

### product type designation



### TIM 3V-IE

-- spare part -- SINAUT ST7, TIM 3V-IE communications module for SIMATIC S7-300 with an RS232 interface for SINAUT communication via a classic WAN and an RJ45 interface for SINAUT communication via an IP-based network (WAN or LAN).

### product brand name

SINAUT ST7

### Technical Product Detail Page

<https://l.siemens.com/1P6NH7800-3BA00>

### 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 0 ... 60 °C
- during storage -40 ... +70 °C
- during transport -40 ... +70 °C

relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
protection class IP	IP20
<b>design, dimensions and weights</b>	
module format	Compact module S7-300 single width
width	40 mm
height	125 mm
depth	120 mm
net weight	0.25 kg
<b>product features, product functions, product components / general</b>	
number of units	
<ul style="list-style-type: none"> <li>per CPU / maximum</li> <li>note</li> </ul>	1 Number of TIM per S7-300
wire length	
<ul style="list-style-type: none"> <li>with RS 232 interface / maximum</li> </ul>	6 m
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication	
<ul style="list-style-type: none"> <li>maximum</li> <li>with PG connections / maximum</li> <li>with OP connections / maximum</li> </ul>	8 2 8
service	
<ul style="list-style-type: none"> <li>SINAUT ST7 via S7 communication</li> <li>PG/OP communication</li> </ul>	Yes Yes
<b>performance data / multi-protocol mode</b>	
number of active connections / with multi-protocol mode	12
<b>performance data / telecontrol</b>	
suitability for use	
<ul style="list-style-type: none"> <li>node station</li> <li>substation</li> <li>TIM control center</li> <li>note</li> </ul>	No Yes No RS232 and Industrial Ethernet can not be operated in parallel
protocol / is supported	
<ul style="list-style-type: none"> <li>DNP3</li> <li>SINAUT ST1 protocol</li> <li>SINAUT ST7 protocol</li> </ul>	No Yes Yes
product function / data buffering if connection is aborted	Yes; 16,000 data messages
storage capacity	
<ul style="list-style-type: none"> <li>of S7 CPU work memory / for TD7onCPU mode data blocks on CPU / required</li> <li>of S7 CPU work memory / for TD7onTIM mode data blocks on TIM / required</li> <li>note</li> </ul>	20 Kibyte 0 Kibyte 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	
<ul style="list-style-type: none"> <li>for SINAUT ST1 protocol with polling / 11 bit</li> <li>for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit</li> <li>for SINAUT ST7 protocol with multi-master polling / 10-bit</li> <li>for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit</li> </ul>	Yes Yes Yes Yes
operating mode for scanning of data transmission	
<ul style="list-style-type: none"> <li>with dedicated line/radio link / with SINAUT ST1 protocol</li> <li>with dedicated line/radio link / with SINAUT ST7 protocol</li> <li>with dial-up network / with SINAUT ST1 protocol</li> <li>with dial-up network / with SINAUT ST7 protocol</li> </ul>	Polling, polling with time slot procedure Polling, polling with time slot procedure, multi-master polling with time slot procedure spontaneous spontaneous
hamming distance	
<ul style="list-style-type: none"> <li>for SINAUT ST1 protocol</li> <li>for SINAUT ST7 protocol</li> </ul>	4 4

product functions / management, configuration, engineering	
configuration software	
<ul style="list-style-type: none"> <li>required</li> </ul>	SINAUT ST7 ES
<ul style="list-style-type: none"> <li>for CPU configuring / required / SINAUT TD7 block library for CPU</li> </ul>	Yes
<ul style="list-style-type: none"> <li>for PG configuring / required / SINAUT ST7 configuration software for PG</li> </ul>	Yes
storage location / of TIM configuration data	on the TIM
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
product functions / security	
operating mode / Virtual Private Network (VPN)	Yes; VPN operation as MSC client with MSC protocol and password protection only possible in conjunction with GPRS modem with MSC capability
type of authentication / with Virtual Private Network / PSK	Yes
product function	
<ul style="list-style-type: none"> <li>password protection for VPN</li> </ul>	Yes
<ul style="list-style-type: none"> <li>MSC client via GPRS modem with MSC capability</li> </ul>	Yes
protocol	
<ul style="list-style-type: none"> <li>is supported / MSC protocol</li> </ul>	No
key length / for MSC / with Virtual Private Network	128 bit
number of possible connections	
<ul style="list-style-type: none"> <li>as MSC client / with VPN connection</li> </ul>	1
<ul style="list-style-type: none"> <li>as MSC server / with VPN connection</li> </ul>	0
standards, specifications, approvals	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / KC approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
standards, specifications, approvals / hazardous environments / header	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
certificate of suitability / ULhazloc approval	Yes
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
certificate of suitability / FM registration	Yes
further information / internet links	
internet link	
<ul style="list-style-type: none"> <li>to website: Selection guide for cables and connectors</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
<ul style="list-style-type: none"> <li>to web page: selection aid TIA Selection Tool</li> </ul>	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
<ul style="list-style-type: none"> <li>to website: Industrial communication</li> </ul>	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>to web page: SiePortal</li> </ul>	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
<ul style="list-style-type: none"> <li>to website: Image database</li> </ul>	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>to website: CAx-Download-Manager</li> </ul>	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
<ul style="list-style-type: none"> <li>to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
security information	
security information	<p>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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a>. 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.7)</p>

Approvals / Certificates

General Product Approval



[Declaration of Conformity](#)



[China RoHS](#)



General Product Approval

EMV

For use in hazardous locations



[China RoHS](#)



For use in hazardous locations



[FM](#)



[CCC-Ex](#)



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