

# GUIDE 2023 PRODUCTS AND SYSTEMS HOME





Inspiring Solutions since 1989



This document is dedicated to those looking for advanced and specialized solutions for heating and cooling, air conditioning, renewal and purification of air in the residential area.

Solutions able to increase the comfort level in the places where we live be they single or multi-family homes, new homes or renovations.

Complete year round systems, focused on substantial energy savings and a reduction in CO<sub>2</sub> emissions.

Full electric or hybrid heat pumps, with integrated condensing boiler, cased or uncased that adapt to any type of system.

With over 30 years of experience!

## **INSPIRING SOLUTIONS**



AIR CONDITIONING AND AIR QUALITY PARTNER



Discover the dealer closest to you



This Guide is printed every year and presents all Clivet's products with the aim of providing a basis for decisions and evaluations.

More detailed information, updated regularly, is available in the "SYSTEMS AND PRODUCTS" area at www.clivet.com and on Clivet Apps, where they can be downloaded free of charge.

To keep up to date with Clivet news, follow us on our social networks:





#### CLIVET. INSPIRING SOLUTIONS

HEAT PUMPS

FAN COILS

HEAT PUMPS FOR DHW (Domestic Hot Water)

VMC WITH RECOVERY

COMFORT MANAGEMENT SOLUTIONS



# ALWAYS READY FOR THE FUTURE

# INSPIRING SOLUTIONS

In over 30 years of working on the design, manufacturing and distribution of air conditioning and handling systems, combining high efficiency with minimal environmental impact, Clivet has developed solutions to ensure sustainable comfort and the well-being of people and the environment. Designing and developing year-round air conditioning solutions with innovative technologies are part of Clivet's DNA, which means the company has always been ready for the future.



# **OUR VALUES**

# IN THE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL SECTORS

Increasing comfort, saving energy and providing customers with the best value for the entire life cycle of the system: these are the values that inspire our systems for the residential, services and industrial sectors.









For more than thirty years, Clivet has been designing sustainable solutions to guarantee comfort and perfect climate to your home.

A range of products to heat, cool, produce domestic hot water and purify the air for maximum energy efficiency and ease of use thanks to the control App. All with ecological refrigerants!

Climate, Home, That's Clivet www.clivet.com







#### Product management optimisation

The launch of the new 2023 series also brings important news in the Clivet product management system, which is simplified and standardised across the SPLIT, Home and VRF ranges.

The new commercial code associated with each product, unit and accessory uniquely identifies it so that it can be tracked and traced through commercial documents, management software and logistics activities.



## SPHERA EVO 2.0 EASYHybrid

Hybrid split refrigerant heat pump, specifically designed to conveniently, easily and efficiently renew old gas systems with the best technology. Optimises installation space according to the actual needs of your house, thanks to the possibility of combining up to 3 aesthetic cabinets.



## Edge EVO 2.0 - EXC

Packaged hybrid or full electric heat pump, compact, efficient and very quiet. Perfect for new systems or upgrading existing ones, with the option of managing up to 6 units in cascade and optimising the energy produced by a thermodynamic or photovoltaic system.





## Evolution of hybrid heat pumps

As a result of the upgrades to be implemented in 2023, the Hybrid version of SPHERA EVO 2.0 Invisible will have instantaneous DHW production through the boiler, thus enhancing user comfort. For the Tower and Box versions, a new kit will also be available for managing an instantaneous boiler from another supplier for heating and DHW.



### Hybrid heat pumps for centralised systems

The hybrid version heat pumps in the Sphera EVO 2.0 and Edge EVO 2.0 series are now also suitable for supplying centralised systems thanks to the new boilers that can deliver up to 200 kW.



#### Enhancement and simplification of the ELFOSun series

The series of thermodynamic solar panels has been renewed and expanded, with the introduction of panels in new sizes and with horizontal installation. Their selection has also been made easier and more intuitive.





## CONTROL4 NRG: the evolution of ELFOControl<sup>3</sup> EVO

The new hardware and software release makes it possible to change from managing the air-conditioning system to managing the comfort and energy in the home or office: it integrates the solar photovoltaic system, simplifies and improves management via the App and introduces numerous other new features.

## Sinergy

Modular electric tank system with inverter for combination with solar photovoltaic system, compact and stylish, ideal for residential installations.

## ELFOFresh EVO

New electronic filter with IFD technology, installed inside the unit ensuring a high filtration efficiency of PM1 90%, and yet a more compact system.

Not only air renewal, but also a continuous supply of energy.



