

Project Name: _____

Location: _____

Engineer: _____

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Submitted by: _____

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Approval: _____

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Construction: _____

Unit #: _____

Drawing #: _____

SPECIFICATIONS:

Daikin HERO Pro Edge	
Model	DGE601A71
Description	Daikin HERO Pro Edge
Maximum Indoor Unit Groups	128 (64 per DIII-Net port)
Max Indoor Units per DIII-net port	64
Max Outdoor Units	7
Max BACnet Servers (When Pro Edge is used as BACnet client)	50
Power Supply (Field provided)	24 VAC, 60 Hz
Power Consumption	23 Watts, 36VA
Operating Temp Range	14-122°F
Operating Humidity Range	85% or less (w/o condensation)
Dimensions (W x H x D)	9-3/64 x 3-13/64 x 5-3/4 in.
Weight (Mass)	1.52 Kg / 3.35 lbs.
DIII-NET Ports	2
RJ-45 (Ethernet) 100Base-TX or 10Base-T	2 (Total) 1. LAN-1 100Base-TX 2. LAN-2 100Base-TX or 10Base-T
USB Ports	2
RS485 (19 - 22 AWG)	2 (One is used for WAGO, the other shall be reserved).
Plus ADP IF (D+, D-)	1
Digital Inputs / Pulse Inputs	8 (The first input is used for emergency stop only)
Digital Outputs (24VDC)	3
Installation type	DIN rail (1-3/8 in) mount or screw mount to a field provided control enclosure
Certification	FCC Class B
HERO Cloud Services (Required)	
Compatible Browser	Google Chrome, Safari
Compatible Devices	PC, MAC, Smartphone and Tablet with Internet connection
Requires License (Recurring)	Yes
URL	www.Daikinhero.com

PRODUCT IMAGE:

Daikin Pro Edge



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OPTIONS:

- Software Options: The Daikin HERO Pro Edge requires a license to connect with the HERO Cloud Services and requires access to the internet. The first year's basic license is included with purchase of the device.
- BACnet Client option: DGE009A71 (up to 10 devices), DGE009A72 (up to 50 devices)
- Hardware Options:
 - DGE601A72/DGE601A53 for expanding indoor unit groups up to 512 groups and monitor a total 56 outdoor units.
 - WAGO I/O basic kit (60359653) and I/O modules for controlling/ monitoring of external equipment via Di, Do and Ai.

MODEL COMPATIBILITY:

The following indoor units are compatible with the iTM:

System	Model
VRV and VRV Life™	FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, CXTQ
SkyAir	FAQ, FBQ, FCQ, FHQ, FTQ
Single Zone/Multi Zone/SkyAir	<ul style="list-style-type: none"> • FDMQ, FFQ_Q

The outdoor operational data is available for the following outdoor unit models:

VRV Family	Model
VRV IV S	RXTQ_TAVJU
VRV LIFE	RXSQ_TAVJU
VRV III	RXYQ_PBTJ, RXYQ_PBYD, REYQ_PATJ, REYQ_PBTJ, REYQ_PBYD, REYQ_PCTJ, REYQ_PCYD, RWEYQ_PTJU and RWEYQ_PYDN
VRV AURORA	RXLQ_TATJU, RXLQ_TAYDU, RXLQ_TAYCU, RELQ_TATJU, RELQ_TAYDU and RELQ_TAYCU
VRV IV X	REYQ_XATJU, REYQ_XAYDU, REYQ_XAYCU, RXYQ_XATJA, RXYQ_XAYDA, REYQ_XATJA, REYQ_XAYDA, REYQ_XAYCA
VRV T	RWEQ_TATJU, RWEQ_TAYDU, RWEQ_TAYCU
VRV IV	RXYQ_TTJU, RXYQ_TATJU, RXYQ_TAYDU, REYQ_TATJU, REYQ_TAYDU, RXYQ_TAYCU, RXYQ_TYDN, REYQ_TAYCU, REYQ_TTJU, REYQ_TYDN, RWEYQ_PCTJ and RWEYQ_PCYD
VRV Emerion	REYQ_AATJA, REYQ_AAYDA, RXYQ_AATJA, RXYQ_AAYDA

Low Temperature Hydrobox (HXY48TAVJ)* is not compatible with Daikin HERO Pro Edge.

MEGA-Q shall not connect to the HERO Pro Edge using the DIII-Net communication.



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FEATURES:

1. Management size - up to 512 indoor unit groups.

- a. The Pro Edge can manage two (2) DIII-Net system which can have up to 64 indoor unit groups each, so 128 indoor units groups per Pro Edge.
- b. The Pro Edge can manage up to eight (8) DIII-Net systems with the addition of the Adapters which can manage one (1) DIII-Net system each.
- c. A maximum of 1000 management points can be created in a Pro Edge Controller.

