

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

COMFORT

CHILLERS

# FX<sup>2</sup>

G01  
G05

AIR COOLED CHILLERS  
FOR OUTDOOR INSTALLATION,  
FROM 322 TO 1838 kW

R134a

R513A



# FX<sup>2</sup> G01 G05

## HIGH EFFICIENCY CHILLERS FOR LONG-TERM SUSTAINABILITY



Air cooled chillers with screw compressors and low GWP refrigerant.  
From 322 to 1838 kW.



FX2-G01 and FX2-G05 are air cooled chillers with screw compressors designed for delivering the best efficiencies in comfort applications. Available with either R134a refrigerant or the low GWP R513A, the new range features 2 or 3 compressors in multi-circuit configuration.

All the main hydraulic and mechanic components are integrated inside the unit, providing installers the ideal plug & play solution for the HVAC plant.

The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant.

### A COMPLETE NEW GENERATION OF CHILLERS

#### EFFICIENCY VERSIONS



COOLING

FX2-G01 Air cooled chillers

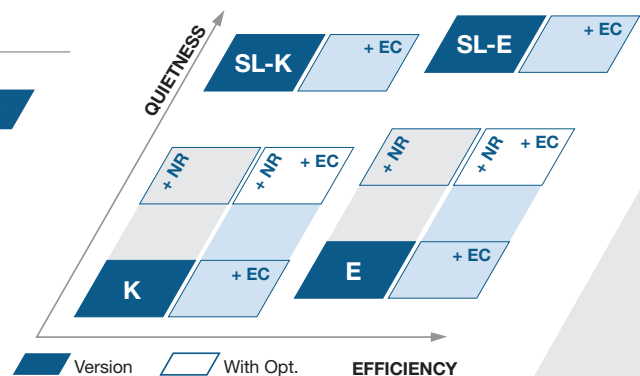
UP TO

	EER	SEER		EER	SEER
<b>E</b>	3,55	4,98	<b>K</b>	3,36	4,75

**E** ▶ Very high efficiency

**K** ▶ Key efficiency

EER: 12/7°C, air 35°C (EN14511 values)  
SEER: Regulation (EU) N. 2016/2281



#### ACOUSTIC VERSIONS

##### - Standard

Unit with standard soundproofing equipment. **Baseline**

Unit with compressor acoustical enclosure (Opt. 2301) **-2 dB(A)**

Unit with Noise Reducer (NR) kit (Opt. 2315) **-7 dB(A)**

##### SL Super low noise

The highest level of noise reduction without compromising the unit's efficiency. **-12 dB(A)**

#### HEAT RECOVERY CONFIGURATIONS

##### Standard

Unit without heat recovery. **-**

##### Partial heat recovery

A desuperheater on the compressor discharge line recovers approximately 20% of the unit's capacity.

**60°C**

**Suitable for DHW production or other secondary uses, such as the integration of an existing boiler.**

# ALL-ROUND SUSTAINABILITY



Fully committed to supporting the creation of a greener tomorrow, FX2-G05 combines brilliant efficiency with the use of a low GWP refrigerant that tackles both the indirect (due to the primary energy consumption) and the direct global warming impact.

Low density and **low GWP** refrigerant, the R513A is an HFO refrigerant blend and the ideal substitute for R134a, with comparable physical and thermodynamic properties.



## REDUCED ENVIRONMENTAL IMPACT

- ▶ Low GWP, only 631 (-56% vs. 134a)

**GWP: 631**

**-56% vs R134a**



## SAFETY

- ▶ Complete non-toxicity
- ▶ Non-flammable with a safety classification of A1 (ASHRAE 34, ISO 817)



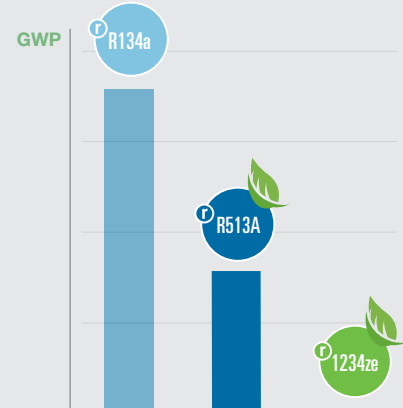
## PERFORMANCE & ENVELOPE

- ▶ Same operating limits of R134a
- ▶ Same performance of R134a



## RELIABILITY

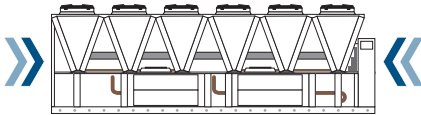
- ▶ Use of well-known components
- ▶ Refrigerant circuit reliability is maintained



## HIGHER EFFICIENCY IN LESS SPACE

**+8% COOLING CAPACITY**

**+10% SEASONAL EFFICIENCY**



FX2 delivers increased cooling capacity and efficiency compared to the previous generation, exceeding the most demanding efficiency thresholds.

## SUPER SILENT OPERATION

### THE MOST SILENT SCREW CHILLER ON THE MARKET



FX2-G01 and FX2-G05 ranges are key in providing perfect environmental comfort.

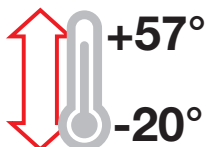
same performance and footprint as the standard version.

NR Kit is available for an outstanding sound levels while maintaining the

For the ultimate acoustical performance, FX2 is available in Super Low Noise configuration.

## UNYIELDING IN EXTREME CONDITIONS

### EXTENDED OPERATING LIMITS



Designed to ensure complete reliability, FX2 operates in all climates from -20°C to +57°C.

FX2 can be equipped with highly resistant coil coatings to withstand even the harshest industrial or coastal environmental conditions.

# TECHNOLOGICAL CHOICES

## W3000+ CONTROL

### Management software developed fully in-house

- ▶ Proprietary settings for faster adaptive responses to different dynamics
- ▶ Enhanced diagnostics thanks to the black box function
- ▶ Connectivity with the most commonly used BMS protocols and M-Net Mitsubishi Electric proprietary protocol (Opt.)

## KIPlink USER INTERFACE

Innovative Wi-Fi interface for an easy and enhanced unit management.



## Patent-pending solution which optimizes the thermodynamic cycle



## New generation full aluminum micro-channel coils for cooling only chillers

- ▶ Long Life Alloy (LLA) for higher corrosion resistance and longer life cycle
- ▶ Up to 30% of refrigerant charge reduction vs. traditional solutions
- ▶ Lower weight vs. traditional solutions

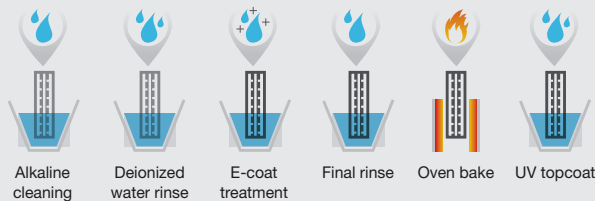
## Al- E-coating treatment (opt.)



