

# MiCOM A300-GTW

Communication front-end product  
for digital substations



## Product at a glance

- Simplified commissioning and maintenance
- Support deployment of cyber secure systems
- High level of availability
- IEC 61850 standard compliant
- Redundant Ethernet interface: IEC 62439 HSR/PRP
- Smarter networks powered by IEC 61131-3 automation engine

The MiCOM A300-GTW is a substation front-end communication device capable of interconnecting bay IEDs to remote monitoring and control systems. Its enhanced protocol converter capability makes it an excellent match for versatile solutions.

MiCOM A300-Gateway provides flexible interfaces designed to deploy multiple LAN architectures.

This solution is typically chosen to minimize communication disconnection. Furthermore, the data segregation promoted by multiple networks allows incremental commissioning, minimizing the total intervention time

The interoperability promoted by different standardized protocols contributes to simplify the solution upgrade and extension.

# MiCOM A300-GTW

## Description



### High level of availability

The MiCOM A300-GTW runs on compact and industrial hardware not containing any rotating parts.

Its EMC immunity, compliant to IEC 61850-3 requirements, allows it to work within the substation environment constraints.

The optional hardware redundancy provides the ideal alternative to significantly increase the system availability. MiCOM A300-GTW is a scalable solution, based on modular hardware, offering expansion capabilities that enable connection to complex system networks.

### IEC 61850 standard compliant

MiCOM A300-GTW offers a certified IEC 61850 solution to interface IEC 61850 compliant IED.

The gateway may be delivered with its IEC 61850 engineering tool suite.

MiCOM A300-GTW also helps create cyber-secure solutions, offering restricted access to the substation and IEDs.

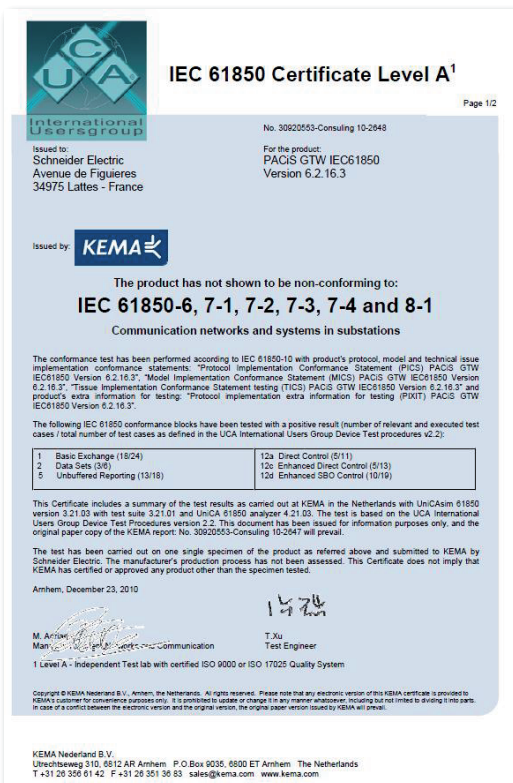
### Smarter networks powered by IEC 61131-3 automation engine

The MiCOM A300-GTW is designed to run real time automation based on a IEC 61131-3 standard programming languages.

The capacity to execute distributed automation over collaborative networks is a significant step to smarter grids.

### Cybersecurity

- Role-Based Access Control (RBAC)
- Security logs management
- Whitelisting to help to prevent of malware
- Hardening for OS and unused resources



# MiCOM A300-GTW

## Technical data



### General hardware description

Mounting (Option)	Wall/Panel/Stand
Weight	5 kg
Power Consumption	25 W (typical)
Power supply	• 24 Vdc
	• 36 - 60 Vdc
	• 90 - 350 Vdc
	• 100 - 240 Vac (50-60 Hz)

### System hardware description

CPU	Celeron 847E @ 1.1GHz
Memory	4 GB DDR3 SDRAM
Battery Backup	RAM 512 KB
Expansion Slots	1PCIe + 2PCI
Indicators	• LEDs for power
	• Power input 1
	• Power input 2
	• Power fault
	• IDE
	• Diagnosis
	• 4 COM ports Tx/Rx

### Environment and EMC

Humidity	95% @ 40° C (non-condensing)
Operating Temperature	-20 to 55° C @ 5 to 85% RH
Shock Protection	IEC 60068 2-27
Vibration Protection	IEC 60068 2-64
EMC	• IEC 61000-4-4
	• IEC 61400-6-2
	• Isolation 4kV (AC)

### Communication capability

Master/Client protocols	• IEC 61850 Client (Ed.1 & Ed.2)
	• IEC 60870-5-101/104
	• IEC 60870-5-103
	• Modbus RTU and TCP/ IP
Slave/Server protocols	• DNP3 over IP
	• IEC 61850 Server (Ed.1 & Ed.2)
	• IEC 60870-5-101/104
	• Modbus RTU and TCP/ IP
	• DNP3 serial and over IP
	• OPC DA2

### Communication description

LAN	2 x 10/100Base-T RJ-45 ports
Ethernet switch (PCI board Options)	• MiCOM H182 for IEC 62439-3 (PRP/HSR) redundant Ethernet board
	• MiCOM H172 Ethernet board for RSTP
Serial Ports	• 2 x RS-232
	• 2 x RS-232/422/485 with DB9
USB Ports	4 x USB Rev. 2.0 compliant

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19<sup>th</sup> February 2018  
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