**Coversheet**

**The Coversheet must contain the following:**

* **Heading “Electrical System Form FSEast 2021”**
* **University and Team Name**
* **Car number**
* **Main Team Contact (e-mail) for ESF related questions**

Feel free to add team logo, car picture, and the like.

**Attention!** The whole ESF document is split into 6 nearly equal Sections. The sections must be uploaded separately.

**Requirements**

Read the document “How to complete ESF” which is available at:
<https://www.fsaeonline.com/content/How-to-Complete-ESF.pptx>

Maximum number of pages for a Section is 20 pages without the Appendix and Changelog.

Each section must have its own Table of contents.

The table of contents must be hyperlinked.

The generated PDF must contain hyperlinked bookmarks.

Links to different sections are prohibited. If you have to refer to a part in a different Section, copy the necessary information instead. If you have to refer to a part in the same Section, the links must be hyperlinked, and there must be a link back to the original place.

**Example**: in chapter 2.1.2 you refer to chapter 2.4.1. By clicking on the text ”2.4.1” must jump to 2.4.1. At chapter 2.4.1 there must be a similar link back to 2.1.2.

Use internal reference links. For example, when describing wiring and mentioning a figure in the text then link it to the figure.

Links to video or audio data are prohibited.

If you do not fill out the tables or if you change the format of the ESF Template, you will fail by default.

Every single part / heading of the ESF Template must be filled with content. If the respective part is not relevant for your concept, describe shortly why not.

Do not just copy all your datasheets in the appendix, e.g. we do not need to know what you must do to program your motor controller; we do not need the whole user manuals of microcontrollers to review your ESF, etc. Similarly, do not just paste only a link to the entire data sheet. ***We should not need an internet connection to obtain the information necessary to review your ESF.***

Single pages / figures / tables extracted from the complete datasheet showing the important parameters, figures, etc. are usually sufficient, but the source / link to the complete datasheet must be provided.

If the datasheet describes more than one type of the component, clearly mark in the datasheet to which type you are referring / which type you plan to use.

**Example**: You copy a datasheet describing a complete range of relays. If you selected the 24V SPDT monostable version, you must highlight the information referring to this specific version.

Datasheets should only be used as a reference. Please cover the important data in your text by using tables, figures, etc.

Please use the English version of the datasheets in your ESF.

If you refer to parts of a datasheet, then you need to provide an internal document links from the text to the respective datasheet and another internal document link back from the datasheet to the text section.

If you are unsure with respect to feedback of the reviewer, do not hesitate to write an e-mail and ask.

Parts of the ESF which are changed because of reviewer’s feedback must be noted in the Changelog which can be found in each section after the Table of contents. If you do not update the Changelog in case of a resubmitted ESF section, you will fail by default.

You can find guideline texts in the templates like “Describe your concept of the shutdown circuit” or “Has to be hyperlinked”. These are there to help you to focus on the expected content, please remove these guideline texts from your ESF sections.

Following these guidelines will guarantee a swift review process.

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# Changelog

**Chapter Change**

Chapter 2.2 **(for example)** Added description for IMD **(for example)**

# List of Figures

Has to be hyperlinked!

# List of Tables

Has to be hyperlinked!

# List of Abbreviations

# Data Logger mounting

## Description

Describe where the data logger is mounted and how, etc.

## Wiring, cables, current calculations, connectors

Describe the wiring, show schematics, provide calculations for currents and voltages, and show data regarding the cables and connectors used.

## Position in car

Provide CAD renderings showing all relevant parts. Mark the parts in the rendering, if necessary.

# Appendix

**Numbering according to chapter numbering**

Example appendix entry:

7.1.1 – Bender IR155-3203 IMD ratings

Referred from 7.1.1.



Complete data sheet located at:
<https://www.bender.de/fileadmin/content/Products/d/e/IR155-32xx-V004_D00115_D_XXEN.pdf>