

SIEMENS

SICAM AK 3

MICS for IEC 61850 Ed. 2 Server (ET25)

Model Implementation Conformance
Statement for the
IEC 61850 Ed.2 Server Interface in
Siemens SICAM AK 3

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Disclaimer of Liability

Although we have carefully checked the contents of this publication for conformity with the hardware and software described, we cannot guarantee complete conformity since errors cannot be excluded. The information provided in this manual is checked at regular intervals and any corrections that might become necessary are included in the next releases. Any suggestions for improvement are welcome.

Subject to change without prior notice.

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Preface

This document is applicable to the following product(s):

- SICAM AK 3

Purpose of this manual

This manual describes the Model Implementation Conformance Statement for the IEC 61850 Ed. 2 Server interface in:

- Siemens SICAM AK 3 using firmware "ET25 Rev. 03.04"

Note:

MICS "Model Implementation Conformance Statement" contains the declaration of the used logical node types.

Target Group

The document you are reading right now is addressed to users, who are in charge of the following engineering tasks:

- Customers
- Sales engineering and technical clarification
- Conceptual activities, as for example design and configuration
- Technical system maintenance

Notes

This document is based on:

- UCA International Users Group
Testing Sub Committee
Template version 1.1
Date: April 24, 2008

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1 Introduction

This model implementation conformance statement is applicable for **Siemens SICAM AK 3** with firmware "**ET25 Rev. 03.04**".

This MICS document specifies the modelling extensions compared to IEC 61850 edition 1. For the exact details on the standardized model please compare the ICD substation configuration file: "<**ET25.icd**>", version <**V1.56**>.

Clause 2 contains the list of implemented logical nodes.
Clause 3 describes the new and extended enum types (if any).

1.1 SICAM AK 3 “Device Under Test” (DUT)

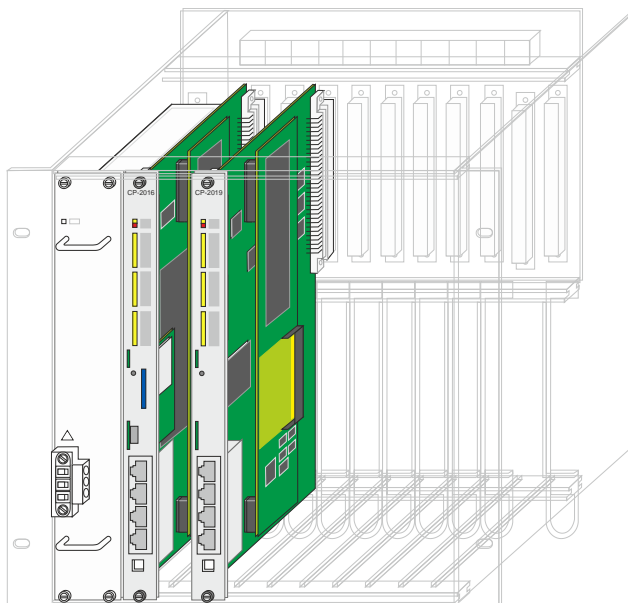
Board	MLFB	Description
PS-2632	6MF11130CG320AA0BB	Power Supply 110-220VDC, 230VAC AK 3
CP-2016	6MF10130CA160AA0BB	Central Processor AK 3
CP-2019 ¹⁾	6MF10132CA100AA0BB	Communication/Processing AK 3

¹⁾ CP-2019 on board Ethernet interface with **ET25 Rev. 03.04 firmware** used on logical SUB module SM-2599.



Notes:

- the red marked interface connector is assigned to IEC61850 Ed. 2 Server with ET25 firmware.
- the red marked interface connector is also used for WEB-Browser interface for IEC61850 Ed. 2 Server.
- the blue marked interface connector is used for SICAM AK 3 engineering software TOOLBOX II.



Note: SM-2599 is a logically SUB module on CP-2019 (system internally)

Firmware Revisions

	System element	HW#	FW#	Rev	TBII-Update	SetRev	P	SSE#	Task	Support of system elements
M	CP-2016/CPCX26	2016	2016	03	03 [03]					Supported
M-Bus0/PBA-0	PE-641X/USIO66	6410	6410	05.03	05.03 [05.03]			0		Supported
C2	CP-2019/PCCX26	2019	2019	03	03 [03]					Supported
C2-PRE/1	SM-2599/ET25	2599	2574	03.04	03.04 [03.04]			129		Supported

Note: IEC61850 Ed.2 functionality is included in firmware ET25 Rev. 03.04

Power Supply / CPU-Boards / Interface Cards

	Designation	Item-Number/MLFB
	PS-2632 Power supply 110-220 VDC, 230 VAC AK 3	GC2-632 6MF11130CG320AA0
	CP-2016 Central module AK 3	BC2-016 6MF10130CA160AA0
	CP-2019 Communication/Processing AK 3	BC2-019 6MF10132CA100AA0

2 Logical Nodes List

The following table contains the list of logical nodes implemented in the device:

e.g.

L: System Logical Nodes
LPHD (Physical device information)
LLN0 (Logical node zero)
P: Logical Nodes for protection functions
PIOC (Instantaneous overcurrent)
PTOC (Time overcurrent)
PTOF (Overfrequency)
PTOV (Overvoltage)
PTUV (Undervoltage)
PTUF (Underfrequency)
R: Logical nodes for protection related functions
RDIR (Directional element)
RREC (Autoreclosing)
G: Logical Nodes for generic references
GGIO (Generic process I/O)
M: Logical Nodes for metering and measurement
MMTR (Metering)
MMXU (Measurement)
X: Logical Nodes for switchgear
XCBR (Circuit breaker)
XSWI (Switch)

3 Enum types Extensions

3.1 New Enum types

New enum types are listed in this clause.

3.1.1 New Enum type: “Beh” (BehaviourModeKind)

Value	Description	Remarks
1	on	
2	blocked	
3	Test	
4	test/blocked	
5	off	

3.1.2 New Enum type: “CtlModels” (CtlModelKind)

Value	Description	Remarks
0	Status-only	
1	direct-with-normal-security	
2	sbo-with-normal-security	
3	direct-with-enhanced-security	
4	sbo-with-enhanced-security	

3.1.3 New Enum type: “Health” (HealthKind)

Value	Description	Remarks
1	Ok	
2	Warning	
3	Alarm	

3.1.4 New Enum type: “orCategory” (OriginatorCategoryKind)

Value	Description	Remarks
0	not-supported	
1	bay-control	
2	station-control	
3	remote-control	
4	automatic-bay	
5	automatic-station	
6	automatic-remote	
7	maintenance	
8	process	