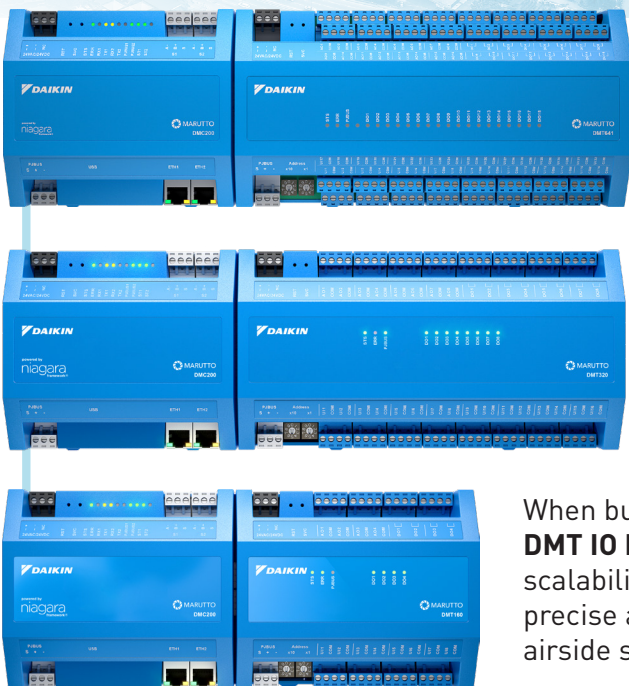


MARUTTO P-SERIES AIR SIDE EQUIPMENT CONTROLLER



Introducing **MARUTTO Airside Equipment Controller**, with dedicated DMT IO Expansion Module.

MARUTTO Airside Equipment Controller is purposed-built to optimise building Airside operations by leveraging real-time data, occupancy levels, and environmental conditions. It specifically targets equipment such as Chilled water and DX AHUs, to ensure efficient performance.

When bundled with the NIAGARA Application License Option, **DMT IO Expansion Module**, it enables seamless system scalability with high-speed input/output processing, delivering precise and reliable control and monitoring of your HVAC airside systems.

HVAC systems represent one of the largest energy consumers within a building, with airside components contributing substantially to this demand. The MARUTTO Airside Equipment Controller offers an intelligent, integrated solution designed to optimize airside system performance. When paired with Daikin's Plantroom Controller, this unified approach can deliver enhanced energy efficiency and reduce airside energy consumption by **up to 30%**.

Overall Benefits

- **Total Control for the Airside Equipment**
- **Integration with Plantroom controller enables unified Water-Airside Operation**
- **Reduce operational & Maintenance cost**
- **Strategically tailored to support your specific operational requirements**
- **Engineered with precision to deliver optimal HVAC airside efficiency**

AirSide Enabled Controller

Daikin DMC Airside Equipment Controller, along with set IO modules, is an intelligent device designed to communicate with and collect data from Airside equipment. It comprises several key connection components and features.

DMC200:

- PJ Communication bus (Panel Bus and Field Bus)
- 2x RS-485 Ports
- 2x Ethernet LAN Ports
- High Powered CPU and Memory
- Modular Design for Touchscreen and Communication Devices*

IO 16 Module:

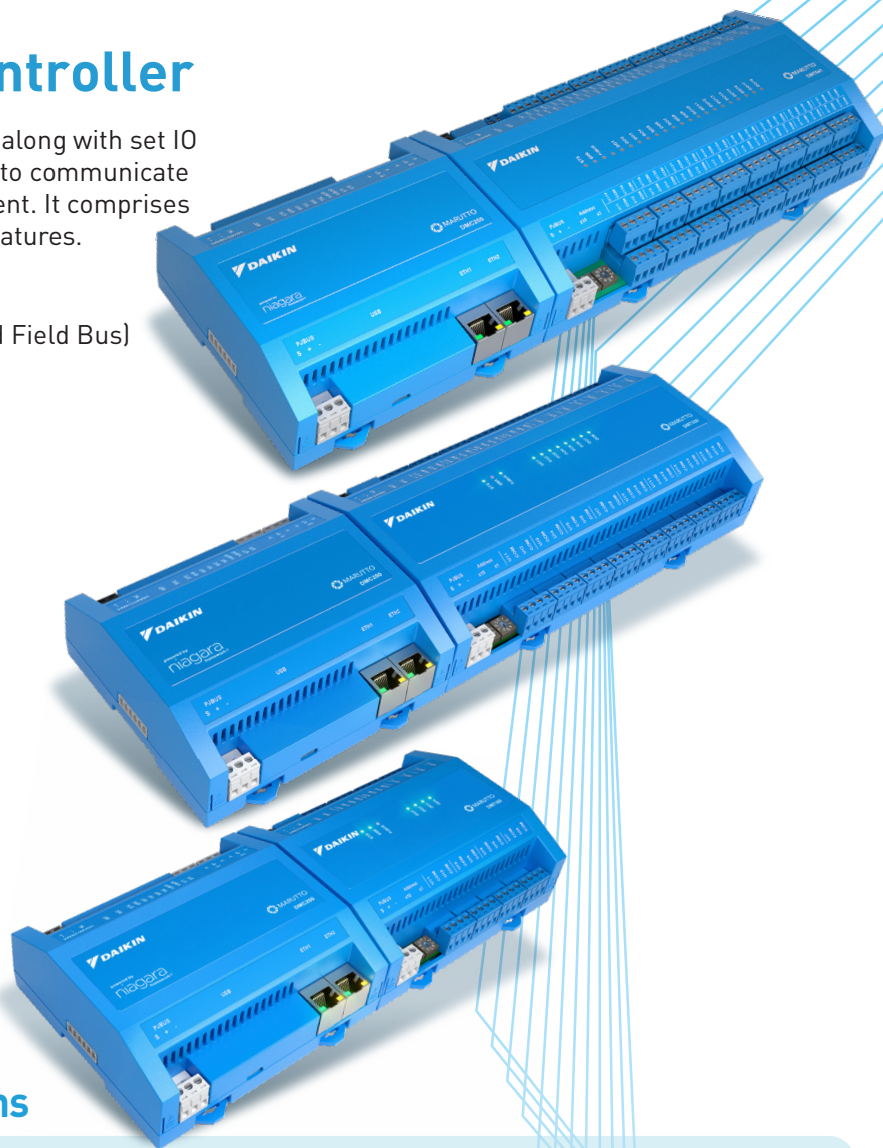
1. 8 x Universal Input
2. 4 x Digital Output
3. 4 x Analog Output

