

BN Interface Specifications **(Network Object and Variables Specifications)**

Model Name
BMS-IFBN1281U-UL

Toshiba Carrier Corporation

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1. GENERAL OUTLINE	4
1.1 APPLICABLE AIR CONDITIONER	4
1.2 SYSTEM CONFIGURATION	5
2 COMMUNICATION PROTOCOL SPECIFICATION	6
3. OBJECT LIST	7
4. OBJECT INFORMATION	10
4.1 GATEWAY DEVICE	10
4.2 ON / OFF STATUS MONITOR	14
4.3 ON / OFF STATUS CONTROL	15
4.4 OPERATION MODE MONITOR	16
4.5 OPERATION MODE CONTROL	17
4.6 FAN SPEED MONITOR	18
4.7 FAN SPEED CONTROL	19
4.8 SET TEMPERATURE MONITOR	21
4.9 SET TEMPERATURE CONTROL	22
4.10 ROOM TEMPERATURE	23
4.11 PERMIT / PROHIBIT OF LOCAL OPERATION MONITOR	24
4.12 PERMIT / PROHIBIT OF LOCAL OPERATION CONTROL	26
4.13 FILTER SIGN STATUS MONITOR	28
4.14 FILTER SIGN RESET CONTROL	29
4.15 ALARM STATUS	30
4.16 CHECK CODE	31
4.17 LOUVER MONITOR	33
4.18 LOUVER CONTROL	34
4.19 VENTILATION ON / OF STATUS MONITOR	36
4.20 VENTILATION ON / OFF STATUS CONTROL	37
4.25 INDOOR THERMO STATUS	37
4.21 SAVE OPERATION RATE MONITOR	39
4.22 SAVE OPERATION RATE CONTROL	40
4.23 INDOOR COMMUNICATION FAILURE	42
4.24 FACILITY REQUEST	43
4.25 NOTICE CODE 1	44
4.26 NOTICE CODE 2	46
4.27 NOTICE CODE 3	47
4.28 NOTICE CODE 4	48
4.29 NOTICE CODE 5	49
5.CHECK CODE	50
5.1 FORMAT	50

5.2 CHECK CODE (VRF SYSTEM, LIGHT COMMERCIAL MODEL)	51
5.3 NOTICE CODE (TU2C-LINK MODEL)	55
6.NOTE	56
6.1 LIST OF FUNCTIONS FOR VRF DX-COIL CONTROLLER	56
7. HISTORY	57

1. General Outline

This document is applied to the communication specifications of BN Interface (Model Name: BMS-IFBN1281U-UL).

1.1 Applicable air conditioner

1) VRF System

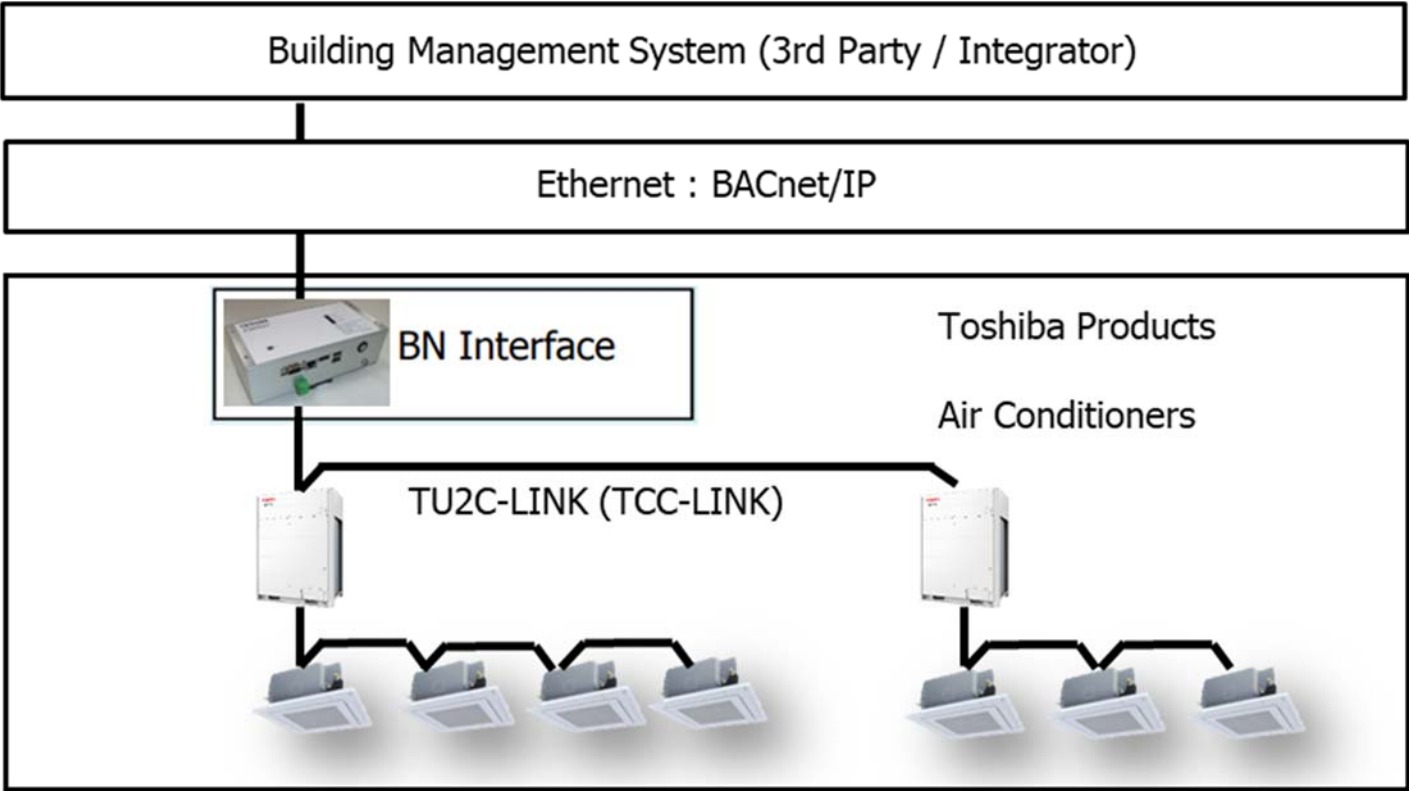
- SMMS-i (Super Modular Multi System-i)
- SHRM-i (Super Heat Recovery Multi System-i)
- SMMS-e (Super Modular Multi System-e)
- SHRM-e (Super Heat Recovery Multi System-e)
- SMMS-u (Super Modular Multi System-u) : TU2C-LINK model
- Mini-SMMS Series
- Side Blow VRF
- VRF Dx-coil controller (TCB-IFDMR01UP-UL)

2) Light Commercial model

- Super Digital Inverter Series (*1)
 - Digital Inverter Series (*1)
- (*1) TCB-PCNT31TLUL is necessary except High wall Series.

1.2 System Configuration

1.2.1 Sample Control Wiring diagram



1.2.2 System Configuration and Limits

Item	Model Name	Specification	Connectable Q'ty
BN interface	BMS-IFBN1281U-UL	Protocol transformation TCC-LINK and TU2C-LINK to BACnet/IP	-
Indoor unit	-	-	Up to 128 units (TU2C-LINK) Up to 64 units (TCC-LINK)

2 Communication Protocol Specification

2.1 Protocol Outline

- BACnet/IP
- ANSI/ASHRAE 135-2012 (BACnet Protocol Revision 14)
- UDP/IP

2.2 Ethernet Header

- 10BASE-T / 100BASE-T

2.3 IP Header

- Private Address of Class C
- Subnet Mask 255.255.255.0

2.4 UDP Header

- Unicast / Broadcast
- Port 47808 (0xBAC0)

2.5 BVLL Header

- BVLL Type(One Octet)
- BVLC Function(One Octet)

0x81 (BVLC to BACnet/IP)
0x0A (Unicast)
0x0B (Broadcast)

2.6 NPCI

- Version
- Control

0x01
0x04 (With a response message)
0x00 (Without a response message)

2.7 APDU

- Based on ANSI/ASHRAE 135-2008

2.8 UDP Header

- The instance number of a Device object
- Segmentation
- Max APDU Length
- Vender ID

This number depend on LSB 1Byte of IP Address
Supported
1024 octets (Receive and Transmit)
129 (Toshiba Carrier Corporation)

2.9 Network Options

- BACnet/IP Broadcast Management Device (BBMD) Function
- Registration by Foreign Devices

Not supported
Supported

3. Object List

The setting of each property changes with the model.

Object Name		Object Type	Object Type (10bit)	Equipment category (5Bit)	Equipment Number (1Byte)	Instance Number (1Byte)	Object ID (4Byte)	Value
Gateway Device		Device Object(8)	8	00000	0	IP address	0x020****	
ON/OFF Status	Monitor	Binary Input Object(3)	3	00000	FCU(n) 1-128	0x02	0x00C0xx02	Start/Stop
	Control	Binary Output Object(4)	4	00000	FCU(n) 1-128	0x82	0x0100xx82	Start/Stop
Operation Mode	Monitor	Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x03	0x0340xx03	Heat/Cool/Fan/Dry/Auto
	Control	Multi-state Output Object(14)	14	00000	FCU(n) 1-128	0x83	0x0380xx83	Heat/Cool/Fan/Dry/Auto
Fan Speed	Monitor	Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x05	0x0340xx05	Auto / HH / H / L / LL / H+ / L+
	Control	Multi-state Output Object(14)	14	00000	FCU(n) 1-128	0x85	0x0380xx85	Auto / HH / H / L / LL / H+ / L+
Set Temperature *1	Monitor	Analog Input Object(0)	0	00000	FCU(n) 1-128	0x04	0x0000xx04	Standard FCU From 18.0 to 29.0 (°C) From 64.0 to 84.0 (°F) Fresh Air Intake Indoor From 16.0 to 27.0 (°C) From 60.0 to 80.0 (°F)
	Control	Analog Output Object(1)	1	00000	FCU(n) 1-128	0x84	0x0040xx84	Standard FCU From 18.0 to 29.0 (°C) From 64.0 to 84.0 (°F) Fresh Air Intake Indoor From 16.0 to 27.0 (°C) From 60.0 to 80.0 (°F)
Room Temperature		Analog Input Object(0)	0	00000	FCU(n) 1-128	0x08	0x0000xx08	From -39.0 to 150.0 (°C) From -38.2 to 302.0 (°F)
Permit / Prohibit of Local	Monitor	Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x09	0x0340xx09	- Start/Stop - Operation Mode - Temperature Setting
	Control	Multi-state Output Object(14)	14	00000	FCU(n) 1-128	0x89	0x0100xx89	- Start/Stop - Operation Mode - Temperature Setting

Filter Sign	Monitor	Binary Input Object(3)	3	00000	FCU(n) 1-128	0x14	0x00C0xx14	Normal / Filter Sign
	Control	Binary Output Object(4)	4	00000	FCU(n) 1-128	0x95	0x0100xx95	- / Filter Sign Reset
Alarm status		Binary Input Object(3)	3	00000	FCU(n) 1-128	0x40	0x00C0xx40	Alarm / No Alarm
Check Code		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x01	0x0340xx01	No Check Code / Check Code
Louver	Monitor	Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x07	0x0340xx07	Swing / F1 / F2 / F3 / F4 / F5 / Stop
	Control	Multi-state Output Object(14)	14	00000	FCU(n) 1-128	0x87	0x0380xx87	Swing / F1 / F2 / F3 / F4 / F5 / Stop
Ventilation ON/OFF Status (option)	Monitor	Binary Input Object(3)	3	00000	FCU(n) 1-128	0x28	0x00C0xx28	Start/Stop
	Control	Binary Output Object(4)	4	00000	FCU(n) 1-128	0xA8	0x0100xxA8	Start/Stop
Indoor thermo status	Monitor	Binary Input Object(3)	3	00000	FCU(n) 1-128	0x54	0x00C0xx54	Thermo ON / Thermo OFF
Save operation rate (option)	Monitor	Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x55	0x0340xx55	No Save (100% operation) / XX% Save (100-50%) / 50% Save (50%) / 100% Save (Forcibly Thermo OFF)
	Control	Multi-state Output Object(14)	14	00000	FCU(n) 1-128	0xD5	0x0380xxD5	No Save (100% operation) / XX% Save (100-50%) / 50% Save (50%) / 100% Save (Forcibly Thermo OFF)
Indoor Communication Failure		Binary Input Object(3)	3	00000	FCU(n) 1-128	0x41	0x00C0xx41	Normal / Alarm
Facility request		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x0A	0x0340xx0A	1(Thermo off)~16
Notice Code 1 *2		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x63	0x0340xx63	No Notice Code / Notice Code
Notice Code 2 *2		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x63	0x0340xx64	No Notice Code / Notice Code
Notice Code 3 *2		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x63	0x0340xx65	No Notice Code / Notice Code
Notice Code 4 *2		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x63	0x0340xx66	No Notice Code / Notice Code
Notice Code 5 *2		Multi-state Input Object(13)	13	00000	FCU(n) 1-128	0x63	0x0340xx67	No Notice Code / Notice Code

- *1 The setting of each property changes with the model.
- *2 This object can be used by the TU2C-LINK model.

4. Object Information

*1 The setting of each property changes with the model.

4.1 Gateway Device

Name	Data
Object Type	8
Equipment Category	0000
Equipment Number	0
Instance Number	IP Address
Object Type	Device Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R					Application Tag	object Identifier(0xc4)		'****' : Instance Number
							Device object	0x0200****		
Object Name(77)	Character string	R					Application Tag	character string(0x750C)		
							String	"AC_CONTRLER"		
Object Type(79)	BACnet Object Type	R					Application Tag	enumerated(0x91)		Device(8)
							Device object	0x08		
System Status(112)	BACnet Device Status	R	*				Application Tag	enumerated(0x91)		
							value	OPERATIONAL		
								NON_OPERATIONAL		
Vender Name(121)	Character string	R					Application Tag	character string(0x746F)		
							value	"Toshiba Carrier Corporation"		
Vender Identifier(120)	Unsigned	R					Application Tag	Unsigned(0x21)		
							value	0x81		
Model Name(70)	Character string	R					Application Tag	character string(0x750D)		
							value	"BMS-IFBN1280U"		
Firmware Revision(44)	Character string	R					Application Tag	character string(0x74)		
							value	*.*.*		
Application Software Version(12)	Character string	R					Application Tag	character string(0x7508)		
							value	*.*.*		
Protocol Version(98)	Unsigned	R					Application Tag	Unsigned(0x21)		
							value	0x01		
Protocol Revision(139)	Unsigned	R					Application Tag	Unsigned(0x21)		
							value	0x0E (14)		

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Protocol Service Supported(97)	BACnet Supported Service	R				value	Application Tag	Bit string 6Byte(0x8506)		
								First Byte		
								After the second Byte		
								0x00		
								850403D000		
								Service Name		
								AcknowledgementAlarm		N/A
								confirmedCOVNotification		N/A*
								confirmedEventNotification		N/A*
								getAlarmSummary		N/A
								getEnrollmentSummary		N/A
								subscribeCOV		N/A
								atmicReadFile		N/A
								atmicWriteFile		N/A
								addListElement		N/A
								removeListElement		N/A
								createObject		N/A
								deleteObject		N/A
								readProperty		✓
								readPropertyConditional		N/A
								readPropertyMultiple		✓
								writeProperty		✓
								writePropertyMultiple		✓
								deviceCommunucationControl		✓
								confirmedPrivateTransfer		N/A
								confirmedTextMessage		N/A
								reinitializeDevice		N/A
								vtOpen		N/A
								vtClose		N/A
								vtData		N/A
								Aithrnticate		N/A
								requestKey		N/A
								i-Am		✓
								i-Have		N/A*
								unconfirmedCOVnotification		N/A*
								unconfirmedEventNotification		N/A*
								unconfirmedPrivateTransfer		N/A
								unconfirmedTextMessage		N/A
								timeSynchronization		N/A*
								Who-Has		N/A
								Who-Is		✓
								ReadRange		N/A
								utcTimeSynchronization		N/A
								lifeSaftyOperation		N/A
								subscribeCOVProperty		N/A
								getEventInformation		✓

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Protocol Object Types Supported(96)	Protocol Object Types Supported	R				value	Application Tag	Bit string 8Byte(0x8508)		
								First Byte 0x05		
								After the second Byte		
								Object Type		
								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		
								Notification-class		
								Program		
								Schedule		
								Average		
								Multi-state-value		
								Trend-log		
								Life-safety-point		
								Life-safety-zone		
								Accumulator		
								Pulse-converter		
								event-log		
								global-group		
								trend-log-multiple		
								load-control		
								structured-view		
								access-door		
								objtype-31		
								access-credential		
								access-point		
								access-rights		
								access-user		
								access-zone		
								credential-data-input		
								network-security		
								bitstring-value		
								characterstring-value		
								date-pattern-value		
								date-value		
								datetime-pattern-value		
								datetime-value		
								integer-value		
								large-analog-value		

								octetstring-value	N/A		
								positive-integer-value	N/A		
								time-pattern-value	N/A		
								time-value	N/A		
								notification-forwarder	N/A		
								alert-enrollment	N/A		
								channel	N/A		
								lighting-output	N/A		
Object List(76)	BACnetARRAY[N]of BACnetObjectIdentifier	R		*			Application Tag	[0]:Unsigned(0x4E) [1-N]: object Identifier (0xc4)			
							value	[0]:number of objects(N) [1-N]: object Identifier			
MAX_APDU length Supported(62)	Unsigned	R					Application Tag	Unsigned(0x22)			
							value	1024Byte(0x0400)			
Segmentation Supported(107)	BACnet Segmentation	R					Application Tag	Enumerated(0x91)			
							value	Segmentation-Both (0x00)			
Local Time(57)	Time	R	*				Application Tag	Time(0xB4)			
							value	Hour, Minute, Second, a hundredth of a second is "0"			
Local Date(56)	Date	R	*				Application Tag	Date(0xA4)			
							value	Year, Month, Day, a day of the week			
APDU_Segment_Tim eout	Unsigned	R					Application Tag	Unsigned(0x22)			
							value	2000(0x07D0)			
APDU Timeout(11)	Unsigned	R					Application Tag	Unsigned1(0x21)			
							value	0msec(0x00)			
Number of APDU Retries(73)	Unsigned	R					Application Tag	Unsigned1(0x21)			
							value	0x00			
Device_Address_Bin ding(30)	ListofBACnetAddressBin ding	R			*		Application Tag	BACnetObjectIdentifier(0xC4)			
							value	Network-number MAC-address			
Database Revision(155)	Unsigned	R					Application Tag	Unsigned(0x21)			
							value	0x01			
Active_Cov_Subscrip tions(152)	ListOfBACnetCOVSubscri ption	R			*		Application Tag	-			
							value	-(empty)			
Last_Restart_Reason (196)	BACnetRestartReason	R					Application Tag	Enumerated(0x91)			
							value	detected-powered-off			
Restart Notification Recipients(202)	ListOfBACnetRecipient	R			*		Application Tag	-			
							value	-(empty)			
Time_Of_Device_Re start(203)	BACnetTimeStamp	R					Application Tag	-			
							value	date=255/255/255, time=255:255:255:255			
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifie r	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)			
							value	[0]:number of properties(N) [1-N]: Property Identifier			
Restart_Notification_ Recipients(202)	ListOfBACnetRecipient	W			*		Application Tag	-			When notifying the change of the System_Status property by UnconfirmedCOVNotification service, set the destination address.
							value	IP			

4.2 ON / OFF status Monitor

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x02
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier (0xC4)		*** : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**02		
Object Name(77)	character string	R				0x75	Application Tag	character string (0x750C)		*** : air conditioning number 1 – 128
							String	"State/BI_ ***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated (0x91)		Binary Input(3)
							analog input object	0x03		
Present value(85)	BACnetBinaryPV	R	*			0x91	Application Tag	enumerated (0x91)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	INACTIVE 0x00 ACTIVE 0x01		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String (0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean (0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11 false 0x10		
Inactive_Text(46)	character string	R					Application Tag	character string(0x74)		
							Value	"OFF"		
Active_Text(4)	character string	R					Application Tag	character string(0x73)		
							Value	"ON"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**02		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)		
							Value	"true"		

4.3 ON / OFF status Control

Name	Data
Object Type	4
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x82
Object Type	Binary Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary output object	0x0100**82		
Object Name(77)	character string	R					Application Tag	character string(0x750C)		'****' : air conditioning number 1 – 128
							String	"State/BO_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Output(4)
							analog input object	0x04		
Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7		
								b6		
								b5		
								b4		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true		
								false		
Inactive_Text(46)	character string	R					Application Tag	character string(0x74)		
							Value	"OFF"		
Active_Text(4)	character string	R					Application Tag	character string(0x73)		
							Value	"ON"		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x91	Application Tag	enumerated(0x91)		
							Value	array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**82		
Feedback_Value(40)	BACnetBinaryPV	R				0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.4 Operation mode Monitor

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x03
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value			Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)			'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**03			
Object Name(77)	character string	R					Application Tag	character string (0x750B)			'***' : air conditioning number 1 – 128
							String	"Mode/MI_ ***"			
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated (0x91)			Multi-State Input(13)
							Multi-State Input object	0x0D			
Present value(85) *1	Unsigned	R	*				Application Tag	enumerated (0x21)		intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	Heating	0x01		
								Cooling	0x02		
								Fan	0x03		
								Dry	0x04		
								Auto	0x05		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String (0x82)			
							BitString	b7	IN_ALARM		
								b6	FAULT		
								b5	OVERRIDDEN		
								b4	OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean (0x1x)			When this property is TRUE, Present_Value are decoupled from the input
							Value	true	0x11		
								false	0x10		
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned (0x21)			
							Value	0x05			
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)			'***' : air conditioning number 0x01 – 0x80
							Value	0x**03			
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)			
							value	[0]:number of properties(N) [1-N]: Property Identifier			
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)			
							Value	"true"			

4.5 Operation mode Control

Name	Data
Object Type	14
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x83
Object Type	Multi-State Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'**' : air conditioning number 0x01 – 0x80
							multi-state output object	0x0380**83		
Object Name(77)	character string	R					Application Tag	character string(0x750B)		'***' : air conditioning number 1 –128
							String	"Mode/MO_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Output(14)
							Multi-State Output object	0x0E		
Present value(85) *1	Unsigned	W	*			0x21	Application Tag	Unsigned(0x21)		
							Value	Heating	0x01	
								Cooling	0x02	
								Fan	0x03	
								Dry	0x04	
								Auto	0x05	
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7	IN_ALARM	
								b6	FAULT	
								b5	OVERRIDDEN	
								b4	OUT_OF_SERVICE	
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true	0x11	
								false	0x10	
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x05		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x91	Application Tag	enumerated(0x91)		
							Value	array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'**' : air conditioning number 0x01 – 0x80
							Value	0x**83		
Feedback_Value(40) *1	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	Heating	0x01	
								Cooling	0x02	
								Fan	0x03	
								Dry	0x04	
								Auto	0x05	
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.6 Fan speed Monitor

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x05
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**05		
Object Name(77)	character string	R					Application Tag	character string(0x750A)		'***' : air conditioning number 1 – 128
							String	"Fan/MI_*** "		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State Input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		
								Auto	0x02	
								HH	0x03	
								H	0x04	
								L	0x05	
								LL	0x06	
								H+	0x07	
								L+	0x08	
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
								b7	IN_ALARM	
							BitString	b6	FAULT	
								b5	OVERRIDDEN	
								b4	OUT_OF_SERVICE	
							Value	NORMAL	0x00	
								FAULT	0x07	
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true	0x11	
								false	0x10	
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x05		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**05		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.7 Fan speed Control

Name	Data
Object Type	14
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x85
Object Type	Multi-State Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state output object	0x03C0**85		
Object Name(77)	character string	R					Application Tag	character string(0x750A)		**** : air conditioning number 1 – 128
							String	"Fan/MO_*** "		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Output(14)
							Multi-State Output object	0x0E		
Present value(85) *1	Unsigned	W	*			0x21	Application Tag	Unsigned(0x21)		
								Auto	0x02	
								HH	0x03	
								H	0x04	
								L	0x05	
								LL	0x06	
								H+	0x07	
								L+	0x08	
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7	IN_ALARM	
								b6	FAULT	
								b5	OVERRIDDEN	
								b4	OUT_OF_SERVICE	
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true	0x11	
								false	0x10	
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x05		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x21	Application Tag	Unsigned(0x21)		
							Value	Array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**85		
Feedback_Value(40) *1	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	Auto	0x02	
								HH	0x03	
								H	0x04	
								L	0x05	
								LL	0x06	

Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.8 Set temperature Monitor

Name	Data
Object Type	0
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x04
Object Type	Analog Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks	
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'**' : air conditioning number 0x01 – 0x80	
							Analog input object	0x0000**04			
Object Name(77)	character string	R					Application Tag	character string(0x750B)		'***' : air conditioning number 1 – 128	
							String	"Temp/AI_***"			
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Analog Input(0)	
							analog Input object	0x00			
Present value(85) *1	REAL	R	*			0x44	Application Tag	Real(0x44)	COV	This property is writable when Out_Of_Service is TRUE	
							Value	Standard FCU From 18.0 to 29.0 (°C) From 64.0 to 84.0 (°F) Fresh Air Intake Indoor From 16.0 to 27.0 (°C) From 60.0 to 80.0 (°F)			
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)			
							BitString	b7			IN_ALARM
								b6			FAULT
								b5			OVERRIDDEN
b4	OUT_OF_SERVICE										
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input	
							Value	true			0x11
								false			0x10
Units(117)	BACnetEngeneering Units	R				0x91	Application Tag	enumerated(0x91)			
							Value	degree-Celsius(62) (°C) degree-Fahrenheit(64) (°F)			
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'**' : air conditioning number 0x01 – 0x80	
							Value	0x**04			
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)			
							value	[0]:number of properties(N) [1-N]: Property Identifier			
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)			
							Value	"true"			

4.9 Set temperature Control

Name	Data
Object Type	1
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x84
Object Type	Analog Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							Analog output object	0x0040**84		
Object Name(77)	character string	R					Application Tag	character string(0x750B)		'****' : air conditioning number 1 – 128
							String	"Temp/AO_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Analog Output(1)
							analog Input object	0x01		
Present value(85) *1	REAL	W	*			0x44	Application Tag	Real(0x44)		
							Value	Standard FCU From 18.0 to 29.0 (°C) From 64.0 to 84.0 (°F) Fresh Air Intake Indoor From 16.0 to 27.0 (°C) From 60.0 to 80.0 (°F)		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					FAULT 0x07			When this property is TRUE, Present_Value are decoupled from the output
							Application Tag	Boolean(0x1x)		
							Value	true 0x11 false 0x10		
Units(117)	BACnetEngineering Units	R				0x91	Application Tag	enumerated(0x91)		
							Value	degree-Celsius(62) (°C) degree-Fahrenheit(64) (°F)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**84		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.10 Room temperature

Name	Data
Object Type	0
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x08
Object Type	Analog Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							Analog input object	0x0000**08		
Object Name(77)	character string	R					Application Tag	character string(0x7510)		'***' : air conditioning number 1 – 128
							String	"Room_Temp/AI_*** "		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Analog Input(0)
							analog Input object	0x00		
Present value(85)	REAL	R	*			0x44	Application Tag	Real(0x44)		This property is writable when Out_Of_Service is TRUE
							Value	From -35.0 to 92.5 (°C) From -31.0 to 198.5 (°F)		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Units(117)	BACnetEngineering Units	R				0x91	Application Tag	enumerated(0x91)		
							Value	degree-Celsius(62) (°C) degree-Fahrenheit(64) (°F)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**08		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.11 Permit / Prohibit of Local Operation Monitor

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x09
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value				Notice of Status Change	Remarks	
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)					'**' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**09					
Object Name(77)	character string	R					Application Tag	character string(0x750E)					'***' : air conditioning number 1 – 128
							String	"Inhibit/MI_*** "					
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)					Multi-State Input(13)
							Multi-State Input object	0x0D					
Present value(85)	Unsigned	W	*			0x21	Application Tag	Unsigned(0x21)				intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	Prohibition					
								Mode	Temp	ON/OFF	Data		
								-	-	-	0x01		
								✓	-	-	0x02		
								-	✓	-	0x03		
								-	-	✓	0x04		
								✓	✓	-	0x05		
								✓	-	✓	0x06		
								-	✓	✓	0x07		
								✓	✓	✓	0x08		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)					
							BitString	b7	IN_ALARM				
								b6	FAULT				
								b5	OVERRIDDEN				
								b4	OUT_OF_SERVICE				
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)					When this property is TRUE, Present_Value are decoupled from the input
							Value	true	0x11				
								false	0x10				
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)					
							Value	0x08					
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)					'**' : air conditioning number 0x01 – 0x80
							Value	0x**09					
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)					
							value	[0]:number of properties(N) [1-N]: Property Identifier					

Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.12 Permit / Prohibit of Local Operation Control

Name	Data
Object Type	14
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x89
Object Type	Multi-state Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value				Notice of Status Change	Remarks	
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)					'**' : air conditioning number 0x01 – 0x80
							multistate output object	0x0380**89					
Object Name(77)	character string	R					Application Tag	character string(0x750E)					'***' : air conditioning number 1 – 128
							String	"Inhibit/MO_ *** "					
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)					Multi-State Output(14)
							Multi-state Output object	0x0E					
Present value(85)	BACnetBinaryPV	W	*			0x21	Application Tag	Unsigned(0x21)					
							Value	Prohibition					
								Mode	Temp	ON/OFF	Data		
								-	-	-	0x01		
								✓	-	-	0x02		
								-	✓	-	0x03		
								-	-	✓	0x04		
								✓	✓	-	0x05		
								✓	-	✓	0x06		
								-	✓	✓	0x07		
								✓	✓	✓	0x08		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)					
							BitString	b7	IN_ALARM				
								b6	FAULT				
								b5	OVERRIDDEN				
								b4	OUT_OF_SERVICE				
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)					When this property is TRUE, Present_Value are decoupled from the output
							Value	true	0x11				
								false	0x10				
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)					
							Value	0x08					

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value					Notice of Status Change	Remarks	
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x21	Application Tag	Unsigned (0x21)						
							Value	NULL						
							Value	120s(0x78)						
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)						`**` : air conditioning number 0x01 – 0x80
							Value	0x**89						
Feedback_Value(40)	Unsigned	R	*			0x21	Application Tag	Unsigned (0x21)						
							Value	Prohibition						
								Mode	Temp	ON/OFF	Data			
								-	-	-	0x01			
								✓	-	-	0x02			
								-	✓	-	0x03			
								-	-	✓	0x04			
								✓	✓	-	0x05			
								✓	-	✓	0x06			
								-	✓	✓	0x07			
								✓	✓	✓	0x08			
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)						
							value	[0]:number of properties(N) [1-N]: Property Identifier						
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)						
							Value	`true`						

4.13 Filter Sign status Monitor

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x14
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier (0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**14		
Object Name(77)	character string	R				0x75	Application Tag	character string (0x750D)		'***' : air conditioning number 1 – 128
							String	"Filter/BI_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated (0x91)		Binary Input(3)
							analog input object	0x03		
Present value(85)	BACnetBinaryPV	R	*			0x91	Application Tag	enumerated (0x91)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	INACTIVE 0x00 ACTIVE 0x01		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String (0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean (0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11 false 0x10		
Inactive_Text(46)	character string	R					Application Tag	character string (0x75)		
							Value	"Normal"		
Active_Text(4)	character string	R					Application Tag	character string (0x75)		
							Value	"Filter"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**14		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)		
							Value	"true"		

4.14 Filter Sign Reset Control

Name	Data
Object Type	4
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x95
Object Type	Binary Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary output object	0x0100**95		
Object Name(77)	character string	R					Application Tag	character string(0x750D)		'****' : air conditioning number 1 – 128
							String	"Filter/BO_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Output(4)
							analog input object	0x04		
Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7		
								b6		
								b5		
								b4		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true		
								false		
Inactive_Text(46)	character string	R					Application Tag	character string(0x72)		
							Value	"_"		
Active_Text(4)	character string	R					Application Tag	character string(0x75)		
							Value	"Reset"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**95		
Feedback_Value(40)	BACnetBinaryPV	R				0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.15 Alarm status

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x40
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier (0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**40		
Object Name(77)	character string	R					Application Tag	character string (0x750C)		'***' : air conditioning number 1 – 128
							String	"Alarm/BI_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated (0x91)		Binary Input(3)
							analog input object	0x03		
Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated (0x91)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE Check Code : please refer to 'Indoor unit Check Code'.
							Value	No Alarm		
								Alarm		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String (0x82)		
							BitString	b7		
								b6		
								b5		
								b4		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean (0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true		
								false		
Inactive_Text(46)	character string	R					Application Tag	character string (0x75)		
							Value	"Normal"		
Active_Text(4)	character string	R					Application Tag	character string (0x75)		
							Value	"Alarm"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**40		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)		
							Value	"true"		

4.16 Check Code

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**01		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		'***' : air conditioning number 1 – 128
							String	"Alarm_Code/MI ***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Alarm, the value is '1'.
							Value	From 1 to 65536		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**01		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

Check Code format is described in the table below.

bit	Item	Value
15	Automatic backup	VRF function (automatic backup) status 0: OFF or not functional 1: Undergoing automatic backup
14	Model group ID	000:VRF; Light Commercial model 001-111: Reserved
13		
12		
11	Reserved	0
10	Reserved	0
9	Reserved	0
8	Code extension	0~3
7	Code classification	Described in "5. Check Code.
6		
5		
4		
3		
2		
1		
0		

4.17 Louver Monitor

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x07
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'**' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**07		
Object Name(77)	character string	R					Application Tag	character string(0x750B)		'***' : air conditioning number 1 – 128
							String	"Flap/MI_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State Input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	SWING		
								F1		
								F2		
								F3		
								F4		
								F5		
								Stop		
								0x07		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7		
								IN_ALARM		
								b6		
								FAULT		
								b5		
								OVERIDDEN		
							Value	b4		
								OUT_OF_SERVICE		
								NORMAL		
								0x00		
								FAULT		
								0x07		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true		
								0x11		
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x07		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'**' : air conditioning number 0x01 – 0x80
							Value	0x**07		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.18 Louver Control

Name	Data
Object Type	14
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x87
Object Type	Multi-State Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state output object	0x03C0**87		
Object Name(77)	character string	R					Application Tag	character string(0x750B)		**** : air conditioning number 1 – 128
							String	"Flap/MO_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Output(14)
							Multi-State Output object	0x0E		
Present value(85) *1	Unsigned	W	*			0x21	Application Tag	Unsigned(0x21)		
							Value	SWING	0x01	
								F1	0x02	
								F2	0x03	
								F3	0x04	
								F4	0x05	
								F5	0x06	
								Stop	0x07	
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7	IN_ALARM	
								b6	FAULT	
								b5	OVERRIDDEN	
								b4	OUT_OF_SERVICE	
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	True	0x11	
								False	0x10	
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x07		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x21	Application Tag	Unsigned(0x21)		
							Value	Array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**87		

Feedback_Value(40) *1	Unsigned	R				0x21	Application Tag	Unsigned (0x21)			
							Value	SWING	0x01		
								F1	0x02		
								F2	0x03		
								F3	0x04		
								F4	0x05		
								F5	0x06		
								Stop	0x07		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)			
							value	[0]:number of properties(N) [1-N]: Property Identifier			
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)			
							Value	"true"			

4.19 Ventilation ON / OF status Monitor

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x28
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'**' : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**28		
Object Name(77)	character string	R				0x75	Application Tag	character string(0x7517)		'***' : air conditioning number 1 – 128
							String	"VentilationState/BI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Input(3)
							analog input object	0x03		
Present value(85)	BACnetBinaryPV	R	*			0x91	Application Tag	enumerated(0x91)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	INACTIVE 0x00 ACTIVE 0x01		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11 false 0x10		
Inactive_Text(46)	character string	R					Application Tag	character string(0x74)		
							Value	"OFF"		
Active_Text(4)	character string	R					Application Tag	character string(0x73)		
							Value	"ON"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'**' : air conditioning number 0x01 – 0x80
							Value	0x**28		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.20 Ventilation ON / OFF status Control

Name	Data
Object Type	4
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0xA8
Object Type	Binary Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary output object	0x0100**A8		
Object Name(77)	character string	R					Application Tag	character string(0x7517)		'****' : air conditioning number 1 – 128
							String	"VentilationState/BO_*** "		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Output(4)
							analog input object	0x04		
Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7		
								b6		
								b5		
								b4		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true		
								false		
Inactive_Text(46)	character string	R					Application Tag	character string(0x74)		
							Value	"OFF"		
Active_Text(4)	character string	R					Application Tag	character string(0x73)		
							Value	"ON"		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x91	Application Tag	enumerated(0x91)		
							Value	array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**A8		
Feedback_Value(40)	BACnetBinaryPV	R				0x91	Application Tag	enumerated(0x91)		
							Value	INACTIVE		
								ACTIVE		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.25 Indoor thermo status

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x54
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**54		
Object Name(77)	character string	R					Application Tag	character string(0x750C)		'****' : air conditioning number 1 – 128
							String	"IndoorThermoState/BI_*** "		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Input(3)
							analog input object	0x03		

Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated(0x91)		intrinsic reporting	This property is writable when Out_Of_Service is TRUE	
							Value	Thermo OFF				0x00
								Thermo ON				0x01
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)				
							BitString	b7	IN_ALARM			
								b6	FAULT			
								b5	OVERRIDDEN			
								b4	OUT_OF_SERVICE			
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)			When this property is TRUE, Present_Value are decoupled from the input	
							Value	true	0x11			
								false	0x10			
Inactive_Text(46)	character string	R					Application Tag	character string(0x75)				
							Value	"OFF"				
Active_Text(4)	character string	R					Application Tag	character string(0x75)				
							Value	"ON"				
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)			'**' : air conditioning number 0x01 – 0x80	
							Value	0x**54				
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)				
							value	[0]:number of properties(N) [1-N]: Property Identifier				
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)				
							Value	"true"				

4.21 Save operation rate Monitor

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x55
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier (0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**55		
Object Name(77)	character string	R					Application Tag	character string (0x7515)		'****' : air conditioning number 1 – 128
							String	"IndoorSaveState/MI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated (0x91)		Multi-State Input(13)
							Multi-State Input object	0x0D		
Present value(85)	Unsigned	R	*				Application Tag	enumerated (0x21)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	No Save (100% operation)		
								XX% Save (100-50%)		
								50% Save (50%)		
								100% Save (Forcibly Thermo OFF)		
								-		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String (0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean (0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11 false 0x10		
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned (0x21)		
							Value	0x05		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned (0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**55		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier (0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean (0x1x)		
							Value	"true"		

4.22 Save operation rate Control

Name	Data
Object Type	14
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0xD5
Object Type	Multi-State Output Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state output object	0x0380**D5		
Object Name(77)	character string	R					Application Tag	character string(0x7515)		**** : air conditioning number 1 – 128
							String	"IndoorSaveState/MO_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Output(14)
							Multi-State Output object	0x0E		
Present value(85)	Unsigned	W	*			0x21	Application Tag	Unsigned(0x21)		
							Value	No Save (100% operation)	0x01	
								XX% Save (100-50%)	0x02	
								50% Save (50%)	0x03	
								100% Save (Forcibly Thermo OFF)	0x04	
								-	-	
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7	IN_ALARM	
								b6	FAULT	
								b5	OVERRIDDEN	
								b4	OUT_OF_SERVICE	
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the output
							Value	true	0x11	
								false	0x10	
Number_Of_States(74)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	0x05		
Priority_Array(87)	BACnetPriorityArray	R	*	*		0x91	Application Tag	enumerated(0x91)		
							Value	array[1]-[16]		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**D5		
Feedback_Value(40)	Unsigned	R				0x21	Application Tag	Unsigned(0x21)		
							Value	No Save (100% operation)	0x01	
								XX% Save (100-50%)	0x02	
								50% Save (50%)	0x03	
								100% Save (Forcibly Thermo OFF)	0x04	
								-	-	
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		

Event_Detection_Enable (353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.23 Indoor Communication Failure

Name	Data
Object Type	3
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x41
Object Type	Binary Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'**' : air conditioning number 0x01 – 0x80
							binary input object	0x00C0**41		
Object Name(77)	character string	R					Application Tag	character string(0x750C)		'***' : air conditioning number 1 – 128
							String	"Indoor_Communication_Failure_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Binary Input(3)
							analog input object	0x03		
Present value(85)	BACnetBinaryPV	W	*			0x91	Application Tag	enumerated(0x91)	intrinsic reporting	This property is writable when Out_Of_Service is TRUE
							Value	Normal		
								Alarm		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7		
								b6		
								b5		
								b4		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true		
								false		
Inactive_Text(46)	character string	R					Application Tag	character string(0x75)		
							Value	"Normal"		
Active_Text(4)	character string	R					Application Tag	character string(0x75)		
							Value	"Alarm"		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'**' : air conditioning number 0x01 – 0x80
							Value	0x**41		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.24 Facility request

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x0A
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**0A		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		**** : air conditioning number 1 – 128
							String	"Facility_request /MI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85)	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. You can check how much capacity request the air conditioner is using for operation.
							Value	From 1 (Thermo off) to 16		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**0A		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enable(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.25 Notice Code 1

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**63		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		**** : air conditioning number 1 – 128
							String	"Notice_Code1/MI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Notice Code, the value is '1'.
							Value	From 1 to 256		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**63		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

Notice Code 1~4 format is described in the table below.

bit	Item	Value
7	Unit	00:Outdoor unit 01:Reserved 10:Indoor unit 11:Indoor unit (Group terminal unit)
6		
5	Code	0~63 Described in "5.5 Notice Code (TU2C-LINK model)".
4		
3		
2		
1		
0		

4.26 Notice Code 2

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**64		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		'***' : air conditioning number 1 – 128
							String	"Notice_Code1/MI_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Notice Code, the value is '1'.
							Value	From 1 to 256		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**64		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.27 Notice Code 3

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		*** : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**65		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		**** : air conditioning number 1 – 128
							String	"Notice_Code1/MI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Notice Code, the value is '1'.
							Value	From 1 to 256		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		*** : air conditioning number 0x01 – 0x80
							Value	0x**65		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.28 Notice Code 4

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**66		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		'***' : air conditioning number 1 – 128
							String	"Notice_Code1/MI_***"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Notice Code, the value is '1'.
							Value	From 1 to 256		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**66		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

4.29 Notice Code 5

Name	Data
Object Type	13
Equipment Category	0000
Equipment Number	From 1 to 128
Instance Number	0x01
Object Type	Multi-State Input Object

Property Identifier	Property Data Type	Read Write	Variable	Array	List	Tag	Value		Notice of Status Change	Remarks
Object Identifier(75)	BACnet Object ID	R				0xC4	Application Tag	object Identifier(0xC4)		'***' : air conditioning number 0x01 – 0x80
							multi-state input object	0x0340**67		
Object Name(77)	character string	R					Application Tag	character string(0x7511)		'****' : air conditioning number 1 – 128
							String	"Notice_Code1/MI_****"		
Object Type(79)	BACnetObjectType	R				0x91	Application Tag	enumerated(0x91)		Multi-State Input(13)
							Multi-State input object	0x0D		
Present value(85) *1	Unsigned	R	*			0x21	Application Tag	Unsigned(0x21)		This property is writable when Out_Of_Service is TRUE. When is No Notice Code, the value is '1'.
							Value	From 1 to 256		
Status_Flags(111)	BACnetStatusFlags	R	*			0x82	Application Tag	Bit String(0x82)		
							BitString	b7 IN_ALARM		
								b6 FAULT		
								b5 OVERRIDDEN		
								b4 OUT_OF_SERVICE		
Out_Of_Service(81)	BOOLEAN	W					Application Tag	Boolean(0x1x)		When this property is TRUE, Present_Value are decoupled from the input
							Value	true 0x11		
								false 0x10		
Number_Of_States(74)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		
							Value	0x0100		
Notify_Type(72)	BACnetNotifyType	R				0x91	Application Tag	enumerated(0x91)		
							Value	event(0x01)		
Notification_Class(17)	Unsigned	R				0x22	Application Tag	Unsigned(0x22)		'***' : air conditioning number 0x01 – 0x80
							Value	0x**67		
Property_List(371)	BACnetARRAY[N] of BACnetPropertyIdentifier	R			*		Application Tag	[0]:Unsigned(0x4E) [1-N]: Property Identifier(0xc4)		
							value	[0]:number of properties(N) [1-N]: Property Identifier		
Event_Detection_Enabled(353)	BACnetBoolean	W					Application Tag	Boolean(0x1x)		
							Value	"true"		

5.Check Code

5.1 Format

Check Code is a decimal number.
Change from the decimal number into the hexadecimal number. Check Code format is described in the table below.

bit	Item	Value
15	Automatic backup	VRF function (automatic backup) status 0:OFF or not functional 1:Undergoing automatic backup
14	Model group ID	000:VRF, Light Commercial model 011:air to water heat pump (ATW) Other:Reserved
13		
12		
11	Reserved	0
10	Reserved	0
9	Code extension	0~3
8		
7	Code classification	Check Code
6		
5		
4	Code	
3		
2		
1		
0		

5.2 Check Code (VRF system, Light Commercial model)

Check Code		Description
Number	Wired remote controller Check code	
1		No active error
2		Reserved
3		Reserved
4		Reserved
5		Reserved
6		Reserved
7		Reserved
8		Reserved
9		Reserved
10		Reserved
11		Reserved
12		Reserved
13		Reserved
14		Reserved
15		Reserved
16		Reserved
17		Reserved
18		Reserved
19		Reserved
20		Reserved
21		Reserved
22		Reserved
23		Reserved
24		Reserved
25		Reserved
26		Reserved
27		Reserved
28		Reserved
29		Reserved
30		Reserved
31		Reserved
32		Reserved
33		Reserved
34		Reserved
35		Reserved
36		Reserved
37		Reserved
38	C05	Sending error in TCC-LINK central control device

Check Code		Description
Number	Wired remote controller Check code	
39	C06	Receiving error in TCC-LINK central control device
40		Reserved
41		Reserved
42		Reserved
43		Reserved
44		Reserved
45	C12	Batch alarm of general-purpose equipment control interface
46		Reserved
47		Reserved
48		Reserved
49		Reserved
50		Reserved
51		Reserved
52		Reserved
53		Reserved
54		Reserved
55		Reserved
56		Reserved
57		Reserved
58		Reserved
59		Reserved
60		Reserved
61		Reserved
62		Reserved
63		Reserved
64		Reserved
65		Reserved
66	E01	Communication error between indoor and remote controller
67	E02	Sending error of remote controller
68	E03	Communication error between indoor and remote controller
69	E04	Communication circuit error between indoor and outdoor
70		Reserved
71	E06	Decrease of No. of indoor units
72	E07	Communication circuit error between indoor/outdoor
73	E08	Duplicated indoor addresses
74	E09	Duplicated master remote controllers
75	E10	Communication error between indoor P.C.board
76	E11	Communication error between indoor-sub-PCB, sub-PCB-option PCB
77	E12	Automatic address start error
78	E13	Periodic communication error (DX-kit - 0-10V_I/F) at indoor unit - 0-10V_interface

Check Code		Description
Number	Wired remote controller Check code	
79	E14	Periodic communication error between indoor unit and 0 to 10V interface
80	E15	No indoor automatic address
81	E16	Capacity over/No. of connected indoor units
82	E17	Bad reception from flow selector (FS) unit
83	E18	Communication error between indoor header and follower units
84	E19	Outdoor header units quantity error
85	E20	Other line connected during automatic address
86	E21	Header thermal storage units quantity error
87	E22	Decrease of No. of thermal storage units
88	E23	Sending error in communication between outdoor units
89		Reserved
90	E25	Duplicated follower outdoor address
91	E26	Decrease of No. of connected outdoor units
92		Reserved
93	E28	Follower outdoor unit error
94		Reserved
95		Reserved
96	E31	IPDU communication error
97		Reserved
98	F01	Indoor TCJ sensor error
99	F02	Indoor TC2 sensor error
100	F03	Indoor TC1 sensor error
101	F04	TD1 sensor error
102	F05	TD2 sensor error
103	F06	TE1/TE2 sensor error
104	F07	TL sensor error
105	F08	TO sensor error
106	F09	TG sensor error
107	F10	Indoor TA/TSA sensor error
108	F11	Indoor TF/TFA sensor error
109	F12	TS1 sensor error
110	F13	TH sensor error
111	F14	TR sensor error
112	F15	Outdoor temp. sensor misconnection (TE1/TL)
113	F16	Outdoor pressure sensor misconnection (Pd/Ps)
114	F17	TOA sensor error
115	F18	TRA sensor error
116	F19	Indoor heat exchanger temperature sensor (TF) error
117	F20	PL (fluid piping pressure) sensor error
118		Reserved

Check Code		Description
Number	Wired remote controller Check code	
119	F22	TD3 sensor error
120	F23	Ps sensor error
121	F24	Pd sensor error
122	F25	Indoor heat exchanger temperature sensor (TA) error
123	F26	Indoor heat exchanger temperature sensor (TC2) error
124		Reserved
125		Reserved
126	F29	Indoor other error
127	F30	Occupancy sensor error or indoor air cleanliness error
128	F31	Outdoor EEPROM error
129		Reserved
130	H01	Compressor break down
131	H02	Magnet switch / Overcurrent operation / Compressor error
132	H03	Current detection circuit error
133	H04	Comp-1 case thermo operation
134	H05	Outdoor temp. sensor misconnection (TD1)
135	H06	Low pressure protective operation
136	H07	Low oil level protection
137	H08	Oil level temp. sensor error
138		Reserved
139		Reserved
140		Reserved
141		Reserved
142		Reserved
143	H14	Comp-2 case thermo operation
144	H15	Outdoor temp. sensor misconnection (TD2)
145	H16	Oil level circuit / Magnet switch / Overcurrent error
146		Reserved
147		Reserved
148		Reserved
149		Reserved
150		Reserved
151		Reserved
152		Reserved
153		Reserved
154	H25	Outdoor temp. sensor misconnection (TD3)
155		Reserved
156		Reserved
157	H28	Compressor winding error
158		Reserved
159		Reserved

Check Code		Description
Number	Wired remote controller Check code	
160		Reserved
161		Reserved
162	J01	Flow selector (FS) unit has bad reception from indoor unit (main unit)
163	J02	Communication error between flow selector (FS) unit boards and between MCUs
164	J03	Flow selector (FS) unit is duplicated
165		Reserved
166		Reserved
167		Reserved
168		Reserved
169		Reserved
170		Reserved
171	J10	Float SW operating at flow selector (FS) unit
172	J11	TCS sensor error in flow selector (FS) unit
173	J12	Sensor 2 error in flow selector (FS) unit
174		Reserved
175		Reserved
176		Reserved
177		Reserved
178		Reserved
179		Reserved
180		Reserved
181		Reserved
182		Reserved
183		Reserved
184		Reserved
185		Reserved
186		Reserved
187		Reserved
188		Reserved
189		Reserved
190	J29	Refrigerant leak sensor error
191	J30	Refrigerant leak detection
192	J31	Refrigerant leak sensor life
193		Reserved
194		Reserved
195	L02	Inconsistency error of outdoor units
196	L03	Duplicated indoor header units
197	L04	Duplicated outdoor line address
198	L05	Duplicated indoor units with priority
199	L06	Duplicated indoor units with priority

Check Code		Description
Number	Wired remote controller Check code	
200	L07	Group line in individual indoor unit
201	L08	Indoor group/Address unset
202	L09	Indoor capacity unset
203	L10	Outdoor capacity unset
204	L11	Absence of flow selector (FS) unit
205	L12	Flow selector system error
206	L13	Safety device mismatch
207	L14	No safety device connected
208	L15	Inconsistency error of indoor units
209		Reserved
210	L17	Inconsistency error of outdoor units
211	L18	FS unit error
212		Reserved
213	L20	Duplicated central control addresses
214	L21	200 V applied voltage error
215	L22	There are units in the group that do not support DX-KIT.
216	L23	Setting abnormality
217	L24	Flow selector unit is set incorrectly
218		Reserved
219	L26	Over No. of conneced thermal strage units
220	L27	Thermal storage units quantity error
221	L28	Maximum number of outdoor units exceeded
222	L29	No. of IPDU error
223	L30	Auxiliary interlock in indoor unit
224	L31	IC error
225		Reserved
226	P01	Indoor fan motor error
227	P02	Boost circuit error
228	P03	Discharge temp. TD1 error
229	P04	High-pressure switch detection error
230	P05	Phase-missing detection / Phase order error
231		Reserved
232	P07	Heat sink overheat error
233	P08	Intake air temperature error
234	P09	Thermal storage unit drought abnormality
235	P10	Indoor overflow error
236	P11	Outdoor heat exchanger freeze trouble
237	P12	Indoor fan motor error
238	P13	Outdoor liquid back detection error
239	P14	Other cycle protection
240	P15	Gas leak detection

Check Code		Description
Number	Wired remote controller Check code	
241	P16	Injection circuit trouble
242	P17	Discharge temp. TD2 error
243	P18	Discharge temp. TD3 error
244	P19	4-way valve inverse error
245	P20	High-pressure inverse error
246		Reserved
247	P22	Outdoor fan IPDU error
248		Reserved
249	P24	Abnormal Thermal storage unit
250	P25	Compressor inverter board error
251	P26	Compressor energization error
252	P27	Active filter error
253	P28	Active filter miswiring
254	P29	Comp position detection circuit error
255	P30	Group control follower unit error
256	P31	Follower indoor unit error (Group error)

In case you detect an error code not listed, contact your nearest Toshiba technical support service.

5.3 Notice Code (TU2C-LINK model)

Notice Code		Description
Notice Code Hexadecimal number	Wired remote controller display	
02	001	Compressor maintenance timer over
16	022	NFC tag wiring trouble
84	203	Battery life / deterioration / abnormality
85	204	Refrigerant sensor life pre-notification
87	206	General-purpose temperature sensor error
C2	301	Group terminal unit notice

6.Note

6.1 List of functions for VRF Dx-coil controller

[NOTE]

- The VRF Dx-coil controller model name is TCB-IFDMR01UP-UL.
- The functions listed may vary according to the product.
- The DDC setting type of the Dx-coil controller cannot be controlled from the BN interface.
- If the Dx-coil controller TA/TF/DDC setting type is changed, execute the air-conditioner search mode again.

(1) VRF Dx-coil controller is in the "TA mode" or the "TF mode" setting

Function	Monitoring	Controlling
ON / OFF	✓	✓
Operation mode	✓	✓
Setting temperature	✓	✓
Room temperature / TF sensor	✓	
Fan speed	✓ HH,H,L,AUTO	✓ HH,H,L,AUTO
Louver		
Permit / Prohibit of Local	✓	✓
Alarm status	✓	
Check code	✓	
Filter sign		
Ventilation On/Off		
Ventilation Mode		
Ventilation Fan speed		
Save operation rate	✓	✓
Indoor thermo status	✓	
Facility request	✓	
Indoor Communication Failure	✓	
Notice Code 1 - 5	✓	

(2) VRF Dx-coil controller is in the "DDC mode" setting

Function	Monitoring	Controlling
ON / OFF	✓	
Operation mode	✓	
Setting temperature		
Room temperature / TF sensor		
Fan speed	✓ HH,H,L,AUTO	
Louver		
Permit / Prohibit of Local	✓	
Alarm status	✓	
Check code	✓	
Filter sign		
Ventilation On/Off		

Ventilation Mode		
Ventilation Fan speed		
Save operation rate		
Indoor thermo status		
Facility request		
Indoor Communication Failure	✓	
Notice Code 1 - 5	✓	

7. History

Revision	Date	Page Chapter	Contents
1.00	29.Nov.2022	—	First version