

# 10kV bus voltage too high incoming line trips



## Overview

Monitor AC line for high line voltage or transient conditions phase-phase and phase-ground. Use RSLogix trend or Drive Observer - monitor DC bus, speed, and current. The DC bus overvoltage fault, also called a DC bus error or simply an overvoltage fault, is among the most common faults on an AC variable frequency drive. Because it's so common, some newer drives try to assist with locating the issue by providing more information about what the drive was doing. Whether you're facing an overcurrent trip, overvoltage fault, or mysterious communication error, understanding the root cause and having a systematic approach makes the difference between a 10-minute fix and hours of costly downtime that can range from \$1,000 to \$10,000 per hour depending on your. Cause : Overvoltage comes when voltage in the DC bus has exceeded the overvoltage detection level. If the drive is on an ungrounded. Regenerative drives are built to handle excess energy, but when voltage levels spike beyond safe limits, your drive trips to protect itself. Maybe it only happens during high deceleration?

Or maybe it's completely random?

Either way, production stops, and downtime starts adding up fast.



## Article Content

Oct 31, 2025

### Common Faults And Treatment Of High-Voltage Electrical Equipment

The focus is on the failures and solutions of 10kV circuit breakers (vacuum, sulfur hexafluoride), disconnectors, busbars, transformers, transformers, cables and arresters.

Jul 17, 2026

### How to Measure DC Bus Voltage and DC Ripple

Oftentimes when a drive trips on under voltage or over voltage, it becomes necessary to measure the DC bus voltage. Many drives can display real time DC bus voltage on the HMI screen.

Mar 02, 2026

### Regenerative Drive Failures: How to Fix DC Bus Overvoltage

If the DC bus keeps spiking, something in the system is pushing too much power back into the drive. The real question is, where's it coming from and how do you stop it? What do you do if everything ...

Apr 19, 2026

dc bus overvoltage fault yaskawa – Yaskawa drives – click2electro ...

A DC bus overvoltage fault in your Yaskawa drive indicates that the voltage in the internal DC bus has exceeded the safe operating limit. This can cause damage to the drive ...

Feb 11, 2026

### Common VFD Faults and How to Fix Them Fast

If DC bus voltage spikes above 750V DC during deceleration, you're experiencing regenerative overvoltage and may need to extend deceleration times or add dynamic braking components.

Apr 11, 2026

### Drive Overvoltage Fault

There are many reasons why a Drive can get a Bus Overvoltage fault (F05). This particular document will address one reason why this can occur every time the drive is started.

Sep 05, 2025

## DC Bus Overvoltage White Paper

These conditions are a high line voltage, the motor being back-driven by a high-inertia load, or harmonics. For the troubleshooting section of this paper, you will need to know the DC bus threshold ...

May 26, 2026

## VFD Under Voltage Fault | Eng-Tips

So if, even for brief moments, your load is demanding more torque (ergo more current) and the VFD is attempting to deliver it, then that can result in an under voltage trip due to it causing ...

Mar 23, 2026

## Siemens VFD Strange Overvoltage fault | Information by Electrical ...

What does the bus voltage do when the drive is started? Perhaps some resonance phenomena is happening that involves both the input and output circuits to the drive.

Jul 01, 2026

## High Voltage Breaker Tripping: Causes, Prevention & Selection

Discover why high voltage trips circuit breakers, how to prevent it, and select the right breaker with Wei Shoe Electric's expert guide.

## Contact Us

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