

# PRODUCT INFORMATION PACKET

Model No: 445TTDN16101

Catalog No: M748

100 HP Vertical Solid Shaft P-Base Motor, 3 phase, 900 RPM, 460 V, 445HPV Frame, ODP  
Vertical Pump Motors



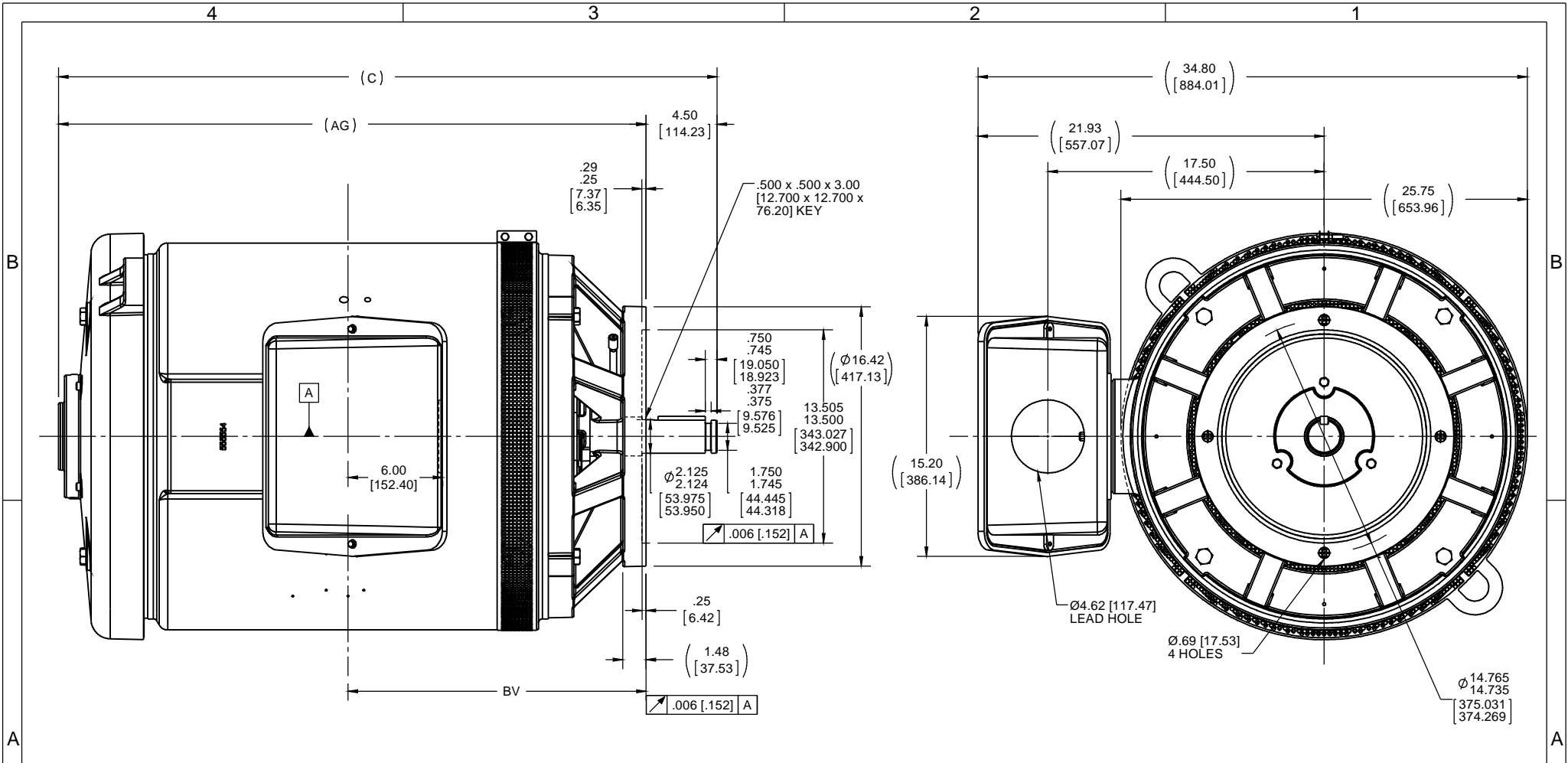
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### Nameplate Specifications

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>135.0 A</b>	Speed	<b>890 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>94.1 %</b>	Power Factor	<b>72</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>445HPV</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6318</b>	Opp Drive End Bearing Size	<b>7316 2</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>22</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>8</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.045 Ohms</b>	Mounting	<b>Round</b>
Motor Orientation	<b>Shaft Down</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Duplex Tandem Angular Contact</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>HP</b>	Overall Length	<b>41.72 in</b>
Frame Length	<b>25.38 in</b>	Shaft Diameter	<b>2.125 in</b>
Shaft Extension	<b>4.5 in</b>	Assembly/Box Mounting	<b>F1/F2 Capable</b>
Connection Drawing	<b>A-EE7300U</b>	Outline Drawing	<b>B-SS555833-2538</b>



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

DASH	FRAME	C	AG	BV
2538	444/5PV	41.72 [1059.62]	37.22 [945.39]	18.88 [479.55]

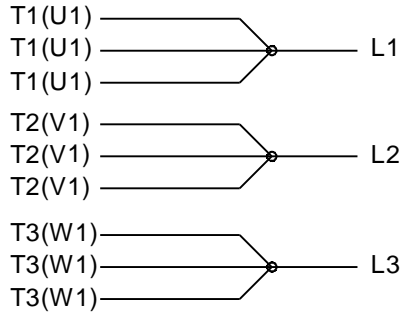
DRAWING REVISION C	REVISION BY AJW	DATE 07-01-2014
ECO ECO-0054258	APPROVED BY DJK	DATE 07-01-2014
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±0.5°
.XX	±0.01	[±0.25]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [076/381]			
CORNER FILLETS: .02 [51]			
MACHINED SURFACES: 125/3.2			
mm SHOWN IN [BRACKETS]			

DRAWN BY TJW	DATE 07-16-2013
APPROVED BY DJK	DATE 07-19-2013
REFERENCE	THIRD ANGLE PROJECTION

Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 444/5PV FR. -DR.PR. -PBASE	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS555833
SHEET 1 OF 1	

**IF MOTOR HAS 9 LEADS**

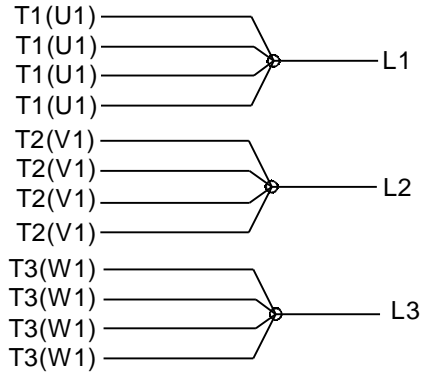


**IF MOTOR HAS 6 LEADS**



A-9806 DECAL IF CALLED FOR

**IF MOTOR HAS 12 LEADS**



**VIEW OF TERMINAL END**

DRAWING REVISION <b>L</b>	REVISION BY <b>AJW</b>	DATE <b>05-04-2015</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>DRS</b>	<b>Regal Beloit America, Inc.</b>																					
ECO <b>ECO-0077067</b>	APPROVED BY <b>EWH</b>	DATE <b>05-05-2015</b>	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>			<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]		DATE <b>09-27-1996</b>
<u>DEC.</u>	<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>																							
.X	±0.1	[±2.5]	±7' 30"																							
.XX	±0.02	[±0.51]																								
.XXX	±0.005	[±0.127]																								
.XXXX	±0.0005	[±0.0127]																								
ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b>			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$	APPROVED BY <b>GK</b>	MATERIAL	PROCESS/FINISH																				
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			THIRD ANGLE PROJECTION	REFERENCE																						



\*\* Subject to change without notice.

Data Sheet

Date: 6/29/2017

445TTDN16101

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

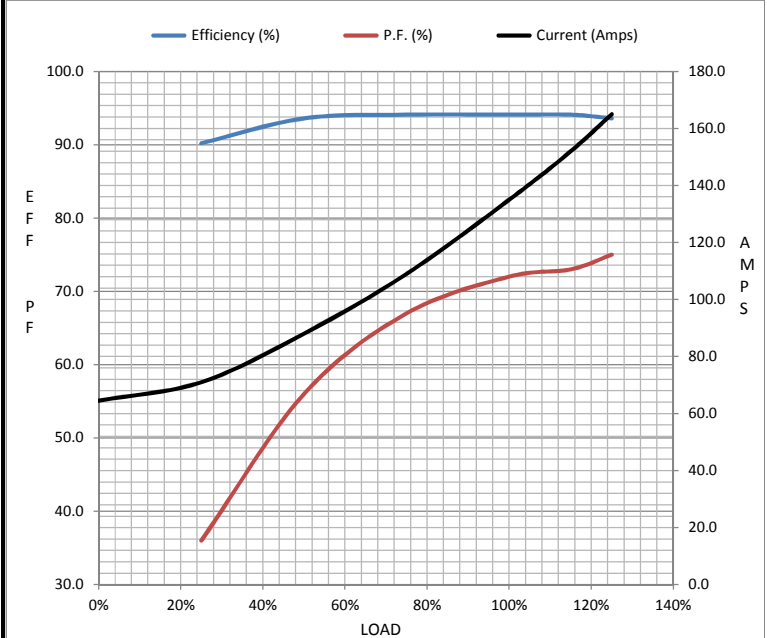
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	64.5	71.0	88.0	109	135	152	165	725
Torque (ft-lb)	0.00	146	293	441	590	665	738	745
RPM	900	898	895	892	890	888	886	0
Efficiency (%)		90.2	93.6	94.1	94.1	94.1	93.6	
P.F. (%)	3.0	36.0	56.0	67.0	72.0	73.0	75.0	24.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	855	890	900
Current (Amps)	725	650	425	135	64.5
Torque (ft-lb)	745	725	1,350	590	0.00

Information Block

HP	100.0
Sync. RPM	900
Frame	445
Enclosure	DP
Construction	TDN
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 wk <sup>2</sup>	80.0 Lb-Ft <sup>2</sup>
Ref Wdg	T445861 NONE
Sound Pressure @ 1M	999 dBA
VFD Rating	NONE
Outline Dwg	B-SS555833-2538
Conn. Diag	A-EE7300U



Additional Specifications:

0

0

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0310	0.0210	0.2950	0.3690	3.9900

Speed -Torque Curve

