

Project Name: _____

Location: _____

Engineer: _____

Submitted to: _____

Submitted by: _____

Reference: _____

Approval: _____

Date: _____

Construction: _____

Unit #: _____

Drawing #: _____

MODEL COMPATIBILITY:

Compatible with VRV, VAM** and SkyAir models that is using DIII-Net communication.

Compatible Mini split/Multi-split units	
FFQ_LVJU	Requires Interface Adaptor DTA112BA51
FTXS, CTXS, CTXG, FTXG, FDXS, CDXS, FVXS	Requires DIII-Net Adapter KRP928BB2S**
FTX, FTXN, FTK, and FTKN	Requires DIII-Net Adapter KRP928BB2S** and an Interface adaptor KRP067A41E/KRP980B1/KRP980B2E
FDMQ, FFQ_Q	Use F1-F2 connection on the indoor unit.

*FTK_AXVJU, FTKB_AXVJU, FTX_AXVJU and FTXB_AXVJU units are not compatible.

** Requires at least one VRV unit or an VRV centralized controller in the DIII-Net network.

SPECIFICATIONS:

Model	DTA118A71
Description	DIII-Net/BACnet MS/TP Communication Adaptor
Maximum Connections	32 Indoor Units / 4 Outdoor Units
Communication Wire (DIII-Net)	18AWG-2, No polarity Stranded, Non-shielded
Communication Wire (BACnet)	18 AWG, polarity sensitive
Total Wiring Length (BACnet)	1,640 ft. (500 m)
Communication Protocol	BACnet MS/TP / DIII-Net
Communication Speed (BACnet)	9600bps/19200bps/38400bps
Indoor unit Group Address Range	(1-00 to 2-15) or (3-00 to 4-15)
Outdoor unit Airnet Address Range	00-04,05-08,08-12,13-16,17-20,21-24,25-28,29-32,33-36,37-40,41-44,45-48,49-52,53-56,57-60,61-63
BACnet MS/TP MAC Address Range	0-127
BACnet devices in the network	32
Power	16VDC supplied by Outdoor Unit (1.58VA maximum)
Operating Temp Range	-4 to 149°F (-20 to 65°C)
Operating Humidity Range	95% or less (RH) (w/o condensation)
Dimensions (WxH)	3.94 x 3.94 inch (100 x 100 mm)
Weight (Mass)	0.18 lbs. (80 g)

PRODUCT IMAGE:



Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:

Location:

Engineer:

Submitted to:

Submitted by:

Reference:

Approval:

Date:

Construction:

Unit #:

Drawing #:

FEATURES:

- Direct connection to the BMS using BACnet MS/TP protocol
- BTL Certified device
- Easy commissioning using DIP switches & BACnet Objects.
- Each adaptor can connect to 4 outdoor units and 32 indoor units.
- BACnet virtual router function implemented: Individual BACnet device ID assigned to each indoor unit group address and outdoor unit Airnet address.
- Independent heating and cooling setpoints.
- Can be mounted to indoor unit or outdoor units (Select models only)
- BACnet objects for operation data (compatible outdoor units and indoor unit data).
- Supports Celsius or Fahrenheit for temperature values.
- Independent BACnet object error status for indoor unit and outdoor unit.

POINTS LIST:

• System Configuration points

Point Name	Description
D3 control address indoor	Sets the range of indoor unit address to monitor and control.
D3 control address outdoor	Sets the range of outdoor unit address to monitor and control.
Device instance method	Sets BACnet device instance method of virtual devices.
Adaptor device instance	Sets adaptor BACnet device instance.
Network number	Sets the BACnet network number for virtual device.
Baud rate	Sets BACnet baud rate
Sets scale	Sets the temperature scale for BACnet Objects

• Indoor unit points

Point Name	Description
Unit On_Off Status	Monitors and displays indoor unit On or Off status
Unit On/Off Command	Command indoor unit On or Off
Alarm Status	Monitors whether the indoor unit is operating normally and issues an alarm if the indoor unit has a malfunction. Error Code is shown in the description.
Operation Mode (Note 3,4)	Command and monitor indoor unit operation mode
Ventilation Mode	Command and monitor ventilation unit operation mode
Ventilation Rate	Command and monitor ventilation unit airflow rate
Fresh Up	Command and monitor fresh up setting for a ventilation unit.
Room Temperature	Monitor the room temperature of the indoor unit
Cooling Setpoint (Note 2)	Command and monitor the indoor unit cooling setpoint
Heating Setpoint (Note 2)	Command and monitor the indoor unit heating setpoint
Fan Speed	Sets the indoor unit fan speed and monitors the latest setting
Airflow Direction	Command and monitor the indoor unit airflow direction (louver control)
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name: _____

