MITSUBISHI ELECTRIC
Changes for the Better

for a greener tomorrow eco Changes

COMFORT CHILLERS

r1234ze

FX2-G04

Air source chillers with screw compressors and nearly zero GWP refrigerant

252 - 1572 kW

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

CLIMAVENETA®

COOLING
SCREW
R HFO1234ze

FX2-G04

Air source chillers with screw compressors

- Family overview
- Technical insight
- Controls
- Performance
- Operating limits
- Heat recovery
- Hydronic modules
- Further options
- Selling points

COOLING
SCREW
R HFO1234ze

FX2-G04

Air source chillers with screw compressors

Family overview

Technical insight

Controls

Performance

Operating limits

Heat recovery

Hydronic modules

Further options

Selling points

FX2-G04 - Family overview

Key features

COOLING | SCREW | R HFO1234ze | T SHELL&T. | AXIAL | EC AXIAL

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

FX2-G04

ErP 2021 COMPLIANT

Air source chillers with screw compressors and nearly zero GWP refrigerant

252 - 1572 kW

FX2-G04 - Family overview

HFO refrigerant

R1234ze: All-round sustainability

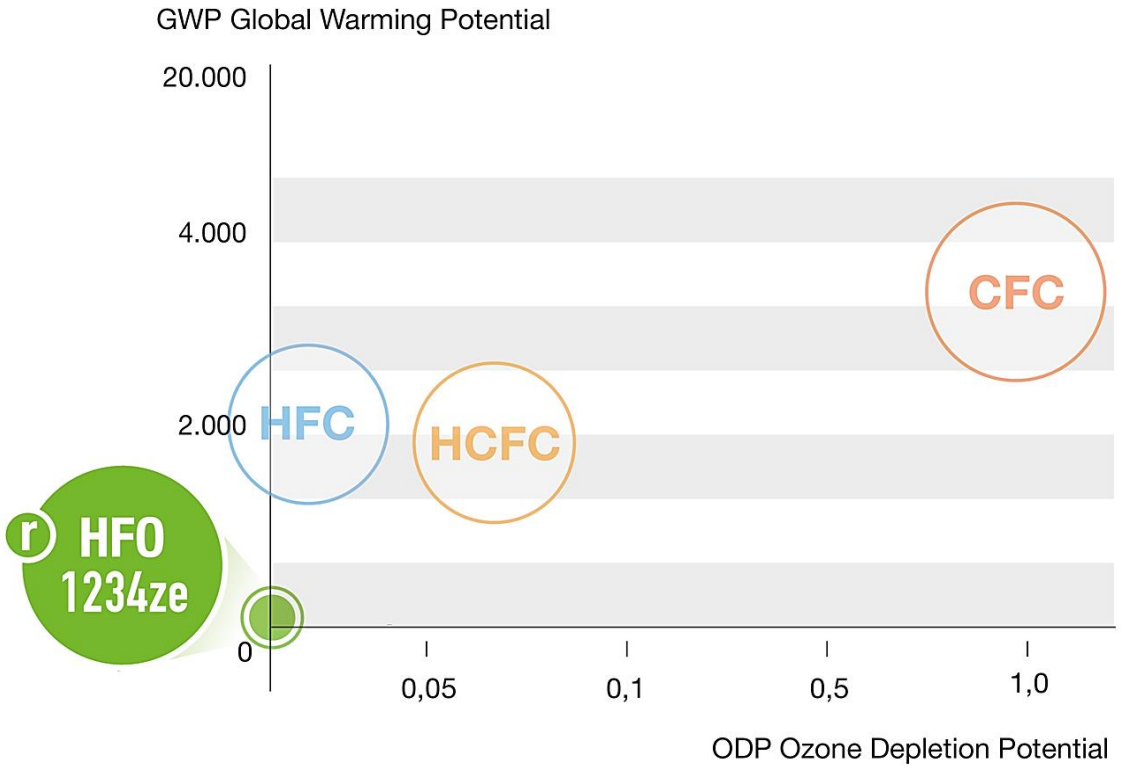
FX2-G04

Combining brilliant efficiency with the use of a nearly zero GWP refrigerant, FX2-G04 tackles both the indirect and the direct global warming impact, thus resulting the perfect choice for any new, forward-looking cooling system.

- **Negligible GWP**
  HFO 1234ze $GWP_{100\ year} < 1$ (R134a $GWP_{100\ year} = 1300$)
  * GWP values according to IPCC rev. 5th
- **Rapid molecule disintegration in the atmosphere**
  HFO 1234ze = 2 weeks (R134a = 14 years)
- **Approved by international standards**

ASHRAE 34, ISO 817	PED (UNI EN 10204)
Safety Class A2L	Fluid Group 2
(non toxic, mildly flammable)	(non dangerous)

- **Compatible with common materials**
  No special components, No extra cost
- **In-line with eco-regulation objectives**
  No future retrofit required



FX2-G04 - Family overview

Nomenclature

1	2 3 4	5	6	7	8	9	10 11
FX2-	-G04-			/	D /		1593

Code	Descriptions	Extension	Descriptions
1	Inverter Driven Tech	-	NOT
		i	Inverter
2	Compressor Type	N	Scroll
		F	Screw
		T	Centrifugal Oil Free
3	Brand	X	Climaveneta
		R	RC
4	Product Generation	-	
		2	New Product Generation
5	Unit Type	-	Air source chiller
		W	Water source chiller
6	Refrigerant	G01	R134a
		G02	R410A
		G03	R407C
		G04	HFO1234ze
		G05	R513A
		G02	R454B

Code	Descriptions	Extension	Descriptions
7	Application segment	-	Comfort
		Y	Process
		Z	IT Cooling
8	Function	-	Without heat recovery
		D	Partial heat recovery
9	Version	-	Unique single version
		K	Key efficiency
		A	High efficiency
		E	Enhanced efficiency
		SL-K	Key efficiency + Super Low Noise
		…	*other*
10	Size	4 digit code	first 3 digits: cooling capacity*0.1 [kW]
			last digit: compressors number
11	Evaporator type	-	one evaporator type (plate or S&T)
		T	Shell&Tube
		P	Plate

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FX2-G04

Air source chillers with screw compressors

FX2-G04 - Technical insight

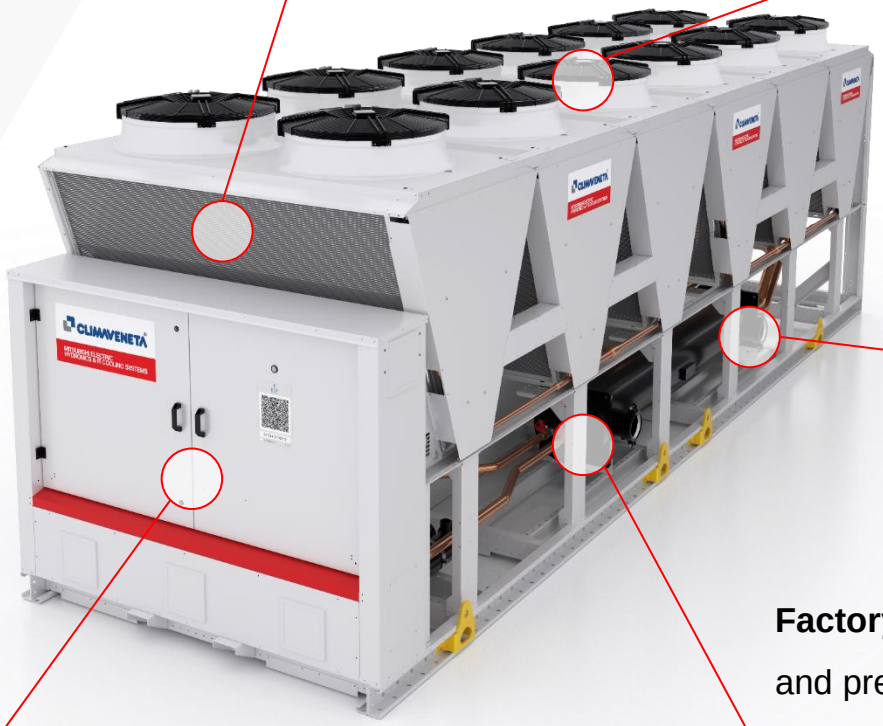
Main components

Patent-pending solution for the **optimization** of the thermodynamic cycle

PATENT PENDING

Full Aluminium microchannel coils for high efficiency and low refrigerant charge. E-coating available as option.

Variable-speed AC axial fans. EC fans as option for unbeatable seasonal efficiency.



Dry shell and tubes evaporator, fully developed in-house

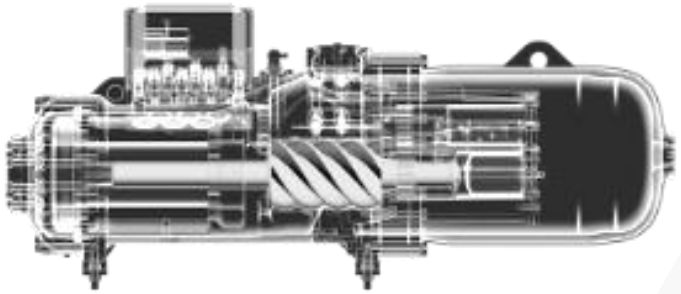
KIP LINK Keyboard In your Pocket

Electrical panel with power circuit components and **W3000+** control

Factory-installed pumps (with VPF options) and pre-plumbed hydraulic for the minimum installation time and cost (optional).

FX2-G04 - Technical insight

The compressors



Designed according to Mitsubishi Electric Hydronics & IT Cooling Systems specifications and for its exclusive use.

Dual rotor screw compressors
optimized for HFO refrigerant
r1234ze

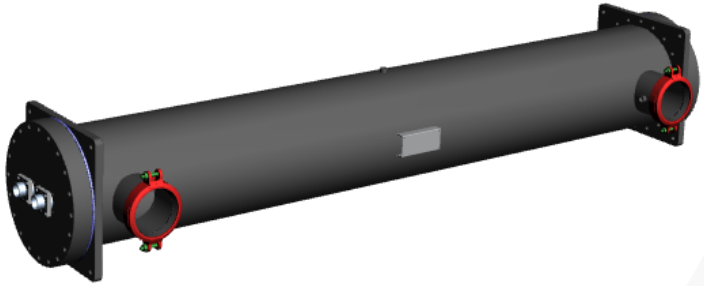
Improved internal geometry
enhancing efficiency at partial load operations

Innovative lubrication system
A devoted oil management valve calibrates the oil circulation, for better performance.

