marathon®

Severe Duty Motors

Model No: 324THFCD9040
Catalog No: W073-P

Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 324TCV Frame, TEFC

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Product Information Packet: Model No: 324THFCD9040, Catalog No: W073-P Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 324TCV Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**40 Hp**
Output KW	**30.0 kW**	Voltage	**460 V**
Speed	**1782 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**324TCV**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**94.1 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**47.5 A**
Power Factor	**84**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6312**
Opp Drive End Bearing Size	**6212**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**56**	Number of Speeds	**1**

Technical Specifications

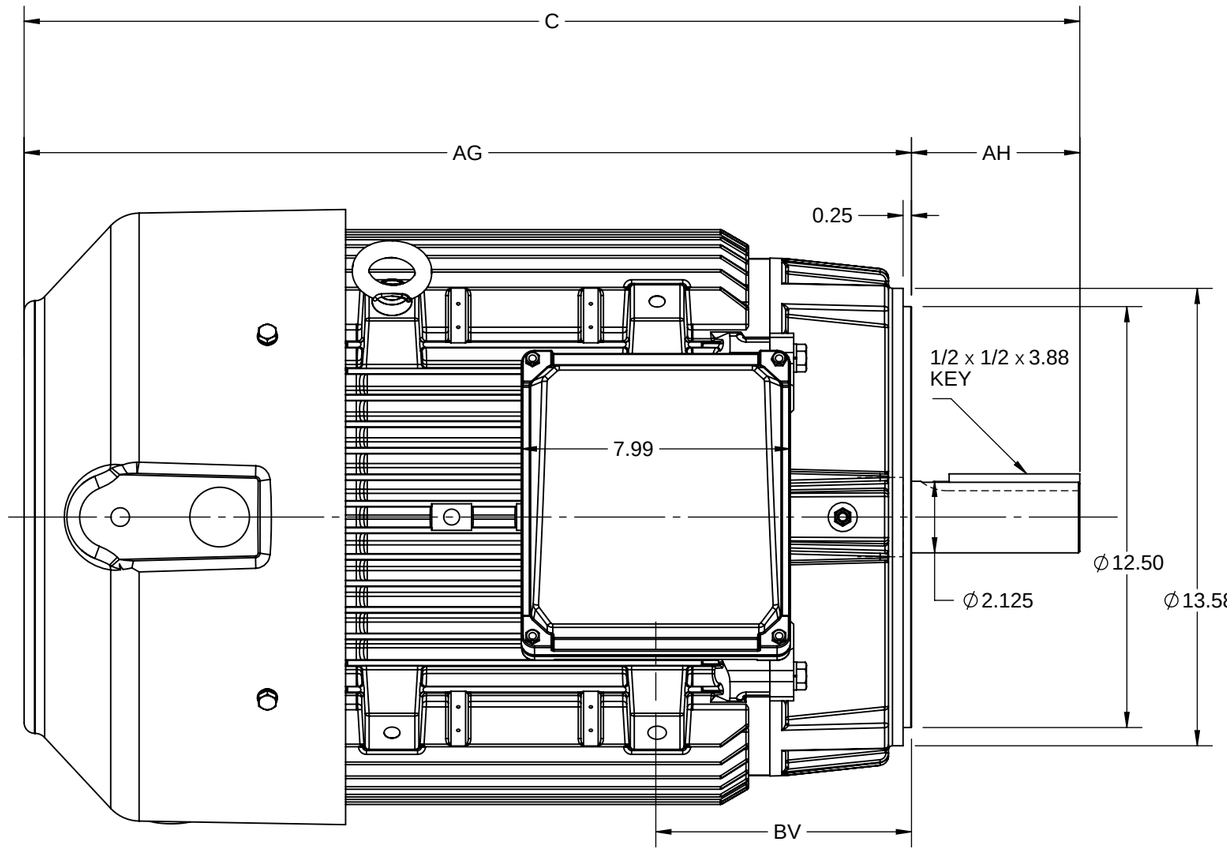
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.18 O**	Mounting	**Round**
Motor Orientation	**Horizontal Or Shaft Down**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Shaft Diameter	**2.125 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Constant 2:1/Variable 10:1**

