DAIKIN APPLIED EUROPE S.p.A.

BAS Integration guide

BACnet®protocol

Doc. Name:
D-EIGOC00110-21_03EN_iCM

Product Name:
iCM (Option 184)

Control software name:
iCM

Table of contents

1. Introduction 3
2. About this document 4
   2.1 Revision History 4
   2.2 Notice 4
   2.3 Before starting 4
3. Safety information 5
4. Commission this unit in a BACnet network 6
   4.1 General information 6
   4.2 BACnet IP module (POL908) 7
   4.3 BACnet MS/TP module (POL904.00/STD) 8
   4.4 BACnet / IP software option 10
   4.5 BACnet MS/TP software option 11
5. BACnet integration list 12
6. Annex 2 – EDE files for BACnet 43
7. Annex 3 - Microtech PICS for BACnet 44
   7.1 BACnet standardized device profile 44
   7.2 BACnet interoperability building blocks supported 44
   7.3 BACnet standard object types supported 45
   7.4 BACnet standard object types description 45

1. Introduction

This document contains information to incorporate a MicroTech® III and Microtech 4 Unit Controllers into a building automation system (BAS) via BACnet® communication protocol.

Microtech III and Microtech 4 are suitable for network integration. Data points accessible from a BACnet® network are made available to a BAS provided that the proper communication module (Microtech III and Microtech 4) or the corresponding software option (Microtech 4) are installed / activated.

Communication settings and the BACnet® properties with corresponding controller data points are described.
BACnet® terms are not defined. Refer to the respective specifications for definitions and details.

2. About this document

2.1 Revision History

Version	Date	Software Version	Description
D-EOMOC00111-20EN_iCM	11/2020	iCM_2.00	First edition iCM integration of iPM integration of iCT
D-EIGOC00110-21_01EN_iCM	10/2021	iCM_3.00	System Heat Recovery System Free-cooling System Defrost
D-EIGOC00110-21_02EN_iCM	07/2022	iCM_4.00	Integration of iSM iCM Expanded
D-EIGOC00110-21_03EN_iCM	11/2023	iCM_5.00	Management of Four-pipe Plant

2.2 Notice

© 2014 Daikin Applied Europe, Cecchina, Roma. All rights reserved throughout the world ™ ® The following are trademarks or registered trademarks of their respective companies:

- **BACnet** from American Society of Heating, Refrigerating and Air-Conditioning Engineers,
- **MicroTech 4** from Daikin Applied Europe.

2.3 Before starting

Application range

This document refers to the following components:

Microtech 4	Controller
POL908.00/STD	BACnet IP module
POL904.00/STD	BACnet MS/TP module

Users

Users of this document are intended to be:

- BACnet systems integrators
- Service Technicians
- Plant Engineers
- Sales staff

Conventions

Microtech 4 further in this document when proper will be referred to as “Microtech”

Abbreviation

BACnet	**B**uilding **A**utomation and **C**ontrol **Net**work
BSP	**B**oard **S**upport **P**ackage (operating system)

References

- ANSI/ ASHRAE 135-2004. “**BACnet** - A Data Communication Protocol for Building Automation and Control Networks”. American Society of Heating, Refrigerating and Air-Conditioning Engineers - www.ashrae.org.
- Siemens Building Technologies - CB1P3933en - **BACnet** communication modules

3. Safety information

Only personnel qualified in accordance with IEC (International Electrotechnical Commission) recommendations may be permitted access to electrical components. It is particularly recommended that all sources of electricity to the unit be shut off before any work is begun. Shut off main power supply at the main circuit breaker or isolator.

IMPORTANT: This equipment uses and emits electromagnetic signals. Tests have shown that the equipment conforms to all applicable codes with respect to electromagnetic compatibility.

	***RISK OF ELECTROCUTION: Even when the main circuit breaker or isolator is switched off, certain circuits may still be energized, since they may be connected to a separate power source.***
	***RISK OF BURNS: Electrical currents cause components to get hot either temporarily or permanently. Handle power cable, electrical cables and conduits, terminal box covers and motor frames with great care.***

Field of application



Use BACnet communication modules only for control and monitoring functions in ventilation, air conditioning and refrigeration plants.

Intended use



Trouble-free and safe product operation of the above products presupposes transport, storage, mounting, installation, and commissioning as intended as well as careful operation.

Electrical installation



Fuses, switches, wiring and grounding must comply with local safety regulations for electrical installations.

Wiring



When wiring, strictly separate AC 230 V mains voltage from AC 24 V safety extralow voltage (SELV) to protect against electrical shock!

Commissioning and maintenance



Only qualified staff trained accordingly may prepare for use, commission, and maintain BACnet communication modules.

Maintenance of BACnet communication modules generally only means regular cleaning. We recommend removing dust and dirt from system components installed in the control panels during standard service.

Faults



Only authorized staff may diagnose and correct faults and recommission the plant. This applies to working within the panel as well (e.g. testing or changing fuses).

Storage and transport



Refer to the environmental conditions specified in the respective data sheets for storage and transport. If in doubt, contact your supplier.

Disposal



Devices contain electrical and electronic components; do not dispose of them in household garbage. Observe all local and applicable laws.

4. Commission this unit in a BACnet network

4.1 General information

Compatibility

The Microtech controllers are tested according to the BACnet Testing Laboratory (BTL) Test Plan. They are designed to meet the requirements of the BACnet Standard as stated in the Protocol Implementation and Conformance Statement (PICS). However, they are not BTL listed. The PICS is located at the end of the present document.

Unit controller

Microtech 4 controller can be integrated in an interoperable BACnet network provided one of the followings:

a) it is equipped with the proper communication module
b) the onboard communication has been made available (software option).

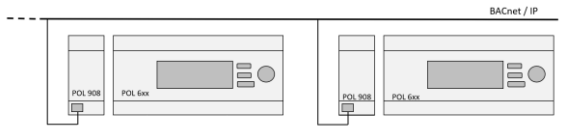
Communication modules

Available communication modules to configure Microtech controllers in BACnet network are:

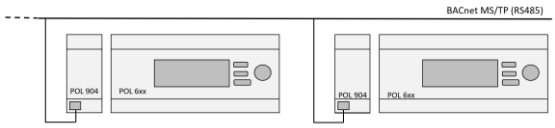
1. **BACnet/IP** (dedicated network or shared Ethernet LAN)
2. **BACnet MS/TP** (Master/Slave Token Passing).

Both communication modules comply with the standardized profile for BACnet equipment **(B-AAC BACnet Advanced Application Controller).**

BACnet/IP (POL908)



BACnet MS/TP (POL904)



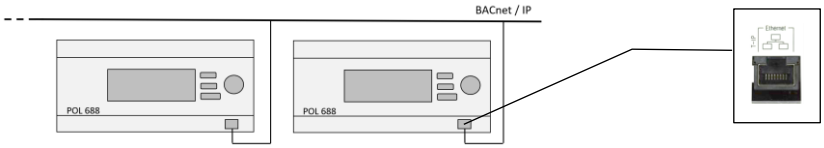
Communication software option

For Microtech 4, BACnet communication is also available onborad the controller as a software option.

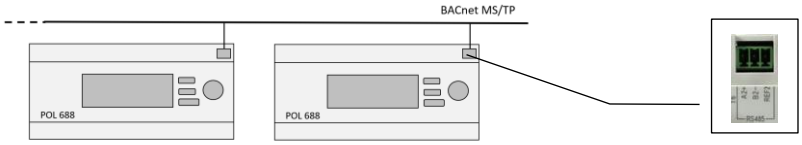
1. **BACnet/IP** (dedicated network or shared Ethernet LAN)
2. **BACnet MS/TP** (Master/Slave Token Passing).

Both communication options comply with the standardized profile for BACnet equipment **(B-AAC BACnet Advanced Application Controller).**

BACnet/IP

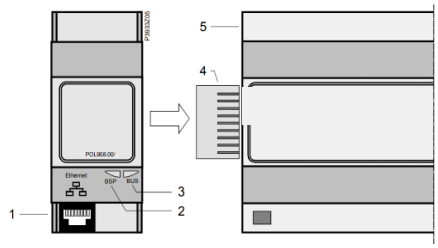


BACnet MS/TP



4.2 BACnet IP module (POL908)

Module description



Part	Description
1	Ethernet interface 10/100 Mbit (IEEE 802.3U), RJ45 plug, 8-pin.
2	Status display "BSP" (Board Support Package).
3	Status display "BUS" (bus connections / bus traffic o.k.).
4	Plug connection "Communication extension bus".
5	Microtech controller.

BSP Led

Color	Flashing frequency	Meaning
Green	Steady on	BSP operating and communication with controller working.
Yellow	Steady on	BSP operating, but no communication with controller.
Red	Steady on	Hardware fault.
Red/Yellow	Flashing at 1 Hz (1 second on/ 1 second off)	Upgrade mode running.
Red	Flashing at 2 Hz (0,5 second on/ 0,5 second off)	BSP error (software error).

BUS Led

Color	Flashing frequency	Meaning
Green	Steady on	Communication active.
Yellow	Steady on	Initializing
Red	Steady on	Communication interrupted.

Module connection

Step	Action
1	Power off the controller
2	Connect POL908 module to the controller via plug connection (part 4).
3	Connect the TCP/IP bus cable to the POL908.
4	Power on the controller

Configuration

Step	Action
1	Check that BUS led status is steady on green coloured.
2	Navigate the unit's keypad/display to the main menu page and set the "service" password
3	Navigate the unit's keypad/display following the path below: **Main menu→Commissioning→BACNetIP Setup**
4	Set parameters in the table below as needed according to the local network

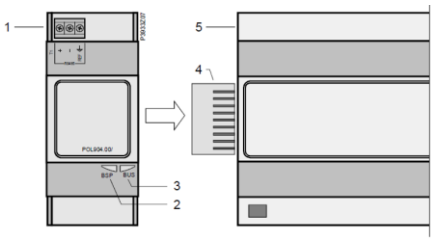
Parameter	Default value
Device Instance	1
UDP Port Number	47808 (BAC0)
DHCP(1)	OFF
Given IP Address[2]	127.0.0.1
Given IP Subnet Mask[2]	255.255.255.000
Given Gateway Address[2]	127.0.0.1
Unit Support	English
NC Dev 1	0
NC Dev 2	0

(1) Verify whether DHCP should or should not be enabled. If not, obtain the IP Subnet Mask of the shared network from the network administrator. Then, obtain static IP Addresses for all MicroTech Unit Controllers you are integrating into the shared network. Finally, obtain the address of an IP Router to use for sending IP messages to and from the BACnet IP subnets.

