

# PRODUCT INFORMATION PACKET

Model No: 405TSTFCD6502

Catalog No: E493A

Severe Duty Motors, TEFC, 100 HP, 3 Ph, 60 Hz, 575 V, 3575 RPM, 405TS Frame



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**Nameplate Specifications**

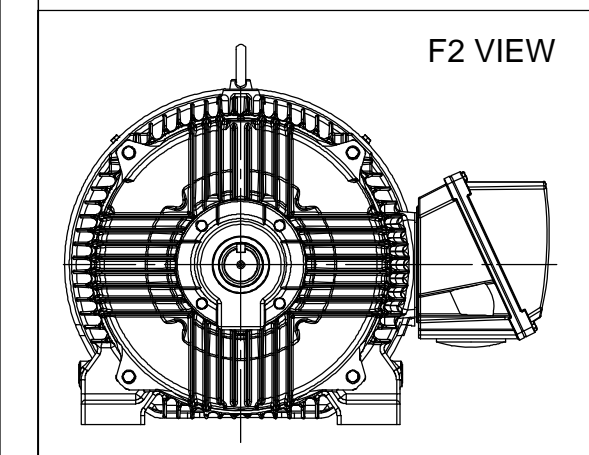
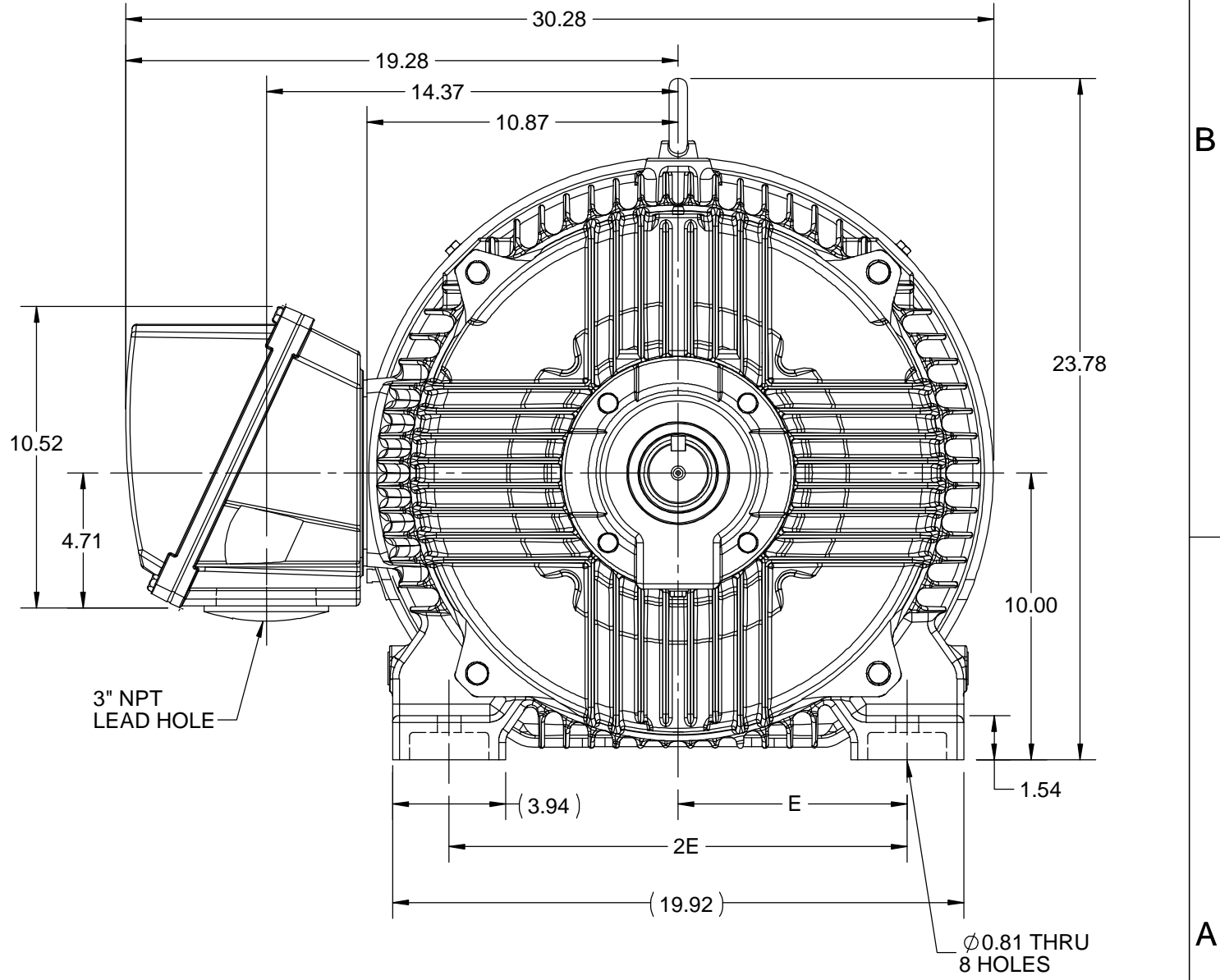
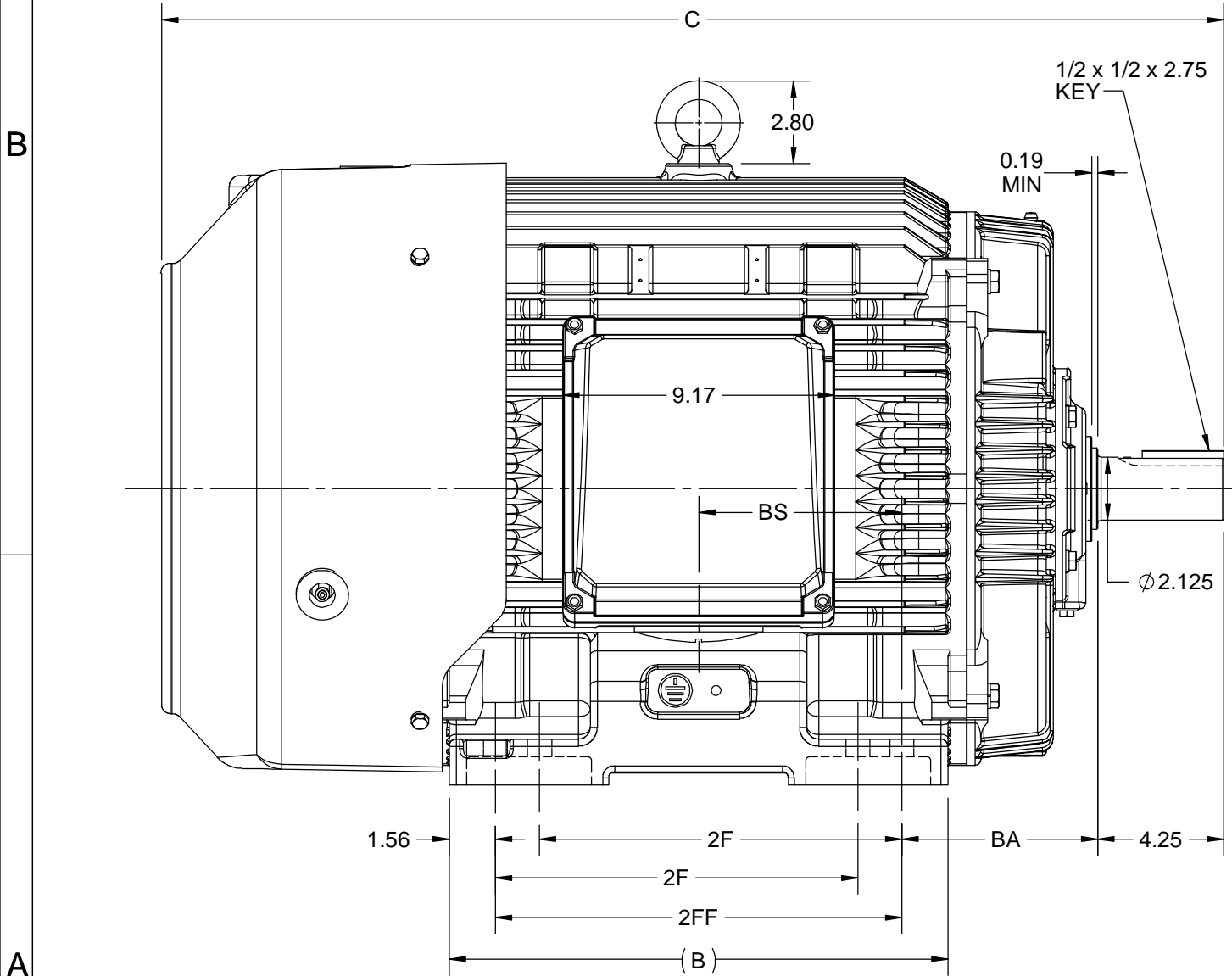
Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>89.0 A</b>	Speed	<b>3575 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>94.5 %</b>	Power Factor	<b>89</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>405TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6314</b>	Opp Drive End Bearing Size	<b>6314</b>
UL	<b>Listed</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Hazardous Location	<b>DIVISION 2 T2B</b>	Number of Speeds	<b>1</b>

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>2</b>	Rotation	<b>Selective Clockwise</b>
Resistance Main	<b>.056 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>	Shaft Diameter	<b>2.125 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Connection Drawing	<b>EE7300</b>	Outline Drawing	<b>SS557666</b>

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4			3			2			1		
B	C	E	2E	2F	2FF	BA	BS	MOUNTING			
16.85	35.88	8.00	16.00	12.25	13.75	6.62	6.87	F1 OR F2			



DRAWING REVISION C	REVISION BY VS	REV DATE/© DATE 04-11-2020
ECO ECO-0194527	APPROVED BY GNK	DATE 04-11-2020
ECO DESCRIPTION <b>DRAWING UPDATED</b>		
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY BISWA	Regal Beloit America, Inc.
DATE 24/12/2018	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 404/405TS FR-NEMA- SD & IEEE841
DATE 24/12/2018	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER <b>SS557666</b>
	SHEET 1 OF 1

**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>	



DATA VOLTS: 575

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: EE7300  
 REFERENCE MODEL #: 405TSTFCD6502  
 OUTLINE: SS557666-405TS CAT #: E493A  
 WINDING: HA32502006 NONE 3 MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN	
100	75	3600	3575	405TS	TEFC	TFC	G	B	
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	575	89	LINE OR INVERTER	CONT	H	1.15	40	3300
F.L. EFF	94.5	3/4 LD EFF	94.5	1/2 LD EFF	94.1	GTD EFF	ELECT. TYPE		
F.L. PF	89.0	3/4 LD PF	85.8	1/2 LD PF	79.0	93.6	SQ CAGE INV RATED		
F.L. TORQUE	LR AMPS	L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)			
147 LB-FT	580	265 LB-FT	180%	427 LB-FT	290%	75			
SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.			
78 dBA	87 dBA	19.0 LB-FT²	65 LB-FT²	15 SEC.	2	1146 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	PREMIUM SEVERE DUTY	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)	
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								
6314	6314								
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			
0.0828125	0.0421875	0.56875	0.55	19	0.080	ODE			
* 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 NONE NONE PPR								
	BRAKE: NONE NONE FT-LB: NA VOLTAGE: NONE HZ:								
PREPARED BY:									
DATE: 5/13/2020									
FORM: 3531 REV_4 2/27/06 ** Subject to change without notice.									

Data Sheet

Date: 5/6/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



405TSTFCD6502

Submittal

Data @ 575 V

Motor Load Data

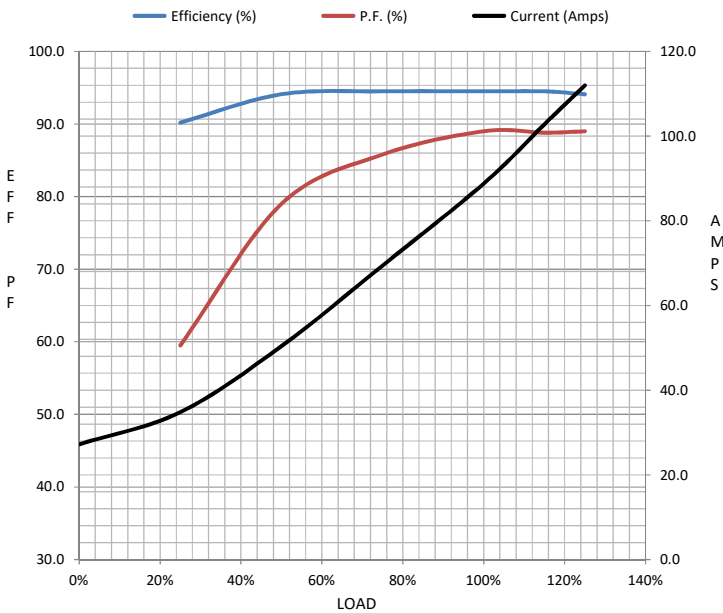
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	27.2	34.8	50.4	69.4	88.8	103	112	580
Torque (ft-lb)	0.00	36.5	73.5	110	147	170	185	265
RPM	3600	3595	3588	3582	3575	3,570	3565	0
Efficiency (%)		90.2	94.1	94.5	94.5	94.5	94.1	
P.F. (%)	6.5	59.5	79.0	85.8	89.0	88.8	89.0	29.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3470	3575	3600
Current (Amps)	580	464	348	88.8	27.2
Torque (ft-lb)	265	225	427	147	0.00

Information Block

HP	100.0			
Sync. RPM	3600			
Frame	405			
Enclosure	TEFC			
Construction	TFC			
Voltage	575 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	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	19.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HA32502006 NONE			
Sound Pressure @ 1M	78 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS557666-405TS			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0530	0.0270	0.3640	0.3520	12.1600



Speed -Torque Curve