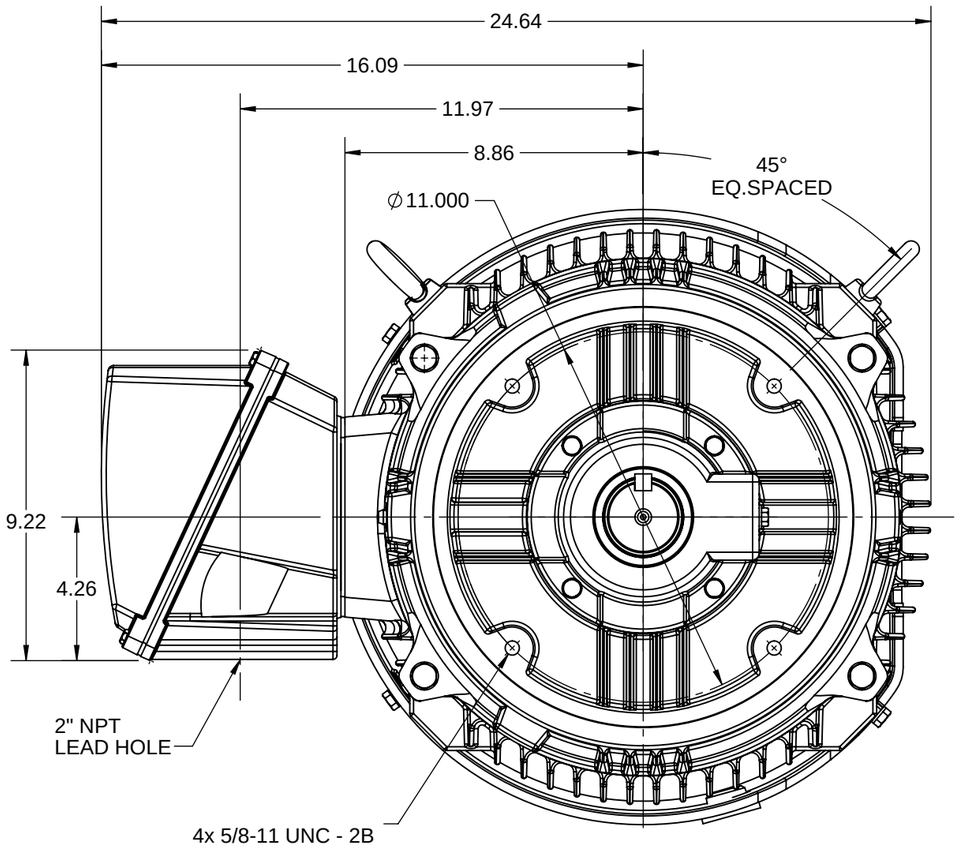
Drawings

Connection Drawing	**EE7300**	Outline Drawing	**SS621011**

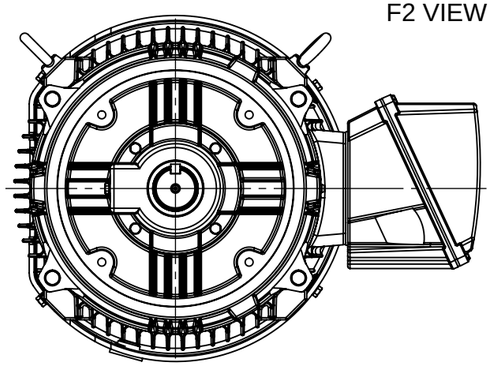
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C	AG	AH	BV	MOUNTING
31.35	26.35	5.00	7.59	F1 OR F2





F2 VIEW



DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	05/20/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026330	RMS	05/20/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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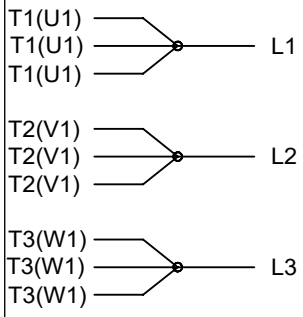
DRAWN BY	DESCRIPTION
BISWA	OUTLINE
DATE	324/326TC FR-NEMA-SD & IEEE841
07/04/2020	
APPROVED BY	
SBD	
DATE	
07/04/2020	
REFERENCE	MATERIAL / PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER SS621011 / SHEET 1 OF 1

marathon™

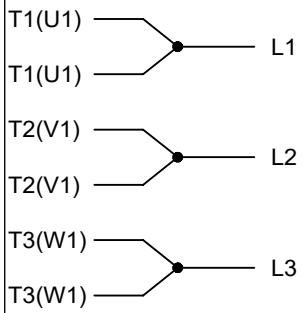
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS

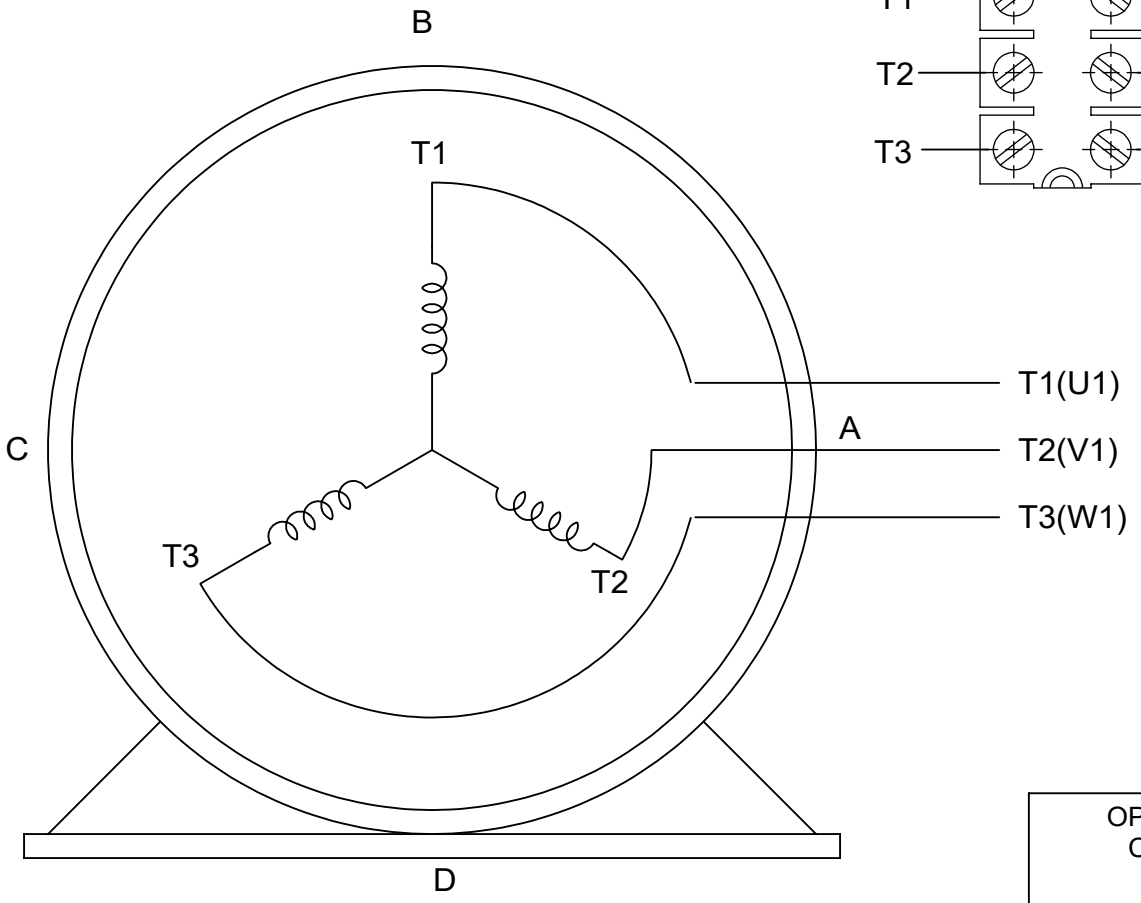
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



