

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 405TSTFS14007

Catalog No: Y1628

Fire Pump Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM, 405TS Frame,
TEFC



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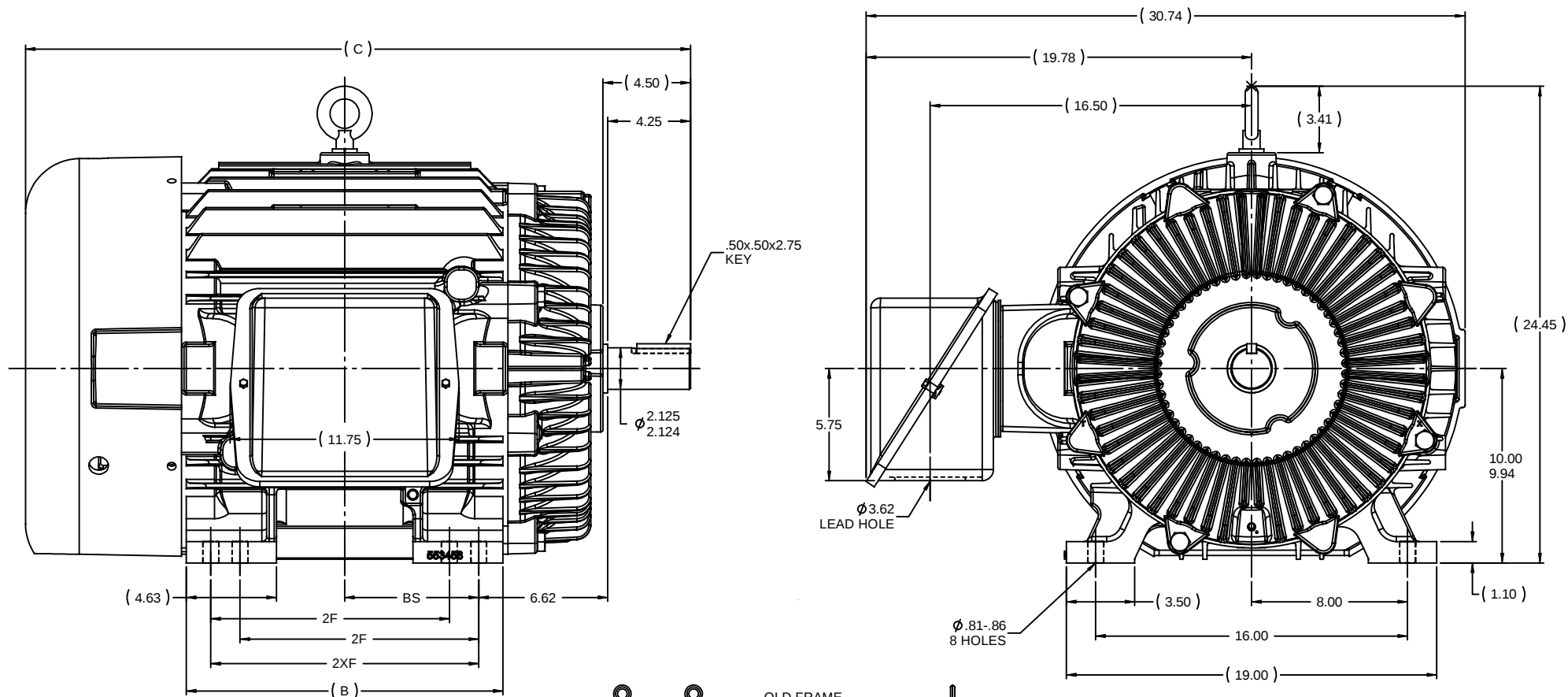
RegalRexnord

Nameplate Specifications

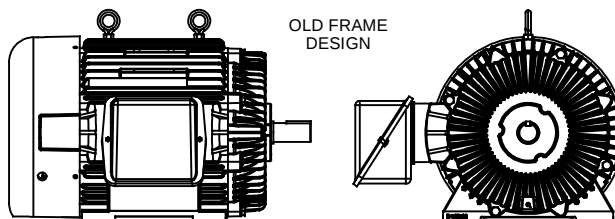
Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	230/460 & 190/380 V
Speed	3565 & 2970 rpm	Service Factor	1.15 & 1.15
Frame	405TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.1 & 93.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	224/112 & 204/102 A	Power Factor	89
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	No	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

