

<b>APPLICATION NOTE</b>	<b>FECA-AN-155</b>
<b>Multi Fan Overvoltage Avoidance</b>	

<b>Inverter type</b>	FRENIC-MULTI series
<b>Software version</b>	All versions
<b>Required options</b>	None
<b>Related documentation</b>	FRENIC-Multi Instruction Manual INR-SI47-1204b-E
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<b>Revision</b>	None

**Introduction:** Due to the rotational properties of fans, the load may act like a generator sending voltage back into the VFD when decelerating. To avoid overvoltage faults due to a high amount of voltage being regenerated to the VFD. The following settings are recommended.

- Increase the acceleration and deceleration times.
- Use an S-curve acceleration/deceleration pattern.
- Enable automatic deceleration.

### Terminology

#### S-curve acceleration/deceleration

To reduce the impact on the inverter-driven motor during acceleration/deceleration, the inverter gradually accelerates/decelerates the motor at the top and bottom of the acceleration/deceleration zones.

#### Automatic Deceleration

Enabling the automatic deceleration helps reduce the chance of an Overvoltage Trip by increasing the deceleration time.

#### Parameters:

Code	Setting	Name
F07	30-90 sec	Acceleration Time 1.
F08	30-90 sec	Deceleration Time 1.
F37	0	Variable torque load
H07	1	S-curve (Weak)
H69*	4	Enable Automatic deceleration.

\* When using an external braking unit or resistor do not enable automatic deceleration.

For further information:

Refer to the **FRENIC-Multi Instruction Manual (INR-SI47-1204b-E)**.