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#### New accessories for AURA with 3-speed motor

The unit can now be selected with: - new KJR-86R thermostat, fitted with a minimum water temperature probe in heating mode, to manage the anti-cold air function - signal diffuser for mini-networks of up to 16 terminal units



CLIVET

CLIVET 9

# ALL TECHNOLOGIES FOR COMPLETE PROPOSAL







# The range Clivet HOME

Heat pum	ps		
Split (Full elect	ric/Hybrid)		
	SPHERA EVO 2.0 - Please check the product availability in your Country		4 ÷ 16 kW
	SPHERA EVO 2.0 Box		4 ÷ 16 kW
	SPHERA EVO 2.0 Invisible - Please check the product availability in your Country	Integr. Boiler	4 ÷ 10 kW 24 kW <sup>(boiler)</sup>
Split (only Hybr	id)		
	SPHERA EVO 2.0 EASYHybrid Box NEW	Integr. Boiler	$4 \div 16 \text{ kW}$ 24 ÷ 33 kW <sup>(boiler)</sup>
	SPHERA EVO 2.0 EASYHybrid Tower NEW	Integr. Boiler	4 ÷ 16 kW 24 ÷ 33 kW <sup>(boiler)</sup>
Monoblock (Fu	ll electric/Hybrid)		
	Edge EVO 2.0 - EXC NEW		4 ÷ 30 kW
<b>Boilers for Hyb</b>	rid versions		
I.	Gas Boiler FE NEW		24 ÷ 34 kW
	Gas Boiler UC NEW		24 ÷ 200 kW
Accessory prod	lucts for heat pumps		
8	DHW boilers		200 ÷ 1.000 I
	ELFOSun <sup>3</sup> - Thermodynamic solar NEW		2 ÷ 2,5 m <sup>2</sup>
	Synergy - Storage for photovoltaic solar NEW		5 ÷ 20 kWh

Fan coils				
	MOOD		DC Motor	2,7 ÷ 4,9 kW
	ELFORoom <sup>2</sup>		DC Motor	0,9 ÷ 3,7 kW
	AURA	AC Motor	DC Motor	1,5 ÷ 8,3 kW
	ELFOSpace BOX3		DC Motor	3,0 ÷ 11,2 kW
17 T	Nebula MP <sup>NEW</sup>	ر آن AC Motor	DC Motor	1,6 ÷ 7,8 kW
2	Nebula HP NEW	ر آر کے AC Motor	DC Motor	3 ÷ 26,8 kW

#### **DHW heat PUMPS (Domestic Hot Water)**

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AQUA Plus - Please check the product availability in your Country

VMC (Co	ntrolled Mechanichal Ver	FREE CONTRACT	
	ELFOFresh EVO	Full Inverter DC	125 ÷ 320 m³/h
	ELFOFresh <sup>2</sup>		500 m <sup>3</sup> /h
Control			
	HID-TConnect <sup>2 NEW</sup>		-
	CONTROL4 NRG NEW		-

190-300 l

# **ErP - Energy Related Products**

The Delegated Regulations on ErPs (Energy-related Products) came into force on 26 September 2015 and are aimed at reducing energy consumption and supporting the most efficient solutions.

The regulations apply to heat generators used to heat rooms, appliances for domestic hot water production and systems consisting of a combination of several elements:

All appliances with rated heating capacity up to 400 kW and boilers up to 2000 litres must comply with the requirements for environmentally compatible design, also based on minimum seasonal energy efficiency values;

 Only appliances with heating capacity up to 70 kW and boilers up to 500 litres must also comply with maximum noise level values (for heat pumps) and energy labelling.

Clivet's specialised systems considerably exceed the strict requirements of these directives.



#### PRODUCT LABEL

It indicates the seasonal energy efficiency of a product according to a scale ranging from A+++ to D: it distinguishes heating efficiency from heating for the production of domestic hot water (DHW), reporting both in the case of products that can provide both services. It also reports other useful information such as capacity and consumption in the various climate zones, noise levels, etc.





#### SYSTEM LABEL

Indicates the energy efficiency for the installed system. A system is the set of single products, in any combination, operating as a whole.

For instance, a heat pump, a boiler, a thermal solar system and electronic control for the system: if they work as a single system, their energy performance can be calculated as a combination of the individual components. Clivet's complete system approach, which is based on the energy benefits of controlled mechanical ventilation with thermodynamic recovery and control over the entire system, allows for higher seasonal efficiency levels compared to those required by current directives.