IO 32 Module:

1. 16 x Universal Input
2. 8 x Digital Output
3. 8 x Analog Output

IO 64 Module:

1. 32 x Universal Inputs
2. 16 x Digital Output
3. 16 x Analog Output



Tailored to your specifications

Airside Equipment Configuration

Equipment Controller Model Code	DMC200A8G-N4-01	DMC200A8G-N4-02	DMC200A8G-N4-03	DMC200A8G-N4-04
Hardware Bundle Pack	DMC200+DMT160	DMC200+DMT320	DMC200+DMT160 +DMT162	DMC200+DMT641
Max. IO Points (via PJ bus)	25	50		100
Max. Global Niagara Points (via BacNet/Modbus)	30	100		150
Max. Connected Devices	Up to 2	Up to 5		Up to 5
Included Protocols	PJBus, BacNet, Modbus			

Upgrade Option

Model Code	DMC200A8G-N4-01A	DMC200A8G-N4-02A	DMC200A8G-N4-03A
Hardware Bundle Pack	DMC200+DMT161	DMC200+DMT321	DMC200+DMT161+DMT162



MARUTTO

powered by

niagara
framework®

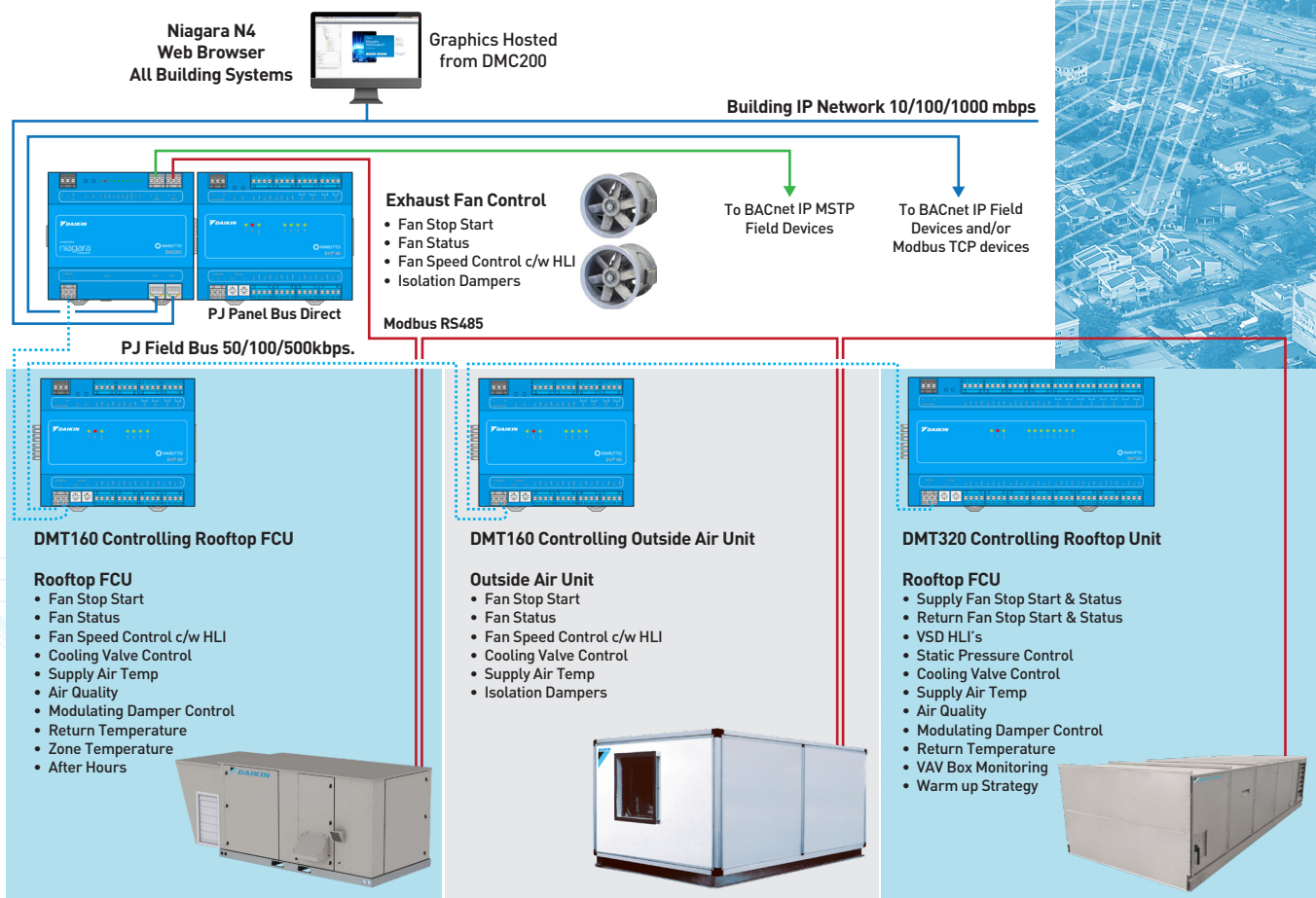
- MARUTTO P-Series is powered by Niagara 4.
- Niagara is a robust, open IoT platform designed to normalise data from any protocol.
- Niagara is a Globally recognised and leading BMS Software Solution designed to normalise disparate building data allowing for HVAC System Optimisation and Control.

