

Agenda

- Introduktion til ICONICS og Heptagon ApS
- Åbne systemer baseret på åbne standarder
- ICONICS samler alle bygninger under én brugerfalde i ét værktøj
- Via University College fortæller om samarbejdet med ICONICS

Om ICONICS

HEPTAGON



Headquartered in Foxboro, MA
Since 1986



100+ Countries
400+ Partners



375,000+
Installations Worldwide

Gold
Microsoft Partner



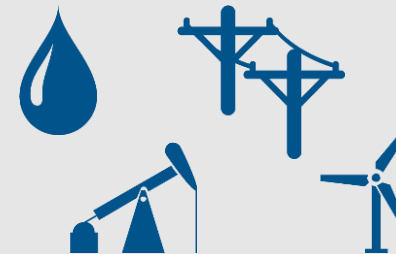
Ten-time Microsoft
Partner of the Year



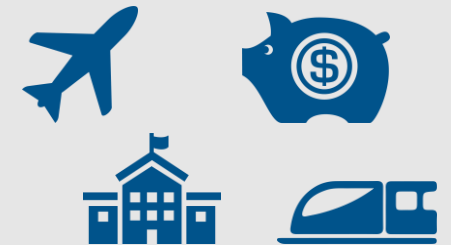
Energy Smart Buildings
Smart Cities



Manufacturing Intelligence
and Industrial Automation



Power & Water Utilities
Oil & Gas



Public Infrastructure

Enabling Digital Transformation

50,000 Intelligent Buildings Run on ICONICS



5 Million Data Points

- Building Automation
- Security
- Lighting
- Jetways
- Baggage Handling
- Moving Walkways
- Billing Systems
- Elevators / Escalators
- Electrical



Intelligent BUILDING

- 6.5 Million sq. ft. Building
- 5 Million Data Points
- 3D Graphical Representations
- Effective Building Management
- Real-time Alarming
- Remote Monitoring and Control
- Integrates Disparate Systems



50,000+ Buildings Operate with ICONICS



Microsoft 138 Bldgs



Heathrow Terminal 5



Defense Info System Agency



Malpensa Airport



Hong Kong Inter. Airport



US Pentagon



Ascendas 33 High Rises



LGA - Terminal 3 Delta



Large Oil & Gas HQ 23 Bldgs



JTC Singapore 32 Bldgs



Xian Xianyang Airport



Cadillac Fairview 21 High Rises



Schiphol Airport



TELCO 900+ Bldgs



DEFENSE 56 Bldgs



RETAIL 1830 Bldgs

Microsoft burger ICONICS i alle bygninger



Microsoft is its own best case study

From our largest campus in Redmond, Washington, USA to our many regional offices, Microsoft has a widely varied real estate portfolio

Our in-house Real Estate & Security team is responsible for the smart management of the global real estate portfolio

The diversity of our real estate portfolio means we know what it takes to manage commercial real estate on a global scale.