(2) These addresses are used if DHCP (Dynamic Host Configuration Property) is set to Off. For changes to these parameters to take effect, use the keypad/display and set Apply Changes on the BACnet IP Setup menu to Yes. This will cause the power on the unit controller to reset.

4.3 BACnet MS/TP module (POL904.00/STD)

Module description



Part	Description
1	Interface RS485, plug-in terminals with screw/terminal connections.
2	Status display "BSP" (Board Support Package).
3	Status display "BUS" (bus connections / bus traffic o.k.).
4	Plug connection "Communication extension bus".
5	Microtech controller.

BSP Led

Color	Flashing frequency	Meaning
Green	Steady on	BSP operating and communication with controller working.
Yellow	Steady on	BSP operating, but no communication with controller.
Red	Steady on	Hardware fault.
Red/Yellow	Flashing at 1 Hz (1 second on/ 1 second off)	Upgrade mode running.
Red	Flashing at 2 Hz (0,5 second on/ 0,5 second off)	BSP error (software error).

BUS Led

Color	Flashing frequency	Meaning
Green	Steady on	Communication active.
Yellow	Steady on	Initializing
Red	Steady on	Communication interrupted.

Module connection

Step	Action
1	Power off the controller
2	Connect POL904 module to the controller via plug connection (part 4).
3	Connect the TCP/IP bus cable to the POL908.
4	Power on the controller

Configuration procedure

Step	Action
1	Check that BUS led status is steady on green coloured.
2	Navigate the unit's keypad/display to the main menu page and set the "service" password
3	Navigate the unit's keypad/display following the path below: **Main menu→Commissioning→BACnetMSTP Setup**
4	Set parameters in the table below as needed according to the local network

Configuration parameters

Parameter	Default value	Notes
Device Instance	variable	The last 8 digits are computed from the production number and date code.

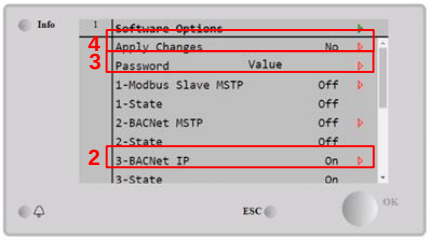
<table>
<tr><td>MSTP Address</td><td>24 (0x18)</td><td colspan="2">Cycle power after changing it for the changes to take effect.</td></tr>
<tr><td rowspan="4">Baud Rate</td><td rowspan="4">38400</td><td>Baud rate</td><td>Number of devices</td></tr>
<tr><td>76800</td><td>64</td></tr>
<tr><td>38400</td><td>32</td></tr>
<tr><td>19200 and lower</td><td>Value not recommended</td></tr>
<tr><td></td><td></td><td colspan="2"></td></tr>
<tr><td>Max Master</td><td>127</td><td colspan="2">Recommended value is the number of MS/TP devices (device address) + 1</td></tr>
<tr><td>Max Info Frames</td><td>1</td><td colspan="2">1, unless device generates high-priority events (alarm, COV, client functionality).</td></tr>
<tr><td>Unit Support</td><td>English</td><td colspan="2"></td></tr>
</table>

4.4 BACnet / IP software option

Option enabling

1. From the HMI main menu choose:

`Commissioning→ Configuration→ Software Options`

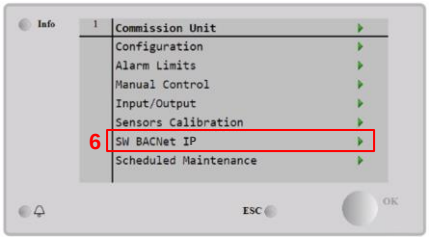


2. Select “On” for option #3-BACNet IP
3. Insert the unlock password
4. Apply Changes

Option configuration

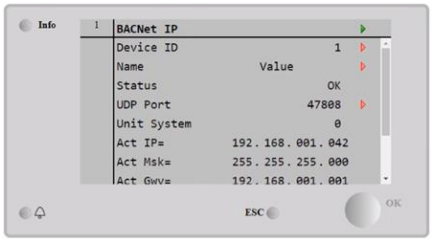
5. From the HMI main menu choose:

`Commissioning`

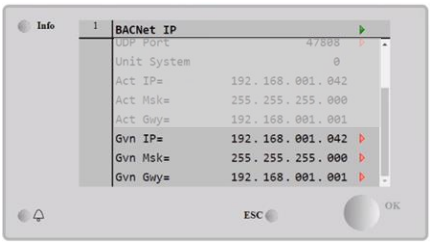


6. Select “SW BACNet IP”

7. Select proper parameters for BACNet IP communication



Parameter	Default value
Device Instance	1
UDP Port Number	47808 (BAC0)
DHCP(1)	OFF
Given IP Address[2]	127.0.0.1
Given IP Subnet Mask[2]	255.255.255.000
Given Gateway Address[2]	127.0.0.1
Unit Support	English
NC Dev 1	0
NC Dev 2	0



(1) Verify whether DHCP should or should not be enabled. If not, obtain the IP Subnet Mask of the shared network from the network administrator. Then, obtain static IP Addresses for all MicroTech 4 Unit Controllers you are integrating into the shared network. Finally, obtain the address of an IP Router to use for sending IP messages to and from the BACnet IP subnets.

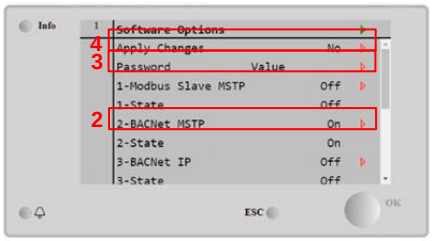
(2) These addresses are used if DHCP (Dynamic Host Configuration Property) is set to Off. For changes to these parameters to take effect, use the keypad/display and set Apply Changes on the BACnet IP Setup menu to Yes. This will cause the power on the unit controller to reset.

4.5 BACnet MS/TP software option

Option enabling

1. From the HMI main menu choose:

```
Commissioning→ Configuration→
Software Options
```

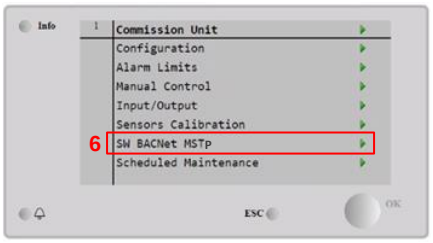


2. Select “On” for option #2-BACNet MSTP
3. Insert the unlock password
4. Apply Changes

Option configuration

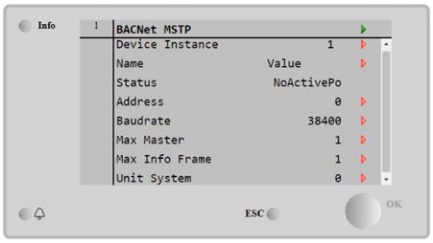
5. From the HMI main menu choose:

```
Commissioning
```



6. Select “SW BACNet MSTP”

7. Select proper parameters for BACNet MSTP communication



Parameter	Default value	Notes	
Device Instance	variable	-	
Address	0	MSTP Address	
Baud Rate	38400	**Baud rate**	**Number of devices**
		76800	64
		38400	32
		19200 and lower	Value not recommended
Max Master	1	Recommended value is the number of MS/TP devices (device address) + 1	
Max Info Frames	1	1, unless device generates high-priority events (alarm, COV, client functionality).	

5. BACnet integration list

Description	BACnet Type	BACnet Name	BACnet Istance	Range	Read/ Write
System Operating State	MSV	SysOpSta	1100	0 NULL 1 Stop 2 Run	R
SCM type	MSV	SCMType	1101	0 NULL 1 Mst/Slv 2 iCM_Std 3 iCM_Adv	R
Configuration type	MSV	ConfigType	1102	0 NULL 1 Undef 2 OnlyC/O 3 OnlyH/P 4 C/O_H/P 5 Only4P 6 4P_C/O	R
System Cooling leaving water temp.	AI	CommonLWT	1103	°C	R
System heating leaving water temp.	AI	HeatLWT	1104	°C	R
System avg evaporator entering water temp.	AV	AvgEEWT	1105	°C	R
System avg condenser entering water temp.	AV	AvgCEWT	1106	°C	R
System controlled temp.	AV	SysCtrlTmp	151	°C	R
System controlled heat temp.	AV	SysCtrlHeat	252	°C	R
System actual setpoint	AV	SysActSp	1107	°C	R
System heat setpoint	AV	SysHeatSp	1108	°C	R

Next chiller on	MSV	NextChillerOn	1109	0 NULL 1 None 2 Master 3 Slave 1 4 Slave 2 5 Slave 3 6 Slave 4 7 Slave 5 8 Slave 6 9 Slave 7	R
Next chiller off	MSV	NextChillerOff	1110	as Next Chiller On	R
Standby chiller Value	MSV	StandbyChillerVal	1111	as Next Chiller On	R
System load	AV	SystemLoad	1112	0…100%	R
Cooling load	AV	CoolingLoad	1113	0…100%	R
Heating load	AV	HeatingLoad	1114	0…100%	R
System Demand Limit Value	AV	SysDemandLimit	1115	0…100%	R
System Demand Limit Operating State	MSV	SysDemandLimitOpSta	1116	0 NULL 1 No 2 Yes	R
Energy monitoring configured	MSV	EnergyMonConfigured	1117	0 NULL 1 N/Cfgd 2 Cfgd	R
Heat recovery configured	MSV	HeatRecConfigured	1118	0 NULL 1 N/Cfgd 2 Cfgd	R

