

Product type designation

TIM 3V-IE Advanced
SINAUT ST7, TIM 3V-IE advanced communication 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)



Transmission rate	
Transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
• acc. to RS 232	50 ... 38400 bit/s
Interfaces	
Number of interfaces / acc. to Industrial Ethernet	1
Number of electrical connections	
• for external data transmission / acc. to RS 232	1
• for power supply	1
Type of electrical connection	
• of Industrial Ethernet interface	RJ45 port
• 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

Permitted ambient conditions

Ambient temperature	
• during operation	0 ... 60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP20

Design, dimensions and weight

Module format	Compact module S7-300 single width
Width	40 mm
Height	125 mm
Depth	120 mm
Net weight	0.25 kg

Product properties, functions, components / general

Number of units	
• Note	Number of TIMs per S7-300: multiple, number depends on the connection resources of the S7-300 CPU
Wire length	
• with RS 232 interface / maximum	6 m

Performance data / S7 communication

Number of possible connections / for S7 communication	
• maximum	24
• with PG connections / maximum	4
• with OP connections / maximum	20
Service	
• SINAUT ST7 via S7 communication	Yes

- PG/OP communication

Yes

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode

24

Performance data / telecontrol

Suitability for use

- Node station
- substation
- TIM control center
- Note

Yes

Yes

Yes

RS232 and Industrial Ethernet can be operated in parallel

Protocol / is supported

- DNP3
- SINAUT ST1 protocol
- SINAUT ST7 protocol

No

Yes

Yes

Product function / data buffering if connection is aborted

Yes; 32,000 data messages

Storage capacity

- of S7 CPU RAM / for TD7onCPU mode data blocks on CPU / required
- of S7 CPU RAM / for TD7onTIM mode data blocks on TIM / required
- Note

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

- for SINAUT ST1 protocol with polling / 11 bit
- for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit
- for SINAUT ST7 protocol with multi-master polling / 10-bit
- for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit

Yes

Yes

Yes

Yes

Operating mode for scanning of data transmission

- with dedicated line/radio link / with SINAUT ST1 protocol
- with dedicated line/radio link / with SINAUT ST7 protocol
- with dial-up network / with SINAUT ST1 protocol
- with dial-up network / with SINAUT ST7 protocol

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"> • for SINAUT ST1 protocol 	4
<ul style="list-style-type: none"> • for SINAUT ST7 protocol 	4
Configuration software	
<ul style="list-style-type: none"> • required 	SINAUT ST7 ES
<ul style="list-style-type: none"> • for CPU configuring / required / SINAUT TD7 block library for CPU 	Yes
<ul style="list-style-type: none"> • for PG configuring / required / SINAUT ST7 configuration software for PG 	Yes
Storage location / of TIM configuration data	on the TIM

Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Type of authentication / with Virtual Private Network / PSK	Yes
Product function	
<ul style="list-style-type: none"> • password protection for VPN 	Yes
<ul style="list-style-type: none"> • MSC client via GPRS modem with MSC capability 	Yes
Protocol	
<ul style="list-style-type: none"> • is supported / MSC protocol 	Yes
<ul style="list-style-type: none"> • with Virtual Private Network MSC / is supported 	TCP/IP
Key length / for MSC / with Virtual Private Network	128 bit
Number of possible connections	
<ul style="list-style-type: none"> • as MSC client / with VPN connection 	1
<ul style="list-style-type: none"> • as MSC server / with VPN connection 	0

Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com

Security information

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