SIEMENS

## Data sheet 6AG1800-3BA00-7AA0

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| **product type designation** | **SINAUT ST7, TIM 3V-IE** |



***spare part*** SIPLUS NET TIM 3V-IE based on 6NH7800-3BA00 with conformal coating, -25…+70 °C, communications module for SIMATIC S7-300 and C7; with one RS-232 interface for SINAUT communication via a classic wide area network and an RJ45 interface for SINAUT communication via an IP-based network (WAN or LAN)

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| product brand name | SIPLUS |
| Technical Product Detail Page | https://i.siemens.com/1P6AG1800-3BA00-7AA0 |
| **transfer rate** | |
| transfer rate | |
| ● for Industrial Ethernet | 10 ... 100 Mbit/s |
| ● according to RS 232 | 50 ... 38400 bit/s |
| **interfaces** | |
| number of interfaces / according to Industrial Ethernet | 1 |
| number of electrical connections | |
| ● for external data transmission / according to RS 232 | 1 |
| ● for power supply | 1 |
| type of electrical connection | |
| ● of Industrial Ethernet interface | RJ45 port |
| type of electrical connection | |
| ● at interface 1 / for external data transmission | 9 pin Sub-D-connector (RS232) |
| ● for power supply | 2-pole plugable terminal block |
| design of the removable storage | |
| ● C-PLUG | No |
| **supply voltage, current consumption, power loss** | |
| type of voltage / of the supply voltage | DC |
| supply voltage | 24 V |
| supply voltage | 20.4 ... 28.8 V |
| supply voltage / external / at DC / rated value | 24 V |
| supply voltage / external / at DC / rated value | 20.4 ... 28.8 V |
| relative symmetrical tolerance / at DC | |
| ● at 5 V | 5 % |
| relative positive tolerance / at DC / at 24 V | 5 % |
| relative negative tolerance / at DC / at 24 V | 5 % |
| consumed current | |
| ● from backplane bus / at DC / at 24 V / maximum | 0.2 A |
| ● from external supply voltage / at DC / at 24 V / maximum | 0.2 A |
| power loss [W] | 5.8 W |
| product extension / optional / backup battery | No |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -25 ... +70 °C |
| ● during storage | -40 ... +70 °C |
| ● during transport | -40 ... +70 °C |


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| installation altitude / at height above sea level / maximum | 5000 m |
| ambient condition / relating to ambient temperature - air pressure - installation altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m) |
| relative humidity | |
| ● with condensation / according to IEC 60068-2-38 / maximum | 100 %; RH including condensation/frost (no commissioning when condensation is present), horizontal installation |
| chemical resistance / to commercially available cooling lubricants | Yes; incl. airborne diesel and oil droplets |
| resistance to biologically active substances | |
| ● conformity according to EN 60721-3-3 | Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request |
| ● conformity according to EN 60721-3-6 | Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna) |
| resistance to chemically active substances | |
| ● conformity according to EN 60721-3-3 | Yes; Class 3C4 (RH < 75 %) incl. salt spray in accordance with EN 60068-2-52 (Severity 3). The supplied plug covers must remain in place on the unused interfaces during operation. |
| ● conformity according to EN 60721-3-6 | Yes |
| resistance to mechanically active substances | |
| ● conformity according to EN 60721-3-3 | Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation. |
| ● conformity according to EN 60721-3-6 | Yes; Class 6S3 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation. |
| coating / for equipped printed circuit board / according to EN 61086 | Yes; Class 2 for high availability |
| type of coating / protection against pollution according to EN 60664-3 | Yes; Protection of the type 1 |
| type of test / of the coating / according to MIL-I-46058C | Yes; Coating discoloration during service life possible |
| product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, class A |
| protection class IP | IP20 |
| **design, dimensions and weights** | |
| module format | Compact module S7-300 single width |
| width | 40 mm |
| height | 125 mm |
| depth | 120 mm |
| net weight | 0.2 kg |
| **product features, product functions, product components / general** | |
| number of units | |
| ● per CPU / maximum | 1 |
| wire length | |
| ● with RS 232 interface / maximum | 6 m |
| **performance data / S7 communication** | |
| number of possible connections / for S7 communication | |
| ● maximum | 12 |
| ● with PG connections / maximum | 4 |
| ● with OP connections / maximum | 8 |
| service | |
| ● SINAUT ST7 via S7 communication | Yes |
| ● PG/OP communication | Yes |
| **performance data / multi-protocol mode** | |
| number of active connections / with multi-protocol mode | 12 |
| **performance data / telecontrol** | |
| suitability for use | |
| ● node station | No |
| ● substation | Yes |
| ● TIM control center | Yes |
| protocol / is supported | |
| ● SINAUT ST1 protocol | Yes |
| ● SINAUT ST7 protocol | Yes |
| storage capacity | |


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| ● note | TD7onCPU: at least 20 KB, actual requirement determined by data volume and functional scope TD7onTIM: 0 bytes in most favorable case |
| product feature / buffered message frame memory | No |
| transmission format | |
| ● for SINAUT ST1 protocol with polling / 11 bit | Yes |
| ● for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit | Yes |
| ● for SINAUT ST7 protocol with multi-master polling / 10-bit | Yes |
| ● for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit | Yes |
| operating mode for scanning of data transmission | |
| ● with dedicated line/radio link / with SINAUT ST1 protocol | Polling, polling with time slot procedure |
| ● with dedicated line/radio link / with SINAUT ST7 protocol | Polling, polling with time slot procedure, multi-master polling with time slot procedure |
| ● with dial-up network / with SINAUT ST1 protocol | spontaneous |
| ● with dial-up network / with SINAUT ST7 protocol | spontaneous |
| hamming distance | |
| ● for SINAUT ST1 protocol | 4 |
| ● for SINAUT ST7 protocol | 4 |
| **product functions / management, configuration, engineering** | |
| configuration software | |
| ● required | SINAUT ST7 ES |
| ● for CPU configuring / required / SINAUT TD7 block library for CPU | Yes |
| ● for PG configuring / required / SINAUT ST7 configuration software for PG | Yes |
| storage location / of TIM configuration data | on the CPU |
| **product functions / security** | |
| operating mode / Virtual Private Network (VPN) | Yes |
| type of authentication / with Virtual Private Network / PSK | Yes |
| **further information / internet links** | |
| internet link | |
| ● to website: Selection guide for cables and connectors | https://support.industry.siemens.com/cs/ww/en/view/109766358 |
| ● to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| ● to website: Industrial communication | https://www.siemens.com/simatic-net |
| ● to web page: SiePortal | https://sieportal.siemens.com/ |
| ● to website: Image database | https://www.automation.siemens.com/bilddb |
| ● to website: CAx-Download-Manager | https://siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |
| **security information** | |
| security information | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7) |
| **Approvals / Certificates** | |
| **General Product Approval** | |


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| Manufacturer Declaration | CE EG-Konf. | UKCA | EAC | CE EG-Konf. | UKCA | |

| General Product Approval | EMV |
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| China RoHS | KC RCM |

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