Global Building Portfolio

M²
3.56M

Leased
51%

Buildings
770

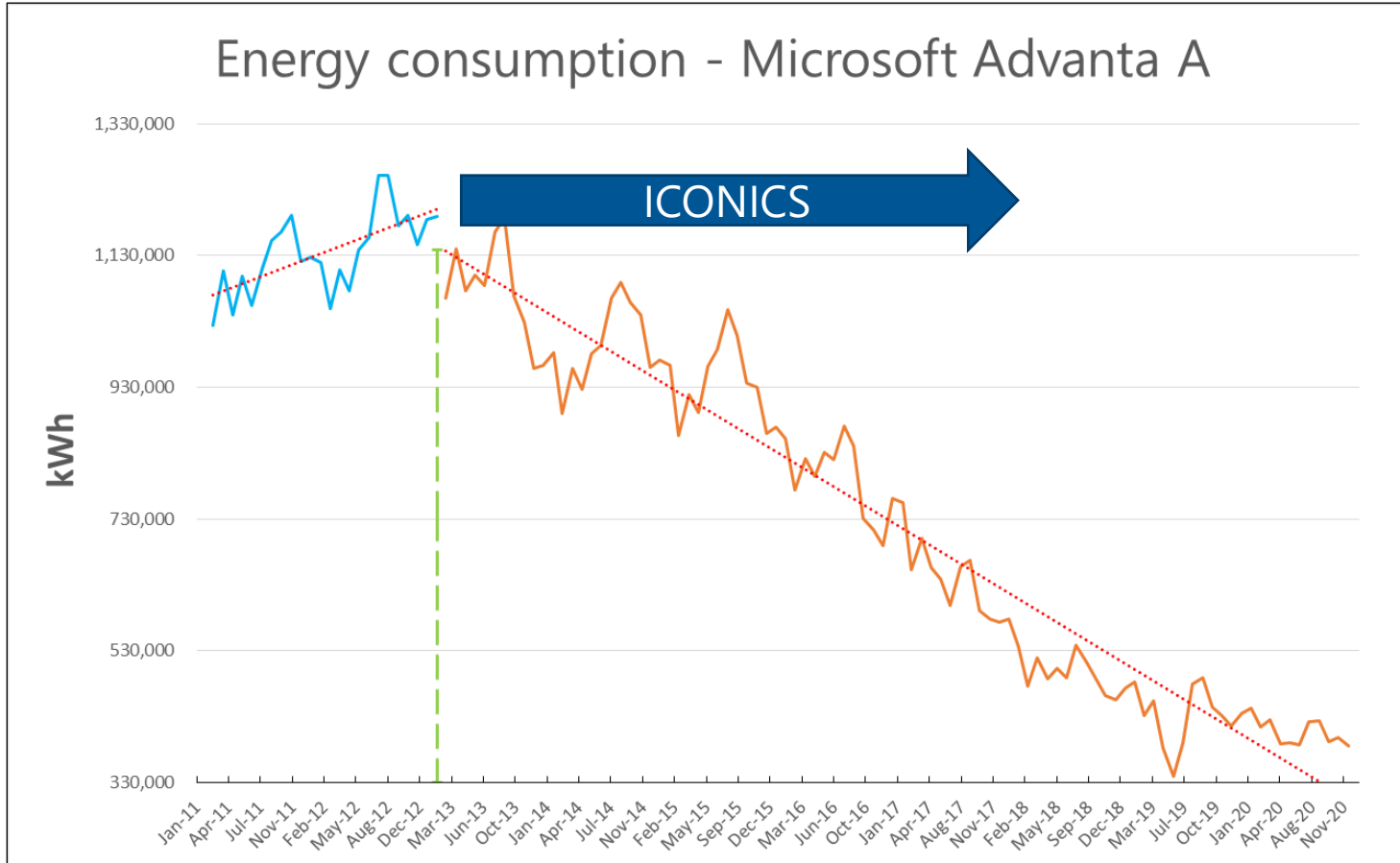
People
~148,000

Owned
49%

Countries
112

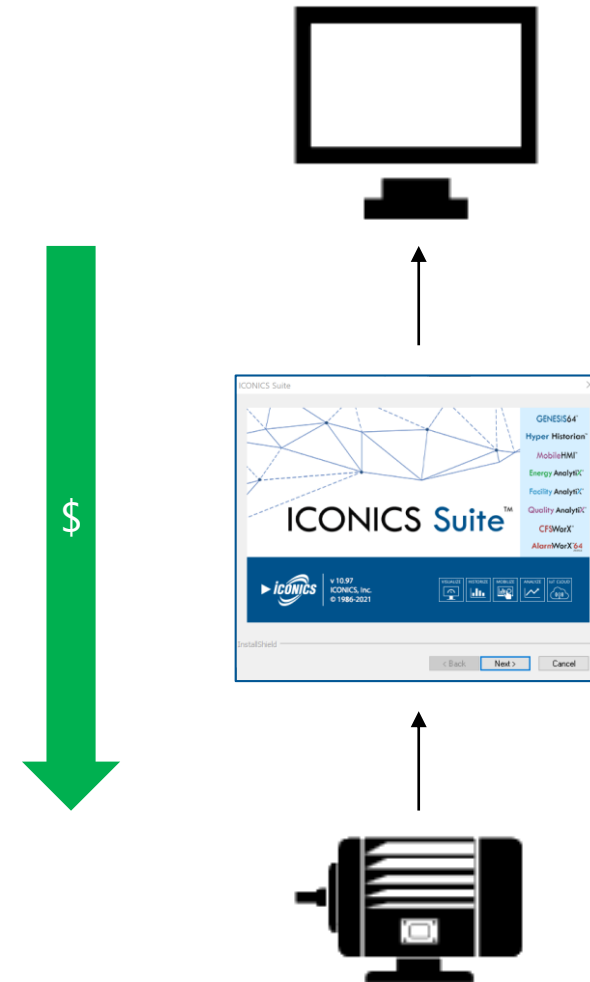
Microsoft's erfaringer

HEPTAGON



Source: Microsoft presentation, IoT Solutions World Congress 2019

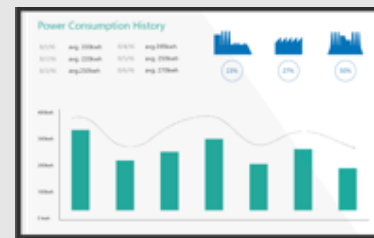
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Intelligente bygninger med ICONICS



Bedre fejlhåndtering og effektiv drift



En fælles brugerflade



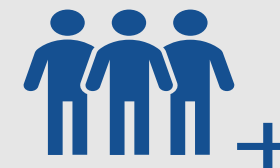
Energioptimering



Forbedre udnyttelse af
bygningsarealet



Øget brugertilfredshed



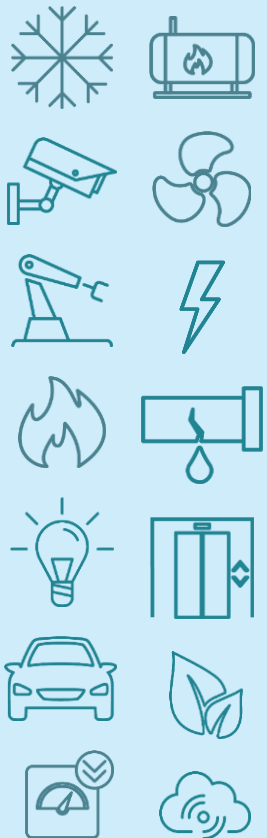
Forbedre komfort

Universal Connectivity

HEPTAGON



Udstyr og sensorer



Eksisterende systemer



Åbne Standarder

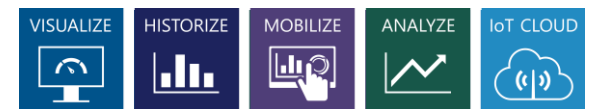


Fælles ensartet platform med adgang fra alle klienter



Via University Anders Thorsen

Tidligere Teknisk chef



VIA – forside med overblik

HEPTAGON



VIA University College

VIA University College **Overblik** 4. marts 2023 07:43:55

