Jernbaneverket

EU-Certificate/Declaration of Conformity

Interoperability of the trans-European rail system

In accordance with Directive 1301/2014 on the technical specifications for interoperability relating to the 'energy' subsystem and Directive 1303/2014 concerning the technical specification for interoperability relating to 'safety in railway tunnels',

Jernbaneverket (JBV) hereby declares that the

Overhead contact line designs S20 (A/B/C) and S25,

introduced in 1990, fulfils all relevant requirements.

The verification is in accordance with Module CA of the Directive 2010/713/EU which is listed in Directive 1301/2014 clause 6.1.2 as applicable.

Jernbaneverket

Roger Holm
Teknologidirektør, Jernbaneverket
7.3.2016

Appendix A

Designs	Design speeds	Tensioning force
S20A	speed 160 < v ≤ 200 km/h on free line	10/10 kN w/stich wire
S20B	speed 0 < v ≤ 160 km/h on free line	10/10 kN
$S20C_1$	speed 160 <v ≤ 200 km/h in tunnels	13/13 kN w/stich wire
$S20C_2$	speed 0 < v ≤ 160 km/h in tunnels	13/13 kN
S25	speed 200 < v ≤ 250 km/h on free lines and in tunnels	15/15 kN w/stich wire

Design parameters	Value/Reference	Additional information
Maximal span length	65 m	
Maximal wind speed S20	30 m/s	wind exposed places: 37 m/s
Maximal wind speed S25	33 m/s	wind exposed places: 37 m/s
Maximal continuous current S20	600 A	
Maximal continuous current S25	800 A	
Operational tolerances	According to EN 50119, EN 50122-1 to 3	
Wire material	According to DIN 48201-2, EN 50149	
Nominal voltage	15 kV	
Nominal frequency	16.7 Hz	
Pantograph head	According to EN 50367:2012, Appendix B, Figure B.2 – Pantograph head with length of 1950 mm	

Table A-1: Overhead contact line designs used in Jernbaneverket

Appendix B

References:

EK.800406-000 TECNICAL REPORT - Verification of conformity with requirements for interoperability for overhead contact line designs, dated 2.3.2016 (Delivered by Jernbaneverket, Teknologi, Jernbaneteknikk, Elkraft on request)