VIEW OF TERMINAL END

TERMINAL BLOCK WHEN SPECIFIED

OPTIONAL CORD
CONNECTION

L1	WHITE
L2	RED
L3	BLACK

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

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DRAWN BY: DA	
DATE: 03-26-1993	
APPROVED BY: TB	
DATE: 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

Data Sheet

Date: 10/29/2021
Customer:
Attention:
Submitted by:

marathon® Motors

324THFCD9040

Submittal

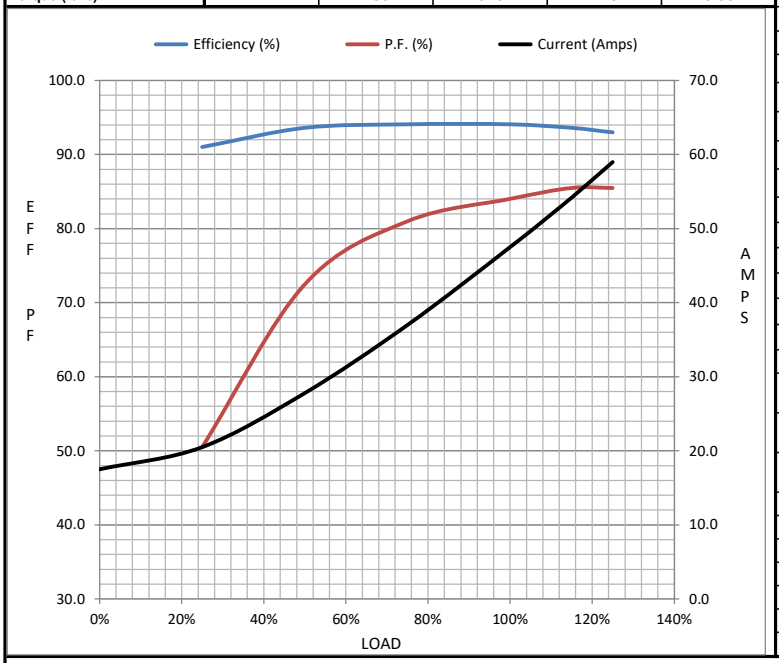
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	17.5	20.5	27.8	37.0	47.5	54.2	59.0	290	
Torque (ft-lb)	0.00	29.3	58.5	88.3	118	136	149	212	
RPM	1800	1795	1790	1788	1782	1,780	1778	0	
Efficiency (%)		91.0	93.6	94.1	94.1	93.6	93.0		
P.F. (%)	5.0	50.5	72.5	81.0	84.0	85.5	85.5	32.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1710	1782	1800
Current (Amps)	290	230	170	47.5	17.5
Torque (ft-lb)	212	180	313	118	0.00



Information Block

HP	40.0	
Sync. RPM	1800	
Frame	324	
Enclosure	TEFC	
Construction	TFC	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	60	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	11.2	Lb-Ft²
Ref Wdg	HA32004017 NONE	
Sound Pressure @ 1M	72	dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1	
Outline Dwg	SS621011	
Conn. Diag	EE7300	

Additional Specifications:

