

ERATV – Application Guide

ERATV v1.2.2

Introduction

This document is a template example for ERATV Application Guide.

CodedParameters

4.1 - General technical characteristics

General technical characteristics : Heading (no data)

4.1.1 - Number of driving cabs

Number of driving cabs : [Number] 0/1/2

4.1.2 - Speed

Speed : Heading (no data)

4.1.2.1 - Maximum design speed

Maximum design speed : [Number] km/h

4.1.2.2 - Maximum speed when empty

Maximum speed when empty : [Number] km/h

4.1.3 - Wheel set gauge

Wheel set gauge : [character string] Selection from predefined list

4.1.3.b - Wheel set Gauge -Transformation method

Wheel gauge transformation method. Defined if more than one wheel gauges have been selected. Selection from predefined list

4.1.4 - Conditions of use regarding train formation

Conditions of use regarding train formation : [character string] Selection from a predefined list.

4.1.5 - Maximum number of trainsets or locomotives coupled together in multiple operation.

Maximum number of trainsets or locomotives coupled together in multiple operation. : [number]

4.1.6 - "Number of elements in the rake of freight wagons (only for subcategory ""rake of freight wagons"")"

"Number of elements in the rake of freight wagons (only for subcategory ""rake of freight wagons"") : [number]"

4.1.7 - Letter marking

Letter marking : [character string]

4.1.8 - Type meets the requirements necessary for validity of the vehicle authorisation granted by one Member State in other MSs

Type meets the requirements necessary for validity of the vehicle authorisation granted by one Member State in other MSs : [character string] Selection from a predefined list

4.1.9 - Dangerous goods for which the vehicle is suitable (tank code)

Dangerous goods for which the vehicle is suitable (tank code) : [character string] Tank code

4.1.10 - Structural category

Structural category : [character string] Selection from a predefined list

4.2 - Vehicle kinematic gauge

Vehicle kinematic gauge : Heading (no data)

4.2.1 - Vehicle kinematic gauge (interoperable gauge)

Vehicle kinematic gauge (interoperable gauge) : [character string] Selection from predefined list (more than one possible) (the list will be different for different categories depending on the applicable TSI)

4.2.2 - Vehicle kinematic gauge (other gauges assessed using the kinematic method)

Vehicle kinematic gauge (other gauges assessed using the kinematic method) : [character string] Selection from predefined list (more than one possible)

4.3 - Environmental conditions

Environmental conditions : Heading (no data)

4.3.1 - Temperature range

Temperature range : [character string] Selection from a predefined list (more than one possible)

4.3.2 - Altitude range

Altitude range : [character string] Selection from a predefined list

4.3.3 - Snow ice and hail conditions

Snow ice and hail conditions : [character string] Selection from a predefined list

4.3.4 - Ballast pick up (for v>190km/h vehicles only)

Ballast pick up (for v>190km/h vehicles only) : Open point

4.4 - Fire safety

Fire safety : Heading (no data)

4.4.1 - Fire safety category

Fire safety category : [character string] Selection from a predefined list

4.5 - Design mass and loads

Design mass and loads : Heading (no data)

4.5.1 - Permissible payload for different line categories

Permissible payload for different line categories : [number] t for line category [character string]

4.5.2 - Design mass

Design mass : Heading (no data)

4.5.2.1 - Design mass in working order

Design mass in working order : [number] kg

4.5.2.2 - Design mass under normal payload

Design mass under normal payload : [number] kg

4.5.2.3 - Design mass under exceptional payload

Design mass under exceptional payload : [number] kg

4.5.3 - Static axle load

Static axle load : Heading (no data)

4.5.3.1 - Static axle load in working order

Static axle load in working order : [number] kg

4.5.3.2 - Static axle load under normal payload/ maximum payload for freight wagons

Static axle load under normal payload/ maximum payload for freight wagons : [number] kg

4.5.3.3 - Static axle load under exceptional payload

Static axle load under exceptional payload : [number] kg

4.5.4 - Quasi-static guiding force (if exceeds the limit defined in TSI or not defined in the TSI)

