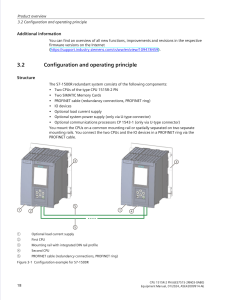
AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Siemens 6ES7515-2RN03-0AB0

SIMATIC S7-1500R CPU 1515R-2 PN



PROGRAM MEMORY	DATA MEMORY	BIT OPERATIONS	SUPPLY
1 MB	**4.5 MB**	**20 ns typical**	**24 V DC**

Siemens 6ES7515-2RN03-0AB0 is the CPU 1515R-2 PN for SIMATIC S7-1500R redundant control. It provides 1 MB of program work memory and 4.5 MB of data work memory. Two matching CPUs synchronize over a PROFINET ring so that the backup can take over process control if the primary CPU fails.

01 VERIFIED PRODUCT PARAMETERS

Program work memory	1 MB
Data work memory	4.5 MB
Typical bit processing time	20 ns
Ethernet interface arrangement	X1: two-port PROFINET RT switch; X2: one basic Ethernet port
Maximum PROFINET IO devices	64 on the integrated IO controller
Local rack capacity	5 modules: CPU, up to 2 PS and 2 CP
Permissible DC supply	19.2 to 28.8 V DC; 24 V DC rated
Typical power loss	3.6 W
Memory-card requirement	One SIMATIC Memory Card per CPU; maximum 32 GB load memory
Operating ambient temperature	Horizontal -30 to 60 deg C; vertical -30 to 40 deg C; no condensation

Technical values were verified against Siemens A5E42009914-AE, 01/2024; exact-model Industry Mall and the Siemens Industry Mall record for the exact article number.

02 MECHANICAL AND LIFECYCLE DATA

Dimensions (W x H x D)	70 x 147 x 129 mm
Weight (01/2024 equipment manual)	Approx. 0.46 kg; source value 456 g
Country of origin	Germany
Lifecycle	PM300: Active product in Siemens catalog

03 SYSTEM ROLE AND APPLICATIONS

The X1 interface has two PROFINET RT ports for the redundant ring; X2 provides a separate single-port basic Ethernet connection. A redundant system requires two CPUs, two SIMATIC Memory Cards and an engineered I/O network. This R-CPU is not a fail-safe F-CPU; check the installed firmware and matching STEP 7 project before replacement.

- Redundant process control: synchronize two R-CPUs and retain process control through the documented primary/backup transition.
- Modulating actuator regulation: implement PID_3Step control for integrating actuators in the engineered process.
- Heating and cooling regulation: use PID_Temp with separate heating and cooling actuators in a validated temperature-control loop.

04 OFFICIAL INSTALLATION FACTS

- Use qualified personnel and the complete S7-1500R/H system manual for safe cabinet installation and commissioning.
- Mount the CPUs on the specified rail, together or separately; a standard 35 mm rail requires the documented adapter.
- Connect X80: pin 1 is 1L+, pin 2 is 1M, pin 3 is 2M and pin 4 is 2L+; loop-through is limited to 10 A.
- Cable the redundant PROFINET ring through X1 P1R and X1 P2R. X2 is not an additional IO-controller interface.

05 OFFICIAL DOCUMENTATION

Siemens A5E42009914-AE, 01/2024; exact-model Industry Mall

AMIKON PRODUCT SUPPORT

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