# Imported values from the ERA Braking Curves tool v 3.0

This is a summary of the current status of the EFS importer. For each field identified in the ERA Braking Curves tool v 3.0, the possible values are listed and whether the value is considered by the importer.

Any values that are not currently imported can be added by the ERTMSFormalSpecs team as required.

## Sheet 1 – Train (main)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Field** | **Values** | | | | **Imported** | **Comments** |
| Train type | Gamma – Lambda | | | | Y |  |
| Brake position | PasInP – FrInP – FrInG | | | | Y |  |
| Traction model : T\_traction\_cut\_off | Numeric value | | | | Y |  |
| Service brake interface | Yes – No | | | | Y |  |
| Traction cut-off interface | Yes – No | | | | Y |  |
| Special/additional brake independent from wheel/track adhesion | Yes – No | | | | N | Only if Brake position is PasInP  Do not know what this is |
| Speed inaccuracy | Fixed  Subset-041 | Numeric value | | | N | Only if (National values) not inhibit the compensation for the speed inaccuracy |
|  | | | N |
| Position inaccuracy | Abs.+Rel. value  Subset-041 | | | 2 Num. values | N |  |
|  | N |  |
| Train length | Numeric value / slider | | | | Y |  |
| Nominal rotating mass | Fixed  Unknown | | Num. value | | Y |  |
|  | | Y |  |
| Antenna distance | Numeric value | | | | Y |  |

## Sheet 2 – Track

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Values** | | **Imported** | **Comments** |
| Target type | LOA/MRSP – EOA/SvL | | N | Imported targets are LOA if the target speed > 0, EOA otherwise |
| Target speed | Numeric value | | Y | Only if the target type is MRSP/LOA |
| Distance to target | Numeric value | | Y | Importer adds 1000 m, to be sure that the EFS functions can calculate the values |
| Initial speed | Numeric value | | Y | Imported as the Signalling related speed restriction |
| EOA-SvL distance | Numeric value | | N |  |
| Release speed | Fixed  Calculate on-board | Num. value | Y  N | Only if the target type is EOA/SvL  The Calculate on-board option is not recognized by the importer |
|  |
| Level | L1 – L2/3 | | N | Used for calculation of the release speed on-board |
| Relocation balises | Numeric value | | N | Don’t know what this is |
| Location accuracy | Numeric value | | Y |  |
| Track condition brake inhibition profile | Start | Num. value | N | The end is always “EBD foot” |
| End | “EBD foot” |
| Reduced adhesion profile | Start | Num. value | N |  |
| End | Num. value |
| Gradient profile (repeated) | Distance | Num. value | Y |  |
| Gradient | Num. value |

## Sheet 3 – National values

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Values** | **Imported** | **Comments** |
| Use service brake in target speed monitoring | Yes – No | N | Always set to Yes  If “No”, prevents the Service brake interface in Sheet 1 |
| Permission to inhibit the compensation of the speed measurement inaccuracy | Yes – No | N | Always set to Yes  If “No”, prevents Speed inaccuracy in Sheet 1 |
| Maximum deceleration under reduced adhesion conditions 1 | Numeric value | Y |  |
| Maximum deceleration under reduced adhesion conditions 2 | Numeric value | Y |  |
| Maximum deceleration under reduced adhesion conditions 3 | Numeric value | Y |  |
| Weighting factor for available wheel/rail adhesion | Numeric value | Y |  |

## Sheet 4 – Fixed values

These are all imported.

## Sheet 5 – Brake parameters (Lambda)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Values** | | **Imported** | **Comments** |
| Brake percentage for the EB | Numeric value + slider | | Y |  |
| T\_bs | Conversion model |  | N |  |
| User’s shorter value | Numeric value |

## Sheet 6 – Brake parameters (Gamma)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Values** | | **Imported** | **Comments** |
| Inhibition of special brakes (difference between Combination 1 and Combination 2) | Presence/absence of:   * Eddy Current * Regenerative * Magnetic shoe | | Y | Cells in the table containing ‘X’ indicate presence of the corresponding brake |
| Combination 1 (repeated) | Speed | Num. value | Y |  |
| Dec. | Num. value |
| Combination 2 (repeated) | Speed | Num. value | Y |  |
| Dec. | Num. value |
| Emergency brake confidence level | Select | | N | Selecting new box updates Sheet 3 |
| Correction factor Kwet\_rst(V) 1 | Values (rpt) | Numeric value | Y |  |
| T\_brake\_emergency | Numeric value |
| Correction factor Kwet\_rst(V) 2 | Values (rpt) | Numeric value | Y |  |
| T\_brake\_emergency | Numeric value |
| Service brake deceleration 1 | Values (rpt) | Numeric value | Y |  |
| T\_brake\_service | Numeric value |
| Service brake deceleration 2 | Values (rpt) | Numeric value | Y |  |
| T\_brake\_service | Numeric value |

## Sheet 7 – Correction factor Kdry\_rst

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Values** | **Imported** | **Comments** |
| EB confidence level 0.5 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.5 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.9 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.9 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.99 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.99 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.9999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.9999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.99999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.99999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.999999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.999999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.9999999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.9999999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.99999999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.99999999 2 (repeated) | Numeric value | N |  |
| EB confidence level 0.999999999 1 (repeated) | Numeric value | N |  |
| EB confidence level 0.999999999 2 (repeated) | Numeric value | N |  |

## Sheet 8 – Integrated correction factor

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field** | **Values** | | | **Imported** | **Comments** |
| Fr Kv\_int (repeated) | Speed | Num. value | | Y |  |
| Kv\_int | Num. value | |
| PasInP Kv\_int, max EB deceleration < A\_NVP12 (repeated) | Speed | | Num. value | Y |  |
| Kv\_int\_x\_a | | Num. value |
| PasInP Kv\_int, max EB deceleration > A\_NVP23 (repeated) | Speed | | Num. value | Y |  |
| Kv\_int\_x\_b | | Num. value |
| A\_NVP12 | Numeric value | | | Y |  |
| A\_NVP23 | Numeric value | | | Y |  |
| Kt\_int | Numeric value | | | Y |  |
| Kr\_int (repeated) | Train length | | Numeric value | Y |  |
| Kr\_int | | Num. value |

## Sheet 9 – Gamma train deceleration

No imported values.

## Sheet 10 – Lambda train deceleration

No imported values

## Sheet 11 – Curves Gamma train

|  |  |  |
| --- | --- | --- |
| **Column** | **Imported** | **Comments** |
| Speed | Y |  |
| A\_safe | Y |  |
| A\_expected | Y |  |
| EBD | Y |  |
| SBD | Y |  |
| EBI | Y |  |
| SBI1 | Y |  |
| SBI2 | Y |  |
| FLOI | Y |  |
| Warning | Y |  |
| Permitted | Y |  |
| Indication | Y |  |
| Non shifted EBI | N |  |
| Speed | N |  |
| Position | N |  |
| Release speed | N |  |

## Sheet 12 – Curves lambda train

|  |  |  |
| --- | --- | --- |
| **Column** | **Imported** | **Comments** |
| Speed | Y |  |
| EBD | Y |  |
| SBD | Y |  |
| EBI | Y |  |
| SBI1 | Y |  |
| SBI2 | Y |  |
| FLOI | Y |  |
| Warning | Y |  |
| Permitted | Y |  |
| Indication | Y |  |
| Non shifted EBI | N |  |
| Speed | N |  |
| Position | N |  |
| Release speed | N |  |