTINUOUS	F3	1.0	40	3300	
<b>FULL LOAD EFF: 93</b>		<b>3/4 LOAD EFF: 93</b>		<b>1/2 LOAD EFF: 91.7</b>		<b>GTD. EFF</b>		<b>ELEC. TYPE</b>		<b>NO LOAD AMPS</b>
<b>FULL LOAD PF: 74.5</b>		<b>3/4 LOAD PF: 66.5</b>		<b>1/2 LOAD PF: 53</b>		91.7		SQ CAGE INV DUTY		23.6 / 11.8
<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>		
44.5 LB-FT		310 / 155		120 LB-FT 270		180 LB-FT 404		95		
<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>				
62 dBA	72 dBA	2.5 LB-FT^2	- LB-FT^2	- SEC.	-	384 LBS.				

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

<b>R1</b>	<b>R2</b>	<b>X1</b>	<b>X2</b>	<b>XM</b>
0.3213	0.23625	1.0395	1.41372	22.5477
<b>RM</b>	<b>ZREF</b>	<b>XR</b>	<b>TD</b>	<b>TD0</b>
2173.5	18.9	4.6	0.015	0.27

**\*\*\* 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	BRAKE AND 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	6309						

<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 NORTHSTAR SL85 NONE NONE PPR
BRAKE: REGAL SUPPLIED AND MOUNT NONE

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STEARNS	P/N 66378-19
87,000	NEMA 2
75 FT-LB	208-230/460-190/380 V
60/50 Hz	

DATE: 06/21/2017 11:17:52 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 15-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



254THTNA8071

Submittal

Data @ 460 V

Motor Load Data

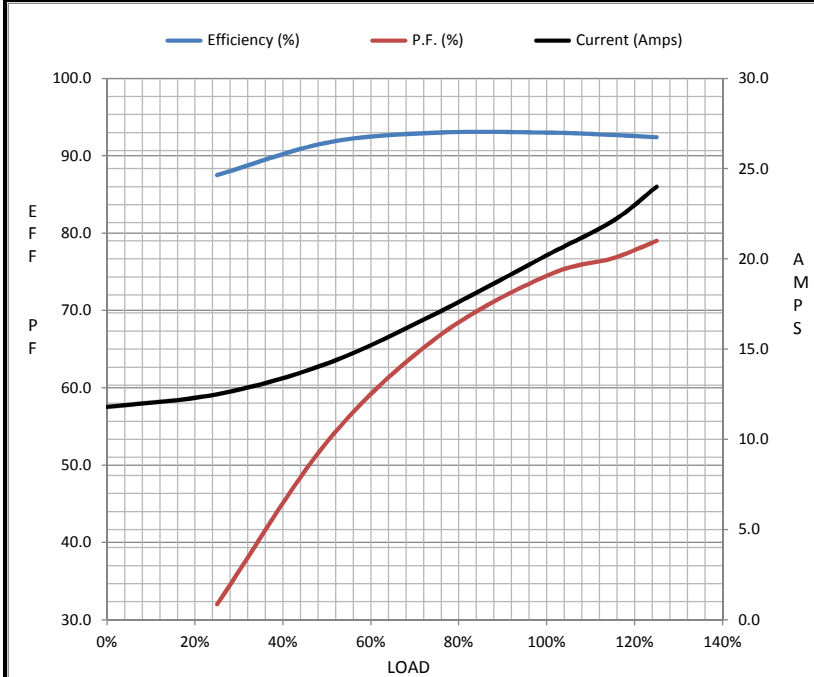
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	11.8	12.5	14.2	17.0	20.2	22.1	24.0	155
Torque (ft-lb)	0.00	11.0	22.0	33.2	44.5	50.3	56.0	120
RPM	1800	1792	1785	1780	1772	1,769	1765	0
Efficiency (%)		87.5	91.7	93.0	93.0	92.7	92.4	
P.F. (%)	4.0	32.0	53.0	66.5	74.5	76.8	79.0	40.0

Motor Speed Data

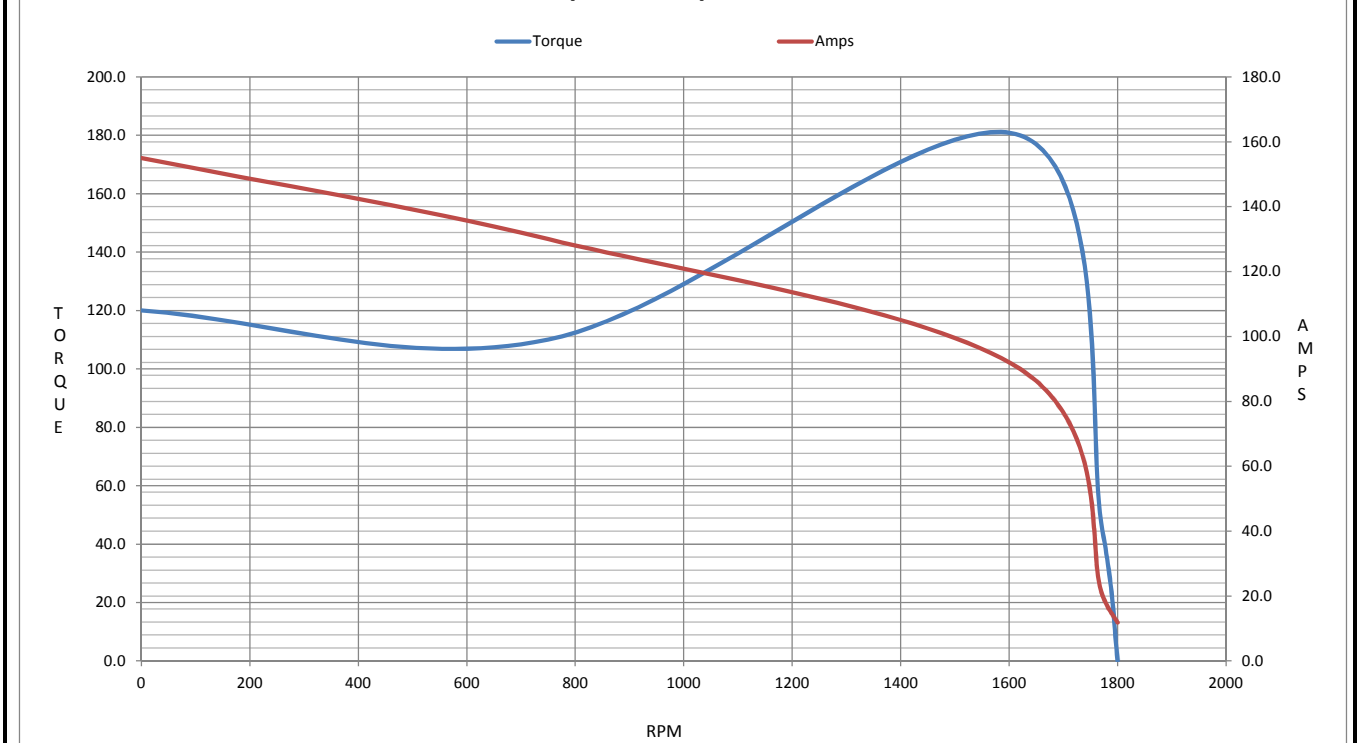
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	750	1620	1772	1800
Current (Amps)	155	130	90.0	20.2	11.8
Torque (ft-lb)	120	110	180	44.5	0.00

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 R1			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS203666-1050			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3210	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 : 254THTNA8071

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

Catalog No : Y992

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**