

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 324TSTFPA14010

Catalog No: Y1616

Fire Pump Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM, 324TS Frame,  
TEFC



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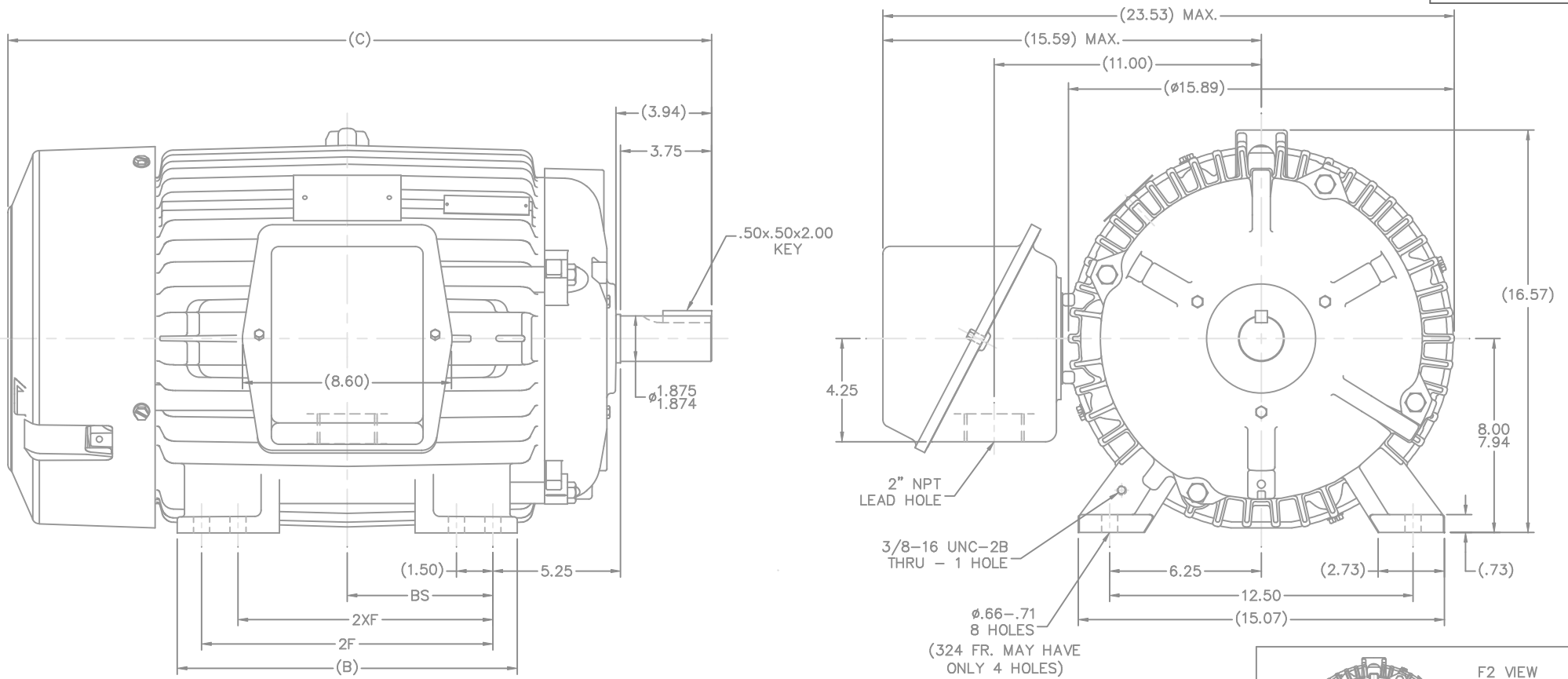
RegalRexnord

### Nameplate Specifications

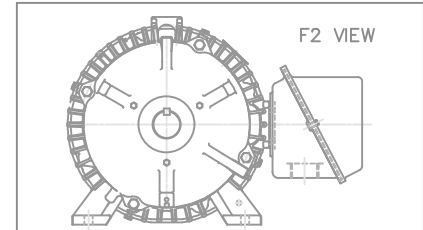
Phase	<b>3</b>	Output HP	<b>40 &amp; 30 Hp</b>
Output KW	<b>30.0 &amp; 22.4 kW</b>	Voltage	<b>230/460 &amp; 190/380 V</b>
Speed	<b>3545 &amp; 2948 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>324TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>91.7 &amp; 91.7 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>92/46 &amp; 83/41.5 A</b>	Power Factor	<b>88</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Drive End Bearing Size	<b>6312</b>	Opp Drive End Bearing Size	<b>6311</b>
UL	<b>Listed</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 Induction Run</b>	Starting Method	<b>Part Wdg Start Low Volt Only &amp; Wye Start Delta Run</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.21 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>TS</b>	Overall Length	<b>27.47 in</b>
Frame Length	<b>14.75 in</b>	Shaft Diameter	<b>1.875 in</b>
Shaft Extension	<b>3.94 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Outline Drawing	<b>B-SS311342-1475</b>	Connection Drawing	<b>A-EE7358</b>



