Ducted Systems Technical Services: Service Tips Letter

Letter: ST-011-21

Date: August 20, 2021 Effective: August 20, 2021 Expires: January 1, 2023

To: S1 HVAC Branch and Distributor Principal, Sales Manager, Service Manager, Parts Manager, Warranty Manager, Training Manager, Delegated Administrator.
Ducted Systems Technical Services, DS Parts/S1, ES Americas, ADTI Channel, Account Representatives, Marketing, Sales, Warranty teams.

Subject: **Delta VFD Parameters Update and Nuisance Codes Revision**

Product/s: Commercial Built Products With a Delta Variable Frequency Drive (VFD)

References: ST-006-2019, ST-10-2020, and ST-14-2020

Summary: This letter is a final revision to ST-14-2020 to provide information regarding Delta VFD Parameter Settings for systems encountering nuisance fault codes and failures. Along with what the factory will be implementing in changes to its default settings.

We have received a limited number of calls regarding the recently implemented Delta VFD and its parameters. It was determined that some application factors and site conditions may cause nuisance failures and fault codes. To assist with these field-generated nuisance failures, we have created a list of parameters that the factory will update and implement starting September 1st, 2021. For equipment before the implementation date, it is advised to contact Product Technical Support at 877-874-7378 to ensure the changes are ok for your system and its application prior to making them.

We have also worked with Delta to add a new parameter for sites with power issues entering the unit. The power supply introduced into the drive would then generate an “OVS” alarm, and the delta drive responds by locking out all operations until power is cycled. The new parameter is listed below, along with a brief description of how to enable it. This change allows the drive to restart itself once the OVS alarm has ended but will still hold the alarm on the screen to notify field technicians.

Please contact us at 877-UPG-SERV or cg-upgtechsupport@jci.com with any questions.

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Delta Parameters:

01-07 – Will be changed from 25 to 0.5. Paired with 01-11, the motor can ramp up to 25Hz slower under inadequate duct design applications. This in turn will also reduce motor "jerking," some sites have reported.

01-11– This will be changed from the Delta default of 0 to 25. This will return our traditional setting of limiting the drive's minimum frequency to 25hz across all products as the output frequency lower limit.

2.35 – The factory default is 0, and it may be needed to have a field change of 1 to allow the drive to restart after a power loss if the enable fan command still exists and the VFD relay contacts are still closed. The factory will not change this setting.

06.06 – The factory default will be changed to 1 from 2. This allows the VFD to trip in the event the motor exhibits over amping and protect the motor and drive. The updated change will enable the VFD to limit the output instead of shutting down on an alarm. The code will still present itself on the drive, but no longer shut the unit down. To remedy it, it is best to calculate the system airflow by following the instructions of the units installation manual. You should then make the necessary sheave adjustments while reviewing its ductwork application.

06.49 – The factory default was 0 and has been changed to 1. This will allow the VFD to restart if exhibiting a low voltage fault. (LvA, LvD, LvS, LvN)

07.06 – The factory default will be changed to 1 from its original 0. It will allow the drive to restart after a momentary power loss occurs.

07-28 – Delta has provided this new parameter, and it will be set from the factory at 0. Please set it to 12000 to enable it if it's required for your site.

This new setting will allow all drives built after August 1st, 2021, to restart automatically once an "OVS" event ends without manual intervention. If a site is having a DC overvoltage issue, they may adjust this parameter to 12000 to activate this function. **It will not allow the drive to run during an overvoltage event to protect the entire product.**