marathon®

Vertical Pump Motors

Model No: 286TTDN16093
Catalog No: M719

Vertical Pump Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286HPV Frame, DP

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Product Information Packet: Model No: 286TTDN16093, Catalog No: M719 Vertical Pump Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286HPV Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**20 Hp**
Output KW	**14.9 kW**	Voltage	**230/460 V**
Speed	**1180 r/min**	Synchronous RPM	**1200 r/min**
Service Factor	**1.15**	Frame	**286HPV**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**92.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**52.0/26.0 A**
Power Factor	**78**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6311**
Opp Drive End Bearing Size	**7311**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**23**	Number of Speeds	**1**

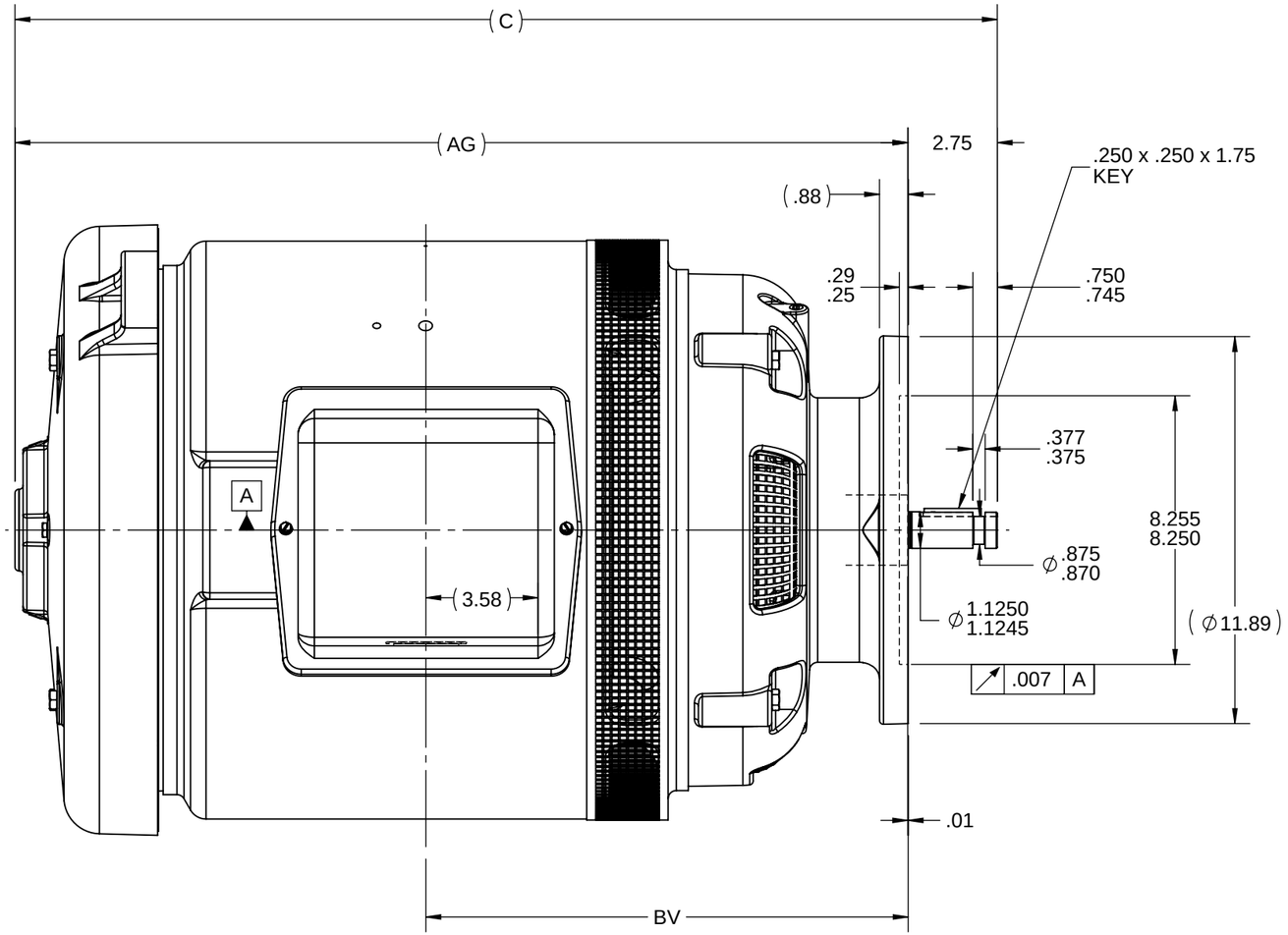
Technical Specifications

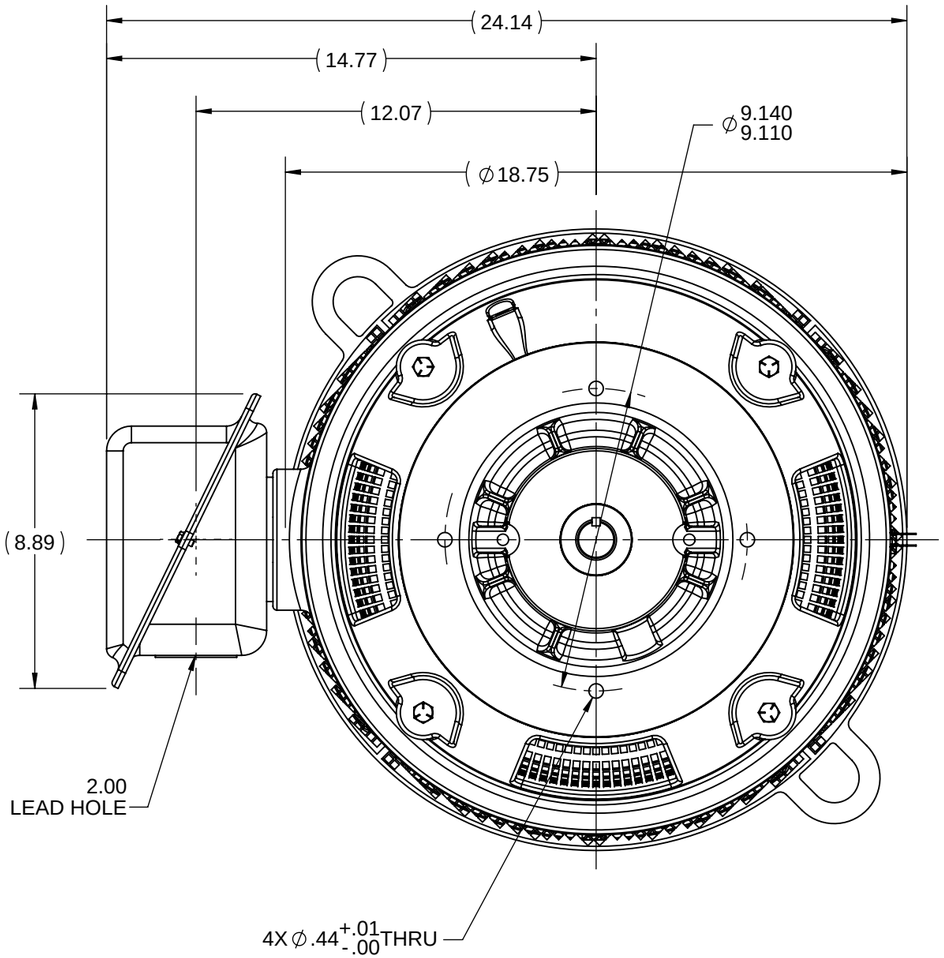
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Across The Line**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**.37 O**	Mounting	**Round**
Motor Orientation	**Shaft Down**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Single Angular Contact**	Frame Material	**Cast Iron**
Shaft Type	**HP**	Overall Length	**30.18 in**
Frame Length	**16.12 in**	Shaft Diameter	**1 1/8 in**
Shaft Extension	**2.75 in**	Assembly/Box Mounting	**F1/F2 Capable**

Drawings

Connection Drawing	**EE7308**	Outline Drawing	**B-SS312773-1612**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM SHAFT EXTENSION END OF MOTOR.

DASH	FRAME	C	BV	AG
1612	284/6HP	30.18	14.81	27.43

DRAWING REVISION	REVISION BY	REV DATE/© DATE
B	SB	05/27/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0026372	RMS	05/27/2026

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 INCH / 5.1 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	LPC
DATE	04-21-2016
APPROVED BY	TB
DATE	04-21-2016
REFERENCE	

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DESCRIPTION
OUTLINE
280 HP FR. - P'BASE - VERT. DR.PR.

