



Building Technologies & Solutions – York Johnson Controls Plc.

Temporary VFD Bypass (3 Phase Equipment ONLY)

On the chance that there is a VFD failure and you need to have the unit operating while a replacement VFD is being ordered, there is a way to bypass the VFD safely. Below are instructions that should help you get the system running while you wait for parts.

DO NOT USE THE VFD TERMINALS AS A JUNCTION POINT! It is possible that you could damage the SSE control board if the main power is connected to the U V or W terminals of the VFD.

Instructions:

INSTALL CONFIDENCE

- 1. Disconnect power; lock out and tag out.
- 2. You will need to get a 3 pole contactor with a 24 volt coil and mount it near the fan motor; remove the wires that feed power into the VFD drive and connect them to the **line side** of the contactor.
- 3. Remove the 3 motor leads from the VFD drive that feed power to the motor and connect them to the **load side** of the contactor
- 4. Connect a wire from the FAN terminal on the SSE Board to the one side of the contactor coil and connect a wire from the other side of the contactor coil to Common on the SSE board.
- 5. Re-connect power, make a call for fan and check rotation of fan motor to ensure it is correct, if not reverse leads accordingly.

NOTE: Failure to connect the contactor coil can create issues with operation especially in a heat pump system. The compressors have a minimum run time of 3 minutes so if you have the fan connected to G and someone turns the stat up and then down the fan will stop running but the compressor/s will continue to run until the 3 minute timer lapses and you could have an inadvertent HP trip due to the head pressure rising due to no fan operation. Use a contactor based on the fan motor amp rating, a 20 amp contactor should work in most situations.