Extreme durability
The carbon steel bearings are granted for a lifetime of 150.000 hours

FX2-G04 - Technical insight

User side heat exchanger



Designed and produced

by

Mitsubishi Electric Hydronics

& IT Cooling Systems

MITSUBISHI ELECTRIC
Changes for the Better

Single pass, dry expansion
Shell & Tube evaporator

Enhanced heat transfer
Thanks to perfect counter-current flow and grooved copper pipes

Low pressure drops on water-side

Protected against ice formation
Water flow is controlled by a differential pressure switch

- Insulated with a **foamed polyethylene mat of 9 mm thickness** (19mm available as opt.)
- **TYPE H hydraulic connections:** Grooved coupling with weld end counter-pipe user side

FX2-G04 - Technical insight

The condensing coils

New generation aluminum MCHX coils

Long Life Alloy (LLA) for higher corrosion resistance and longer life cycle

-30% refrigerant charge vs. traditional solutions

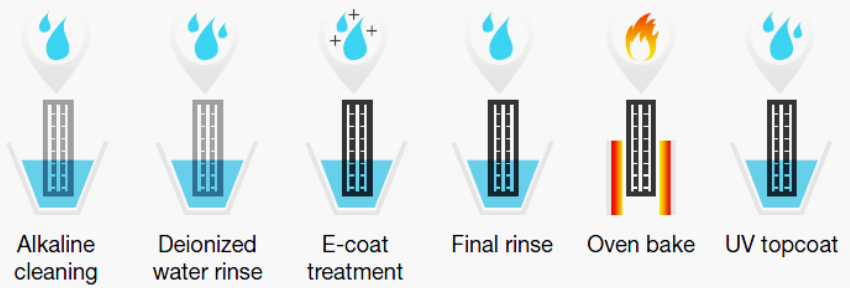
Lower weight vs. traditional solutions

E-COATED MCHX coils fir harsh environments (Opt. 876)

The e-coating treatment creates a protective layer of epoxy polymer on the surface of the coils:

- **Over 3120 h** resistance as per **ASTM G85-02 A3** (SWAAT)
- **Over 6000 h** resistance as per **ASTM B117**
- **Over 1000 h** of surface protection against UV rays as per **ASTM G155-05a**

E-coating process



FX2-G04 - Technical insight

The fans

High performing, 800mm-diameter **axial fans**

External bell mouth
for the highest efficiency and best-in-class sound power levels

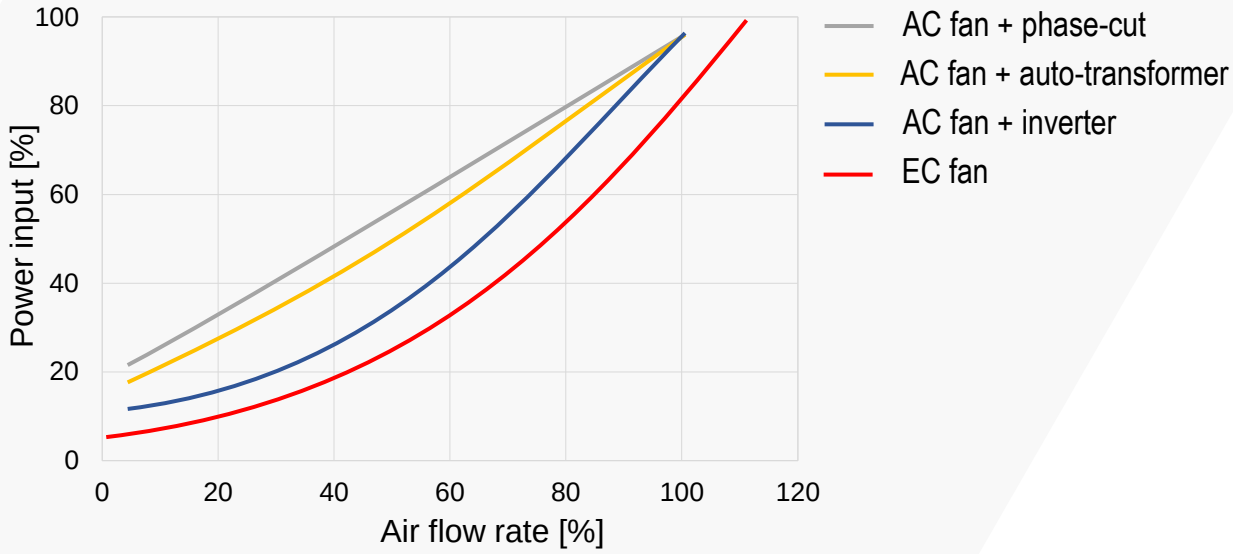
Variable Speed control with auto-transformer and single-fractioning as standard **(DVVF)**, for large operating limits

OPTION **EC AXIAL (Opt. 808)**

Extended operating limits
UP TO **-15°C**

Partial load efficiency
UP TO **+5%**

Fan speed controls



FX2-G04 - Technical insight

The fans

High performing, 800mm-diameter **axial fans**

External bell mouth
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Variable Speed control with auto-transformer and single-fractioning as standard **(DVVF)**, for large operating limits

OPTION

EC AXIAL (Opt. 808)

Extended operating limits

UP TO **-15°C**

Partial load efficiency

UP TO **+5%**

OPTION

EC AXIAL with high ESP (Opt. 818)

Ideal for installations featuring a short ducting of the fan discharge

- Up to **150 Pa** of available static pressure
- **No compromise on cooling capacity or efficiency** up to 100 Pa

FX2-G04 - Technical insight

The electrical panel

Electrical wirings

- General door lock isolator
- Automatic circuit breakers (opt.)
- Terminals for cumulative alarm
- Remote on/off terminals

Set-point control

- **Pump control relay + 0-10V modulating signal** for external VSD pump control
- **4-20 mA** (analog input)(opt.)
- **Set point compensation for outdoor temperature**

Other functions (opt.)

- **Demand limit**
- **Night mode**
- **Energy meter**
- **User limit control**
- **VPF and VPF.D variable flow control**

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FX2-G04

Air source chillers with screw compressors

FX2-G04 - Controls

The unit's control

W3000+ control software

Proprietary settings for faster adaptive responses to different dynamics, in all operating conditions.

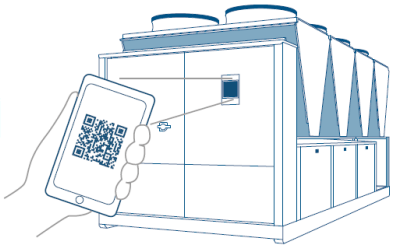
Fully in-house developed

- **Thermoregulation**
  Modulating on outlet water temperature + PID on outlet water temperature
- **Diagnostics**
  Complete alarm management, with "black-box" and alarm history.
- **Monitoring**
  Complete visualization of the operation status. User-friendly navigation.
- **Security**
  3 levels of password: user, service, manufacturer.
- **Connectivity**
  BMS: Modbus, LonWorks, BACnet MS/TP, BACnet-over-IP, Konnex, Modbus over IP, SNMP. Proprietary: Manager3000, ClimaPRO, M-net network.

FX2-G04 - Controls

The user interface

KIP LINK
Keyboard In your Pocket



KIPlink: the Keyboard is In your Pocket

Based on the **Wi-Fi technology**, KIPlink gets rid of the standard keyboard and allows to operate on the unit directly from his **mobile device** (smartphone, tablet, notebook).

An exclusive product of
Mitsubishi ElectricHydronics & IT Cooling Systems.

Suitable for industrial environment
tolerates temperatures from -20 to +65°C

Wi-Fi communication
no internet connection needed

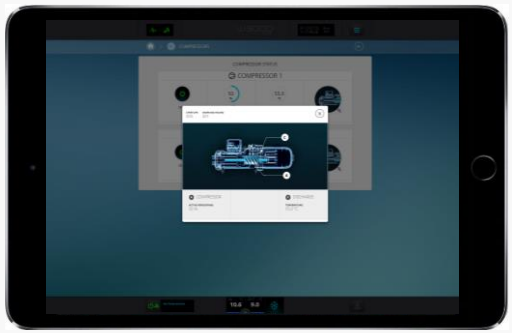
Ready to use

- Download and install MEHITS APP
- Create and register your profile
- Scan the QR code and connect to the unit

FX2-G04 - Controls

The user interface

KIPlink: the Keyboard is In your Pocket

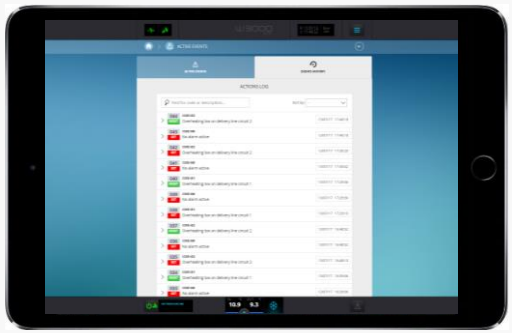


Easier on-site operation

- **Monitor** each component **while moving** around the unit for maintenance.
- View and change all parameters with **easy-to-understand screenshots** and dedicated tooltips.
- Get devoted “help” message for alarm reset and trouble shooting.

Real-time graphs and trends

- Monitor the **immediate labor status** of the compressors, heat exchangers, cooling circuits and pumps.
- View the real-time graphs of the key **operating variable trends**.



Data logger function

- View history of events and use the **filter for a simple search**.
- Enhance diagnostics with data and graphs of **10 minutes before and after** each alarm.
- **Download** all the data for detailed analysis.

FX2-G04 - Controls

The user interface

KIP LINK
Keyboard In your Pocket

KIPlink: standard equipment

LED switch*

- Power LED
- Unit status LED
- On/off switch

QR code

- Scan to have access

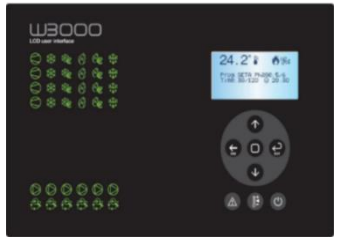
KIPlink hardware

- In the electrical board
- Wi-Fi antenna

* Provided when the unit is equipped with the KIPlink and without optional keyboard.

