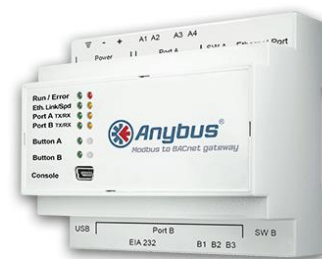


BACnet gateway kit

*The communication solution for CMS/BMS
using the BACnet protocol*



Installation and operating instructions



Description:

- Communication with **1 machine** as Modbus RTU (2 with 7419839, 7560471, 7560472)
- Conversion of the Modbus RTU protocol to BACnet IP (ref. 7392534, 7392536, 7392538, 7419839, 7560471) or BACnet MSTP (ref. 7392535, 7392537, 7392539, 7560472)
- Communication adapted to the Centralised Management Systems
- All "customer" parameters made available

Includes: (applicable for all refs. except "gateway only in 9-36VDC – 7560471 and 7560472)

- Pre-wired gateway kit fitted on DIN rail
- Protection and power supply provided
- Customer terminal blocks (230VAC, Modbus)

To be carried out by the installer:

- Installation of the gateway kit in the machine or electric box
- Supply and connection of the Modbus RTU (RS485) bus
- Supply and connection of the BACnet IP network or BACnet MSTP bus
- Configuration of communication parameters on the controller

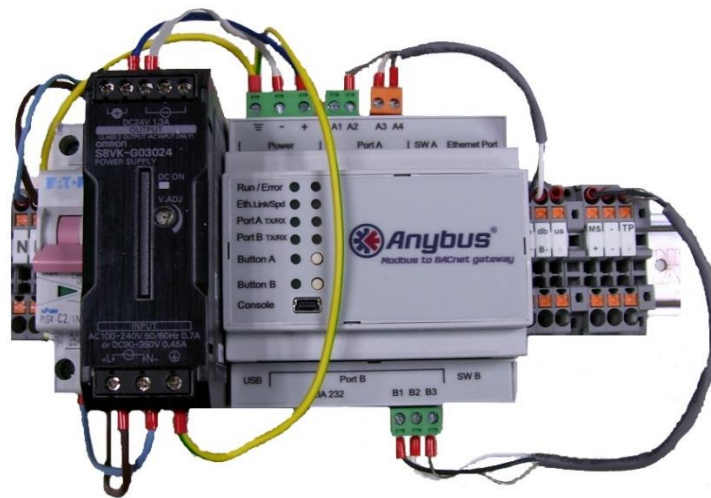
To be carried out by the integrator:

- Implementation of the BACnet communication

1. LIST OF EQUIPMENT

The BACnet gateway kit (except for “gateway only” references 7560471 and 7560472) is delivered pre-cabled on a DIN rail, and contains the following equipment:

- A 230VAC terminal block
- A 2A circuit breaker
- A 230VAC/24VDC power supply
- A communication gateway
- A Modbus RTU terminal block
- A BACnet MSTP terminal block (ref. 7392535, 7392537, 7392539, 7560472)



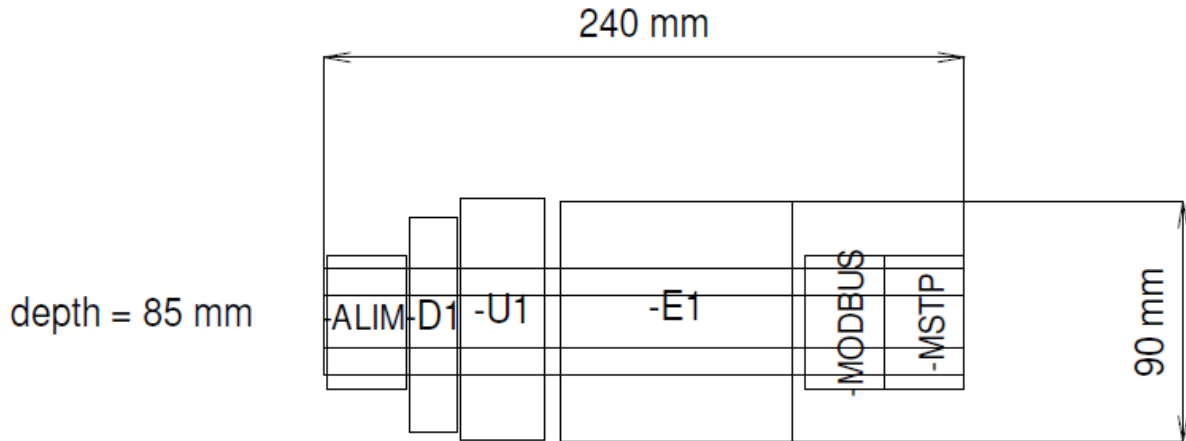
There are 4 **BACnet IP** gateway references for 4 different controllers:

- **7392534: Chiller/PAC controller**
- **7392536: Chiller controller**
- **7392538: Drycooler controller**
- **7419839 / 7560471: Precision air handling unit controller**
-

There are 4 **BACnet MSTP** gateway references for 4 different controllers:

- **7392535: Chiller/PAC controller**
- **7392537: Chiller controller**
- **7392539: Drycooler controller**
- **7560472 : Precision air handling unit controller**

2. DIMENSIONS



3. TECHNICAL SPECIFICATIONS

MSTP option

General specifications	Supply	230 VAC 50-60 Hz (gateway only 7560471 and 7560472 = 9-36VDC)
	Consumption	≤ 0.5 A
Communication	Modbus RTU	1 (3-wire) - RS485 support
	BACnet: IP version: MSTP version:	1 - IP support 1 (3-wire) - RS485 support
Standards	CE conformity	√
	RoHS conformity	√
Ambient conditions of use	Temperature	0 to 50°C
	Humidity	80% at 25°C without condensation
	Storage	-30 to 70°C
Miscellaneous	Weight	~ 1 kg

4. BASIC ARCHITECTURE



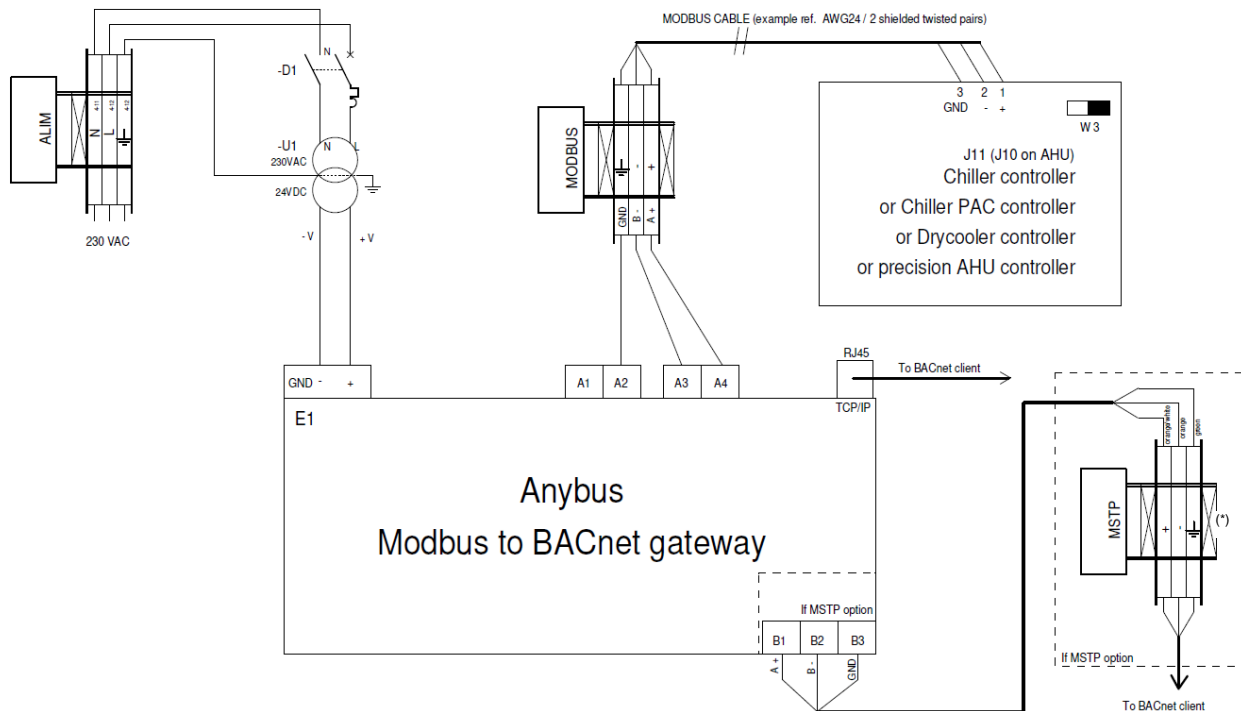
5. INSTALLATION & CONNECTION

The BACnet gateway kit is a pre-cabled kit for installation in a refrigerating machine vertical unit or in a remote electrical panel.