3120 h  
SWAAT test  
(ASTM G85-02 A3)

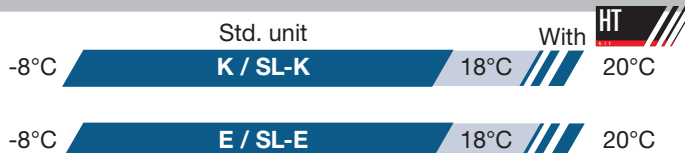
- ✓ Excellent resistance to UV rays.
- ✓ over 6000 h resistance as per ASTM B117
- ✓ over 1000 h of surface protection against UV rays as per ASTM G155-05a

### E-coating process

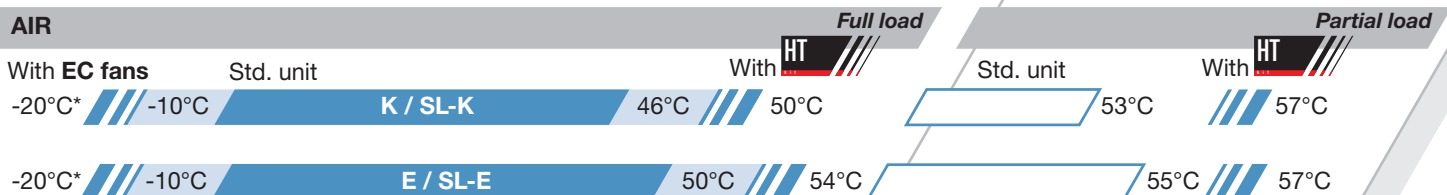


## OPERATING LIMITS

### WATER



### AIR



\*requires antifreeze and double insulation on heat exchanger, piping, pumps.

## BEST-IN-CLASS TECHNOLOGICAL CHOICES FOR HIGH-LEVEL PERFORMANCE AND SUPER SILENT OPERATION.

### FANS

#### High performing, axial fans:

- ▶ External bell mouth for the highest efficiency and best-in-class sound power levels
- ▶ Variable Speed control as standard (DVVF), for large operating limits

### EXTENDED LIMITS UP TO -20°C



#### EC fans (opt. available for all versions)

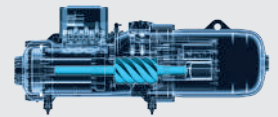
- ▶ Continuous regulation of air flow
- ▶ Reduced power consumption and increased efficiencies at partial loads
- ▶ Extended operating limits
- ▶ High ESP EC fan option for up to 150 Pa of available static pressure

### Shell&Tube heat exchanger

Dry expansion, single pass S&T evaporator, fully developed in-house.

- ▶ Internally grooved copper tubes
- ▶ Possibility of inspection and tube cleaning
- ▶ Low pressure drops

### Screw compressors



Dual rotor screw compressors designed according to Mitsubishi Electric Hydronics & IT Cooling Systems specifications and for its exclusive use.

- ▶ Innovative internal geometry enhancing efficiency at part load operations
- ▶ Controlled lubrication system
- ▶ Extreme durability, with carbon steel bearings guaranteed for more than 150.000 hours

### HYDRONIC MODULES

The units come with pump control relay + 0-10V modulating signal to control an external pump as per standard. The hydronic module (opt.) includes the Grundfos' pumps and all the main hydraulic components, which provides the best pairing with new FX2 range of chillers.

#### Pumps

- ▶ In-line configuration
- ▶ Twin pumps
- ▶ Fixed or variable speed
- ▶ Low or high head (approx. 100 or 200 kPa).

#### Pumps + Inverter

- ▶ External inverter to adjust the waterflow
- ▶ Reduced energy consumption through speed regulation
- ▶ Available flow control logics: Constant flow parameter-set, variable flow with VPF and VPF.D systems

#### Grundfos' pumps

- ▶ SiC/SiC (silicon carbide) primary seal pairing
- ▶ EPDM bellows seal
- ▶ Pull-out design

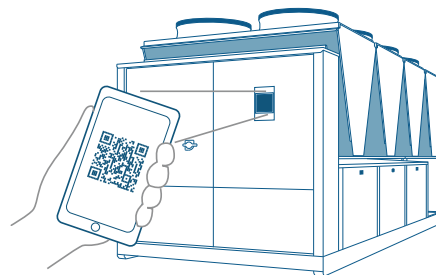


# EVERYTHING UNDER YOUR CONTROL

## KIPLink USER INTERFACE

An exclusive product of Mitsubishi Electric Hydronics & IT Cooling Systems.

Based on Wi-Fi technology, KIPLink allows one to operate the unit directly from a mobile device (smartphone, tablet, or notebook) by simply scanning the QR code positioned on the unit.



## MAIN FEATURES

### Easier on-site operation

Monitor each component while moving around the unit for maintenance operations. View and change all parameters with easy-to-understand graphics and dedicated tooltips.

Get devoted "help" messages / 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.

## AS OPTION, FX2 IS AVAILABLE WITH:



◀ Touch screen interface + KIPLink



◀ User-friendly Large Keyboard + KIPLink

Touch Screen interface and large keyboard are available to substitute KIPLink.

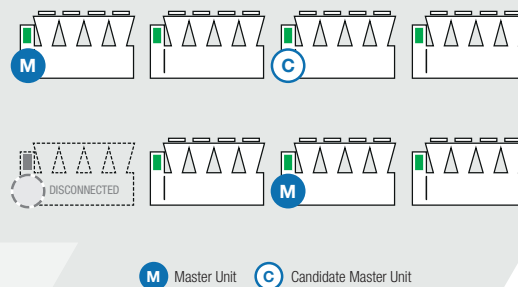
## SMART LAN FUNCTIONS

The FX2 ranges feature embedded LAN logics for an easy connection between a group of chillers.

- ▶ Up to 8 chillers connected to the same group.
- ▶ Load sharing and Sequencing.  
Logics for the smart distribution of cooling loads among the units.
- ▶ Selectable units' start-up sequence.  
To avoid simultaneous start-ups of different unit's compressors in case of dangerous current peaks.
- ▶ Stand by unit management with automatic unit rotation.
- ▶ Dynamic master with succession priority.  
One master unit is elected to coordinate the group and if it becomes disconnected the candidate unit takes full control.
- ▶ Resource priority management.  
For a 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.

The entire cooling equipment works as one, with one master chiller that coordinates and optimizes the operation of the group.

## MASTER SUCCESSION PRIORITY



## FURTHER OPTIONS

### Set-point adjustment

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

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

**Set-point compensation:** Automatic adjustment of the set-point on the basis of the outdoor temperature.

### Control functions

**Night mode:** Limits the unit sound level reducing the usage of the resources. Sound power reduction (with factory settings): -3 dB(A).

**U.L.C. User Limit Control:** Controls a mixing valve (not included) to ensure a safe start-up and operation of the unit even in critical conditions.

**Remote probe:** Controls the unit's and pump's activation on the base of the water temperature of the buffer tank or hydraulic decoupler.

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

### Electrical

**Compressor rephasing:** The capacitors on the compressors' line increase the unit's power factor.

**Soft-starter:** Manages the inrush current enabling lower motor windings' mechanical wear, avoidance of mains voltage fluctuations during starting and favorable sizing for the electrical system.

### Connectivity

Serial card interface module to allow integration with BMS protocols:

**Modbus / LonWorks / BACnet MS/TP / BACnet over IP / Konnex / Modbus TCP/IP/ SNMP**

**M-Net interface kit:** Interface module to allow the integration of the unit with Mitsubishi Electric proprietary communication protocol M-Net.

**Multi Manager** options to allow easy connection between a group of chillers

### Energy Meter

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

**Energy meter for W3000+:** The electrical data acquired is available directly on the unit's control.

### Refrigerant circuit

**Compressor suction and discharge valves:** Installed for each compressor tandem or trio, the valves simplify maintenance activities. The user can work on the isolated valve for periodic maintenance or replacement, without removing the refrigerant from the circuit.

