

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 444TTFN16581

Catalog No: E646A

100 HP Severe Duty Motor, 3 phase, 1200 RPM, 460 V, 444T Frame, TEFC
Severe Duty Motors



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2021 Regal Rexnord Corporation, All Rights Reserved. MC017097E

RegalRexnord

Nameplate Specifications

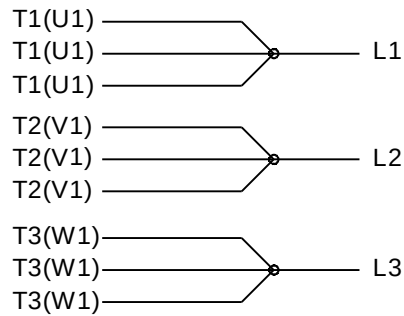
Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	460 V
Current	124.0 A	Speed	1188 rpm
Service Factor	1.15	Phase	3
Efficiency	95 %	Power Factor	80
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	444T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6318	Opp Drive End Bearing Size	6316
UL	Recognized	CSA	Y
CE	Y	IP Code	54
Number of Speeds	1		

Technical Specifications

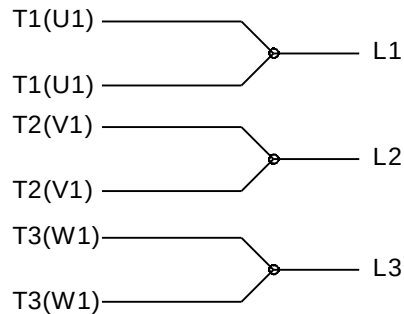
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.048 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	43.34 in
Frame Length	20.25 in	Shaft Diameter	3.375 in
Shaft Extension	8.75 in	Assembly/Box Mounting	F1/F2 Capable
Connection Drawing	A-EE7300U	Outline Drawing	B-SS513797-2025

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:10/11/2021

IF MOTOR HAS 9 LEADS

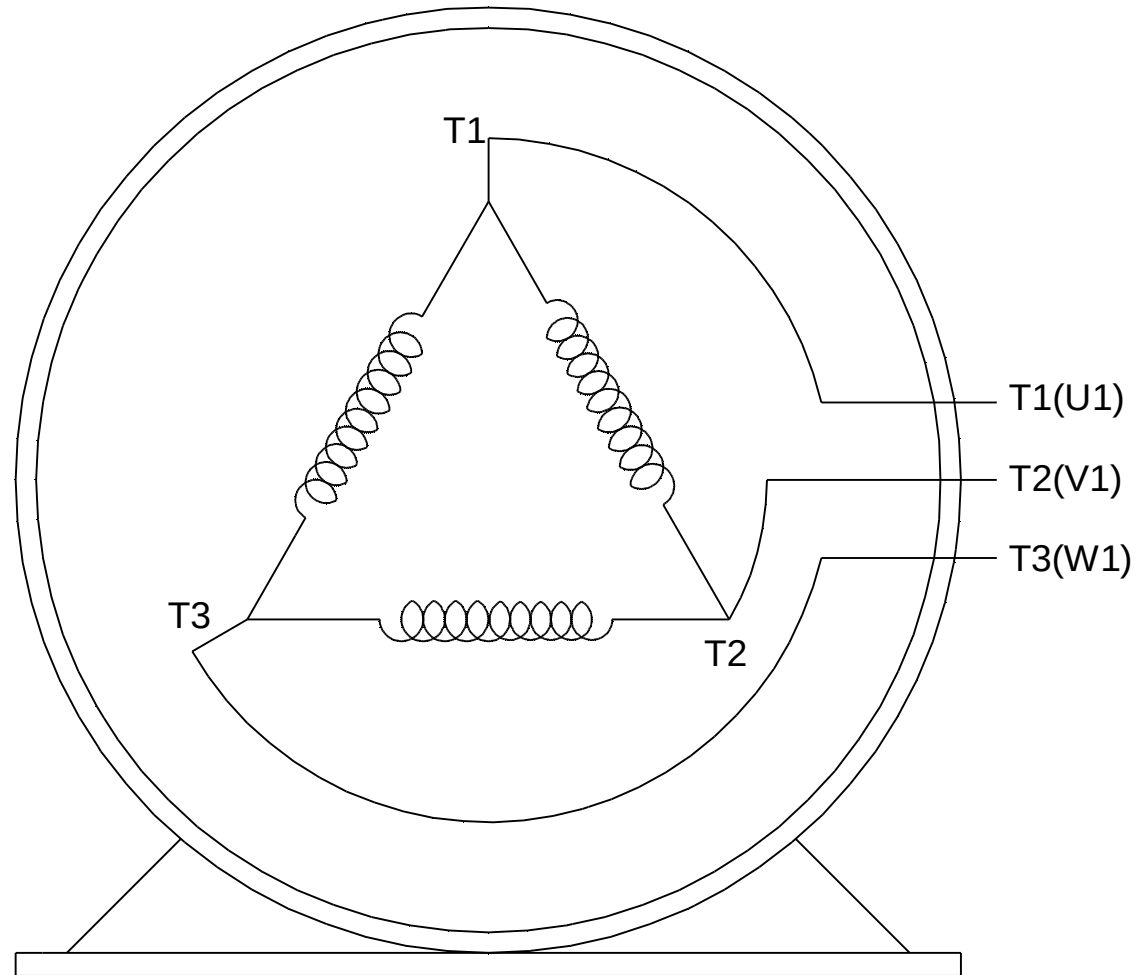
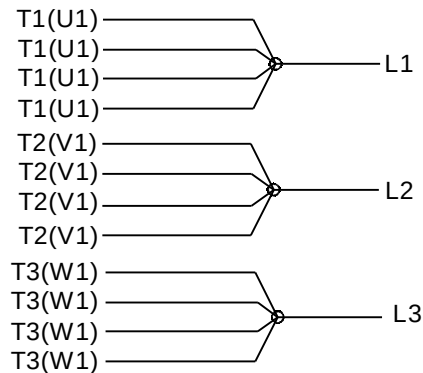