Location: _____

Engineer: _____

Submitted to: _____

Submitted by: _____

Reference: _____

Approval: _____

Date: _____

Construction: _____

Unit #: _____

Drawing #: _____

Remote Controller Prohibit (Operation Mode)	Permits or prohibits the remote controller to control the indoor unit's operation mode
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's setpoint
Filter Sign Status	Monitors and displays the filter run time and provides service alert.
Filter sign Reset	Clears the filter sign status
Indoor Unit Fan Status	Monitors and displays indoor unit fan status
Communication Status	Monitor if the communication is Normal or in Alarm
Thermo On status	Monitors and displays whether the indoor unit is actively cooling or heating.
Compressor Status	Monitors and displays if the compressor of the outdoor unit is On/Off/Defrost
Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating
Forced Thermo Off	Command Forced Thermo Off for the target indoor unit.
Indoor unit changeover option	Monitors if the indoor unit can change modes between heating and cooling
Return air temperature (Note 6,7)	Monitors and displays the return air temperature
Discharge air temperature (Note 5,7)	Monitors and displays the discharge air temperature of the FXMQ_PB indoor unit only.
Liquid pipe temperature (Note 6,7)	Monitors and displays the liquid pipe temperature.
Gas pipe temperature (Note 6,7)	Monitors and displays the gas pipe temperature.
EV position (Note 6,7)	Monitors and displays the expansion valve position.
OU airnet address (Note 6,7)	Monitors and displays outdoor unit Airnet address.
Forced Stop status	Monitors and displays forced stop status
Energy saving command (Setpoint shift)	Control and monitor energy savings command.

1. Refer to design guide & submittal datasheet for the indoor unit point compatibility.
2. The Mini-Splits have varied setpoints ranges (64F – 90F in cooling and 50F – 86F in heating). In the event a value outside of the available setpoint range is sent from the BACnet building management system via BACnet Adaptor, the indoor unit will ignore the out of range setpoint command (However, in the above case, the BACnet Adaptor can only send the cooling setpoint value and heating setpoint value of between 64F-82F.)
3. Only Ventilation cleaning on VAM.
4. Fan, Dry, and Auto are not supported when using the KRP928 adaptor for Mini-split integration to the DIII-Net.
5. Unit types other than those supported display an invalid value (0)
6. The data is invalid for models that do not support the target data.
7. For FXDQ, FXHQ and FHQ units a valid value cannot be displayed.

• Outdoor unit points

Point Name	Description
Communication Status	Monitors and displays the communication status
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool)
Outdoor unit Alarm Status	Monitors whether the outdoor unit is operating normally
Special Modes	Monitors and displays if a unit is defrost/oil-return/pump down or restart standby sequence.
Electric Power	Monitors and displays the electric power (calculated)
Electric Current	Monitors and displays the electric current (calculated).
Outdoor Air Temperature	Monitors and displays the outdoor air temperature
Backup Operation	Monitors and displays if the outdoor unit is in backup operation
Stepdown control	Monitors and displays if the outdoor unit is in stepdown control.
Condensing Pressure	Monitors and displays the condensing pressure
Evaporating Pressure	Monitors and displays the evaporating pressure
Condensing Temperature	Monitors and displays the condensing temperature

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:

Location:

Engineer:

Submitted to:

Submitted by:

Reference:

Approval:

Date:

Construction:

Unit #:

Drawing #:

Evaporating Temperature	Monitors and displays the evaporating temperature
Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor 1
Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor 2
Fan Step	Monitors and displays the fan step
EV Position 1	Monitors and displays the position of the expansion valve 1
EV Position 2	Monitors and displays the position of the expansion valve 2
Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor 1
Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor 2
Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature
Sub Compressor Body Temperature	Monitors and displays the compressor body temperature.
Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX
Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX
Liquid Pipe Temperature (Deicer)	Monitors and displays the liquid pipe temperature for the de-icer
Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX
Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX
Suction Temperature	Monitors and displays the suction temperature
Compressor Suction Temperature	Monitors and displays the compressor's suction temperature
Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature
Subcool Outlet Temperature	Monitors and displays the subcool outlet temperature
Compressor Body Temperature	Monitors and displays the sub compressor body temperature
Receiver Inlet Temperature	Monitor and displays the Receiver Inlet Temperature.
Subcool EV Position	Monitors and displays the subcool expansion valve position
4WayValve	Monitors and displays the 4 Way valve position
Compressor1 current	Monitors and displays the Compressor 1 current (calculated)
Compressor2 current	Monitors and displays the compressor 2 current (calculated)

Compatible outdoor units.