**Dual pressure relief valves with switch:** 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.

### Refrigerant leak detector

**Leak detector:** Factory installed device. In case of a gas leak detection it raises an alarm.

**Leak detector + compressor off:** Factory installed device. In case of a gas leak detection it raises an alarm and stops the units.

### Hydraulic

**Water flow switch:** Designed to protect the unit when the water flow across the evaporator is not sufficient and falls outside of the operating parameters.

### Structure

**Anti-intrusion grilles:** Perimeter metal grilles to protect against the intrusion of solid bodies into the unit structure.

**Spring or rubber type anti-vibration mountings:** Reduce vibrations, keeping noise transmission to a minimum.

### Packing

**Standard or nylon packing:** The unit is provided with plastic supports, with or without a protective nylon layer.

**Container packing:** The unit is provided with metal slides and protective nylon layer for container loading.

# FX 2 G01

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 to 1839 kW)



### FX2-G01 / K

FX2-G01 /K		0322	0352	0402	0472	0512	0572	0652	0702	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	322,1	350,2	411,9	464,4	516,7	573,4	645,8	707,6
Total power input	(1)	kW	100,6	117,0	130,7	143,5	169,3	185,1	203,6	234,8
EER	(1)	kW/kW	3,202	2,993	3,151	3,236	3,052	3,098	3,172	3,014
ESEER	(1)	kW/kW	4,440	4,450	4,500	4,510	4,430	4,470	4,480	4,490
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	321,8	349,8	411,5	463,9	516,2	572,9	645,2	707,0
EER	(1)(2)	kW/kW	3,170	2,960	3,120	3,190	3,020	3,060	3,130	2,980
ESEER	(1)(2)	kW/kW	4,310	4,300	4,340	4,320	4,290	4,290	4,300	4,330
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	322	350	412	464	516	573	645	707
SEER	(7)(8)		4,52	4,51	4,56	4,60	4,56	4,57	4,60	4,59
Performance ηs	(7)(9)	%	178	178	179	181	179	180	181	181
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	15,40	16,75	19,70	22,21	24,71	27,42	30,88	33,84
Pressure drop at the heat exchanger	(1)	kPa	27,7	32,7	38,8	49,4	37,3	46,0	46,6	44,5
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	50,0	53,0	63,0	72,0	78,0	87,0	100	106
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	67	67	67	68	68	68	68	70
Sound power level in cooling	(4)(5)	dB(A)	99	99	99	100	100	100	100	102
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	2750	2750	4000	4000	4000	5250	5250	5250
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3120	2950	3600	3730	4570	5060	5190	5550

FX2-G01 /K		0772	0852	0902	1002	1052	1102	1152	1222	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	779,8	862,9	937,3	996,0	1056	1098	1139	1232
Total power input	(1)	kW	249,9	267,4	289,7	309,8	336,9	362,5	347,9	389,1
EER	(1)	kW/kW	3,120	3,227	3,235	3,215	3,134	3,029	3,274	3,166
ESEER	(1)	kW/kW	4,490	4,450	4,460	4,460	4,460	4,470	4,460	4,500
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	779,1	862,3	936,6	995,2	1055	1097	1138	1231
EER	(1)(2)	kW/kW	3,080	3,190	3,200	3,170	3,100	2,990	3,230	3,120
ESEER	(1)(2)	kW/kW	4,300	4,290	4,280	4,280	4,300	4,290	4,280	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	779	862	937	995	1055	1097	1138	1231
SEER	(7)(8)		4,59	4,60	4,59	4,60	4,57	4,56	4,60	4,61
Performance ηs	(7)(9)	%	181	181	181	181	180	179	181	182
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	37,29	41,27	44,82	47,63	50,51	52,49	54,45	58,92
Pressure drop at the heat exchanger	(1)	kPa	54,1	47,2	49,2	55,6	48,3	52,1	56,1	61,6
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	118	132	144	153	158	164	172	185
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	69	69	70	70	71	71	71	71
Sound power level in cooling	(4)(5)	dB(A)	102	102	103	103	104	104	104	104
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	6500	6500	7750	7750	7750	7750	9000	9000
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	6400	6980	7460	7620	7870	7900	8430	8500

#### Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements taken in compliance with ISO 9614.

- Sound power level in cooling, outdoors.
- Unit in standard configuration, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency

The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

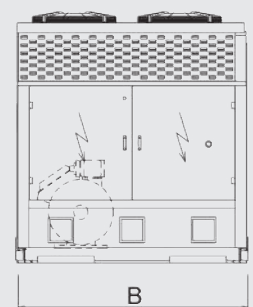
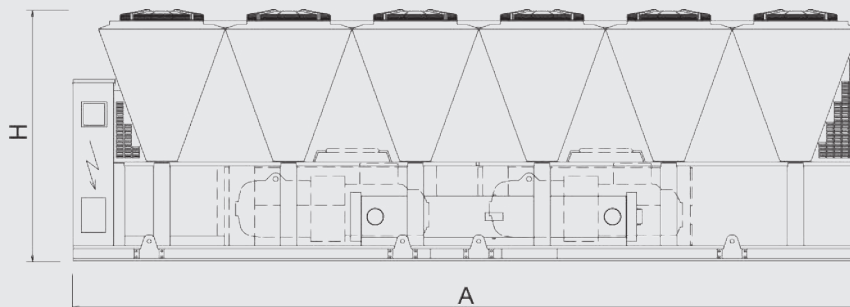
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## FX2-G01 / K

FX2-G01 / K			1262	1322	1402	1503	1593	1663	1773	1883
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	1264	1332	1400	1506	1592	1664	1778	1839
Total power input	(1)	kW	415,5	426,0	466,1	466,4	513,5	546,6	569,8	594,2
EER	(1)	kW/kW	3,042	3,127	3,004	3,229	3,100	3,044	3,120	3,095
ESEER	(1)	kW/kW	4,470	4,460	4,490	4,440	4,460	4,440	4,460	4,480
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	1264	1331	1399	1505	1591	1663	1777	1838
EER	(1)(2)	kW/kW	3,010	3,090	2,970	3,190	3,060	3,010	3,090	3,060
ESEER	(1)(2)	kW/kW	4,310	4,290	4,300	4,270	4,280	4,290	4,290	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	1264	1331	1399	1505	1591	1663	1777	1838
SEER	(7)(8)		4,57	4,57	4,59	4,60	4,60	4,58	4,61	4,64
Performance rjs	(7)(9)	%	180	180	180	181	181	180	182	182
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	60,46	63,71	66,96	72,03	76,12	79,55	85,04	87,92
Pressure drop at the heat exchanger	(1)	kPa	48,8	54,2	59,9	52,5	58,6	45,1	51,6	59,1
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	3	3	3	3	3
No. Circuits		N°	2	2	2	3	3	3	3	3
Refrigerant charge		kg	189	205	210	232	239	248	267	280
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	72	73	73	73	73	73	73	73
Sound power level in cooling	(4)(5)	dB(A)	105	106	106	106	106	106	106	106
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	9150	10400	10400	11650	11650	11650	12900	12900
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	8860	9470	9610	12050	12110	12120	12710	12720



### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT

# FX 2 G01

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 - 1839 kW)



