

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 405TSTFC6005

Catalog No: GT1145

100 HP General Purpose Motor, 3 phase, 3600 RPM, 575 V, 405TS Frame, TEFC  
General Purpose Motors



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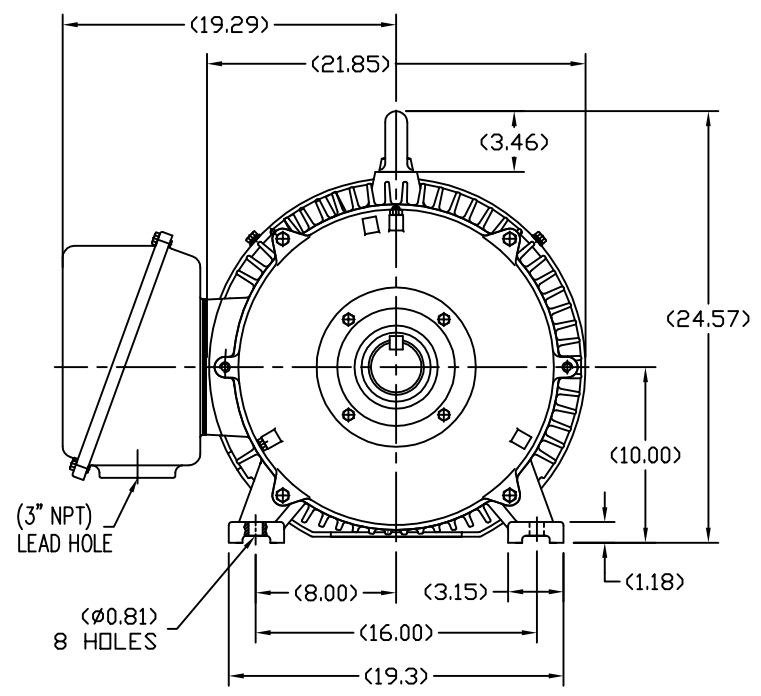
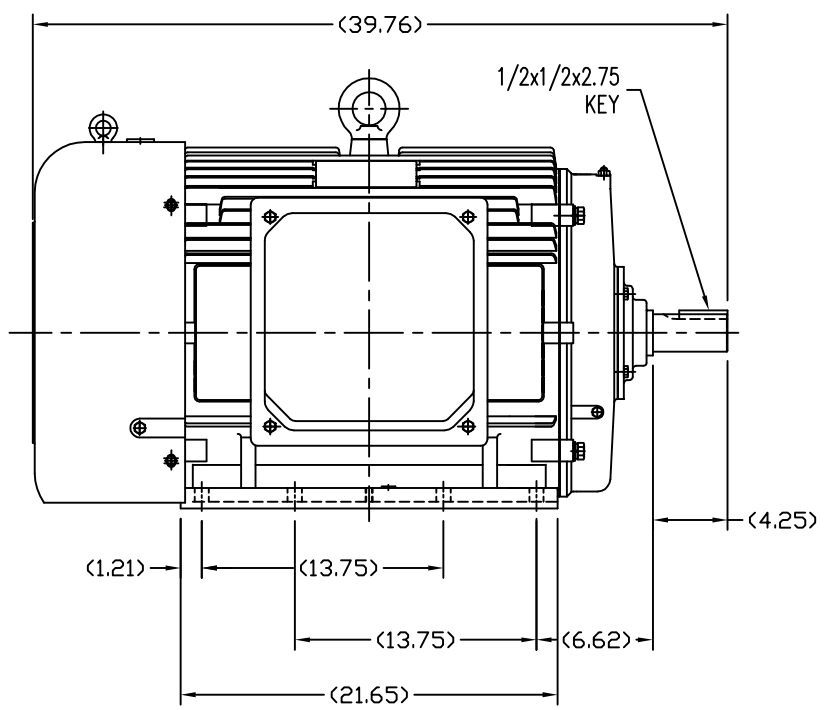
RegalRexnord

### Nameplate Specifications

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>86.5 A</b>	Speed	<b>3575 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>94.5 %</b>	Power Factor	<b>91</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>405TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6313</b>	Opp Drive End Bearing Size	<b>6313</b>
UL	<b>Recognized</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 Inverter Rated</b>	Starting Method	<b>Wye Start Delta Run Or Inverter</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.045 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>39.76 in</b>
Shaft Diameter	<b>2.125 in</b>	Shaft Extension	<b>4.25 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>		
Outline Drawing	<b>B-SS620282</b>	Connection Drawing	<b>A-EE7300</b>

