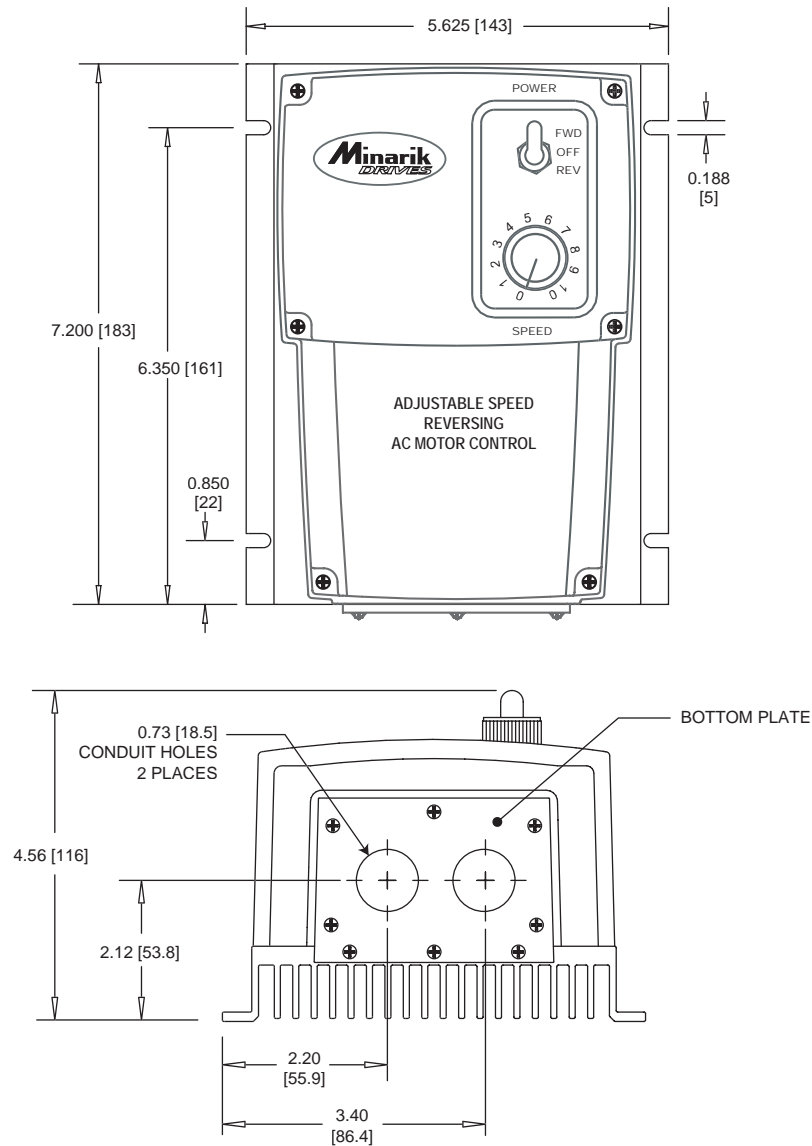




# VFDP4X04-D230-PCM

Variable Frequency Drive for  
3-phase & single phase AC motors

## DIMENSIONS



ALL DIMENSIONS IN INCHES [MILLIMETERS]

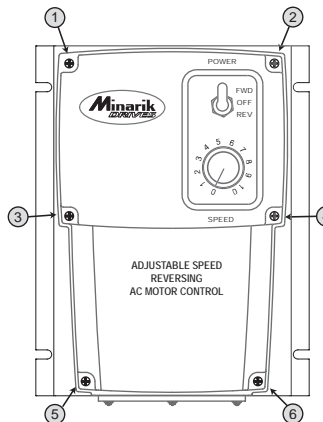
## QUICK START GUIDE

### SPECIFICATIONS

1-Phase Input	.....*	115/230 VAC
1 or 3 -Phase Output	.....	.230 VAC
Maximum Horsepower	.....	.1 HP
Maximum Continuous Output Current	.....	4.0 AC
AC Amps In	.....	.15 / 10 amps
AC Voltage Input Range	.....	.115/230 VAC ± 10%, 50/60 Hz single phase
Standard Carrier Frequency	.....	.16 KHz
Adjustable Braking Current	.....	.0 - 4 ADC
Adjustable Braking Time	.....	.1 - 10 Sec.
Adjustable Minimum Speed	.....	.0 - 30 Hz
Output Frequency Range	.....	.0 - 120 Hz
Adjustable Maximum Output Frequency Range	.....	.30 - 120 Hz
Acceleration Time Range	.....	.1 - 12 secs
Deceleration Time Range	.....	.1 - 12 secs
Analog Input Voltage Range (S1 [-] to S2 [+])	.....	0 - 5 VDC, 0 - 10 VDC, 4 - 20 mA
Input Impedance, S1 to S2	.....	~ 100K ohms
Vibration	.....	.0.5G max (20 - 50 Hz) 0.1G max (> 50 Hz)
Weight	.....	1.2 lbs
Ambient Operating Temperature Range	.....	.10° - 40° C

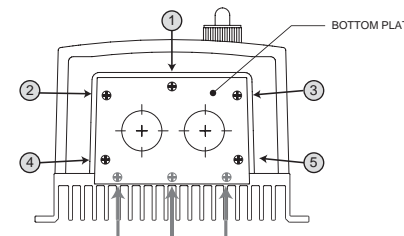
\* Jumper settings MUST match input line voltage. Application of 230 VAC line input when jumpers are set for 115 VAC will result in severe damage to the drive.

## REMOVING THE CASE COVER



1. Remove the six (6) phillips screws on the front case.

NOTE: The two shorter screws (#6 - 32 x 2 1/2) on the front case are used at hole locations 5 & 6.