### FX2-G01 /SL-K

FX2-G01 /SL-K		0322	0352	0402	0472	0512	0572	0652	0702	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	310,2	358,4	410,2	450,1	511,7	557,4	621,9	713,0
Total power input	(1)	kW	101,2	113,0	125,9	146,1	161,4	174,6	207,2	222,7
EER	(1)	kW/kW	3,065	3,172	3,258	3,081	3,170	3,192	3,001	3,202
ESEER	(1)	kW/kW	4,410	4,440	4,470	4,490	4,460	4,470	4,460	4,460
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	309,8	358,0	409,8	449,7	511,2	556,9	621,3	712,4
EER	(1)(2)	kW/kW	3,040	3,140	3,220	3,040	3,140	3,150	2,970	3,160
ESEER	(1)(2)	kW/kW	4,280	4,290	4,310	4,310	4,310	4,310	4,300	4,300
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	310	358	410	450	511	557	621	712
SEER	(7)(8)		4,47	4,52	4,56	4,55	4,57	4,55	4,55	4,58
Performance ηs	(7)(9)	%	176	178	179	179	180	179	179	180
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	14,83	17,14	19,62	21,53	24,47	26,66	29,74	34,10
Pressure drop at the heat exchanger	(1)	kPa	25,7	34,3	38,5	46,4	36,6	43,5	43,2	45,2
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	50,0	59,0	67,0	72,0	83,0	91,0	100	116
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	55	55	56	56	57	57	57	57
Sound power level in cooling	(4)(5)	dB(A)	87	87	88	88	89	89	89	90
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	2750	4000	4000	4000	5250	5250	5250	6500
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3380	3830	3960	4000	5270	5680	5720	6600

FX2-G01 /SL-K		0772	0852	0902	1002	1052	1102	1152	1222	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	770,4	828,6	901,6	959,9	1037	1098	1131	1222
Total power input	(1)	kW	246,8	271,7	294,5	315,0	335,4	353,2	341,0	380,8
EER	(1)	kW/kW	3,122	3,050	3,061	3,047	3,092	3,109	3,317	3,209
ESEER	(1)	kW/kW	4,480	4,440	4,470	4,480	4,460	4,470	4,480	4,480
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	769,7	828,0	901,0	959,1	1037	1097	1130	1222
EER	(1)(2)	kW/kW	3,080	3,020	3,030	3,010	3,060	3,070	3,270	3,170
ESEER	(1)(2)	kW/kW	4,290	4,290	4,300	4,300	4,300	4,290	4,300	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	770	828	901	959	1037	1097	1130	1222
SEER	(7)(8)		4,60	4,58	4,59	4,59	4,57	4,59	4,63	4,63
Performance ηs	(7)(9)	%	181	180	181	181	180	181	182	182
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	36,84	39,63	43,12	45,90	49,60	52,51	54,08	58,46
Pressure drop at the heat exchanger	(1)	kPa	52,8	43,5	45,5	51,6	46,6	52,2	55,3	60,7
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	124	132	144	153	166	176	183	196
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	58	58	59	59	60	60	61	61
Sound power level in cooling	(4)(5)	dB(A)	91	91	92	92	93	93	94	94
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	6500	6500	7750	7750	9000	9000	10250	10250
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	7090	7590	8100	8270	8920	9060	9640	9710

#### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

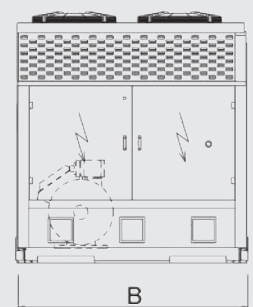
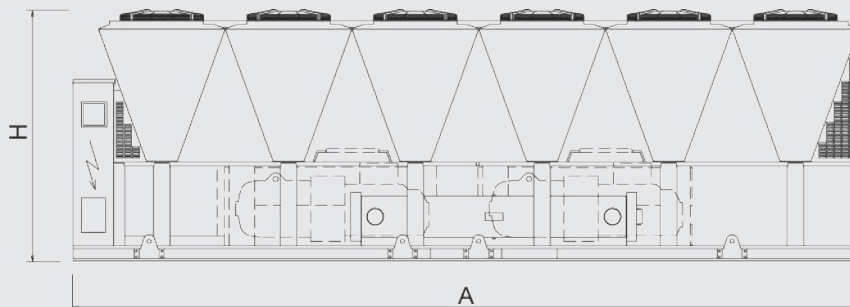
The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT



## FX2-G01 /SL-K

FX2-G01 /SL-K		1262	1322	1402	1503	1593	1663	1773	1883
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	(1) kW	1257	1284	1386	1451	1573	1645	1714	1773
Total power input	(1) kW	407,3	432,8	459,1	474,3	509,9	540,4	582,7	609,3
EER	(1) kW/kW	3,086	2,967	3,019	3,059	3,085	3,044	2,941	2,910
ESEER	(1) kW/kW	4,450	4,470	4,490	4,460	4,480	4,440	4,450	4,460
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW	1256	1283	1385	1451	1572	1644	1714	1772
EER	(1)(2) kW/kW	3,050	2,930	2,980	3,030	3,050	3,010	2,910	2,880
ESEER	(1)(2) kW/kW	4,300	4,300	4,300	4,300	4,290	4,300	4,290	4,280
Cooling energy class		-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>									
<b>Ambient refrigeration</b>									
Prated,c	(7) kW	1256	1283	1385	1451	1572	1644	1714	1772
SEER	(7)(8)	4,58	4,55	4,59	4,60	4,63	4,60	4,59	4,59
Performance rjs	(7)(9) %	180	179	181	181	182	181	180	180
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	(1) l/s	60,10	61,40	66,26	69,40	75,22	78,65	81,99	84,78
Pressure drop at the heat exchanger	(1) kPa	48,2	50,3	58,6	48,7	57,2	44,1	47,9	55,0
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°	2	2	2	3	3	3	3	3
No. Circuits	N°	2	2	2	3	3	3	3	3
Refrigerant charge	kg	201	205	222	232	252	262	272	280
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)	61	61	61	61	61	61	61	62
Sound power level in cooling	(4)(5) dB(A)	94	94	94	94	94	94	94	95
<b>SIZE AND WEIGHT</b>									
A	(6) mm	10400	10400	11650	11650	12900	12900	12900	12900
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2640	2640	2640	2640	2640	2640	2640	2500
Operating weight	(6) kg	10060	10150	10720	12980	13560	13560	13650	13670



### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT

# FX 2 G01

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 - 1839 kW)



