

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 284THFPA8038
Catalog No: Y511
25,1800,TEBC,284TC,3/60/230/460
2000:1 With Encoder Provision



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REGAL[®]

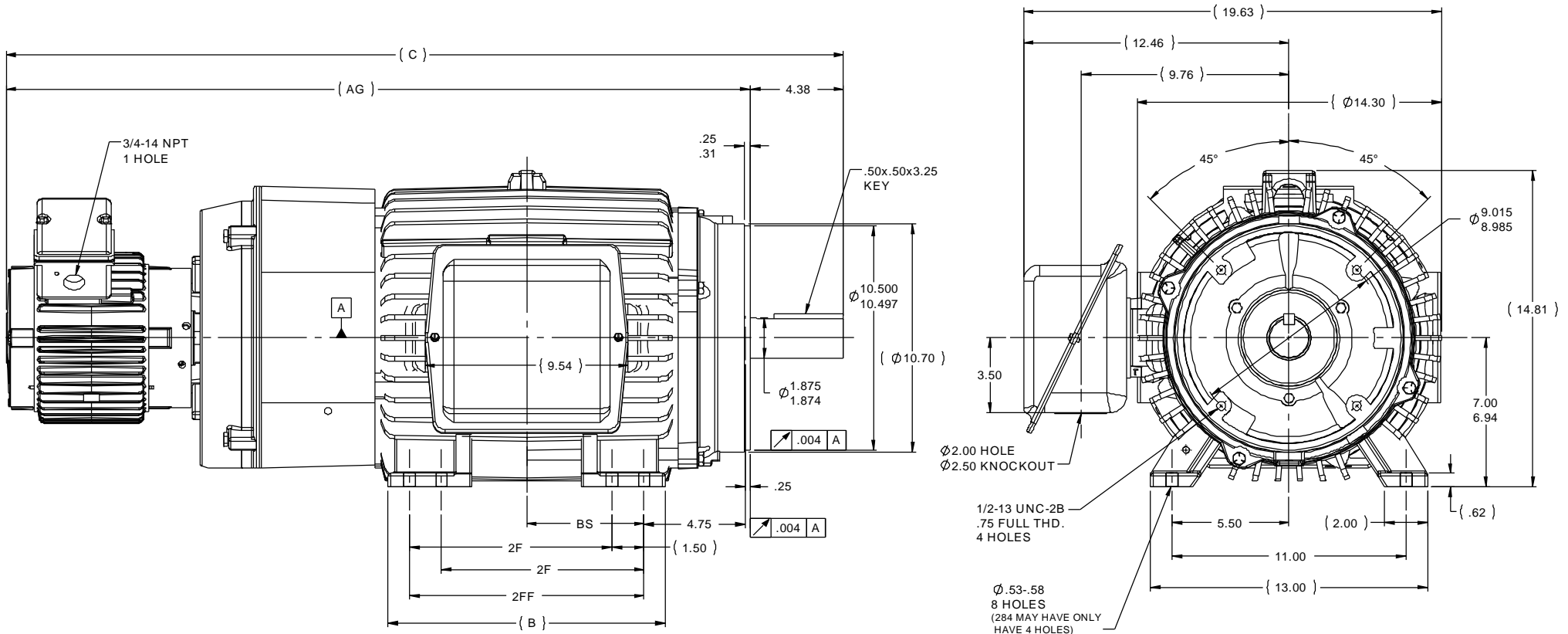


Nameplate Specifications

Output HP	25 HP	Output KW	18.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	63.0/31.5 A	Speed	1765 RPM
Service Factor	1	Phase	3
Efficiency	91.7 %	Duty	Continuous
Insulation Class	H	Design Code	INV
KVA Code	G	Frame	284TC
Enclosure	Totally Enclosed Blower cooled - Axial	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6311
Opp Drive End Bearing Size	6210	UL	Recognized
CSA	Y	CE	Y
IP Code	43		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Mounting	Rigid Base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	T
Overall Length	37.81 in	Frame Length	12.75 in
Shaft Diameter	1.875 in	Shaft Extension	4.37 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	B-SS311263-1275	Connection Diagram	A-EE7308T



NOTES:

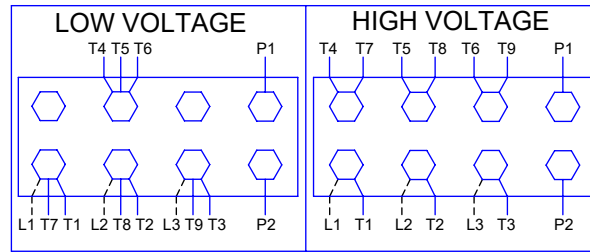
- 1- C'BOX CAN BE ROTATED IN 90° STEPS.
- 2- C'BOX CAN BE MOUNTED ON OPPOSITE SIDE
BY REMOVING BRACKETS AND TURNING FRAME 180°
- 3- NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.