IF MOTOR HAS 6 LEADS



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 CONN DIAGRAM-EXTERNAL 3Ø SINDLE VOLTAGE		
ECO DESCRIPTION UPDATED TO SOLIDWORKS				APPROVED BY GK			
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	MATERIAL PROCESS/FINISH		
				REFERENCE			
						THIRD ANGLE PROJECTION	SIZE A

CERTIFICATION DATA SHEET

Model#: 444TTFN16581 AA
 CONN. DIAGRAM: A-EE7300U
 OUTLINE: B-SS513797-2025

WINDING#: T444689 NONE 3
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75	1200	1188	444T	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	124	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80	3/4 LOAD PF: 75	1/2 LOAD PF: 64.5	94.5	SQ CAGE INV RATED	53.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
442 LB-FT	725	750 LB-FT 170	1100 LB-FT 249	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	55 LB-FT^2	1400 LB-FT^2	25 SEC.	2	1850 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAIN
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						
6318	6316	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

* 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					
	NONE FT-LB		NONE V		NONE Hz	

DATE: 06/21/2017 04:33:02 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/20/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



444TTFN16581

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	53.5	60.5	77.0	99.0	124	140	152	725	
Torque (ft-lb)	0.00	110	220	331	442	509	554	750	
RPM	1200	1198	1195	1192	1188	1,186	1,184	0	
Efficiency (%)		90.2	94.1	95.0	95.0	95.0	94.5		
P.F. (%)	4.0	43.0	64.5	75.0	80.0	81.5	82.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																													
Speed (RPM)	0	600	1150	1188	1200	Information Block																												
Current (Amps)	725	650	425	124	53.5	HP		100.0																										
Torque (ft-lb)	750	600	1,100	442	0.00	Sync. RPM		1200																										
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>45</td><td>53.5</td></tr><tr><td>50</td><td>93</td><td>65</td><td>65</td></tr><tr><td>75</td><td>94</td><td>75</td><td>77.5</td></tr><tr><td>100</td><td>95</td><td>80</td><td>90</td></tr><tr><td>125</td><td>95</td><td>82</td><td>124</td></tr></tbody></table>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	90	45	53.5	50	93	65	65	75	94	75	77.5	100	95	80	90	125	95	82	124	Frame		444		
						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																									
						25	90	45	53.5																									
						50	93	65	65																									
						75	94	75	77.5																									
						100	95	80	90																									
						125	95	82	124																									
						Enclosure		TEFC																										
						Construction		TFN																										
						Voltage		460 V																										
						Frequency		60 Hz																										
						Design		B																										
						LR Code letter		G																										
						Service Factor		1.15																										
						Temp Rise @ FL		70 ° C																										
						Duty		CONT																										
						Ambient		40 ° C																										
Elevation		1,000 feet																																
Rotor/Shaft wk²		55.0 Lb-Ft²																																
Ref Wdg		T444689 NONE																																
Sound Pressure @ 1M		72 dBA																																
VFD Rating		CONSTANT 2:1																																
Outline Dwg		B-SS513797-2025																																
Conn. Diag		A-EE7300U																																
Additional Specifications:																																		
0																																		
0																																		
EQUIV CKT (OHMS / PHASE)																																		
R1		R2		X1		X2		Xm																										
0.0340		0.0220		0.2350		0.2780		4.8420																										

Speed -Torque Curve