### FX2-G01 / E

FX2-G01 / E			0352	0402	0452	0472	0572	0602	0652	0702	0772
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>											
<b>COOLING ONLY (GROSS VALUE)</b>											
Cooling capacity	(1)	kW	340,3	389,8	444,9	485,0	570,3	619,0	658,9	698,5	756,1
Total power input	(1)	kW	97,07	111,2	126,4	140,5	160,5	175,2	186,1	197,1	219,0
EER	(1)	kW/kW	3,505	3,505	3,520	3,452	3,553	3,533	3,541	3,544	3,453
ESEER	(1)	kW/kW	4,610	4,630	4,630	4,640	4,620	4,620	4,630	4,650	4,630
<b>COOLING ONLY (EN14511 VALUE)</b>											
Cooling capacity	(1)(2)	kW	339,9	389,4	444,5	484,6	569,8	618,5	658,4	697,9	755,5
EER	(1)(2)	kW/kW	3,470	3,470	3,490	3,420	3,510	3,500	3,500	3,500	3,420
ESEER	(1)(2)	kW/kW	4,490	4,480	4,500	4,490	4,440	4,480	4,470	4,480	4,480
Cooling energy class			-	-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>											
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>											
<b>Ambient refrigeration</b>											
Prated,c	(7)	kW	340	389	444	485	570	618	658	698	756
SEER	(7)(8)		4,64	4,66	4,70	4,68	4,73	4,66	4,68	4,75	4,72
Performance ηs	(7)(9)	%	183	183	185	184	186	183	184	187	186
<b>EXCHANGERS</b>											
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>											
Water flow	(1)	l/s	16,27	18,64	21,27	23,20	27,27	29,60	31,51	33,40	36,16
Pressure drop at the heat exchanger	(1)	kPa	26,5	34,8	27,7	32,9	41,4	34,1	38,6	43,4	36,3
<b>REFRIGERANT CIRCUIT</b>											
Compressors nr.		N°	2	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	58,0	68,0	76,0	83,0	97,0	104	112	119	127
<b>NOISE LEVEL</b>											
Sound Pressure	(3)	dB(A)	66	67	67	67	67	67	68	68	68
Sound power level in cooling	(4)(5)	dB(A)	98	99	99	99	100	100	101	101	101
<b>SIZE AND WEIGHT</b>											
A	(6)	mm	4000	5250	5250	5250	6500	6500	7750	7750	7750
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3660	4270	4390	4440	5660	5960	6420	6550	6640

FX2-G01 / E			0852	0902	1002	1052	1152	1222	1322	1402
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	844,7	918,1	1001	1061	1133	1207	1311	1372
Total power input	(1)	kW	242,4	262,9	284,6	305,5	325,8	346,3	383,3	402,1
EER	(1)	kW/kW	3,485	3,492	3,517	3,473	3,478	3,485	3,420	3,412
ESEER	(1)	kW/kW	4,620	4,640	4,690	4,640	4,660	4,660	4,600	4,620
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	844,1	917,4	1000	1060	1132	1206	1310	1371
EER	(1)(2)	kW/kW	3,450	3,450	3,460	3,430	3,430	3,440	3,390	3,380
ESEER	(1)(2)	kW/kW	4,460	4,460	4,470	4,460	4,480	4,460	4,450	4,460
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	844	917	1000	1060	1132	1206	1310	1371
SEER	(7)(8)		4,73	4,76	4,81	4,74	4,76	4,76	4,67	4,71
Performance ηs	(7)(9)	%	186	187	189	187	187	188	184	185
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	40,40	43,90	47,88	50,72	54,17	57,73	62,68	65,62
Pressure drop at the heat exchanger	(1)	kPa	40,0	47,2	61,2	48,7	53,2	59,2	39,7	43,5
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	142	153	167	177	189	201	216	228
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	68	69	69	70	70	70	70	71
Sound power level in cooling	(4)(5)	dB(A)	101	102	102	103	103	103	103	104
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	9000	9000	10250	10250	11650	11650	11650	12900
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	7530	8060	8570	8920	9430	9550	10490	11150

#### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT



## FX2-G01 /SL-E

FX2-G01 /SL-E		0352	0402	0452	0472	0572	0602	0652	0702	0772
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1) kW	336,3	386,0	439,6	480,9	563,4	610,9	650,6	690,1	748,9
Total power input	(1) kW	95,76	108,8	124,5	139,6	158,4	173,7	184,2	194,7	218,0
EER	(1) kW/kW	3,510	3,548	3,531	3,445	3,557	3,517	3,532	3,544	3,435
ESEER	(1) kW/kW	4,640	4,660	4,640	4,640	4,630	4,650	4,650	4,680	4,660
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2) kW	335,9	385,6	439,3	480,5	562,9	610,4	650,1	689,5	748,3
EER	(1)(2) kW/kW	3,480	3,510	3,500	3,410	3,510	3,480	3,490	3,500	3,400
ESEER	(1)(2) kW/kW	4,510	4,510	4,520	4,500	4,470	4,510	4,500	4,510	4,510
Cooling energy class		-	-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7) kW	336	386	439	480	563	610	650	690	748
SEER	(7)(8) kW/kW	4,67	4,68	4,69	4,67	4,74	4,67	4,68	4,77	4,74
Performance ηs	(7)(9) %	184	184	185	184	187	184	184	188	186
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1) l/s	16,08	18,46	21,02	23,00	26,94	29,21	31,11	33,00	35,81
Pressure drop at the heat exchanger	(1) kPa	25,9	34,1	27,0	32,3	40,4	33,2	37,6	42,3	35,6
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.	N°	2	2	2	2	2	2	2	2	2
No. Circuits	N°	2	2	2	2	2	2	2	2	2
Refrigerant charge	kg	58,0	68,0	76,0	83,0	97,0	104	112	119	127
<b>NOISE LEVEL</b>										
Sound Pressure	(3) dB(A)	56	57	57	57	57	58	58	59	59
Sound power level in cooling	(4)(5) dB(A)	88	89	89	89	90	91	91	92	92
<b>SIZE AND WEIGHT</b>										
A	(6) mm	4000	5250	5250	5250	6500	6500	7750	7750	7750
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2640	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6) kg	3930	4540	4660	4720	6200	6500	6960	7100	7190

FX2-G01 /SL-E		0852	0902	1002	1052	1152	1222	1322	1402	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1) kW	834,3	905,0	987,3	1046	1118	1191	1295	1355	
Total power input	(1) kW	240,9	260,8	282,6	303,8	324,0	344,5	383,8	400,7	
EER	(1) kW/kW	3,463	3,470	3,494	3,443	3,451	3,457	3,374	3,382	
ESEER	(1) kW/kW	4,630	4,640	4,690	4,650	4,680	4,670	4,610	4,630	
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2) kW	833,7	904,3	986,6	1046	1117	1190	1294	1354	
EER	(1)(2) kW/kW	3,430	3,430	3,440	3,400	3,400	3,410	3,340	3,350	
ESEER	(1)(2) kW/kW	4,480	4,470	4,480	4,480	4,490	4,470	4,470	4,480	
Cooling energy class		-	-	-	-	-	-	-	-	
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7) kW	834	904	987	1046	1117	1190	1294	1354	
SEER	(7)(8) kW/kW	4,73	4,75	4,81	4,74	4,76	4,76	4,67	4,71	
Performance ηs	(7)(9) %	186	187	189	187	187	188	184	185	
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1) l/s	39,90	43,28	47,22	50,04	53,45	56,95	61,94	64,80	
Pressure drop at the heat exchanger	(1) kPa	39,0	45,9	59,5	47,4	51,8	57,6	38,8	42,4	
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.	N°	2	2	2	2	2	2	2	2	
No. Circuits	N°	2	2	2	2	2	2	2	2	
Refrigerant charge	kg	142	153	167	177	189	201	216	228	
<b>NOISE LEVEL</b>										
Sound Pressure	(3) dB(A)	59	59	59	60	60	60	60	62	
Sound power level in cooling	(4)(5) dB(A)	92	92	92	93	93	93	93	95	
<b>SIZE AND WEIGHT</b>										
A	(6) mm	9000	9000	10250	10250	11650	11650	11650	12900	
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260	
H	(6) mm	2640	2640	2640	2640	2640	2640	2640	2640	
Operating weight	(6) kg	8120	8690	9210	9560	10080	10200	11140	11810	

### Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements taken in compliance with ISO 9614.

- Sound power level in cooling, outdoors.
- Unit in standard configuration, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency

The units highlighted in this publication contain R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT

# FX 2 G05

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 - 1839 kW)



### FX2-G05 /K

FX2-G05 /K			0322	0352	0402	0472	0512	0572	0652	0702
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	322,1	350,2	411,9	464,4	516,7	573,4	645,8	707,6
Total power input	(1)	kW	102,4	119,2	133,1	146,1	172,5	188,6	207,4	239,2
EER	(1)	kW/kW	3,146	2,938	3,095	3,179	2,995	3,040	3,114	2,958
ESEER	(1)	kW/kW	4,430	4,440	4,510	4,500	4,440	4,460	4,470	4,480
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	321,8	349,8	411,5	463,9	516,2	572,9	645,2	707,0
EER	(1)(2)	kW/kW	3,120	2,910	3,060	3,140	2,970	3,010	3,080	2,930
ESEER	(1)(2)	kW/kW	4,300	4,300	4,350	4,310	4,290	4,280	4,300	4,320
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	322	350	412	464	516	573	645	707
SEER	(7)(8)		4,51	4,50	4,56	4,58	4,56	4,56	4,58	4,57
Performance ηs	(7)(9)	%	177	177	179	180	179	179	180	180
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	15,40	16,75	19,70	22,21	24,71	27,42	30,88	33,84
Pressure drop at the heat exchanger	(1)	kPa	27,7	32,7	38,8	49,4	37,3	46,0	46,6	44,5
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	57,0	60,0	71,0	81,0	88,0	98,0	113	120
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	67	67	67	68	68	68	68	70
Sound power level in cooling	(4)(5)	dB(A)	99	99	99	100	100	100	100	102
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	2750	2750	4000	4000	4000	5250	5250	5250
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3120	2950	3600	3730	4570	5060	5190	5550

FX2-G05 /K			0772	0852	0902	1002	1052	1102	1152	1222
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	779,8	862,9	937,3	996,0	1056	1098	1139	1232
Total power input	(1)	kW	254,6	272,4	295,1	315,5	343,2	369,3	354,3	396,3
EER	(1)	kW/kW	3,063	3,168	3,176	3,157	3,077	2,973	3,215	3,109
ESEER	(1)	kW/kW	4,470	4,450	4,450	4,460	4,460	4,470	4,460	4,490
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	779,1	862,3	936,6	995,2	1055	1097	1138	1231
EER	(1)(2)	kW/kW	3,020	3,130	3,140	3,120	3,040	2,940	3,170	3,070
ESEER	(1)(2)	kW/kW	4,270	4,290	4,280	4,270	4,290	4,300	4,280	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	779	862	937	995	1055	1097	1138	1231
SEER	(7)(8)		4,57	4,58	4,59	4,59	4,56	4,56	4,58	4,60
Performance ηs	(7)(9)	%	180	180	180	181	180	179	180	181
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	37,29	41,27	44,82	47,63	50,51	52,49	54,45	58,92
Pressure drop at the heat exchanger	(1)	kPa	54,1	47,2	49,2	55,6	48,3	52,1	56,1	61,6
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	133	150	163	173	179	186	195	210
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	69	69	70	70	71	71	71	71
Sound power level in cooling	(4)(5)	dB(A)	102	102	103	103	104	104	104	104
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	6500	6500	7750	7750	7750	7750	9000	9000
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	6400	6980	7460	7620	7870	7900	8430	8500

#### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

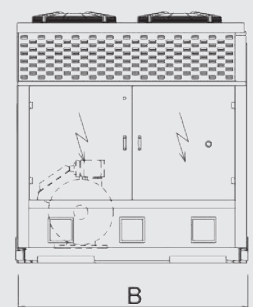
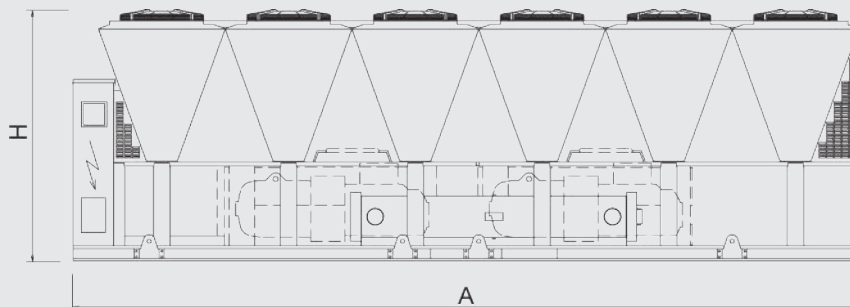
The units highlighted in this publication contain R513A [GWP<sub>100</sub> 631] fluorinated greenhouse gases.

Certified data in EUROVENT



## FX2-G05 /K

FX2-G05 /K		1262	1322	1402	1503	1593	1663	1773	1883	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	1264	1332	1400	1506	1592	1664	1778	1839
Total power input	(1)	kW	423,2	433,9	474,8	475,0	523,1	556,9	580,4	605,3
EER	(1)	kW/kW	2,987	3,070	2,949	3,171	3,043	2,988	3,063	3,038
ESEER	(1)	kW/kW	4,470	4,460	4,490	4,430	4,450	4,440	4,440	4,470
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	1264	1331	1399	1505	1591	1663	1777	1838
EER	(1)(2)	kW/kW	2,960	3,030	2,910	3,130	3,010	2,960	3,030	3,000
ESEER	(1)(2)	kW/kW	4,300	4,280	4,300	4,270	4,270	4,290	4,280	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	1264	1331	1399	1505	1591	1663	1777	1838
SEER	(7)(8)		4,56	4,57	4,58	4,59	4,58	4,58	4,60	4,63
Performance rjs	(7)(9)	%	179	180	180	181	181	180	181	182
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	60,46	63,71	66,96	72,03	76,12	79,55	85,04	87,92
Pressure drop at the heat exchanger	(1)	kPa	48,8	54,2	59,9	52,5	58,6	45,1	51,6	59,1
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	3	3	3	3	3
No. Circuits		N°	2	2	2	3	3	3	3	3
Refrigerant charge		kg	214	232	238	263	271	281	303	318
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	72	73	73	73	73	73	73	73
Sound power level in cooling	(4)(5)	dB(A)	105	106	106	106	106	106	106	106
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	9150	10400	10400	11650	11650	11650	12900	12900
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	8860	9470	9610	12050	12110	12120	12710	12720



### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain R513A [GWP<sub>100</sub> 631] fluorinated greenhouse gases.

