

# Variable Frequency Drive Start-Up Checklist

Technician \_\_\_\_\_ Date \_\_\_\_\_

VFD Identification \_\_\_\_\_

Equipment Location	Yes	No	N/A
1. Are the drives mounted in their permanent locations?			
2. Is the work area around the drives accessible?			
3. Is the drive enclosure suitable for the environment?			
<b>Power Connections (Line Side)</b>			
1. Are the properly sized incoming power connections installed, completely terminated, and properly tightened?			
2. Are the incoming power leads in the standard (A-B-C) rotation patterns?			
3. Have proper grounding practices been followed, and the line grounding conductor been terminated at the equipment grounding terminals in the drive enclosure?			
4. Are the line conductors and load conductors in separate raceways?			
<b>Motor Connections (Load Side)</b>			
1. Are suitable motors installed for each drive?			
2. Are the motor leads completely terminated and properly tightened to the output of each drive?			
3. If a bypass application is part of the installation, are the contactors mounted, wired, and properly tightened?			
4. Is each AFC output power cable in an independent conduit with respect to other AFC output cables?			
5. Can the motor be run at full speed in Bypass mode?			
6. Has the motor grounding conductor been terminated at the grounding terminal on the drive?			
<b>Motor Load Device</b>			
1. Is the proper load device installed and ready?			
2. Is the desired motor rotation known?			
3. Is the load properly coupled to the motor shaft?			
4. At time of start-up, can the application provide maximum motor load?			
<b>Control Circuit Wiring</b>			
1. Is all local and remote control wiring properly identified, securely terminated, and properly tightened?			
2. Are the low-level analog signals separated from control and power wiring?			
3. Is shielded cable used for all analog signals, and is the shield wire grounding at the AFC end only?			
4. Is control wiring separated in different raceways from the power wiring?			
<b>Other User Interfaces</b>			
1. Are all required remote commissioning terminals and interconnect cables operational and available?			
2. Are serial communication links ready for AFC?			
3. Are accurate control and power wiring diagrams available at the start-up location?			
4. Are specific drive settings known for each drive (for example, minimum/maximum speed and ACC/DEC Time)?			
<b>Availability of Equipment</b>			
1. Will the equipment be available to be energized and de-energized on the date of start-up?			
2. Will the mechanical load be available for operation?			
<b>Authorized Personnel</b>			
1. Will the person(s) responsible for the entire process be available to verify final operation?			

**Special Requirements:** Please state specific concerns below.

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**CUSTOMER READINESS AGREEMENT:**

We have verified that all checklist questions have been answered. All questions with a Yes response indicate a ready state for the start-up to be efficient and successful. An explanation for any question with a No response is listed in the Special Requirements section above.

**CUSTOMER NAME:** VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

**COMPANY NAME:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_ **FAX:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_