2. Control / Monitoring

- a. Independent Cool and Heat setpoints
 - i. Setpoint tracking for full range of setpoint differentials
- b. Independent Cool and Heat Setback setpoints (unoccupied)
- c. Room temperature displayed in 0.1°F/0.1°C
- d. Scheduling with exception days
- e. Auto-changeover: Fixed, Individual, Average, and Vote
 - i. Weighted demand (0-3) configurable for Average and Vote methods
 - ii. Adjustable (1-4°F) Primary and Secondary changeover bands

3. Web Accessibility

- a. Web and Alert Email function is available via HERO Cloud Services (renewable license required)
- b. The indoor unit can be changed remotely: Indoor unit settings such as schedule, On/Off, fan speed, Setpoint, louver position, setpoint range limits etc

4. Easy Engineering

- a. Automatic registration and model detection for most of the VRV units.

5. Building facilities management

- a. The Pro Edge is equipped with 8 digital/pulse inputs and 3 digital outputs.
- b. Building ancillary equipment can be connected by using the WAGO I/O system (optional).
 - i. I/O configuration for Digital Input, Digital Output, Analog Input.
- c. BACnet IP Client management points with BACnet Client option (optional).
 - i. AI, AO, AV, BI, BO, BV, MI, MO and MV

6. BACnet Client (Optional)

- a. Monitor and control equipment and sensors connected to a BACnet server via BACnet IP.
 - i. Up to 50 BACnet IP servers can be connected and 512 Management points can be handled.

7. History

- a. Cloud: The data is stored for the 5 years on a minute-to-minute basis.

8. HERO Cloud Monitoring Service (License Required)

- a. Remote monitoring of VRV equipment status and reporting
- b. Connects the VRV system to the HERO Cloud Services.
- c. Remote monitoring for outdoor unit operation data.
- d. Remote monitoring for indoor unit operation data.
- e. Simple customizable dashboards to provide quick status of connected units and sites.
- f. Animated piping layout with live data and past data at 1-minute intervals.
- g. View and download trend graphs of historical operation data.
- h. Download historical operation data.
- i. Alarm dashboard with automatic email notifications when an alarm occurs.
- j. Energy management dashboard to view energy consumption for the outdoor units.
- k. User management with customizable access for the specified user type.
- l. Monitors and control multiple outdoor units and indoor units across multiple sites with a single login.

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WIRING SPECIFICATION:

Specifications of Communication Cabling	
DIII-Net	
Type	2-conductor, stranded, non-shielded copper cable / PVC of vinyl jacket
Size	AWG 18-2
Total Length	Maximum wiring distance between units 3,280 ft. Total wire length 6,560 ft.
WAGO	
Type	2-conductor, stranded, non-shielded copper cable / PVC of vinyl jacket (CPEV or FCPEV)
Size	2 Wire AWG 24 - 18 stranded
Total Length	Maximum wiring distance between Pro Edge and Bus Coupler 1640 ft.

BACNET CLIENT OPTION MANAGEMENT POINTS:

- The following BACnet object types can be monitored and controlled by Pro Edge through BACnet Client Option via the BACnet/IP protocol:

Object Type #	Object Name	Description
0	Analog Input	Analog input value such as a temperature and measurement value.
1	Analog Output	Analog output value such as a setting value (For example, can be used as the analog input value of a setting value).
2	Analog Value	Analog input value such as a temperature and measurement value or analog output value such as a setting value.
3	Binary Input	Digital input value such as an On/Off status and error status.
4	Binary Output	Digital output value such as an On/Off operation (For example, can be used as the digital input value of an On/Off operation).
5	Binary Value	Digital input value such as an On/Off status and error status or digital output value such as an On/Off operation.
13	Multi-state Input	Digital input value such as an operation mode
14	Multi-state Output	Digital output value such as an operation mode (For example, can be used as the digital input value of an operation mode).
19	Multi-state Value	Digital input value such as an operation mode or digital output value such as an operation mode.

