

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 445TSTFN6505

Catalog No: E449

XRI®-SD Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 445TS Frame, TEFC



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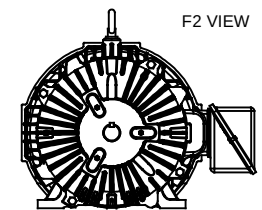
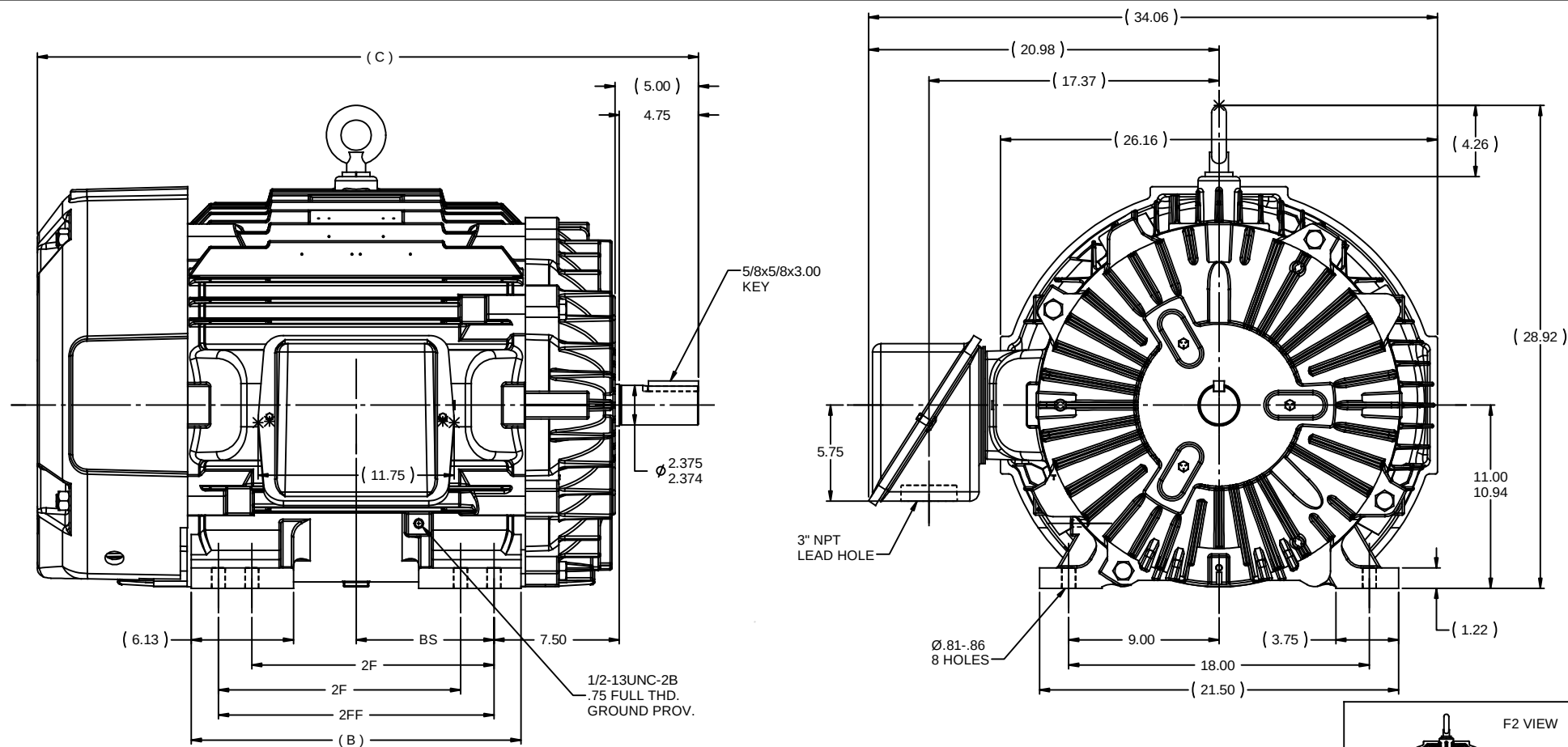
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	200 Hp
Output KW	149.0 kW	Voltage	460 V
Speed	3575 rpm	Service Factor	1.15
Frame	445TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	224.0 A	Power Factor	88
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	54
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.0125 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	39.62 in
Frame Length	20.25 in	Shaft Diameter	2.375 in
Shaft Extension	5 in	Assembly/Box Mounting	F1/F2 Capable
Inverter Load	CONSTANT 2:1		
Connection Drawing	A-EE7300U	Outline Drawing	B-SS514022-2025

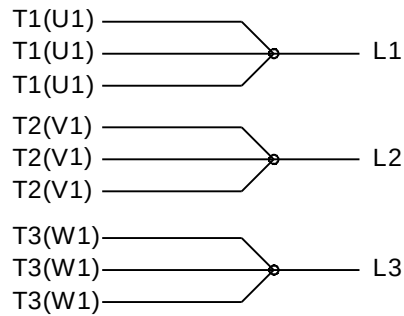


- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

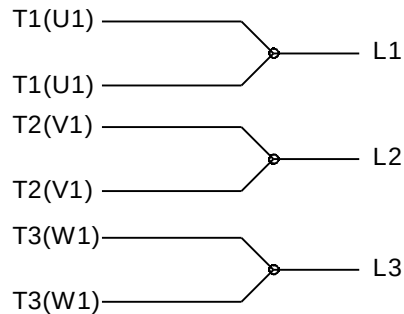
DASH	FRAME	B	C	2F	2FF	BS
2025	444/445TS	19.75	39.62	14.50	16.50	8.25

10	UPDATED WITH NEW FRAME PER ISAAC 09-5049	JJB 6/29/2010	TOLERANCES UNLESS SPECIFIED	DEC INCHES		DRAWN RM 06-19-1991
9	REV. FAN GUARD & C-DIM. PER CN39335	RWR 6/29/2010	ML X ±1	DEC INCHES		CHK TLB 06-28-1991
8	REDRAWN IN AUTOCAD	TAT 06/29/2004	XX XX ±0.03	DEC INCHES		APPR ML 06-28-1991
7	REVISED "C" DIM. CN 26153	KL 01/22/1999	XXX ±0.005	DEC INCHES		SCALE 1:6
6	RE-ISSUE "C" DIM. WAS 37.44 & 39.44	BLR 06/10/1997	XXXX ±0.005	DEC INCHES		REF
5	UPDATED TO SHOW NEW FRAME AND LIFT LUGS CN21946	PGK 01/22/1997	CHK ANG ±1/2"	FINISH		FMF MU96082
NO	REVISION	BY & DATE	RFP	PREV		PAGE OF
THIRD ANGLE PROJECTION			NETWORK FILE NAME	SS514022		REV
			SIZE	B		DRAWING NO
			SS514022	B		REV

IF MOTOR HAS 9 LEADS

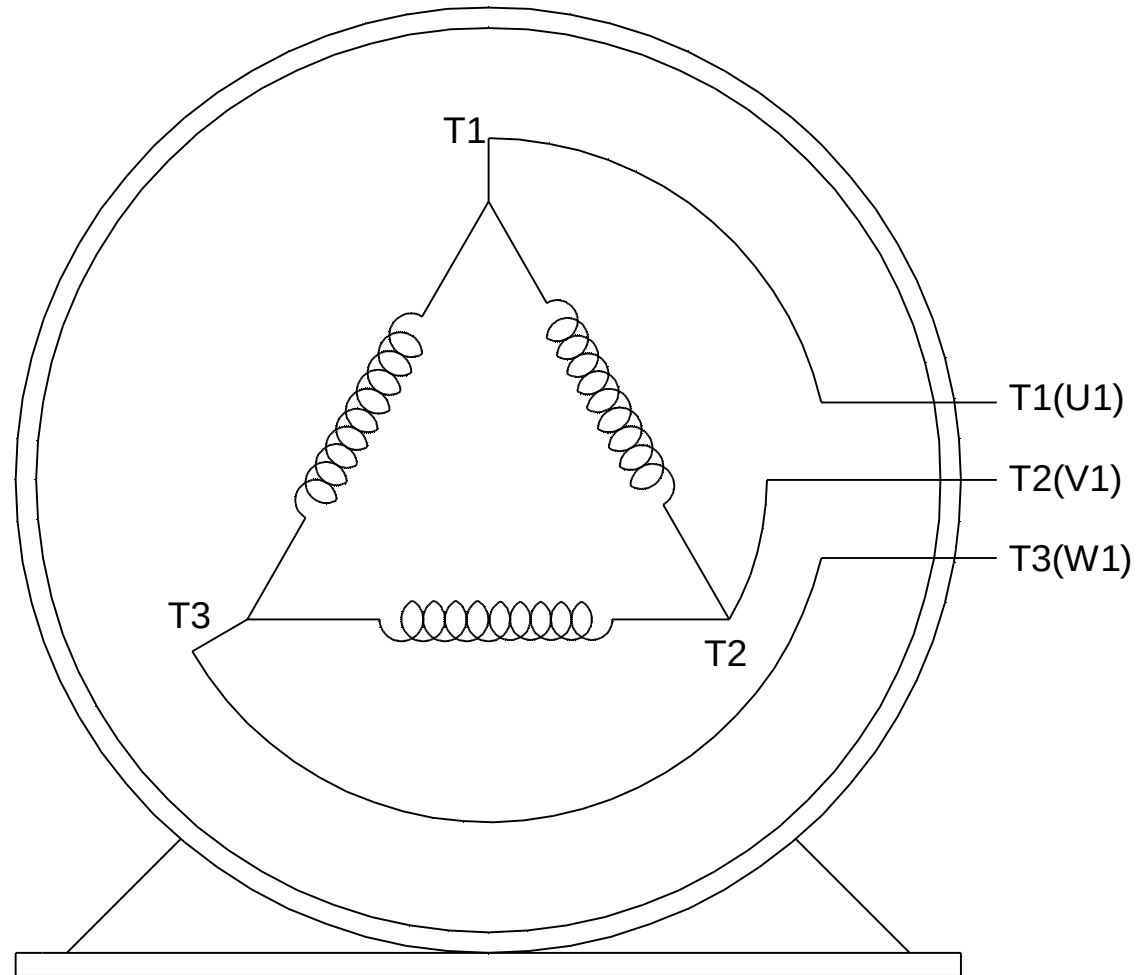
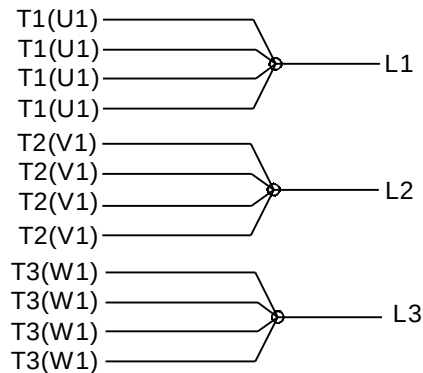


IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

DRAWING REVISION L	REVISION BY AJW	DATE 05-04-2015	TOLERANCES UNLESS OTHERWISE SPECIFIED: DEC. INCH mm ANGLE .X ±0.1 [±2.5] ±7' 30" .XX ±0.02 [±0.51] XXX ±0.005 [±0.127] .XXXX ±0.0005 [±0.0127] REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH 5.1 mm mm SHOWN IN [BRACKETS]		DRAWN BY DRS	 Regal Beloit America, Inc.			
ECO ECO-0077067	APPROVED BY EWH	DATE 05-05-2015			DATE 09-27-1996	DESCRIPTION			
ECO DESCRIPTION UPDATED TO SOLIDWORKS			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.			APPROVED BY GK		CONN DIAGRAM-EXTERNAL 3Ø SINDLE VOLTAGE	
						DATE 09-30-1996	MATERIAL		PROCESS/FINISH
			THIRD ANGLE PROJECTION 		SIZE A	DRAWING NUMBER EE7300U			SHEET 1 OF 1

CERTIFICATION DATA SHEET

Model#: 445TSTFN6505 FG
 CONN. DIAGRAM: A-EE7300U
 OUTLINE: B-SS514022-2025

WINDING#: T445280 NONE 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
200	149	3600	3575	445TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	224	LINE OR INVERTER	CONTINUOU S	H1	1.15	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 88	3/4 LOAD PF: 85.5	1/2 LOAD PF: 78.5	95	SQ CAGE INV RATED	69.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
294 LB-FT	1450	475 LB-FT 162	900 LB-FT 306	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	33.5 LB-FT^2	160 LB-FT^2	15 SEC.	2	2300 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

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

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1					
	INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: NONE					
	NONE NONE					
	NONE NONE PPR					
	BRAKE: NONE NONE					
	NONE P/N NONE					
	NONE NONE					
	- FT-LB NONE V NONE Hz					

DATE: 06/21/2017 05:33:05 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



445TSTFN6505

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	69.5	89.0	127	173	224	254	277	1,450	
Torque (ft-lb)	0.00	73.0	147	220	294	338	368	500	
RPM	3600	3595	3590	3580	3575	3,570	3565	0	
Efficiency (%)		90.2	94.1	95.0	95.4	95.4	95.0		
P.F. (%)	6.8	58.5	78.5	85.5	88.0	89.0	89.0	25.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block																						
Speed (RPM)	0	1800	3430	3575	3600	HP	200.0																					
Current (Amps)	1,450	1,210	950	224	69.5	Sync. RPM	3600																					
Torque (ft-lb)	500	415	870	294	0.00	Frame	445																					
Efficiency (%) P.F. (%) Current (Amps) <table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>90</td><td>58</td><td>75</td></tr><tr><td>50</td><td>93</td><td>82</td><td>110</td></tr><tr><td>75</td><td>94</td><td>86</td><td>150</td></tr><tr><td>100</td><td>95</td><td>88</td><td>190</td></tr><tr><td>125</td><td>95</td><td>89</td><td>275</td></tr></tbody></table>	Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	90	58	75	50	93	82	110	75	94	86	150	100	95	88	190	125	95	89	275	Enclosure		TEFC	
	Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																								
	25	90	58	75																								
	50	93	82	110																								
	75	94	86	150																								
	100	95	88	190																								
	125	95	89	275																								
	Construction		TFN																									
	Voltage		460 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 wk ²		33.5 Lb-Ft ²																										
Ref Wdg		T445280 NONE																										
Sound Pressure @ 1M		80 dBA																										
VFD Rating		CONSTANT 2:1																										
Outline Dwg		B-SS514022-2025																										
Conn. Diag		A-EE7300U																										
Additional Specifications:																												
0																												
0																												
EQUIV CKT (OHMS / PHASE)																												
R1		R2		X1		X2		Xm																				
0.0100		0.0090		0.1210		0.0920		3.8340																				

Speed -Torque Curve