The installer must have the following:

- the 230 VAC supply for the gateway kit (except for “gateway only” references 7560471 and 7560472)
- the supply and connection for the Modbus bus
- the supply and connection for the BACnet network

The overall connection diagram is as follows:

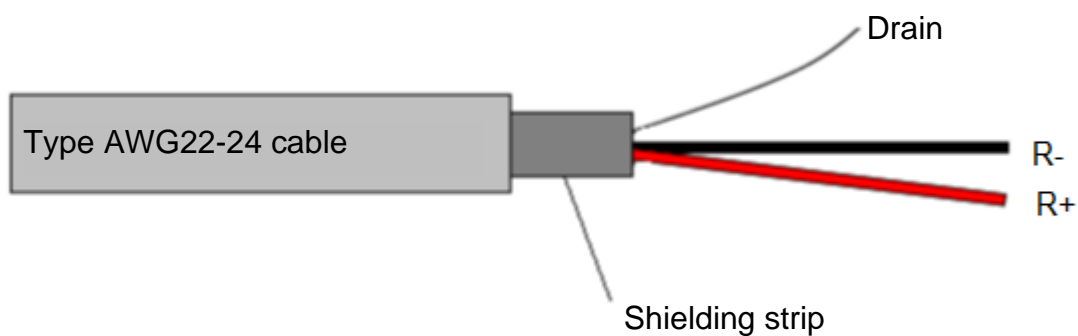


6. CONNECTION REQUIREMENTS

❖ Modbus:

- The distance between the gateway and controller must be less than 1000 meters.
- 1 single machine may communicate with the BACnet gateway (or 2 machines when using precision air handling unit – ref. 7419839, 7560471 and 7560472)
- The communication cable to be used must be: AWG24 - 22 type (1 shielded twisted pair)
- Please note that beyond a certain distance, and depending on the cabling carried out, it may be necessary to use additional equipment (not provided - e.g. polarization device, etc.). It is strongly recommended that the distance between the gateway and controller is limited.

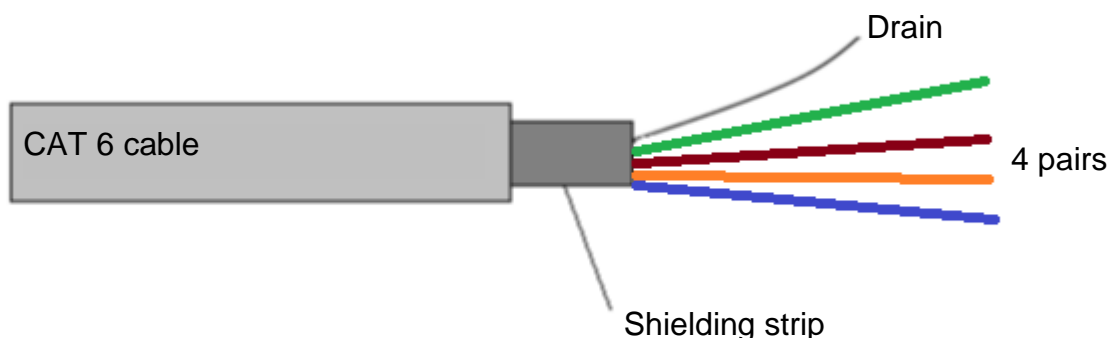
Example of cable:



❖ BACnet IP:

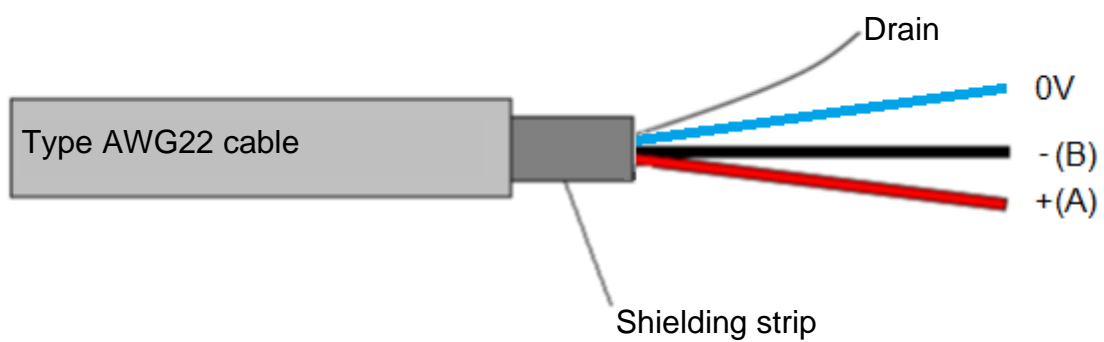
- The distances must observe the specifications recommended in the Ethernet IP networks
- The communication cable to be used must be a minimum of CAT 6. We recommend to use a paired shielded cable (type S/FTP)
- The network cable must be a "straight through" type cable

Example of cable:



❖ **BACnet MSTP:**

- The communication cable to be used must be: AWG22 type (3 twisted, shielded wires). A cable with 2 pairs must also be used (1 pair for communication and 1 of the 2 wires from the other pair for shared use)
- The maximum length of a section is 1500 metres (at 38400 bauds and with a AWG22 cable)
- The connections on the BACnet MSTP side must observe the restrictions imposed by the BACnet association (continuity of shielding, end of line terminating resistors, etc.).

Example of cable:

7. INFORMATION FOR THE INTEGRATOR

❖ Modbus:

Modbus RTU communication is preconfigured on the gateway kit. To guarantee communication with the controller, it is necessary to configure the following parameters on the machine:

Chiller/PAC, Chiller and precision air handling unit controllers:

- **P700 = Modbus**
- **P701 = 9600 bauds (speed)**
- **P702 = without (parity)**
- **P703 = 1 (stop bit)**
- **P704 = no (not swapped)**
- **P705 = 1 (Bus no.)**
- **P706 = remote**

Drycooler controller:

- **A103 = remote**
- **A105 = 1 (Bus no.)**
- **A116 = no (link with chiller)**

Note:

Versions compatible with the gateway:

- Chiller/PAC: from **version V17**
- Chiller: from **version V06**
- Drycooler: from **version V07**
- Precision air handling unit: from **version V15**

For earlier versions, service technician must update the machine controller, otherwise communication errors may occur.

❖ BACnet IP:

BACnet communication must be implemented using a BACnet integrator.

The BACnet IP gateway kit is configured to the following specifications:

- Protocol: **BACnet IP UDP/IP slave**. The CMS must be a "client" (or "master") type system.
- DeviceID: the default device ID is **1000 for chiller/PAC controller, 1001 for chiller controller, 1002 for drycooler controller and 1003 for precision air handling unit**. If there is a duplication on the network (another item of equipment with this ID or if several gateway kits are in use on the same installation), it will be necessary to ask the service technician to modify this parameter
- Name of the equipment: the name published on the BACnet network is **Chiller/PAC, Chiller, Drycooler or Precision air handling unit** depending on the gateway reference.
- Communication port: standard port **47808**
- Publication of objects: the names of the objects published use mnemonics. It is necessary to use the table at the end of the document to find the meaning
- Segmentation: segmentation is not supported by the BACnet kit. It is recommended to explore the equipment object by object (deactivation of read all).