Certified data in EUROVENT

# FX 2 G05

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 - 1839 kW)



### FX2-G05 /SL-K

FX2-G05 /SL-K		0322	0352	0402	0472	0512	0572	0652	0702	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	310,2	358,4	410,2	450,1	511,7	557,4	621,9	713,0
Total power input	(1)	kW	103,1	115,1	128,2	148,9	164,4	177,9	211,2	226,9
EER	(1)	kW/kW	3,009	3,114	3,200	3,023	3,113	3,133	2,945	3,142
ESEER	(1)	kW/kW	4,400	4,440	4,480	4,490	4,470	4,480	4,470	4,450
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	309,8	358,0	409,8	449,7	511,2	556,9	621,3	712,4
EER	(1)(2)	kW/kW	2,980	3,080	3,160	2,990	3,080	3,100	2,910	3,110
ESEER	(1)(2)	kW/kW	4,270	4,280	4,320	4,310	4,320	4,310	4,300	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	310	358	410	450	511	557	621	712
SEER	(7)(8)		4,46	4,50	4,56	4,55	4,57	4,55	4,55	4,56
Performance ηs	(7)(9)	%	175	177	179	179	180	179	179	180
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	14,83	17,14	19,62	21,53	24,47	26,66	29,74	34,10
Pressure drop at the heat exchanger	(1)	kPa	25,7	34,3	38,5	46,4	36,6	43,5	43,2	45,2
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	57,0	66,0	76,0	81,0	93,0	103	113	131
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	55	55	56	56	57	57	57	57
Sound power level in cooling	(4)(5)	dB(A)	87	87	88	88	89	89	89	90
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	2750	4000	4000	4000	5250	5250	5250	6500
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3380	3830	3960	4000	5270	5680	5720	6600

FX2-G05 /SL-K		0772	0852	0902	1002	1052	1102	1152	1222	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	770,4	828,6	901,6	959,9	1037	1098	1131	1222
Total power input	(1)	kW	251,5	276,9	300,1	321,0	341,7	359,9	347,4	388,0
EER	(1)	kW/kW	3,063	2,992	3,004	2,990	3,035	3,051	3,256	3,149
ESEER	(1)	kW/kW	4,470	4,440	4,460	4,470	4,450	4,480	4,480	4,480
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	769,7	828,0	901,0	959,1	1037	1097	1130	1222
EER	(1)(2)	kW/kW	3,020	2,960	2,970	2,960	3,000	3,020	3,210	3,110
ESEER	(1)(2)	kW/kW	4,280	4,280	4,300	4,300	4,290	4,300	4,290	4,290
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	770	828	901	959	1037	1097	1130	1222
SEER	(7)(8)		4,58	4,56	4,58	4,58	4,56	4,59	4,62	4,62
Performance ηs	(7)(9)	%	180	180	180	180	179	180	182	182
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	36,84	39,63	43,12	45,90	49,60	52,51	54,08	58,46
Pressure drop at the heat exchanger	(1)	kPa	52,8	43,5	45,5	51,6	46,6	52,2	55,3	60,7
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	140	150	163	173	187	199	207	222
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	58	58	59	59	60	60	61	61
Sound power level in cooling	(4)(5)	dB(A)	91	91	92	92	93	93	94	94
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	6500	6500	7750	7750	9000	9000	10250	10250
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	7090	7590	8100	8270	8920	9060	9640	9710

#### Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements taken in compliance with ISO 9614.

- Sound power level in cooling, outdoors.
- Unit in standard configuration, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency

The units highlighted in this publication contain R513A [GWP<sub>100</sub> 631] fluorinated greenhouse gases.

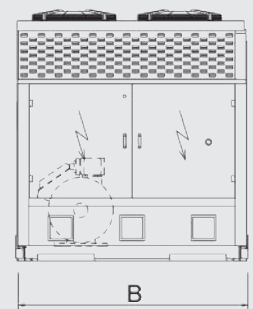
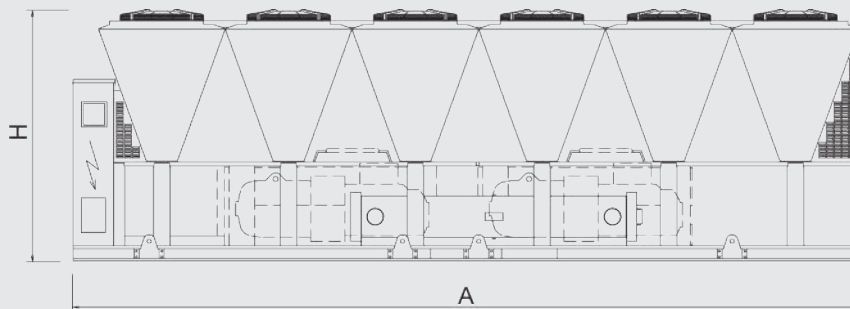
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## FX2-G05 /SL-K

FX2-G05 /SL-K		1262	1322	1402	1503	1593	1663	1773	1883	
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	1257	1284	1386	1451	1573	1645	1714	1773
Total power input	(1)	kW	415,0	441,0	467,8	483,3	519,5	550,6	593,8	620,9
EER	(1)	kW/kW	3,029	2,912	2,963	3,002	3,028	2,988	2,886	2,856
ESEER	(1)	kW/kW	4,450	4,470	4,480	4,450	4,470	4,440	4,440	4,450
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	1256	1283	1385	1451	1572	1644	1714	1772
EER	(1)(2)	kW/kW	3,000	2,880	2,930	2,970	2,990	2,960	2,860	2,820
ESEER	(1)(2)	kW/kW	4,290	4,310	4,290	4,290	4,290	4,300	4,280	4,280
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	1256	1283	1385	1451	1572	1644	1714	1772
SEER	(7)(8)		4,58	4,55	4,58	4,59	4,61	4,59	4,57	4,57
Performance rjs	(7)(9)	%	180	179	180	180	182	180	180	180
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	60,10	61,40	66,26	69,40	75,22	78,65	81,99	84,78
Pressure drop at the heat exchanger	(1)	kPa	48,2	50,3	58,6	48,7	57,2	44,1	47,9	55,0
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	3	3	3	3	3
No. Circuits		N°	2	2	2	3	3	3	3	3
Refrigerant charge		kg	228	232	251	263	285	297	308	318
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	61	61	61	61	61	61	61	62
Sound power level in cooling	(4)(5)	dB(A)	94	94	94	94	94	94	94	95
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	10400	10400	11650	11650	12900	12900	12900	12900
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	10060	10150	10720	12980	13560	13560	13650	13670



### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

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Certified data in EUROVENT

# FX 2 G05

## 0322 - 1883

Chiller, air source  
for outdoor installation  
(from 310,2 - 1839 kW)



### FX2-G05 / E

FX2-G05 / E			0352	0402	0452	0472	0572	0602	0652	0702	0772
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>											
<b>COOLING ONLY (GROSS VALUE)</b>											
Cooling capacity	(1)	kW	340,3	389,8	444,9	485,0	570,3	619,0	658,9	698,5	756,1
Total power input	(1)	kW	98,73	113,1	128,5	142,9	163,3	178,3	189,4	200,5	222,8
EER	(1)	kW/kW	3,448	3,447	3,462	3,394	3,492	3,472	3,479	3,484	3,394
ESEER	(1)	kW/kW	4,610	4,630	4,620	4,620	4,610	4,610	4,620	4,640	4,620
<b>COOLING ONLY (EN14511 VALUE)</b>											
Cooling capacity	(1)(2)	kW	339,9	389,4	444,5	484,6	569,8	618,5	658,4	697,9	755,5
EER	(1)(2)	kW/kW	3,410	3,410	3,430	3,360	3,450	3,440	3,440	3,440	3,360
ESEER	(1)(2)	kW/kW	4,470	4,470	4,490	4,490	4,440	4,470	4,470	4,470	4,470
Cooling energy class			-	-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>											
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>											
<b>Ambient refrigeration</b>											
Prated,c	(7)	kW	340	389	444	485	570	618	658	698	756
SEER	(7)(8)		4,63	4,64	4,69	4,66	4,72	4,64	4,66	4,73	4,71
Performance ηs	(7)(9)	%	182	182	185	183	186	183	183	186	185
<b>EXCHANGERS</b>											
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>											
Water flow	(1)	l/s	16,27	18,64	21,27	23,20	27,27	29,60	31,51	33,40	36,16
Pressure drop at the heat exchanger	(1)	kPa	26,5	34,8	27,7	32,9	41,4	34,1	38,6	43,4	36,3
<b>REFRIGERANT CIRCUIT</b>											
Compressors nr.		N°	2	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	65,0	76,0	86,0	94,0	109	117	126	134	143
<b>NOISE LEVEL</b>											
Sound Pressure	(3)	dB(A)	66	67	67	67	67	67	68	68	68
Sound power level in cooling	(4)(5)	dB(A)	98	99	99	99	100	100	101	101	101
<b>SIZE AND WEIGHT</b>											
A	(6)	mm	4000	5250	5250	5250	6500	6500	7750	7750	7750
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	3660	4270	4390	4440	5660	5960	6420	6550	6640

