PRODUCT INFORMATION PACKET

Model No: 404TTDS16102
Catalog No: M736
50 HP Vertical Solid Shaft P-Base Motor, 3 phase, 900 RPM, 460 V, 404HPV Frame, ODP
Vertical Pump Motors

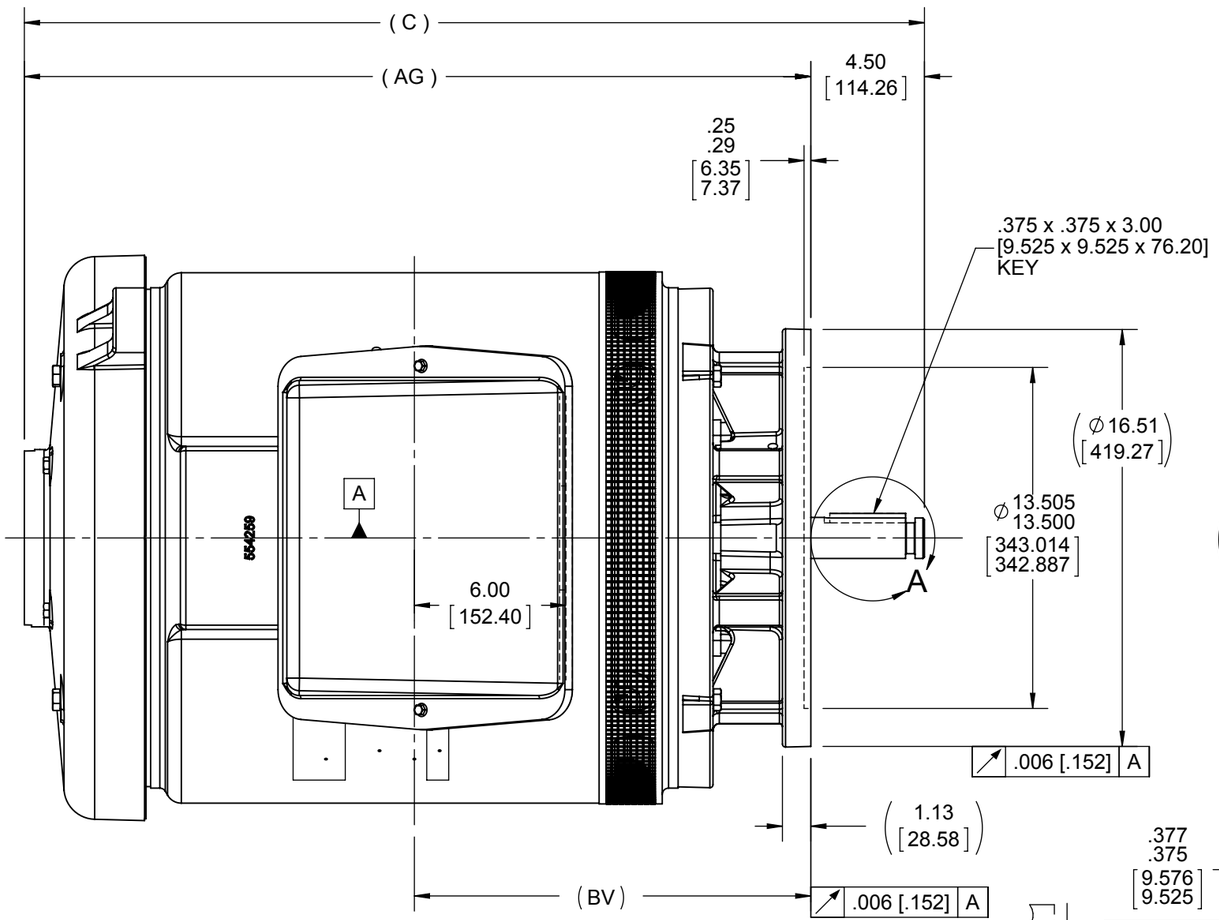
marathon® Motors

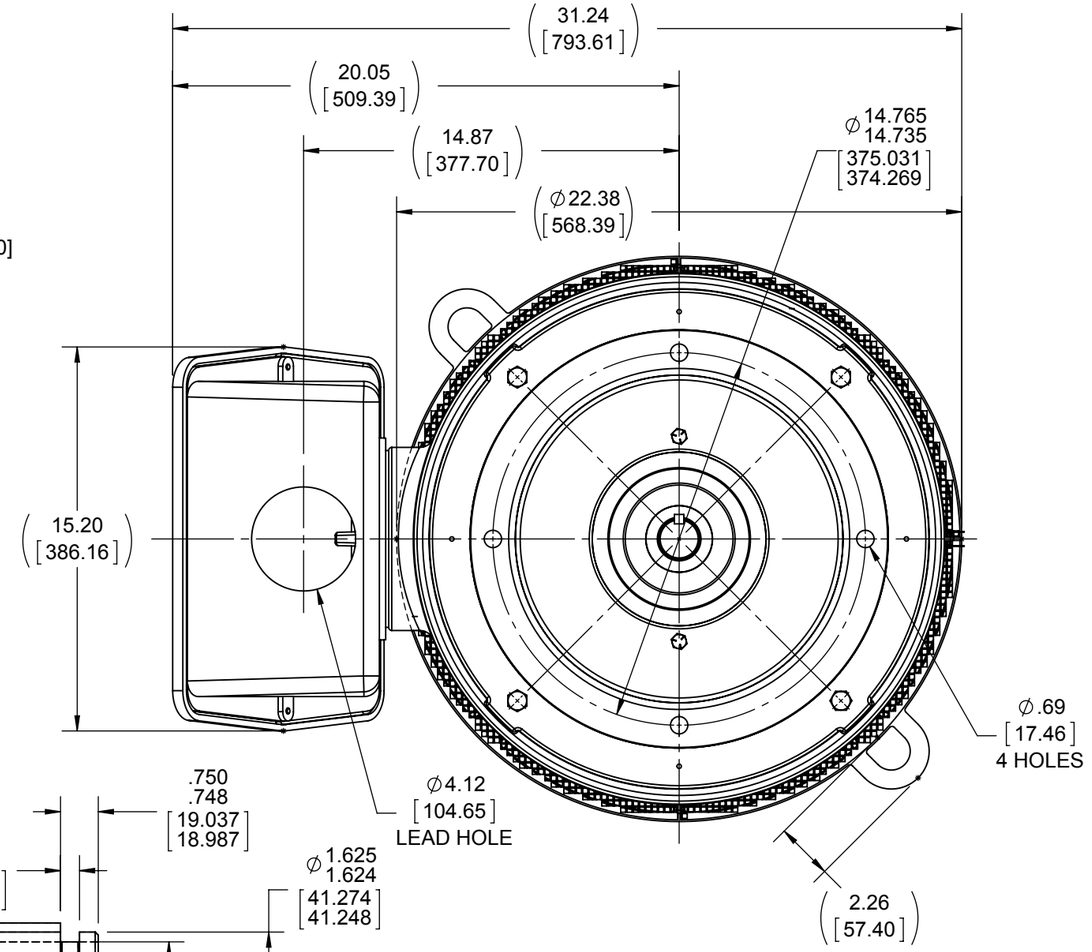
Nameplate Specifications

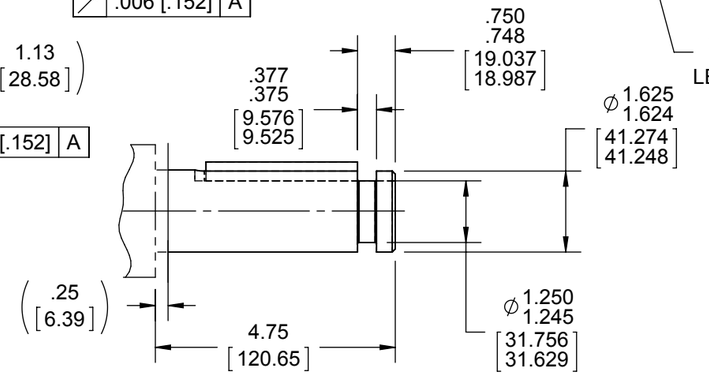
Output HP	50 Hp	Output KW	37.0 kW
Frequency	60 Hz	Voltage	460 V
Current	65.0 A	Speed	885 rpm
Service Factor	1.15	Phase	3
Efficiency	92.4 %	Power Factor	78
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	404HPV	Enclosure	Drip Proof
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6314	Opp Drive End Bearing Size	7314
UL	Recognized	CSA	Y
CE	Y	IP Code	22
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	8	Rotation	Reversible
Resistance Main	.165 Ohms	Mounting	Round
Motor Orientation	Shaft Down	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	HP	Overall Length	35.64 in
Frame Length	20.88 in	Shaft Diameter	1.625 in
Shaft Extension	4.50 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7300	Outline Drawing	B-SS555070-2088







DETAIL OF SHAFT EXT.

NOTE:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF THE MOTOR.