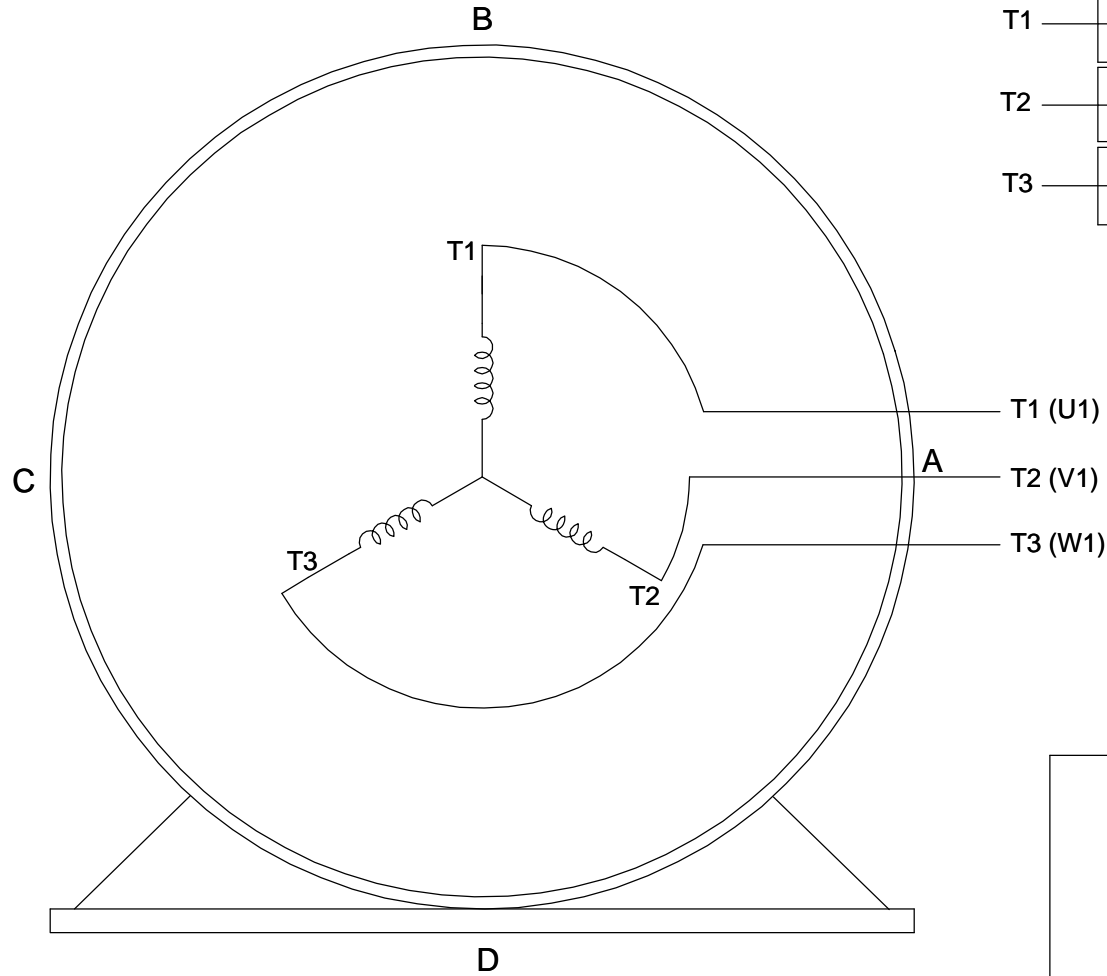
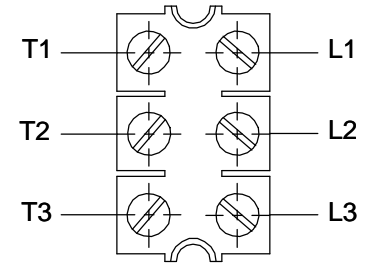


TOLERANCES UNLESS SPECIFIED		REGAL-BELOIT CORPORATION		DRAWN HZJ 03-05-2010	
DEC.	INCHES	REGAL-BELOIT CORPORATION		CHK	ZYH 03-05-2010
.X	±.1	TITLE		APPD	CL 03-05-2010
.XX	±.03	OUTLINE		SCALE	1=7
.XXX	±.005	405TS FR TEFC-CAST IRON		REF	
.XXXX	±.0005	MAT'L		FMF	HWADA
NO.	REVISION	BY & DATE	CHK	ANG	±1/2
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	SS620282
			DIST	SIZE	DRAWING NO.
				B	SS620282
					REV.