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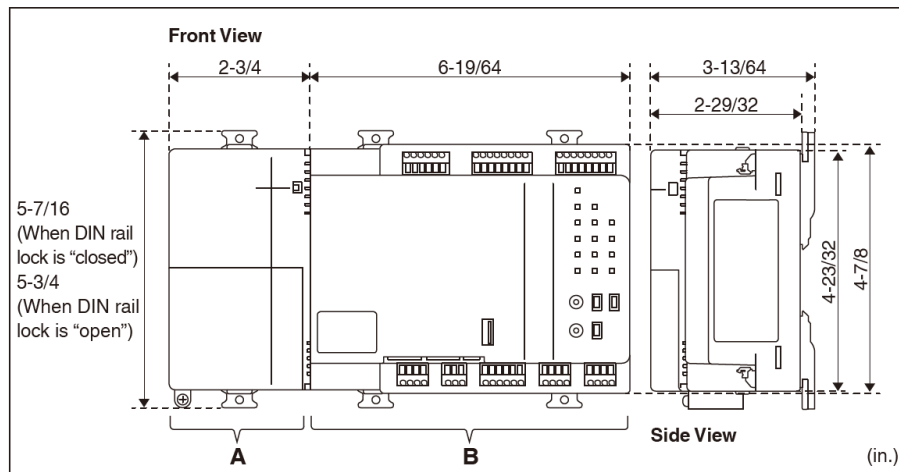
Construction: _____

Unit #: _____

Drawing #: _____

DIMENSIONS:

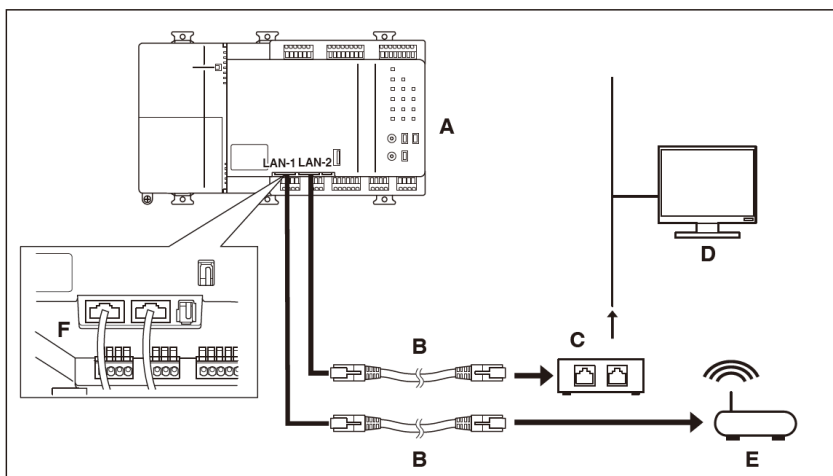
Daikin HERO Pro Edge



A. Power Supply Unit

B. Main Unit

SCHEMATIC FOR LAN WIRING



A. DGE601A71 (Daikin HERO Pro Edge)

B. LAN Cable (field provided)

C. Network switch (field provided)

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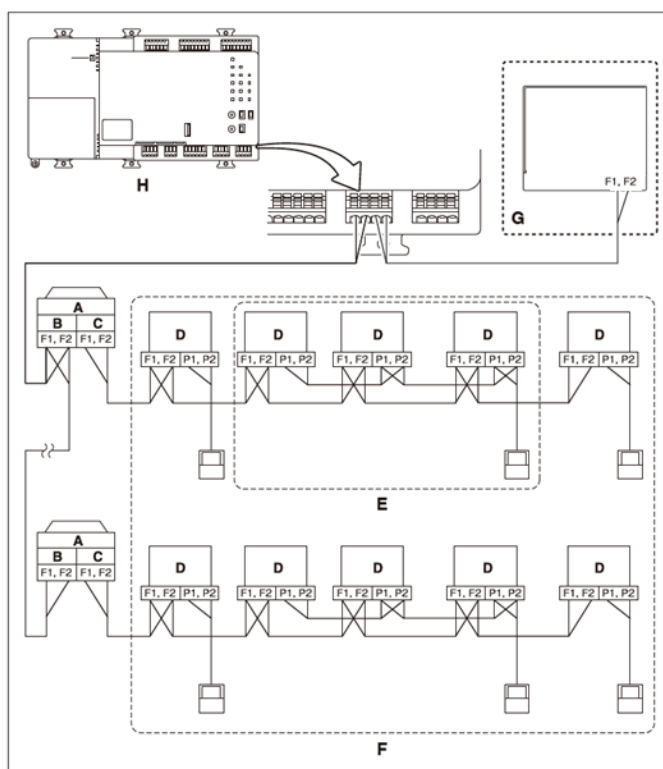
Construction: _____

Unit #: _____

Drawing #: _____

- D. Monitoring PC – Local (Optional, field provided)
- E. Router for internet connectivity (field provided)
- F. LAN-1/LAN-2

SCHEMATIC FOR DIII-NET COMMUNICATION WIRING



- A. Outdoor unit
- B. OUT - OUT communication (terminal)
- C. IN - OUT communication (terminal)
- D. Indoor unit
- E. A maximum of 16 indoor units can be connected to 1 remote controller group.
- F. A remote controller group can connect a maximum of 64 groups (64 indoor units) to each DIII-NET communication line.
- G. When connecting an additional centralized controller
- H. DGE601A71 (Daikin HERO Pro Edge)