DASH	FRAME	C	AG	BV
2088	400PV	35.64 [905.26]	31.14 [790.96]	15.70 [398.78]

DRAWING REVISION	REVISION BY	DATE
D	JJB	03-31-2014
ECO	APPROVED BY	DATE
ECO-0048460		

ECO DESCRIPTION
UPDATED TO CURRENT STANDARDS

TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±0.5°
.XX	±0.01	[±0.25]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381]
CORNER FILLETS: .02 [.51]
MACHINED SURFACES: 125 INCH / 3.2 mm
mm SHOWN IN [BRACKETS]

DRAWN BY	CJR
DATE	03-01-2012
APPROVED BY	DJK
DATE	03-01-2012
PROCESS/FINISH	
THIRD ANGLE PROJECTION	

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
400PV FR. - DR. PR. - VERTICAL

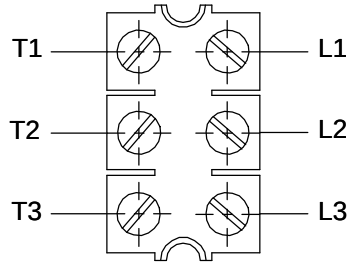
MATERIAL

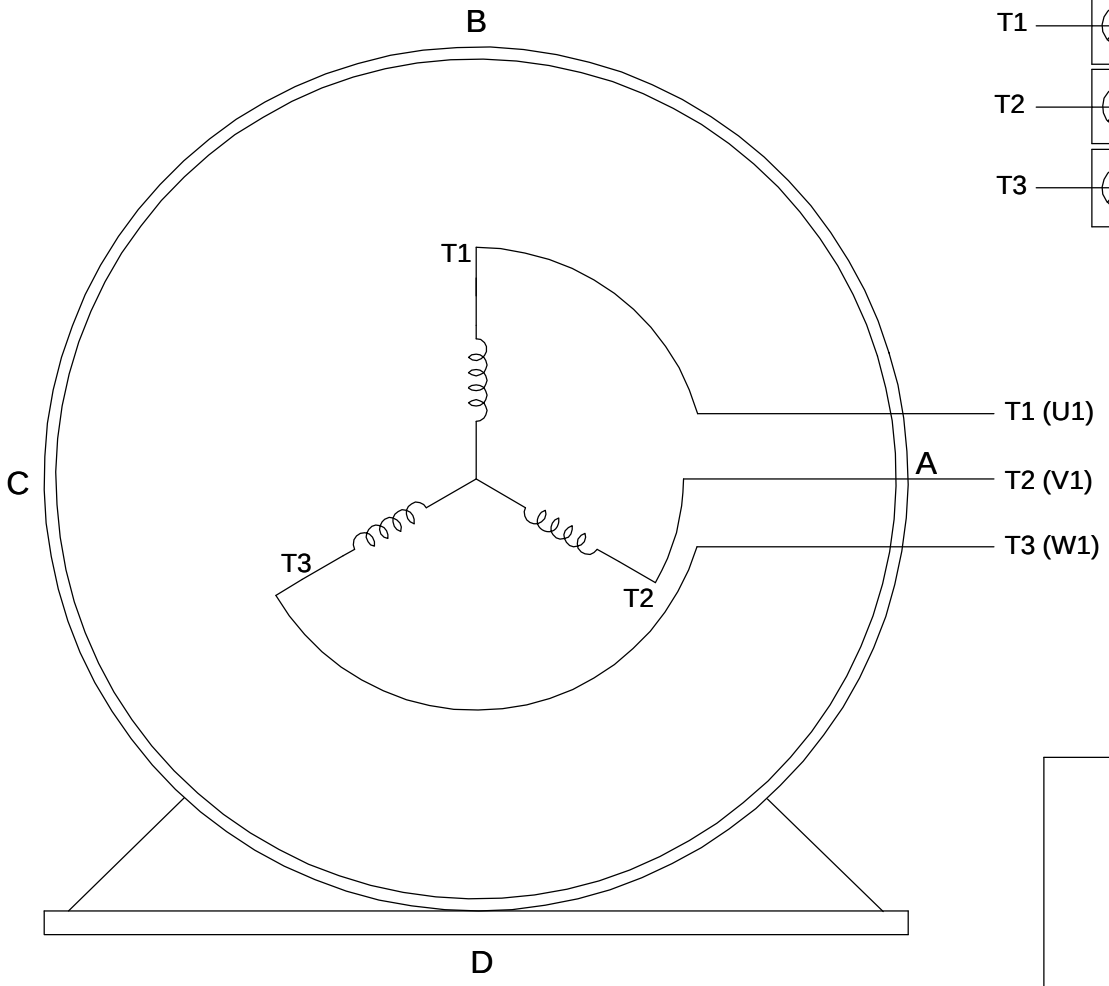
SIZE	DRAWING NUMBER	SHEET
B	SS555070	1 OF 1