- VRV4: RXYQ_T(A), REYQ_T(A), RXLQ_T(A), RELQ_T(A)
- VRV 4X: REYQ_XA, RXYQ_XA
- VRV4S: RXTQ_TA
- VRV LIFE: RXSQ_TA
- VRVW (T): RWEQ_T
- RWEYQ72PCTJ & RWEYQ72PCYD

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name: _____

Location: _____

Engineer: _____

Submitted to: _____

Submitted by: _____

Reference: _____

Approval: _____

Date: _____

Construction: _____

Unit #: _____

Drawing #: _____

FUNCTION COMPATIBILITY:

The following centralized controller can be installed with the DTA118A71.

- INTELLIGENT TOUCH CONTROLLER (ITC / ITOUCH) [DCS601C71]
- INTELLIGENT TOUCH MANAGER (ITM) [DCM601A71]
- UNIFIED ON/OFF CONTROL [DCS301C71]
- CENTRALIZED REMOTE CONTROL [DCS302C71]
- SCHEDULE TIMER [DST301BA61]
- DIII-NET ADAPTOR FOR MULTI/MINI SPLITS [KRP928B2S]

The following centralized controller cannot be installed with the DTA118A51 in the same DIII-Net network.

- MODBUS ADAPTOR [DTA116A51]
- GROUP CONTROL ADAPTOR [KRP4A]
- WIRING ADAPTOR FOR ELECTRICAL APPENDICES [KRP2A516]
- OUTDOOR UNIT MODE CHANGEOVER / DEMAND CONTROL [DTA104]
- SYSTEM ON/OFF FROM A CONTROL SYSTEM [DCS302A]
- BACNET INTERFACE [DMS502B71]
- LONWORKS® INTERFACE [DMS504C71]
- ITM BACNET SERVER GATEWAY OPTION [DCM014A51]

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:

Location:

Engineer:

Submitted to:

Submitted by:

Reference:

Approval:

Date:

Construction:

Unit #:

Drawing #:

SUPPORTED MODELS AND OBJECTS

Point Name	VRV Indoor	SkyAir indoor unit, FDMQ,FFQ_Q (except FTXS)	VAM	Outdoor air processing unit	Mini-Split & SkyAir FTXS indoor units (KRP928)
Unit On_Off Status	✓	✓	✓	✓	✓
Unit On/Off Command	✓	✓	✓	✓	✓
Alarm Status	✓	✓	✓	✓	✓
Operation Mode (Note 3,4)	✓	✓	✓	✓	✓
Ventilation Mode	Invalid	Invalid	✓	Invalid	Invalid
Ventilation Rate	Invalid	Invalid	✓	Invalid	Invalid
Fresh Up	Invalid	Invalid	✓	Invalid	Invalid
Room Temperature	✓	✓	Invalid	Entering Air	✓
Cooling Setpoint (Note 2)	✓	✓	Invalid	Invalid	✓
Heating Setpoint (Note 2)	✓	✓	Invalid	Invalid	✓
Fan Speed	✓	✓	Invalid	Invalid	Invalid
Airflow Direction	✓	✓	Invalid	Invalid	Invalid
Remote Controller Prohibit (On_Off)	✓	✓	✓	✓	✓
Remote Controller Prohibit (Operation Mode)	✓	✓	Invalid	✓	✓
Remote Controller Prohibit (Setpoint)	✓	✓	Invalid	Invalid	✓
Filter Sign Status	✓	✓	✓	✓	Invalid
Filter sign Reset	✓	✓	✓	✓	Invalid
Indoor Unit Fan Status	✓	✓	Invalid	✓	Invalid
Communication Status	✓	✓	✓	✓	✓
Thermo On status	✓	✓	Invalid	✓	Invalid
Compressor Status	✓	✓	Invalid	✓	Invalid
Aux Heater Status	✓	✓	Invalid	✓	Invalid
Forced Thermo Off	✓	✓	Invalid	✓	Invalid
Indoor unit changeover option	✓	✓	Invalid	✓	✓
Return air temperature (Note 6,7)	✓	Invalid	Invalid	Invalid	Invalid
Discharge air temperature (Note 5,7)	✓	Invalid	Invalid	Invalid	Invalid
Liquid pipe temperature (Note 6,7)	✓	Invalid	Invalid	Invalid	Invalid
Gas pipe temperature (Note 6,7)	✓	Invalid	Invalid	Invalid	Invalid
EV position (Note 6,7)	✓	Invalid	Invalid	Invalid	Invalid
OU Airnet address (Note 6,7)	✓	Invalid	Invalid	Invalid	Invalid
Forced Stop status	✓	✓	✓	✓	Invalid
Energy saving command (Setpoint shift)	✓	Invalid	Invalid	Invalid	Invalid

