marathon®

Vertical Pump Motors

Model No: 405TTFS16129
Catalog No: M921B

Vertical Pump Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405HPV Frame, TEFC

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Product Information Packet: Model No: 405TTFS16129, Catalog No: M921B Vertical Pump Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405HPV Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**100 Hp**
Output KW	**75.0 kW**	Voltage	**230/460 V**
Speed	**1780 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**405HPV**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**95.4 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**226.0/113.0 A**
Power Factor	**87.5**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6314**
Opp Drive End Bearing Size	**6313**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**43**	Number of Speeds	**1**

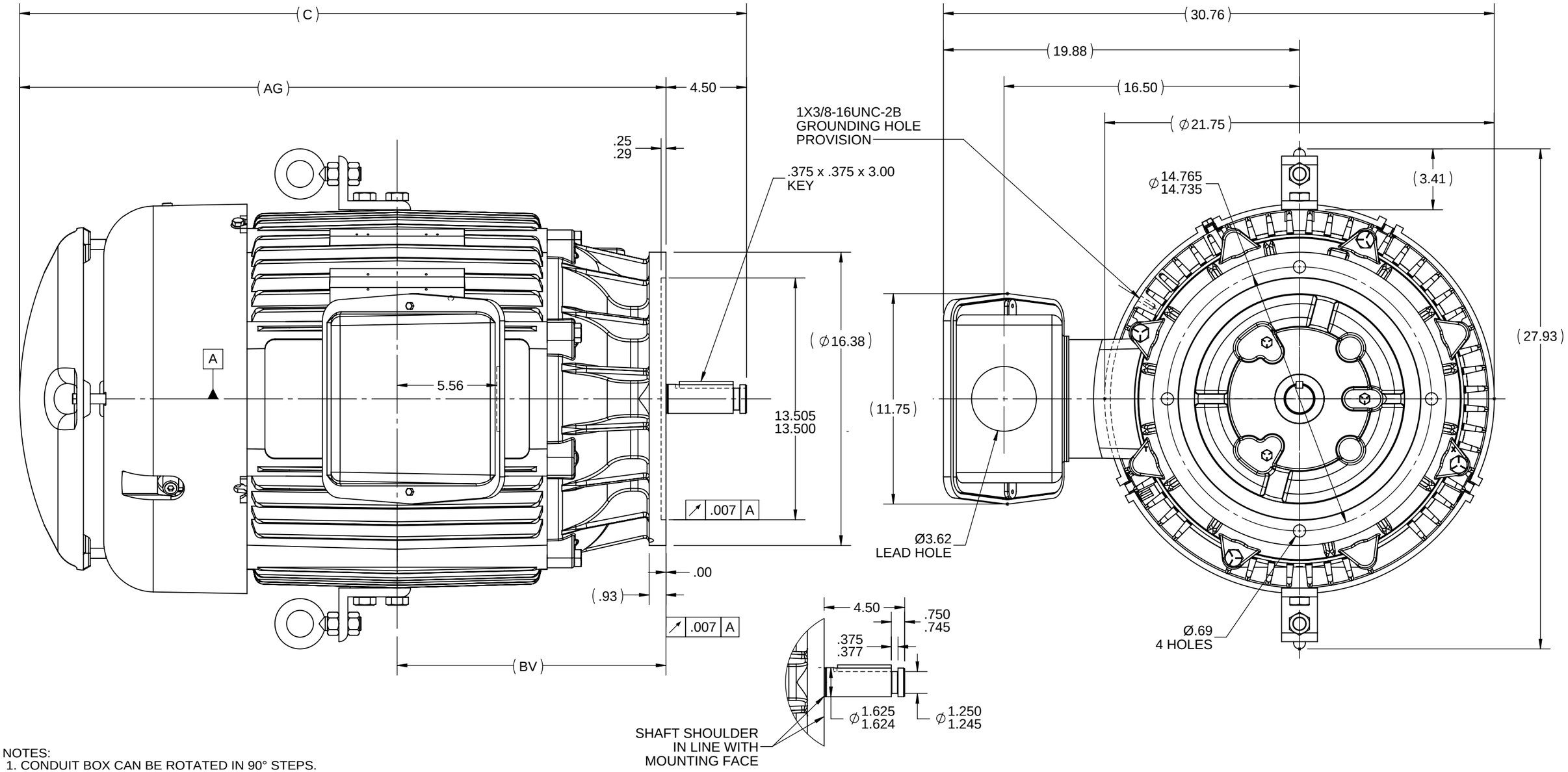
Technical Specifications

Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Across The Line**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.051 O**	Mounting	**Round**
Motor Orientation	**Shaft Down**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**HP**	Overall Length	**40.58 in**
Frame Length	**16.75 in**	Shaft Diameter	**1 5/8 in**
Shaft Extension	**4.50 in**	Assembly/Box Mounting	**F1/F2 Capable**

Drawings

Connection Drawing	**EE7308K**	Outline Drawing	**B-SS508404-1675**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
3. MAX. SHAFT RUNOUT .003
4. MAX. SHAFT ENDPLAY .015

DASH	FRAME	C	AG	BV
1675	400HPV	40.58	36.08	15.00

DRAWING REVISION	REVISION BY	REV DATE/© DATE
J	CP	08/26/2026
REQUEST NUMBER	APPROVED BY	DATE
NMR-0240744	VS	08/26/2026

REQUEST NUMBER DESCRIPTION
UPDATED DRAWING DESCRIPTION

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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	DD
DATE	04-28-1993
APPROVED BY	TB
DATE	04-30-1993
REFERENCE	

THIRD ANGLE PROJECTION

marathon™

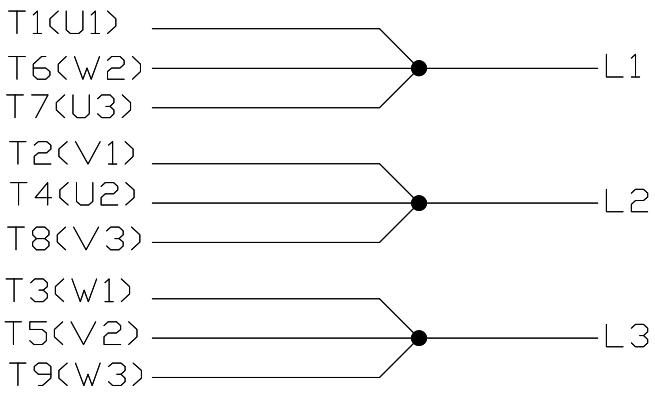
DESCRIPTION
OUTLINE
400HPV FR. - TEFC - 'P'--BASE - SPL. EXT.

MATERIAL | PROCESS/FINISH

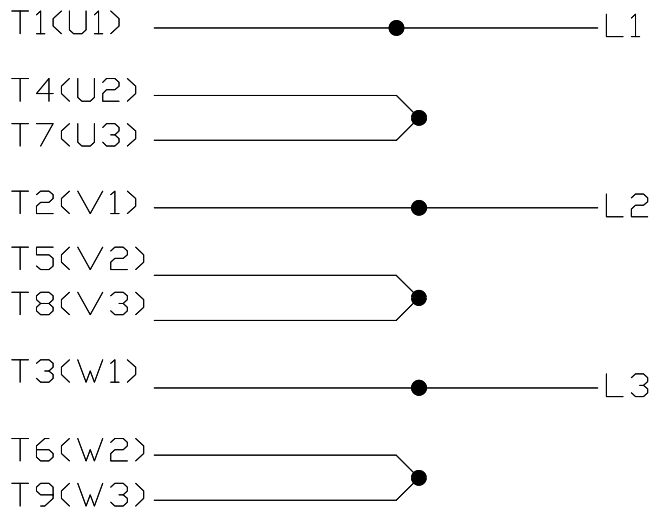
SIZE B | DRAWING NUMBER SS508404 | SHEET 1 OF 1

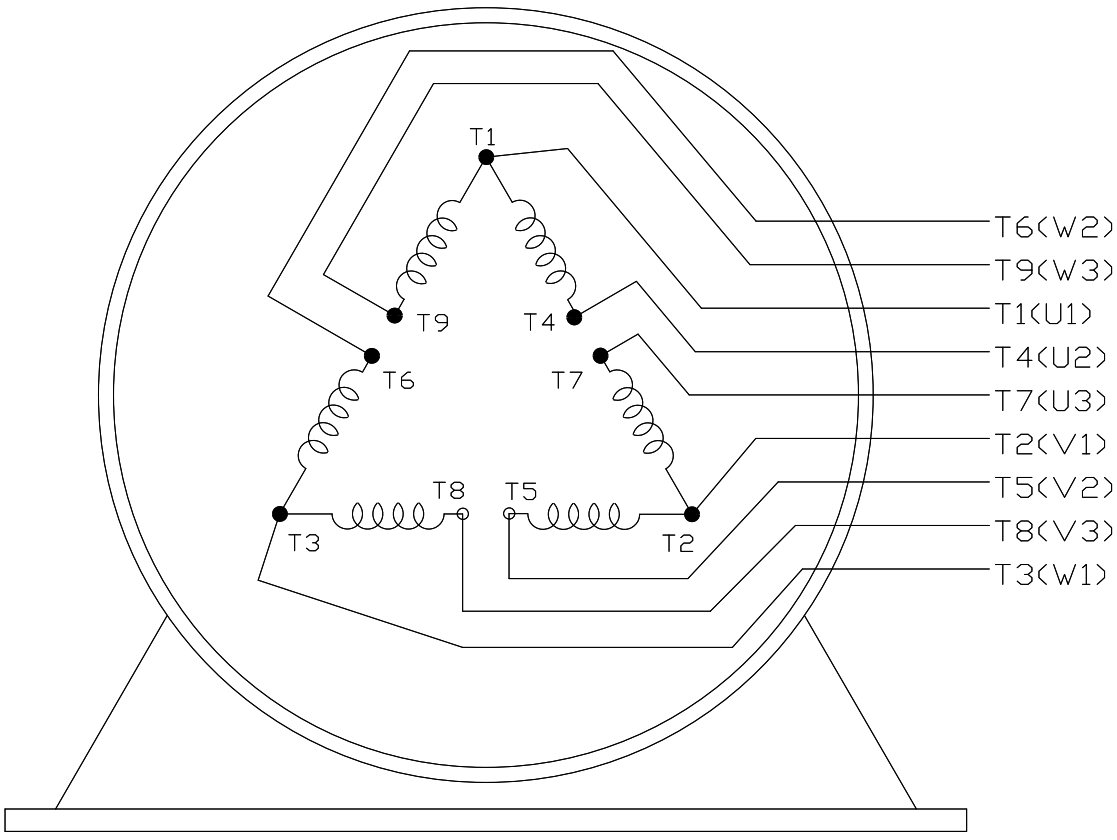
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LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

