marathon®

Severe Duty Motors

Model No: 324TTTS16535
Catalog No: U1875

Severe Duty Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 324TV Frame, TEAO

©2026 Marathon, All Rights Reserved.

marathon®

Product Information Packet: Model No: 324TTTS16535, Catalog No: U1875 Severe Duty Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 324TV Frame, TEAO

Nameplate Specifications

Phase	**3**	Output HP	**40 & 30 Hp**
Output KW	**30.0 & 22.4 kW**	Voltage	**230/460 & 190/380 V**
Speed	**1780 & 1480 r/min**	Synchronous RPM	**1800 & 1500 r/min**
Service Factor	**1.15 & 1.15**	Frame	**324TV**
Enclosure	**Totally Enclosed Air Over**	Thermal Protection	**No Protection**
Efficiency	**94.1 & 94.1 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**95/47.5 & 87/43.5 A**
Power Factor	**83**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**6311**	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	**4**	Rotation	**Reversible**
Resistance Main	**.135 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal Or Up Or Down**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**27.72 in**
Frame Length	**13.0 in**	Shaft Diameter	**2 1/8 in**
Shaft Extension	**5.5 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 20:1**		

Drawings

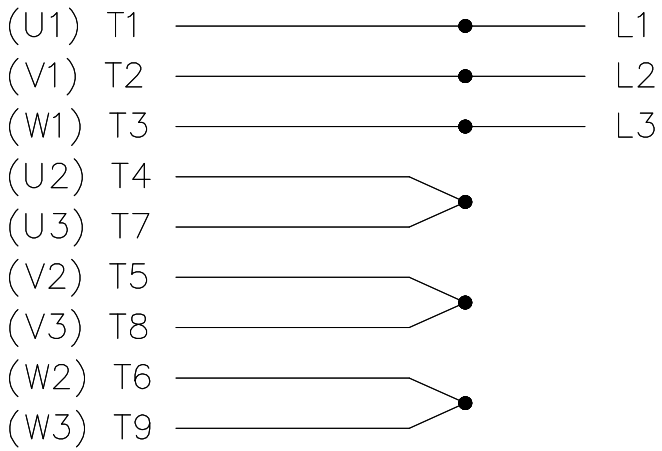
Connection Drawing	**A-EE7308**	Outline Drawing	**B-SS310468-1300**

