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Railway Application - Fixed Installations - Voltage at the pantograph

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VII - Fixed installations

Application:

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The IRS 70022 is the updated version of the UIC Leaflet 796 - 1st Edition - issued on the 01/07/2000.

The IRS 70022 replaces the UIC Leaflet 796.

All members of the International Union of Railway

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The International Railway Solution

The International Railway Solutions (IRS) are structured in a General Part and in some eventual Application Parts.

The General Part is valid worldwide, while the Application Parts are valid for a specific railway application, based on a geographical or on a service implementation.

The eventual Application Parts may thus be added according to the current needs of the Railway Community.

Structure of the International Railway Solution:

IRS 70022 Railway Application - Fixed Installations - Voltage at the pantograph

General part

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Foreword

This IRS has been drafted by the UIC Rail System Forum - Energy Management Sector - "Energy and Electric Traction" Working Group as updating of the *UIC Leaflet 796 - 1st Edition*.

This IRS deals with values for the voltage at the OCL and voltage tolerances.

Summary

This IRS briefly refers to generic documents concerning values for the voltage at the OCL and voltage tolerances and then defines an index of the quality of voltage at (the) pantograph(s) for categories of high speed line.

When dimensioning studies for electric traction fixed installations are carried out, mainly on the basis of simulated traffic, this index, called the “mean useful voltage at train pantographs”, is calculated using a formula which can be adapted to dedicated software. It reflects the level of performance that electric traction fixed installations can provide to different trains running in a given zone.

Compliance with the minimum values indicated in the IRS will enable infrastructure managers to guarantee a realistic simulation of the traffic graph.

Lastly, the IRS contains a method to verify that simulation results converge with measurements on-board trains.