

# PRODUCT INFORMATION PACKET

Model No: 444THFN8384

Catalog No: Y589

100 HP Variable Speed Motor, 3 phase, 1200 RPM, 230/460 V, 444TC Frame, TEBC  
2000:1 With Encoder Provision Motors





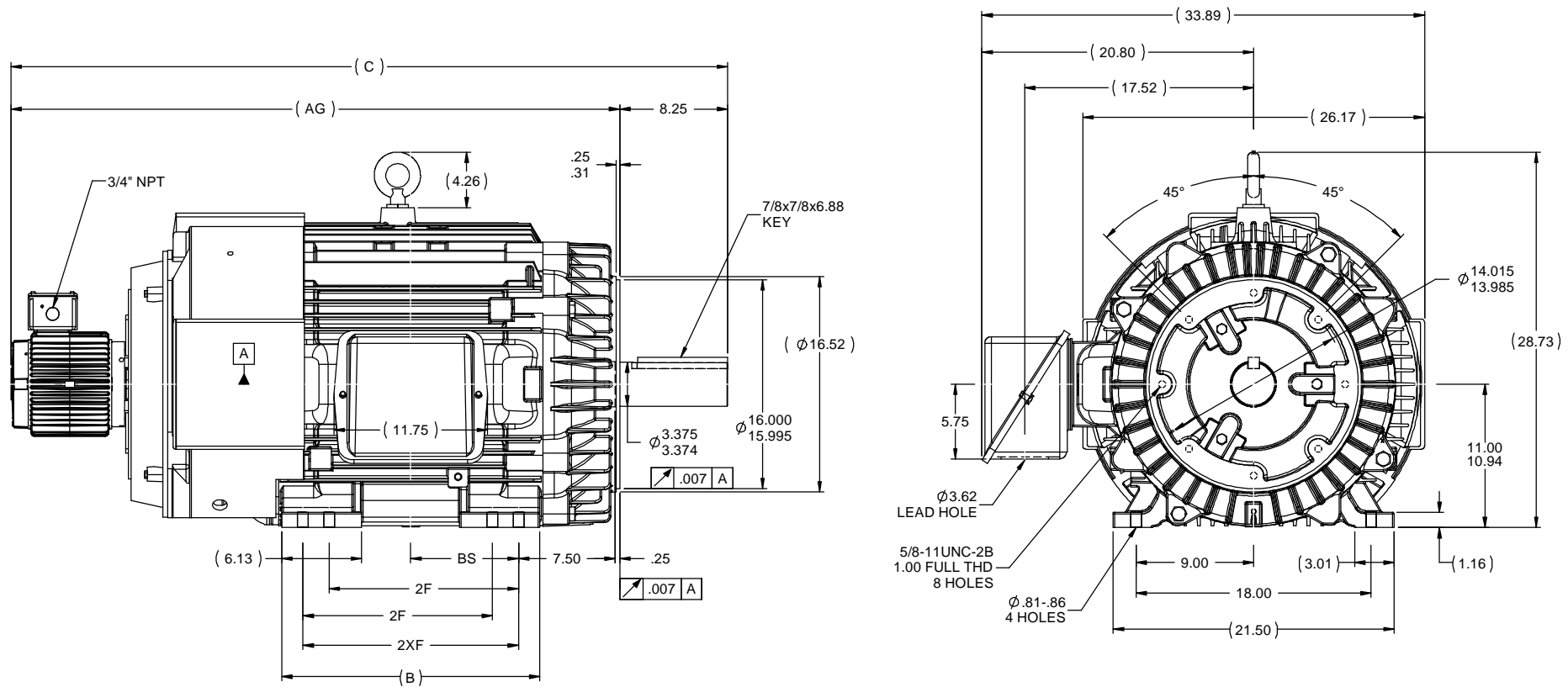
### Nameplate Specifications

Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	250.0/125.0 A	Speed	1190 rpm
Service Factor	1	Phase	3
Efficiency	94.5 %	Power Factor	79
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	H
Frame	444TC	Enclosure	Totally Enclosed Blower cooled - Axial
Thermal Protection	Thermostats (N/C)	Ambient Temperature	40 °C
Drive End Bearing Size	6318	Opp Drive End Bearing Size	6316
UL	Recognized	CSA	Y
CE	Y	IP Code	43

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	6	Rotation	Reversible
Resistance Main	.045 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	54.85 in
Frame Length	20.25 in	Shaft Diameter	3.375 in
Shaft Extension	8.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS515884-2025	Connection Drawing	A-EE7308T

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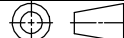
NOTES:

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

		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN KL 1/8/1997	
		INCHES		DEC		CHK ML 1/9/1997	
5	REVISED FRAME AND DASH TABLE ISAAC09-5049	TJW	4/1/2010	EH	DEC	±.1	APPR DJK 1/9/1997
4	UPDATED DRAWING	RJW	5/7/2007	X	DEC	±.03	SCALE 1:8
3	BLOWER MOTOR ROTATED 90° CBOX @ F3 CN224459	PGK	7/9/1997	XX	DEC	±.005	REF
2	REVISED TO SHOW FRAME WITH CAST-IN LUG CN22904	MH	2/25/1997	XXX	DEC	±.0005	FMF
1	NEW DRAWING MU12868	KL	1/9/1997	XXXX	DEC	±7.30°	PAGE OF
NO	REVISION	BY & DATE	CHK	LANG	FINISH	PREV	SIZE DRAWING NO
							REV
							SS515884
							SS515884
							5