01 Via Campus N
02 Via Campus C
03 Via Campus TEK0
04 Via Campus Ikast
04 Via Campus Silkeborg
05 Via Campus Viborg
06 Via Viborg Animation
07 Via Campus Randers
08 Via Campus Holstebro
09 Via Campus Horsens
90 Alarm og Events

Alle	Campus N	Campus C	Campus TEK0	Ikast	Viborg TAW	Campus Viborg	Silkeborg	Campus Randers	Campus Holstebro	Campus Horsens	Historiske	Event	Alarm og events
Time / Date	Tag	Priority	Type	Quality	Description	Area							
04-03-2023 01:11	bacnet_Type_1_Zone_202_AI.TER1	500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1							
04-03-2023 02:33	bacnet_Type_1_Zone_115_AI.CO01	500	HIHI	Good	Høj/Høj	VIA_Viborg\Zoner\Plan 0							
03-03-2023 11:57	bacnet_BC1000_B107_TX001X_VE02_PSF1	500	Digital	Good	Ok	VIA_Viborg\Ventilation\VE02							
03-03-2023 12:07	VIB_FF313_UC01_FF_313.CO2RO.rCTRLPV	900	HIHI	Good	CO2 niveau i rum er for høj/høj	VIB\FF313\UC01\FF_313\CO2RO							
03-03-2023 11:57	VIB_D3_359_UC01.D_353.SM10.xCTRL.STA.Man	100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01.D_353\SM10							