**THREE PHASE - SINGLE VOLTAGE  
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO  
LINE LEAD CONNECTIONS.**

**TERMINAL BLOCK WHEN SPECIFIED**



**VIEW OF TERMINAL END**

**IF MOTOR HAS  
6 LEADS**



**A-9806 DECAL**

**OPTIONAL CORD  
CONNECTION**

- L1 WHITE
- L2 RED
- L3 BLACK

DRAWING REVISION <b>AB</b>	REVISION BY <b>JJB</b>	DATE <b>06-27-2017</b>
ECO <b>ECO-0125361</b>	APPROVED BY <b>TB</b>	DATE <b>06-27-2017</b>
ECO DESCRIPTION <b>UPDATED TO CURRENT STANDARDS</b>		
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DRAWN BY <b>DA</b>
DATE <b>03-26-1993</b>
APPROVED BY <b>TB</b>
DATE <b>03-26-1993</b>
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Beloit America, Inc.</b>	
DESCRIPTION <b>CONNECTION DIAGRAM EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR</b>	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7300</b>
SHEET <b>1 OF 1</b>	

**CERTIFICATION DATA SHEET**

**Model#:** 405TSTFC6005 AA  
**CONN. DIAGRAM:** A-EE7300  
**OUTLINE:** B-SS620282

**WINDING#:** CHT40520001 NONE 3  
**ASSEMBLY:** F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75	3600	3575	405TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	86.5	Y START D RUN OR INV	CONTINUOU S	F7	1.15/1.15	40	3300

FULL LOAD EFF: 94.5	3/4 LOAD EFF: 94.5	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 91	3/4 LOAD PF: 90.5	1/2 LOAD PF: 88	93.6	SQ CAGE INV RATED	17.6

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
147 LB-FT	580	250 LB-FT 170	400 LB-FT 272	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
78 dBA	88 dBA	19 LB-FT^2	65 LB-FT^2	15 SEC.	2	1550 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	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	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6313	6313						

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

\*  
N  
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T  
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S  
\*

INVERTER TORQUE: VARIABLE 10:1 INV. HP SPEED RANGE: NONE
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz

DATE: 06/21/2017 08:28:21 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



405TSTFC6005

**Submittal**

Data @ 575 V

**Motor Load Data**

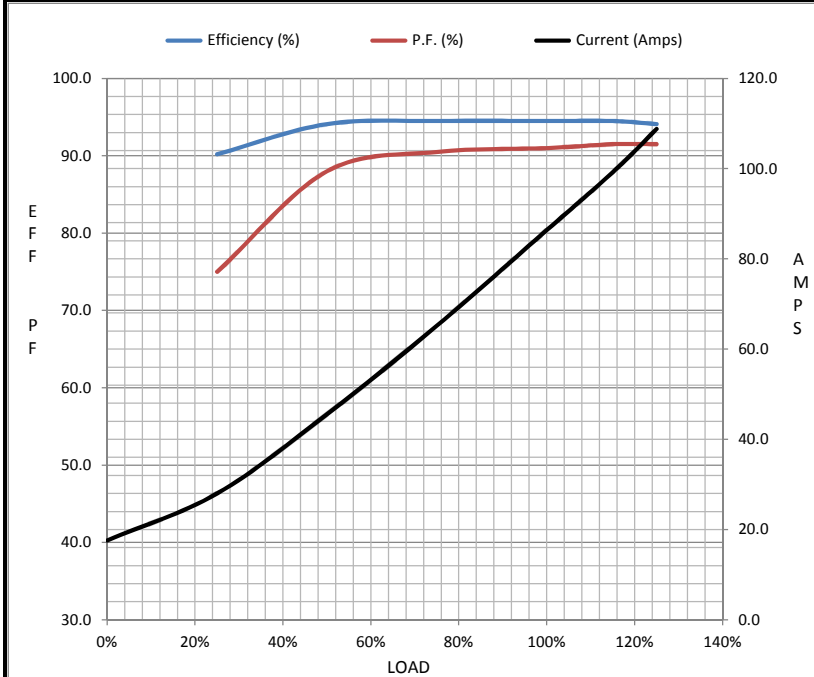
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	17.6	28.0	45.6	65.2	86.4	99.2	109	580
Torque (ft-lb)	0.00	36.5	73.5	110	147	170	185	250
RPM	3600	3595	3588	3582	3575	3,570	3565	0
Efficiency (%)		90.2	94.1	94.5	94.5	94.5	94.1	
P.F. (%)	10.0	75.0	88.0	90.5	91.0	91.5	91.5	31.0

**Motor Speed Data**

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3475	3575	3600
Current (Amps)	580	520	340	86.4	17.6
Torque (ft-lb)	250	200	400	147	0.00

**Information Block**

HP	100.0			
Sync. RPM	3600			
Frame	405			
Enclosure	TEFC			
Construction	TFC			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	19.0 Lb-Ft <sup>2</sup>			
Ref Wdg	CHT40520001 NONE			
Sound Pressure @ 1M	78 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	B-SS620282			
Conn. Diag	A-EE7300			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0530	0.0280	0.3350	0.4440	19.2590



**Speed - Torque Curve**

