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Data sheet 6NH7800-3CA00

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)



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

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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	
• 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	
• 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

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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	Yes
• substation	Yes
• TIM control center	Yes
• note	RS232 and Industrial Ethernet can 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; 32,000 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

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• 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
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	Yes
• with Virtual Private Network MSC / is supported	TCP/IP
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

further information / internet-Links	
Internet-Link	
• 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

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last modified:	12/02/2020

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