Master - Actual mode	MSV	MasterData'ActMode	1119	0 NULL 1 Cool 2 Ice 3 Heat 4 Test 5 Multi	R
Master - Circuit #1 Current mode	MSV	MasterData'CurrentModeC1	1120	0 NULL 1 Off 2 Water 3 Cool 4 Heat 5 N/Avail 6 N/Cfgd	R
Master - Circuit #1 Load	AV	MasterData'LoadC1	1121	0…100%	R
Master - Circuit #1 No. starts	AV	MasterData'StartsC1	1122	0…4294967292	R
Master - Circuit #1 Run hours	AV	MasterData'RunHoursC1	1123	0…4294967292	R
Master - Circuit #2 Current mode	MSV	MasterData'CurrentModeC2	1124	as MasterData'CurrentModeC1	R
Master - Circuit #2 Load	AV	MasterData'LoadC2	1125	0…100%	R
Master - Circuit #2 No. starts	AV	MasterData'StartsC2	1126	0…4294967292	R
Master - Circuit #2 Run hours	AV	MasterData'RunHoursC2	1127	0…4294967292	R
Master - Condenser entering water temp.	AV	MasterData'CEWT	1128	°C	R
Master - Condenser leaving water temp.	AV	MasterData'CLWT	1129	°C	R
Master - Evaporator entering water temp.	AV	MasterData'EEWT	1130	°C	R
Master - Evaporator leaving water temp.	AV	MasterData'ELWT	1131	°C	R
Master - Load	AV	MasterData'Load	1132	0…100%	R
Master - No. starts	AV	MasterData'Starts	1133	0…4294967292	R
Master - Run hours	AV	MasterData'RunHours	1134	0…4294967292	R

Master - Standalone	MSV	MasterData'StandAlone	1135	0 NULL 1 No 2 Yes	R
Master - State	MSV	MasterData'State	1136	0 NULL 1 Off 2 Run 3 Alarm 4 ComErr 5 N/Avail 6 N/Cfgd	R
Slave #1 - Actual mode	MSV	SlaveData1'ActMode	1137	as MasterData'ActMode	R
Slave #1 - Circuit #1 Current mode	MSV	SlaveData1'CurrentModeC1	1138	as MasterData'CurrentModeC1	R
Slave #1 - Circuit #1 Load	AV	SlaveData1'LoadC1	1139	0…100%	R
Slave #1 - Circuit #1 No. starts	AV	SlaveData1'StartsC1	1140	0…4294967292	R
Slave #1 - Circuit #1 Run hours	AV	SlaveData1'RunHoursC1	1141	0…4294967292	R
Slave #1 - Circuit #2 Current mode	MSV	SlaveData1'CurrentModeC2	1142	as MasterData'CurrentModeC1	R
Slave #1 - Circuit #2 Load	AV	SlaveData1'LoadC2	1143	0…100%	R
Slave #1 - Circuit #2 No. starts	AV	SlaveData1'StartsC2	1144	0…4294967292	R
Slave #1 - Circuit #2 Run hours	AV	SlaveData1'RunHoursC2	1145	0…4294967292	R
Slave #1 - Condenser entering water temp.	AV	SlaveData1'CEWT	1146	°C	R
Slave #1 - Condenser leaving water temp.	AV	SlaveData1'CLWT	1147	°C	R
Slave #1 - Evaporator entering water temp.	AV	SlaveData1'EEWT	1148	°C	R
Slave #1 - Evaporator leaving water temp.	AV	SlaveData1'ELWT	1149	°C	R
Slave #1 - Load	AV	SlaveData1'Load	1150	0…100%	R
Slave #1 - No. starts	AV	SlaveData1'Starts	1151	0…4294967292	R

Slave #1 - Run hours	AV	SlaveData1'RunHours	1152	0…4294967292	R
Slave #1 - Standalone	MSV	SlaveData1'StandAlone	1153	as MasterData'StandAlone	R
Slave #1 - State	MSV	S1State	1154	as MasterData'State	R
Slave #2 - Actual mode	MSV	SlaveData2'ActMode	1155	as MasterData'ActMode	R
Slave #2 - Circuit #1 Current mode	MSV	SlaveData2'CurrentModeC1	1156	as MasterData'CurrentModeC1	R
Slave #2 - Circuit #1 Load	AV	SlaveData2'LoadC1	1157	0…100%	R
Slave #2 - Circuit #1 No. starts	AV	SlaveData2'StartsC1	1158	0…4294967292	R
Slave #2 - Circuit #1 Run hours	AV	SlaveData2'RunHoursC1	1159	0…4294967292	R
Slave #2 - Circuit #2 Current mode	MSV	SlaveData2'CurrentModeC2	1160	as MasterData'CurrentModeC1	R
Slave #2 - Circuit #2 Load	AV	SlaveData2'LoadC2	1161	0…100%	R
Slave #2 - Circuit #2 No. starts	AV	SlaveData2'StartsC2	1162	0…4294967292	R
Slave #2 - Circuit #2 Run hours	AV	SlaveData2'RunHoursC2	1163	0…4294967292	R
Slave #2 - Condenser entering water temp.	AV	SlaveData2'CEWT	1164	°C	R
Slave #2 - Condenser leaving water temp.	AV	SlaveData2'CLWT	1165	°C	R
Slave #2 - Evaporator entering water temp.	AV	SlaveData2'EEWT	1166	°C	R
Slave #2 - Evaporator leaving water temp.	AV	SlaveData2'ELWT	1167	°C	R
Slave #2 - Load	AV	SlaveData2'Load	1168	0…100%	R
Slave #2 - No. starts	AV	SlaveData2'Starts	1169	0…4294967292	R
Slave #2 - Run hours	AV	SlaveData2'RunHours	1170	0…4294967292	R
Slave #2 - Standalone	MSV	SlaveData2'StandAlone	1171	as MasterData'StandAlone	R
Slave #2 - State	MSV	S2State	1172	as MasterData'State	R
Slave #3 - Actual mode	MSV	SlaveData3'ActMode	1173	as MasterData'ActMode	R
Slave #3 - Circuit #1 Current mode	MSV	SlaveData3'CurrentModeC1	1174	as MasterData'CurrentModeC1	R
Slave #3 - Circuit #1 Load	AV	SlaveData3'LoadC1	1175	0…100%	R

Slave #3 - Circuit #1 No. starts	AV	SlaveData3'StartsC1	1176	0…4294967292	R
Slave #3 - Circuit #1 Run hours	AV	SlaveData3'RunHoursC1	1177	0…4294967292	R
Slave #3 - Circuit #2 Current mode	MSV	SlaveData3'CurrentModeC2	1178	as MasterData'CurrentModeC1	R
Slave #3 - Circuit #2 Load	AV	SlaveData3'LoadC2	1179	0…100%	R
Slave #3 - Circuit #2 No. starts	AV	SlaveData3'StartsC2	1180	0…4294967292	R
Slave #3 - Circuit #2 Run hours	AV	SlaveData3'RunHoursC2	1181	0…4294967292	R
Slave #3 - Condenser entering water temp.	AV	SlaveData3'CEWT	1182	°C	R
Slave #3 - Condenser leaving water temp.	AV	SlaveData3'CLWT	1183	°C	R
Slave #3 - Evaporator entering water temp.	AV	SlaveData3'EEWT	1184	°C	R
Slave #3 - Evaporator leaving water temp.	AV	SlaveData3'ELWT	1185	°C	R
Slave #3 - Load	AV	SlaveData3'Load	1186	0…100%	R
Slave #3 - No. starts	AV	SlaveData3'Starts	1187	0…4294967292	R
Slave #3 - Run hours	AV	SlaveData3'RunHours	1188	0…4294967292	R
Slave #3 - Standalone	MSV	SlaveData3'StandAlone	1189	as MasterData'StandAlone	R
Slave #3 - State	MSV	S3State	1190	as MasterData'State	R
Slave #4 - Actual mode	MSV	SlaveData4'ActMode	1191	as MasterData'ActMode	R
Slave #4 - Circuit #1 Current mode	MSV	SlaveData4'CurrentModeC1	1192	as MasterData'CurrentModeC1	R
Slave #4 - Circuit #1 Load	AV	SlaveData4'LoadC1	1193	0…100%	R
Slave #4 - Circuit #1 No. starts	AV	SlaveData4'StartsC1	1194	0…4294967292	R
Slave #4 - Circuit #1 Run hours	AV	SlaveData4'RunHoursC1	1195	0…4294967292	R
Slave #4 - Circuit #2 Current mode	MSV	SlaveData4'CurrentModeC2	1196	as MasterData'CurrentModeC1	R
Slave #4 - Circuit #2 Load	AV	SlaveData4'LoadC2	1197	0…100%	R
Slave #4 - Circuit #2 No. starts	AV	SlaveData4'StartsC2	1198	0…4294967292	R
Slave #4 - Circuit #2 Run hours	AV	SlaveData4'RunHoursC2	1199	0…4294967292	R

Slave #4 - Condenser entering water temp.	AV	SlaveData4'CEWT	1200	°C	R
Slave #4 - Condenser leaving water temp.	AV	SlaveData4'CLWT	1201	°C	R
Slave #4 - Evaporator entering water temp.	AV	SlaveData4'EEWT	1202	°C	R
Slave #4 - Evaporator leaving water temp.	AV	SlaveData4'ELWT	1203	°C	R
Slave #4 - Load	AV	SlaveData4'Load	1204	0…100%	R
Slave #4 - No. starts	AV	SlaveData4'Starts	1205	0…4294967292	R
Slave #4 - Run hours	AV	SlaveData4'RunHours	1206	0…4294967292	R
Slave #4 - Standalone	MSV	SlaveData4'StandAlone	1207	as MasterData'StandAlone	R
Slave #4 - State	MSV	S4State	1208	as MasterData'State	R
Slave #5 - Actual mode	MSV	SlaveData5'ActMode	1209	as MasterData'ActMode	R
Slave #5 - Circuit #1 Current mode	MSV	SlaveData5'CurrentModeC1	1210	as MasterData'CurrentModeC1	R
Slave #5 - Circuit #1 Load	AV	SlaveData5'LoadC1	1211	0…100%	R
Slave #5 - Circuit #1 No. starts	AV	SlaveData5'StartsC1	1212	0…4294967292	R
Slave #5 - Circuit #1 Run hours	AV	SlaveData5'RunHoursC1	1213	0…4294967292	R
Slave #5 - Circuit #2 Current mode	MSV	SlaveData5'CurrentModeC2	1214	as MasterData'CurrentModeC1	R
Slave #5 - Circuit #2 Load	AV	SlaveData5'LoadC2	1215	0…100%	R
Slave #5 - Circuit #2 No. starts	AV	SlaveData5'StartsC2	1216	0…4294967292	R
Slave #5 - Circuit #2 Run hours	AV	SlaveData5'RunHoursC2	1217	0…4294967292	R
Slave #5 - Condenser entering water temp.	AV	SlaveData5'CEWT	1218	°C	R
Slave #5 - Condenser leaving water temp.	AV	SlaveData5'CLWT	1219	°C	R
Slave #5 - Evaporator entering water temp.	AV	SlaveData5'EEWT	1220	°C	R
Slave #5 - Evaporator leaving water temp.	AV	SlaveData5'ELWT	1221	°C	R
Slave #5 - Load	AV	SlaveData5'Load	1222	0…100%	R
Slave #5 - No. starts	AV	SlaveData5'Starts	1223	0…4294967292	R
Slave #5 - Run hours	AV	SlaveData5'RunHours	1224	0…4294967292	R

