

# Prefunctional Checklist

Project \_\_\_\_\_

## PC-\_\_\_\_\_ VARIABLE FREQUENCY DRIVE on

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### 1. Submittal / Approvals

**Submittal.** The above equipment and systems integral to them are complete and ready for functional testing. The checklist items are complete and have been checked off only by parties having direct knowledge of the event, as marked below, respective to each responsible contractor. This prefunctional checklist is submitted for approval, subject to an attached list of outstanding items yet to be completed. A Statement of Correction will be submitted upon completion of any outstanding areas. None of the outstanding items preclude safe and reliable functional tests being performed. \_\_\_\_\_ List attached.

_____	_____	_____	_____
Mechanical Contractor	Date	Controls Contractor	Date
_____	_____	_____	_____
Electrical Contractor	Date	Sheet Metal Contractor	Date
_____	_____	_____	_____
TAB Contractor	Date	General Contractor	Date

Prefunctional checklist items are to be completed as part of startup & initial checkout, preparatory to functional testing.

- This checklist does not take the place of the manufacturer’s recommended checkout and startup procedures or report.
- Items that do not apply shall be noted with the reasons on this form (N/A = not applicable, BO = by others).
- If this form is not used for documenting, one of similar rigor shall be used.
- Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off.
- “Contr.” column or abbreviations in brackets to the right of an item refer to the contractor responsible to verify completion of this item. A/E = architect/engineer, All = all contractors, CA = commissioning agent, CC = controls contractor, EC = electrical contractor, GC = general contractor, MC = mechanical contractor, SC = sheet metal contractor, TAB = test and balance contractor, \_\_\_\_\_ = \_\_\_\_\_.

**Approvals.** This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

_____	_____	_____	_____
Commissioning Agent	Date	Owner’s Representative	Date

Notes:

## 2. Requested documentation submitted

Check if Okay. Enter comment or note number if deficient.

Check	Equip Tag->						Contr.
Manufacturer's cut sheets							
Performance data (fan curves, coil data, etc.)							
Installation and startup manual and plan							
Sequences and control strategies							
O&M manuals							

- **Documentation complete as per contract documents for given trade.....**  YES  NO

## 3. Model verification

[Contr = \_\_\_\_\_]

1 = as specified, 2 = as submitted, 3 = as installed. Check if Okay. Enter note number if deficient.

Equip Tag-->							
1							
Manuf. 2							
3							
1							
Model 2							
3							
Serial # 3							
1							
Capacity 2							
3							

- **The equipment installed matches the specifications for given trade.....**  YES  NO

## 4. Installation Checks

Check if Okay. Enter comment or note number if deficient.

Check	Equip Tag->						Contr.
<b>General Installation</b>							
Permanent label affixed							
Securely mounted							
Drive location not subject to excessive temperatures							
Drive location not subject to excessive moisture or dirt							
Drive size matches motor size							
Pilot lights functioning							
VFD wired to controlled equipment							
<b>Programming and Controls</b>							
Internal setting designating the model is correct							

Notes:

Check if Okay. Enter comment or note number if deficient.

Check	Equip Tag->						Contr.
Input of motor FLA represents 100% to 105% of motor FLA rating							
Appropriate Volts vs Hz curve is being used							
Accel and decel times are around 10-50 seconds, except for special applications. Record actual for each unit.							
Lower frequency limit at 0 for VAV fans and around 10-30% for chilled water pumps. Record actual for each unit.							
Upper frequency limit set at 100%, unless explained otherwise							
VFD interlocked to control system							
Static or differential pressure sensor or other controlling sensor properly located and per drawings							
Controlling sensor calibrated							
Unit is programmed with full written programming record submitted							
RPM readout in BAS verified with VFD readout							
All control devices, pneumatic tubing and wiring complete							
Specified sequences of operation and operating schedules have been implemented with all variations documented							
Specified point-to-point checks have been completed and documentation record submitted for this system							
<b>Final</b>							
Startup report completed with this checklist attached							
Safeties installed and safe operating ranges for this equipment provided to the commissioning agent							

- **The checklist items of Part 4 are all successfully completed for given trade.** \_\_\_ YES \_\_\_ NO

**-- END OF CHECKLIST --**

Notes: