

PRODUCT INFORMATION PACKET

Model No: 254THEN8058

Catalog No: Y982

Blue Max® Hazardous Duty® Explosion Proof Motor, 7.50 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM,
254TC Frame, EPNV



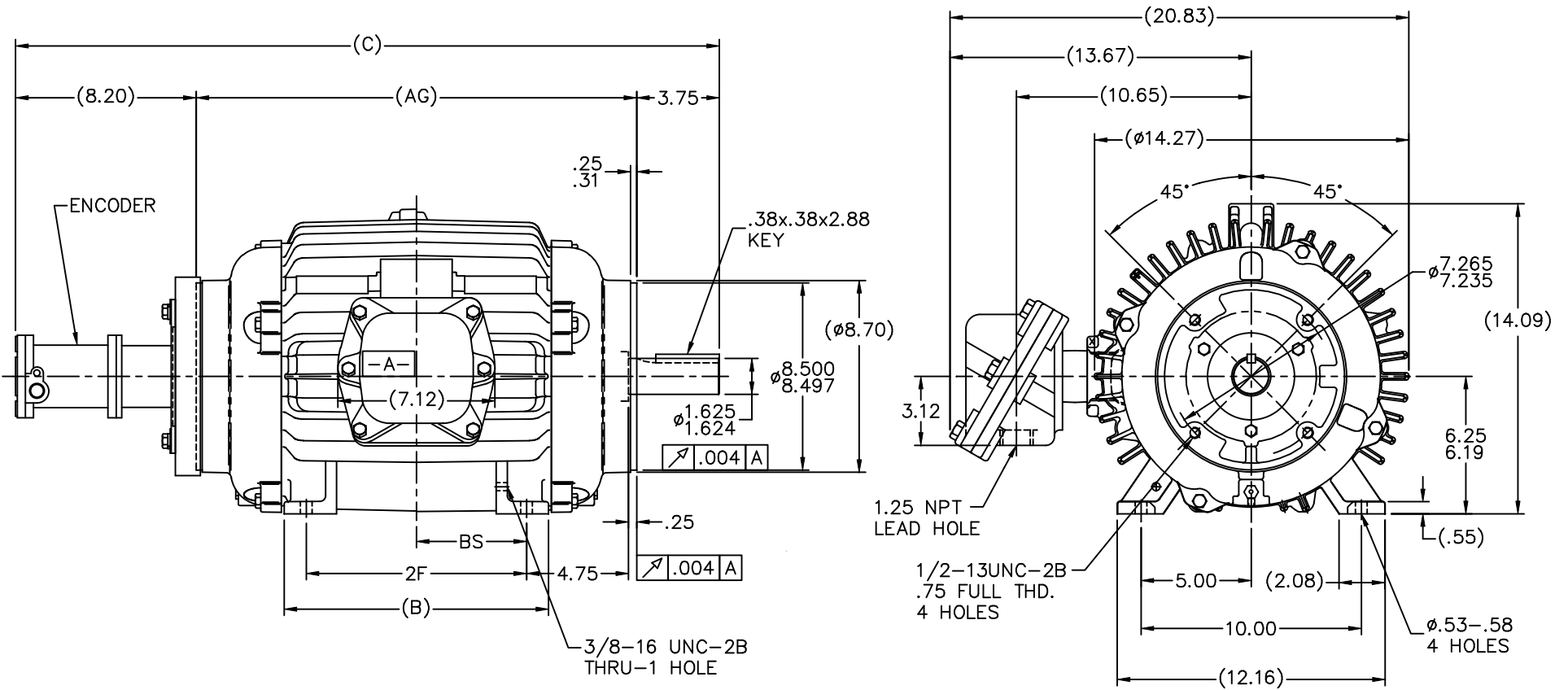
Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E

Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	230/460 V
Current	22.0/11.0 A	Speed	1782 rpm
Service Factor	1	Phase	3
Efficiency	91.7 %	Power Factor	69
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	M
Frame	254TC	Enclosure	Explosion Proof Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6309
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B	Number of Speeds	1

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.76 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	30.20 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		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS203518-1050



NOTES:

1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.