MATERIAL | PROCESS/FINISH

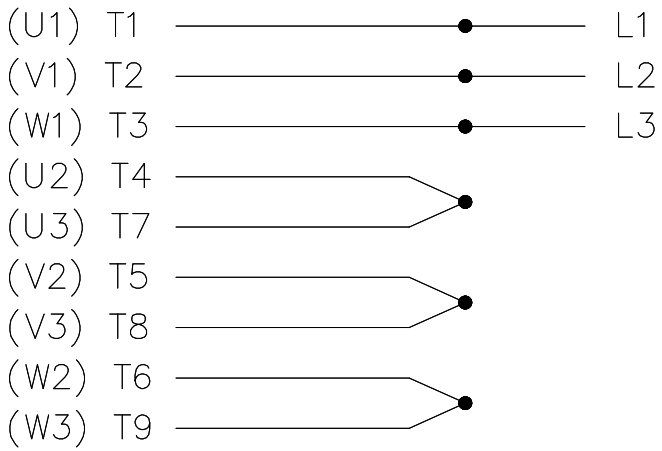
THIRD ANGLE PROJECTION

SIZE	DRAWING NUMBER	SHEET
B	SS312773	1 OF 1

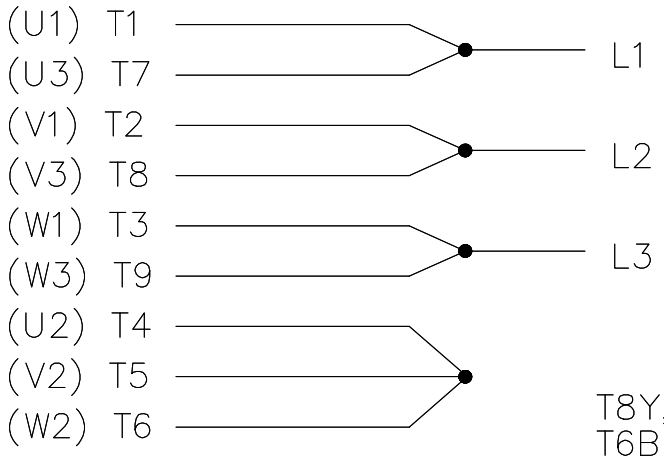
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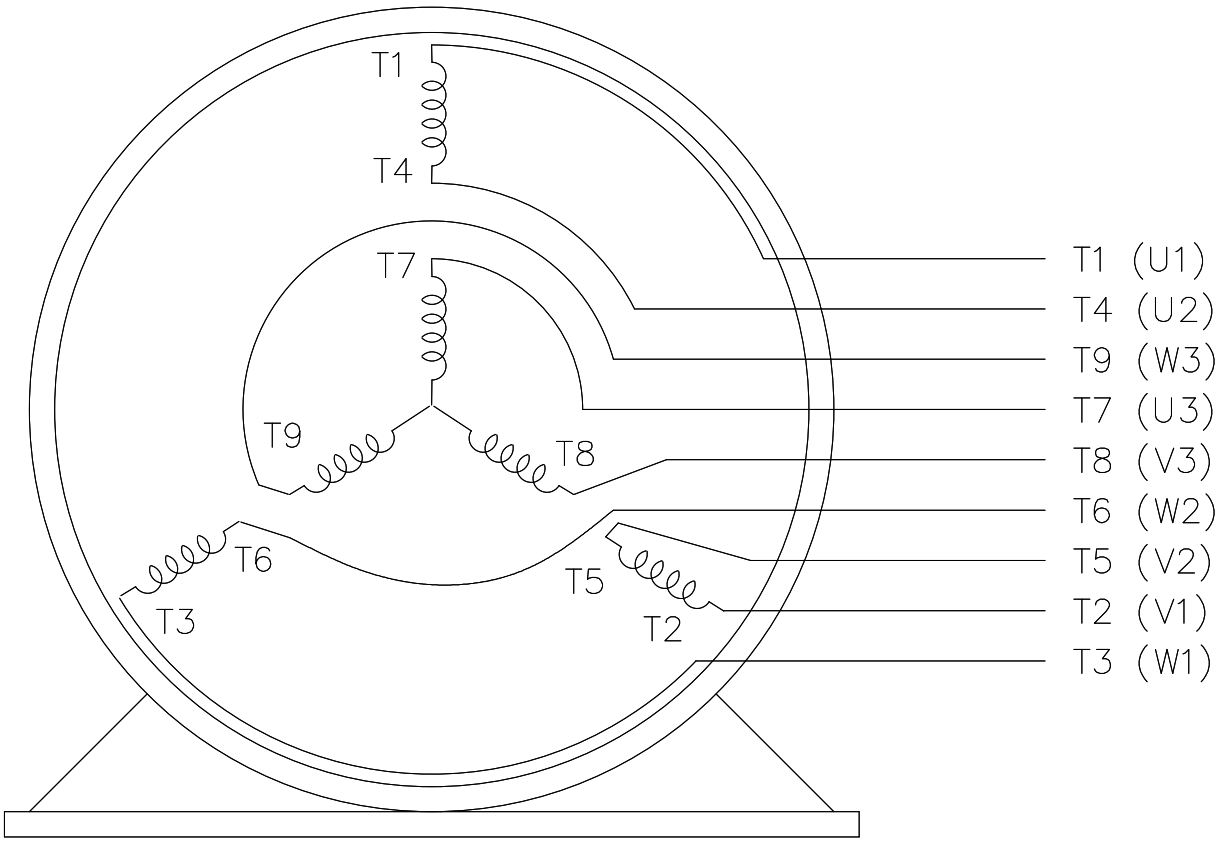
THREE PHASE
DUAL VOLTAGE MOTOR