Other interface options in **addition** (Opt. 1442, 1444) or in **substitution** (Opt. 6194, 6195) to the KIPlink:

Large keyboard

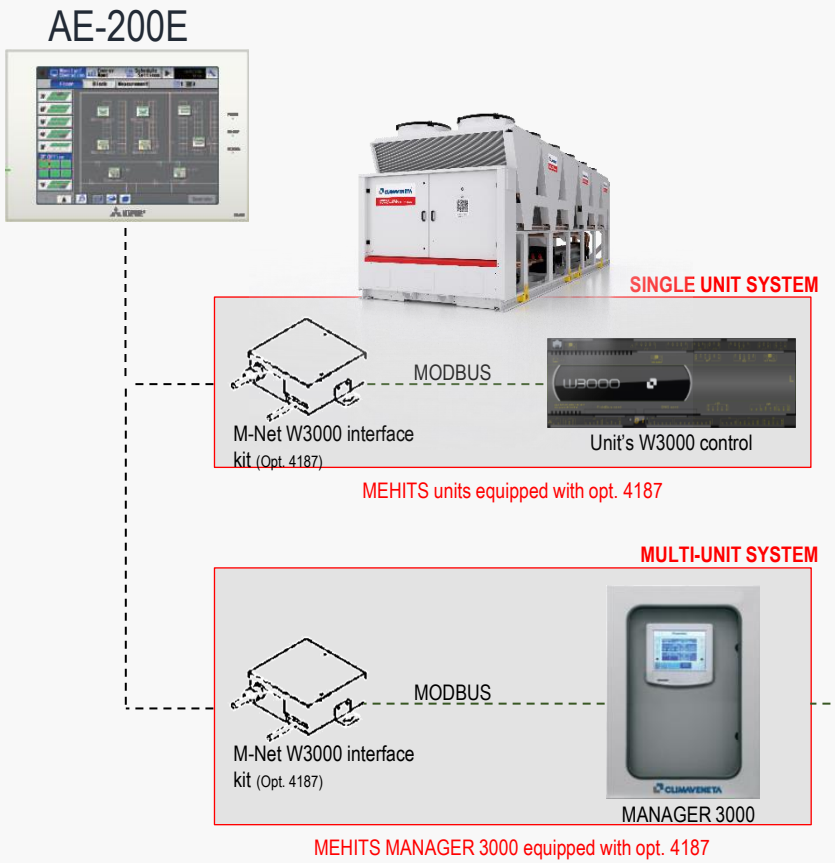


7” touch screen

FX2-G04 - Controls

Multi-unit system control

M-Net: connect to the Mitsubishi Electric network



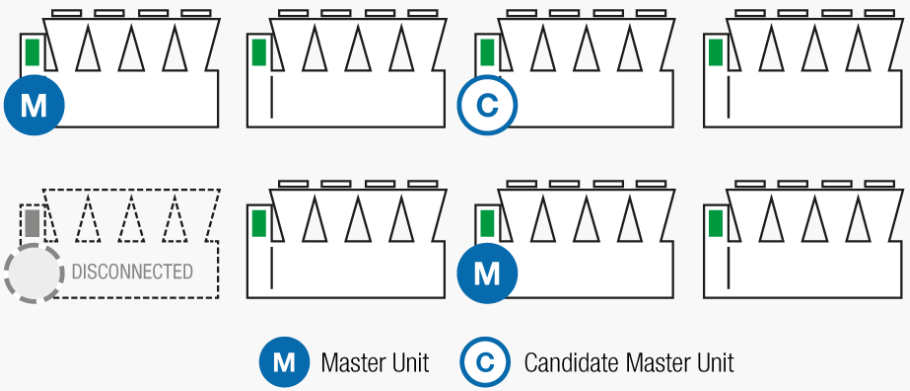
- View the units and their working **status**
- **Alarm** display
- Control groups of units: **on/off**, **cooling/heating**, **set point**
- Set an **operating schedule** for each group of units
- **Web app**
- Compatible with Mitsubishi Electric:
  AE-200E, AE-50, EW-50 (Ver. 7.68 or later)

FX2-G04 - Controls

Multi-unit system control: MULTI MANAGER option

MULTI MANAGER: smart LAN logics

With opt. 1541 and 1542 – MULTI MANAGER, FX2-G04 ranges feature **embedded LAN logics for an easy connection between group of chillers**. The entire cooling equipment works as one, with **one master chiller that coordinate and optimize the operation of the chiller group.**



- **Load sharing and Sequencing logics** for the smart distribution of cooling loads among the units
- **Up to 8 chillers connected on the same group**
- **No simultaneous start-ups of different unit's compressors,** to prevent dangerous current peaks, but a selectable units' start-up sequence
- **Stand by unit management with automatic unit rotation**

ADVANCED FUNCTIONS

Dynamic master with succession priority: one master unit is elected to coordinate the equipment group and once it becomes disconnected, the candidate unit takes full control.

Resource priority management: In case of a varying group of chillers, with different technologies, it is possible to set the usage priority of each unit, making the most of the available cooling resources.

FX2-G04 - Controls

Multi-unit system control: CLIMA PRO

ClimaPRO: turn your plant room into a value generating asset

The ultimate **plant room optimization** solution.

According to the units' actual efficiency curves, ClimaPRO **continuously optimizes** plant working conditions by promptly adjusting **equipment staging** and sequencing, managing operating **set-points** and controlling **water flows** throughout the entire system.

ClimaPRO can be interfaced with any BMS or perform all functions on its own.

clima PRO
PERFORMANCE RELIABILITY OPTIMISATION

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FX2-G04

Air source chillers with screw compressors

FX2-G04 - Performance

Versions

The Power of Choice

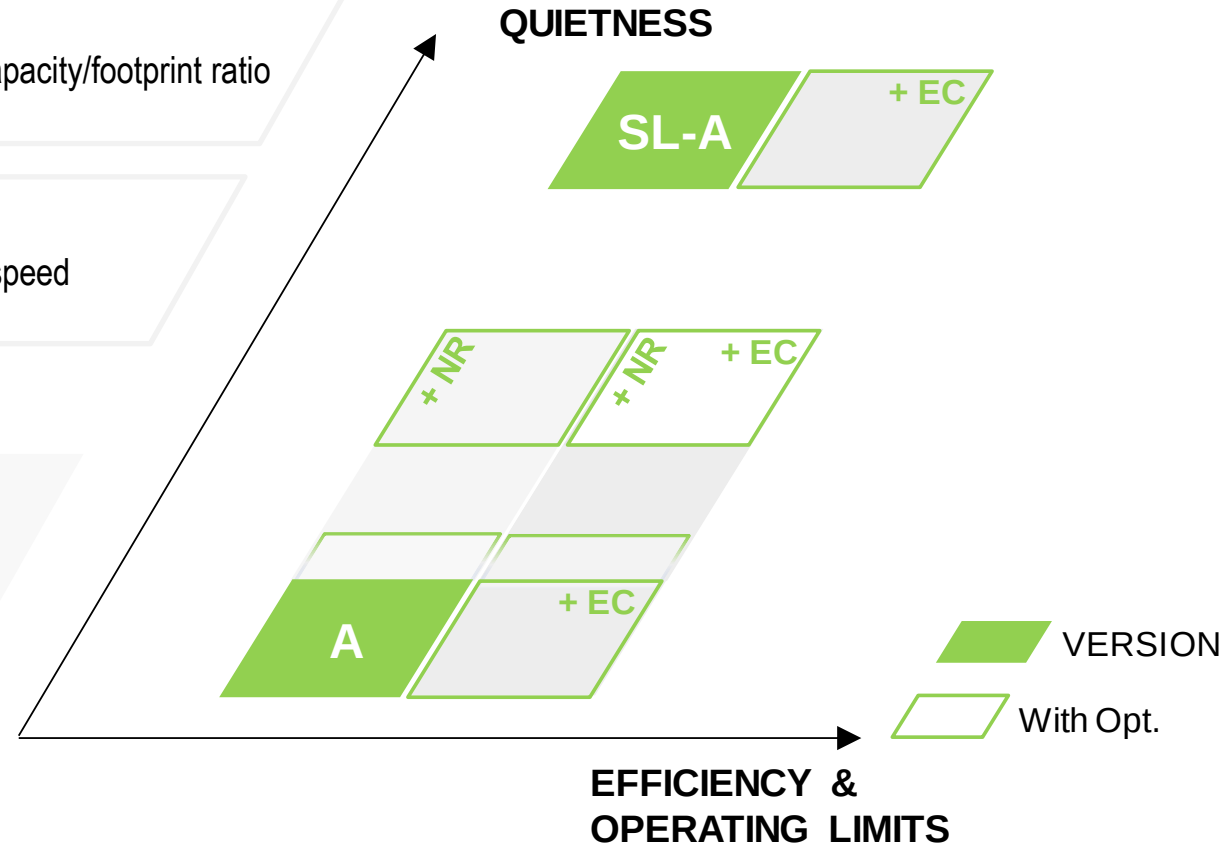
VERSIONS

A - High efficiency
Compact units that grant the best cooling capacity/footprint ratio

SL-A - Super low noise version
Larger heat exchange surfaces and calibrated fan speed for best-in class sound power levels

OPTIONS

- EC fans (Opt. 808)
- HT kit (Opt. 1955)
- Acoustical enclosure (Opt. 2301)
- Noise reducer (Opt. 2315)



FX2-G04 - Performance

Full & Part load efficiency levels

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COOLING

No compromise on efficiency! SL version

	Avg. EER	Avg. SEER	SEER with opt. EC fans
A	3,29	4,61	Up to 4,84
SL-A	3,28	4,62	Up to 4,87

+9%

Seasonal efficiency
in comparison with previous generation

Net values - EN14511, EN14825
EER: 12/7°C, air 35°C
SEER - Regulation (EU) N.2281/2016, low temp. application

FX2-G04 - Performance

Full & Part load efficiency levels

r1234ze

COOLING

No compromise on efficiency! SL version

	Avg. COPr	Avg. IPLV	IPLV with opt. EC fans
A	3,30	5,08	Up to 5,38
SL-A	3,29	5,10	Up to 5,42

+5%

Part load efficiency
in comparison with previous generation

Values in accordance with AHRI standard 550/590 (IP)

FX2-G04 - Performance

Part load efficiency vs main competitors (fixed speed)

