



**Annex 6** of the **Report**  
on the  
**Certificate**  
**Z10 067803 0020 Rev. 01**  
Generic Logic Device SIMATIC Safety System

**F-CPU S7-1500**

**Applicant:**

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**Report No.: SN101344C-A6**

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## Revision Log

| Version | Name                  | Date       | Changes/History                                                                                                                         |
|---------|-----------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1.0     | C. Dirmeier / P. Weiß | 2023-09-12 | Based on SN92961C_A1_1.48 (SN101198T)                                                                                                   |
| 1.1     | P. Weiß               | 2023-11-15 | Two new F-CPU's added; CPU1513proF-2PN 6ES7 513-2GM03-0AB0 and CPU1516proF-2PN 6ES7 516-2GP03-0AB0 (SN101749T)                          |
| 1.2     | P. Weiß               | 2024-02-08 | New F-CPU added; CPU 1517F 6ES7 517-3FP01-0AB0 (Review Protocol_F_CPU_FW312)                                                            |
| 1.3     | P. Weiß               | 2024-12-10 | New F-CPU added (SN104125T)                                                                                                             |
| 1.4     | C. Dirmeier           | 2025-07-03 | EN 298:2022 added (SE105061T), template adjusted                                                                                        |
| 1.5     | P. Weiß               | 2025-07-15 | New version of the Software Controller added. (Review Protocol_SoftwareControllerV40_0_0; V1.0)                                         |
| 1.6     | P. Weiß               | 2025-07-29 | New version of the Software Controller added. (Review Protocol_SoftwareControllerV40_0_0; V1.1)                                         |
| 1.7     | P. Weiß               | 2025-12-10 | Typo in clause 2 corrected and new version of the Software Controller added. (Review Protocol_S7-Plus-CPU's S7-15xxF_Release V4.1_V1.1) |

## 1 Additional standards

In addition to the test basis defined in the Report on the Certificate SN101344C, the type testing of the components listed in this annex includes the following standards too.

### 1.1 Product standards

*Remark: The following standards were approved by other testing services.*

| No.  | Reference                    | Description                                                                                                                                                                 |
|------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /N1/ | IEC 61131-2:2017             | Programmable controllers - Part 2: Equipment requirements and tests                                                                                                         |
| /N2/ | EN 61131-2:2007              | Programmable controllers - Part 2: Equipment requirements and tests                                                                                                         |
| /N3/ | IEC 61511-1:2016 + AMD1:2017 | Functional safety - Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements |

**Table 1: Product standards**



## 1.2 Electrical Safety

*Remark: The following standards were approved by other testing services.*

| No.  | Reference                                      | Description                                                                                                                                              |
|------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| /N4/ | IEC 61010-1:2010 +<br>AMD1:2016 +<br>COR1:2019 | Safety requirements for electrical equipment for measurement, control, and laboratory use –<br>Part 1: General requirements                              |
| /N5/ | EN 61010-1:2010 +<br>A1/AC:2019+               | Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements                                 |
| /N6/ | IEC 61010-2-201:2017                           | Safety requirements for electrical equipment for measurement, control, and laboratory use -<br>Part 2-201: Particular requirements for control equipment |
| /N7/ | EN 61010-2-201:2018                            | Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-201: Particular requirements for control equipment    |

**Table 2: Electrical safety standards**

## 1.3 Environmental Testing

*Remark: The following standards were approved by other testing services.*

| No.  | Reference                                    | Description                                            |
|------|----------------------------------------------|--------------------------------------------------------|
| /N8/ | IEC 60529:1989 +<br>AMD2:2013 +<br>COR1:2019 | Degrees of protection provided by enclosures (IP Code) |

**Table 3: Environmental testing standards**

## 1.4 Associated safety standards

*Remark: The following standards were approved by other testing services.*

| No.   | Reference       | Description                                                                                                                                                    |
|-------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /N9/  | EN 50156-1:2015 | Electrical equipment for furnaces and ancillary equipment –<br>Part 1: Requirements for application design and installation                                    |
| /N10/ | EN 50156-2:2015 | Electrical equipment for furnaces and ancillary equipment –<br>Part 2: Requirements for design, development and type approval of safety devices and subsystems |
| /N11/ | EN 298:2022     | Automatic burner control systems for burners and appliances burning gaseous or liquid fuels                                                                    |

**Table 4: Associated safety standards**



## 2 Safety-Relevant Hardware/Firmware Components

The following system components with their configuration by using STEP 7 Safety are certified 'safety related'. This allows the components to be used to process safety critical signals and functions:

| Module                        | Order Number       | Release Number / Firmware Version                                         |
|-------------------------------|--------------------|---------------------------------------------------------------------------|
| CPU 1518HF-4 PN               | 6ES7518-4JT10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1518HF-4 PN               | 6ES7518-4JP00-0AB0 | 04 or higher / V2.9 or higher                                             |
| CPU 1518TF-3 PN               | 6ES7518-3UT10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1518TF-4 PN/DP            | 6ES7518-4UP00-0AB0 | 11 or higher / V2.9 or higher                                             |
| CPU 1518F-3 PN                | 6ES7518-3FT10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1518F-4 PN/DP             | 6ES7518-4FP00-0AB0 | 11 or higher / V2.9 or higher                                             |
| CPU 1518F-4 PN/DP MFP         | 6ES7518-4FX00-1AB0 | 04 or higher / V2.9 or higher                                             |
| CPU 1517F-3 PN                | 6ES7517-3FQ10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1517F-3 PN/DP             | 6ES7517-3FP00-0AB0 | 11 or higher / V2.9 or higher                                             |
| CPU 1517F-3 PN/DP             | 6ES7517-3FP01-0AB0 | 01 or higher / V3.1.2 or higher                                           |
| CPU 1517TF-3 PN               | 6ES7517-3UQ10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1517TF-3 PN/DP            | 6ES7517-3UP00-0AB0 | 11 or higher / V2.9 or higher                                             |
| CPU 1517VF-1 PN <sup>x)</sup> | 6ES7587-1FQ00-0AB0 | --- / V2.0 (Industrial Edge Application) or higher / V4.0 (PLC) or higher |
| CPU 1516F-3 PN/DP             | 6ES7516-3FP03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1516F-3 PN/DP             | 6ES7516-3FN02-0AB0 | 03 or higher / V2.9 or higher                                             |