❖ **BACnet MSTP:**

BACnet communication must be implemented using a BACnet integrator.

The BACnet MSTP gateway kit is configured to the following specifications:

- Protocol: **BACnet MSTP Slave**. The CMS must be a "client" (or "master") type system.
- Support: RS485 2-wire (+ shared)
- DeviceID: the default device ID is **1000 for chiller/PAC controller, 1001 for chiller controller, 1002 for drycooler controller and 1003 for precision air handling unit**. If there is a duplication on the network (another item of equipment with this ID or if several gateway kits are in use on the same installation), it will be necessary to ask the service technician to modify this parameter
- Name of the equipment: the name published on the BACnet network is **Chiller/PAC, Chiller, Drycooler or Precision air handling unit** depending on the gateway reference.
- Highest master: the maximum number of "masters" on the bus is 1 (can be modified by the service technician if necessary)
- Publication of objects: the names of the objects published use mnemonics. It is necessary to use the table at the end of the document to find the meaning
- Communication:
 - o Speed: **38400 bauds**
 - o Data bits: **8 bits**
 - o Stop bits: **1 bit**
 - o Parity: **without**
- Segmentation: segmentation is not supported by the BACnet kit. It is recommended to explore the equipment object by object (deactivation of read all).

8. BACNET OBJECTS

❖ Chiller/PAC controller:

Registers accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/Enumeration
Registers accessible to customer 1.1: machine status						
2	Actual operating mode	ModeFctReel	AI0000	R	bit	0= Off; 1=cooling; 2=heating
3 and 4	Outdoor temperature	OutdoorTemp	AI0002	R	Float	°C
5 and 6	Control setpoint	ActiveSetpt	AI0003	R	Float	°C
7 and 8	Evaporator inlet temperature	EntChwTemp	AI0004	R	Float	°C
9 and 10	Evaporator outlet temperature	LvgChwTemp	AI0005	R	Float	°C
11 and 12	Condenser temperature	TempCondens	AI0006	R	Float	°C
19	Number of stages in operation	NbEtagFct	AI0001	R	Float	
112	Ecs en cours	ECSload	AI0038	R	Float	1=Running
114	DHW valve state	EtatVanneECS	AI0040	R	Float	0=Open 1=Closed 2=Intermédiaire
5412 and 5413	[P256.1] - Gas module outlet temperature	TempSortieMG	AI0029	R	Float	°C
5414 and 5415	P256.2 Manifold outlet temperature to DHW	TempSortieECS	AI0030	R	Float	°C
5416 and 5417	[P280] - Number of heat pump operating hours	TempOutChaud	AI0031	R	Float	°C
5542 and 5543	P299.1 Evaporative water flow	DEauEvap	AI0041	R	Float	m ³ /h
5544 and 5545	Flow value for water flow failure cutoff	ValCouDEau	AI0042	R	float	m ³ /h
5546 and 5547	Minimum flow rate requested before a floor is engaged	ValDMinEncEtag	AI0043	R	float	m ³ /h
5548	P580 Pump speed variation mode 1	ModeVarVitPMP 1	AI0044	R	float	0 = OFF 1 = Normal 2 = Boost
Registers accessible to customer 1.2: times and starts						
32 and 33	Heating mode runtime (in hours)	NbHFctChaud	AI0007	R	Float	h
34 and 35	Cooling mode runtime (in hours)	NbHFctFroid	AI0008	R	Float	h
36 and 37	Pump 1 runtime (in hours)	NbHFctPompe1	AI0009	R	Float	h
38 and 39	Pump 2 runtime (in hours)	NbHFctPompe2	AI0010	R	Float	h
40 and 41	Number of starts, stage 1, circuit 1	NbDemarEta1C1	AI0011	R	Float	
42 and 43	Stage 1, circuit 1 running time	MarcheEta1C1	AI0012	R	Float	h
44 and 45	Number of starts, stage 2, circuit 1	NbDemarEta2C1	AI0013	R	Float	
46 and 47	Stage 2, circuit 1 running time	MarcheEta2C1	AI0014	R	Float	h
48 and 49	Number of starts, stage 1, circuit 2	NbDemarEta1C2	AI0015	R	Float	
50 and 51	Stage 1, circuit 2 running time	MarcheEta1C2	AI0016	R	Float	h
52 and 53	Number of starts, stage 2, circuit 2	NbDemarEta2C2	AI0017	R	Float	
54 and 55	Stage 2, circuit 2 running time	MarcheEta2C2	AI0018	R	Float	h
113	DHW in progress cycle time	TimeCycleECS	AI0039	R	Float	Min
5418 and 5419	[P280] - Number of heat pump operating hours	HrFoncPAC	AI0032	R	Float	h
5420 and 5421	[P281] - Number of boiler operating hours	HrFoncChaudGaz	AI0033	R	Float	h
Registers accessible to customer 1.3: setpoints						

7400525-09

257 and 258	Cooling setpoint no. 1	CoolSetpt1	AV0000	R/W	Float	°C
259 and 260	Cooling setpoint no. 2	CoolSetpt2	AV0001	R/W	Float	°C
261 and 262	Heating setpoint no. 1	HeatSetpt1	AV0002	R/W	Float	°C
263 and 264	Heating setpoint no. 2	HeatSetpt2	AV0003	R/W	Float	°C
4999	P240 Variation speed pump 1	VitessePMP1	AV0086	R/W	Float	0= No 1 = Yes
Registers accessible to customer 1.4: date and time						
512	Year	Annee	AV0004	R/W	bit	0 to 99 years
513	Month	Mois	AV0005	R/W	bit	1 to 12 months
514	Day of the month	JourMois	AV0006	R/W	bit	1 to 31
515	Day of the week	JourSemaine	AI0019	R/W	bit	1 to 7 (1Monday, 2Tuesday...)
516	Hour	Heure	AV0007	R/W	bit	0 to 23h
517	Minute	Minute	AV0008	R/W	bit	0 to 59 min
Registers accessible to customer 2.1: electric meter						
80 and 81	Voltage between phase 1 and 2	TensPh12	AI0022	R	Float	V
82 and 83	Voltage between phase 2 and 3	TensPh23	AI0023	R	Float	V
84 and 85	Voltage between phase 1 and 3	TensPh13	AI0024	R	Float	V
104 and 105	Instantaneous input current	IntAbs	AI0025	R	Float	A
106 and 107	Instantaneous power consumed	PConsoIns	AI0026	R	Float	W
108 and 109	Energy consumed	EConso	AV0009	R/W	Float	kWh (write 0 to reset module 1 and 2)
110	Time before sealing test/No. of days before Fgas sealing test	AvantCtrlEtan	AI0020	R	bit	day
111	Time before maintenance / No. of days or hours before maintenance	AvantMaint	AI0021	R	bit	Day or h
5524 and 5525	P454.2 Voltage piloting boiler	TenPilotChaud	AI0034	R	Float	V
5526 and 5527	P447 and P448 Voltage Fan Circuit 1	TenVE1HPC1	AI0036	R	Float	V
5528 and 5529	P449 Voltage Fan Circuit 2	TenVE1HPC2	AI0037	R	Float	V

Bits Accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/W rite	Format	Unit/ Enumeration
Customer access bit 1.1: remote controls						
512	On/Off	ChillerEnable	BV0000	R/W	bit	1=On, 0=Off
513	Control set to setpoint 1 or 2	ChoixConsigne	BV0001	R/W	bit	1=control on setpoint 2, 0=control on setpoint 1
514	Heating or cooling operation	ChaudFroid	BV0002	R/W	bit	1=heating, 0=cooling
515	Load shedding stop, stage 1, circuit 1	DelestArEt1C1	BV0003	R/W	bit	1=Load shedding, 0=Unshed
516	Load shedding stop, stage 2, circuit 1	DelestArEt2C1	BV0004	R/W	bit	1=Load shedding, 0=Unshed
517	Load shedding stop, stage 1, circuit 2	DelestArEt1C2	BV0005	R/W	bit	1=Load shedding, 0=Unshed
518	Load shedding stop, stage 2, circuit 2	DelestArEt2C2	BV0006	R/W	bit	1=Load shedding, 0=Unshed

7400525-09

519	Peak times/off-peak times operation	FonHCrPle	BV0008	R/W	Bit	1=Active, 0=Inactive
522	Energy load shedding activation	DelestEnerg	BV0007	R/W	bit	1=On, 0=Off
523	On/Off DHW	EtatECS	BV0009	R/W	bit	1=On
Customer access bit 1.2: machine status						
544	On/Off summary	OnOffPasDef	BI0001	R	bit	1 = keyboard on/off = 1 and all automatic operation controls closed and no preheating delay and no fault
545	Cooling operating mode possible	ModeFctFrdPos	BI0002	R	bit	1= Mode possible
546	Heating operating mode possible	ModeFctChdPos	BI0003	R	bit	1= Mode possible
547	At least 1 active stage	1EtageActif -> Etage1Actif	BI0004	R	bit	1= 1 stage active, 0= no stage active
548	Max available power reached	PMaxDispoAtt	BI0005	R	bit	1 = Max available power reached
549	Presence of a critical fault which makes production impossible/Presence of a critical fault	PresDefMajeur	BI0006	R	bit	1= Present, 0 = Absent
550	Presence of a reinitialisation fault, but production is possible/Presence of a reinitialisation fault	PresDefRearm	BI0007	R	bit	1= Present, 0 = Absent
551	Existence of a fault which requires intervention to remove it/Existence of a fault requiring removal	PresDefASup	BI0008	R	bit	1= Present, 0 = Absent
556	Operation outside MAP compressor	FctNoMAP	BI0030	R	bit	1= Fonctionnement hors MAP
Customer access bit 1.3: output states						
2	Operation summary	OnOff	BI0009	R	bit	1=On, 0=Off
3	State of pump 1 output	MarchePompe1	BI0010	R	bit	1=On, 0=Off
4	State of pump 2 output	MarchePompe2	BI0011	R	bit	1=On, 0=Off
5	Stage 1, circuit 1 output status	Etage1Circuit1	BI0012	R	bit	1=On, 0=Off
6	Stage 2, circuit 1 output status	Etage2Circuit1	BI0013	R	bit	1=On, 0=Off
7	Stage 1, circuit 2 output status	Etage1Circuit2	BI0014	R	bit	1=On, 0=Off
8	Stage 2, circuit 2 output status	Etage2Circuit2	BI0015	R	bit	1=On, 0=Off
9	State of auxiliary electric heater 1 or boiler	Appoint1	BI0016	R	bit	1=On, 0=Off
10	State of auxiliary electric heater 2	Appoint2	BI0017	R	bit	1=On, 0=Off
11	State of auxiliary electric heater 3	Appoint3	BI0018	R	bit	1=On, 0=Off
12	State of auxiliary electric heater 4	Appoint4	BI0019	R	bit	1=On, 0=Off
Customer access bit 2.1: general faults						
16	General fault summary	SyntDefGen	BI0020	R	bit	1=Actif, 0=Inactif
326	Suction water main circuit <= P25,8 pump running without stopping on fault	AspOPrin	BI0031	R	bit	1=défaut
327	Secondary circuit water suction <= P25.8 pump running without fault stop	AspOSec	BI0032	R	Bit	1=défaut
555	There is a defect that makes production impossible including temporary defects	PresDefProdImpo	BI0029	R	bit	1 = Major fault (bit 549)

						OR defect frost on temporary water OR Temporary Refrigerant Frost Fault OR Temporary BP Fault OR Temporary HP fault OR Temporary manual HP fault OR Temporary low overheating fault OR Temporary high overheating fault OR (for circuit 2 only circuit board circuit 2 fault) OR (reversible board link fault 1 circuit if P3 = 1 and P2 = reversible air / water)
Customer access bit 3.1: circuit 1 faults						
64	Circuit 1 fault summary	SyntDefC1	BI0021	R	bit	1=Active, 0=Inactive
Customer access bit 3.2: circuit 2 faults						
256	Circuit 2 fault summary	SyntDefC2	BI0022	R	bit	1=Active, 0=Inactive
Customer access bit 4.1: load shedding						
128	Load shedding, stage 1, circuit 1	DelestEt1C1	BI0023	R	bit	1=Load shedding, 0=Unshed
129	Load shedding, stage 2, circuit 1	DelestEt2C1	BI0024	R	bit	1=Load shedding, 0=Unshed
320	Load shedding, stage 1, circuit 2	DelestEt1C2	BI0025	R	bit	1=Load shedding, 0=Unshed
321	Load shedding, stage 2, circuit 2	DelestEt2C2	BI0026	R	bit	1=Load shedding, 0=Unshed
Customer access bit 4.2: maintenance due						
322	Sealing/Fgas maintenance due	MaiEtanARea	BI0027	R	bit	1=Active, 0=Inactive
324	Maintenance due	MaiARea	BI0028	R	bit	1=Active, 0=Inactive

❖ Chiller controller:**Registers accessible to customer**

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/Enumeration
Registers accessible to customer 1.1: machine status						
2	Actual operating mode	ModeFctReel	AV0001	R	bit	0= Off; 1=cooling; 2=heating
3 and 4	Outdoor temperature	OutdoorTemp	AV0050	R	Float	°C
5 and 6	Control setpoint	ActiveSetpt	AV0051	R	Float	°C
7 and 8	Evaporator inlet temperature	EntChwTemp	AV0052	R	Float	°C
9 and 10	Evaporator outlet temperature	LvgChwTemp	AV0053	R	Float	°C
11 and 12	Condenser inlet temperature	EntCndWTemp	AV0054	R	Float	°C
13 and 14	Condenser outlet temperature	LvgCndWTemp	AV0055	R	Float	°C
15 and 16	Manifold outlet temperature module 1 module 2	LvgColTmpM1M2	AV0056	R	Float	°C
17 and 18	Manifold outlet temperature master/slave 2 machines	LvgColME2Mach	AV0057	R	Float	°C
19	Number of stages in operation	NbEtagFct	AV0002	R	bit	
Registers accessible to customer 1.2: times and starts						
32 and 33	P285 Heating mode runtime (in hours)	NbHFctChaud	AV0150	R	Float	h
34 and 35	P286 Cooling mode runtime (in hours)	NbHFctFroid	AV0151	R	Float	h
36 and 37	P287 Pump 1 runtime (in hours)	NbHFctPompe1	AV0152	R	Float	h
38 and 39	P288 Pump 2 runtime (in hours)	NbHFctPompe2	AV0153	R	Float	h
40 and 41	P316 Number of starts, compressor 1	NbDemarComp1	AV0154	R	bit	
42 and 43	P317 Compressor 1 running time	TpsMarcheCp1	AV0155	R	Float	h
44 and 45	P346 Number of starts, compressor 2	NbDemarComp2	AV0156	R	bit	
46 and 47	P347 Compressor 2 running time	TpsMarcheCp2	AV0157	R	Float	h
48 and 49	P370 Number of starts, compressor 3	NbDemarComp3	AV0158	R	bit	
50 and 51	P371 Compressor 3 running time	TpsMarcheCp3	AV0159	R	Float	h
Registers accessible to customer 1.3: setpoints						
257 and 258	P121 Cooling setpoint 1	CoolSetpt1	AV0250	R/W	Float	°C
259 and 260	P122 Cooling setpoint 2	CoolSetpt2	AV0251	R/W	Float	°C
261 and 262	P123 Heating setpoint 1	HeatSetpt1	AV0252	R/W	Float	°C
263 and 264	P124 Heating setpoint 2	HeatSetpt2	AV0253	R/W	Float	°C
Registers accessible to customer 1.4: date and time						
512	Year	Annee	AV0250	R/W	bit	0 to 99 years
513	Month	Mois	AV0300	R/W	bit	1 to 12 months
514	Day of the month	JourMois	AV0301	R/W	bit	1 to 31
515	Day of the week	JourSemaine	AV0302	R/W	bit	1 to 7 (1Monday, 2Tuesday...)
516	Hour	Heure	AV0303	R/W	bit	0 to 23h
517	Minute	Minute	AV0304	R/W	bit	0 to 59 min.
Registers accessible to customer 2.1: electric meter						
80 and 81	Voltage between phases 1 and 2, module 1	TensPh12Mod1	AV0450	R	Float	V
82 and 83	Voltage between phases 2 and 3, module 1	TensPh23Mod1	AV0451	R	Float	V
84 and 85	Voltage between phases 1 and 3, module 1	TensPh13Mod1	AV0452	R	Float	V
86 and 87	Input current module 1	IntAbsMod1	AV0453	R	Float	A
88 and 89	Instant power consumed module 1	PConsolnsMod1	AV0454	R	Float	W
90 and 91	Energy consumed, module 1	EConsoMod1	AV0455	R/W	Float	kWh (write 0 to reset module 1 and 2)
92 and 93	Voltage between phases 1 and 2, module 2	TensPh12Mod2	AV0456	R	Float	V
94 and 95	Voltage between phases 2 and 3, module 2	TensPh23Mod2	AV0457	R	Float	V
96 and 97	Voltage between phases 1 and 3, module 2	TensPh13Mod2	AV0458	R	Float	V
98 and 99	Input current module 2	IntAbsMod2	AV0459	R	Float	A
100 and 101	Instant power consumed module 2	PConsolnsMod2	AV0460	R	Float	W

7400525-09

102 and 103	Energy consumed, module 2	EConsoMod2	AV0461	R/W	Float	kWh (write 0 to reset module 1 and 2)
104 and 105	Total input current	IntAbsTot	AV0462	R	Float	A
106 and 107	Total instant power consumed	PConsoInsTot	AV0463	R	Float	W
108 and 109	Total energy consumed	EConsoTot	AV0464	R/W	Float	kWh (write 0 to reset module 1 and 2)
110	Time before sealing test/No. of days before Fgas sealing test	AvantCtrlEtan	AV0400	R	bit	day
111	Time before maintenance / No. of days or hours before maintenance	AvantMaint	AV0401	R	bit	day or h; depends on P910; (30to3013days if P910 is in months); (200to9999h if P910 is in hours)
277	P900 Fgas sealing check reminder	RapConEtaFgaz	AV0402	R	bit	0=no, 1=3Months, 2=6Months, 3=12Months
278	P910 Maintenance check reminder	RapConMaint	AV0403	R	bit	0=No, 1=Yes in hours, 2=Yes in months
279	P911 maintenance check frequency	FreqConMaint	AV0404	R	bit	0-99 months

Bits Accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read / Write	Format	Unit/ Enumeration
Customer access bit 1.1: remote controls						
512	On/Off	ChillerEnable	BV0001	R/W	bit	1=On, 0=Off
513	Control set to setpoint 1 or 2	ChoixConsigne	BV0002	R/W	bit	1=control on setpoint 2, 0=control on setpoint 1
514	Heating or cooling operation	ChaudFroid	BV0003	R/W	bit	1=heating, 0=cooling
515	Load shedding stop, compressor 1	DelestArCp1	BV0004	R/W	bit	1=Active, 0=Inactive
516	Load shedding, compressor 1 in P min	DelestCp1PMin	BV0005	R/W	bit	1=Shed, 0=Unshed
517	Load shedding stop, compressor 2	DelestArCp2	BV0006	R/W	bit	1=Active, 0=Inactive
518	Load shedding, compressor 2 in P min	DelestCp2PMin	BV0007	R/W	bit	1=Shed, 0=Unshed
519	Load shedding stop, compressor 3	DelestArCp3	BV0008	R/W	bit	1=Active, 0=Inactive
520	Load shedding, compressor 3 in P min	DelestCp3PMin	BV0009	R/W	bit	1=Shed, 0=Unshed
522	Energy load shedding activation (only if P117=By bus)	DelestEnerg	BV0010	R/W	bit	1=Active, 0=Inactive

Customer access bit 1.2: machine status						
544	On/Off summary	OnOffPasDef	BI0001	R	bit	1 = keyboard on/off = 1 and all automatic operation controls closed and no preheating delay and no fault
545	Cooling operating mode possible	ModeFctFrdPos	BI0002	R	bit	1= Mode possible
546	Heating operating mode possible	ModeFctChdPos	BI0003	R	bit	1= Mode possible
547	At least 1 active stage	1EtageActif -> Etage1Actif	BI0004	R	bit	1=Active, 0=Inactive
548	Max available power reached	PMaxDispoAtt	BI0005	R	bit	1=ReachedNo, 0=reached
549	Presence of a critical fault which makes production impossible	PresDefMajeur	BI0006	R	bit	1= Present, 0 = Absent
550	Presence of a reinitialisation fault, but production is possible	PresDefRearm	BI0007	R	bit	1= Present, 0 = Absent
551	Existence of a fault which requires intervention to remove it	PresDefASup	BI0008	R	bit	1= Present, 0 = Absent
Customer access bit 1.3: output states						
2	Operation summary	OnOff	BI0100	R	bit	1=on
3	State of pump 1 output	MarchePompe1	BI0101	R	bit	1=on
4	State of pump 2 output	MarchePompe2	BI0102	R	bit	1=on
5	Compressor 1 output state	MarcheComp1	BI0103	R	bit	1=on
6	Compressor 2 output state	MarcheComp2	BI0104	R	bit	1=on
7	Compressor 3 output state	MarcheComp3	BI0105	R	bit	1=on
13	Energy limiter on	LimEnergeEncl	BI0106	R	bit	1=on
Customer access bit 2.1: general faults						
16	General fault summary	SyntDefGen	BI0200	R	bit	1=Active, 0=Inactive
17	Phase controller fault	DefCtrlPhases	BI0201	R	bit	1=Active, 0=Inactive
18	Water flow fault, module 1	DefDebitEau	BI0202	R	bit	1=Active, 0=Inactive
19	Pump 1 fault	DefPompe1	BI0203	R	bit	1=Active, 0=Inactive
20	Pump 2 fault	DefPompe2	BI0204	R	bit	1=Active, 0=Inactive
21	Loop pump 1 fault	DefPompe1Bou	BI0205	R	bit	1=Active, 0=Inactive
22	Loop pump 2 fault	DefPompe2Bou	BI0206	R	bit	1=Active, 0=Inactive
23	Evaporator inlet sensor fault	DefSondeEEvap	BI0207	R	bit	1=Active, 0=Inactive
24	Evaporator outlet sensor fault	DefSondeSEvap	BI0208	R	bit	1=Active, 0=Inactive
25	Outdoor temperature sensor fault	DefSondeTExt	BI0209	R	bit	1=Active, 0=Inactive
26	Condenser sensor fault	DefSondeCond	BI0210	R	bit	1=Active, 0=Inactive
27	Manifold outlet sensor fault for machine with module 500	DefSondeSColl	BI0211	R	bit	1=Active, 0=Inactive
28	Fan fault	DefVentil	BI0212	R	bit	1=Active, 0=Inactive
29	EEPROM fault	DefEEPROM	BI0213	R	bit	1=Active, 0=Inactive
30	Loop inlet sensor fault (Multiconnect)	DefSondeEBouc	BI0214	R	bit	1=Active, 0=Inactive
31	Loop outlet sensor fault (Multiconnect)	DefSondeSBouc	BI0215	R	bit	1=Active, 0=Inactive
32	Aeroconnect link fault	DefLiaiAeroCo	BI0216	R	bit	1=Active, 0=Inactive
33	Outdoor temperature too high in cooling mode	DefTExtHaute	BI0217	R	bit	1=Active, 0=Inactive
34	Change of operating mode fault	DefCgtModeFct	BI0218	R	bit	1=Active, 0=Inactive
35	Winter protection	SecuHiver	BI0219	R	bit	1=Active, 0=Inactive
36	Hydraulic module sensor fault	DefSondeAbEch	BI0220	R	bit	1=Active, 0=Inactive
37	Condenser outlet sensor fault	DefSondeSCond	BI0221	R	bit	1=Active, 0=Inactive
38	Outdoor temperature too high in heating mode	DefTExtHtChd	BI0222	R	bit	1=Active, 0=Inactive
39	External fault	DefExt	BI0223	R	bit	1=Active, 0=Inactive
40	Emergency stop fault	DefArretUrg	BI0224	R	bit	1=Active, 0=Inactive
41	Control sensor fault	DefSondeRegul	BI0225	R	bit	1=Active, 0=Inactive
Customer access bit 2.2: maintenance						
322	Fgas maintenance due	MaiEtanARea	BI0250	R	bit	1=Active, 0=Inactive
323	Sealing check fault	DefCtrlEtan	BI0251	R	bit	1=Active, 0=Inactive
324	Maintenance due	MaiArea	BI0252	R	bit	1=Active, 0=Inactive

325	Maintenance fault	DefMaint	BI0253	R	bit	1=Active, 0=Inactive
Customer access bit 3.1: circuit 1 faults						
64	Circuit 1 fault summary	SyntDefC1	BI0300	R	bit	1=Active, 0=Inactive
65	Compressor 1 fault	DefComp1	BI0301	R	bit	1=Active, 0=Inactive
67	Circuit 1 manual HP fault	DefHPManuC1	BI0302	R	bit	1=Active, 0=Inactive
69	Circuit 1 LP fault	DefBPC1	BI0303	R	bit	1=Active, 0=Inactive
70	Water freezing fault, circuit 1 and 2	DefGelEauC1C2	BI0304	R	bit	1=Active, 0=Inactive
73	Compressor 1 discharge fault	DefRefComp1	BI0305	R	bit	1=Active, 0=Inactive
76	Circuit 1 expansion valve fault	DefDetendC1	BI0306	R	bit	1=Active, 0=Inactive
78	Circuit 1 low superheat fault	DefSurBasC1	BI0307	R	bit	1=Active, 0=Inactive
79	Circuit 1 high superheat fault	DefSurHautC1	BI0308	R	bit	1=Active, 0=Inactive
80	Circuit 1 desuperheating fault	DefDesurC1	BI0309	R	bit	1=Active, 0=Inactive
81	Circuit 1 lubrication fault	DefLubrifiC1	BI0310	R	bit	1=Active, 0=Inactive
87	Compressor 1 discharge sensor fault	DefSondeRefC1	BI0311	R	bit	1=Active, 0=Inactive
89	Circuit 1 HP sensor fault	DefCaptHPC1	BI0312	R	bit	1=Active, 0=Inactive
90	Circuit 1 LP sensor fault	DefCaptBPC1	BI0313	R	bit	1=Active, 0=Inactive
91	Circuit 1 suction sensor fault	DefSondeAspC1	BI0314	R	bit	1=Active, 0=Inactive
92	Circuit 1 liquid sensor fault	DefSondeLiqC1	BI0315	R	bit	1=Active, 0=Inactive
93	ADD3 board connection fault circuits 1 and 2	DefADD3C1C2	BI0316	R	bit	1=Active, 0=Inactive
Customer access bit 3.2: circuit 2 faults						
256	Circuit 2 fault summary	SyntDefC2	BI0400	R	bit	1=Active, 0=Inactive
257	Compressor 2 fault	DefComp2	BI0401	R	bit	1=Active, 0=Inactive
259	Circuit 2 manual HP fault	DefHPManuC2	BI0402	R	bit	1=Active, 0=Inactive
261	Circuit 2 LP fault	DefBPC2	BI0403	R	bit	1=Active, 0=Inactive
265	Compressor 2 discharge fault	DefRefComp2	BI0404	R	bit	1=Active, 0=Inactive
268	Circuit 2 expansion valve fault	DefDetendC2	BI0405	R	bit	1=Active, 0=Inactive
270	Circuit 2 low superheat fault	DefSurBasC2	BI0406	R	bit	1=Active, 0=Inactive
271	Circuit 2 high superheat fault	DefSurHautC2	BI0407	R	bit	1=Active, 0=Inactive
272	Circuit 2 desuperheating fault	DefDesurC2	BI0408	R	bit	1=Active, 0=Inactive
273	Circuit 2 lubrication fault	DefLubrifiC2	BI0409	R	bit	1=Active, 0=Inactive
279	Compressor 2 discharge sensor fault	DefSondeRefC2	BI0410	R	bit	1=Active, 0=Inactive
281	Circuit 2 HP sensor fault	DefCaptHPC2	BI0411	R	bit	1=Active, 0=Inactive
282	Circuit 2 LP sensor fault	DefCaptBPC2	BI0412	R	bit	1=Active, 0=Inactive
283	Circuit 2 suction sensor fault	DefSondeAspC2	BI0413	R	bit	1=Active, 0=Inactive
284	Circuit 2 liquid sensor fault	DefSondeLiqC2	BI0414	R	bit	1=Active, 0=Inactive
Customer access bit 3.3: circuit 3 faults						
336	Circuit 3 fault summary	SyntDefC3	BI0500	R	bit	1=Active, 0=Inactive
337	Compressor 3 fault	DefComp3	BI0501	R	bit	1=Active, 0=Inactive
339	Circuit 3 manual HP fault	DefHPManuC3	BI0502	R	bit	1=Active, 0=Inactive
341	Circuit 3 LP fault	DefBPC3	BI0503	R	bit	1=Active, 0=Inactive
342	Circuit 3 water frosting fault	DefGelEauC3	BI0504	R	bit	1=Active, 0=Inactive
345	Compressor 3 discharge fault	DefRefComp3	BI0505	R	bit	1=Active, 0=Inactive
348	Circuit 3 expansion valve fault	DefDetendC3	BI0506	R	bit	1=Active, 0=Inactive
350	Circuit 3 low superheat fault	DefSurBasC3	BI0507	R	bit	1=Active, 0=Inactive
351	Circuit 3 high superheat fault	DefSurHautC3	BI0508	R	bit	1=Active, 0=Inactive
352	Circuit 3 desuperheating fault	DefDesurC3	BI0509	R	bit	1=Active, 0=Inactive
353	Circuit 3 lubrication fault	DefLubrifiC3	BI0510	R	bit	1=Active, 0=Inactive
359	Compressor 3 discharge sensor fault	DefSondeRefC3	BI0511	R	bit	1=Active, 0=Inactive
361	Circuit 3 HP sensor fault	DefCaptHPC3	BI0512	R	bit	1=Active, 0=Inactive
362	Circuit 3 LP sensor fault	DefCaptBPC3	BI0513	R	bit	1=Active, 0=Inactive
363	Circuit 3 suction sensor fault	DefSondeAspC3	BI0514	R	bit	1=Active, 0=Inactive
364	Circuit 3 liquid sensor fault	DefSondeLiqC3	BI0515	R	bit	1=Active, 0=Inactive
365	ADD3 board connection fault circuit 3	DefADD3C3	BI0516	R	bit	1=Active, 0=Inactive
366	ADD1 board connection fault circuit 3	DefADD1C3	BI0517	R	bit	1=Active, 0=Inactive
Customer access bit 4.1: load shedding						
128	Load shedding compressor 1	DelestComp1	BI0600	R	bit	1=Active, 0=Inactive
320	Load shedding compressor 2	DelestComp2	BI0601	R	bit	1=Active, 0=Inactive
384	Load shedding compressor 3	DelestComp3	BI0602	R	bit	1=Active, 0=Inactive

❖ Drycooler controller:Registers accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/Enumeration
Registers accessible to customer 1.1: coil type						
401	A03: Coil 1 type	TypeBat1	AV0022	R/W	word	0=> 1 low-temperature water circuit 1=> 2 low-temperature water circuits 2=> 1 high-temperature water circuit 3=> 2 high-temperature water circuits 4=> 1 refrigerant circuit 5=> 2 refrigerant circuits
403	A05: Coil 2 type	TypeBat2	AV0011	R/W	word	0=> 1 low-temperature water circuit 1=> 2 low-temperature water circuits 2=> 1 high-temperature water circuit 3=> 2 high-temperature water circuits 4=> 1 refrigerant circuit 5=> 2 refrigerant circuits
Registers accessible to customer 1.2: machine status						
2	operating status	EtatFonc	AV0000	R	word	On/off (1=on and AOC closed)
116 and 117	Outdoor temperature	TempExt	AI0023	R	float	°C
100 and 101	Control setpoint, coil 1, circuit 1	ConsB1C1	AI0003	R	float	°C
102 and 103	Control setpoint, coil 1, circuit 2	ConsB1C2	AI0004	R	float	°C
104 and 105	Control setpoint, coil 2, circuit 1	ConsB2C1	AI0005	R	float	°C
106 and 107	Control setpoint, coil 2, circuit 2	ConsB2C2	AI0006	R	float	°C
108 and 109	Temperature or pressure, coil 1, circuit 1	PressBat1Cir1	AI0019	R	float	°C
110 and 111	Temperature or pressure, coil 1, circuit 2	PressBat1Cir2	AI0020	R	float	°C
112 and 113	Temperature or pressure, coil 2, circuit 1	PressBat2Cir1	AI0021	R	float	°C
114 and 115	Temperature or pressure, coil 2, circuit 2	PressBat2Cir2	AI0022	R	float	°C
Registers accessible to customer 1.3: fan runtime						
300 and 301	Fan runtime (in hours), stage 1 line 1	NbHVE1L1	AI0007	R	Float	h
302 and 303	Fan runtime (in hours), stage 2 line 1	NbHVE2L1	AI0009	R	Float	h
304 and 305	Fan runtime (in hours), stage 3 line 1	NbHVE3L1	AI0011	R	Float	h
306 and 307	Fan runtime (in hours), stage 4 line 1	NbHVE4L1	AI0013	R	Float	h

308 and 309	Fan runtime (in hours), stage 5 line 1	NbHVE5L1	AI0015	R	Float	h
310 and 311	Fan runtime (in hours), stage 6 line 1	NbHVE6L1	AI0017	R	Float	h
323 and 313	Fan runtime (in hours), stage 1 line 2	NbHVE1L2	AI0008	R	Float	h
314 and 315	Fan runtime (in hours), stage 2 line 2	NbHVE2L2	AI0010	R	Float	h
316 and 317	Fan runtime (in hours), stage 3 line 2	NbHVE3L2	AI0012	R	Float	h
318 and 319	Fan runtime (in hours), stage 4 line 2	NbHVE4L2	AI0014	R	Float	h
320 and 321	Fan runtime (in hours), stage 5 line 2	NbHVE5L2	AI0016	R	Float	h
322 and 323	Fan runtime (in hours), stage 6 line 2	NbHVE6L2	AI0018	R	Float	h
Registers accessible to customer 1.4: setpoints						
452 and 453	A121: Setpoint 1, coil 1, circuit 1	Cons1P_Bat1C1	AV0012	R/W	Float	°C
454 and 455	A122: Setpoint 2, coil 1, circuit 1	Cons2P_Bat1C1	AV0023	R/W	Float	°C
456 and 457	A123: Setpoint 1, coil 1, circuit 2	Cons1P_Bat1C2	AV0013	R/W	Float	°C
458 and 459	A124: Setpoint 2, coil 1, circuit 2	Cons2P_Bat1C2	AV0014	R/W	Float	°C
460 and 461	A125: Setpoint 1, coil 2, circuit 1	Cons1P_Bat2C1	AV0015	R/W	Float	°C
462 and 463	A126: Setpoint 2, coil 2, circuit 1	Cons2P_Bat2C1	AV0016	R/W	Float	°C
464 and 465	A127: Setpoint 1, coil 2, circuit 2	Cons1P_Bat2C2	AV0017	R/W	Float	°C
466 and 467	A128: Setpoint 2, coil 2, circuit 2	Cons2P_Bat2C2	AV0018	R/W	Float	°C
Registers accessible to customer 3.1: misting						
561 and 562	A200: misting difference, coil 1, circuit 1	DBrumB1C1	AV0024	R/W	Float	°C
563 and 564	A201: misting difference, coil 1, circuit 2	DBrumB1C2	AV0041	R/W	Float	°C
565 and 566	A202: misting difference, coil 2, circuit 1	DBrumB2C1	AV0026	R/W	Float	°C
567 and 568	A203: misting difference, coil 2, circuit 2	DBrumB2C2	AV0027	R/W	Float	°C
569	A113 : Type of misting	TypeBrum	AV0007	R/W	word	(1=Fault)(0: water optimisation, 1: electricity optimisation)

Bits Accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/Enumeration
Customer access bit 1.1: Remote controls						
31	On/Off (0 = off, 1 = on)	AeroEnable	BV0000	R/W	bit	1=On, 0=Off
32	Control set to setpoint 1 or 2	RegulCons1ou2	BV0001	R/W	bit	1=control on setpoint 2, 0=control on setpoint 1
	free	BV0003 to BV 0099				
Customer access bit 1.2: output states						
20	General synthesis fault	SynDefGen	BI0001	R	bit	1=fault, 0=normal
17	On/Off	OnOff	BI0016	R	bit	1=on and AOC closed, 0=Off
18	Misting state	EtatBrum	BI0050	R	bit	1=On, 0=Off
19	Free cooling state	EtatFCool	BI0002	R	bit	1=On, 0=Off
40	Fan state, stage 1, line 1	MarcheVenE1L1	BI0003	R	bit	1=On, 0=Off
41	Fan state, stage 2, line 1	MarcheVenE2L1	BI0004	R	bit	1=On, 0=Off
42	Fan state, stage 3, line 1	MarcheVenE3L1	BI0005	R	bit	1=On, 0=Off
43	Fan state, stage 4, line 1	MarcheVenE4L1	BI0006	R	bit	1=On, 0=Off
44	Fan state, stage 5, line 1	MarcheVenE5L1	BI0007	R	bit	1=On, 0=Off
45	Fan state, stage 6, line 1	MarcheVenE6L1	BI0008	R	bit	1=On, 0=Off
455	Fan state, stage 7, line 1	MarcheVenE7L1	BI0015	R	bit	1=On, 0=Off
46	Fan state, stage 1, line 2	MarcheVenE1L2	BI0009	R	bit	1=On, 0=Off
47	Fan state, stage 2, line 2	MarcheVenE2L2	BI0010	R	bit	1=On, 0=Off
48	Fan state, stage 3, line 2	MarcheVenE3L2	BI0011	R	bit	1=On, 0=Off
49	Fan state, stage 4, line 2	MarcheVenE4L2	BI0012	R	bit	1=On, 0=Off
50	Fan state, stage 5, line 2	MarcheVenE5L2	BI0013	R	bit	1=On, 0=Off
51	Fan state, stage 6, line 2	MarcheVenE6L2	BI0014	R	bit	1=On, 0=Off