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

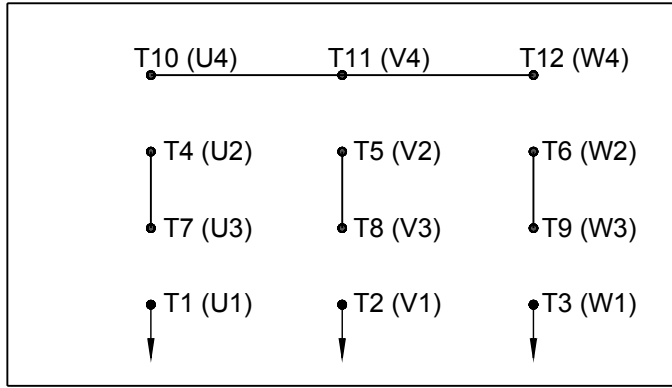


1475	324TS	27.47	14.00	10.50		5.25
1625	326TS	28.97	14.00	12.00	10.50	6.00
DASH	FRAME	C	B	2F	2XF	BS

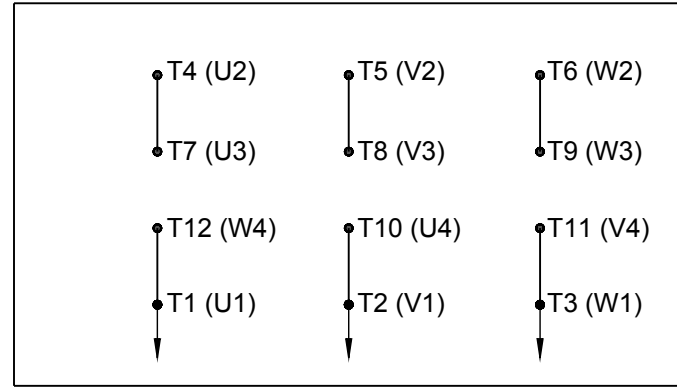
		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN CAV 05-21-2002	
		DEC.	INCHES			CHK	ML 05-21-2002
2	(3.94) SHAFT DIM WAS (4.00) - REDUCED 'C' DIMENSION	.XX	±.1	TITLE OUTLINE - TFPA		APPD	DD 05-21-2002
	IN TABLE BY .06 08-3920 MSG 08-27-2008	.XX	±.03	320 FR. - BB - STD - 12.50 LAM.		SCALE	1=4
1	NEW DRAWING MU41789 CAV 05-21-2002	.XXX	±.005	MAT'L		REF	
	REVISION	DD	±.0005	FINISH		FMF	
	BY & DATE	CHK	ANG ±7'30"	CAD FILE SS311342		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	05-21-2002	SIZE	DRAWING NO.	PAGE	OF
		DIST	LB	B	SS311342	2	REV.

# HIGH VOLTAGE

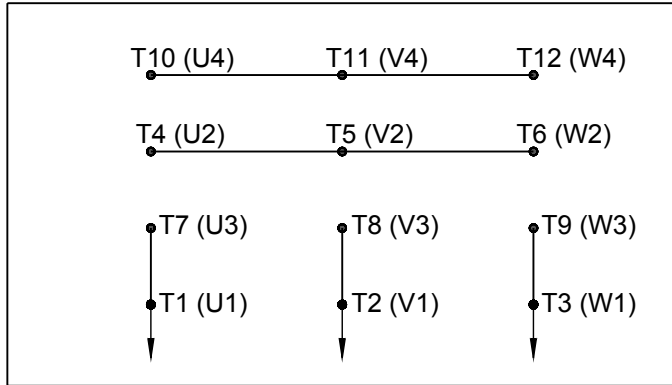
WYE START



DELTA RUN

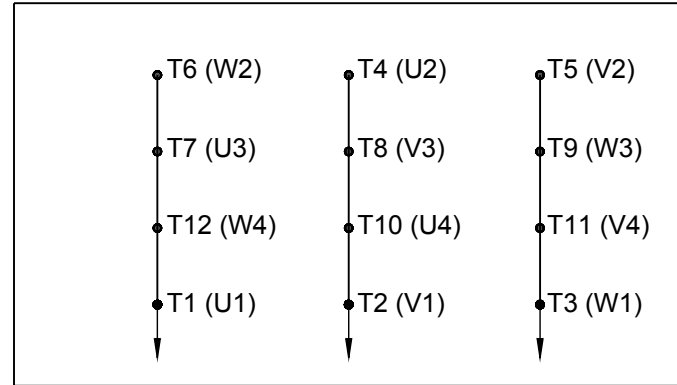


WYE START



# LOW VOLTAGE

DELTA RUN

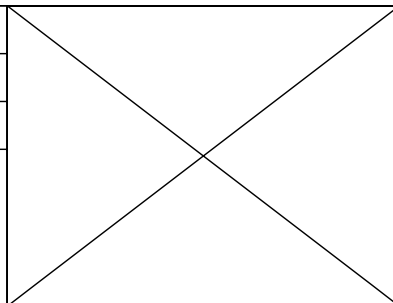


4/2 CKTY  $\triangle$

DRAWING REVISION D	REVISION BY JWO	DATE 01-26-2016
ECO ECO-0092547	APPROVED BY TB	DATE 01-26-2016

ECO DESCRIPTION  
**ADDED IEC MARKINGS**

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DRAWN BY BLR
DATE 03-09-1998
APPROVED BY GK
DATE 03-23-1998
REFERENCE
THIRD ANGLE PROJECTION