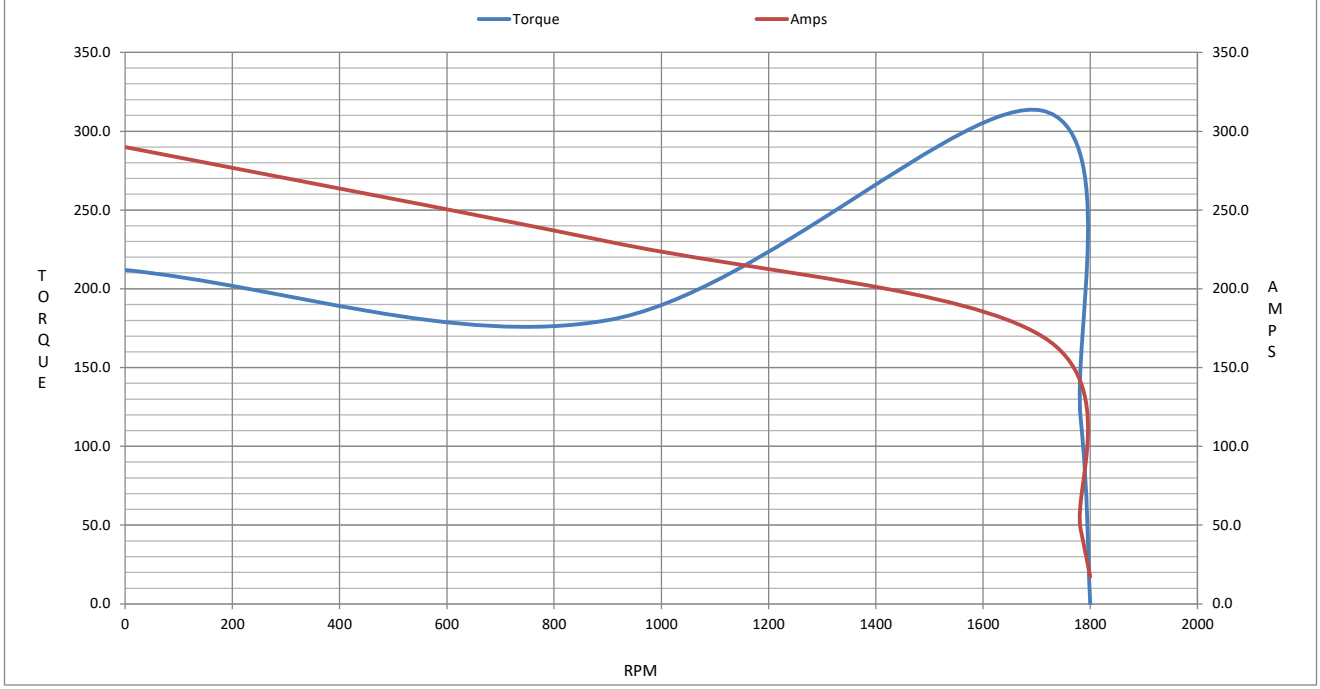
0

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EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.1130	0.0610	0.4680	0.8300	15.3850

Speed -Torque Curve



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

marathon® Motors

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: EE7300
OUTLINE: SS621011
WINDING: HA32004017 NONE 5
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 324THFCD9040
CAT #: W073-P
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
40	30	1800	1782	324TCV	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	47.5	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	94.1	3/4 LD EFF	94.1	1/2 LD EFF	93.6	GTD EFF	ELECT. TYPE	
F.L. PF	84.0	3/4 LD PF	81.0	1/2 LD PF	72.5	93.6	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
118 LB-FT	290	212 LB-FT 180%	313 LB-FT 265%	60	

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
72 dBA	81 dBA	11.2 LB-FT²	275 LB-FT²	20 SEC.	2	650 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	SHAFT DOWN	PREMIUM SEVERE DUTY	NONE	YES	NONE	BLUE - RAL 5003 (EPOXY)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312	6212						

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
0.113	0.061	0.468	0.83	15.385	0.080	ODE

* NOTES *

INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE PPR

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE HZ:

PREPARED BY:
DATE: 10/29/2021

UL: V - LI,ME-INS,CONST UL REC

FORM: 3531 REV_4 2/27/06