



Rugged Substation Automation Edge Controller RSAEC

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for the automation of substations

Rugged Substation Automation Edge Controller RSAEC



IEC 61850 Rugged Substation Automation Edge Controller -40 to +70 °C operating temperature range Intel Atom® x7-E3950 with 4 cores (Apollo Lake) On board TPM 2.0 module and Secure Boot for improved Cybersecurity





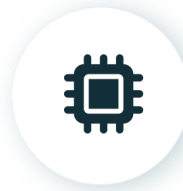
Operating temperature

Very wide operating temperature range from -40 to +70 °C and an integrated heating for trouble free operation in the harshest environments.



DIN-Rail mounting

Designed to be used in switching cabinets with DIN-Rail mounting.



Intel Atom CPU

Low power, high performance Intel Atom 4-core CPU (Elkhart Lake).



IEC 61850-3 and IEEE 1613

Rugged system specially made for power substations.



TMP 2.0 module

Integrated Trusted Platform Modul for secure device provisioning and authentication.



Wide DC-in range

20 - 54 V DC input for maximum power supply flexibility.

Technical Details

General data

Typ	Rugged Substation Automation Edge Controller
Supported Operating Systems	Windows 10 Professional / Windows 10 IoT Enterprise 2016 LTSC / Windows 10 IoT Enterprise 2019 LTSC / Linux Ubuntu (Kernel 4.x) / VxWorks

CPU

CPU	Intel® Atom® Processor x7-E3950
Generation	Apollo Lake
Available till	2031
Frequency / Frequency max	1.6 GHz / 2.0 GHz
Cores / Threads	4 Cores
L2 cache	2 MB
Passmark CPU Performance	~1855

Memory / RAM

Storage type	DDR3L (1866 MHz)
Capacity	8 GB

Storage

SSD	128 GB Wide Temperature 3D-TLC
RAID	RAID Level 1 optional

Graphics

Graphic chip (GPU)	Intel® HD 505 Graphics Controller
Direct X Level	Level 12
OpenGL	4.3
Displays	HDMI (max. 1920 x 1200 @ 60 Hz)

Interfaces & Features

USB	2x USB 3.0 Typ A
Serial Ports	2x RS-232 (DB9 with isolation)
Ethernet	5x RJ45 10/100/1000 Mbps copper ports, 2x 10/100/1000 Mbps SFP ports, Intel® Ethernet-Controller I210-IT, Ports 1 & 2 with Bypass feature

Power supply

Power supply	20 - 54 V DC
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Physical characteristics

Housing colour	Pantone® Gray 446
Dimensions (W x H x D)	65 x 186 x 160 mm
Weight	1600 g
Mounting	DIN rail / wall mount

Environmental

Operating temperature range	-40 - +75 °C
Storage temperature range	-40 - +85 °C
Humidity	5 % to 95 % @ 40 °C
Insulation Class	Class 1

Approvals

CE (EU)	Yes
RoHS	Yes
REACH	Yes
IEC-61850-3	Yes
IEEE-1613	Yes
AWS IoT Greengrass	Yes

MTBF

MTBF time

387,288 hours

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<https://welotec.com/de/pages/download-service> or

<https://docs.welotec.com/en/latest/>

Accessoires



**19 Inch DIN Rail
Holder 2/4 U – DRH19**

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