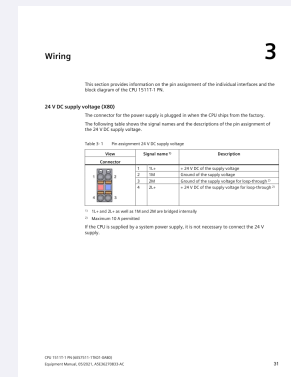


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

Siemens 6ES7511-1TK01-0AB0
SIMATIC S7-1500T CPU 1511T-1 PN



PRODUCT	6ES7511-1TK01-0AB0
FAMILY	SIMATIC S7-1500T
FUNCTION	SIMATIC S7-1500T CPU 1511T-1 PN
STATUS	Verify exact configuration

Prepared by Amikon Limited from Siemens equipment manual A5E36270833-AC, 05/2021; S7-1500 system manual. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Program work memory	225 KB
Data work memory	1 MB
Typical bit-operation time	60 ns
PROFINET interface	One X1 interface with two-port IRT switch
Permissible DC supply	19.2 to 28.8 V DC; rated 24 V DC
Rated input current	0.7 A
Typical power loss	5.7 W

02 MOUNTING AND CONNECTION

- Qualified personnel must secure the mechanism against unexpected movement and isolate the station supply.
- Mount the CPU and U connector on the S7-1500 rail; tighten the fixing screw to 1.5 Nm.
- For an X80 supply, connect 1L+ to +24 V DC and 1M to ground; 2L+ and 2M are internally bridged loop-through terminals.
- Observe the maximum 10 A loop-through limit and the permitted CPU supply range of 19.2 to 28.8 V DC.
- Reconnect identified X1 PROFINET cables and the compatible SIMATIC Memory Card without changing axis assignments.

03

OFFICIAL INSTALLATION REFERENCE

Wiring

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This section provides information on the pin assignment of the individual interfaces and the block diagram of the CPU 1511T-1 PN.

24 V DC supply voltage (X80)

The connector for the power supply is plugged in when the CPU ships from the factory.
The following table shows the signal names and the descriptions of the pin assignment of the 24 V DC supply voltage.

Table 3- 1 Pin assignment 24 V DC supply voltage

View		Signal name ¹⁾		Description
Connector				
	1	1L+		+ 24 V DC of the supply voltage
	2	1M		Ground of the supply voltage
	3	2M		Ground of the supply voltage for loop-through ²⁾
	4	2L+		+ 24 V DC of the supply voltage for loop-through ²⁾

¹⁾ 1L+ and 2L+ as well as 1M and 2M are bridged internally
²⁾ Maximum 10 A permitted
If the CPU is supplied by a system power supply, it is not necessary to connect the 24 V supply.

Official manufacturer reference reproduced from Siemens equipment manual A5E36270833-AC, 05/2021; S7-1500 system manual. Use the current source document and all referenced drawings and notes for installation.

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CABLE ROUTING AND CONNECTION

- Mount the CPU and U connector on the S7-1500 rail; tighten the fixing screw to 1.5 Nm.
- For an X80 supply, connect 1L+ to +24 V DC and 1M to ground; 2L+ and 2M are internally bridged loop-through terminals.
- Observe the maximum 10 A loop-through limit and the permitted CPU supply range of 19.2 to 28.8 V DC.
- Reconnect identified X1 PROFINET cables and the compatible SIMATIC Memory Card without changing axis assignments.
- Restore the supported motion configuration, check diagnostics and test direction and limits before automatic operation.

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INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Verify axis identities, encoder direction, motion limits and a controlled test cycle before enabling automatic operation.
- Record the installed order number and baseline operating condition.

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CONTROLLED DOCUMENTS

Official source	Siemens equipment manual A5E36270833-AC, 05/2021; S7-1500 system manual
Product record	6ES7511-1TK01-0AB0
Manufacturer	Siemens
Support	INFO@AMIKON.CN