Air cooled chillers with inverter scroll compressors.

From 15 to 40kW.

R32
REFRIGERANT

MECH-iB-G07

MITSUBISHI ELECTRIC

MECH-iB-G07

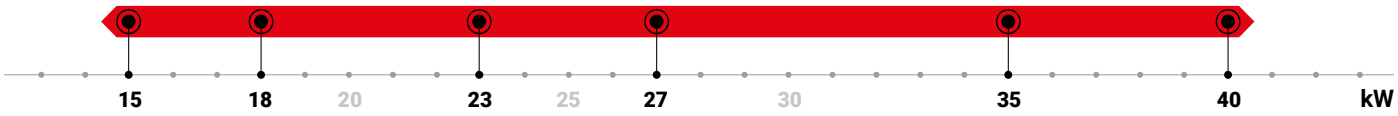
THE BEST COOLING ANYWHERE

Air source chillers designed by Mitsubishi Electric. From 15 to 40 kW.

MECH-iB-G07 is the new series of air-cooled chillers equipped with inverter scroll compressors and with reduced GWP refrigerant. Thanks to its extended operating limits and many dedicated options and accessories, the range is highly versatile and suitable for any type of application, even for mission critical ones.

Capacity range, 3-Phase

6 sizes, developed in optimized compact modules to cover capacity range from 15 to 40 kW.



Versatile, efficient, compact

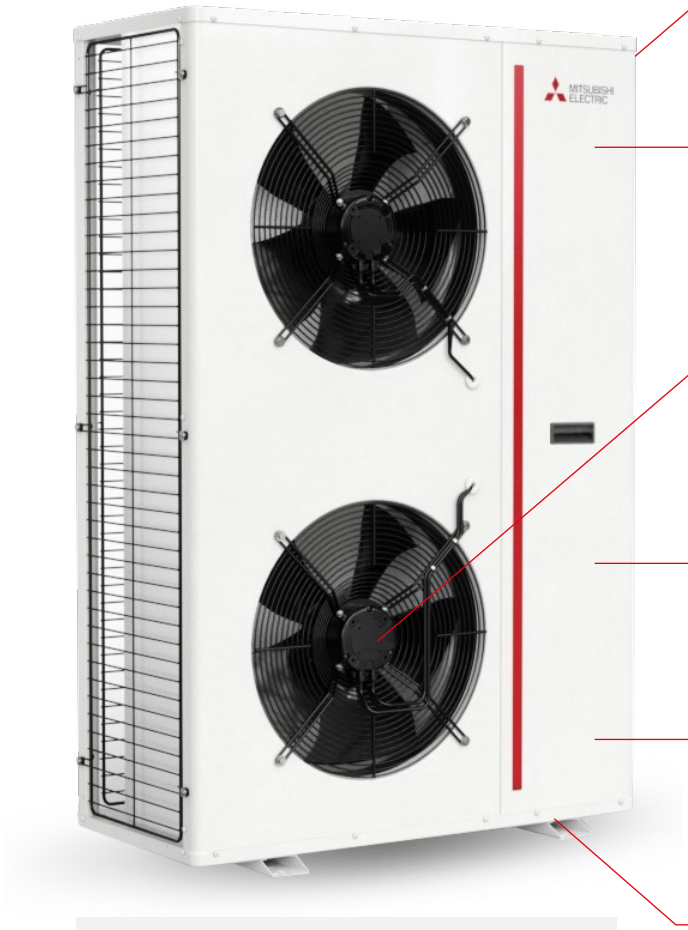
Versatility first

With its extended operating limits and numerous dedicated options, MECH-iB-G07 is the compact and sustainable chiller suitable for air conditioning and refrigeration in every application.

Unbeatable efficiency

High full load and seasonal efficiency values are achieved thanks to the full inverter technology: inverter driven compressors, EC fans, modulating water pump. The unit provides the exact capacity to match the actual needs of the building: high efficiency translates into reduced energy consumption throughout the unit's working period.

Technological Choices



Source side heat exchanger

Coils are copper pipes and aluminum fins, sized to guarantee the best performance in all working conditions. Coil protection grid provided as standard for all sizes.

Structure

Structure made of self-suppporting hot galvanized steel panels, painted white (RAL7035), with distinctive red stripes and black details (fan grids, handles).

EC fans

Fans with continuous speed regulation, which provide an improved air distribution while achieving low consumption and minimizing the sound level. The combination with the variable flow pump increases the benefits in terms of energy performance.

Refrigerant circuit

Electronic Expansion Valve controlled by a specific algorithm (DSH control) optimized for R32 refrigerant for enhancing the efficiency and reliability of the system.

Variable speed pump managment

MECH-iB-G07 includes as standard-state of the art on-board pumps with
-EC motors
-VPF.E dynamic variable flow control logic

Compressors

High quality and highly reliable Mitsubishi Electric Scroll Compressors, optimized for R32 refrigerant, Inverter driven. Compressors are soundproofed and installed on rubber anti-vibration mounts.

W3000+ Controller

Using the W3000+ controller offers advanced functionality in a compact unit. Available in standard on-board version, with KIPLink or with optional keyboards, it boasts proprietary control logics for rapid response to different operating dynamics.

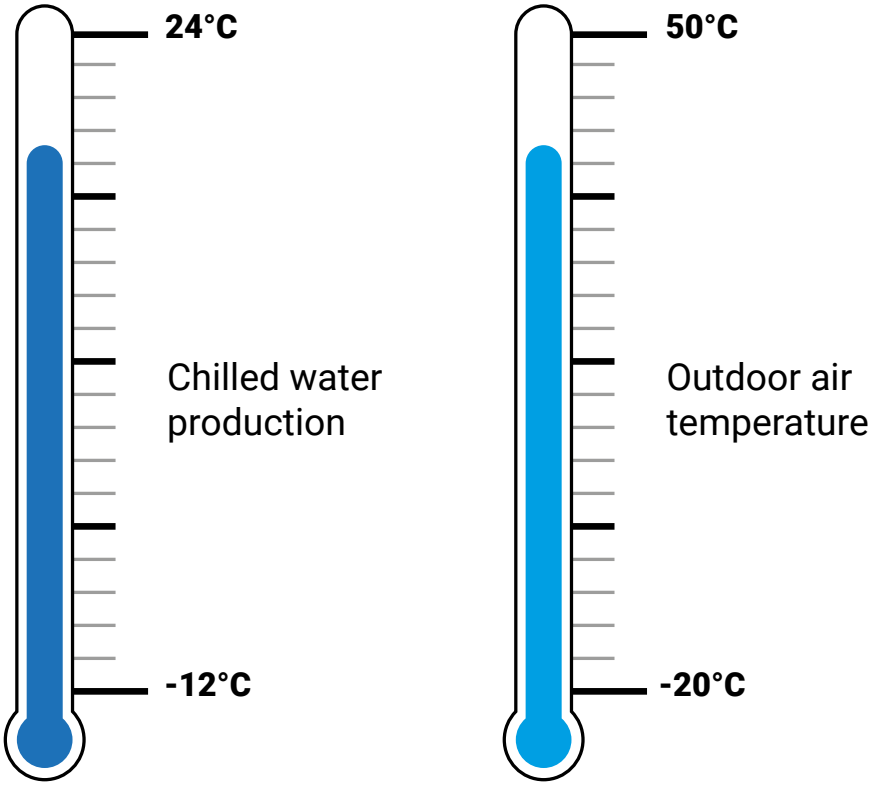
The winning solution for every application

MECH-iB-G07, thanks to its full inverter technology, is the winning solution for all those critical applications where reliability and an extended operating range are essential requirements. This range is the perfect choice for comfort, process, and IT cooling applications.

IDEAL FOR
IT COOLING
APPLICATIONS

IDEAL FOR
COMFORT
APPLICATIONS

IDEAL FOR
PROCESS
APPLICATIONS



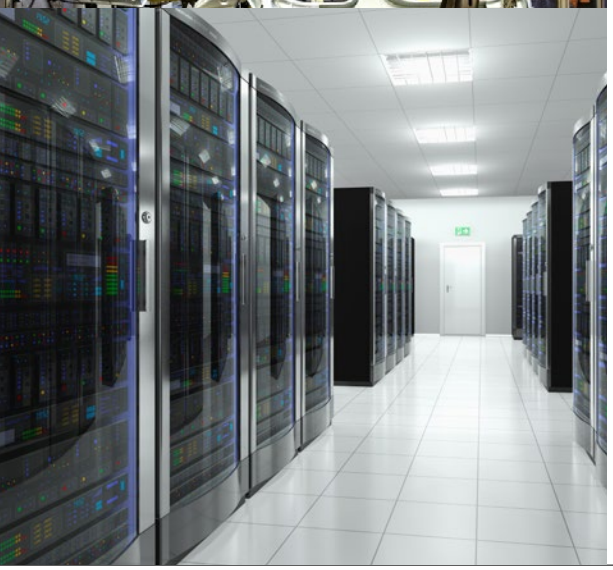
High efficiency values. EER up to 3,4 ; SEER up to 5,7

Comfort
Applications

High efficiency values (up to: EER = 3,4 ; SEER = 5,7), dedicated options for installation in residential and light commercial environments (KIPlink, Master/Client, Energy monitoring).

Process
Applications

Extended operating range, water supply down to -12°C and operation down to -20°C outside air
- Extremely reliable components
- Dedicated options available:
  high head pump and piping antifreeze heater option.



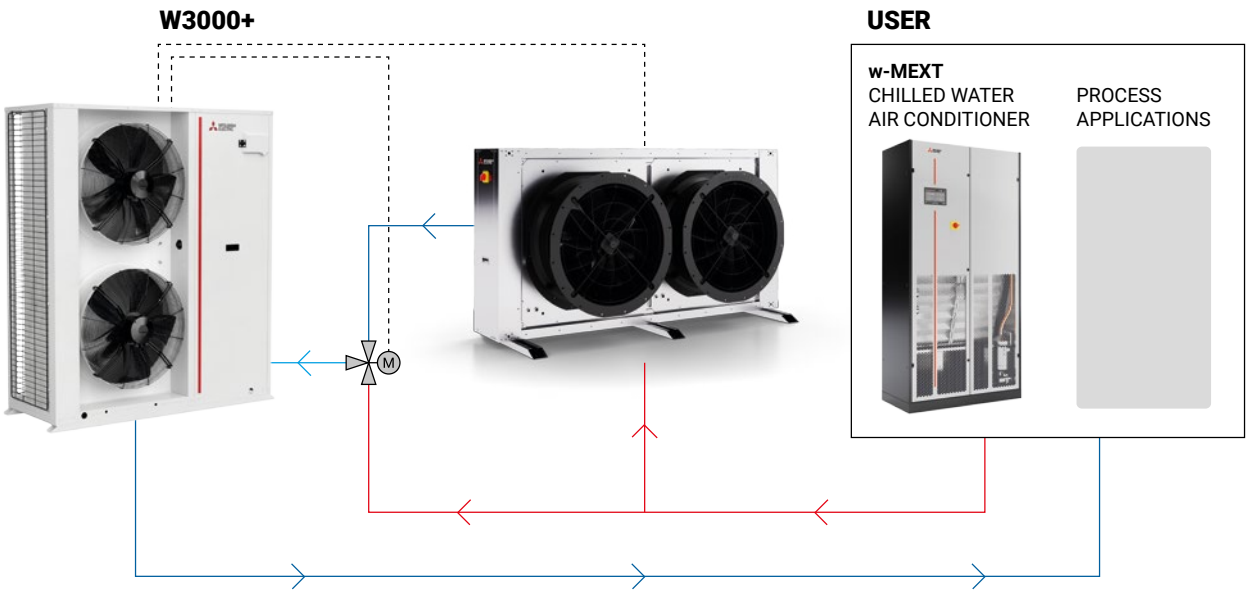
IT Cooling
Applications

Extended operating range, water supply up to 24°C and operation up to 50°C outside air with Delta T up to 10°C
- Dedicated options and accessories available:
  External dry-cooler management, ATS, HPC, high head pump, KIPLink, thermal energy monitoring.

Many options for many solutions

External dry cooler management

Thanks to the special proprietary logic, it is possible to combine MECH-iB-G07 with the MEDR series dry-cooler, a synergy of Mitsubishi Electric products aimed at achieving maximum energy savings in savings in process and IT Cooling. In fact, in these particular installations, the supply water temperature is usually higher, therefore, the benefits of free-cooling are maximized.



High head pump

This option is expressely designed for targeting Process and ITC applications where the level of residual head required is not achievable by the std pump. This is also a valid alternative to the choice of installing an external pump (thus saving cost and space). The level of residual head achievable is up to 150kPa (according to the unit size).

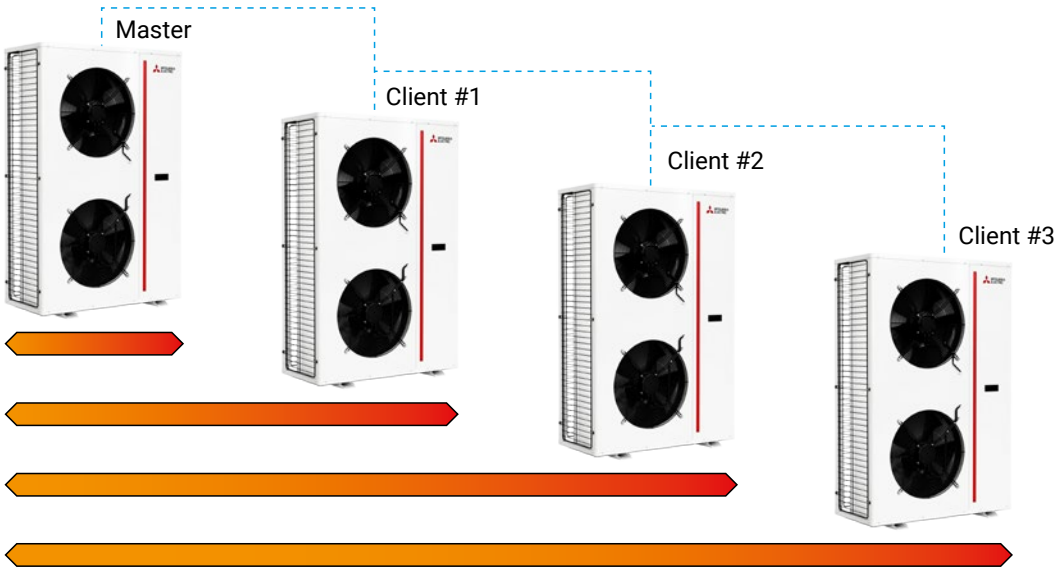
Piping antifreeze heater option

Thanks to the application of special insulation on the piping and the presence of a dedicated resistor,
it is possible to prevent the system from freezing during downtime, even in conditions of low outside air temperatures.

Multi-unit system Master-Client

The **multi-unit system Master-Client** is the newly released function for controlling a group of units together. This function is provided as a standard feature for MECH-iB-G07, thus allowing maximum flexibility on site. Some important features are:

- Function developed within W3000+ control platform
- Up to 4 units connected together
- No additional control hardware required, only plant storage probe



Double power supply

MECH-iB, equipped with an ATS (automatic switch), can be connected to two independent power lines.
In the event of a power failure of the main line, the ATS switches automatically to the backup line, ensuring uninterrupted power supply.

MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS S.p.A.

Head Office:
Via Caduti di Cefalonia 1 - 36061 Bassano del Grappa (VI) - Italy
Tel (+39) 0424 509 500 - Fax (+39) 0424 509 509
www.melcohit.com