Slave #5 - Standalone	MSV	SlaveData5'StandAlone	1225	as MasterData'StandAlone	R
Slave #5 - State	MSV	S5State	1226	as MasterData'State	R
Slave #6 - Actual mode	MSV	SlaveData6'ActMode	1227	as MasterData'ActMode	R
Slave #6 - Circuit #1 Current mode	MSV	SlaveData6'CurrentModeC1	1228	as MasterData'CurrentModeC1	R
Slave #6 - Circuit #1 Load	AV	SlaveData6'LoadC1	1229	0…100%	R
Slave #6 - Circuit #1 No. starts	AV	SlaveData6'StartsC1	1230	0…4294967292	R
Slave #6 - Circuit #1 Run hours	AV	SlaveData6'RunHoursC1	1231	0…4294967292	R
Slave #6 - Circuit #2 Current mode	MSV	SlaveData6'CurrentModeC2	1232	as MasterData'CurrentModeC1	R
Slave #6 - Circuit #2 Load	AV	SlaveData6'LoadC2	1233	0…100%	R
Slave #6 - Circuit #2 No. starts	AV	SlaveData6'StartsC2	1234	0…4294967292	R
Slave #6 - Circuit #2 Run hours	AV	SlaveData6'RunHoursC2	1235	0…4294967292	R
Slave #6 - Condenser entering water temp.	AV	SlaveData6'CEWT	1236	°C	R
Slave #6 - Condenser leaving water temp.	AV	SlaveData6'CLWT	1237	°C	R
Slave #6 - Evaporator entering water temp.	AV	SlaveData6'EEWT	1238	°C	R
Slave #6 - Evaporator leaving water temp.	AV	SlaveData6'ELWT	1239	°C	R
Slave #6 - Load	AV	SlaveData6'Load	1240	0…100%	R
Slave #6 - No. starts	AV	SlaveData6'Starts	1241	0…4294967292	R
Slave #6 - Run hours	AV	SlaveData6'RunHours	1242	0…4294967292	R
Slave #6 - Standalone	MSV	SlaveData6'StandAlone	1243	as MasterData'StandAlone	R
Slave #6 - State	MSV	S6State	1244	as MasterData'State	R
Slave #7 - Actual mode	MSV	SlaveData7'ActMode	1245	as MasterData'ActMode	R
Slave #7 - Circuit #1 Current mode	MSV	SlaveData7'CurrentModeC1	1246	as MasterData'CurrentModeC1	R
Slave #7 - Circuit #1 Load	AV	SlaveData7'LoadC1	1247	0…100%	R
Slave #7 - Circuit #1 No. starts	AV	SlaveData7'StartsC1	1248	0…4294967292	R

Slave #7 - Circuit #1 Run hours	AV	SlaveData7'RunHoursC1	1249	0…4294967292	R
Slave #7 - Circuit #2 Current mode	MSV	SlaveData7'CurrentModeC2	1250	as MasterData'CurrentModeC1	R
Slave #7 - Circuit #2 Load	AV	SlaveData7'LoadC2	1251	0…100%	R
Slave #7 - Circuit #2 No. starts	AV	SlaveData7'StartsC2	1252	0…4294967292	R
Slave #7 - Circuit #2 Run hours	AV	SlaveData7'RunHoursC2	1253	0…4294967292	R
Slave #7 - Condenser entering water temp.	AV	SlaveData7'CEWT	1254	°C	R
Slave #7 - Condenser leaving water temp.	AV	SlaveData7'CLWT	1255	°C	R
Slave #7 - Evaporator entering water temp.	AV	SlaveData7'EEWT	1256	°C	R
Slave #7 - Evaporator leaving water temp.	AV	SlaveData7'ELWT	1257	°C	R
Slave #7 - Load	AV	SlaveData7'Load	1258	0…100%	R
Slave #7 - No. starts	AV	SlaveData7'Starts	1259	0…4294967292	R
Slave #7 - Run hours	AV	SlaveData7'RunHours	1260	0…4294967292	R
Slave #7 - Standalone	MSV	SlaveData7'StandAlone	1261	as MasterData'StandAlone	R
Slave #7 - State	MSV	S7State	1262	as MasterData'State	R
System electrical power	AV	SysPoweEl	1263	MW	R
System thermal power	AV	SysPowerTherm	1264	MW	R
System COP	AV	SysCOP	1265	-	R
Master - Energy monitoring configured	MSV	MasterData'EnergyMonCfgd	1266	0 NULL 1 N/Cfgd 2 Cfgd	R
Master - Thermal power	AV	MasterData'PowerTherm	1267	kW	R
Master - Electrical power	AV	MasterData'PowerEl	1268	kW	R
Slave #1 - Thermal power	AV	SlaveData1'PowerTherm	1270	kW	R
Slave #1 - Electrical power	AV	SlaveData1'PowerEl	1271	kW	R
Slave #2 - Thermal power	AV	SlaveData2'PowerTherm	1273	kW	R
Slave #2 - Electrical power	AV	SlaveData2'PowerEl	1274	kW	R

Slave #3 - Thermal power	AV	SlaveData3'PowerTherm	1276	kW	R
Slave #3 - Electrical power	AV	SlaveData3'PowerEl	1277	kW	R
Slave #4 - Thermal power	AV	SlaveData4'PowerTherm	1279	kW	R
Slave #4 - Electrical power	AV	SlaveData4'PowerEl	1280	kW	R
Slave #5 - Thermal power	AV	SlaveData5'PowerTherm	1282	kW	R
Slave #5 - Electrical power	AV	SlaveData5'PowerEl	1283	kW	R
Slave #6 - Thermal power	AV	SlaveData6'PowerTherm	1285	kW	R
Slave #6 - Electrical power	AV	SlaveData6'PowerEl	1286	kW	R
Slave #7 - Thermal power	AV	SlaveData7'PowerTherm	1288	kW	R
Slave #7 - Electrical power	AV	SlaveData7'PowerEl	1289	kW	R
System Heat recovery operating state	MSV	SysHeatRecOpSta	1290	0 NULL 1 Stop 2 Run	R
Average Heat Recovery Entering Water temp.	AV	AvgHeatRecEWT	1291	°C	R
Master - Heat recovery configured	MSV	MasterData'HeatRecCfgd	1292	0 NULL 1 N/Cfgd 2 Cfgd	R
Master - Heat recovery state	MSV	MasterData'HeatRecRun	1293	0 NULL 1 Stop 2 Run	R
Master - Heat recovery entering water temp.	AV	MasterData'HeatRecEWT	1294	°C	R
Slave #1 - Heat recovery state	MSV	SlaveData1'HeatRecRun	1295	as MasterData'HeatRecRun	R
Slave #1 - Heat recovery entering water temp.	AV	SlaveData1'HeatRecEWT	1296	as MasterData'HeatRecEWT	R
Slave #2 - Heat recovery state	MSV	SlaveData2'HeatRecRun	1297	as MasterData'HeatRecRun	R
Slave #2 - Heat recovery entering water temp.	AV	SlaveData2'HeatRecEWT	1298	as MasterData'HeatRecEWT	R
Slave #3 - Heat recovery state	MSV	SlaveData3'HeatRecRun	1299	as MasterData'HeatRecRun	R
Slave #3 - Heat recovery entering water temp.	AV	SlaveData3'HeatRecEWT	1300	as MasterData'HeatRecEWT	R

Slave #4 - Heat recovery state	MSV	SlaveData4'HeatRecRun	1301	as MasterData'HeatRecRun	R
Slave #4 - Heat recovery entering water temp.	AV	SlaveData4'HeatRecEWT	1302	as MasterData'HeatRecEWT	R
Slave #5 - Heat recovery state	MSV	SlaveData5'HeatRecRun	1303	as MasterData'HeatRecRun	R
Slave #5 - Heat recovery entering water temp.	AV	SlaveData5'HeatRecEWT	1304	as MasterData'HeatRecEWT	R
Slave #6 - Heat recovery state	MSV	SlaveData6'HeatRecRun	1305	as MasterData'HeatRecRun	R
Slave #6 - Heat recovery entering water temp.	AV	SlaveData6'HeatRecEWT	1306	as MasterData'HeatRecEWT	R
Slave #7 - Heat recovery state	MSV	SlaveData7'HeatRecRun	1307	as MasterData'HeatRecRun	R
Slave #7 - Heat recovery entering water temp.	AV	SlaveData7'HeatRecEWT	1308	as MasterData'HeatRecEWT	R
Freecooling Status	MSV	SysFreeClgSta	1309	0 NULL 1 Off:Switch 2 WaitOAT 3 Run 4 Off:Alarm	R
System Outside Air Temperature	AV	SysOAT	1310	°C	R
Master - Freecooling configured	MSV	MasterData'FreeClgCfgd	1311	0 NULL 1 N/Cfgd 2 Cfgd	R
Master - Freecooling available	MSV	MasterData'FreeClgAvail	1312	0 NULL 1 N/Avail 2 Avail	R
Master - Freecooling Mode	MSV	MasterData'FreeClgMode	1313	0 NULL 1 Mech_All 2 Start_FC 3 Mech+FC 4 FC_All	R
Slave #1 - Freecooling Mode	MSV	SlaveData1'FreeClgMode	1314	as MasterData'FreeClgMode	R
Slave #2 - Freecooling Mode	MSV	SlaveData2'FreeClgMode	1315	as MasterData'FreeClgMode	R
Slave #3 - Freecooling Mode	MSV	SlaveData3'FreeClgMode	1316	as MasterData'FreeClgMode	R

