

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 405TTFC6040

Catalog No: GT1146

100 HP General Purpose Motor, 3 phase, 1800 RPM, 575 V, 405T Frame, TEFC  
General Purpose Motors



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**RegalRexnord**

**Nameplate Specifications**

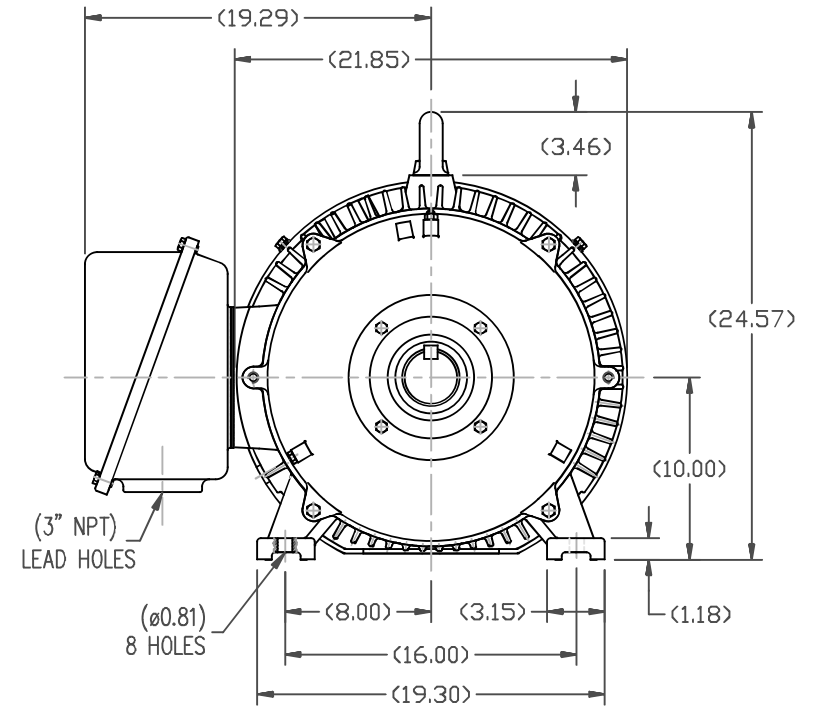
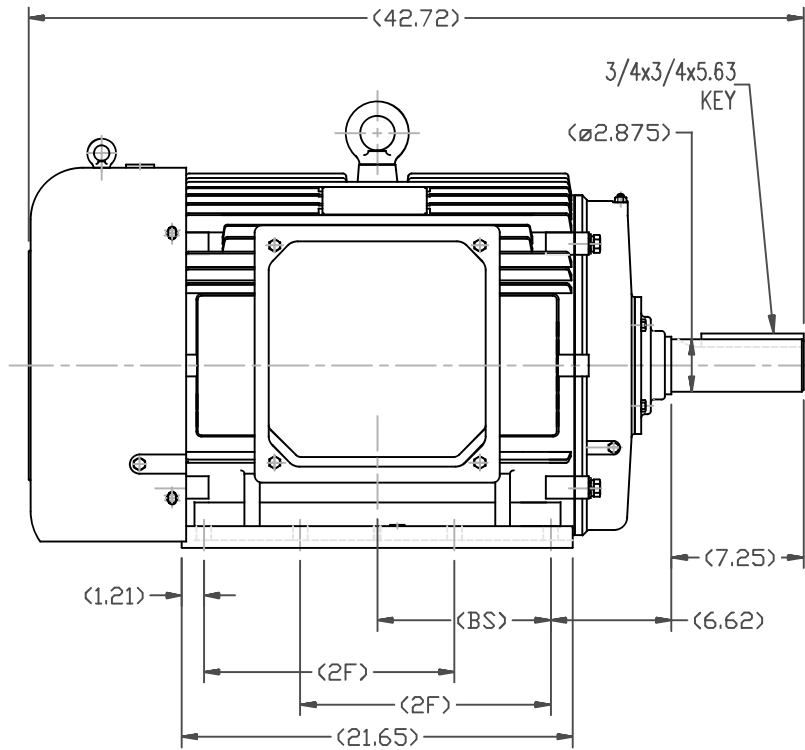
Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	575 V
Current	89.5 A	Speed	1785 rpm
Service Factor	1.15	Phase	3
Efficiency	95.4 %	Power Factor	88
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6315
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

