

VARIABLE FREQUENCY DRIVE

VERIFICATION CHECKLIST FOR COMMERCIAL CUSTOMERS

Retrofit a variable frequency drive (VFD) on a fixed speed variable air volume air handling unit (AHU) supply fan.

QUALIFIED PRODUCT LIST (QPL) REQUIREMENT

No

INCENTIVE

Up to \$300 per horsepower

REQUIREMENTS

BASELINE

- The existing AHU has variable flow but a constant speed fan.
- Heating fuel can be electric or gas.

POST INSTALL

- VFD and controller installed on an existing AHU for variable speed fan operation.
- AHU supply fan throttling or bypass devices (inlet guide vanes or dampers) are removed or permanently disabled.

RECOMMENDED

VERIFICATION PROCESS

- Take a photo of the installed VFD and controller.
- Ensure that the original throttling or bypass device has been permanently disabled or removed and take a photo.
- Take photos of the unit nameplate that show total horsepower of VFD controlled fan. If unit nameplate doesn't show fan horsepower take a photo of supply fan motor nameplate.

BEST PRACTICES

- Check that the existing supply fan motor is inverter-duty rated. Inverter duty rated motors have longer life expectancies than non-inverter duty rated motors because they can better withstand the elevated voltage spikes and increased internal temperatures associated with VFD control.
- Ensure that duct static pressure resets are properly functioning. Artificially high duct static pressure setpoints can limit fan energy savings when adding a VFD to the supply fan. If a supply air temperature reset strategy is present, ensure static pressure reset strategies do not conflict with them as that can degrade overall savings significantly.



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