Slave #4 - Freecooling Mode	MSV	SlaveData4'FreeClgMode	1317	as MasterData'FreeClgMode	R
Slave #5 - Freecooling Mode	MSV	SlaveData5'FreeClgMode	1318	as MasterData'FreeClgMode	R
Slave #6 - Freecooling Mode	MSV	SlaveData6'FreeClgMode	1319	as MasterData'FreeClgMode	R
Slave #7 - Freecooling Mode	MSV	SlaveData7'FreeClgMode	1320	as MasterData'FreeClgMode	R
Standalone Mode Setpoint	MSV	StandaloneSp	5	0 NULL 1 No 2 Yes	R/W
Master enabling	MSV	MasterEnablingSp	1324	0 NULL 1 Disable 2 Enable	R/W
Master - Priority (Cooling mode)	MSV	Master'Priority	1325	1…8	R/W
Master - Priority (Heating mode)	MSV	Master'PrioHeat	1326	1…8	R/W
Slave #1 - Priority (Cooling mode)	MSV	Slave1'Priority	1327	1…8	R/W
Slave #1 - Priority (Heating mode)	MSV	Slave1'PrioHeat	1328	1…8	R/W
Slave #2 - Priority (Cooling mode)	MSV	Slave2'Priority	1329	1…8	R/W
Slave #2 - Priority (Heating mode)	MSV	Slave2'PrioHeat	1330	1…8	R/W
Slave #3 - Priority (Cooling mode)	MSV	Slave3'Priority	1331	1…8	R/W
Slave #3 - Priority (Heating mode)	MSV	Slave3'PrioHeat	1332	1…8	R/W
Slave #4 - Priority (Cooling mode)	MSV	Slave4'Priority	1333	1…8	R/W
Slave #4 - Priority (Heating mode)	MSV	Slave4'PrioHeat	1334	1…8	R/W
Slave #5 - Priority (Cooling mode)	MSV	Slave5'Priority	1335	1…8	R/W
Slave #5 - Priority (Heating mode)	MSV	Slave5'PrioHeat	1336	1…8	R/W
Slave #6 - Priority (Cooling mode)	MSV	Slave6'Priority	1337	1…8	R/W
Slave #6 - Priority (Heating mode)	MSV	Slave6'PrioHeat	1338	1…8	R/W
Slave #7 - Priority (Cooling mode)	MSV	Slave7'Priority	1339	1…8	R/W
Slave #7 - Priority (Heating mode)	MSV	Slave7'PrioHeat	1340	1…8	R/W

Standby Unit Setpoint	MSV	StandbyChillerSp	51	0 NULL 1 No 2 Auto 3 Master 4 Slave 1 5 Slave 2 6 Slave 3 7 Slave 4 8 Slave 5 9 Slave 6 10 Slave 7	R/W
Standby temp compensation	MSV	StandbyTmpComp	1341	0 NULL 1 No 2 Yes	R/W

Master - Unit type	MSV	MstUnitType	1342	0 NULL 1 Undef 2 AC C/O Screw 3 AC H/P Screw 4 Polyfun Screw 5 Undef 6 WC C/O Screw 7 WC H/P Screw 8 AC C/O Scroll 9 AC H/P Scroll 10 Polyfun Scroll 11 Undef 12 Undef 13 WC C/O Scroll 14 WC H/P Scroll 15 WC C/O Centrif 16 WC H/P Centrif	R
Slave #1 - Unit type	MSV	S1UnitType	1343	as MstUnitType	R
Slave #2 - Unit type	MSV	S2UnitType	1344	as MstUnitType	R
Slave #3 - Unit type	MSV	S3UnitType	1345	as MstUnitType	R
Slave #4 - Unit type	MSV	S4UnitType	1346	as MstUnitType	R
Slave #5 - Unit type	MSV	S5UnitType	1347	as MstUnitType	R
Slave #6 - Unit type	MSV	S6UnitType	1348	as MstUnitType	R
Slave #7 - Unit type	MSV	S7UnitType	1349	as MstUnitType	R
Evap PM - Application Version	AV	EvapPM'ApplVers	1350	X,XX	R
Evap PM - Number of Pump	MSV	EvapPM'NrPumpsCfgd	1351	1…10	R

Evap PM - Status	MSV	EvapPM'Status	1352	0 NULL 1 Off:Auto 2 On:Auto 3 Off:Local 4 Off:SensAlarm 5 On:SensAlarm 6 Off:CommErr 7 On:CommErr 8 Configuration 9 Off:ConfigAlarm	R
Evap PM - Operating state	MSV	EvapPM'OpSta	1353	0 NULL 1 Stop 2 Run	R
Evap PM - General Alarm	MSV	EvapPM'GenAlm	1354	0 NULL 1 None 2 Active	R
Evap Pump #1 - Status	MSV	EvapPM'StatusP1	1355	0 NULL 1 Off 2 On 3 ManOn 4 ManOff 5 Alm 6 Test 7 N/Cfg	R
Evap Pump #2 - Status	MSV	EvapPM'StatusP2	1356	as EvapPM'StatusP1	R
Evap Pump #3 - Status	MSV	EvapPM'StatusP3	1357	as EvapPM'StatusP1	R
Evap Pump #4 - Status	MSV	EvapPM'StatusP4	1358	as EvapPM'StatusP1	R
Evap Pump #5 - Status	MSV	EvapPM'StatusP5	1359	as EvapPM'StatusP1	R

Evap Pump #6 - Status	MSV	EvapPM'StatusP6	1360	as EvapPM'StatusP1	R
Evap Pump #7 - Status	MSV	EvapPM'StatusP7	1361	as EvapPM'StatusP1	R
Evap Pump #8 - Status	MSV	EvapPM'StatusP8	1362	as EvapPM'StatusP1	R
Evap Pump #9 - Status	MSV	EvapPM'StatusP9	1363	as EvapPM'StatusP1	R
Evap Pump #10 - Status	MSV	EvapPM'StatusP10	1364	as EvapPM'StatusP1	R
Evap Pumps - Running	AV	EvapPM'NrPumpRun	1365	0…10	R
Evap Pumps - Speed	MSV	EvapPM'Speed	1366	0…100%	R
Evap PM - Speed Control Type	MSV	EvapPM'SpdCtrlType	1367	0 NULL 1 Constant 2 Dtemp 3 DifPres 4 AbsPres	R
Evap Speed Control - Delta Temp	AV	EvapPM'SpdCtrl'DeltaT	1368	°Dc	R
Evap Speed Control - Actual Setpoint	AV	EvapPM'SpdCtrl'DeltaTActSp	1369	°Dc	R
Evap Speed Control - Setpoint Network	AV	EvapPM'SpdCtrl'DeltaTSpNtwk	1370	°Dc	R/W
Evap Speed Control - Differential Pressure	AV	EvapPM'SpdCtrl'DifPress	1371	kPa	R
Evap Speed Control - Actual Setpoint	AV	EvapPM'SpdCtrl'DifPressActSp	1372	kPa	R
Evap Speed Control - Setpoint Network	AV	EvapPM'SpdCtrl'DifPressSpNtwk	1373	kPa	R/W
Evap Speed Control - Absolute Pressure	AV	EvapPM'SpdCtrl'AbsPress	1374	kPa	R
Evap Speed Control - Actual Setpoint	AV	EvapPM'SpdCtrl'AbsPressActSp	1375	kPa	R
Evap Speed Control - Setpoint Network	AV	EvapPM'SpdCtrl'AbsPressSpNtwk	1376	kPa	R/W
Evaporator Bypass Valve - Opening	AV	EvapPM'BypVlvOpng	1377	0…100%	R

Evap PM - Bypass Valve Control Type	MSV	EvapPM'BypVlvCtrlType	1378	0 NULL 1 None 2 MinDP 3 Flow 4 EvapEwt 5 CondEwt	R
Evap Bypass Control - Min Diff Pressure on Units	BV	EvapPM'BypVlvCtrl'MinDPonUnit	1379	0 None 1 Active	R
Evap Bypass Control - Flow	AV	EvapPM'BypVlvCtrl'Flow	1380	l/s	R
Evap Bypass Control - Actual Setpoint	AV	EvapPM'BypVlvCtrl'FlowActSp	1381	l/s	R
Evap Bypass Control - Setpoint Network	AV	EvapPM'BypVlvCtrl'FlowSpNtwk	1382	l/s	R/W
Evap Bypass Control - EWT	AV	EvapPM'BypVlvCtrl'EvapEwt	1383	°C	R
Evap Bypass Control - Actual Setpoint	AV	EvapPM'BypVlvCtrl'EvapEwtActSp	1384	°C	R
Evap Bypass Control - Setpoint Network	AV	EvapPM'BypVlvCtrl'EvapEwtSpNtwk	1385	°C	R/W
Evap PM - Energy Meter Configured	MSV	Evap PM'EnergyMeterConfigured	1386	0 NULL 1 N/Cfgd 2 Cfgd	R
Evap PM - Electrical Active Power	AV	EvapPM'ActPwr	1387	kW	R
Evap Pump Manager - Speed Control sensor alarm	BV	EvapPM'SpdCtrlSens'Alm	1388	0 None 1 Active	R
Evap Pump Manager - Available pump alarm	BV	EvapPM'AvailPump'Alm	1389	0 None 1 Active	R
Evap Pump Manager - Configuration alarm	BV	EvapPM'Cfg'Alm	1390	0 None 1 Active	R
Cond PM - Application Version	AV	CondPM'ApplVers	1391	X,XX	R
Cond PM - Number of Pump	MSV	CondPM'NrPumpsCfgd	1392	1…10	R

Cond PM - Status	MSV	CondPM'Status	1393	0 NULL 1 Off:Auto 2 On:Auto 3 Off:Local 4 Off:SensAlarm 5 On:SensAlarm 6 Off:CommErr 7 On:CommErr 8 Configuration 9 Off:ConfigAlarm	R
Cond PM - Operating state	MSV	CondPM'OpSta	1394	0 NULL 1 Stop 2 Run	R
Cond PM - General Alarm	MSV	CondPM'GenAlm	1395	0 NULL 1 None 2 Active	R
Cond Pump #1 - Status	MSV	CondPM'StatusP1	1396	0 NULL 1 Off 2 On 3 ManOn 4 ManOff 5 Alm 6 Test 7 N/Cfg	R
Cond Pump #2 - Status	MSV	CondPM'StatusP2	1397	as EvapPM'StatusP1	R
Cond Pump #3 - Status	MSV	CondPM'StatusP3	1398	as EvapPM'StatusP1	R
Cond Pump #4 - Status	MSV	CondPM'StatusP4	1399	as EvapPM'StatusP1	R
Cond Pump #5 - Status	MSV	CondPM'StatusP5	1400	as EvapPM'StatusP1	R