**Technical Specifications**

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	4	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	42.72 in
Shaft Diameter	2.875 in	Shaft Extension	7.25 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Connection Drawing	A-EE7300	Outline Drawing	SS620286-405T

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SS620286



404T	12.25	---
405T	13.75	9.52
Frame	2F	BS

				TOLERANCES UNLESS SPECIFIED		REGAL REGAL-BELOIT CORPORATION	DRAWN HZJ 03-05-2010	
				DEC.	INCHES		CHK	ZYH 03-05-2010
				.X	±.1		APPD	CL 03-05-2010
				.XX	±.03	TITLE	SCALE	1=7
				.XXX	±.005	404/405T FR-TEFC-CAST IRON	REF	
1	ADDED 'BS' DIM. UPDATED TITLE BLOCK ECO-0048910	RFH04/07/2014	EH	.XXXX	±.0005	MAT'L	FMF	HWADA
NO.	REVISION	BY & DATE	CHK	ANG	±1/2	FINISH	PREV	
			RFP			CAD FILE SS620286	SIZE B	DRAWING NO. SS620286
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# THREE PHASE - SINGLE VOLTAGE MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO  
LINE LEAD CONNECTIONS.

## TERMINAL BLOCK WHEN SPECIFIED



### IF MOTOR HAS 6 LEADS



A-9806 DECAL

### OPTIONAL CORD CONNECTION



### VIEW OF TERMINAL END

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



Regal Beloit America, Inc.

DESCRIPTION  
**CONNECTION DIAGRAM**  
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL PROCESS/FINISH

SIZE <b>A</b>	DRAWING NUMBER <b>EE7300</b>	SHEET 1 OF 1
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## CERTIFICATION DATA SHEET

**Model#:** 405TTFC6040 AA  
**CONN. DIAGRAM:** A-EE7300  
**OUTLINE:** B-SS620286

**WINDING#:** CHT40540003 NONE 4  
**ASSEMBLY:** F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75	1800	1785	405T	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	89.5	Y START D RUN OR INV	CONTINUOUS	F7	1.15/1.15	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95.4	1/2 LOAD EFF: 95	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 88	3/4 LOAD PF: 86	1/2 LOAD PF: 80	95	SQ CAGE INV RATED	24.8

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
294 LB-FT	580	500 LB-FT 170	800 LB-FT 272	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	35 LB-FT^2	550 LB-FT^2	25 SEC.	2	1625 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						
6316	6315	POLYREX EM	T	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: 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

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DATE: 06/22/2017 12:22:57 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

## Data Sheet

Date: 6/19/2017

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



405TTC6040

Submittal

Data @ 575 V

## Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	24.8	32.8	48.8	68.0	89.6	102	112	580	
Torque (ft-lb)	0.00	73.0	147	220	294	341	370	500	
RPM	1800	1796	1792	1790	1785	1,782	1780	0	
Efficiency (%)		93.6	95.0	95.4	95.4	95.0	94.5		
P.F. (%)	4.5	61.0	80.0	86.0	88.0	88.0	88.0	30.0	

## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block				
Speed (RPM)	0	900	1725	1785	1800	HP	100.0			
Current (Amps)	580	520	320	89.6	24.8	Sync. RPM	1800			
Torque (ft-lb)	500	400	800	294	0.00	Frame	405			
<div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div><div>EFFICIENCY (%)</div><div>P.F. (%)</div><div>CURRENT (AMPS)</div><div>LOAD</div></div>						Enclosure	TEFC			
						Construction	TFC			
						Voltage	575 V			
						Frequency	60 Hz			
						Design	A			
						LR Code letter	G			
						Service Factor	1.15			
						Temp Rise @ FL	60 ° C			
						Duty	CONT			
						Ambient	40 ° C			
						Elevation	1,000 feet			
						Rotor/Shaft wk <sup>2</sup>	35.0 Lb-Ft <sup>2</sup>			
						Ref Wdg	CHT40540003 NONE			
						Sound Pressure @ 1M	75 dBA			
						VFD Rating	VARIABLE 10:1			
						Outline Dwg	B-SS620286			
						Conn. Diag	A-EE7300			
Additional Specifications:										
0										
0										
EQUIV CKT (OHMS / PHASE)										
R1		R2		X1		X2		Xm		
0.0530		0.0270		0.3110		0.5100		14.3550		

## Speed -Torque Curve