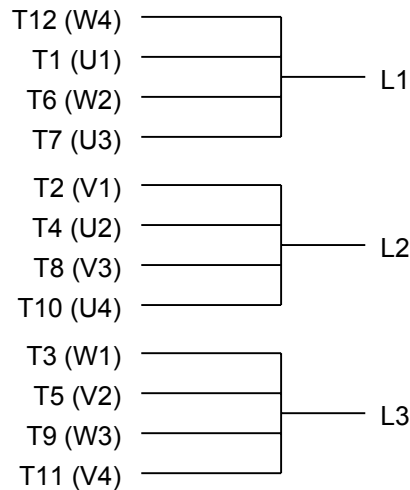
Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start Low Volt Only & Wye Start Delta Run
Poles	2	Rotation	Reversible
Resistance Main	.06 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	34.13 in
Frame Length	16.75 in	Shaft Diameter	2.125 in
Shaft Extension	4.5 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7308AA	Outline Drawing	SS504698-1675



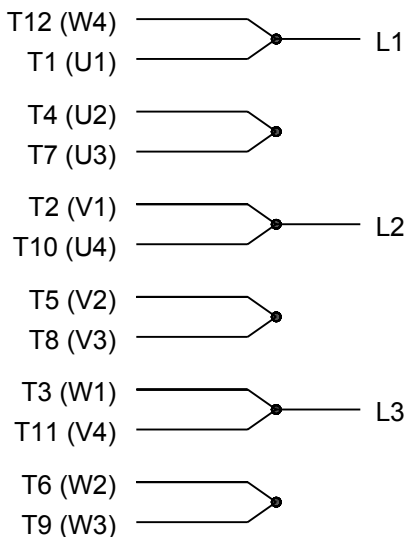
- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



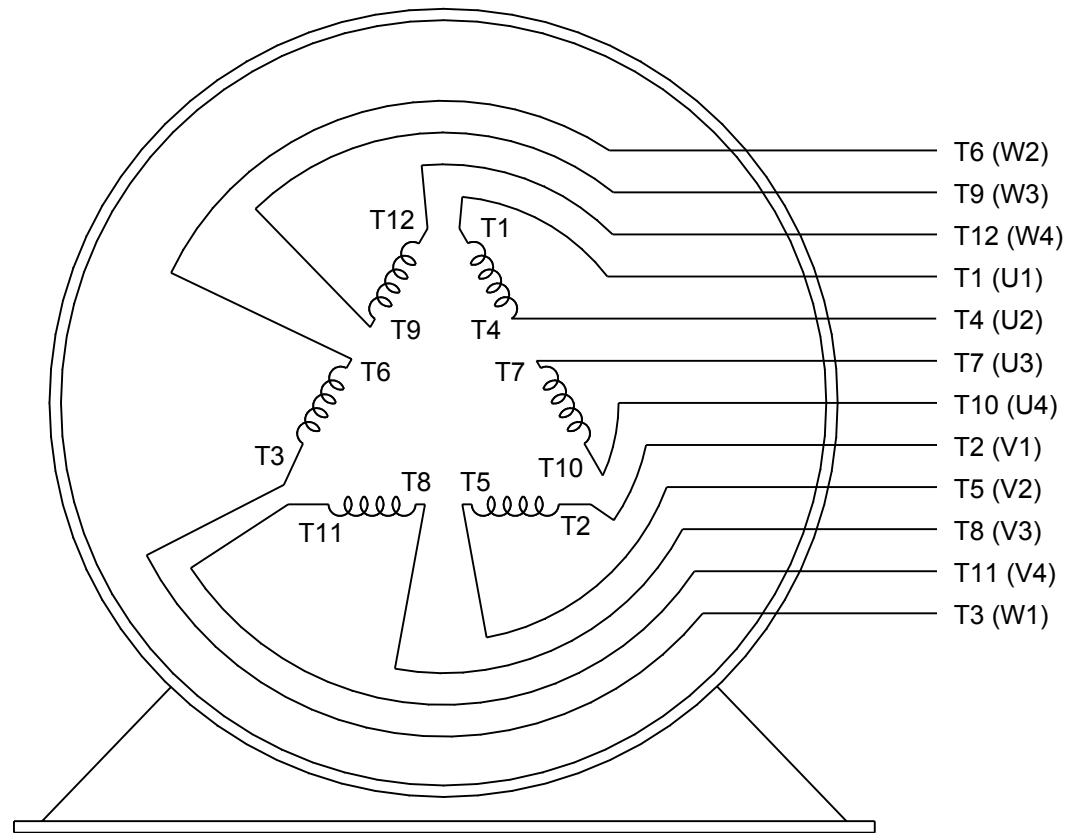
NO	REVISION	BY & DATE	CHK	ANG	±7°30'	FINISH	PREV	SIZE	DRAWING NO	REV
10	REVISED TO NEW FRAME DESIGN ISAAC09-5199	TJW 12/30/2009	CTO	DEC	INCHES					
9	REVISED BACK TO OLD FRAME CN09-1770	TJW 7/22/2009	CTO	DEC	INCHES					
8	REVISED TO NEW FRAME DESIGN MU90885	MSG 04-28-2009	JES	X	±1					
7	UPDATED FRAME & ADDED 404 INFO CN 27430	KL 10-25-2005	.XX	±.03						
6	REDRAWN IN AUTOCAD	TAT 06-29-2004	ML	.XXX	±.005					
5	REDRAWN ON CADD	TLB 05-18-1988	ML	.XXX	±.0005					
THIRD ANGLE PROJECTION						DRAWING NO				
						REV				
						PAGE				
						OF				
						SCALE				
						REF				
						FMF				
						TITLE				
						400TS/US FR. - TEFC - STD.				
						MARATHON ELECTRIC				
						DRAWN TLB 05-19-1988				
						CHK FG 05-20-1988				
						APPR ML 05-22-1998				
						SCALE 1:5				
						REV				
						PAGE				
						OF				
						SIZE				
						B				
						DRAWING NO				
						SS504698				
						REV				
						10				



