



## QUESTION & ANSWER #1

**Date:** December 6, 2017

**Project:** Building 20 - Variable Speed Drive for 400 Ton Chiller

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Bidders must make sure that their bids are based on the latest version of the tender documents published and take into consideration the following amendments and information, including any information provided on amendments or Q&As previously published for this project.

Bidders that do not comply with this requirement will be discarded.

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**1. Question:** VFD is required to be liquid-cooled. What is the technical reason behind that? Usually water-cooled drives are meant for larger HP, i.e. 600-700 & bigger.

**1. Answer:** This variable frequency drives (VFD) design configuration was selected to minimize additions to the existing heat load in the mechanical room spaces and avoid the requirement for having to add auxiliary cooling to the space as a result. An air-cooled VFD would contribute directly to space heat load whereas a water-cooled VFD rejects its heat to the chilled water loop.

**2. Question:** Specs call for either 29% Total Harmonics Distortion & then calls for 5% Total Harmonics Distortion. Those are different requirements & we're not sure which value is the goal here?

**2. Answer:** The specifications (Section 23 85 01, Part 2.1.9 / 2.1.10) make distinction between maximum current total demand distortion limits for drives provided without and with filter. In the case of this project, an active harmonic filter is being specified for each drive and so the requirement is 5% maximum current total demand distortion.

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**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED**