

CHILLER

i-NR²G07

**AIR SOURCE CHILLERS FOR
OUTDOOR INSTALLATION.
FROM 50 TO 220 kW.**



i-NR²G07



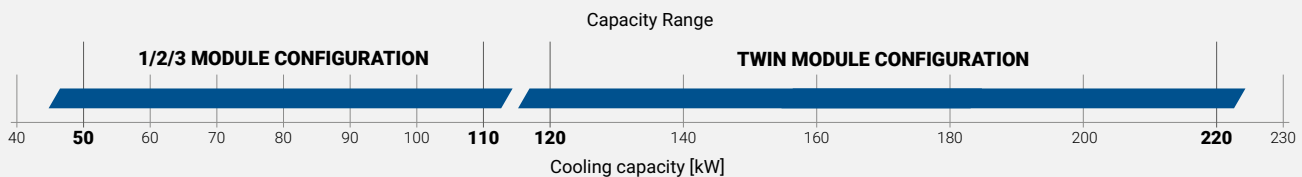
**Formidable.
In every aspect.**

Air source chillers with Mitsubishi Electric variable speed scroll compressors and R32 low GWP refrigerant. From 50 to 220 kW.

i-NR2-G07 the new chiller range designed with the utmost care in terms of quality and details. Dedicated to IT cooling processes, i-NR2-G07 achieve top-level energy efficiencies, in the most compact footprints in their category.

EXTENDED RANGE

7 new sizes developed in 3 compact modules to fit any thermal load request up to 110 kW, extendable up to 220 kW through the optional twin module configuration, the connection of two modules of the same size.



Designed down to a fine art.

Groundbreaking performance. Especially in partial load



i-NR2-G07 bring brilliant performance, particularly in partial load conditions, thus helping individuals and business reduce the energy bill of their IT-Cooling system.

UP TO

	EER	SEER	SEPR HT
i-NR2-G07	3,3	5,6	6,5

EER – conditions: evap. 12/7°C, air 35°C – NET values [EN14511 – EN14825]

SEER – Regulation (EU) N.2281/2016

SEPR-HT – Regulation (EU) N.2281/2016

Supreme class quietness



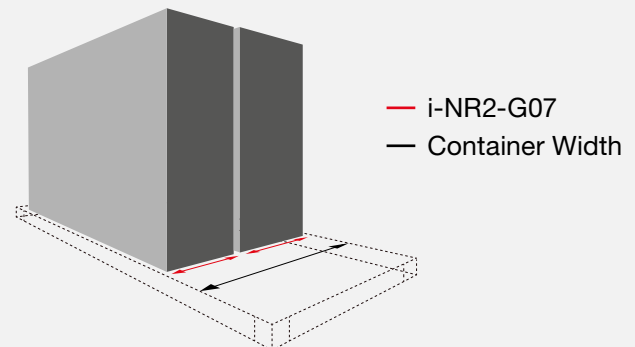
Best-in-class sound levels without additional accessories. i-NR2-G07 units are equipped as standard with the acoustical enclosure for compressors and hydronic kits.

Down to
77 dB(A)

Best-in-class footprint



Extremely compact footprint, among the best in the category. The reduced width of the units is ideal for multi-unit transportation, optimizing the shipping spaces and shipment via container.



Huge benefits for IT Cooling applications

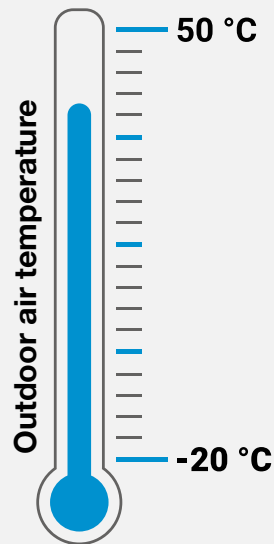
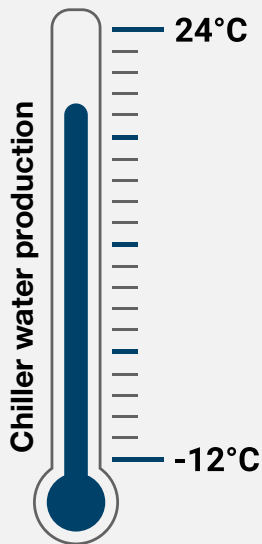


IT COOLING APPLICATIONS

- ✓ i-NR2-G07 combined with w-NEXT ranges close control series creates a complete Hydronic System ideal for small and medium data centers
- ✓ High leaving water temperature up to 24°C
- ✓ LAN functions with up to 8 units
- ✓ HPC software for optimizing the entire chillers + CRAHs systems
- ✓ Wide option availability ideal for this kind of application (demand limit, external capacity cap, thermal energy meter)

Going beyond ordinary limits of standard chillers, i-NR2-G07 range achieve extreme water temperatures, making these units ideal for IT Cooling applications.

MATCHING MISSION CRITICAL APPLICATIONS REQUIREMENTS



i-NR2-G07 can operate with outdoor temperatures up to +50°C and chilled water temperatures from -12°C to +24°C, significant values which make these units ideal for IT Cooling applications.

Technological Choices

Electrical Control Box

W3000+ control software, available with standard keyboard or touch screen, features proprietary settings, to perfectly manage each single product dynamic.



Compact keyboard (STD)



7 inch touch screen (opt.)



KIPLink (opt.)
Full access by simply scanning the QR code

Complete Hydronic Kit Options

Factory-installed **several pumps** (with VPF options) and **buffer tank** (opt.)