Cond Pump #6 - Status	MSV	CondPM'StatusP6	1401	as EvapPM'StatusP1	R
Cond Pump #7 - Status	MSV	CondPM'StatusP7	1402	as EvapPM'StatusP1	R
Cond Pump #8 - Status	MSV	CondPM'StatusP8	1403	as EvapPM'StatusP1	R
Cond Pump #9 - Status	MSV	CondPM'StatusP9	1404	as EvapPM'StatusP1	R
Cond Pump #10 - Status	MSV	CondPM'StatusP10	1405	as EvapPM'StatusP1	R
Cond Pumps - Running	AV	CondPM'NrPumpRun	1406	0…10	R
Cond Pumps - Speed	AV	CondPM'Speed	1407	0…100%	R
Cond PM - Speed Control Type	MSV	CondPM'SpdCtrlType	1408	0 NULL 1 Constant 2 Dtemp 3 DifPres 4 AbsPres	R
Cond Speed Control - Delta Temp	AV	CondPM'SpdCtrl'DeltaT	1409	°Dc	R
Cond Speed Control - Actual Setpoint	AV	CondPM'SpdCtrl'DeltaTActSp	1410	°Dc	R
Cond Speed Control - Setpoint Network	AV	CondPM'SpdCtrl'DeltaTSpNtwk	1411	°Dc	R/W
Cond Speed Control - Differential Pressure	AV	CondPM'SpdCtrl'DifPress	1412	kPa	R
Cond Speed Control - Actual Setpoint	AV	CondPM'SpdCtrl'DifPressActSp	1413	kPa	R
Cond Speed Control - Setpoint Network	AV	CondPM'SpdCtrl'DifPressSpNtwk	1414	kPa	R/W
Cond Speed Control - Absolute Pressure	AV	CondPM'SpdCtrl'AbsPress	1415	kPa	R
Cond Speed Control - Actual Setpoint	AV	CondPM'SpdCtrl'AbsPressActSp	1416	kPa	R
Cond Speed Control - Setpoint Network	AV	CondPM'SpdCtrl'AbsPressSpNtwk	1417	kPa	R/W
Condenser Bypass Valve - Opening	AV	CondPM'BypVlvOpng	1418	0…100%	R

Cond PM - Bypass Valve Control Type	MSV	CondPM'BypValveCtrlType	1419	0 NULL 1 None 2 MinDP 3 Flow 4 EvapEwt 5 CondEwt	R
Cond Bypass Control - Flow	AV	CondPM'BypVlvCtrl'Flow	1420	l/s	R
Cond Bypass Control - Active Setpoint	AV	CondPM'BypVlvCtrl'FlowActSp'	1421	l/s	R
Cond Speed Control - Setpoint Network	AV	CondPM'BypVlvCtrl'FlowSpNtwk	1422	l/s	R/W
Cond Bypass Control - EWT	AV	CondPM'BypVlvCtrl'CondEwt	1423	°C	R
Cond Bypass Control - Actual Setpoint	AV	CondPM'BypVlvCtrl'CondEwtActSp	1424	°C	R
Cond Bypass Control - Setpoint Network	AV	CondPM'BypVlvCtrl'CondEwtSpNtwk	1425	°C	R/W
Cond PM - Energy Meter configured	MSV	CondPM'EnergyMeterConfigured	1426	0 NULL 1 N/Cfgd 2 Cfgd	R
Cond PM - Electrical Active Power	AV	CondPM'ActPwr	1427	kW	R
Cond Pump Manager - Speed Control sensor alarm	BV	CondPM'SpdCtrlSens'Alm	1428	0 None 1 Active	R
Cond Pump Manager - Available pump alarm	BV	CondPM'AvailPump'Alm	1429	0 None 1 Active	R
Cond Pump Manager - Configuration alarm	BV	CondPM'Cfg'Alm	1430	0 None 1 Active	R
Slave - Master Missing	BV	SlaveMstMissing	1431	0 None 1 Active	R
Slave - Master Disconnected	BV	SlaveMstDisconnect	1432	0 No 1 Yes	R
Slave - Master Communication Error	BV	SlaveMstCommErr	20	0 None 1 Active	R

Common Leaving Hot water temp. sensor fault	BV	HeatLWTSenf	1433	0 None 1 Active	R
Common Leaving water temp. sensor fault	BV	CommonLWTSenf	502	0 None 1 Active	R
Slave #1 - Communication Error	BV	S1CommErr	21	0 None 1 Active	R
Slave #1 - Missing	BV	S1Missing	1434	0 No 1 Yes	R
Slave #2 - Communication Error	BV	S2CommErr	22	0 None 1 Active	R
Slave #2 - Missing	BV	S2Missing	1435	0 No 1 Yes	R
Slave #3 - Communication Error	BV	S3CommErr	23	0 None 1 Active	R
Slave #3 - Missing	BV	S3Missing	1436	0 No 1 Yes	R
Slave #4 - Communication Error	BV	S4CommErr	1437	0 None 1 Active	R
Slave #4 - Missing	BV	S4Missing	1438	0 No 1 Yes	R
Slave #5 - Communication Error	BV	S5CommErr	1439	0 None 1 Active	R
Slave #5 - Missing	BV	S5Missing	1440	0 No 1 Yes	R
Slave #6 - Communication Error	BV	S6CommErr	1441	0 None 1 Active	R
Slave #6 - Missing	BV	S6Missing	1442	0 No 1 Yes	R

Slave #7 - Communication Error	BV	S7CommErr	1443	0 None 1 Active	R
Slave #7 - Missing	BV	S7Missing	1444	0 No 1 Yes	R
Configuration Alarm	MSV	ConfigErrReason	1445	0 NULL 1 None 2 ModeErr 3 ComprErr 4 CooledErr 5 UnitNotDef 6 iCMtypeErr	R
Energy monitoring configuration Error	BV	EnergyMonConfigErr	1446	0 None 1 Active	R
Heat recovery configuration Error	BV	HeatRecConfigErr	1447	0 None 1 Active	R
Evap PM - Clear Alarm setpoint	MSV	EvapPM'ClearAlm	1448	0 NULL 1 --- 2 Reset	R/W
Cond PM - Clear Alarm setpoint	MSV	CondPM'ClearAlm	1449	0 NULL 1 --- 2 Reset	R/W
iCT - Tower Number	MSV	iCT'NrTowersCfgd	1450	1…10	R

iCT - Status	MSV	iCT'Status	1451	0 NULL 1 Off:Auto 2 On:Auto 3 Off:Local 4 Off:SensAlarm 5 On:SensAlarm 6 Off:CommErr 7 On:CommErr 8 Configuration 9 Off:ConfigAlarm	R
iCT - Operating State	MSV	iCT'OpSta	1452	0 NULL 1 Stop 2 Run	R
iCT - General Alarm	MSV	iCT'GenAlm	1453	0 NULL 1 None 2 Active	R
iCT - Number of Running Tower	AV	iCT'NrTwrRun	1454	0…10	R
iCT - Next On Tower	MSV	iCT'NxOnTwr	1455	0…10	R

iCT - Next Off Tower	MSV	iCT'NxOffTwr	1456	0 NULL 1 None 2 CT1 3 CT2 4 CT3 5 CT4 6 CT5 7 CT6 8 CT7 9 CT8 10 CT9 11 CT10	R
iCT - Leaving Water Termperature	AV	iCT'Lwt	1457	°C	R
iCT - LWT sernsor Alarm	BV	iCT'LwtSens'Alm'	1458	0 None 1 Active	R
iCT LWT Control - Setpoint Reset type	MSV	iCT'LwtSpRstType	1459	0 NULL 1 None 2 Ouside Air T 3 Web Bulb T	R
iCT LWT Control - Actual Setpoint	AV	iCT'LwtCtrl'ActSp	1460	°C	R
iCT LWT Control - Setpoint iCM	AV	iCT'LwtCtrl'SpLoc	1461	°C	R
iCT LWT Control - Setpoint Network	AV	iCT'LwtCtrl'SpNtwk	1462	°C	R/W
iCT - Outside Air Temperature	AV	iCT'Toa	1463	°C	R
iCT - Outside Relative Humidity	AV	iCT'HuR	1464	%r.H	R
iCT - Outside Wet Bulb Temperature	AV	iCT'LwtCtrl'Twb	1465	°C	R

Cooling Tower 1 - Status	MSV	iCT'Twr1'Status	1466	0 NULL 1 Off 2 Start 3 Run 4 ManOn 5 ManOff 6 Alarm 7 Test 8 N/Cfgd 9 ComErr	R
Cooling Tower 1 - Fan Status	MSV	iCT'Twr1'FanSta	1467	0 NULL 1 Stop 2 Run 3 ManON 4 ManOFF 5 Alarm 6 Test	R
Cooling Tower 1 - Fan Speed	AV	iCT'Twr1'FanSpeed	1468	0…100%	R
Cooling Tower 1 - Inlet Valve Status	MSV	iCT'Twr1'InVlvSta	1469	0 NULL 1 Close 2 Open 3 ManOpen 4 ManClose 5 Alarm 6 Test	R
Cooling Tower 1 - LWT	AV	iCT'Twr1'Lwt	1470	°C	R
Cooling Tower 1 - LWT Alarm	BV	iCT'Twr1'LwtSens'Alm	1471	0 None 1 Active	R