DASH	FRAME	B	C	AG	BS	2F	2XF
1825	444TC	17.75	52.85	44.60	7.25	14.50	---
2025	444/445TC	19.75	54.85	46.60	8.25	14.50	16.50

THIRD ANGLE PROJECTION



**HIGH VOLTAGE**



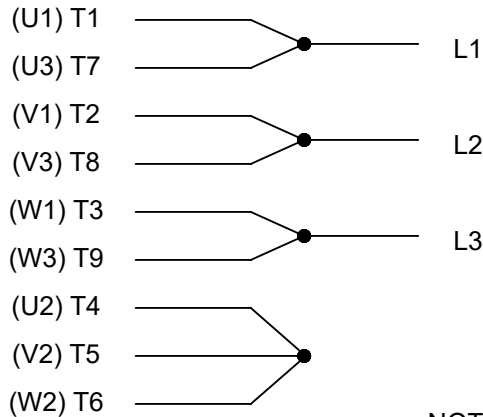
**THREE PHASE  
DUAL VOLTAGE MOTOR**

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
<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#: 444TFN8384 BF  
 CONN. DIAGRAM: A-EE7308T  
 OUTLINE: B-SS515884-2025

WINDING#: T444688 R2 1  
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN						
100	75	1200	1190	444TC	TEBC-AXIAL	H	INV						
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION				
3	60	230/460	250/125	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300				
FULL LOAD EFF: 94.5		3/4 LOAD EFF: 94.5	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS							
FULL LOAD PF: 79		3/4 LOAD PF: 74	1/2 LOAD PF: 63	93.6	SQ CAGE INV DUTY	112 / 56							
F.L. TORQUE		LOCKED ROTOR AMPS		L.R. TORQUE		B.D. TORQUE		F.L. RISE°C					
441 LB-FT		1680 / 840		825 LB-FT 187		1250 LB-FT 283		50					
SOUND PRESSURE @ 3 FT.		SOUND POWER		ROTOR WK <sup>2</sup>		MAX. WK <sup>2</sup>		SAFE STALL TIME		STARTS /HOUR		APPROX. MOTOR WGT	
88 dBA		98 dBA		61 LB-FT <sup>2</sup>		-LB-FT <sup>2</sup>		-SEC.		-		2117 LBS.	

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.032944	0.020448	0.213	0.260428	4.544
RM	ZREF	XR	TD	TD0
268.948	2.84	7	0.0395	0.625

\*\*\* 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	NONE	FALSE	NONE	BLUE (ENAMEL)			
BEARINGS		GREASE		SHAFT TYPE		SPECIAL ODE		SHAFT MATERIAL		FRAME MATERIAL	
DE	OPE	POLYREX EM		T	NONE	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON		
BALL	BALL	6316		6316		6316		6316		6316	

THERMO-PROTECTORS				THERMISTORS				CONTROL		SPACE /n HEATERS	
STATS (INC)	PROTECTORS	WDG RTDS	BRG RTDS	STATS	RTDS	RTDS	RTDS	RTDS	RTDS	RTDS	RTDS
	NOT	NONE	NONE		NONE	NONE	NONE		FALSE		NONE VOLTS

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

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NONE	NONE	NONE	NONE HZ
NONE FT-LB		NONE V	

DATE: 06/21/2017 03:34:18 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 29-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



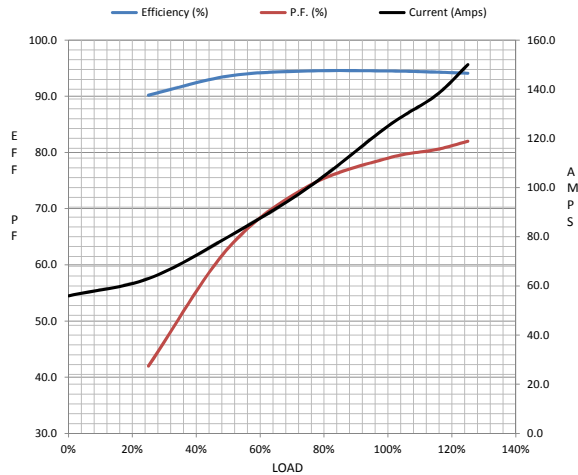
444THFN8384

Submittal

Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	56.0	63.0	80.0	100	125	138	150	840	
Torque (ft-lb)	0.00	110	220	330	441	498	555	825	
RPM	1200	1196	1194	1192	1190	1,188	1186	0	
Efficiency (%)		90.2	93.6	94.5	94.5	94.3	94.1		
P.F. (%)	5.0	42.0	63.0	74.0	79.0	80.5	82.0	31.0	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	600	1135	1190	1200	HP	100.0
Current (Amps)	840	800	525	125	56.0	Sync. RPM	1200
Torque (ft-lb)	825	775	1,250	441	0.00	Frame	444



Enclosure	TEBC			
Construction	TBN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	50 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	61.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T444668 R2			
Sound Pressure @ 1M	88 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS515984-2025			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0330	0.0200	0.2130	0.2600	4.5440