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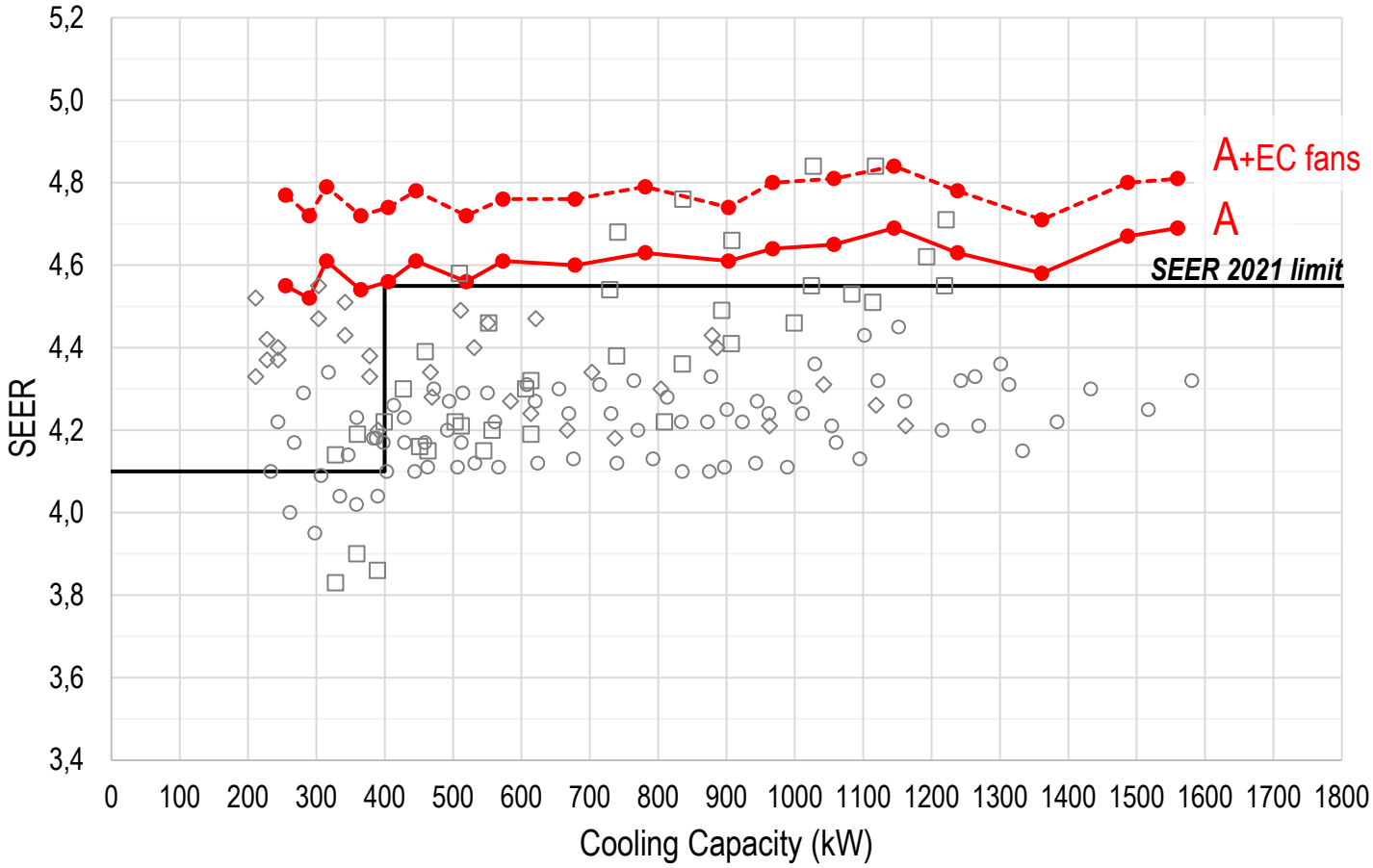
Part load efficiency: SEER



- **High part load efficiency**
  already for the A version
- **ErP2021 fully compliant**
  all models exceed the strictest ErP limit
- **Eurovent Certification**
  all models are Eurovent certified
- **Opt. 808 EC fans**
  available for all versions to boost even more the efficiency.
- **No compromise on efficiency!**
  The part load efficiency is maintained with: Noise Reducer kit (opt. 2315) and for Super Low noise versions.

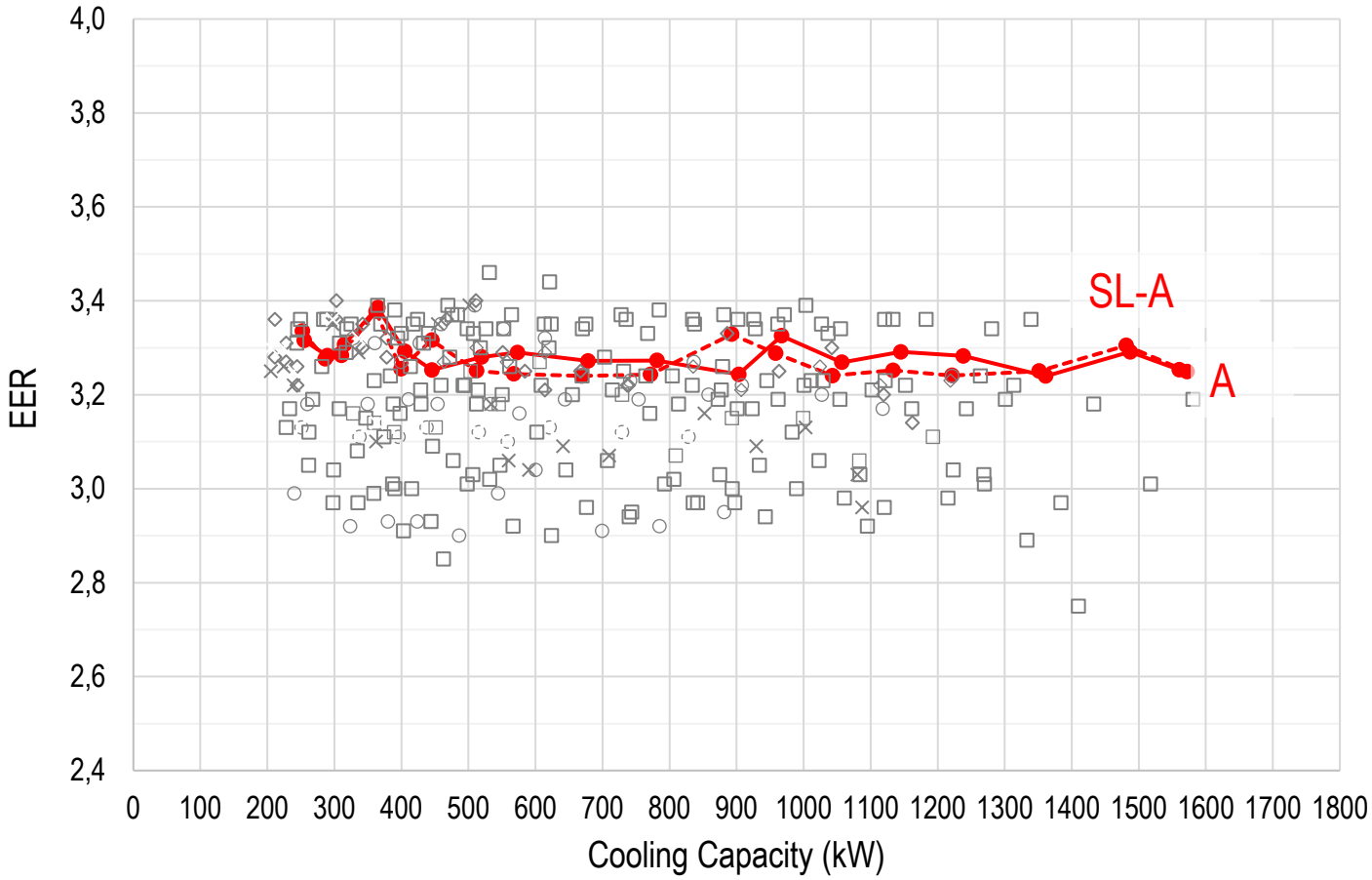
Noise Reducer kit /// SL version

SEER - Regulation (EU) N.2281/2016, low temp. application

FX2-G04 - Performance

Full load efficiency vs main competitors (fixed speed)

Full load efficiency: EER



- **High full load efficiency**
  (avg. EER 3.29)
- **Eurovent Certification**
  all models are Eurovent certified.
- **No compromise on efficiency!**
  The high full load efficiency is maintained with: Noise Reducer kit (opt. 2315) and for Super Low noise versions.

Net values - EN14511, EN14825 EER: 12/7°C, air 35°C

FX2-G04 - Performance

Acoustic options

No compromise on efficiency!

Noise Reducer kit SL version

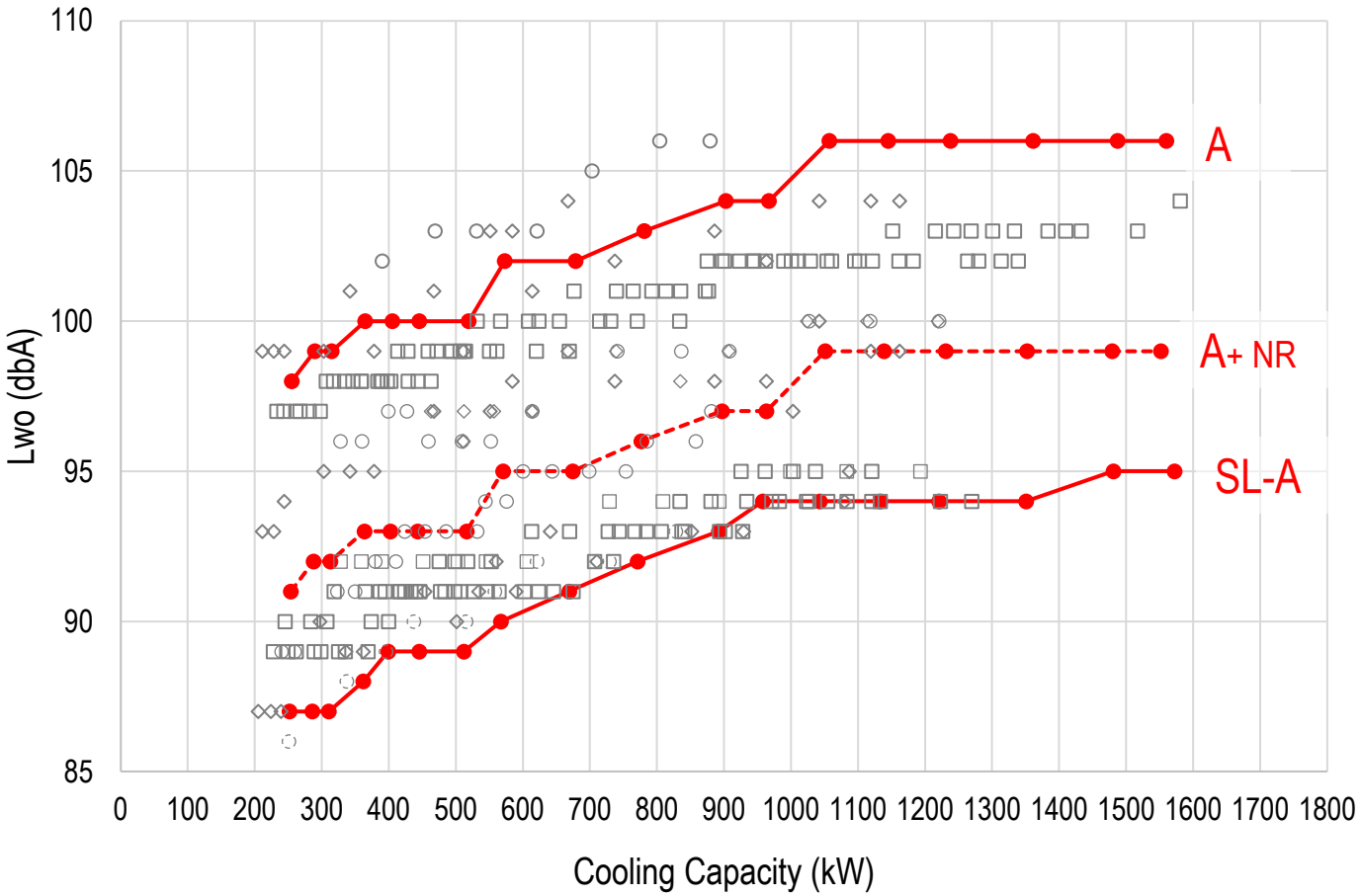
4 sound configurations:

-	Unit with standard soundproofing equipment.	Baseline
(Opt. 2301)	**Compressor acoustical enclosure** Compressor enclosures with sound-absorbing material	-2 dB(A)
(Opt. 2315)	**Unit with Noise Reducer (NR) kit** Compressor enclosures with sound-absorbing material and calibrated fan speed	-7 dB(A)
SL	**Super Low noise** Unit with oversized condenser, compressor enclosures with high sound-absorbing material and calibrated fan speed, for best-in-class sound power levels.	-12 dB(A)

FX2-G04 - Performance

Acoustic options vs main competitors (fixed speed)

Sound power



- **Opt. 2301 Compressor acoustical enclosure**
  available for both /A version, this option lowers the sound power by 2 dB(A).
- **Opt. 2315 Noise Reducer kit**
  available for /A version, this kit meets the most demanding requests in terms of sound power without compromising efficiency
- **Super Low noise versions**
  For the ultimate acoustical performance, FX2-G04 is available in Super Low Noise version. The units result the best-in-class when it comes to noise levels, while maintaining part-load efficiencies of the std version.

Net values - EN14511, EN14825 EER: 12/7°C, air 35°C

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FX2-G04

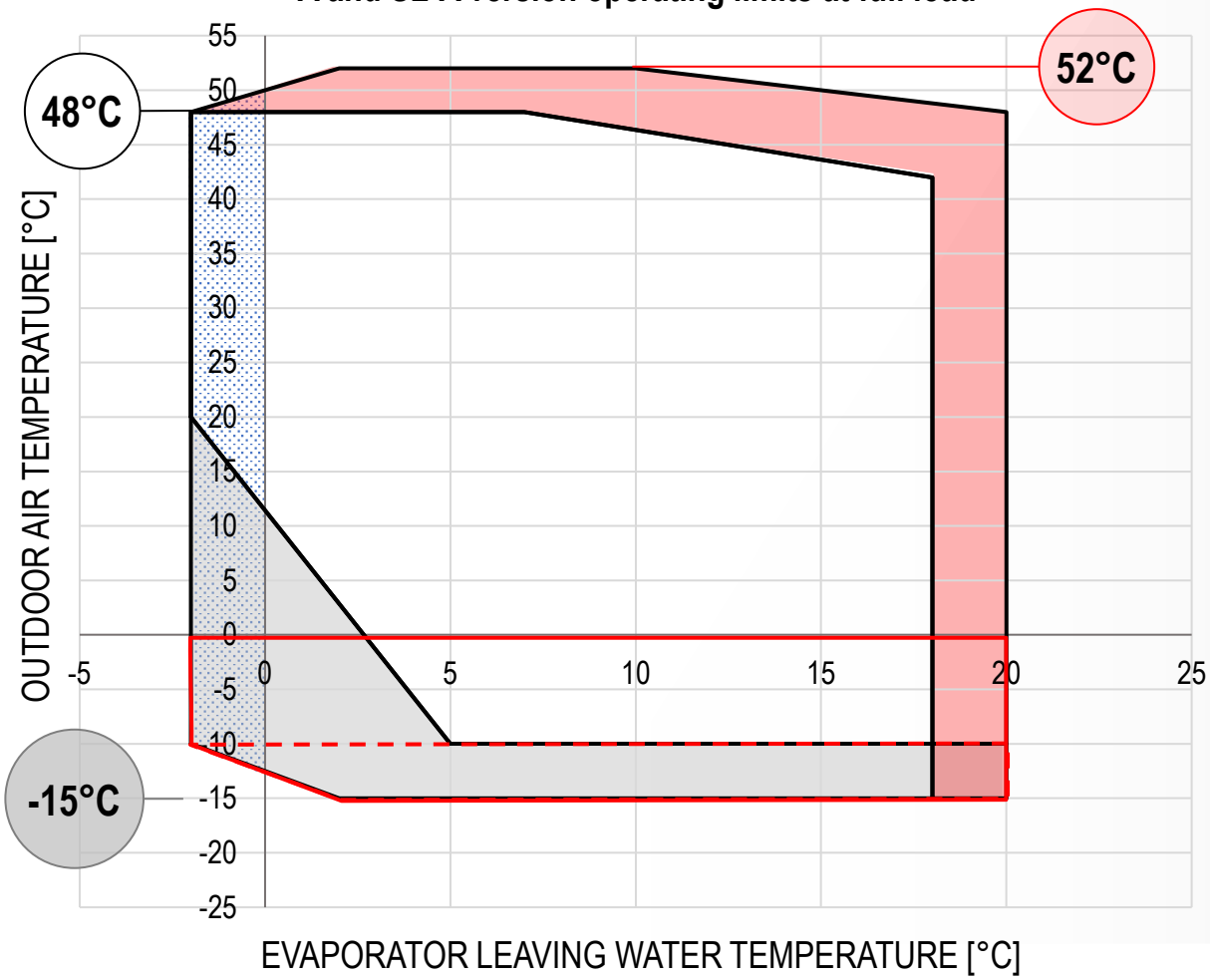
Air source chillers with screw compressors

FX2-G04 - Operating limits

COOLING

Cooling

A and SL-A version operating limits at full load



STD

EC fans (Opt. 808)

HT kit (Opt. 1955)

Antifreeze piping and pumps (Opt. 2432) if hydronic kit is present

Double insultaion on heat exchangers (Opt. 2631) or Double insulation on heat exchangers, pipes and pumps (Opt. 2633) if hydronic kit is present

LWT<0°C Compressor liquid injection (Opt. 871)

Partial load operating limits

In case of higher outdoor air temperature, FX2-G04 automatically partializes its resources to ensure uninterrupted operation.
Operating limits when working partialized (water */7°C):

/A , /SL-A 55°C +kit HT 57°C

* Request for quotation

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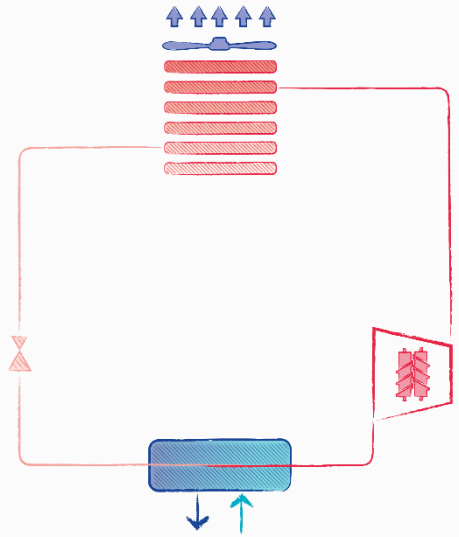
FX2-G04

Air source chillers with screw compressors

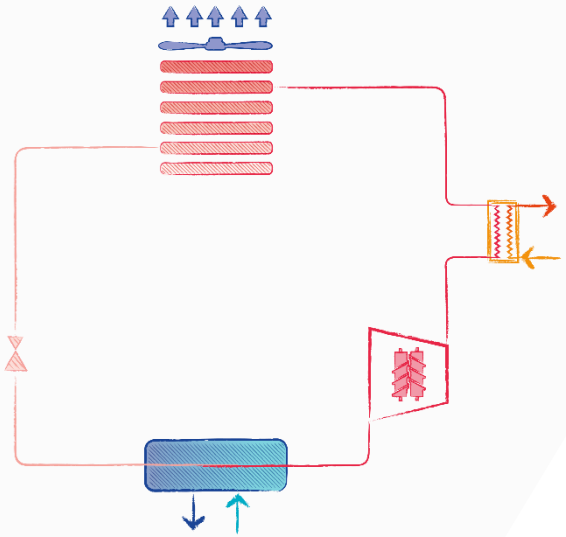
FX2-G04 - Heat recovery

Configuration overview

Standard



Partial heat recovery

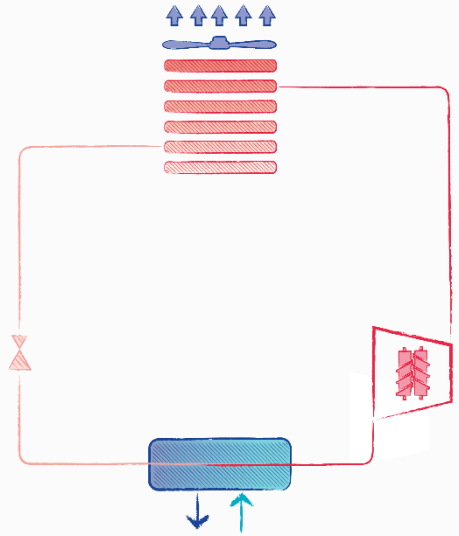


The heat recovery provides heating capacity for free.
Suitable for **DHW** production, **integration of a boiler**, air treatment in **AHU**.

FX2-G04 - Heat recovery

Standard configuration

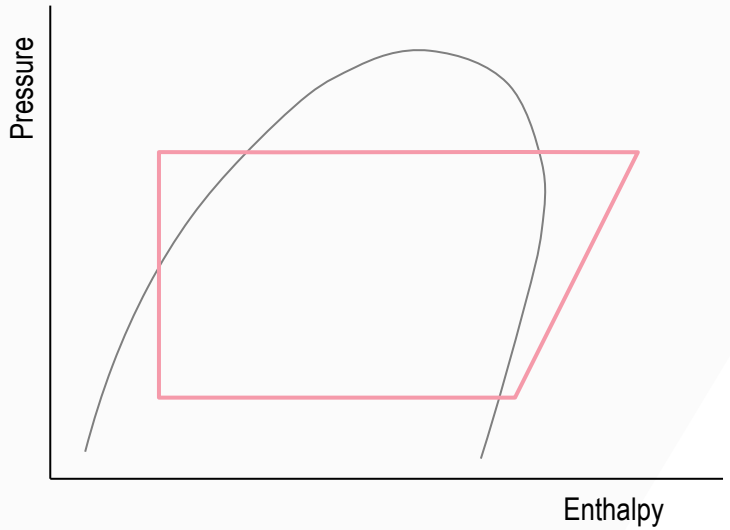
Standard



Standard refrigerant circuit.

No heat recovery

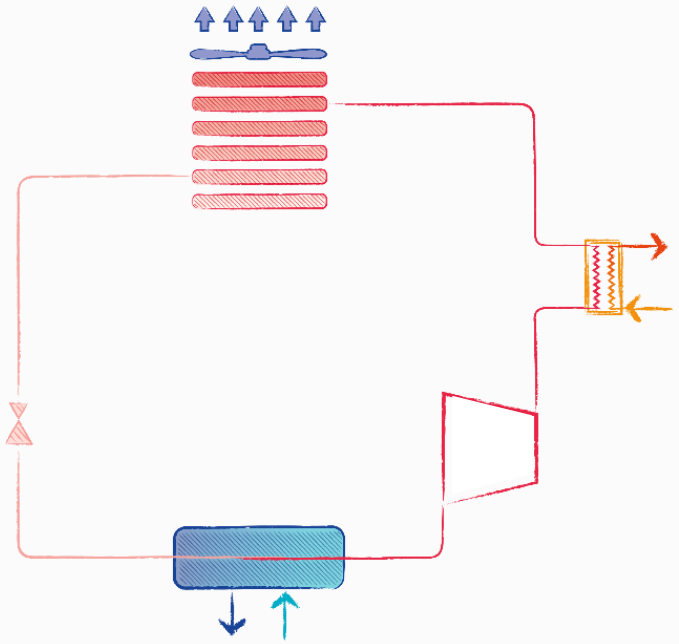
All the condensation heat is dispersed in the air.



FX2-G04 - Heat recovery

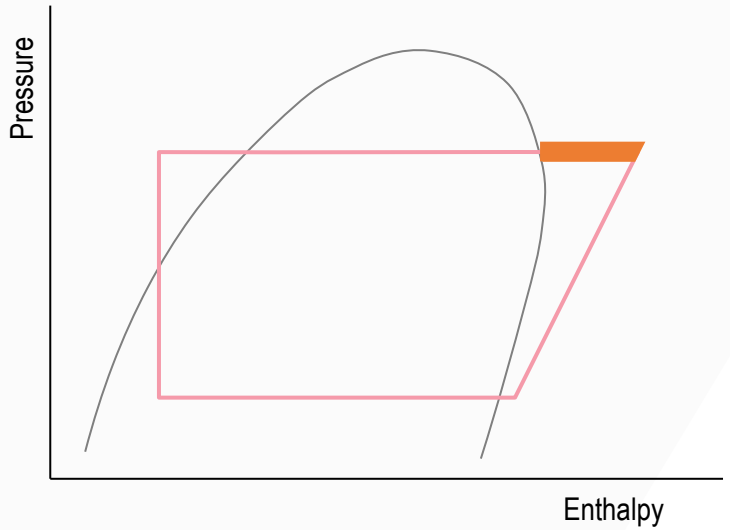
/D - Partial heat recovery configuration

Partial heat recovery



Approximately **20%** of the chiller's capacity (*)

Up to **60°C** of outlet temperature



The refrigerant circuit is fitted with a **desuperheater** in series with the condenser coils.

(*) The heat recovery and its amount depend on the unit's operating conditions, in particular the outdoor air temperature and the load percentage.

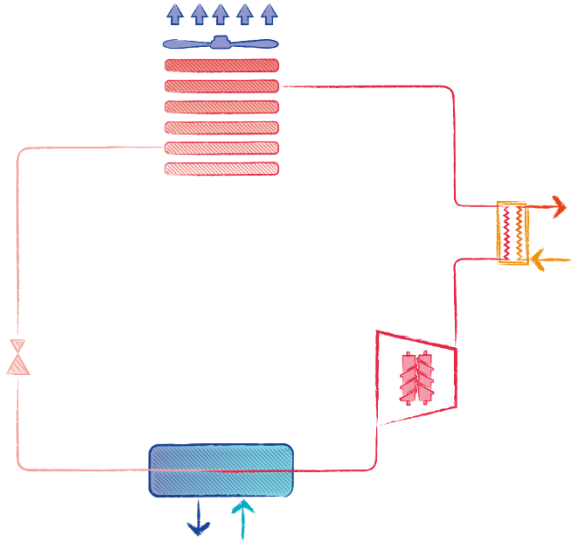
FX2-G04 - Heat recovery

/D - Partial heat recovery configuration

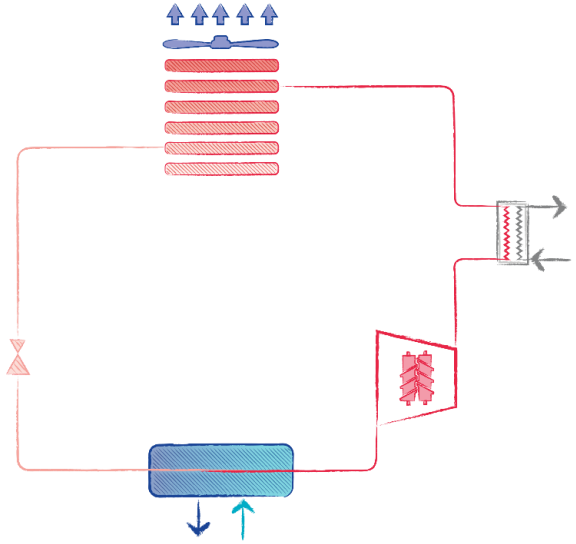
The desuperheater can recover the heat only when the temperature of the hot water circuit is lower than the **compressor discharge temperature**.

Opt. 3371 D - RELAY 1 PUMP (ON/OFF) interrupts the water flow to the desuperheater when the conditions for an actual heat recovery are not met.

Heat recovery: **ON**



Heat recovery: **OFF** water flow stopped



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FX2-G04

Air source chillers with screw compressors

FX2-G04 - Hydronic

Hydronic modules

Hydronic module options

The **factory mounted hydronic module** (opt.) includes the pumps, and all the main hydraulic components, for the best **optimization of the installation space, time and costs**.

Standard configuration

- Terminals for external pump control
  (relay + 0-10V modulating signal)
- VPF.E flow control logic
  (For systems with only the primary circuit and terminals with bypass)

Pumps

- In-line configuration
- 2-pole motor Twin pumps
- Low or high head
  (approx. 100 or 200 kPa).

Pumps + Inverter

- External inverter to adjust the waterflow
- Reduced energy consumption
- VPF and VPF.D variable flow control logics
- Constant flow parameter-set logic

Sniffer function: When there is no request for cooling production, the primary pumps (built-in or external) are switched off and activated periodically only to let the unit read the water temperature and sense the cooling request inception.

FX2-G04 - Hydronic

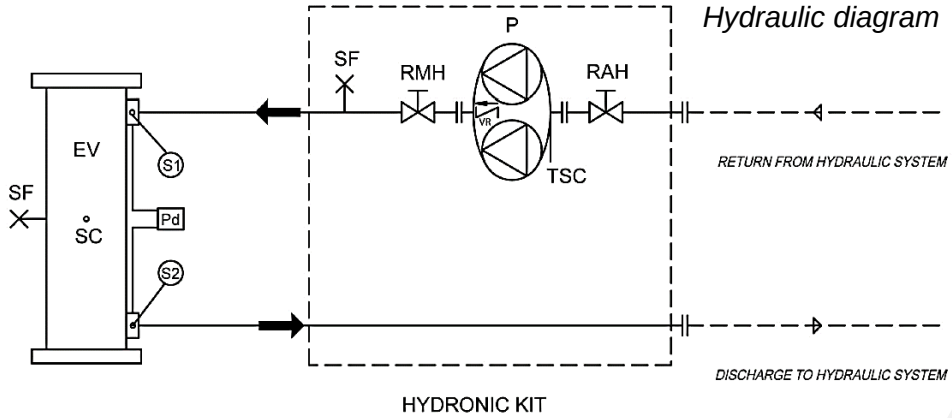
Hydronic module composition

Factory mounted components

- **2 pumps - duty/standby***: variable speed (inverter) or fixed speed, 2 poles, low or high head
- **Pump enclosure:** Acoustically insulated for silenced units
- **Suction** and **discharge valves**
- **One-way valve**
  (flap type for in-line pumps)
- **Purge valve**
- **Drain plug**

* ***In-line*** *2-pole pump models are selected according to dimensions and performances in combination to the unit's size.*

Hydraulic diagram

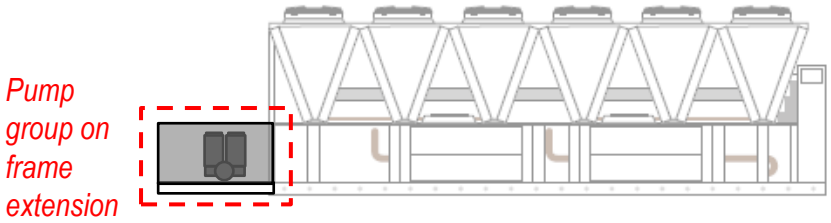


Excluded from the pump group supply, but mandatory for the correct unit and system operation:

- **Unit inlet water filter**
  with a maximum mesh size of 1 mm
- **Unit outlet flow-switch***

* *Available as accessories,* ***supplied loose****.*

In some models, the pump group does not fit in the unit and is installed on a frame extension.



FX2-G04 - Hydronic

The pumps

In-line pumps

by

Grundfos

In-line twin pumps

Single-stage, close-coupled pumps

SiC/SiC (silicon carbide) **primary seal pairing**, extremely resistant against wear, abrasive particles and wear.

EPDM bellows seal prevent the risk of deposits, such as rust, on the shaft.

Pull-out design: during maintenance the power head can be pulled out without removing the pump housing from the pipework.

FX2-G04 - Hydronic

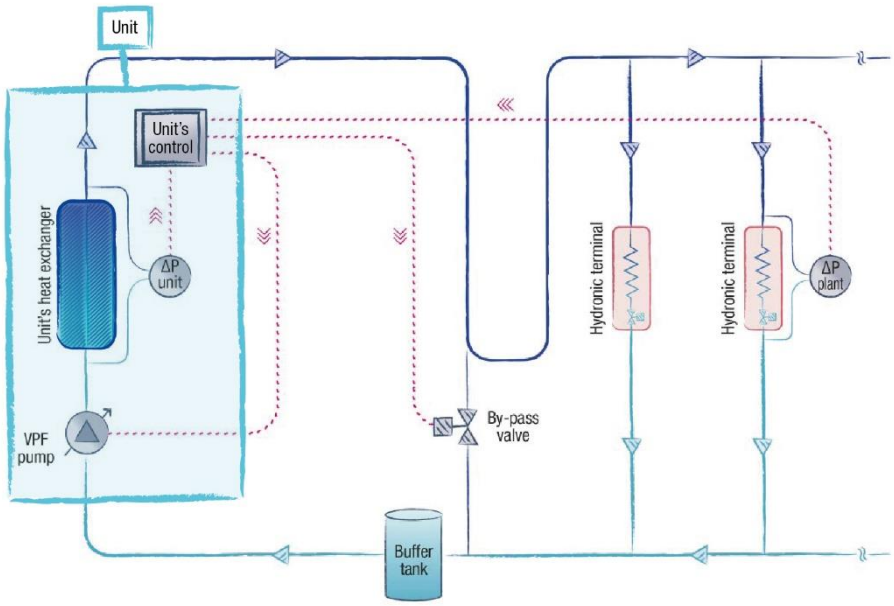
Variable Primary Flow – single-unit plants

VPF
Variable Primary Flow

The VPF control series (Variable Primary Flow) doesn't only **adjust the pump speeds** on the basis of the **plant's thermal load**, but also **dynamically optimizes the unit's thermoregulation** for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

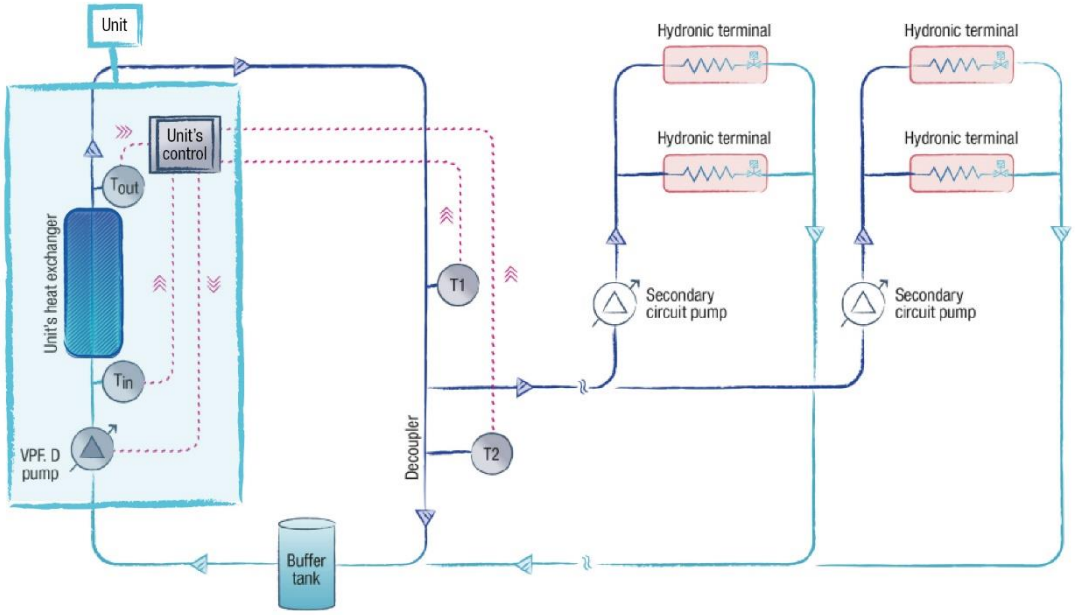
VPF: constant ΔP

Systems with only the primary circuit.



VPF.D: constant ΔT

Systems with primary and secondary circuits separated by a hydraulic decoupler.



With the VPF system, the water flow can be reduced to 50% of the unit nominal water flow, with regards to the selection conditions, provided that the minimum water flow required by the unit's heat exchanger is respected.

FX2-G04 - Hydronic

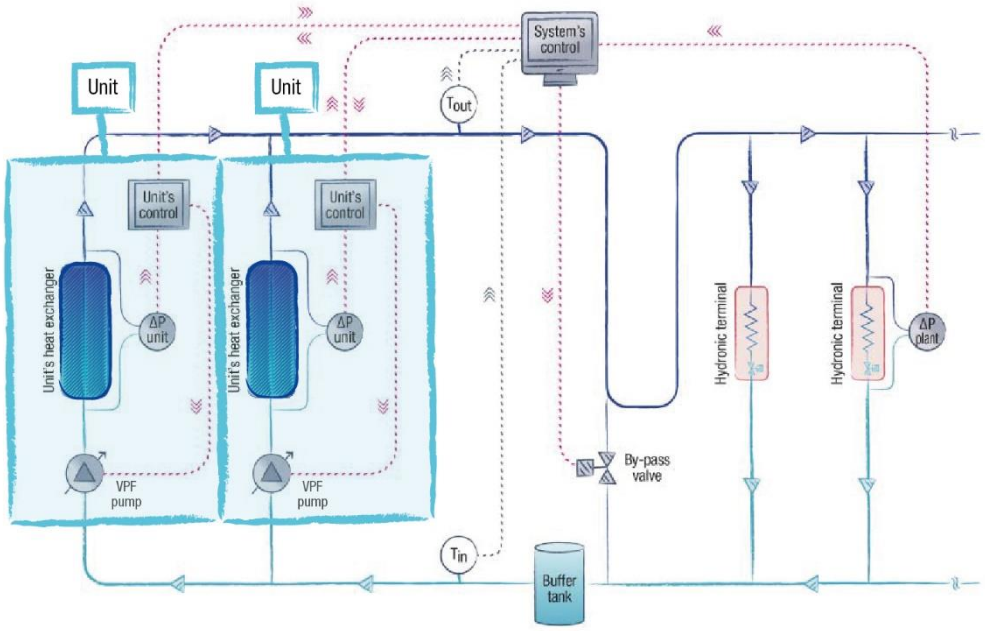
Variable Primary Flow – multiple-unit plants with EXTERNAL GROUP CONTROL (Manager3000+ or ClimaPRO+)

VPF
Variable Primary Flow

The VPF control series (Variable Primary Flow) doesn't only **adjust the pump speeds** on the basis of the **plant's thermal load**, but also **dynamically optimizes the unit's thermoregulation** for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

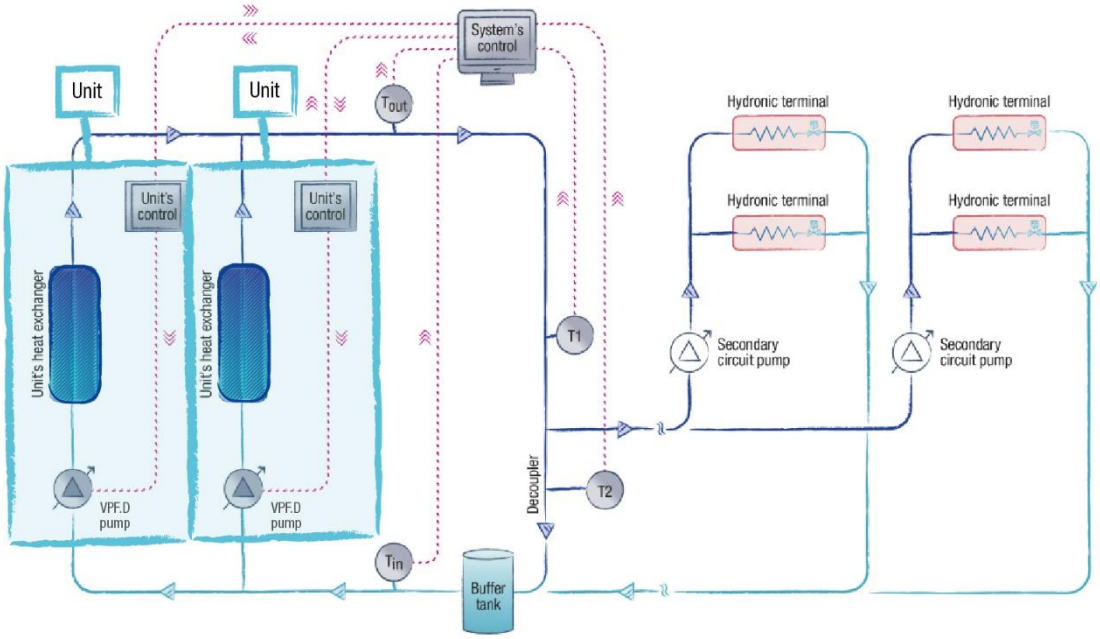
VPF: constant ΔP

Systems with only the primary circuit.



VPF.D: constant ΔT

Systems with primary and secondary circuits separated by a hydraulic decoupler.



With the VPF system, the water flow can be reduced to 50% of the unit nominal water flow, with regards to the selection conditions, provided that the minimum water flow required by the unit's heat exchanger is respected.