VIA – Campus Horsens

HEPTAGON



VIA University College

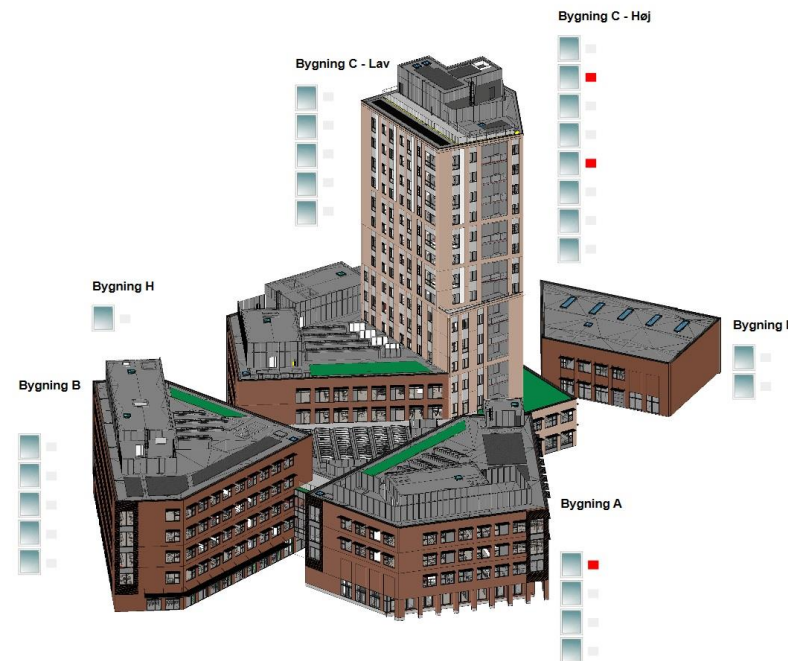
- VIA
- 01 Via Campus N
- 02 Via Campus C
- 03 Via Campus TEKO
- 04 Via Campus Ikast
- 04 Via Campus Silkeborg
- 05 Via Campus Viborg
- 06 Via Viborg Animation
- 07 Via Campus Randers
- 08 Via Campus Holstebro
- 09 Via Campus Horsens**
- 90 Alarm og Events

VIA Campus Horsens

Forside

4. marts 2023 07:48:33

8049	Lux Syd	417	Udv Co2 Byg A
18883	Lux Øst	407	Udv Co2 Byg B
3187	Lux Vest	404	Udv Co2 Byg C
4,1	Vind m/s	☀️	Regn
2,7	Ude temp.		



- ABA :**
- Brand ABA anlæg
 - Fejl ABA anlæg
- Køkken :**
- Fejl Fedtudskiller
 - Fejl Fryser
- Terræn :**
- Drænpumpe Byg A
 - Drænpumpe Terræn
 - Drænpumpe Terræn

Alle	Campus N	Campus C	Campus TEKO	Ikast	Viborg IAW	Campus Viborg	Silkeborg	Campus Randers	Campus Holstebro	Campus Horsens	Historiske	Event	Alarm og events
04-03-2023 01:11	bacnet_Type_1_Zone_202_AI_TER1	500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1							
04-03-2023 02:33	bacnet_Type_1_Zone_115_AI_CO01	500	HIHI	Good	HøjHøj	VIA_Viborg\Zoner\Plan 0							
03-03-2023 11:57	bacnet_BC1000_B107_TX001X_VE02_PSF1	500	Digital	Good	Ok	VIA_Viborg\Ventilation\VE02							
03-03-2023 12:07	VIB_FF313_UC01_FF_313_CO2R0_CTRL_PV	900	HIHI	Good	CO2 niveau i rum er for højhøj	VIB\F3\FF313\UC01\FF_313\CO2R0							
03-03-2023 11:57	VIB_D3_359_UC01.D_353.SM10.xCTRL.STA.Man	100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01.D_353\SM10							

VIA – Etageoverblik

HEPTAGON



VIA University College

VIA Campus Horsens
Bygning A - Plan 4
4. marts 2023 07:47:20

Time / Date	Tag	Priority	Type	Quality	Description	Area
04-03-2023 01:11	bacnet_Type_1_Zone_202_AI_TER1	500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1
04-03-2023 02:33	bacnet_Type_1_Zone_115_AI_CO01	500	HIHI	Good	HøjHøj	VIA_Viborg\Zoner\Plan 0
03-03-2023 11:57	bacnet_BC1000_B107_TX001X_VE02_PSF1	500	Digital	Good	OK	VIA_Viborg\Ventilation\VE02
03-03-2023 12:07	VIB_FF313_UC01_FF_313.CO2Ro.rCTRL.PV	900	HIHI	Good	CO2 niveau i rum er for høj	VIB\FF313\UC01\FF_313\CO2Ro
03-03-2023 11:57	VIB_D3_359_UC01.D_353.SM10.xCTRL.STA.Man	100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01.D_353\SM10

