

Commercial Technical Services: Service Tips Letter

Letter: STC-001-26

Date: April 7, 2026

To: S1 HVAC Branch and Distributor Principal, Sales Manager, Service Manager, Parts Manager, Warranty Manager, Training Manager, Delegated Administrator.
Technical Services, Parts/S1, Account Representatives, Marketing, Sales, Warranty teams.

Subject: **Supply Fan VFD HZ Programming (Premier)**

Product/s: 25 to 150 Ton Premier Rooftop Units

Summary: **This letter will explain the design HZ of the direct drive plenum fans used in the Premier RTU's and how to allow the VFD's to safely operate at speeds different than the design HZ**

Dear valued customer:

Every Premier unit is equipped with a supply fan VFD as standard. Each Premier unit tonnage supports a wide range of allowable airflow.

When a Premier unit is selected using Selection Navigator, the engineer must enter the system design CFM along with the supply and return external static pressure (ESP) values. The selection tool uses this information to calculate the required supply fan motor horsepower (HP) and blower wheel size. It also determines the VFD operating speed (Hz) necessary to deliver the design airflow at the specified design ESP.

Once the design VFD frequency is established, it is incorporated into the Premier model number as digit 44.

Example

Premier model number:

GVDCG2A3JJ6A60BF401AA0AAK7C0V0EDEQ41001A000**P**G00T2

The 44th digit of the model number is "P", which corresponds to a design supply fan VFD speed of 40 Hz. This indicates that, at the design external static pressure (ESP), the selected motor and blower wheel combination is capable of delivering the design airflow with the supply fan VFD operating at 40 Hz.

Changing the design supply fan VFD hz

To change the supply fan VFD design hz, you will need to adjust parameter 6-15 in the supply fan VFD. Parameters 3-03 and 4-14 may also need to be adjusted as well if the new value for parameter 6-15 is greater than 3-03 and 4-14.

If there is an overload relay installed before the supply fan VFD, it will be set to the unit nameplate amperage. If for some reason the overload relay needs to be upgraded the wiring to the VFD may also need to be re-sized. This requires a post-sales SR, SI0419.

Best regards,

Home Comfort
JC Residential and Light Commercial LLC | 5005 York Drive | 73069 Norman, OK | USA
Tel. 877-874-7378