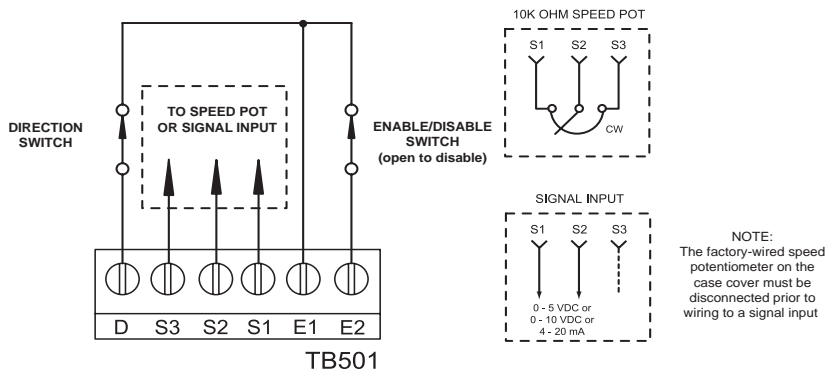
2. Remove the five (5) phillips screws on the bottom plate.

NOTE: DO NOT REMOVE the three (3) screws securing the bottom plate to the heatsink.

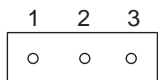
DO NOT REMOVE THE THREE (3) SCREWS SECURING THE BOTTOM PLATE TO THE HEATSINK

# C O N N E C T I O N S

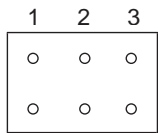
**STEP #1-skip this step if provided FWD/OFF/REV and speed potentiometer will be used.** Otherwise disconnect factory-wired connections from the FWD/OFF/REV switch and speed potentiometer. Connect the enable/disable switch, direction switch, and speed potentiometer or signal input to TB501 on the TOP board using 20 - 24 AWG wire as shown below.



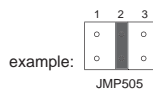
**STEP #2**  
Configure jumpers JMP504 and JMP505 on the top board for the appropriate signal input.



JMP504 (on top board)  
Pins 1 & 2 for Voltage Input, or using a speed pot.  
Pins 2 & 3 for Current Input



JMP505 (on top board)  
Pins in Column 1 for 0 - 5 VDC Voltage Input, or using a speed pot  
Pins in Column 2 for 0 - 10 VDC Voltage Input  
Pins in Column 3 for 4 - 20 mA Current Input



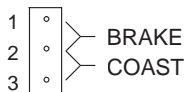
**STEP #3**  
Configure jumpers JMP503 on the bottom board and JMP506 on the top board.

JMP503



JMP503 (on bottom board)  
Pins 1 & 2 to Trip  
Pins 2 & 3 to Restart

TRIP: Drive has a low voltage fault & must be manually re-enabled to restart.  
RESTART: Drive has a low voltage fault & will momentarily stop then auto-restart when input voltage returns to minimum level.

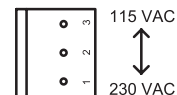


JMP506

JMP506 (on top board)  
Pins 1 & 2 to Brake  
Pins 2 & 3 to Coast

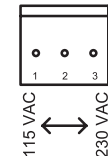
**STEP #4**  
Configure jumpers JMP501 and JMP502 on the bottom board for 115 or 230 VAC Power Input.

JMP501



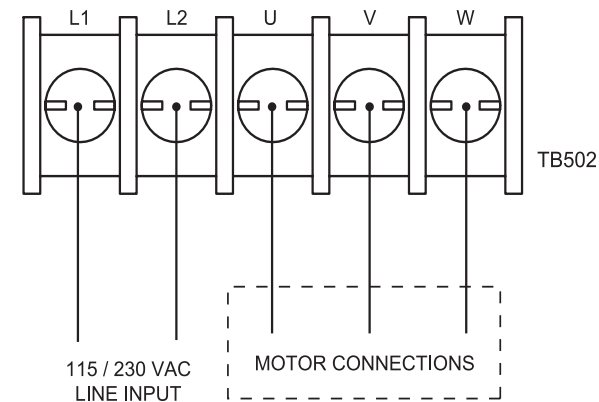
115 VAC  
230 VAC  
Pins 2 & 3 for 115 VAC  
Pins 1 & 2 for 230 VAC

JMP502



115 VAC  
230 VAC  
Pins 1 & 2 for 115 VAC  
Pins 2 & 3 for 230 VAC

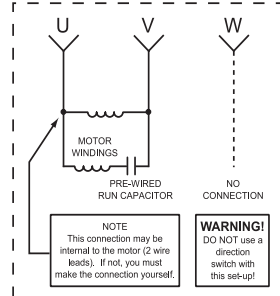
**STEP #5**  
Connect motor leads of a 3-phase motor to U, V, and W (TB502 on BOTTOM board) using 14 - 16 AWG wire as shown in the figure below.



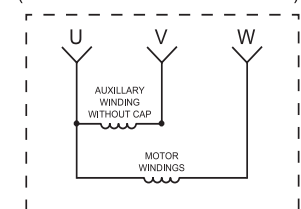
**STEP #6**  
Connect 115 or 230 VAC power input using 12 AWG wire.

NOTE: Minarik strongly recommends installing an emergency stop switch on both the L1 and L2 inputs.

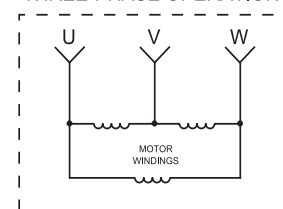
SINGLE-PHASE OPERATION  
(motor with pre-wired capacitor)



SINGLE-PHASE OPERATION  
(for use with DIRECTION switch)



THREE-PHASE OPERATION



**MINARIK DRIVES**

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