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Project Name: _____

Location: _____

Engineer: _____

Submitted to: _____

Submitted by: _____

Reference: _____

Approval: _____

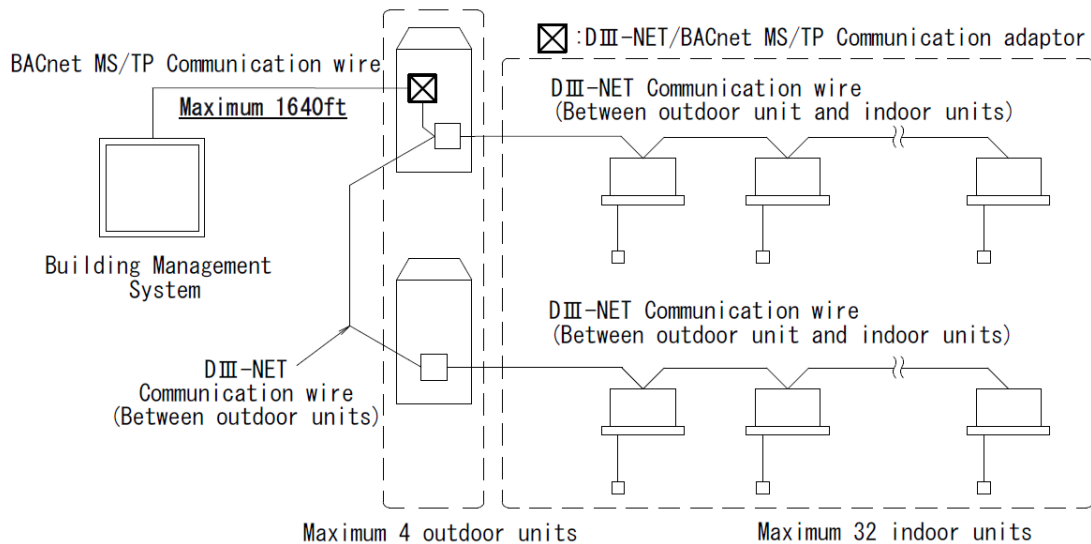
Date: _____

Construction: _____

Unit #: _____

Drawing #: _____

SYSTEM DIAGRAM:



Note

- The total wiring length of the BACnet MS/TP Communication wire must be within 1640ft.
- A maximum of 32 indoor units and 4 outdoor units can be controlled and monitored using the adaptor.
- A maximum of two adaptors can be connected to one DIII-Net network.
- A maximum of 32 devices can be connected to the same BACnet MS/TP network as the adaptor.
- D III-NET Expansion Adaptor (DTA109) cannot be connected between ADP and indoor / outdoor units on DIII line
- The adaptor requires another Daikin controller or VRV outdoor unit to able to integrate units other than VRV indoor unit.
- Mounting:
 - **RXYQ72 XA or T(A), REYQ72 XA or T(A), RWE**, RXTQ**, RXSQ**:** The adaptor cannot be mounted inside the outdoor unit. The adaptor is mounted at the indoor or at externally in the building using a suitable enclosure.
 - **REYQ_AA/RXYQ_AA:** The adaptor can be mounted inside the E-box of the outdoor unit.
 - **REYQ_XA/RXYQ_XA, REYQ_T(A)/RXYQ_T(A), RELQ_TA/RXLQ_TA:** The adaptor can be mounted inside the E-box of the outdoor unit using the BKS26A-US mounting plate.

DOCUMENTATION:

Documentation available on www.daikincity.com and/or www.daikinac.com:

- Submittal
- Installation Manual
- Guide Specification

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)