Quasi-static guiding force (if exceeds the limit defined in TSI or not defined in the TSI) : [number] kN

4.6 - Rolling stock dynamic behaviour

Rolling stock dynamic behaviour : Heading (no data)

4.6.1 - Cant deficiency (maximum uncompensated lateral acceleration) for which the vehicle has been assessed

Cant deficiency (maximum uncompensated lateral acceleration) for which the vehicle has been assessed : [number] mm. For dual gauge vehicles values for each gauge have to be indicated

4.6.2 - Vehicle equipped with a cant deficiency compensation system ("tilting vehicle")

Vehicle equipped with a cant deficiency compensation system ("tilting vehicle") : [Boolean] Y/N

4.6.3 - In service limits of equivalent conicity (or worn wheel profile) for which the vehicle has been tested

In service limits of equivalent conicity (or worn wheel profile) for which the vehicle has been tested : Open point

4.7 - Braking

Braking : Heading (no data)

4.7.1 - Maximum train deceleration

Maximum train deceleration : [number] m/s²

4.7.2 - Service braking

Service braking : Heading (no data)

4.7.2.1 - Brake performance on steep gradients with normal payload

Brake performance on steep gradients with normal payload : Heading (no data)

4.7.2.1.1 - Reference case of TSI

Reference case of TSI : [character string] from a predefined list

4.7.2.1.2 - Speed (if no reference case is indicated)

Speed (if no reference case is indicated) : [number] km/h

4.7.2.1.3 - Gradient (if no reference case is indicated)

Gradient (if no reference case is indicated) : [number] ‰ (mm/m)

4.7.2.1.4 - Distance (if no reference case is indicated)

Distance (if no reference case is indicated) : [number] km

4.7.2.1.5 - Time (if distance is not indicated) (if no reference case is indicated)

Time (if distance is not indicated) (if no reference case is indicated) : [number] min

4.7.3 - Parking brake

Parking brake : Heading (no data)

4.7.3.1 - All vehicles of this type must be equipped with a parking brake (parking brake mandatory for vehicles of this type)

All vehicles of this type must be equipped with a parking brake (parking brake mandatory for vehicles of this type) : [Boolean] Y/N

4.7.3.2 - Parking brake type (if the vehicle is fitted with it)

Parking brake type (if the vehicle is fitted with it) : [character string] from a predefined list

4.7.3.3 - Maximum gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it)

Maximum gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it) : [number] ‰ (mm/m)

4.7.4 - Braking systems fitted on the vehicle

Braking systems fitted on the vehicle : Heading (no data)

4.7.4.1 - Eddy current brake

Eddy current brake : Heading (no data)

4.7.4.1.1 - Eddy current brake fitted

Eddy current brake fitted : [Boolean] Y/N

4.7.4.1.2 - Possibility of preventing the use of the eddy current brake (only if fitted with eddy current brake)

Possibility of preventing the use of the eddy current brake (only if fitted with eddy current brake) : [Boolean] Y/N

4.7.4.2 - Magnetic brake

Magnetic brake : Heading (no data)

4.7.4.2.1 - Magnetic brake fitted

Magnetic brake fitted : [Boolean] Y/N

4.7.4.2.2 - Possibility of preventing the use of the magnetic brake (only if fitted with magnetic brake)

Possibility of preventing the use of the magnetic brake (only if fitted with magnetic brake) : [Boolean] Y/N

4.7.4.3 - Regenerative brake (only for vehicles with electrical traction)

Regenerative brake (only for vehicles with electrical traction) : Heading (no data)

4.7.4.3.1 - Regenerative brake fitted

Regenerative brake fitted : [Boolean] Y/N

4.7.4.3.2 - Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake)

Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake) : [Boolean] Y/N

4.8 - Geometrical characteristics

Geometrical characteristics : Heading (no data)

