

Product type designation

RTU3010C

SIMATIC RTU3010C compact low-power RTU; Battery or solar-operated; connection ext. power supply 10.8 V to 28.8 V DC; Connection external Modems; Connection to Telecontrol Server Basic DNP3, IEC 60870-5-104 and SINAUT ST7 protocols; onboard I/Os: 8 DI, 4 DO, 4 AI; FTP client; Configuration/diagnostics via web server; Time synchronization; E-mail; SD card slot,



Operating mode

Standby mode (Sleep mode), Actualization mode, Communication mode

Transmission rate

Transfer rate

- for Industrial Ethernet

10 ... 100 Mbit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

1

Number of electrical connections

- at the 1st interface / acc. to Industrial Ethernet
- for power supply

1

1

Number of slots

- for memory cards

1

Type of electrical connection

- at the 1st interface / acc. to Industrial Ethernet
- for power supply

RJ45 port

5-pole plugable terminal block

Slot version

- of the memory card

SD 1.0, SD 1.1, SDHC, Siemens SMC

Storage capacity / of the memory card / maximum

32 Gbyte

design of the removable storage / C-PLUG	No
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Signal-Inputs/outputs

Number of electrical connections / for digital input signals	8
Type of electrical connection / for digital input signals	pluggable screw terminal block
Digital input version	Suitable for open-drain transistor or switch, 2-wire-technique
Number of electrical connections / as counter inputs / for digital input signals	2
Pulse duration / at counter input / minimum	0.1 ms
Pulse frequency / at counter input / maximum	5000 Hz
Number of electrical connections / for digital output signals	4
Type of electrical connection / for digital output signals	pluggable screw terminal block
Digital output version	bistable relay, 2-wire-technique
Output current / at digital output	300 mA; Limiting continuous current
Number of analog inputs / Integrated	4
Connector type / at the analog input	pluggable screw terminal block
Type of analog input	2-/3-/4-wire-technique
Product function / parameterizable analog inputs	Yes; Current 0/4..20mA, Voltage 0..5/10V, Temperature (Pt1000) -80..+140°C
A/D resolution / at the analog input	12 bit

Wireless technology

Type of mobile wireless service	
<ul style="list-style-type: none"> • is supported / SMS • Note 	<p>No</p> <p>over external, IP-based router</p>

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Supply voltage / external / at DC	12 ... 24 V
Supply voltage / external / at DC / rated value	10.8 ... 28.8 V
Type of output voltage / for the supply of external devices	DC 12 V or 24 V
Consumed current / Note	without connected consumers
Consumed current	
<ul style="list-style-type: none"> • from external supply voltage / at 24 V DC <ul style="list-style-type: none"> — in standby mode / typical — in update mode / typical — in communication mode / typical • with battery operation / at 7.2 V DC <ul style="list-style-type: none"> — in standby mode / typical — in update mode / typical — in communication mode / typical 	<p>14 mA</p> <p>35 mA</p> <p>55 mA</p> <p>0.28 mA</p> <p>71 mA</p> <p>125 mA</p>

Power loss [W] / Note	without connected consumers
Power loss [W] / with external supply voltage / at 24 V DC	
• in standby mode / typical	0.34 W
• in update mode / typical	0.85 W
• in communication mode / typical	1.25 W
Power loss [W] / with battery operation / at 7.2 V DC	
• in standby mode / typical	0.002 W
• in update mode / typical	0.51 W
• in communication mode / typical	0.9 W

Ambient conditions

Ambient temperature	
• for vertical installation / during operation	-40 ... +60 °C
• for horizontally arranged busbars / during operation	-40 ... +70 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity	
• at 30 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP20; IP68 with protective housing (see accessories)

Design, dimensions and weight

Module format	Compact module
Width	130 mm
Height	100 mm
Depth	75 mm
Net weight	0.34 kg
Mounting type	
• 35 mm DIN rail mounting	Yes
• wall mounting	Yes

Performance data

Number of users / email addresses / definable / maximum	20
Number of user groups / definable / maximum	10
Number of program block types	42
Number of configurable program blocks	48

Performance data / IT functions

Number of possible connections	
• as client / by means of FTP / maximum	1
Number of entries / in the FTP buffer / maximum	12
Number of possible connections	

<ul style="list-style-type: none"> • as server / by means of HTTP / maximum 	2
<ul style="list-style-type: none"> • as server / by means of HTTPS / maximum 	2; http and https can be combined (max. number of 2 connections cannot be exceeded).
<ul style="list-style-type: none"> • as e-mail client / maximum 	1
Number of free texts / for e-mails and SMS / maximum	20
Number of entries / in the e-mail buffer / maximum	12

Performance data / telecontrol

Suitability for use	
<ul style="list-style-type: none"> • Node station 	No
<ul style="list-style-type: none"> • substation 	Yes
<ul style="list-style-type: none"> • TIM control center 	No
Control center connection	IEC 60870-5-104, DNP3-capable control stations, SINAUT ST7cc/sc, TeleControl Server Basic
<ul style="list-style-type: none"> • by means of a permanent connection 	supported
<ul style="list-style-type: none"> • by means of demand-oriented connection 	supported
Protocol / is supported	
<ul style="list-style-type: none"> • DNP3 	Yes
<ul style="list-style-type: none"> • IEC 60870-5 	Yes
<ul style="list-style-type: none"> • SINAUT ST7 protocol 	Yes
Product function / data buffering if connection is aborted	Yes
Amount of data / as user data per station / in telecontrol mode / maximum	256 Kibyte
Product feature / Buffered message frame memory	Yes

Performance data / Teleservice

Diagnostics function / online diagnostics with SIMATIC STEP 7	No
Product function	
<ul style="list-style-type: none"> • program download with SIMATIC STEP 7 	No
<ul style="list-style-type: none"> • Remote firmware update 	Yes
<ul style="list-style-type: none"> • remote configuration 	Yes

Product functions / management, configuration

Configuration software	
<ul style="list-style-type: none"> • required 	No, configuration by using the integrated webserver

Product functions / Diagnosis

Product function / Web-based diagnostics	Yes
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Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Operating mode Virtual Private Network / note	OpenVPN-Client
Product function / with VPN connection	OpenVPN

Type of authentication procedure / with VPN connection	certificate based
Type of authentication / with Virtual Private Network / PSK	No
Type of hashing algorithms / with VPN connection	SHA-256
Number of possible connections / with VPN connection	2; one simultaneous productive connection only
Product function	
• password protection for Web applications	Yes
• password protection for teleservice access	Yes
• password protection for VPN	Yes
• encrypted data transmission	Yes
• switch-off of non-required services	Yes
• SysLog	Yes

Product functions / Time

Protocol / is supported	
• NTP	Yes
Product component / Hardware real-time clock	Yes
Product feature / Hardware real-time clock w. battery backup	Yes
Accuracy / of the hardware real-time clock / per day / maximum	1.8 s
time synchronization	
• from NTP-server	Yes
• from control center	Yes
• PC	Yes
• manual setting	Yes

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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