Regal Beloit America, Inc.	
DESCRIPTION <b>CONN DIAGRAM-EXTERNAL</b> 12 LEAD - DUAL VOLT. - WYE START - DELTA RUN	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7358</b>
SHEET 1 OF 1	



P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_ CUSTOMER P.O. #: \_\_\_\_\_  
 ORDER #: \_\_\_\_\_ REFERENCE MODEL #: 324TSTFPA14010  
 CONN. DIAGRAM: A-EE7358 CAT #: Y1616  
 OUTLINE: B-SS311342-1475 CUSTOMER PART #: \_\_\_\_\_  
 WINDING: K2862145 NONE 2 MOUNTING: F1/F2 CAPABLE  
 SPEED: \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
40	30	3600	3545	324TS	TEFC	TFP	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	92/46&83/41.5	WS(LV ONLY) & YDRU	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	90.2	GTD EFF	ELECT. TYPE
F.L. PF	88.0	3/4 LD PF	86.0	1/2 LD PF	80.0	90.2	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
59.2 LB-FT	282	87.0 LB-FT 147%	162 LB-FT 274%	75

@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
78 dBA	87 dBA	2.60 LB-FT <sup>2</sup>	0 LB-FT <sup>2</sup>	15 SEC.	2	440 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	RED (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6312	6311						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.149	0.092	0.625	0.426	20.058	0.150	ODE

* N O T E S *	INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE					
	ENCODER: NONE NONE NONE					
	BRAKE: NONE NONE NONE					
	FT-LB: NA VOLTAGE: NONE HZ:					
	UL: NONE					

PREPARED BY: FAREEDA DUDEKULA  
 DATE: 9/17/2018

Data Sheet

324TSTFPA14010

Date: 12/10/2018  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

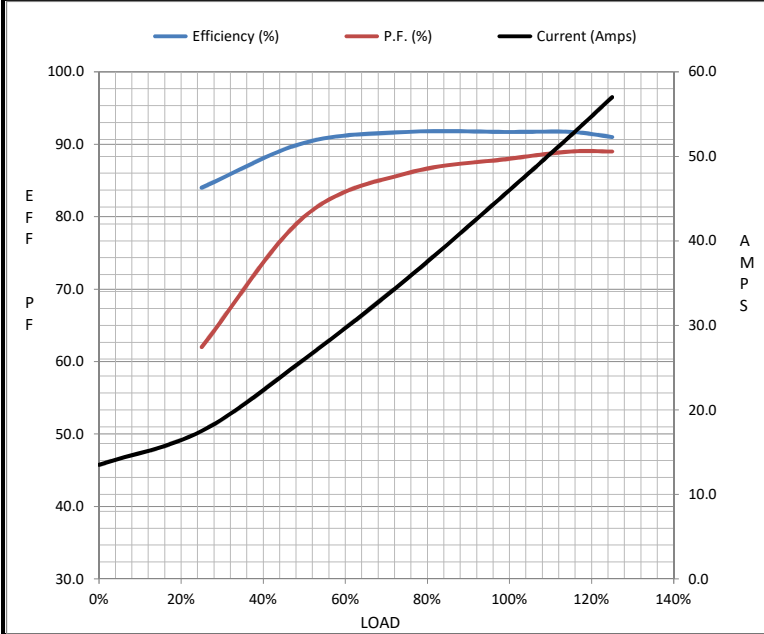
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.5	17.5	26.0	35.5	46.0	52.5	57.0	282
Torque (ft-lb)	0.00	14.5	29.5	44.2	59.2	68.5	74.5	87.0
RPM	3600	3585	3572	3560	3545	3535	3528	0
Efficiency (%)		84.0	90.2	91.7	91.7	91.7	91.0	
P.F. (%)	10.0	62.0	80.0	86.0	88.0	89.0	89.0	34.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3275	3545	3600
Current (Amps)	282	265	180	46.0	13.5
Torque (ft-lb)	87.0	75.0	162	59.2	0.00

Information Block

HP	40.0			
Sync. RPM	3600			
Frame	324			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.60 Lb-Ft <sup>2</sup>			
Ref Wdg	K2862145 NONE			
Sound Pressure @ 1M	78 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS311342-1475			
Conn. Diag	A-EE7358			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1490	0.0920	0.6250	0.4260	20.0580



Speed - Torque Curve