FX2-G04 - Hydronic

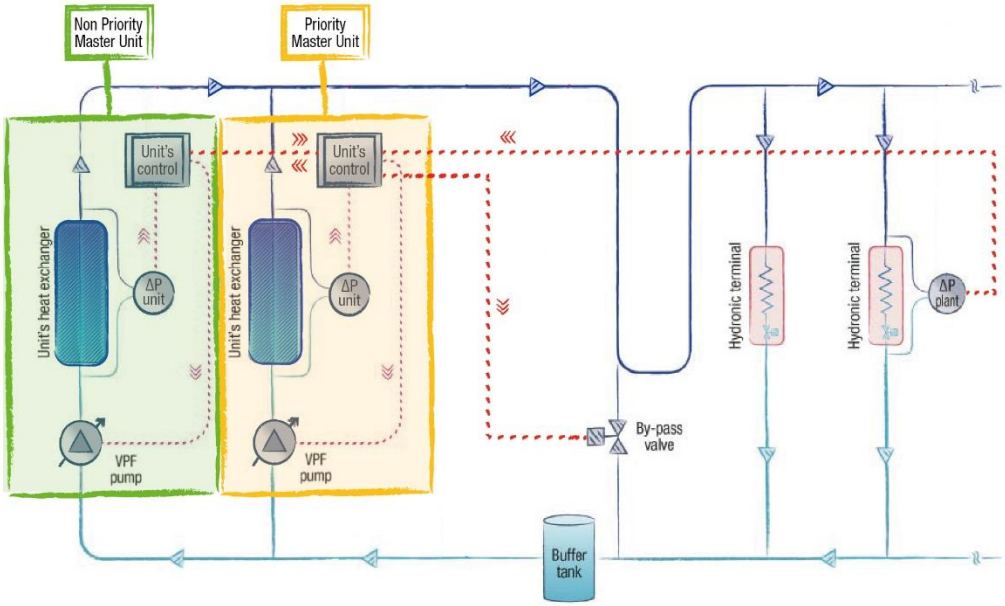
Variable Primary Flow – multiple-unit plants with MULTI MANAGER group control option

VPF
Variable Primary Flow

The VPF control series (Variable Primary Flow) doesn't only **adjust the pump speeds** on the basis of the **plant's thermal load**, but also **dynamically optimizes the unit's thermoregulation** for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

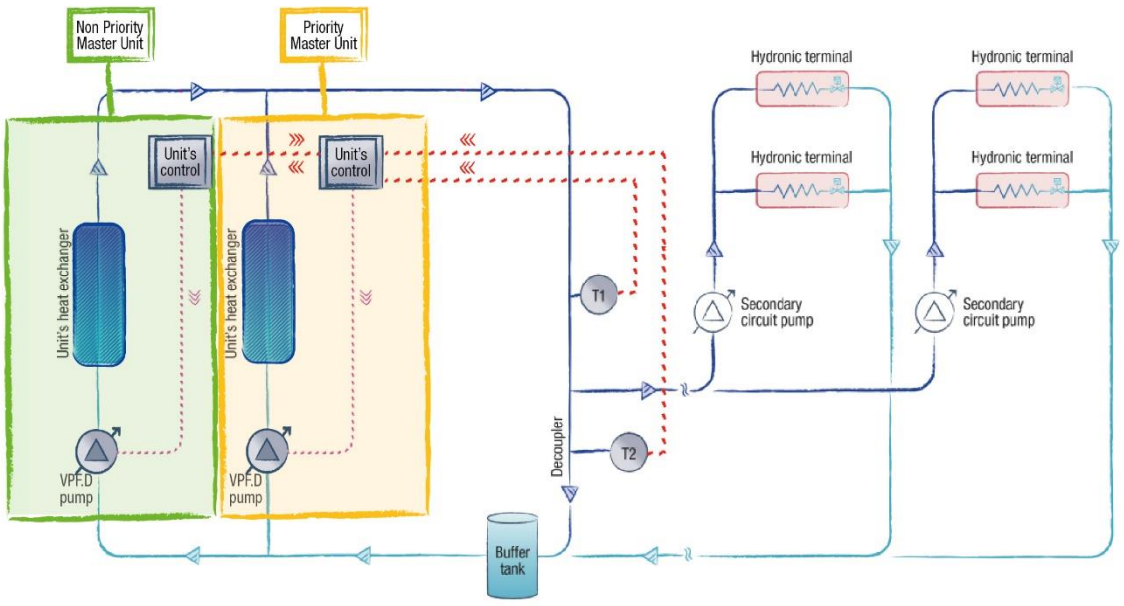
VPF: constant ΔP

Systems with only the primary circuit.



VPF.D: constant ΔT

Systems with primary and secondary circuits separated by a hydraulic decoupler.



With the VPF system, the water flow can be reduced to 50% of the unit nominal water flow, with regards to the selection conditions, provided that the minimum water flow required by the unit's heat exchanger is respected.

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FX2-G04

Air source chillers with screw compressors

FX2-G04 - Further options

Main input and connection

Auxiliary input

4-20 mA (Opt. 6161):
Enables remote set-point adjustments (analog input).

Double set-point (Opt. 6162):
Enables the remote switch between 2 set-points (digital input).

Demand limit (Opt. 6171):
Limits the unit's power absorption for safety reasons or in temporary situations (digital input).

BMS connection

Serial card interface module to allow integration with BMS protocols:
Modbus / LonWorks / BACnet MS/TP / BACnet over IP / Konnex / Modbus TCP/IP/ SNMP

For the complete list of options please consult the pricelist.

FX2-G04 - Further options

Main electrical accessories

Electrical

Compressor rephasing (Opt. 3301):

The capacitors on the compressors' line increase the unit's power factor.

Soft-starter (Opt. 1511):

Manages the inrush current enabling lower motor windings' mechanical wear and avoidance of mains voltage fluctuations during starting.

Automatic circuit breakers on electrical loads (Opt. 3412):

Protect the compressors or the compressors and fans from possible current peaks, over-current switches are provided in place of the standard fuses.

Energy meter

Energy meter for BMS (Opt. 5924):

Acquires the electrical data and the power absorbed by the unit and sends them to the BMS for energy metering (Modbus RS485).

Energy meter for W3000+ (Opt. 5925)

The electrical data acquired is available directely on the unit's control.

For the complete list of options please consult the pricelist.

FX2-G04 - Further options

Main refrigerant circuit accessories

Refrigerant circuit

Dual pressure relief valves with switch (Opt. 1961):

One valve is isolated from the refrigerant circuit while the other is in service. The user can work on the isolated valve for periodic maintenance or replacement, without removing the refrigerant from the circuit.

Compressor suction valve (Opt. 1901):

Installed on each compressor suction line, simplify maintenance activity (discharge valves are present as per standard).

Leak detector

Leak detector (Opt. 3431):

Factory installed device, placed within the compressor enclosure. In case of a gas leak detection it raises an alarm.

Leak detector + compressor off (Opt. 3433):

Factory installed device, placed within the compressor enclosure. In case of a gas leak detection it raises an alarm and stops the units.

For the complete list of options please consult the pricelist.

FX2-G04 - Further options

Main hydraulic and mechanical accessories

Hydraulic

Water flow switch (Opt. 1801):

Designed to protect the unit where the water flow across the evaporator is not sufficient and falls outside of the operating parameters.

Delta T > 8°C (Opt. 2881):

Evaporator designed to operate with low primary circuit water flow.

Flanged hydraulic connections (Opt. 2911):

Grooved coupling with flanged counter-pipe.

Mechanical

Anti-intrusion grilles (Opt. 2021):

Perimeter metal grilles to protect against the intrusion of solid bodies into the unit structure.

Rubber type or spring type anti-vibration mountings (supplied loose):

Reduce vibrations, keeping noise transmission to a minimum.

For the complete list of options please consult the pricelist.

FX2-G04 - Further options

Packing

Packing

Standard:

FX2-G04 is provided with nothing but the lifting eye-plates, to load the unit into a truck.

Nylon packing (Opt. 9966):

FX2-G04 is covered with a protective nylon layer and provided with the lifting eye-plates, to load the unit into a truck.

Container packing (Opt. 9979)*:

FX is covered with a protective nylon layer, provided with structural reinforcing bars and equipped with both lifting eye-plates and handling devices to load it on a container (metal slides, front handling bar). From the facility, the unit can be loaded directly into a container, or into a truck for a future container load.

For the complete list of options please consult the pricelist.

** These options provide low-profiled fans which can reduce the height of the units and permit the transport via container. The selection of these options increases the sound power level of the units of 1 dB(A).*

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FX2-G04

Air source chillers with screw compressors

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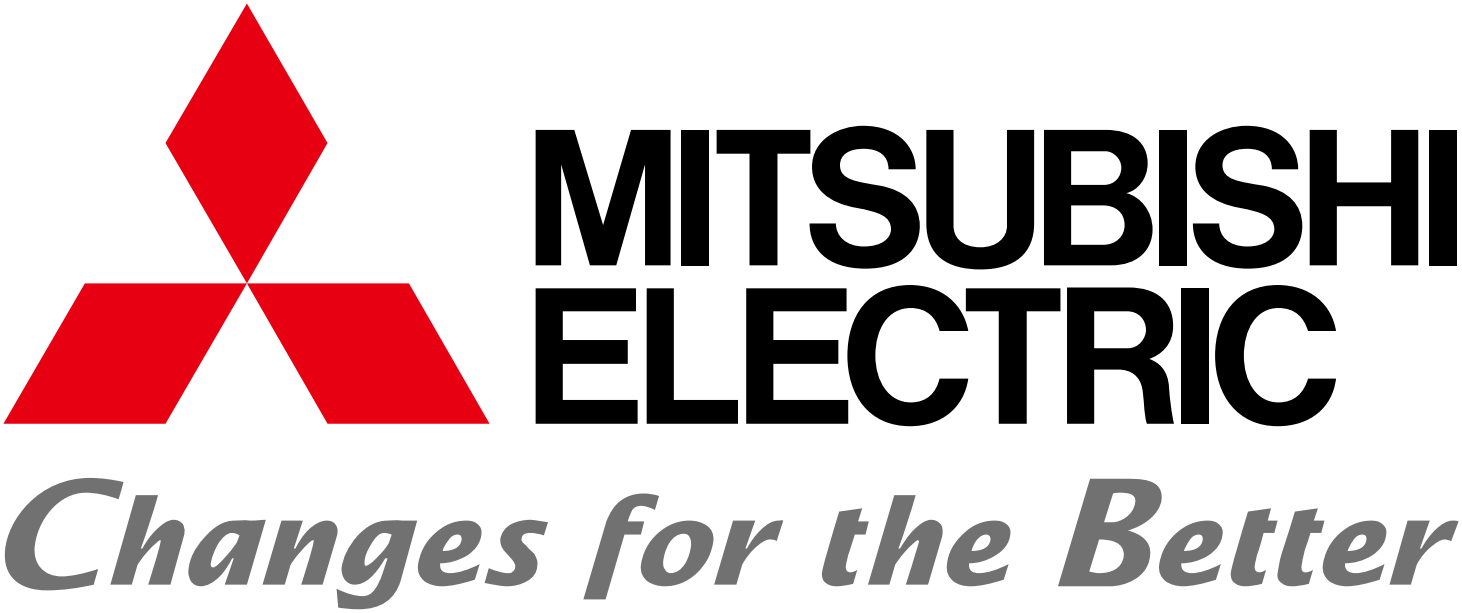
Air source chillers with screw compressors

SELLING POINTS

- Negligible GWP refrigerant
- Large capacity range (up to 1572 kW)
- SL-A version best-in-class in sound power
- Very high efficiencies (both full and part loads)
- Compact design
- Wide operating limits
- /SL-A + EC variant is ideal for specifications: best-in-class sound power and top-level efficiencies
- Huge list of options available (EC fans, VFD pumps, Multi-manager, High-esp fans..)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