

Bus line adjustment caused a high-voltage fault



Overview

The DC bus overvoltage fault is typically an application error resulting from one of three conditions or a combination. These conditions are a high line voltage, the motor being back-driven by a high-inertia load, or harmonics. 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. My SRT 5kxli had a issue in which dc bus over voltage is occurred in logs and load dropped. Kindly tell me the reason and solution. Authentication Ticket. The power supply has voltage instability: If incoming line voltage fluctuates or spikes, it can push the DC bus beyond its design limits. There's a mismatch in load inertia: A high-inertia load that keeps spinning after the drive commands a stop will regenerate more power than the system can. Cause : Overvoltage comes when voltage in the DC bus has exceeded the overvoltage detection level. If it overshoots or brakes, the DC link will increase until you reach the tripping voltage somewhere close to 1200 V for a 600 V drive.



Article Content

Jul 08, 2025

What are the possible Faults on VFD DC Bus and how

2. consider adjusting acceleration & deceleration time on your variable frequency drive -it might be short. 3. braking resistor (BR) if installed might be fault i.e open

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Drive Overvoltage Fault

Troubleshooting this fault depends on when it occurs. If it occurs when the drive isn't running: Make sure the power wiring is correct. Input 3 phase on R S T, output motor leads on U V W Monitor AC line for

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8108 DC bus overvoltage

This diagnostic message is triggered if the DC bus voltage exceeds the maximum voltage of the device. In the Lexium 52, Lexium 62 and Lexium 62 ILM the maximum voltage of the device and the

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The Action Analysis of Losing Voltage in Adjacent Substations Caused

Combined with an accident of voltage loss in adjacent plants and stations caused by the operator mistakenly closing the bus grounding knife switch, this paper goes deep into the problems

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Busbar Faults and Protection

Conclusion Ensuring effective busbar protection in high-voltage networks is essential for system stability and safety. Differential relays with

Apr 02, 2026

Analysis of fault current and overvoltage at the neutral point of ± 800 ...

In order to enhance the security of ± 800 kV High-Voltage DC (HVDC) system, it is needed to consider and analyze the grounding mode of the neutral point of converter transformer. Different

Nov 18, 2025

DC Bus Overvoltage Problem

The inductance put in the circuit by the line reactor happens to coincide with the cable/front-end capacitance well enough to set up a tank circuit:

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Troubleshooting VFD Problems – How to Measure DC

Introduction: Some of the frequent and troublesome VFD faults are related to the DC bus voltage. The VFD control circuit continuously monitor the

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Understanding the Causes and Effects of Bus Overvoltage in Electrical ...

Load changes can really impact the voltage levels on a bus in electrical systems. You see, when the load going through a bus varies—like when more devices kick in or some power

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dc bus overvoltage fault yaskawa – Yaskawa drives –

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

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what is meant by "DC bus overvoltage issue" in

The DC bus voltage is sampled in A/D interrupt (4-point running average). If the average DC bus voltage is greater than 460V, the DC bus

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High Voltage Busbar Protection

With totally phase-segregated metal clad equipment, only ground faults are possible, and a protection configuration needs to have only ground fault sensitivity. In other situations, an ability to react to

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Siemens VFD Strange Overvoltage fault

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.

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Siemens VFD Strange Overvoltage fault

Have you measured the DC bus voltage with an external meter to see what it's doing? Also compare those readings to what the drive will display for the bus voltage. What does the bus

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Analysis of an accident of abnormal increase in pole bus

This paper analyzes an accident of abnormal increase of pole bus differential current and pole differential current of a converter station caused by

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Bus Voltage Fault

Bus Voltage Fault FAQHybrid INV Issue introduction Inverter repeatedly reports "Bus Voltage Fault". Confirmation of basic information SN number of the

Dec 19, 2025

Overbraking / High DC Bus Voltage Fault on Drive | Eng-Tips

If it overshoots or brakes, the DC link will increase until you reach the tripping voltage somewhere close to 1200 V for a 600 V drive. Try to make the retardation ramp longer and/or speed

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dc bus overvoltage fault yaskawa – Yaskawa drives –

Here's a breakdown of the DC bus overvoltage fault in Yaskawa drives, its causes, and troubleshooting steps: Possible Causes: Input Voltage

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Solved: DC bus overvoltage fault on SURT10000XLI

The repair manual states this is an "auto-recovery" error, but obviously something is wrong that is not recovering. I've checked the high voltage relays and all appear to be proper

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DC Bus Overvoltage White Paper

Numerous built-in protections and fault indications are provided with modern VFDs, including the commonly seen DC Bus Overvoltage Fault. This fault has several possible causes and this

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Understanding VFD Overvoltage Faults | Solution & Analysis

Summary: An "Overvoltage Fault" means the VFD's DC bus voltage exceeded safe limits, typically due to regenerative energy, high input voltage, or incorrect deceleration settings. The

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Overbraking / High DC Bus Voltage Fault on Drive | Eng-Tips

I have a 600V 250hp drive that sometimes trips on "Overbraking", when requested to run. This fault occurs when the DC bus voltage reaches 1174V. The same motor has caused this fault

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A Comprehensive Guide to Fault Analysis of High Voltage DC (HVDC)

The extra high voltage transmission line fault detection and analysis aid in the selection and development of new technologies for improved transmission line protection.

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The essentials of LV/MV/HV substation bus overcurrent and

For example, the use of metal-clad switchgear enhances reliability because the enclosure protects the bus from direct lightning strokes. Medium-voltage metal-clad switchgear uses insulated

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Over-Voltage: Typical Variable Speed Drive Faults and How to ...

The faults we are discussing typically cause drive shutdown, and require that the fault be corrected and the drive reset or rebooted before it can operate normally. One relatively common fault

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BUS Voltage Fault

BUS Voltage Fault Alarm Attribute ... Possible Cause ... Suggestion 1 eck the frequency of the fault. It is normal if the frequency of the fault is less than once every three days. If the frequency is higher,

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Regenerative Drive Failures: How to Fix DC Bus

Once you've identified where the excess voltage is coming from, you can dial into fixing it. The solution could be as simple as reconfiguring your drive parameters.

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What's Really Causing your VFD's DC Bus Overvoltage

Numerous built-in protections and fault indications are provided with modern VFDs, including the commonly seen DC Bus Overvoltage Fault. This fault

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