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 16/10/2026

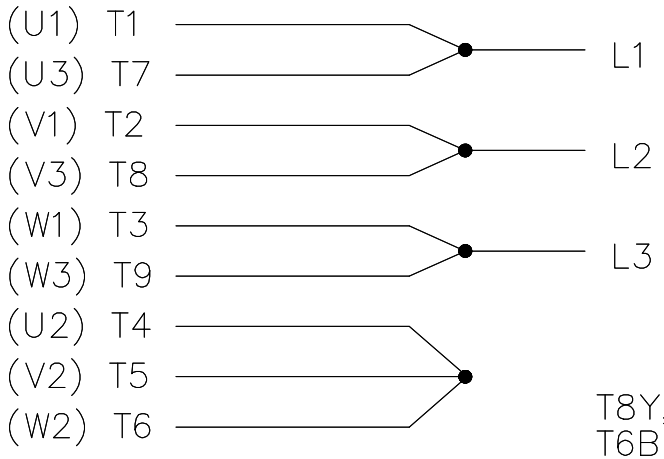
Uncontrolled Copy

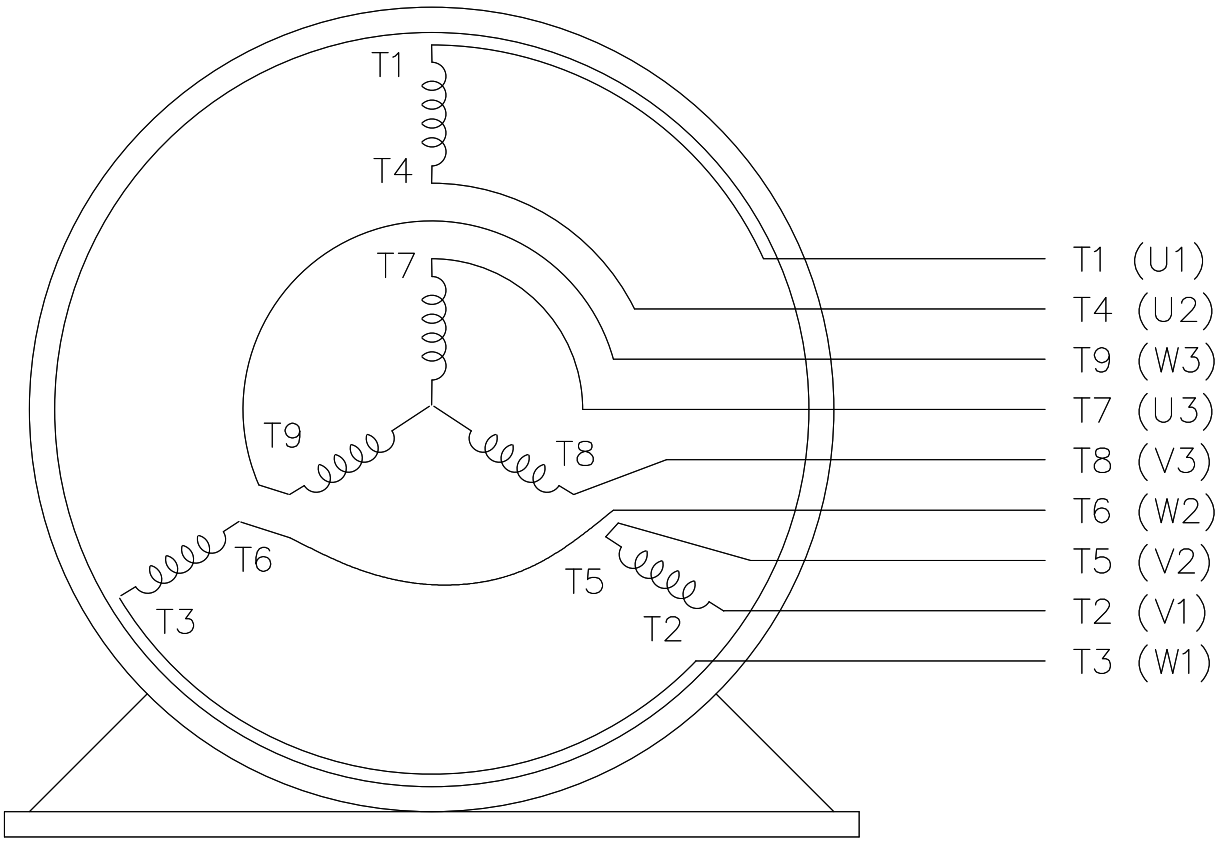
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE





VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD CONNECTION

L1	WHITE
L2	RED
L3	BLACK

DRAWING REVISION: J	REVISION BY: SB	REV DATE/ © DATE: 08/01/2025
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

COPYRIGHT (PER REVISION DATE) MARATHON ELECTRIC, LLC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF MARATHON ELECTRIC, LLC. ("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.

PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY: RM	
DATE: 11/20/1990	
APPROVED BY: SAS	
DATE: 04/24/2003	
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	3 of 5 EE7308	1 OF 1

Uncontrolled Copy

Data Sheet

Date: 6/19/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

324TTTS16535

Submittal

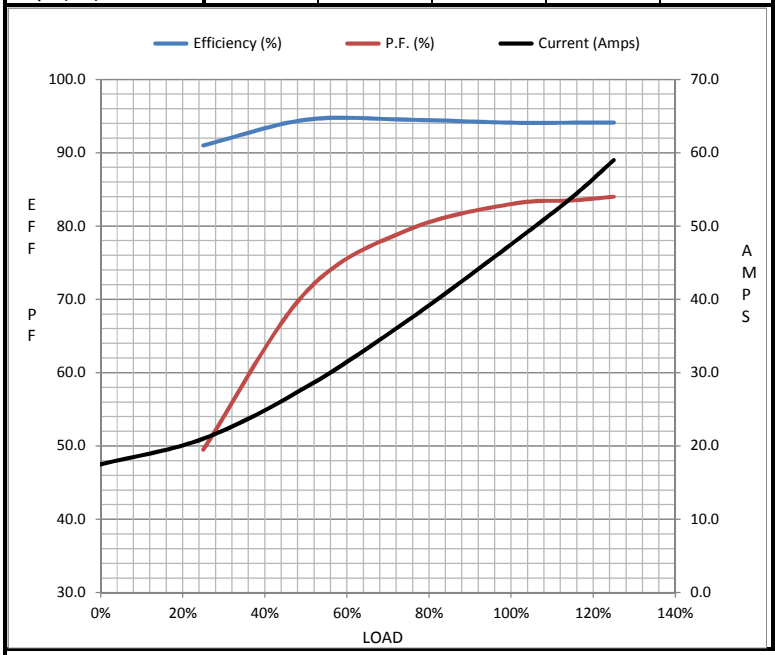
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	17.5	21.0	28.0	37.2	47.5	54.0	59.0	290	
Torque (ft-lb)	0.00	29.5	58.5	88.5	118	136	148	218	
RPM	1800	1795	1790	1785	1780	1,775	1772	0	
Efficiency (%)		91.0	94.5	94.5	94.1	94.1	94.1		
P.F. (%)	4.5	49.5	71.0	79.5	83.0	83.5	84.0	34.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1685	1780	1800
Current (Amps)	290	255	165	47.5	17.5
Torque (ft-lb)	218	190	305	118	0.00