VIA – Rumstyring

HEPTAGON



VIA University College

VIA Campus Horsens
Bygning A - Plan 4
4. marts 2023 07:47:49

- 01 Via Campus N
- 02 Via Campus C
- 03 Via Campus TEK0
- 04 Via Campus Ikast
- 04 Via Campus Silkeborg
- 05 Via Campus Viborg
- 06 Via Viborg Animati
- 07 Via Campus Rander
- 08 Via Campus Holsteb
- 09 Via Campus Horser
- 01 Bygning A
 - Plan 1
 - Plan 2
 - Plan 3
 - Plan 4
 - Tag
- 02 Bygning B
- 03 Bygning C
- 04 Bygning D
- 05 Bygning H
- 10 Blandesløjfer
- 11 Ventilationsank
- 15 El-tracing
- 16 Udv Lys
- 17 Naturlig ventila
- 18 Rengøring
- 19 Festbelysning

Rum indstillinger.

Rum nr. **A4.01B** Personbelastning **45**

<p>Belysning</p> <p>Aktuel lux niveau: 25 Lux</p> <p>Setpunkt for ønsket lux niveau: 500 Lux</p> <p>Aktuel udgangssignal, Grunddys Z1: 0 %</p> <p>Aktuel udgangssignal, Grunddys Z2: 0 %</p> <p>Tids forsinkelse sluk: 10 Min</p> <p>Kalibrering: 3.0</p> <p>Adaptation: 20 %</p> <p>Tænd/sluk op/ned</p>	<p>Varme</p> <p>Aktuel rumtemperatur: 19.2 °C</p> <p>Setpunkt for nattemperatur: 19.0 °C</p> <p>Setpunkt for standbytemperatur: 19.0 °C</p> <p>Setpunkt for komforttemperatur: 19.5 °C</p> <p>Dædzone varmeventilation: 3.0 °C</p> <p>Status vindue: Lukket</p> <p>Manuel: Auto</p> <p>Aktuel åbning: 0 %</p> <p>Setpunkt for manuel åbning: 100 %</p> <p>Rumtemperatur, alarm Høj: 32.0 °C</p> <p>Rumtemperatur, alarm Lav: 1.0 °C</p> <p>Rumtemperatur, alarm Høj/Lav: 1.0 °C</p> <p>Regulatorparametre: Alarm on/off</p>
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<p>Ventilation</p> <p>Aktuel CO2 niveau: 448 ppm</p> <p>Setpunkt for nattemperatur: 22.5 °C</p> <p>Setpunkt for standbytemperatur: 22.5 °C</p> <p>Setpunkt for komforttemperatur: 22.5 °C</p> <p>Kurve parametre CO2</p>	<p>CO2 niveau</p> <p>CO2 niveau, alarm Høj: 1500.0 ppm</p> <p>CO2 niveau, alarm Lav: 0.0 ppm</p> <p>CO2 niveau, alarm Lav: 0.0 ppm</p> <p>CO2 niveau, alarm Lav: 0.0 ppm</p> <p>Alarm on/off</p>
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<p>VAV Indblæsning</p> <p>Automatisk åbning: 0 %</p> <p>Aktuel åbning: 32 %</p> <p>Manuel: Auto</p> <p>Setpunkt for manuel åbning: 0 %</p> <p>Aktuel Luftmængde: 154 l/s</p> <p>Aktuel Vmax: 506 l/s</p> <p>Aktuel Vmin: 154 l/s</p>	<p>VAV Udsugning</p> <p>Automatisk åbning: 0 %</p> <p>Aktuel åbning: 41 %</p> <p>Manuel: Auto</p> <p>Setpunkt for manuel åbning: 0 %</p> <p>Aktuel Luftmængde: 154 l/s</p> <p>Aktuel Vmax: 506 l/s</p> <p>Aktuel Vmin: 154 l/s</p>
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Alarm og events