DASH	FRAME	C	AG	B	2F	2FF	BS
1275	284TC	37.81	33.43	11.50	9.50		4.75
1425	286TC	39.31	34.93	13.00	9.50	11.00	5.50

		TOLERANCES UNLESS SPECIFIED		DRAWN CAV 12-26-2001	
		DEC	INCHES	CHK	ML 01-04-2002
3	REVISED MOUNTING HOLE QUANTITY CN 40694	DRS 10-25-2006	ML .XX	±.03	TITLE OUTLINE - TFPA SERIES
2	REDRAWN IN AUTOCAD	TAT 06-24-2005	.XXX	±.005	280TC FR. - TEBC
1	NEW DRAWING MU39842	CAV 01-02-2002	.XXXX	±.0005	MAT'L
NO	REVISION	BY & DATE	CHK	ANG	FINISH
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	±7'30"	CAD FILE SS311263
				DIST	LB
				SIZE	DRAWING NO
				B	SS311263
				REV	3



HIGH VOLTAGE



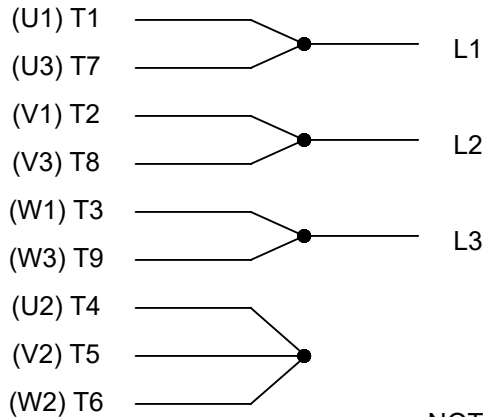
**THREE PHASE
DUAL VOLTAGE MOTOR**

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
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			REFERENCE EE7308/EE7300	THIRD ANGLE PROJECTION	SIZE A

CERTIFICATION DATA SHEET

Model#: 284THFPA8038 AC
 CONN. DIAGRAM: A-EE7308T
 OUTLINE: B-SS311263-1275

WINDING#: K2564204 F 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN		
25	18.7	1800	1765	284TC	TEBC-AXIAL	G	INV		
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	63/31.5	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300

FULL LOAD EFF: 91.7	3/4 LOAD EFF: 92.4	1/2 LOAD EFF: 91	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 82	3/4 LOAD PF: 75.5	1/2 LOAD PF: 65	90.2	SQ CAGE INV DUTY	28 / 14

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
74.4 LB-FT	364 / 182	147 LB-FT 198	195 LB-FT 262	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK ²	MAX. WK ²	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	2.7 LB-FT ²	-LB-FT ²	-SEC.	-	470 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.22686	0.17784	0.80712	1.09782	18.582
RM	ZREF	XR	TD	TD0
998.64	11.4	4.7	0.017	0.295

*** 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 DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL	
DE	OPE							
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON	
6311	6210							

THERMO-PROTECTORS				THERMISTORS		CONTROL		SPACE /n HEATERS	
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs						
TSTATS (NIC)	NOT	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
NORTHSTAR ST56
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE

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 S
 *

NONE	NONE	NONE	NONE HZ
NONE FT-LB		NONE V	

DATE: 06/21/2017 10:31:06 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 6/29/2017

284TFHPA8038

Customer:



Submittal

Attention:

FAREEDA DUDEKULA

Data @ 460 V

Submitted by:

Motor Load Data

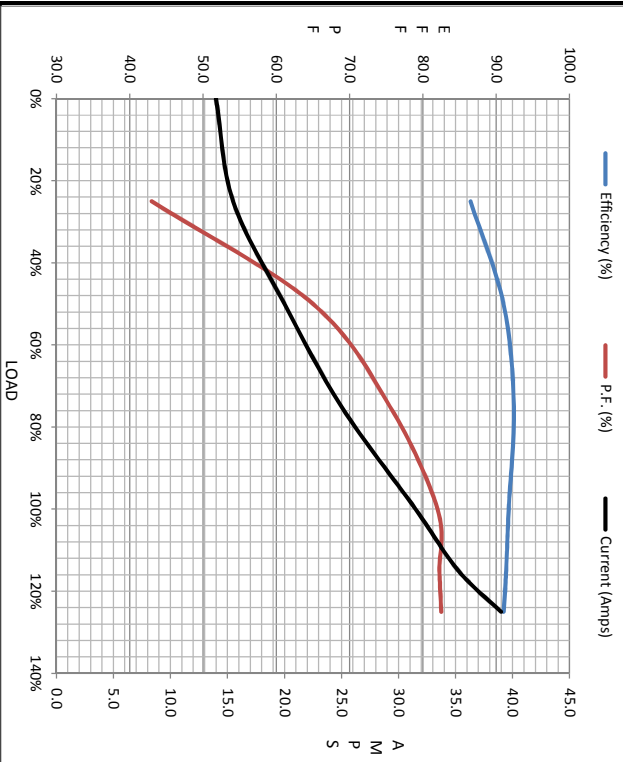
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	14.0	15.5	20.0	25.0	31.5	35.3	39.0	182
Torque (ft-lb)	0.00	18.5	37.0	55.5	74.4	84.0	93.5	147
RPM	1800	1794	1785	1775	1765	1763	1760	0
Efficiency (%)		86.5	91.0	92.4	91.7	91.4	91.0	
P.F. (%)	6.0	43.0	65.0	75.5	82.0	82.3	82.5	39.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (rpm)	0	900	1625	1765	1800
Current (Amps)	182	165	115	31.5	14.0
Torque (ft-lb)	147	140	195	74.4	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	TEBC			
Construction	TBP			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wkt	2.70 Lb-Fe			
Rel Wdg	K2564204 F			
Sound Pressure @ 1M	75 dbA			
VFD Rating	CONSTANT 2000-1			
Outline Dwg	B-SS311263-1275			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2270	0.11780	0.8070	1.0980	18.5820



Speed -Torque Curve