4.8.1 - Vehicle length

Vehicle length : [number] m

4.8.2 - Minimum in-service wheel diameter

Minimum in-service wheel diameter : [number] mm

4.8.3 - Shunting restrictions

Shunting restrictions : [Boolean] Y/N

4.8.4 - Minimum horizontal curve radius capability

Minimum horizontal curve radius capability : [number] m

4.8.5 - Minimum vertical convex curve radius capability

Minimum vertical convex curve radius capability : [number] m

4.8.6 - Minimum vertical concave curve radius capability

Minimum vertical concave curve radius capability : [number] m

4.8.7 - Height of loading platform (for flat wagons and combined transport)

Height of loading platform (for flat wagons and combined transport) : [number] mm

4.8.8 - Suitability for transport on ferries

Suitability for transport on ferries : [Boolean] Y/N

4.9 - Equipment

Equipment : Heading (no data)

4.9.1 - Type of end coupling (indicating tensile and compressive forces)

Type of end coupling (indicating tensile and compressive forces) : [Character string] From a predefined list (multiple selection possible)

4.9.2 - Axle bearing condition monitoring (hot axles box detection)

Axle bearing condition monitoring (hot axles box detection) : [Character string] From a predefined list (multiple selection possible)

4.9.3 - Flange lubrication

Flange lubrication : Heading (no data)

4.9.3.1 - Flange lubrication fitted

Flange lubrication fitted : [Boolean] Y/N

4.9.3.2 - Possibility of preventing the use of the lubrication device (only if fitted with flange lubrication)

Possibility of preventing the use of the lubrication device (only if fitted with flange lubrication) : [Boolean] Y/N

4.10 - Energy supply

Energy supply : Heading (no data)

4.10.1 - Energy supply system

Energy supply system : [Character string] From a predefined list (multiple selection possible)

4.10.2 - Maximum power (to be indicated for each energy supply system the vehicle is equipped for)

Maximum power (to be indicated for each energy supply system the vehicle is equipped for) : [Number] kW for [energy supply system automatically prefilled in]

4.10.3 - Maximum rated current from the catenary (to be indicated for each electrical energy supply system the vehicle is equipped for)

Maximum rated current from the catenary (to be indicated for each electrical energy supply system the vehicle is equipped for) : [Number] A for [Voltage automatically prefilled in]

4.10.4 - Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for)

Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for) : [Number] A for [Voltage automatically prefilled in]

4.10.5 - Height of interaction of pantograph with contact wires (over top of rail) (to be indicated for each energy supply system the vehicle is equipped for)

Height of interaction of pantograph with contact wires (over top of rail) (to be indicated for each energy supply system the vehicle is equipped for) : [Number] From [m] to [m] (with two decimals)

4.10.6 - Pantograph head (to be indicated for each energy supply system the vehicle is equipped for)

Pantograph head (to be indicated for each energy supply system the vehicle is equipped for) :

[Character string] for [energy supply system automatically prefilled in] From a predefined list (multiple selection possible)

4.10.7 - Number of pantographs in contact with the overhead contact line (OCL) (to be indicated for each energy supply system the vehicle is equipped for)

Number of pantographs in contact with the overhead contact line (OCL) (to be indicated for each energy supply system the vehicle is equipped for) : [Number]

4.10.8 - Shortest distance between two pantographs in contact with the OCL (to be indicated for each energy supply system the vehicle is equipped for; to be indicated for single and if applicable multiple operation) (only if number of raised pantographs is more than 1)

Shortest distance between two pantographs in contact with the OCL (to be indicated for each energy supply system the vehicle is equipped for; to be indicated for single and if applicable multiple operation) (only if number of raised pantographs is more than 1) : [Number] [m]

4.10.9 - Type of OCL used for the test of current collection performance (to be indicated for each energy supply system the vehicle is equipped for) (only if number of raised pantographs is more than 1)

Type of OCL used for the test of current collection performance (to be indicated for each energy supply system the vehicle is equipped for) (only if number of raised pantographs is more than 1) : [Character string] for [energy supply system automatically prefilled in] From a predefined list (multiple selection possible)

4.10.10 - Material of pantograph contact strip the vehicle may be equipped with (to be indicated for each energy supply system the vehicle is equipped for)

Material of pantograph contact strip the vehicle may be equipped with (to be indicated for each energy supply system the vehicle is equipped for) : [Character string] for [energy supply system automatically prefilled in] From a predefined list (multiple selection possible)

4.10.11 - Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for)

Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for) : [Boolean] Y/N

4.10.12 - TSI conform energy meter for billing purposes installed on board

TSI conform energy meter for billing purposes installed on board : [Boolean] Y/N

4.11 - Noise related characteristics

Noise related characteristics : Heading (no data)

4.11.1 - Pass-by noise level (dB(A))

Pass-by noise level (dB(A)) : [Number] (dB(A))

4.11.2 - Pass-by noise level was measured under reference conditions

Pass-by noise level was measured under reference conditions : [Boolean] Y/N

4.11.3 - Stationary noise level (dB(A))

Stationary noise level (dB(A)) : [Number] (dB(A))

4.11.4 - Starting noise level (dB(A))

Starting noise level (dB(A)) : [Number] (dB(A))

4.12 - Passenger related characteristics

Passenger related characteristics : Heading (no data)

4.12.1 - General passenger related characteristics

General passenger related characteristics : Heading (no data)

4.12.1.1 - Number of fixed seats

Number of fixed seats : From [Number] to [Number]

4.12.1.2 - Number of toilets

Number of toilets : [Number]

4.12.1.3 - Number of sleeping places

Number of sleeping places : From [Number] to [Number]

4.12.2 - PRM related characteristics

PRM related characteristics : Heading (no data)

4.12.2.1 - Number of priority seats

Number of priority seats : From [Number] to [Number]

4.12.2.2 - Number of wheelchair spaces

Number of wheelchair spaces : From [Number] to [Number]

4.12.2.3 - Number of PRM accessible toilets

Number of PRM accessible toilets : [Number]

4.12.2.4 - Number of wheelchair accessible sleeping places

Number of wheelchair accessible sleeping places : From [Number] to [Number]

4.12.3 - Passenger access and egress

Passenger access and egress : Heading (no data)

4.12.3.1 - Platform heights for which the vehicle is designed.

Platform heights for which the vehicle is designed. : [Number] from predefined list (multiple selection possible)

4.12.3.2 - Description of any integrated boarding aids (if provided)

Description of any integrated boarding aids (if provided) : [Character string] Selection from a predefined list (multiple selection possible)

4.12.3.3 - Description of any portable boarding aids if considered in the design of the vehicle for meeting the PRM TSI requirements

Description of any portable boarding aids if considered in the design of the vehicle for meeting the PRM TSI requirements : [Character string] Selection from a predefined list (multiple selection possible)

4.13 - On-board CCS equipment

On-board CCS equipment (for vehicles with a driving cab only) : Heading (no data)

4.13.1 - Signalling

Signalling : Heading (no data)

4.13.1.1 - ETCS equipment on-board and its level

ETCS equipment on-board and its level : [Character string] From a predefined list

4.13.1.2 - ETCS baseline.version (x.y). If the version is not fully compatible it shall be indicated in brackets

ETCS baseline.version (x.y). If the version is not fully compatible it shall be indicated in brackets : [Character string] From a predefined list

4.13.1.3 - ETCS on-board equipment for reception of infill-function information via loop or GSM-R

ETCS on-board equipment for reception of infill-function information via loop or GSM-R : [Character string] From a predefined list (more than one option possible)

4.13.1.4 - ETCS national applications implemented (NID_XUSER of Packet 44)

ETCS national applications implemented (NID_XUSER of Packet 44) : [Number] From a predefined list according to the List of ETCS Variables (more than one option possible)

4.13.1.5 - Class B or other train protection control and warning systems installed (system and if applicable version)

Class B or other train protection control and warning systems installed (system and if applicable version) : [Character string] From a predefined list (more than one option possible)

4.13.1.6 - Special conditions implemented on-board to switch over between different train protection control and warning systems.

"Special conditions implemented on-board to switch over between different train protection control and warning systems. : [Character string] From combination of systems installed on board ("System XX"/"System YY") (more than one option possible)"

4.13.2 - Radio

Radio : Heading (no data)

4.13.2.1 - GSM-R equipment on board and its version (FRS and SRS)

GSM-R equipment on board and its version (FRS and SRS) : [Character string] From a predefined list

4.13.2.2 - Number of GSM-R mobile sets in driving cab for data transmission

Number of GSM-R mobile sets in driving cab for data transmission : [Number]: 0 1 2 or 3

4.13.2.3 - Class B or other radio systems installed (system and if applicable version)

Class B or other radio systems installed (system and if applicable version) : [Character string] From a predefined list (more than one option possible)

4.13.2.4 - Special conditions implemented on-board to switch over between different radio systems.

"Special conditions implemented on-board to switch over between different radio systems. : [Character string] From combination of systems installed on board ("System XX"/"System YY") (more than one option possible)"

4.14 - Compatibility with train detection systems

Compatibility with train detection systems : Heading (no data)

4.14.1 - Type of train detection systems for which the vehicle has been designed and assessed

Type of train detection systems for which the vehicle has been designed and assessed : [Character string] From a predefined list (more than one option possible)

4.14.2 - Detailed vehicle characteristics related to compatibility with train detection systems

Detailed vehicle characteristics related to compatibility with train detection systems : Heading (no data)

4.14.2.1 - Maximum distance between consecutive axles

Maximum distance between consecutive axles : [Number] mm

4.14.2.2 - Minimum distance between consecutive axles

Minimum distance between consecutive axles : [Number] mm

4.14.2.3 - Distance between the first and the last axle

Distance between the first and the last axle : [Number] mm

4.14.2.4 - Maximum length of the vehicle nose

Maximum length of the vehicle nose : [Number] mm

4.14.2.5 - Minimum wheel rim width

Minimum wheel rim width : [Number] mm

4.14.2.6 - Minimum wheel diameter

Minimum wheel diameter : [Number] mm

4.14.2.7 - Minimum flange thickness

Minimum flange thickness : [Number] mm

4.14.2.8 - Minimum flange height

Minimum flange height : [Number] mm

4.14.2.9 - Maximum flange height

Maximum flange height : [Number] mm

4.14.2.10 - Minimum axle load

Minimum axle load : [Number] t

4.14.2.11 - Metal and inductive components-free space between wheels

Metal and inductive components-free space between wheels : Open point

4.14.2.12 - Wheel material is ferromagnetic

Wheel material is ferromagnetic : [Boolean] Y/N

4.14.2.13 - Maximum sanding output

Maximum sanding output : [Number] g per [Number] s

4.14.2.14 - Possibility of preventing the use of sanding

Possibility of preventing the use of sanding : Y/N

4.14.2.15 - Vehicle metal mass

Vehicle metal mass : Open point

4.14.2.16 - Maximum impedance between opposite wheels of a wheelset

Maximum impedance between opposite wheels of a wheelset : [Number]] ?

4.14.2.17 - Minimum vehicle impedance (between wheels and pantograph) (only for vehicles equipped for 1500V or 3000V DC)

Minimum vehicle impedance (between wheels and pantograph) (only for vehicles equipped for 1500V or 3000V DC) : [Number] ? for [Number] Hz (more than one line is possible)

4.14.2.18 - Electromagnetic interferences caused by return current in the rails

Electromagnetic interferences caused by return current in the rails : Open point

4.14.2.19 - Electromagnetic emission of the train with respect to compatibility with train detection systems

Electromagnetic emission of the train with respect to compatibility with train detection systems : Open point

4.3.2.1 - Altitude range detail

Altitude range : [character string] value for 'X' if value 'AX' is selected in 4.3.2