FX2-G05 / E			0852	0902	1002	1052	1152	1222	1322	1402
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1)	kW	844,7	918,1	1001	1061	1133	1207	1311	1372
Total power input	(1)	kW	246,7	267,5	289,5	310,9	331,5	352,4	390,1	409,2
EER	(1)	kW/kW	3,424	3,432	3,458	3,413	3,418	3,425	3,361	3,353
ESEER	(1)	kW/kW	4,610	4,630	4,680	4,630	4,650	4,650	4,580	4,610
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	844,1	917,4	1000	1060	1132	1206	1310	1371
EER	(1)(2)	kW/kW	3,390	3,390	3,410	3,370	3,370	3,380	3,330	3,320
ESEER	(1)(2)	kW/kW	4,450	4,450	4,450	4,450	4,470	4,440	4,440	4,450
Cooling energy class			-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	844	917	1000	1060	1132	1206	1310	1371
SEER	(7)(8)		4,71	4,74	4,79	4,72	4,74	4,74	4,66	4,69
Performance ηs	(7)(9)	%	185	187	188	186	187	187	183	185
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	40,40	43,90	47,88	50,72	54,17	57,73	62,68	65,62
Pressure drop at the heat exchanger	(1)	kPa	40,0	47,2	61,2	48,7	53,2	59,2	39,7	43,5
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2
Refrigerant charge		kg	160	173	188	200	213	227	244	258
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	68	69	69	70	70	70	70	71
Sound power level in cooling	(4)(5)	dB(A)	101	102	102	103	103	103	103	104
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	9000	9000	10250	10250	11650	11650	11650	12900
B	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6)	mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6)	kg	7530	8060	8570	8920	9430	9550	10490	11150

#### Notes:

- 1 ▶ Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ▶ Values in compliance with EN14511
- 3 ▶ Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ▶ Sound power on the basis of measurements taken in compliance with ISO 9614.

- 5 ▶ Sound power level in cooling, outdoors.
- 6 ▶ Unit in standard configuration, without optional accessories.
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

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## FX2-G05 /SL-E

FX2-G05 /SL-E		0352	0402	0452	0472	0572	0602	0652	0702	0772
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	(1) kW	336,3	386,0	439,6	480,9	563,4	610,9	650,6	690,1	748,9
Total power input	(1) kW	97,46	110,7	126,7	142,1	161,2	176,8	187,4	198,1	221,9
EER	(1) kW/kW	3,449	3,487	3,470	3,384	3,495	3,455	3,472	3,484	3,375
ESEER	(1) kW/kW	4,640	4,650	4,630	4,630	4,630	4,630	4,640	4,670	4,650
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2) kW	335,9	385,6	439,3	480,5	562,9	610,4	650,1	689,5	748,3
EER	(1)(2) kW/kW	3,420	3,450	3,440	3,350	3,450	3,420	3,430	3,440	3,340
ESEER	(1)(2) kW/kW	4,500	4,490	4,500	4,490	4,460	4,500	4,490	4,500	4,500
Cooling energy class		-	-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7) kW	336	386	439	480	563	610	650	690	748
SEER	(7)(8) kW/kW	4,65	4,66	4,68	4,65	4,73	4,65	4,67	4,75	4,71
Performance ηs	(7)(9) %	183	183	184	183	186	183	184	187	186
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1) l/s	16,08	18,46	21,02	23,00	26,94	29,21	31,11	33,00	35,81
Pressure drop at the heat exchanger	(1) kPa	25,9	34,1	27,0	32,3	40,4	33,2	37,6	42,3	35,6
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.	N°	2	2	2	2	2	2	2	2	2
No. Circuits	N°	2	2	2	2	2	2	2	2	2
Refrigerant charge	kg	65,0	76,0	86,0	94,0	109	117	126	134	143
<b>NOISE LEVEL</b>										
Sound Pressure	(3) dB(A)	56	57	57	57	57	58	58	59	59
Sound power level in cooling	(4)(5) dB(A)	88	89	89	89	90	91	91	92	92
<b>SIZE AND WEIGHT</b>										
A	(6) mm	4000	5250	5250	5250	6500	6500	7750	7750	7750
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2640	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6) kg	3930	4540	4660	4720	6200	6500	6960	7100	7190

FX2-G05 /SL-E		0852	0902	1002	1052	1152	1222	1322	1402
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	(1) kW	834,3	905,0	987,3	1046	1118	1191	1295	1355
Total power input	(1) kW	245,3	265,5	287,7	309,2	329,8	350,7	390,7	408,0
EER	(1) kW/kW	3,401	3,409	3,432	3,383	3,390	3,396	3,315	3,321
ESEER	(1) kW/kW	4,620	4,630	4,680	4,640	4,670	4,660	4,590	4,620
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW	833,7	904,3	986,6	1046	1117	1190	1294	1354
EER	(1)(2) kW/kW	3,370	3,370	3,380	3,340	3,350	3,350	3,280	3,290
ESEER	(1)(2) kW/kW	4,470	4,460	4,470	4,460	4,480	4,460	4,460	4,460
Cooling energy class		-	-	-	-	-	-	-	-
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>									
<b>Ambient refrigeration</b>									
Prated,c	(7) kW	834	904	987	1046	1117	1190	1294	1354
SEER	(7)(8) kW/kW	4,71	4,74	4,79	4,72	4,74	4,74	4,65	4,69
Performance ηs	(7)(9) %	186	187	189	186	187	187	183	185
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	(1) l/s	39,90	43,28	47,22	50,04	53,45	56,95	61,94	64,80
Pressure drop at the heat exchanger	(1) kPa	39,0	45,9	59,5	47,4	51,8	57,6	38,8	42,4
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°	2	2	2	2	2	2	2	2
No. Circuits	N°	2	2	2	2	2	2	2	2
Refrigerant charge	kg	160	173	188	200	213	227	244	258
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)	59	59	59	60	60	60	60	62
Sound power level in cooling	(4)(5) dB(A)	92	92	92	93	93	93	93	95
<b>SIZE AND WEIGHT</b>									
A	(6) mm	9000	9000	10250	10250	11650	11650	11650	12900
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2640	2640	2640	2640	2640	2640	2640	2640
Operating weight	(6) kg	8120	8690	9210	9560	10080	10200	11140	11810

### Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements taken in compliance with ISO 9614.

- Sound power level in cooling, outdoors.
- Unit in standard configuration, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency

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for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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