Time / Date	Tag	Priority	Type	Quality	Description	Area
04-03-2023 01:11		500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1
04-03-2023 02:33		500	HIHI	Good	Høj/Høj	VIA_Viborg\Zoner\Plan 0
03-03-2023 11:57		900	Digital	Good	Ok	VIA_Viborg\Ventilation\VE02
03-03-2023 12:07		900	HIHI	Good	CO2 niveau i rum er for høj/høj	VIB\F3\FF313\UC01\FF_313\CO2R0
03-03-2023 11:57		100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01\D_353\SM10

VIA – Varmeanlæg

HEPTAGON



VIA University College

VIA Campus Horsens

Varme A191_VA01, Bygning A

4. marts 2023 07:46:42

7378	Lux Syd	412	Udv Co2 Byg A
17449	Lux Øst	405	Udv Co2 Byg B
3031	Lux Vest	406	Udv Co2 Byg C
9,6	Vind m/s	%°°	Regn
2,6	Ude temp.		

A191_VA01

Varmeanlæg A191_V... I drift

Start Stop Kalender

Kalkuleret mixed temperatur 51,5 °C
 Offset ved natsænkning 0,0 °C
 Setpunkt for vinterstart 17,0 °C
 Setpunkt for sommerstart 18,0 °C
 Forstærkning Kp 0,1
 Integraltid Ti 12,0

Setpunkt aktiver frostsikring 2,0 °C
 Setpunkt deaktiver frostsikring 3,0 °C
 Kører vinterdrift

Varmekurve

Alle Campus N Campus C Campus Teko Ikast Viborg JAV Campus Viborg Silkeborg Campus Randers Campus Holstebro Campus Horsens Historiske Event Alarm og events

Time / Date	Tag	Priority	Type	Quality	Description	Area
04-03-2023 01:11	bacnet_Type_1_Zone_202_AI_TER1	500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1
04-03-2023 02:33	bacnet_Type_1_Zone_T15_AI_CO01	500	HIHI	Good	HøjHøj	VIA_Viborg\Zoner\Plan 0
03-03-2023 11:57	bacnet_BC1000_B107_TX001X_VE02_PSF1	500	Digital	Good	Ok	VIA_Viborg\Ventilation\VE02
03-03-2023 12:07	VIB_FF313_UC01_FF_313.CO2R0_CTRLPV	900	HIHI	Good	CO2 niveau i rum er for højhøj	VIB\FF313\UC01\FF_313\CO2R0
03-03-2023 11:57	VIB_D3_359_UC01.D_353.SM10.xCTRL.STA.Man	100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01.D_353\SM10

VIA – VE anlæg

HEPTAGON



VIA University College

VIA Campus C Ventilation VEA01, Bygning A 4. marts 2023 07:45:58

Drift
Auto
Konst
Aktivt
Sluk
Alarm
Reset
Drifttid 24547 timer
Aktiver nat køl
Køl
 Parametre

Omskifter tavlefront
Auto 0 Man

AARC_A078_UC30.
UC Kommunikation: Ok
UC Status: I Run

Dokumentation
 Logbog

Udetemperatur
3,9 °C

Alarm og events

Time / Date	Tag	Priority	Type	Quality	Description	Area
04-03-2023 01:11	bacnet_Type_1_Zone_202_AI_TER1	500	LO	Good	Lav	VIA_Viborg\Zoner\Plan 1
04-03-2023 02:33	bacnet_Type_1_Zone_115_AI_CO01	500	HIHI	Good	HøjHøj	VIA_Viborg\Zoner\Plan 0
03-03-2023 11:57	bacnet_BC1000_B107_TX001X_VE02_PSF1	500	Digital	Good	Ok	VIA_Viborg\Ventilation\VE02
03-03-2023 12:07	VIB_FF313_UC01_FF_313_CO2R0_CTRL.PV	900	HIHI	Good	CO2 niveau i rum er for højhøj	VIB\FF313\UC01\FF_313\CO2R0
03-03-2023 11:57	VIB_D3_359_UC01.D_353.SM10.xCTRL.STA.Man	100	Digital	Good	Spjældmotor er i manuel	VIB\D3\359\UC01.D_353\SM10



Q&A