Single-head
in-line pump



Twin-head
in-line pump



R 32

i-NR2-G07 with R32 refrigerant are key in the company's path towards the creation of a greener future.

The reduced GWP level of this refrigerant gas tackles both direct and indirect global warming, offering customers a concrete forward-looking solution for your building and a concrete alternative to traditional refrigerants.



Low GWP

-66% GWP vs R410A



Safety Class A2L



Source side heat exchanger

V-shape micro-channel coils with several optional coil types and treatments available.

Mitsubishi Electric
quality components



Complete Fan assembly

With high-efficiency EC fans as std

Inverter scroll compressors

With acoustical enclosure as std

Fans & Compressors' drivers

EMI filters and DC reactors included

Group Control Systems

Thanks to LAN logics integrated into i-NR2-G07, it is possible to manage up to 8 units in a single group optimizing load distribution, alarm management, and units back-up/stand-by.

INTEGRATED SOLUTIONS



▶ LAN **Multi Manager**

1 Architecture

Exploits proprietary LAN technology to connect a group of chillers.

2 Interfacing

Completely integrated in the units.

3 Applications

IT Cooling applications.
Chillers.

4 Function

Smart management of the group of units with dynamic master logic, stand-by management, load and resource management.

CENTRALISED SOLUTIONS



▶ Data Center **Manager+**

1 Architecture

Designed to be connected to every chiller.

2 Interfacing

Devoted cabinet with 10,1" touch screen display.

3 Applications

IT Cooling applications.
Chillers.

4 Function

Centralized control and monitoring of a group of units, alarm management and mailing service.

TO LEARN MORE ABOUT
CENTRALISED SOLUTIONS

<https://www.melcohit.com/en/products?range=72,71,69,67>



Connecting Chillers

With CRAHs units: a system approach

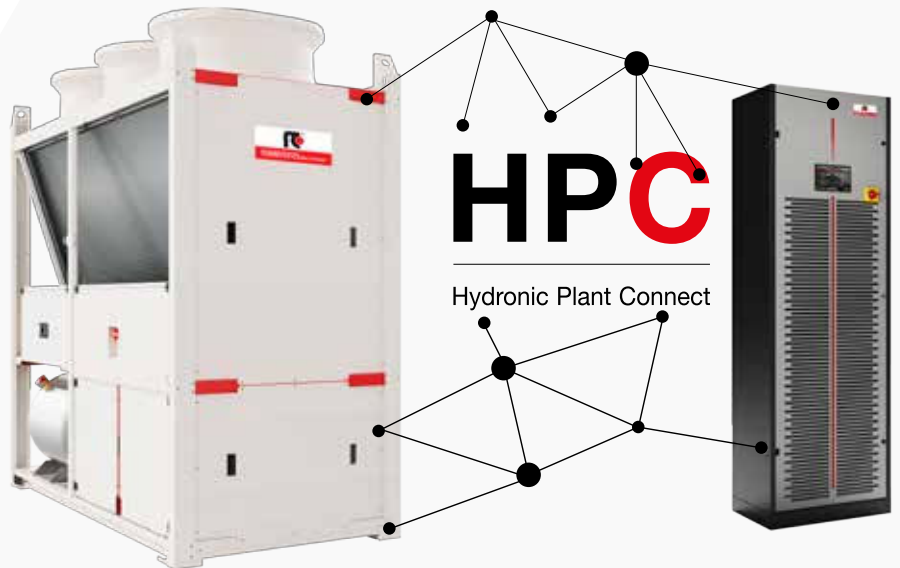
HPC

Hydronic Plant Connect

HPC

Up to 20 groups of CRAHs are connected to the group of chillers.
Proprietary LAN network for the optimization of the entire cooling system: CRAHs, chillers, FC availability, fans, pumps, and valves.

A complete cooling package dedicated to your high efficiency data center.



TO LEARN MORE ABOUT HPC

<https://www.melcohit.com/en/stories/124/hpc>



Main Options

1 Energy Meter for BMS and for W3000+

Acquires the electrical data and the power absorbed by the unit. Data is sent to the BMS or directly readable on the unit keyboard.

2 Thermal Energy Meter

Evaluates the cooling capacity delivered by the unit.

3 External Capacity Cap

This option controls the maximum capacity output of the unit and it's ideal for full inverter or hybrid units.

4 Hydronic Kits

Low or high head, fixed or variable speed, single or twin pumps and buffer tank always integrated in the unit.

5 Multifunction Card

Night mode, hydraulic decoupler probe for pump activation and User Limit Control Function.

6 Modular Installation Kit

Two modules of the same size can be connected thanks to a dedicated kit:

- ✓ structural and mechanical connection for reinforcement and safety
- ✓ hydraulic connections
- ✓ a software connection through multi-unit multi manager control

Factory Acceptance Test Experience



Carried out within modern and sophisticated facilities, this service gives the customer the possibility to choose among different test options in order to:

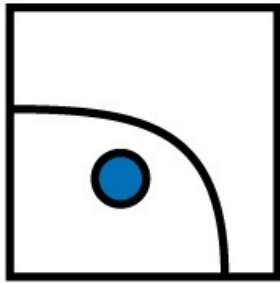
- ✓ Verify unit operation under severe conditions
- ✓ Check performance, both at full and partial loads
- ✓ Test the unit with low outdoor air temperature operation
- ✓ Detect sound emissions
- ✓ Time the fast restart



**TO LEARN MORE ABOUT
FACTORY ACCEPTANCE TEST**

<https://www.youtube.com/watch?v=Cy2FXAfhvj8>





DE WIT

datacenterkoeling



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