

# PRODUCT INFORMATION PACKET

Model No: 405TSHFCD9026  
Catalog No: W599A  
100 HP, Severe Duty Motors, 3 phase, 1800 RPM, 460 V, 405TS Frame, TEFC  
IEEE 841 Motors



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REGAL

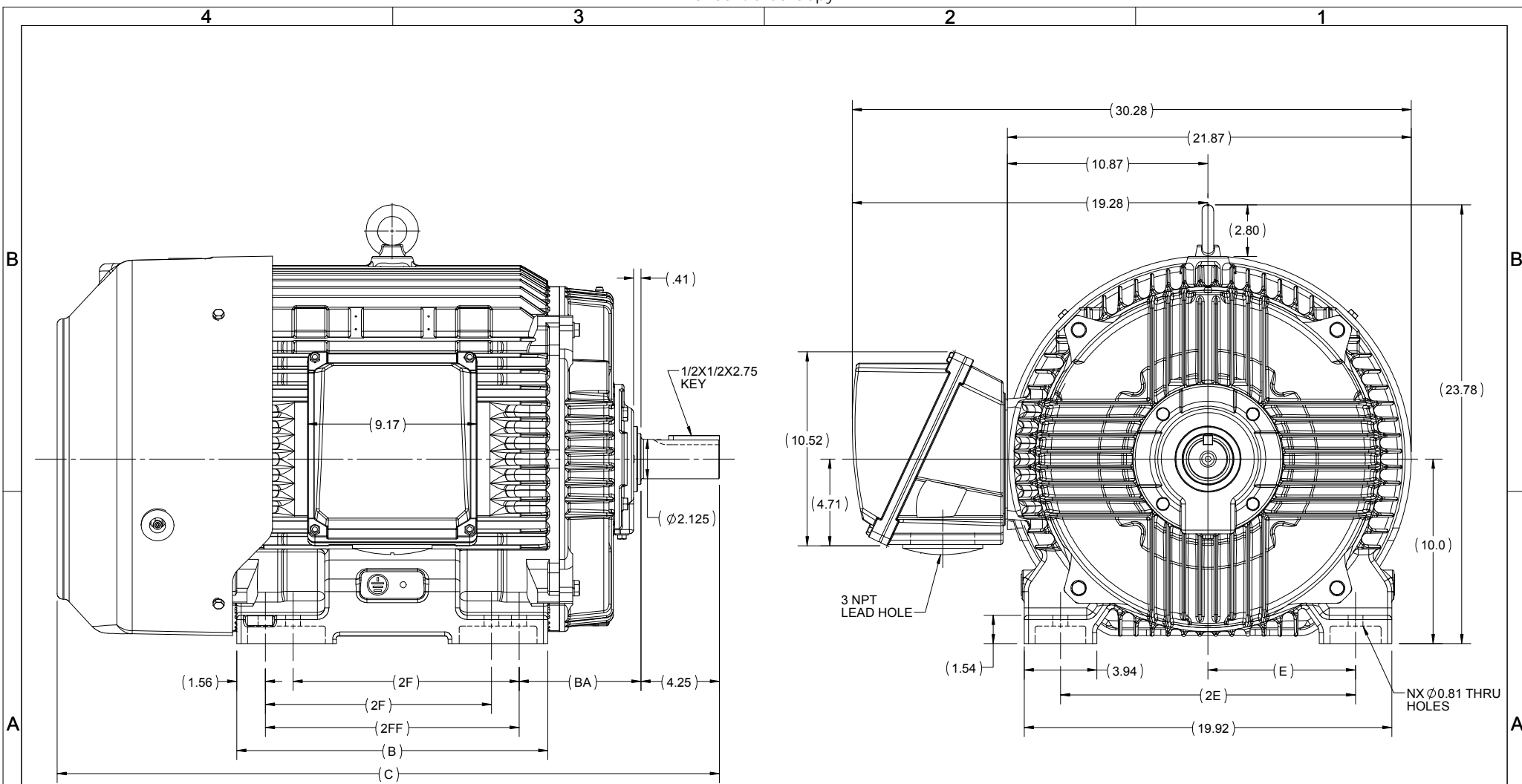
### Nameplate Specifications

Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	460 V
Current	113.0 A	Speed	1785 rpm
Service Factor	1.15	Phase	3
Efficiency	95.4 %	Power Factor	87
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Frame	405TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6314
UL	Listed	CSA	Y
CE	Y	IP Code	56
Hazardous Location	DIVISION 2 T2B		

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Selective Clockwise
Resistance Main	.0555 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Shaft Diameter	2.125 in
Assembly/Box Mounting	F1/F2 CAPABLE		
Connection Drawing	EE7300U	Outline Drawing	SS557666

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DRAWING REVISION B	REVISION BY BISWA	DATE 25/01/2018
ECO ECO-0160791	APPROVED BY SBD	DATE 25/01/2018

ECO DESCRIPTION  
**DRAWING UPDATED**  
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DRAWN BY BISWA
DATE 24/12/2018
APPROVED BY SBD
DATE 24/12/2018
REFERENCE

**REGAL**™ Regal Beloit America, Inc.

DESCRIPTION  
**OUTLINE**  
404/405TS FR-NEMA- SD & IEEE841

404/405T	16.85	35.88	13.75	12.25	6.62	8.00	16.00	8	F1 OR F2
FRAME	B	C	2FF	2F	BA	E	2E	N	MOUNTING

MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
DRAWING NUMBER	SHEET 1 OF 1