Key Features of Niagara 4:

- Built with a modern HTML5-based UX framework, Niagara offers customisable dashboards that allow users to tailor their interface according to their needs. It provides advanced visualisation tools, enabling detailed data representation through powerful charting and graphical capabilities.
- Niagara supports comprehensive data tagging, enabling efficient data management and streamlined tag-based navigation, simplifying the process of locating and organising information.
- Provides repeatable data cleansing capabilities to ensure clean and accurate data.
- Allows easy HVAC System application templating.

MARUTTO P-Series powered by Niagara 4 enables an enhanced airside equipment operation for comprehensive command and control over the HVAC Equipment through a building, ensuring reliable and energy-efficient operations at all times.

Architect Diagram



DMC200 At a Glance

Item	Description	Details
Model Name		DMC200A8G-N4
Hardware	Power Supply	Class 2 Device 24VAC +20% / - 15% 24VDC +/-3%
	Power Consumption	9.6VA AC/300mA DC. When supplying 4 x PU to PJ Panel Bus max consumption is 60VA AC or 20W DC.
	Processor	Dual-core Cortex-A53 (ARMv8) 64-bit SoC @ 1.4GHz
	Memory -RAM	1GB DDR4 SDRAM
	Memory -Flash	8GB eMMC storage
	Ethernet Communication Ports	Ethernet Ports x 2 10/100/1000 Mbps (1GB connection not presently used)
	Serial communications ports	2 x RS-485 - Modbus RS485, BACnet MSTP. Isolated ports. Supports baud rates up to 1mbps. Device and points count limits as per purchased Niagara License features.
	PJ Panel Bus port for DMT Expansion Modules.	Recommended maximum of 64 IO points per PJ Panel Bus network connection. Baud rate @500kbps.
	PJ Field Bus port for DMT Expansion Modules.	Recommended maximum of 192 IO points per PJ Field Bus network connection. Baud rate selectable between 50/100/500kbps.
Software	Framework	Niagara N4 Framework, developed by Tridium Fox Protocol – Workbench/Web Browser – Common programming tool
	Protocol Supported	Niagara Protocol (Fox,Foxs), BACnetIP/MSTP, Modbus RTU/TCP, Web Services & oBIX
	Others	HTML5 web user interface running Niagara 4 Framework Supports JAVA Web Start without JAVA Plug-ins Supports e-mail service SMTP Protocol Supports SNMP (Simple Network Management Protocol)
Compliance	North America	UL 60730 Energy Management Equipment c-UL Canada FCC 47 CFR Class B, Part 15, Sub-part B, ICES-003 Issue 7
	Europe	IEC 60730, EMC
	UK CA	IEC 60730, EMC
	Oceania RCM	IEC 60730, EMC AS/NZS CISPR 32:2015 AMD1:2020
	Others	RoHS, REACH, WEE. BACnet Testing Laboratory*
Enviroment	Operating Temperature	-20°C ~ 60°C
	Storage Temperature	-40°C ~ 65°C
	Operating Humidity	10% ~ 90% RH, non-condensing
	IP Rating	IP20
	Cooling	Internal air convection
Mechanical	Dimension	138mm x 120mm x 50mm
	Weight	Unit weight - 295 grams Packed Weight – 350 grams
	Material	Base: Plastic Cover: Plastic
	Mounting	35mm DIN rail mount options standard and keyhole slots

(*) Compliance is in progress

DMT IO Module Reference



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TO DOWNLOAD

If you have any enquiries, please contact your local sales office.