| Module                        | Order Number       | Release Number / Firmware Version                                         |
|-------------------------------|--------------------|---------------------------------------------------------------------------|
| CPU 1516TF-3 PN               | 6ES7516-3UP10-0AB0 | 01 or higher / V4.0 or higher                                             |
| CPU 1516TF-3 PN/DP            | 6ES7516-3UN00-0AB0 | 11 or higher / V2.9 or higher                                             |
| CPU 1516proF-2 PN             | 6ES7516-2GP03-0AB0 | 01 or higher / V3.1.0 or higher                                           |
| CPU 1516proF-2 PN             | 6ES7516-2GN00-0AB0 | 03 or higher / V2.9.7 or higher                                           |
| CPU 1513proF-2 PN             | 6ES7513-2GM03-0AB0 | 01 or higher / V3.1.0 or higher                                           |
| CPU 1513proF-2 PN             | 6ES7513-2GL00-0AB0 | 03 or higher / V2.9.7 or higher                                           |
| CPU 1515F-2 PN                | 6ES7515-2FN03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1515F-2 PN                | 6ES7515-2FM02-0AB0 | 03 or higher / V2.9 or higher                                             |
| CPU 1515TF-2 PN               | 6ES7515-2UN03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1515TF-2 PN               | 6ES7515-2UM01-0AB0 | 05 or higher / V2.9 or higher                                             |
| CPU 1513F-1 PN                | 6ES7513-1FM03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1513F-1 PN                | 6ES7513-1FL02-0AB0 | 05 or higher / V2.9 or higher                                             |
| CPU 1511F-1 PN                | 6ES7511-1FL03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1511F-1 PN                | 6ES7511-1FK02-0AB0 | 05 or higher / V2.9 or higher                                             |
| CPU 1511TF-1 PN               | 6ES7511-1UL03-0AB0 | 01 or higher / V3.0 or higher                                             |
| CPU 1511TF-1 PN               | 6ES7511-1UK01-0AB0 | 05 or higher / V2.9 or higher                                             |
| CPU 1511VF-1 PN <sup>x)</sup> | 6ES7581-1FQ00-0AB0 | --- / V2.2 (Industrial Edge Application) or higher / V4.1 (PLC) or higher |



| Module                                   | Order Number                                                                                               | Release Number / Firmware Version  |
|------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------|
| CPU 1514SP<br>F-2 PN                     | 6ES7514-2SN03-0AB0                                                                                         | 01 or higher /<br>V3.0 or higher   |
| CPU 1514SP<br>TF-2 PN                    | 6ES7514-2WN03-0AB0                                                                                         | 01 or higher /<br>V3.0 or higher   |
| CPU 1512SP<br>F-1 PN                     | 6ES7512-1SM03-0AB0                                                                                         | 01 or higher /<br>V3.0 or higher   |
| CPU 1512SP<br>F-1 PN                     | 6ES7512-1SK01-0AB0                                                                                         | 08 or higher /<br>V2.9.4 or higher |
| CPU 1510SP<br>F-1 PN                     | 6ES7510-1SK03-0AB0                                                                                         | 01 or higher /<br>V3.0 or higher   |
| CPU 1510SP<br>F-1 PN                     | 6ES7510-1SJ01-0AB0                                                                                         | 08 or higher /<br>V2.9.4 or higher |
| S7-1500 F SW<br>Controller <sup>x)</sup> | 6ES7672-7FC01-0YA0<br>6ES7672-5SC11-0YA0<br>6ES7672-5WC11-0YA0<br>6ES7672-8FC01-0YA0                       | --- / V21.9 or higher              |
| S7-1500 F SW<br>Controller <sup>x)</sup> | 6ES7672 5SC12-0YA0<br>6ES7672-7FC02-0YA0<br>6ES7672 5WC12-0YA0<br>6ES7672-8FC02-0YA0<br>6ES7672-8UC02-0YA0 | --- / V30.0 or higher              |
| S7-1500 F SW<br>Controller <sup>x)</sup> | 6ES7672-7FC04-0YA0<br>6ES7672-8FC04-0YA0<br>6ES7672-5SC14-0YA0                                             | --- / V40.0 or higher              |

The F-CPU's from S7-1500 system can be configured with central and de-central failsafe I/O modules.

<sup>x)</sup> These devices react in a fail-safe manner when the S7-1500 F-Software Controller or S7-1500 F Virtual Controller and STEP 7 Safety are used, even in the case of elevated electromagnetic interference. Special type tests for functional safety are therefore not required for these devices – unlike for F-I/O. With regard to availability, however, you must observe the application-specific requirements, especially the standards for burner control.



### 3 Manuals

| Document                                            | Document number | Siemens Industry Online Product Support                                                                                                 |
|-----------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| SIMATIC S7-1200/S7-1500 F-CPU's product information | A5E35635424     | <a href="https://support.industry.siemens.com/cs/ww/en/view/109478599">https://support.industry.siemens.com/cs/ww/en/view/109478599</a> |

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