DRAWING NUMBER  
**SS557666**

**IF MOTOR HAS 9 LEADS**



**IF MOTOR HAS 6 LEADS**



A-9806 DECAL IF CALLED FOR

**IF MOTOR HAS 12 LEADS**



**VIEW OF TERMINAL END**

DRAWING REVISION <b>L</b>	REVISION BY <b>AJW</b>	DATE <b>05-04-2015</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>DRS</b>	<b>Regal Beloit America, Inc.</b>																					
ECO <b>ECO-0077067</b>	APPROVED BY <b>EWH</b>	DATE <b>05-05-2015</b>	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>			<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]		DATE <b>09-27-1996</b>
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ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b> <small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>			APPROVED BY <b>GK</b>	DATE <b>09-30-1996</b>	MATERIAL	PROCESS/FINISH																				
			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS]			REFERENCE	THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7300U</b>	SHEET <b>1 OF 1</b>																



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300U  
 OUTLINE: S557666-365TS  
 WINDING: HA32504006 NONE 1

MODEL #: 40TSHFCD9026  
 CAT #: W599A  
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN	
100	75	1800	1785	40T5TS	TEFC	TFC	G	B	
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV. (Ft)
3	60	460	113	LINE OR INVERTER	CONT	H	1.15	40	3300
F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	95.0	GTD EFF	95.0	ELECT. TYPE	
F.L. PF	87.0	3/4 LD PF	83.5	1/2 LD PF	74.5	SQ CAGE INV RATED			
F.L. TORQUE	294 LB-FT	LR AMPS @ 460 V	725	L.R. TORQUE	529 LB-FT	B.D. TORQUE	764 LB-FT	F.L. RISE (* C)	65
SOUND PRESSURE	75 dBA	SOUND	84 dBA	ROTOR WK <sup>2</sup>	35.0 LB-FT <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	575 LB-FT <sup>2</sup>	SAFE STALL TIME	25 SEC.
STARTS/HOUR		2	APPROX. MOTOR		570 LB.				
*** SUPPLEMENTAL INFORMATION ***									
DE BRACKET TYPE	STANDARD	ODE BRACKET TYPE	STANDARD	MOUNT TYPE	RIGID	MOTOR ORIENTATION	HORIZONTAL	SEVERE DUTY	PREMIUM SEVERE DUTY
HAZARDOUS LOCATION	DIVISION 2 T2B	DRIP COVER	NO	SCREENS	NONE	PAINT	BLUE (EPOXY)		
BEARINGS	DE ODE	GREASE	POLYREX EM	SHAFT TYPE	TS	SPECIAL DE	NONE	SPECIAL ODE	NONE
SHAFT MATERIAL	1045 HOT ROLLED (C-204)	FRAME MATERIAL	CAST IRON						
THERMOSTATS	NONE	PROTECTORS	NOT	WDG RTD's	NONE	BRG RTD's	NONE	THERMISTORS	NONE
CONTROL	FALSE	SPACE HEATERS	NA						
R1 (ohms/ph)	0.033	R2 (ohms/ph)	0.02	X1 (ohms/ph)	0.17	X2 (ohms/ph)	0.284	Xm (ohms/ph)	6.532
VIBRATION (In/Sec)	0.080								
* N O T E S *	If Inverter equals NONE, contact factory for further information								
	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1								
	INV. HP SPEED RANGE: NONE								
	ENCODER: NONE								
	NONE PPR								
PREPARED BY:	ANUSHAM		DATE:	3/31/2020		BRAKE:	NONE		
FT-LB:	NA		VOLTAGE:	NONE		HZ:	NA		

FORM: 3531 REV. 4 2/27/06  
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**Data Sheet**

Date: 5/6/2020 405TSHFCD9026

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

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

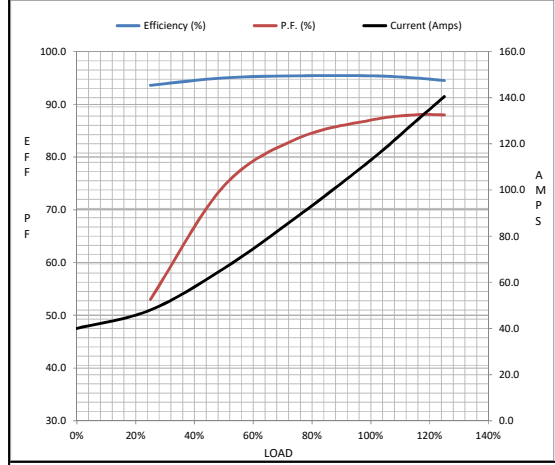
Submitted by: \_\_\_\_\_

**marathon**  
Motors

**Submittal**  
Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	40.0	48.0	66.0	88.5	113	130	141	725	
Torque (ft-lb)	0.00	73.0	147	220	294	339	370	529	
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	53.0	74.5	83.5	87.0	88.0	88.0	32.0	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	900	1735	1785	1800	HP	100.0
Current (Amps)	725	580	410	113	40.0	Sync. RPM	1800
Torque (ft-lb)	529	445	764	294	0.00	Frame	405



Construction	TFC			
Voltage	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	3,300 feet			
Rotor/Shaft wk*	35.0 Lb-Ft*			
Ref Wdg	HA32504006 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS557666-365TS			
Conn. Diag	EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0330	0.0200	0.1700	0.2840	6.5320