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
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PRIMARY DIMENSIONS ARE INCH
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ARE FOR REFERENCE ONLY

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

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DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	4 of 5 EE7308	1 OF 1

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Data Sheet

Date: 11/30/2018
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

286TTDN16093

Submittal

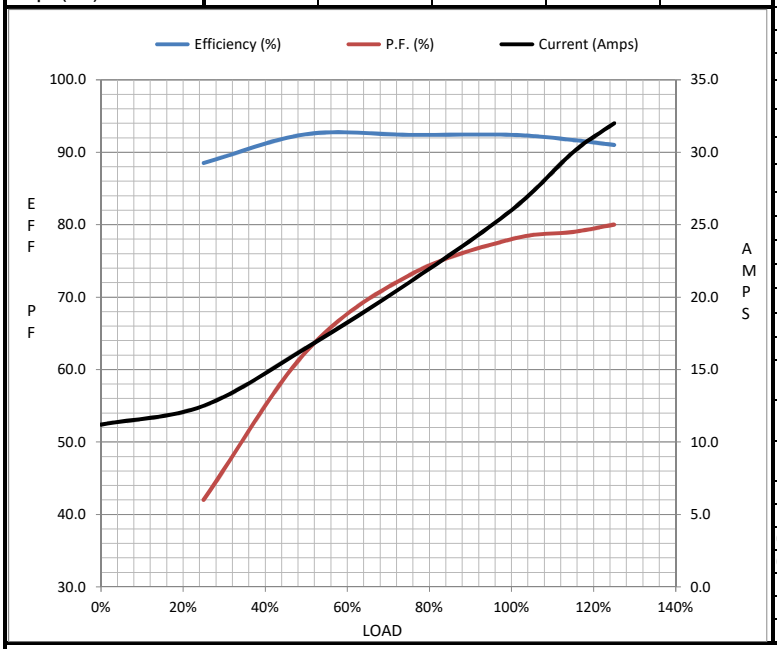
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	11.2	12.5	16.5	21.0	26.0	30.0	32.0	145	
Torque (ft-lb)	0.00	22.0	44.5	66.5	89.5	104	112	145	
RPM	1200	1195	1190	1185	1180	1,175	1170	0	
Efficiency (%)		88.5	92.5	92.4	92.4	91.7	91.0		
P.F. (%)	5.0	42.0	62.5	73.0	78.0	79.0	80.0	35.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1075	1180	1200
Current (Amps)	145	130	90.0	26.0	11.2
Torque (ft-lb)	145	130	225	89.5	0.00



Information Block

HP	20.0	
Sync. RPM	1200	
Frame	286	
Enclosure	DP	
Construction	TDS	
Voltage	230/460	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	30	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	5.2	Lb-Ft²
Ref Wdg	286689 NONE	
Sound Pressure @ 1M	66	dBA
VFD Rating	NONE	
Outline Dwg	B-SS312773-1612	
Conn. Diag	A-EE7308	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.2020	0.2120	1.2450	1.5050	21.1580

Speed -Torque Curve