Cooling Tower 2 - Status	MSV	iCT'Twr2'Status	1472	as iCT'Twr1'Status	R
Cooling Tower 2 - Fan Status	MSV	iCT'Twr2'FanSta	1473	as iCT'Twr1'FanSta	R
Cooling Tower 2 - Fan Speed	AV	iCT'Twr2'FanSpeed	1474	0…100%	R
Cooling Tower 2 - Inlet Valve Status	MSV	iCT'Twr2'InVlvSta	1475	as iCT'Twr1'InVlvSta	R
Cooling Tower 2 - LWT	AV	iCT'Twr2'Lwt	1476	°C	R
Cooling Tower 2 - LWT Alarm	BV	iCT'Twr2'LwtSens'Alm	1477	0 None 1 Active	R
Cooling Tower 3 - Status	MSV	iCT'Twr3'Status	1478	as iCT'Twr1'Status	R
Cooling Tower 3 - Fan Status	MSV	iCT'Twr3'FanSta	1479	as iCT'Twr1'FanSta	R
Cooling Tower 3 - Fan Speed	AV	iCT'Twr3'FanSpeed	1480	0…100%	R
Cooling Tower 3 - Inlet Valve Status	MSV	iCT'Twr3'InVlvSta	1481	as iCT'Twr1'InVlvSta	R
Cooling Tower 3 - LWT	AV	iCT'Twr3'Lwt	1482	°C	R
Cooling Tower 3 - LWT Alarm	BV	iCT'Twr3'LwtSens'Alm	1483	0 None 1 Active	R
Cooling Tower 4 - Status	MSV	iCT'Twr4'Status	1484	as iCT'Twr1'Status	R
Cooling Tower 4 - Fan Staus	MSV	iCT'Twr4'FanSta	1485	as iCT'Twr1'FanSta	R
Cooling Tower 4 - Fan Speed	AV	iCT'Twr4'FanSpeed	1486	0…100%	R
Cooling Tower 4 - Inlet Valve Status	MSV	iCT'Twr4'InVlvSta	1487	as iCT'Twr1'InVlvSta	R
Cooling Tower 4 - LWT	AV	iCT'Twr4'Lwt	1488	°C	R
Cooling Tower 4 - LWT Alarm	BV	iCT'Twr4'LwtSens'Alm	1489	0 None 1 Active	R
Cooling Tower 5 - Status	MSV	iCT'Twr5'Status	1490	as iCT'Twr1'Status	R
Cooling Tower 5 - Fan Staus	MSV	iCT'Twr5'FanSta	1491	as iCT'Twr1'FanSta	R
Cooling Tower 5 - Fan Speed	AV	iCT'Twr5'FanSpeed	1492	0…100%	R
Cooling Tower 5 - Inlet Valve Status	MSV	iCT'Twr5'InVlvSta	1493	as iCT'Twr1'InVlvSta	R
Cooling Tower 5 - LWT	AV	iCT'Twr5'Lwt	1494	°C	R

Cooling Tower 5 - LWT Alarm	BV	iCT'Twr5'LwtSens'Alm	1495	0 None 1 Active	R
Cooling Tower 6 - Status	MSV	iCT'Twr6'Status	1496	as iCT'Twr1'Status	R
Cooling Tower 6 - Fan Staus	MSV	iCT'Twr6'FanSta	1497	as iCT'Twr1'FanSta	R
Cooling Tower 6 - Fan Speed	AV	iCT'Twr6'FanSpeed	1498	0…100%	R
Cooling Tower 6 - Inlet Valve Status	MSV	iCT'Twr6'InVlvSta	1499	as iCT'Twr1'InVlvSta	R
Cooling Tower 6 - LWT	AV	iCT'Twr6'Lwt	1500	°C	R
Cooling Tower 6 - LWT Alarm	BV	iCT'Twr6'LwtSens'Alm	1501	0 None 1 Active	R
Cooling Tower 7 - Status	MSV	iCT'Twr7'Status	1502	as iCT'Twr1'Status	R
Cooling Tower 7 - Fan Staus	MSV	iCT'Twr7'FanSta	1503	as iCT'Twr1'FanSta	R
Cooling Tower 7 - Fan Speed	AV	iCT'Twr7'FanSpeed	1504	0…100%	R
Cooling Tower 7 - Inlet Valve Status	MSV	iCT'Twr7'InVlvSta	1505	as iCT'Twr1'InVlvSta	R
Cooling Tower 7 - LWT	AV	iCT'Twr7'Lwt	1506	°C	R
Cooling Tower 7 - LWT Alarm	BV	iCT'Twr7'LwtSens'Alm	1507	0 None 1 Active	R
Cooling Tower 8 - Status	MSV	iCT'Twr8'Status	1508	as iCT'Twr1'Status	R
Cooling Tower 8 - Fan Staus	MSV	iCT'Twr8'FanSta	1509	as iCT'Twr1'FanSta	R
Cooling Tower 8 - Fan Speed	AV	iCT'Twr8'FanSpeed	1510	0…100%	R
Cooling Tower 8 - Inlet Valve Status	MSV	iCT'Twr8'InVlvSta	1511	as iCT'Twr1'InVlvSta	R
Cooling Tower 8 - LWT	AV	iCT'Twr8'Lwt	1512	°C	R
Cooling Tower 8 - LWT Alarm	BV	iCT'Twr8'LwtSens'Alm	1513	0 None 1 Active	R
Cooling Tower 9 - Status	MSV	iCT'Twr9'Status	1514	as iCT'Twr1'Status	R
Cooling Tower 9 - Fan Staus	MSV	iCT'Twr9'FanSta	1515	as iCT'Twr1'FanSta	R
Cooling Tower 9 - Fan Speed	AV	iCT'Twr9'FanSpeed	1516	0…100%	R
Cooling Tower 9 - Inlet Valve Status	MSV	iCT'Twr9'InVlvSta	1517	as iCT'Twr1'InVlvSta	R

Cooling Tower 9 - LWT	AV	iCT'Twr9'Lwt	1518	°C	R
Cooling Tower 9 - LWT Alarm	BV	iCT'Twr9'LwtSens'Alm	1519	0 None 1 Active	R
Cooling Tower 10 - Status	MSV	iCT'Twr10'Status	1520	as iCT'Twr1'Status	R
Cooling Tower 10 - Fan Staus	MSV	iCT'Twr10'FanSta	1521	as iCT'Twr1'FanSta	R
Cooling Tower 10 - Fan Speed	AV	iCT'Twr10'FanSpeed	1522	0…100%	R
Cooling Tower 10 - Inlet Valve Status	MSV	iCT'Twr10'InVlvSta	1523	as iCT'Twr1'InVlvSta	R
Cooling Tower 10 - LWT	AV	iCT'Twr10'Lwt	1524	°C	R
Cooling Tower 10 - LWT Alarm	BV	iCT'Twr10'LwtSens'Alm	1525	0 None 1 Active	R
iCT - Clear Alarm	MSV	iCT'ClearAlm	1526	0 NULL 1 --- 2 Reset	R/W
iCT - CommError	BV	MasterComm'iCT'Comm'Alm	1527	0 None 1 Active	R
iCT - Borads CommError	BV	iCT'BrdsMBComm'Alm	1528	0 None 1 Active	R
Mode Changeover management	MSV	ModeChgovrMngt	1529	0 NULL 1 N/Mngd 2 Mngd	R
Defrost Management	MSV	DefrMngt	1530	0 NULL 1 N/Mngd 2 Mngd	R
Master - Circuit #1 Defrost	MSV	MasterData'DfrstOpStaC1	1531	0 NULL 1 None 2 Defrost	R

Master - Circuit #2 Defrost	MSV	MasterData'DfrstOpStaC2	1532	0 NULL 1 None 2 Defrost	R
Slave #1 - Circuit #1 Defrost	MSV	SlaveData1'DfrstOpStaC1	1533	as MasterData'DfrstOpStac1	R
Slave #1 - Circuit #2 Defrost	MSV	SlaveData1'DfrstOpStaC2	1534	as MasterData'DfrstOpStac2	R
Slave #2 - Circuit #1 Defrost	MSV	SlaveData2'DfrstOpStaC1	1535	as MasterData'DfrstOpStac1	R
Slave #2 - Circuit #2 Defrost	MSV	SlaveData2'DfrstOpStaC2	1536	as MasterData'DfrstOpStac2	R
Slave #3 - Circuit #1 Defrost	MSV	SlaveData3'DfrstOpStaC1	1537	as MasterData'DfrstOpStac1	R
Slave #3 - Circuit #2 Defrost	MSV	SlaveData3'DfrstOpStaC2	1538	as MasterData'DfrstOpStac2	R
Slave #4 - Circuit #1 Defrost	MSV	SlaveData4'DfrstOpStaC1	1539	as MasterData'DfrstOpStac1	R
Slave #4 - Circuit #2 Defrost	MSV	SlaveData4'DfrstOpStaC2	1540	as MasterData'DfrstOpStac2	R
Slave #5 - Circuit #1 Defrost	MSV	SlaveData5'DfrstOpStaC1	1541	as MasterData'DfrstOpStac1	R
Slave #5 - Circuit #2 Defrost	MSV	SlaveData5'DfrstOpStaC2	1542	as MasterData'DfrstOpStac2	R
Slave #6 - Circuit #1 Defrost	MSV	SlaveData6'DfrstOpStaC1	1543	as MasterData'DfrstOpStac1	R
Slave #6 - Circuit #2 Defrost	MSV	SlaveData6'DfrstOpStaC2	1544	as MasterData'DfrstOpStac2	R
Slave #7 - Circuit #1 Defrost	MSV	SlaveData7'DfrstOpStaC1	1545	as MasterData'DfrstOpStac1	R
Slave #7 - Circuit #2 Defrost	MSV	SlaveData7'DfrstOpStaC2	1546	as MasterData'DfrstOpStac2	R
iSMs - Total cooling thermal power	AV	iSM'TotCoolThermPwr	1551	kW	R
iSMs - Total heating thermal power	AV	iSM'TotHeatThermPwr	1553	kW	R

iSM01 - Pump Group 1 - Status	MSV	iSM01'PmpGrp01'Status	1555	0 NULL 1 Off: Auto 2 On: Auto 3 Off: Local 4 Off: SensAlarm 5 On: SensAlarm 6 Off: CommErr 7 On: CommErr 8 ConfigStatus 9 Off: ConfigAlm 10 Test 11 Off: Remote 12 Off: Network	R
iSM01 - Pump Group 2 - Status	MSV	iSM01'PmpGrp02'Status	1556	as iSM01 - Pump Group 1 - Status	R
iSM01 - Pump Group 3 - Status	MSV	iSM01'PmpGrp03'Status	1557	as iSM01 - Pump Group 1 - Status	R
iSM01 - Pump Group 4 - Status	MSV	iSM01'PmpGrp04'Status	1558	as iSM01 - Pump Group 1 - Status	R
iSM02 - Pump Group 1 - Status	MSV	iSM02'PmpGrp01'Status	1559	as iSM01 - Pump Group 1 - Status	R
iSM03 - Pump Group 2 - Status	MSV	iSM02'PmpGrp02'Status	1560	as iSM01 - Pump Group 1 - Status	R
iSM02 - Pump Group 3 - Status	MSV	iSM02'PmpGrp03'Status	1561	as iSM01 - Pump Group 1 - Status	R
iSM02 - Pump Group 4 - Status	MSV	iSM02'PmpGrp04'Status	1562	as iSM01 - Pump Group 1 - Status	R

iSM03 - Pump Group 1 - Status	MSV	iSM03'PmpGrp01'Status	1563	as iSM01 - Pump Group 1 - Status	R
iSM03 - Pump Group 2 - Status	MSV	iSM03'PmpGrp02'Status	1564	as iSM01 - Pump Group 1 - Status	R
iSM03 - Pump Group 3 - Status	MSV	iSM03'PmpGrp03'Status	1565	as iSM01 - Pump Group 1 - Status	R
iSM02 - Pump Group 4 - Status	MSV	iSM03'PmpGrp04'Status	1566	as iSM01 - Pump Group 1 - Status	R
iCM Expanded: BACnet Communication error w/2nd	BV	iCM1st'ComErriCM2nd	1567	0 None 1 Active	R
iCM Expanded: BACnet Communication error w/1st	BV	iCM2nd'ComErriCM1st	1568	0 None 1 Active	R