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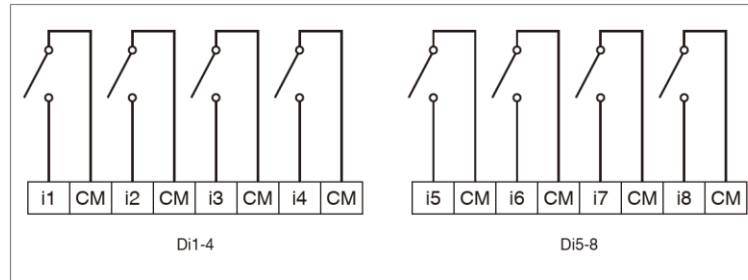
Unit #: _____

Drawing #: _____

Centralized controllers that cannot be connected to the same network as the DGE601A71:

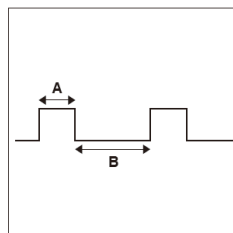
- intelligent Processing Unit
- Intelligent Touch Controller
- DIII-NET Plus Adapter – DCM601A72
- Residential Central Remote Controller
- Schedule Timer
- Group Control Adapter PCB (KRP4)

SCHEMATIC FOR DI WIRING



- Cable type: CPEV cable, FCPEV cable, CVV(S) cable
- Core thickness: CPEV cable, FCPEV cable: AWG 22-18, CVV(S) cable: AWG 18-16
- Cable length: 656 ft. or less
- The contact connected to the contact input terminal must be capable of handling 10 mA at 16 V DC.
- If an instantaneous contact is used for triggering an emergency stop, use one that has an energized time of 200 ms or more.

PULSE WIDTH SPECIFICATIONS



- A. Pulse width: 20 to 400 ms
- B. Pulse interval: 100 ms or more

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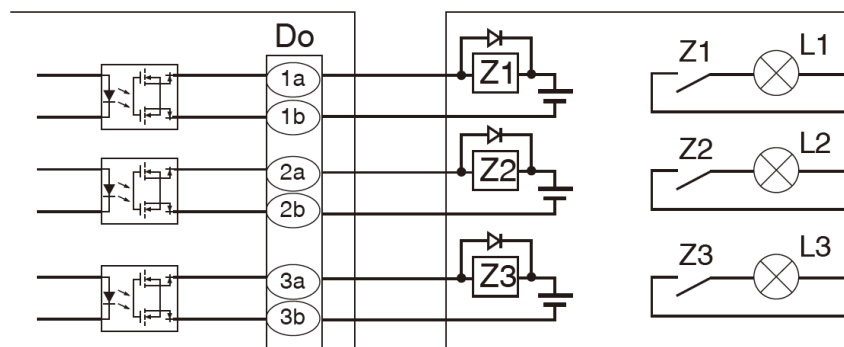
Date: _____

Construction: _____

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SCHEMATIC FOR DO WIRING



- A. DO Contact point specifications
- B. Non-voltage contact point
- C. Voltage: 24 V DC Maximum load current: 50 mA
- D. Cable type: CPEV cable, FCPEV cable, CVV(S) cable
- E. Core thickness: CPEV cable, FCPEV cable: AWG 22-18, CVV(S) cable: AWG 18-16
- F. Cable length: 656 ft. or less

RELATED PART NUMBERS

Part Number	Description
DGE601A71	Daikin <i>HERO</i> Pro Edge
DGE601A72	<i>DIII Plus</i> Adapter for <i>HERO</i> Pro Edge and <i>iTM</i>
DGE601A53	<i>DIII Plus</i> Adapter Slot (For Use with DGE601A72)
DGE009A71	Pro Edge <i>BACnet</i> Client (10 Pack) - Monitor up to 10 <i>BACnet</i> Devices
DGE009A72	Pro Edge <i>BACnet</i> Client (50 Pack) - Monitor up to 50 <i>BACnet</i> Devices
WAGO I/O	Monitor and control third party units using I/O contacts.
1ODULIC-1	<i>HERO</i> Cloud Services Outdoor Unit Activation Fee (Need when connecting more than 14 outdoor unit systems)
HGPFE1YRSUB	Basic Subscription Renewal for 1 Year
HGPFE3YRSUB	Basic Subscription Renewal for 3 Years
HGPFE5YRSUB	Basic Subscription Renewal for 5 Years



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DOCUMENTATION:

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

- Submittal
- Sales Brochure
- Guide Specs
- Installation Manual
- Operation Manual
 - Submittal
 - Installation Manual
 - Sales Flyer

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