DASH	FRAME	C	AG	B	2F	BS
1050	254TC	30.20	18.25	10.25	8.25	4.12
1225	256TC	31.95	20.00	12.00	10.00	5.00

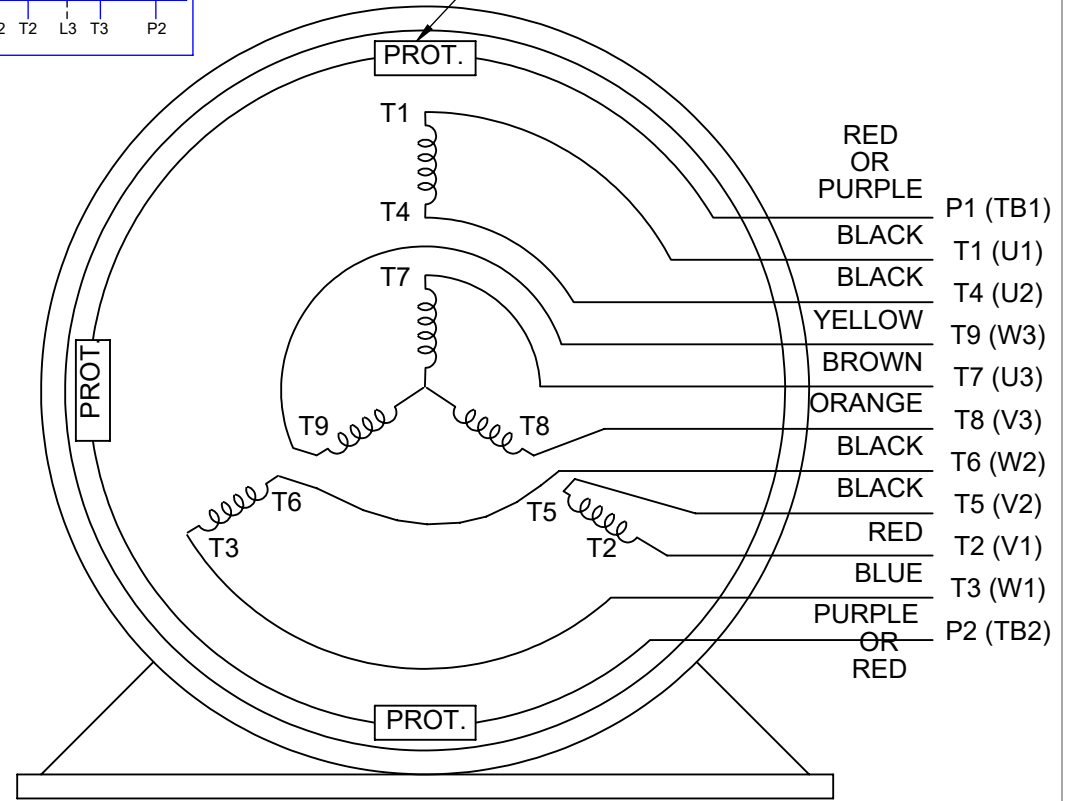
		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN MJD 03-06-2000					
		DEC.	INCHES			CHK	ML 03-07-2000				
		.X	±.1			APPD	DR 03-07-2000				
		.XX	±.03	TITLE OUTLINE - BEI HS38 ENCODER		SCALE	7=32				
2	REDRAWN IN AUTOCAD	TAT	06-24-2005	DRS	.XXX	±.005	REF				
1	NEW DRAWING MU29397	MJD	03-07-2000		.XXXX	±.0005	FMF				
NO.	REVISION	BY & DATE	CHK	ANG	±730°	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 ss203518	SIZE	DRAWING NO.	PAGE OF	REV.
						DIST	LB	B	SS203518	2	2

HIGH VOLTAGE



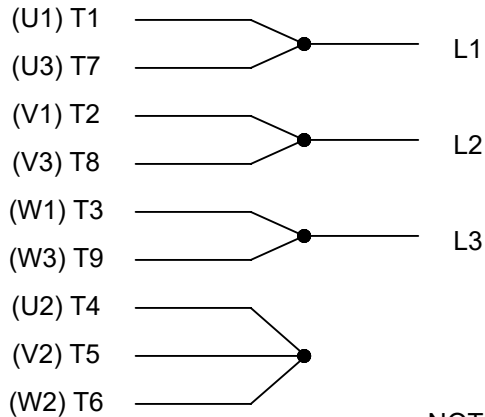
**THREE PHASE
DUAL VOLTAGE MOTOR**

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 CONN DIAGRAM-INTERNAL 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	THIRD ANGLE PROJECTION	SIZE A

CERTIFICATION DATA SHEET

Model#: 254THEN8058 BC WINDING#: K2544154 NONE 1
 CONN. DIAGRAM: A-EE7308T ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS203518-1050

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2	5.60	1800	1782	254TC	EPNV	M	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	22/11	INVERTER ONLY	CONTINUOUS	F3	1.0	40	3300

FULL LOAD EFF: 91.7	3/4 LOAD EFF: 90.2	1/2 LOAD EFF: 88.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 69	3/4 LOAD PF: 60	1/2 LOAD PF: 47	90.2	SQ CAGE INV DUTY	14.4 / 7.2

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
22 LB-FT	194 / 97	76.5 LB-FT 348	100 LB-FT 455	60

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 LB-FT^2	- LB-FT^2	- SEC.	-	290 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.4725	0.29484	1.65564	2.13948	35.4942

RM	ZREF	XR	TD	TD0
1731.24	37.8	4.9	0.02	0.34

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	FALSE	EXP PROOF CL I GR C&D CL II GR F&G T3B	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	6309						

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

* N O T E S *	INVERTER TORQUE: CONSTANT 2000:1
	INV. HP SPEED RANGE: 2.0 X BASE SPEED
	ENCODER: REGAL SUPPLIED - REGAL MOUNT BEI H38 NPS HOLE 1024 PPR
	BRAKE: NONE NONE

NONE	P/N	NONE	
NONE	NONE		
NONE FT-LB		NONE V	NONE Hz

DATE: 06/21/2017 10:27:47 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 6/29/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



254THEN8058

Submittal

Data @ 460 V

Motor Load Data

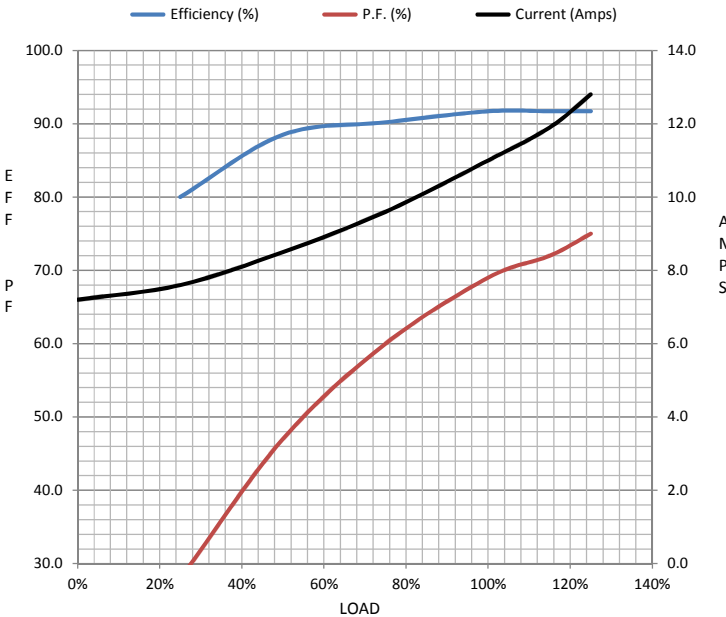
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	7.2	7.6	8.5	9.6	11.0	11.9	12.8	97.0
Torque (ft-lb)	0.00	5.5	11.0	16.5	22.0	24.8	27.5	76.5
RPM	1800	1795	1792	1788	1782	1,780	1778	0
Efficiency (%)		80.0	88.5	90.2	91.7	91.7	91.7	
P.F. (%)	5.0	28.0	47.0	60.0	69.0	72.0	75.0	39.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1782	1800
Current (Amps)	97.0	90.0	58.0	11.0	7.2
Torque (ft-lb)	76.5	69.0	100	22.0	0.00

Information Block

HP	7.5			
Sync. RPM	1800			
Frame	254			
Enclosure	TENV			
Construction	TTN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	M			
Service Factor	1.15			
Temp Rise @ FL	60 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	2.00 Lb-Ft ²			
Ref Wdg	K2544154 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS203518-1050			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.4730	0.2950	1.6560	2.1390	35.4940



Speed -Torque Curve

