



### **Active Harmonic Filter Application/Sizing Questionnaire**

1. What is the industry type? (Water, wastewater, oil & gas, HVAC, etc.)
  - a. \_\_\_\_\_
2. Can we obtain one-line diagrams? (Required)
  - a. \_\_\_\_\_
3. Are detailed equipment lists available?
  - a. \_\_\_\_\_
4. Are there any Power Factor Correction Capacitors located downstream of the active filter? (If yes, then they will have to be removed before active filter installation)
  - a. \_\_\_\_\_
5. What type of Variable Frequency Drives (VFDs) are being used? (Required to determine if there is an integral DC Choke)
  - a. Manufacturer: \_\_\_\_\_
  - b. Model: \_\_\_\_\_
    - i. If there is more than one type of VFD being used, then we will need the information for each VFD and it to be identified on the one-line
6. Are line reactors at the input of each VFD? (Required if the VFD does not have an integral DC Choke valued with at least 3% impedance)
  - a. \_\_\_\_\_
  - b. If yes, what is the percent impedance \_\_\_\_\_
    - i. If some VFDs have a line reactor and some do not, then that will need to be identified on the one-line
7. Are there future loads for this project?
  - a. \_\_\_\_\_
  - b. If yes, should the active filter be sized to correct for them \_\_\_\_\_
8. Are there any redundant or spare loads that the active filter does not have to correct for?
  - a. \_\_\_\_\_
    - i. If yes, they will need to be identified on the one-line diagram
9. What is the current rating of the bus that the active filter Current Sensors (CTs) will be installed?
  - a. \_\_\_\_\_
10. Are there any single phase (line to neutral) loads located downstream of the active filter/CT installation point? (If the loads are separated by a transformer, then they are excluded from this)
  - a. \_\_\_\_\_
11. Will the CTs be installed on the line side (upstream) or load side (downstream) of the active filter feeder breaker? (line side is preferred unless parallel active filters are being installed)
  - a. \_\_\_\_\_



12. Will the active filter be required to communicate over standard Ethernet or Industrial Protocol?
  - a. \_\_\_\_\_
13. Confirm that the standard Gasketed NEMA-1 Enclosure will be suitable. (If not consult with HPS for other options)
  - a. \_\_\_\_\_
14. Is the active filter expected to operate on generator?
  - a. \_\_\_\_\_
  - b. If yes, what is the size of the generator? \_\_\_\_\_
  - c. If yes, what % of the load will run on gen? \_\_\_\_\_
15. Are there any large soft start loads downstream of the active filter?
  - a. \_\_\_\_\_