SIEMENS

Data sheet   **6NH7800-3BA00**

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

transfer 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
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

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relative humidity	
● at 25 °C / without condensation / during operation / maximum	95 %
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	0.25 kg

product features, product functions, product components / general

number of units	
● per CPU / maximum	1
● note	Number of TIM per S7-300
wire length	
● with RS 232 interface / maximum	6 m

performance data / S7 communication

number of possible connections / for S7 communication	
● maximum	8
● with PG connections / maximum	2
● 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	No
● note	RS232 and Industrial Ethernet can not be operated in parallel
protocol / is supported	
● DNP3	No
● SINAUT ST1 protocol	Yes
● SINAUT ST7 protocol	Yes
product function / data buffering if connection is aborted	Yes; 16,000 data messages
storage capacity	
● of S7 CPU work memory / for TD7onCPU mode data blocks on CPU / required	20 Kibyte
● of S7 CPU work memory / for TD7onTIM mode data blocks on TIM / required	0 Kibyte
● 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 TIM
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	
● password protection for VPN	Yes
● MSC client via GPRS modem with MSC capability	Yes
protocol	
● is supported / MSC protocol	No
key length / for MSC / with Virtual Private Network	128 bit
number of possible connections	
● as MSC client / with VPN connection	1
● as MSC server / with VPN connection	0
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
further information / internet-Links	
Internet-Link	
● to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
● to website: Industrial communication	http://www.siemens.com/simatic-net
● to website: Industry Mall	https://mall.industry.siemens.com
● to website: Information and Download Center	http://www.siemens.com/industry/infocenter
● to website: Image database	http://automation.siemens.com/bilddb
● to website: CAx-Download-Manager	http://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com. (V3.4)
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