❖ Precision air handling unit controller:Registers Accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/Enumeration
AHU n°1 – AHU_1.mnemonic						
3 and 4	[P252] - Outdoor temperature	OutdoorTemp	AV0002	R	Float	°C
5 and 6	[P255] - Controlled temperature	TempRegulee	AV0001	R	Float	°C
7 and 8	[P256] - Controlled humidity	HygroRegulee	AV0015	R	Float	% HR
13 and 14	[P265] - Outdoor humidity	OutdoorHygro	AV0003	R	Float	% HR
257 and 258	[P250] - Temperature setpoint in cooling mode	CoolSetpt	AV0007	R/W	Float	°C
259 and 260	[P251] - Temperature setpoint in heating mode	HeatSetpt	AV0004	R/W	Float	°C
5382 and 5383	[P257] - Filter differential pressure	PresDifFiltre	AV0010	R	Float	Pa
5384 and 5385	[P259] - Supply air temperature	TempSouff	AV0011	R	Float	°C
5428 and 5427	[P266] - Raised floor differential pressure	PresPlancher	AV0009	R	Float	Pa
48	[P290] - Heating coil percentage	PourBatChaud	AV0022	R	Word	%
49	[P291] - Cooling coil percentage	PourBatFroid	AV0021	R	Word	%
50	[P294] - Humidifier percentage	PourHumidif	AV0024	R	Word	%
51	[P295] - Air flow percentage	PourDebitAir	AV0020	R	Word	%
52	[P296] - Fresh air percentage	PourAirNeuf	AV0025	R	Word	%
53	[P297] - Electric heater percentage	PourBatElec	AV0023	R	Word	%
261	[P109] - Humidity setpoint during dehumidification	DeshuSetpt	AV0005	R/W	Word	% HR
262	[P115] - Humidity setpoint in humidification mode	HumidSetpt	AV0006	R/W	Word	% HR
4638	[P155] - Rotation speed percentage	FanSpeedCmd	AV0008	R/W	Word	%
AHU n°2 – AHU_2.mnemonic						
3 and 4	[P252] - Outdoor temperature	OutdoorTemp	AV0052	R	Float	°C
5 and 6	[P255] - Controlled temperature	TempRegulee	AV0050	R	Float	°C
7 and 8	[P256] - Controlled humidity	HygroRegulee	AV0051	R	Float	% HR
13 and 14	[P265] - Outdoor humidity	OutdoorHygro	AV0053	R	Float	% HR

7400525-09

257 and 258	[P250] - Temperature setpoint in cooling mode	CoolSetpt	AV0057	R/W	Float	°C
259 and 260	[P251] - Temperature setpoint in heating mode	HeatSetpt	AV0054	R/W	Float	°C
5382 and 5383	[P257] - Filter differential pressure	PresDifFiltre	AV0060	R	Float	Pa
5384 and 5385	[P259] - Supply air temperature	TempSouff	AV0061	R	Float	°C
5428 and 5427	[P266] - Raised floor differential pressure	PresPlancher	AV0059	R	Float	Pa
48	[P290] - Heating coil percentage	PourBatChaud	AV0071	R	Word	%
49	[P291] - Cooling coil percentage	PourBatFroid	AV0070	R	Word	%
50	[P294] - Humidifier percentage	PourHumidif	AV0073	R	Word	%
51	[P295] - Air flow percentage	PourDebitAir	AV0069	R	Word	%
52	[P296] - Fresh air percentage	PourAirNeuf	AV0074	R	Word	%
53	[P297] - Electric heater percentage	PourBatElec	AV0072	R	Word	%
261	[P109] - Humidity setpoint during dehumidification	DeshuSetpt	AV0055	R/W	Word	% HR
262	[P115] - Humidity setpoint in humidification mode	HumidSetpt	AV0056	R/W	Word	% HR
4638	[P155] - Rotation speed percentage	FanSpeedCmd	AV0058	R/W	Word	%

Bits Accessible to customer

Register decimal no.	Description	Mnemonic	BACnet object	Read/Write	Format	Unit/ Enumeration
AHU n°1 – AHU_1.mnemonic						
16	[P330] - Supply air fan operation command	VentilSouf	BV0014	R	Bit	1=On / 0=Off
58	[P300] - Compressor 1 operation	GroupCond1	BV0016	R	Bit	1=On / 0=Off

7400525-09

59	[P304] - Compressor 2 operation	GroupCond2	BV0017	R	Bit	1=On / 0=Off
19	[P320] - Compressor 1 operation	Eta1BatElec	BV0018	R	Bit	1=On / 0=Off
20	[P322] - Compressor 2 operation	Eta2BatElec	BV0019	R	Bit	1=On / 0=Off
32	[P279] - Start-up request	DemMarche	BV0012	R	Bit	1=On / 0=Off
48	[P350] - Critical fault summary	DefImportant	BV0028	R	Bit	1=Fault
49	[P352] - Non-critical fault summary	DefSimple	BV0027	R	Bit	1=Fault
50	Supply air fan fault	DefVentilSouf	BV0029	R	Bit	1=Fault
51	Air flow fault	DefDebitAir	BV0030	R	Bit	1=Fault
52	Filter fouled fault	DefFiltreEnc	BV0031	R	Bit	1=Fault
53	Clogged filter fault	DefFiltreBou	BV0032	R	Bit	1=Fault
55	Electric heater fault	DefBatElec	BV0033	R	Bit	1=Fault
56	Humidifier fault	DefHumidif	BV0036	R	Bit	1=Fault
57	Water leak fault	DefFuiteEau	BV0041	R	Bit	1=Fault
58	Condensation unit 1 fault	DefGroupCon1	BV0034	R	Bit	1=Fault
59	Condensation unit 2 fault	DefGroupCon2	BV0035	R	Bit	1=Fault
60	High temperature fault	DefTempHaut	BV0037	R	Bit	1=Fault
61	Low temperature fault	DefTempBas	BV0038	R	Bit	1=Fault
62	High humidity fault	DefHygroHaut	BV0039	R	Bit	1=Fault
63	Low humidity fault	DefHygroBas	BV0040	R	Bit	1=Fault
512	On/Off	OnOff	BV0013	R/W	Bit	1=On / 0=Off
4104	Outdoor security (P278)	SecuExt	BV0026	R	Bit	0=Open
AHU n°2 – AHU_2.mnemonic						
16	[P330] - Supply air fan operation command	VentilSouf	BV0064	R	Bit	1=On / 0=Off
58	[P300] - Compressor 1 operation	GroupCond1	BV0065	R	Bit	1=On / 0=Off
59	[P304] - Compressor 2 operation	GroupCond2	BV0066	R	Bit	1=On / 0=Off
19	[P320] - Compressor 1 operation	Eta1BatElec	BV0067	R	Bit	1=On / 0=Off
20	[P322] - Compressor 2 operation	Eta2BatElec	BV0068	R	Bit	1=On / 0=Off
32	[P279] - Start-up request	DemMarche	BV0062	R	Bit	1=On / 0=Off
48	[P350] - Critical fault summary	DefImportant	BV0077	R	Bit	1=Fault
49	[P352] - Non-critical fault summary	DefSimple	BV0076	R	Bit	1=Fault
50	Supply air fan fault	DefVentilSouf	BV0078	R	Bit	1=Fault
51	Air flow fault	DefDebitAir	BV0079	R	Bit	1=Fault
52	Filter fouled fault	DefFiltreEnc	BV0080	R	Bit	1=Fault

7400525-09

53	Clogged filter fault	DefFiltreBou	BV0081	R	Bit	1=Fault
55	Electric heater fault	DefBatElec	BV0082	R	Bit	1=Fault
56	Humidifier fault	DefHumidif	BV0085	R	Bit	1=Fault
57	Water leak fault	DefFuiteEau	BV0090	R	Bit	1=Fault
58	Condensation unit 1 fault	DefGroupCon1	BV0083	R	Bit	1=Fault
59	Condensation unit 2 fault	DefGroupCon2	BV0084	R	Bit	1=Fault
60	High temperature fault	DefTempHaut	BV0086	R	Bit	1=Fault
61	Low temperature fault	DefTempBas	BV0087	R	Bit	1=Fault
62	High humidity fault	DefHygroHaut	BV0088	R	Bit	1=Fault
63	Low humidity fault	DefHygroBas	BV0089	R	Bit	1=Fault
512	On/Off	OnOff	BV0063	R/W	Bit	1=On / 0=Off
4104	Outdoor security (P278)	SecuExt	BV0075	R	Bit	0=Open