LOW VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

DRAWING REVISION K	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T. VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC 60034-8		
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DRAWN BY LZ
DATE 01-12-1994
APPROVED BY GK
DATE 01-14-1994
REFERENCE
THIRD ANGLE PROJECTION

 Regal Beloit America, Inc.		
DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-2/1 DELTA-12 LEADS		
MATERIAL	PROCESS/FINISH	
SIZE A	DRAWING NUMBER EE7308AA	SHEET 1 OF 1

CERTIFICATION DATA SHEET

Model#: 405TSTFS14007 AN
 CONN. DIAGRAM: A-EE7308AA
 OUTLINE: SS504698-1675

WINDING#: T405251 NONE 3
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100&75	75&56	3600	3565&2970	405TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	224/112&204/ 102	PWS(LV ONLY) & YDRUN	CONTINUOU S	F1	1.15/1.15	40	3300

FULL LOAD EFF: 94.1&93.6	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89&89	3/4 LOAD PF: 87	1/2 LOAD PF: 82	93	SQ CAGE IND RUN	59 / 29.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
148 LB-FT	1440 / 720	200 LB-FT 135	400 LB-FT 270	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	14.2 LB-FT^2	- LB-FT^2	15 SEC.	-	1150 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	D RIP COVER	SCREENS	P AINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	RED (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6313	6313	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further
information

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
- FT-LB NONE V NONE Hz

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DATE: 06/21/2017 08:30:05 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



405TSTFS14007

Submittal

Data @ 460 V

Motor Load Data

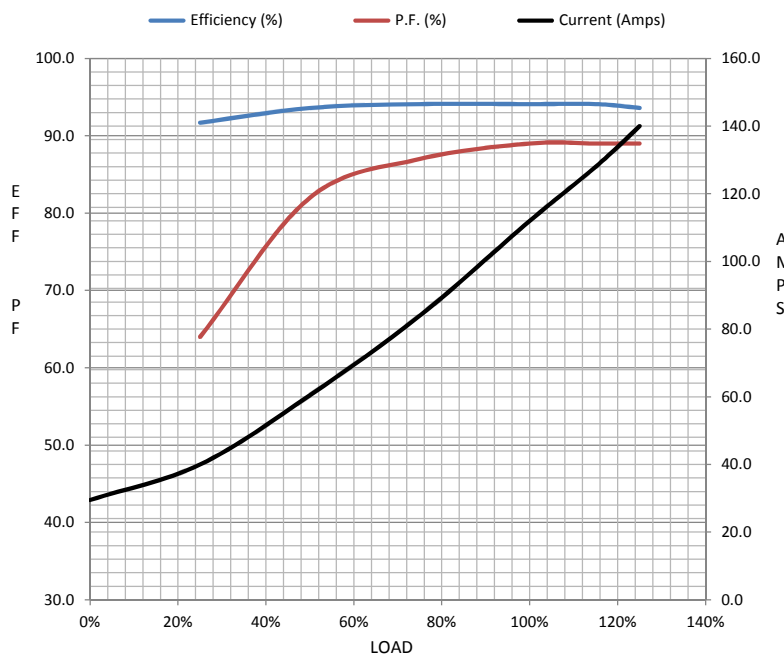
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	29.5	40.0	60.5	84.0	112	128	140	720	
Torque (ft-lb)	0.00	36.5	73.5	111	148	170	185	200	
RPM	3600	3590	3582	3575	3565	3,560	3555	0	
Efficiency (%)		91.7	93.6	94.1	94.1	94.1	93.6		
P.F. (%)	6.5	64.0	82.0	87.0	89.0	89.0	89.0	26.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3375	3565	3600
Current (Amps)	720	650	425	112	29.5
Torque (ft-lb)	200	185	400	148	0.00

Information Block

HP	100.0			
Sync. RPM	3600			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460#190/38(V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	14.2 Lb-Ft²			
Ref Wdg	T405251 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	NONE			
Outline Dwg	SS504698-1675			
Conn. Diag	A-EE7308AA			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0380	0.0240	0.2870	0.1750	9.1050



Speed -Torque Curve

