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SIPLUS S7-1500 CPU 1518HF-4 PN   6ES7518-4JP00-0AB0   9
MB   60 MB   1   PROFINET RT   2
         PROFINET   3   PROFINET   4./5.   H-SYNC   SIMATIC

13%

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PLC

CPU   S7-200,S7-300,S7-1500,S7-1200

SIPLUS CPU 1518HF-4 PN

The CPU for applications with high availability requirements, also in connection with functional safety requirements.

Can be used for safety functions up to SIL 3 according to IEC 61508 and up to PL e according to ISO 13849

A very large program data memory enables the realization of extensive applications

High processing speed for binary and floating-point arithmetic

Used as central PLC with distributed I/O

Supports PROFIsafe in distributed configurations

PROFINET IO RT interface with 2-port switch

Two additional PROFINET interfaces with separate IP addresses

PROFINET IO controller for operating distributed I/O on PROFINET

Note:

SIMATIC Memory Card required for operation of the CPU.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

The CPU 1518HF-4 PN is the CPU with an extremely large program and data memory for applications which have higher requirements for availability compared with standard and fail-safe CPUs. It is suitable for both standard and safety-critical applications up to SIL3 / PLe.

The CPU can be used as PROFINET IO controller. The integrated PROFINET IO RT interface is designed as a 2-port switch, enabling a ring topology to be set up in the system. The additional integrated PROFINET interfaces with separate IP addresses can be used for network separation, for example.

The CPU 1518HF-4 PN has:

A powerful processor: The CPU achieves command execution times as low as 4 ns per binary instruction.

Extensive work memory: 9 MB for program, 60 MB for data

SIMATIC Memory Cards as load memory

Display with functions for

Display of overview information such as station name, plant designation, location identifier, etc.

Display of safety mode, overall signature and date of the last download with signature change

Showing diagnostic information

Showing module information

Showing display settings

Setting IP addresses

Setting the date and time

Displaying operating mode (redundant or non-redundant)

Displaying the status (stop, primary or backup)

Resetting the CPU to factory settings

Disabling/enabling of the display

Enabling protection levels

PROFINET IO RT interface for connecting distributed I/O via PROFINET

Supports PROFIsafe in centralized and distributed configuration

Performance

Faster command processing, depending on the CPU type, language extensions and new data types

High-performance network connection: Each CPU is equipped with PROFINET IO RT (2-port switch) as standard interface. Additional PROFINET interface integrated, e.g. for network separation.

Security Integrated

Password-based know-how protection against unauthorized read-out and modification of program blocks

Copy protection for tying individual blocks to the serial number of the SIMATIC Memory Card: The block can only run if the configured memory card is inserted in the CPU.

4-level authorization concept: Communication to operator panels can also be restricted.

Manipulation protection: The controller recognizes changed or unauthorized transmissions of the engineering data.

Design and handling

Display of overview information: e.g. station name, plant designation, location identifier, etc., diagnostic information, module information, display settings.

Possible operations on the display: Set addresses, set date and time, select operating mode of CPU, reset CPU to factory settings, disable/enable display, activate protection levels.

Integrated system diagnostics

System diagnostics information is displayed consistently and in plain text in the display, TIA Portal and operator panels, even for messages from the drives, and updated even if the CPU is in STOP mode.

Integrated in the firmware of the CPU, no special configuration is required

SIMATIC Memory Card (required for operation of the CPU)

Used as plug-in load memory or for updating the firmware.

Also for storing additional documents or csv files (for recipes and archives)

Programming of the standard program section

Programming with STEP 7 V17

Programming of the fail-safe program section

Programming of the safety-oriented program section with the "STEP 7 Safety Advanced" option package.