DRAWING REVISION: F	REVISION BY: SB	REV DATE/ © DATE: 08/01/2025	DRAWN BY: PGK	marathon™
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/01/2025	DATE: 06/04/1997	
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED			APPROVED BY: GK	DESCRIPTION: CONN DIAGRAM-EXTERNAL DELTA CON. - 3ø - 9 LEADS
			DATE: 06/15/1997	
			REFERENCE	MATERIAL / PROCESS/FINISH
			THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7308K / SHEET: 1 OF 1

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PRIMARY DIMENSIONS ARE INCH
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Data Sheet

Date: 12/3/2018
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

405TTFS16129

Submittal

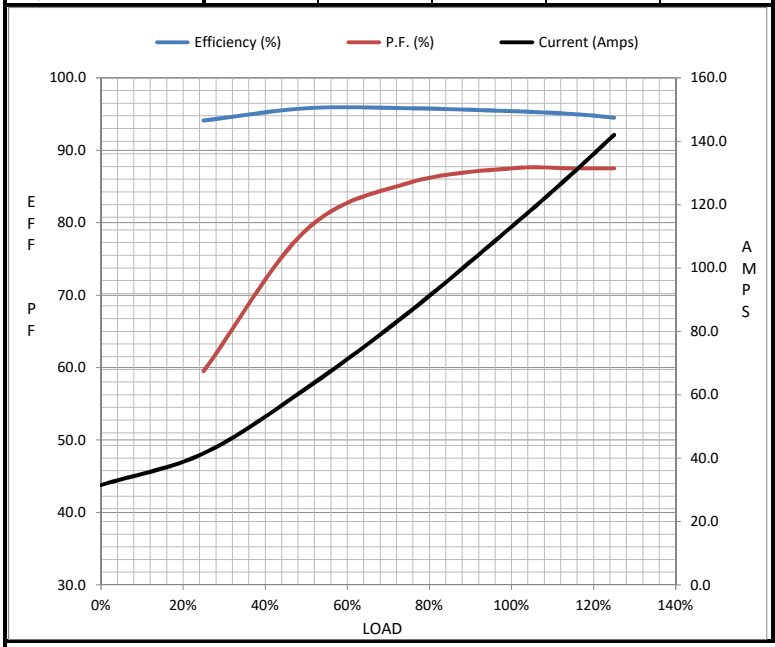
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	31.5	41.5	62.0	86.0	113	130	142	725	
Torque (ft-lb)	0.00	73.0	147	221	295	340	370	435	
RPM	1800	1795	1790	1785	1780	1,775	1775	0	
Efficiency (%)		94.1	95.8	95.8	95.4	95.0	94.5		
P.F. (%)	2.5	59.5	79.0	85.5	87.5	87.5	87.5	26.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1705	1780	1800
Current (Amps)	725	653	413	113	31.5
Torque (ft-lb)	435	370	720	295	0.00



Information Block

HP	100.0	
Sync. RPM	1800	
Frame	405	
Enclosure	TEFC	
Construction	TFS	
Voltage	230/460	V
Frequency	60	Hz
Design	A	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	80	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	26.5	Lb-Ft²
Ref Wdg	T4054176 NONE	
Sound Pressure @ 1M	72	dBA
VFD Rating	NONE	
Outline Dwg	B-SS508404-1675	
Conn. Diag	A-EE7308K	

Additional Specifications:

0

0

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0400	0.0260	0.2900	0.2640	8.4060