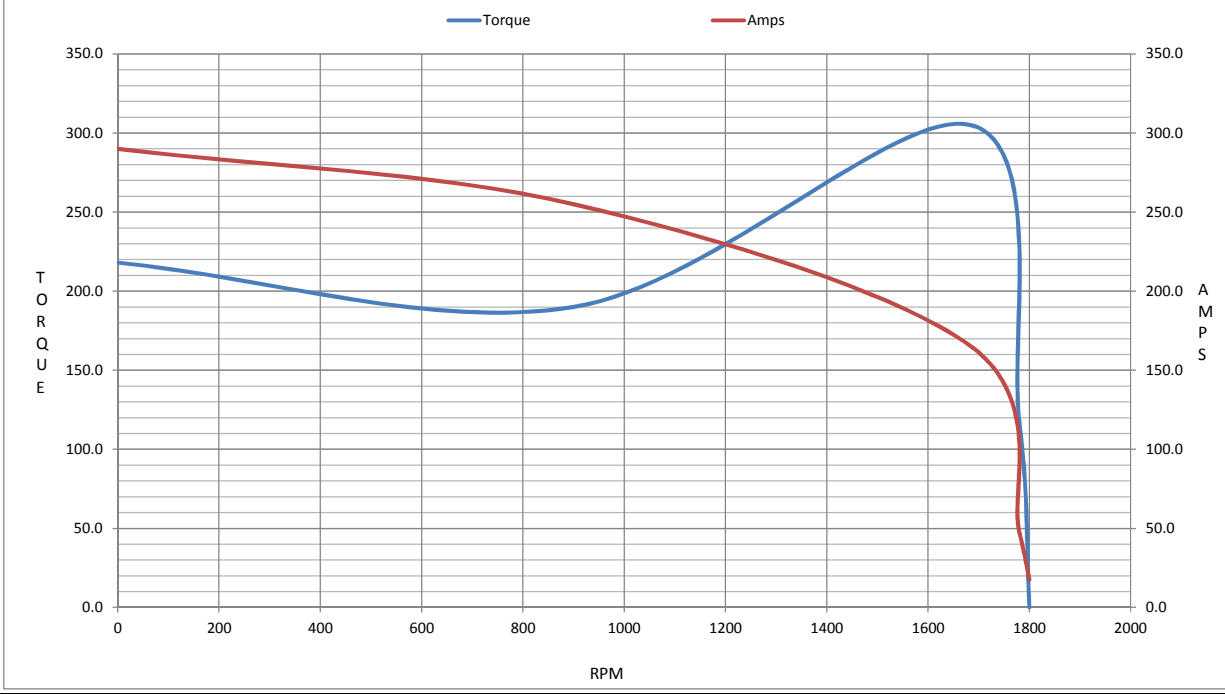
Information Block

HP	40.0
Sync. RPM	1800
Frame	324
Enclosure	TEAO
Construction	TTN
Voltage	230/460#190/380 V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	0 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	8.8 Lb-Ft²
Ref Wdg	K3244127 R10
Sound Pressure @ 1M	999 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	B-SS310468-1300
Conn. Diag	A-EE7308
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0820	0.0660	0.5790	0.7980	13.5140

Speed -Torque Curve



Uncontrolled Copy

CERTIFICATION DATA SHEET

Model#:	324TTTS16535 AN	**WINDING#:**	K3244127 R10 1
CONN. DIAGRAM:	A-EE7308	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS310468-1300		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40&30	30&22.4	1800	1780&1480	324TV	TEAO	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	95/47.5&87/43.5	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 94.1&94.1	3/4 LOAD EFF: 94.5	1/2 LOAD EFF: 94.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 83&82	3/4 LOAD PF: 79.5	1/2 LOAD PF: 71	93.6	SQ CAGE INV RATED	35 / 17.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
118 LB-FT	580 / 290	218 LB-FT 185	305 LB-FT 258	0

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
- dBA	- dBA	8.8 LB-FT^2	275 LB-FT^2	25 SEC.	2	675 LBS.

*** SUPPLEMENTAL INFORMATION ***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6312	BALL 6311	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

INVERTER TORQUE: CONSTANT 20:1
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

*
NOTES
*

DATE: 06/21/2017 05:48:12 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.