

# 35kV busbar PT is in operation and hot standby



## Overview

A 35 kV PT explosion in a thermal power plant caused busbar outages and grid risks. Explore root causes, fault progression, protection response, and how to prevent similar failures with insulation testing and resonance overvoltage mitigation. Busbars in power systems are the location where transmission lines, generation sources, and distribution loads converge. Because of this convergence, short circuits located on or near the busbar tend to have very high magnitude currents. Analysis after on - site investigation: 1 Operation Mode Before Fault The plant's system state before the fault is shown in Figure 1. The substation. DIN 43 671 specifies the continuous currents for busbars at an ambient temperature of 35°C and an average busbar temperature of 65°C. Here, we provide an overview of common substation busbar configurations—Single Bus, Main and Transfer, Double Breaker/Double Bus, Ring Bus/Ring Main, and Breaker and a Half. 23, Bus Bars and Bus Ducts Ratings, Bus Bar Supports, Bus Bars.



## Article Content

Jan 18, 2026

Learn HV substation elements (graphic symbols, basics

A busbar is a grounded metal enclosure, containing factory-mounted, bare or insulated conductors, which are usually copper or aluminum bars, rods, or

Sep 12, 2025

PCS-9655 High Speed Transfer Device-NR Electric Co. Ltd

The PCS-9655 high speed transfer device is used in power plants to ensure the continuous and reliable power supply for busbars. In normal operation, the power supply of busbar is provided by the main

Aug 03, 2025

Design issues in HV busbar protection systems

Busbar protection (BBP) This technical article discusses criteria and requirements for designing protection systems for busbars in HV/EHV networks.

Jan 05, 2026

Nexus 5k Port channel issue

Hi guys, I am having issues with a port channel connected to the UCS server. Whenever I am putting physical port into portchannel it is going

Mar 14, 2026

Hotspot Temperature Monitoring of Fully Insulated

A temperature-rise test on a practical insulated busbar taped joint was performed outdoors in hot summer to validate this approach.

May 18, 2026

Electrical Busbars

Electrical busbars conduct high current within power systems. Learn about types, maintenance, failures, and how to extend their lifespan.

Mar 29, 2026

Substation Components—Part 5: Busbar Configurations

Substation Components—Part 5: Busbar Configurations Here, we provide an overview of common substation busbar configurations—Single Bus,

Jun 02, 2026

technik\_im\_detail\_en.book(dri1308051en.fm)

DIN 43 671 specifies the continuous currents for busbars at an ambient temperature of 35°C and an average busbar temperature of 65°C. With the aid of a correction factor ( $k_2$ ), the continuous currents

Sep 30, 2025

Thermal Analysis of Busbars from a High Current Power Supply System

The obtained thermal model can be used to analyse the thermal behaviour of busbars in steady-state conditions at different values of the electric current, cross-section and length of the busbar.

Sep 15, 2025

Hot Standby in PLC Systems: Architecture, Working,

Discover how Hot Standby in PLC systems works to ensure real-time redundancy, uninterrupted control, and fault tolerance in industrial automation.

Jul 31, 2025

35kV Substation Electrical Design | PDF | Transformer

This document is a graduation thesis on the electrical primary design of a 35kV substation. It includes an abstract that outlines the design of a 35kV substation

Jul 29, 2025

Analysis of an Explosion Accident of a 35 kV Voltage Transformer

A 35 kV PT explosion in a thermal power plant caused busbar outages and grid risks. Explore root causes, fault progression, protection response, and how to prevent similar failures with insulation

Jul 30, 2025

Functional Specification for 15 kV, 25 kV, or 35 kV Underground ...

The unit is to be insulated with [select: E200 less-flammable fluid for operation to minus 30 degrees C, Envirotemp™ FR3™ less-flammable fluid for operation to 0 degrees C (32 degrees F), mineral oil for

Jun 01, 2026

**BUSBAR PROTECTION**

During the time when no busbar protection is in operation, the activation of a reverse zone in the distance protection can provisionally replace the busbar protection.

Sep 24, 2025

Technical Application Papers No.11

IEC 61439-6: "Busbar trunking systems (busways)" (in force; superseding the former IEC 60439-2); IEC 61439-7: "Assemblies for specific applications such as marinas, camping sites, market squares,

Sep 26, 2025

Bus Protection Theory

Multiple segment busbars, such as double busbar and triple busbar arrangements, are used to balance loads between various transmission circuits, minimize the physical space required for a substation,

Aug 01, 2025

Detecting Temperature Abnormalities in Bus Ducts Early

In many cases, bus ducts (bus bars) are routed inside factory ceilings, in high places, and under floors. Although the stable operation of bus ducts (bus bars) requires

Jan 28, 2026

BUSBAR PROTECTION

A parallel operation of the existing and the new busbar protection is very complex and involves many provisional steps (risks of false tripping). For this reason, the necessary deactivation of the busbar

Apr 08, 2026

Bus Bars and Bus Ducts Design Requirements ANSI

Bus bar and joints shall be manufactured to remove sharp edges, and to minimize corona. Joints shall be covered with formed insulating boots. Bus bars shall be

Oct 07, 2025

A new MV bus transfer scheme for nuclear power plants

operation for the normal operation of the reactor in pressurized water reactors. If any one (1) of four (4) pumps is inoperable, then the operation mode should be changed to the hot standby mode from

Mar 15, 2026

Getting port in hot-standby aggregated to Port-channel on Nexus 5K

I would like to discuss on issue on one of nexus down link port showing in hot-connected to its uplink switch showing standby, and not sending traffic so marked Port-channel down.

May 21, 2026

What is Hot Standby in PLC?

In this post, we will learn the concept of hot standby in a PLC (programmable logic controller). Earlier, single CPUs were used in a PLC

Jul 08, 2025

Types 8DA10 and 8DB10 up to 40.5 kV

Single-busbar switchgear 8DA10 and traction power supply switchgear 8DA11/12 is delivered in transport units comprising up to four panels. Double-busbar switchgear 8DB10 is delivered in

Apr 16, 2026

35kV RMU Busbar Failure Due to Installation Errors

This paper introduces a 35kV ring main unit busbar insulation breakdown fault, conducted on-site fault inspection, fault waveform analysis, and fault cause analysis.

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://elagage-lorrain.fr>

Email: [sales@elagage-lorrain.fr](mailto:sales@elagage-lorrain.fr)

Phone: +33 6 47 82 19 35

Address: 15 Rue de la République, 69002 Lyon, France

This document is for informational purposes only. Specifications subject to change without notice.

