

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 445TSHFN9001

Catalog No: W610

150 HP Severe Duty Motor, 3 phase, 3600 RPM, 460 V, 445TS Frame, TEFC
Severe Duty Motors



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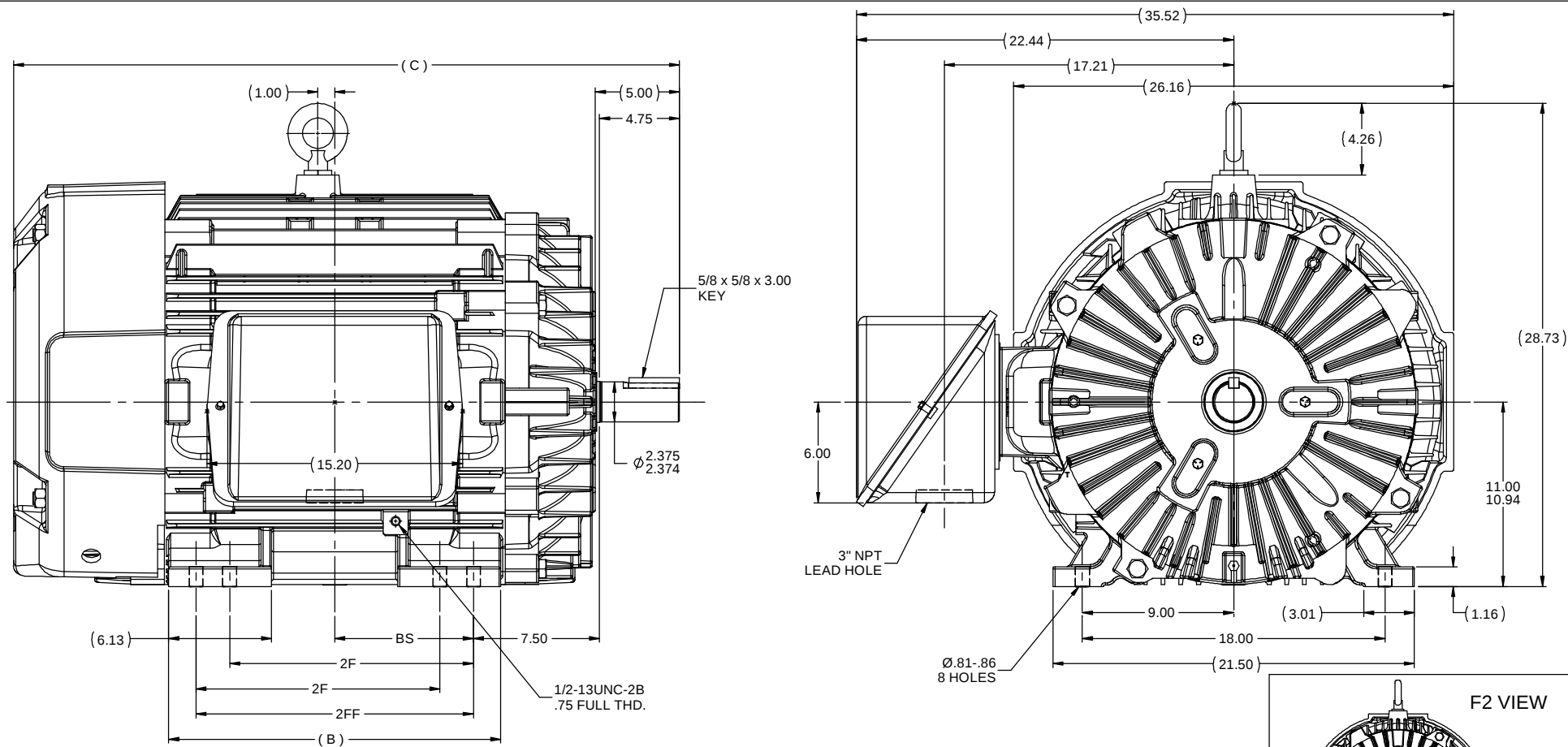
RegalRexnord

Nameplate Specifications

Output HP	150 Hp	Output KW	112.0 kW
Frequency	60 Hz	Voltage	460 V
Current	168.0 A	Speed	3575 rpm
Service Factor	1.15	Phase	3
Efficiency	95.8 %	Power Factor	88
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	445TS	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.018 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	39.60 in
Frame Length	20.25 in	Shaft Diameter	2.375 in
Shaft Extension	5 in	Assembly/Box Mounting	F1/F2 Capable
Inverter Load	CONSTANT 10:1		
Connection Drawing	A-EE7300U	Outline Drawing	B-SS516995-2025



- 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	39.60	14.50	16.50	8.25

		TOLERANCES UNLESS SPECIFIED		marathon [®] electric		DRAWN CAE 02-08-1999	
		DEC	INCHES			CHK ML 02-15-1999	APPR JHL 02-18-1999
4	UPDATED FRAME TO CURRENT STD'S. ISAAC 09-5049	JJB	7/16/2012	EH	X	±.1	
3	CHG. TO SHORT FAN GUARD PER CN 39335	RWR	2/19/2007	ML	XX	±.03	SCALE 1:6
2	ADDED F2 VIEW TO MOTOR	ERH	2/24/2003	ML	XXX	±.005	REF
1	NEW DRAWING	CAE	2/18/1999	XXXX	±.0005	MATL	FMF
NO	REVISION	BY & DATE	CHK	ANG	±1/2°	FINISH	PAGE OF
	THIRD ANGLE PROJECTION						
		RFP	02-18-1999	PREV			SIZE B
		NETWORK FILE NAME	SS516995				DRAWING NO SS516995
							REV 4

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™ Regal Beloit America, Inc.	
ECO ECO-0077067	APPROVED BY EWH	DATE 05-05-2015			DATE 09-27-1996	DESCRIPTION	
ECO DESCRIPTION UPDATED TO SOLIDWORKS			APPROVED BY GK		CONN DIAGRAM-EXTERNAL 3Ø SINDLE VOLTAGE		
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.			DATE 09-30-1996	DESCRIPTION			
			REFERENCE	MATERIAL	PROCESS/FINISH		
			THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER EE7300U	SHEET 1 OF 1	

CERTIFICATION DATA SHEET

Model#: 445TSHFN9001 BD
 CONN. DIAGRAM: A-EE7300U
 OUTLINE: B-SS516995-2025

WINDING#: T445276 NONE 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150	112	3600	3575	445TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	168	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95.8	3/4 LOAD EFF: 95.8	1/2 LOAD EFF: 95	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 88	3/4 LOAD PF: 85	1/2 LOAD PF: 78	95.4	SQ CAGE INV RATED	51

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
221 LB-FT	1085	275 LB-FT 124	640 LB-FT 288	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	31 LB-FT^2	120 LB-FT^2	15 SEC.	2	2200 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

INVERTER TORQUE: CONSTANT 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: 06/21/2017 05:07:11 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/29/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



445TSHFN9001

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	51.0	65.0	95.0	130	168	190	206	1,085	
Torque (ft-lb)	0.00	55.0	110	165	221	254	276	275	
RPM	3600	3595	3588	3582	3575	3,570	3568	0	
Efficiency (%)		91.7	95.0	95.8	95.8	95.8	95.4		
P.F. (%)	5.0	58.0	78.0	85.0	88.0	88.5	89.0	21.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																																					
Speed (RPM)	0	1800	3300	3575	3600																																					
Current (Amps)	1,085	977	700	168	51.0																																					
Torque (ft-lb)	275	248	640	221	0.00																																					
— Efficiency (%) — P.F. (%) — Current (Amps) <table><caption>Efficiency, P.F., and Current vs Load</caption><thead><tr><th>LOAD</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>0%</td><td>92.0</td><td>100.0</td><td>50.0</td></tr><tr><td>20%</td><td>93.0</td><td>120.0</td><td>55.0</td></tr><tr><td>40%</td><td>94.0</td><td>140.0</td><td>65.0</td></tr><tr><td>60%</td><td>95.0</td><td>160.0</td><td>80.0</td></tr><tr><td>80%</td><td>95.5</td><td>180.0</td><td>100.0</td></tr><tr><td>100%</td><td>95.8</td><td>200.0</td><td>130.0</td></tr><tr><td>120%</td><td>96.0</td><td>210.0</td><td>160.0</td></tr></tbody></table>						LOAD	Efficiency (%)	P.F. (%)	Current (Amps)	0%	92.0	100.0	50.0	20%	93.0	120.0	55.0	40%	94.0	140.0	65.0	60%	95.0	160.0	80.0	80%	95.5	180.0	100.0	100%	95.8	200.0	130.0	120%	96.0	210.0	160.0					
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						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 wk²		31.0 Lb-Ft²																																								
Ref Wdg		T445276 NONE																																								
Sound Pressure @ 1M		78 dBA																																								
VFD Rating		CONSTANT 10:1																																								
Outline Dwg		B-SS516995-2025																																								
Conn. Diag		A-EE7300U																																								
Additional Specifications:																																										
0																																										
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EQUIV CKT (OHMS / PHASE)																																										
R1		R2		X1		X2		Xm																																		
0.0140		0.0130		0.1660		0.1400		5.1600																																		

Speed -Torque Curve