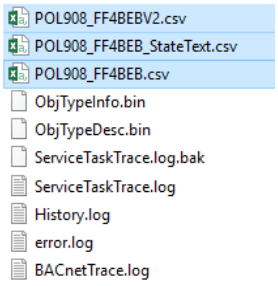
6. Annex 2 – EDE files for BACnet

Premise

The EDE files are created by the BACnet server each time the server is started. Download and import new files if s any change in controller configuration is done. Some BACnet objects could be no more available or new objects could be added. Also change in BACnet settings affect the new EDE file.

EDE file from BACnet IP module (POL908.00)

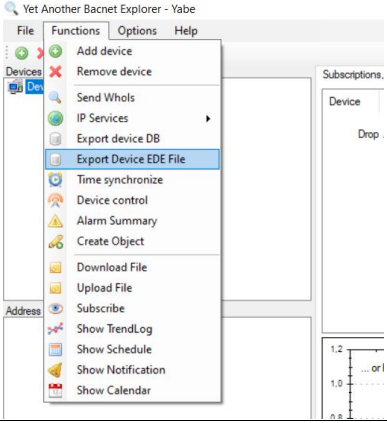
EDE files from POL908 module can be exported via ftp as it follows:

Step	Action
1	Connect POL908 module to the controller via plug connection.
2	Connect to the POL908 TCP/IP port the bus cable from: • a LAN if DHCP of the module is set to ON • a PC with static IP address if DHCP of the module is set to OFF
3	Set proper IP address and Subnet mask of the module and apply changes. i.e. IP 192.168.1.45 Subnet mask 255.255.255.0
4	Open a resource explorer instance and type the module IP address. i.e. ftp://192.168.1.45/Temp. In the folder "Temp" the EDE files in .csv format are available: 

EDE file from both modules:

BACnet MS/TP (POL904.00)

BACnet IP (POL908.00)

Step	Action
1	Connect POL904/908 module to the controller via plug connection.
2	Connect PC to POL904 by mean of a RS485-USB converter or to POL908 by mean of ethernet cable.
3	A BACnet explorer tool is needed in order to access the module and export the EDE files from it. Freeware tools are available on the internet, i.e. YABE
4	From YABE the EDE export option is available in functions menu. 

7. Annex 3 - Microtech PICS for BACnet

7.1 BACnet standardized device profile

☐	BACnet Operator Workstation	(B-OWS)
☒	BACnet Building Controller	(B-BC)
☐	BACnet Advanced Application Controller	(B-AAC)
☐	BACnet Application Specific Controller	(B-ASC)
☐	BACnet Smart Sensor	(B-SS)
☐	BACnet Smart Actuator	(B-SA)

7.2 BACnet interoperability building blocks supported

Data sharing	Data Sharing – ReadProperty-A	DS-RP-A
	Data Sharing – ReadProperty-B	DS-RP-B
	Data Sharing – ReadPropertyMultiple-A	DS-RPM-A
	Data Sharing – ReadPropertyMultiple-B	DS-RPM-B
	Data Sharing – WriteProperty-A	DS-WP-A
	Data Sharing – WriteProperty-B	DS-WP-B
	Data Sharing – WritePropertyMultiple-B	DS-WPM-B
	Data Sharing – COV-B	DS-COV-B
	Data Sharing – COV-A	DS-COV-A
Alarm and event management	Alarm and Event – Notification Internal-B	AE-N-I-B
	Alarm and Event – AcknowledgeAlarm-B	AE-ACK- B
	Alarm and Event – Information-B	AE-INFO-B
	Alarm and Event – Alarm Summary-B	AE-ASUM-B
	Alarm and Event – Event-Enrollment Summary-B	AE-ESUM-B
Scheduling	Scheduling – Internal-B	SCHED-I-B
	Scheduling – External-B	SCHED-E-B
Trending	Trending-Viewing and Modifying Trends Internal-B	T-VMT-I-B
	Trending-Automated Trend Retrieval-B	T-ATR-B
Device management	Device Management – Dynamic Device Binding-A	DM-DDB-A
	Device Management – Dynamic Device Binding-B	DM-DDB-B
	Device Management – Dynamic Object Binding-B	DM-DOB-B
	Device Management – DeviceCommunicationControl-B	DM-DCC-B
	Device Management – TimeSynchronization-B	DM-TS-B
	Device Management – UTCTimeSynchronization-B	DM-UTC-B
	Device Management – ReinitializeDevice-B	DM-RD-B
	Device Management – List Manipulation-B	DM-LM-B
	Device Management – Object Creation and Deletion-B	DM-OCD-B
	Device Management – Backup and Restore-B	DM-BR-B

Network management	Network Management-Connection Establishment-A	NM-CE-A

7.3 BACnet standard object types supported

Object type	Supported	Can be created dynamically	Can be deleted dynamically
Analog Input	☒	☐	☐
Analog Output	☒	☐	☐
Analog Value	☒	☐	☐
Binary Input	☒	☐	☐
Binary Output	☒	☐	☐
Binary Value	☒	☐	☐
Calendar	☒	☐	☐
Command	☐	☐	☐
Device	☒	☐	☐
Event Enrollment	☒	☒	☒
File	☒	☐	☐
Group	☐	☐	☐
Loop	☐	☐	☐
Multi-State Input	☒	☐	☐
Multi-State Output	☒	☐	☐
Multi-State Value	☒	☐	☐
Notification Class	☒	☐	☐
Program	☐	☐	☐
Schedule	☒	☐	☐
Averaging	☐	☐	☐
Trend Log	☒	☐	☐
Life-Safety-Point	☐	☐	☐
Life-Safety-Zone	☐	☐	☐
Accumulator	☐	☐	☐
Pulse-Converter	☐	☐	☐

7.4 BACnet standard object types description

Analog Input

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Present_Value	X	
Description		
Status_Flags		
Event_State		
Reliability		
Out_Of_Service	X	
Units		
Max_Pres_Value		
Min_Pres_Value		
Priority_Array		
Relinquish_Default	X	
COV_Increment	X	0 .. maxReal
Time_Delay		
Notification_Class		
High_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Low_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Deadband	X	0 .. maxReal

Limit_Enable	X	
Event_Enable	X	
Acked_Transitions		
Notify_Type		
Event_Time_Stamps		

Analog Output

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Present_Value	X	
Description		
Status_Flags		
Event_State		
Reliability		
Out_Of_Service	X	
Units		
Max_Pres_Value		
Min_Pres_Value		
Priority_Array		
Relinquish_Default	X	
COV_Increment	X	0 .. maxReal
Time_Delay		
Notification_Class		
High_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Low_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Deadband	X	0 .. maxReal
Limit_Enable	X	
Event_Enable	X	
Acked_Transitions		
Notify_Type		
Event_Time_Stamps		

Analog Value

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Present_Value	X	Depends on the Unit
Description		
Status_Flags		
Event_State		
Reliability		
Out_Of_Service	X	
Units		
Max_Pres_Value		
Min_Pres_Value		
Priority_Array		
Relinquish_Default	X	
COV_Increment	X	0 .. maxReal
Time_Delay		
Notification_Class		
High_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Low_Limit	X	Min_Pres_Value <= x <=Max_Pres_Value And High_Limit > Low_Limit
Deadband	X	0 .. maxReal
Limit_Enable	X	

Event_Enable	X	
Acked_Transitions		
Notify_Type		
Event_Time_Stamps		

Analog Value (setpoints)

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Present_Value	X(1)	Depends on the Unit
Units		
Status_Flags		
COV_Increment	X	0 .. maxReal
Out_Of_Service	X(1)	
Event_State		

(1) Writeable if Out_Of_Service=True

Binary Input

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Description		
Present_Value	X(1)	
Status_Flags		
Out_Of_Service	X	
Event_State		
Inactive_Text		
Active_Text		
Polarity	X	
Notification_Class		
Reliability		
Acked_Transitions		
Event_Enable	X	
Alarm_Value	X	
Notify_Type		
Time_Delay		
Event_Time_Stamps		
Elapsed-active-time	X	Only 0
Time-of-active-time-reset		

(1) Writeable if Out_Of_Service=True

Binary Output

Property supported	Writable	Range restrictions
Object_Identifier		
Object_Name		
Object_Type		
Description		
Present_Value	X	
Status_Flags		
Out_Of_Service	X	
Event_State		
Inactive_Text		
Active_Text		
Notification_Class		
Reliability		
Acked_Transitions		
Event_Enable	X	
Notify_Type		

Time_Delay		
Event_Time_Stamps		
Polarity	X	
Feedback_Value		
Priority_Array		
Relinquish_Default	X	
Elapsed-active-time	X	Only 0
Time-of-active-time-reset		

The present publication is drawn up by of information only and does not constitute an offer binding upon Daikin Applied Europe S.p.A.. Daikin Applied Europe S.p.A. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content, and the products and services presented therein. Specification are subject to change without prior notice. Refer to the data communicated at the time of the order. Daikin Applied Europe S.p.A. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Applied Europe S.p.A..

DAIKIN APPLIED EUROPE S.p.A.
Via Piani di Santa Maria, 72 - 00072 Ariccia (Roma) - Italia
Tel: (+39) 06 93 73 11 - Fax: (+39) 06 93 74 014
http://www.daikinapplied.eu