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

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

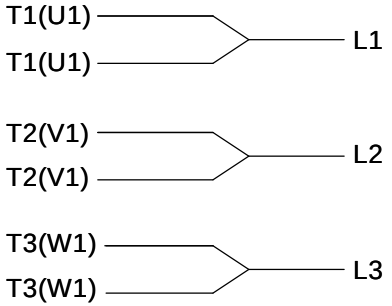
TERMINAL BLOCK WHEN SPECIFIED





VIEW OF TERMINAL END

IF MOTOR HAS
6 LEADS



A-9806 DECAL

OPTIONAL CORD
CONNECTION

L1	WHITE
L2	RED
L3	BLACK

DRAWING REVISION: AB	REVISION BY: JJB	DATE: 06-27-2017
ECO: ECO-0125361	APPROVED BY: TB	DATE: 06-27-2017

ECO DESCRIPTION: UPDATED TO CURRENT STANDARDS

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

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300	1 OF 1

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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: A-EE7300
OUTLINE: B-SS555070-2088
WINDING: T405836 NONE 2
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 404TTDS16102
CAT #: M736
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
50	37	900	885	404HPV	DP	TDS	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	65	ACROSS THE LINE	CONT	F	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	92.4	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE
F.L. PF	78.0	3/4 LD PF	74.0	1/2 LD PF	64.0	91.7	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
297 LB-FT	350	500 LB-FT 168%	600 LB-FT 202%	50	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
70 dBA	79 dBA	35.5 LB-FT²	0 LB-FT²	20 SEC.	0	1050 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
P-BASE	STANDARD	ROUND	SHAFT DOWN	NO	NONE	YES	RODENT	BLUE (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	)EM ANGUL	POLYREX EM	HP	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6314	7314						

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
0.108	0.068	0.488	0.721	9.619	0.150	DE

*
NOTES
*

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE PPR

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

PREPARED BY: FAREEDA DUDEKULA
DATE: 9/11/2018

FORM: 3531 REV_4 2/27/06

UL: V-INS, CONST UL REC

Data Sheet

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

404TTDS16102

Submittal

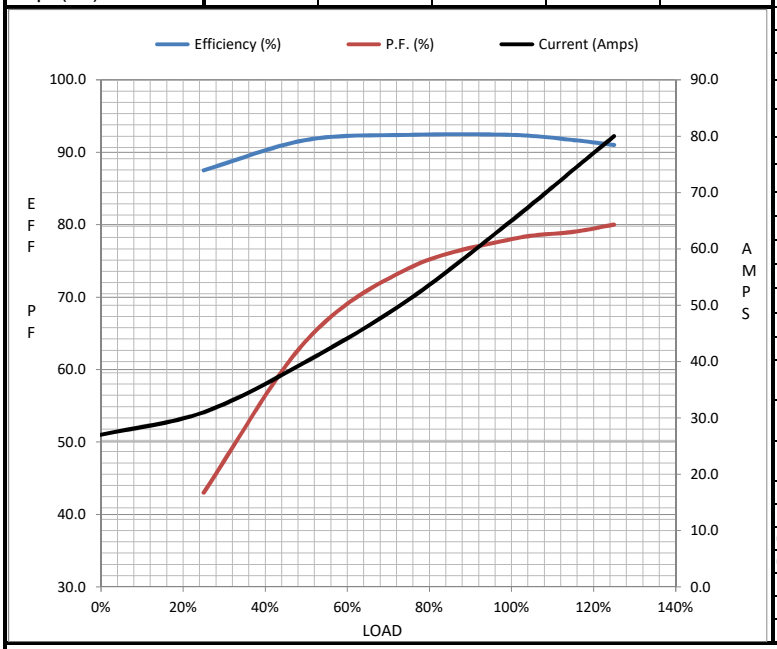
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	27.0	31.0	40.0	51.0	65.0	74.0	80.0	350	
Torque (ft-lb)	0.00	73.0	147	222	297	342	372	500	
RPM	900	896	894	890	885	884	882	0	
Efficiency (%)		87.5	91.7	92.4	92.4	91.7	91.0		
P.F. (%)	4.0	43.0	64.0	74.0	78.0	79.0	80.0	35.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	850	885	900
Current (Amps)	350	300	180	65.0	27.0
Torque (ft-lb)	500	425	600	297	0.00



Information Block

HP	50.0	
Sync. RPM	900	
Frame	404	
Enclosure	DP	
Construction	TDS	
Voltage	460	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	50	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	35.5	Lb-Ft²
Ref Wdg	T405836 NONE	
Sound Pressure @ 1M	70	dBA
VFD Rating	NONE	
Outline Dwg	B-SS555070-2088	
Conn. Diag	A-EE7300	
Additional Specifications:		
0		
0		

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.1080	0.0680	0.4880	0.7210	9.6190