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# CLIVET COMBINES THE BEST TECHNOLOGY

with an excellent product quality and performance certification system

The innovation for which Clivet has always stood out, is supported by an industrial framework that has adopted the standards envisaged by ISO 9001, since 1996, guaranteeing a quality management system designed to control company processes so that they are targeted at improving the efficacy and efficiency of the organisation, as well as at client satisfaction. The innovation for which Clivet has always stood out, is supported by an industrial framework that has adopted the standards envisaged by ISO 9001, since 1996, guaranteeing a quality management system designed to control company processes so that they are targeted at improving the efficacy and efficiency of the organisation, as well as at client satisfaction. In 2021 the Innovation Centre, Clivet's new centre for technological innovation, was officially opened with two new test rooms where Clivet can carry out functional, performance, acoustic, vibration and stress tests, with air temperatures from -20°C to +60°C, for units up to 2.5 MW with new refrigerants with a low environmental impact. Customers can attend the tests both at the Innovation Centre and online.

Clivet uses latest generation sheet metal folding, press and cutting machines for the mechanical production of its components. High product quality standards are also guaranteed by the use of patented electronic controls.

Clivet only uses non-toxic and low environmental impact alloys for soldering, insulation and gases that comply with the strictest European standards, and the best components available on the market.

# Certifications

# CE

Clivet products comply with applicable product directives, as required in all EU countries, in order to guarantee an appropriate level of safety.



With the aim of providing Customer satisfaction, Clivet S.p.A. has supplemented and certified its Quality, Environment and Safety Management Systems, in accordance with the ISO 9001, ISO 14001 and ISO 45001 International Standards.



Clivet is committed in promoting the green building principles and has become a member of GBC Italia. This organization collaborates with **GBC Italia**, the U.S. nonprofit organization that promotes worldwide the LEED® system of independent certification.



In 2015, Clivet became a partner of CasaClima, as a result, Clivet is now part of a network of companies renowned for their technical expertise and constant focus on sustainable home management. Where applicable.



KEYMARK is a mark recognized in many European countries for the provision of incentives for the installation of heat pumps for room heating and the production of domestic hot water.

The countries that recognize the mark and the Certified Products are available on https://keymark.eu/en/products/ heatpumps/heat-pumps Where applicable.



Clivet participates in the EUROVENT "Liquid Chilling Packages and Heat Pumps", "Rooftops", "Air Handling Units" and "VRF" Certification programmes. The products concerned feature in the EUROVENT guide to certified products and on the website www.eurovent-certification. com. The programmes cover water chillers and heat pumps up to the limits set by the purpose of each programme. Where applicable.



The wide range of Clivet products and complete systems comply with the requirements of the implementing measures for ErP (Energy related Products) Directives 2009/125/EC (Eco-design) and 2010/30/EU (Energy labelling), whose purpose is to reduce the energy consumption of products for heating, cooling, ventilation and hot water production, encouraging the user towards energy-efficient choices.

Directives 2009/125/EC and 2010/30/EU include the following Regulations: (EU) 206/2012, (EU) 626/2011; (EU) 811/2013, (EU) 812/2013, (EU) 813/2013, (EU) 814/2013; (EU) 1253/2014, (EU) 1254/2014; (EU) 2016/2281.





# A solution for every home



#### **NEW BUILDINGS**

#### Building and system working together as one

Solutions designed to be fully **integrated into the configuration of each house**, following specific requirements that may depend on the climate, the need for mechanical ventilation or dehumidification, structural insulation, the presence of renewable sources and much more. These systems are complete and highly customisable: they are already **conceived at the design stage** to not only fulfil Heating, Cooling and Domestic Hot Water production, but also Ventilation, Air renewal and heat recovery. They are also optimised to provide maximum efficiency and quiet operation, as well as the lowest possible consumption levels.

- V SPHERA EVO 2.0
- ✓ SPHERA EVO 2.0 Invisible
- ✓ Edge EVO 2.0





## RENOVATIONS

#### Turn your ideas into reality and create comfort

Solutions designed to enhance systems in existing houses by also intervening on the distribution and control system, which require building works such as renovating the distribution system, installing an intelligent management system or creating a thermal cladding system. Incentives make these interventions extremely cost-effective, even with low investments.

These are cutting-edge systems that significantly increase comfort levels: they are designed at the renovation stage to replace the Heating system and the production of Domestic Hot Water, but also to add cooling, renewable energy sources (e.g. solar panels) or intelligent management systems such as ELFOControl.

- ✓ SPHERA EVO 2.0
- ✓ SPHERA EVO 2.0 Box
- ✓ SPHERA EVO 2.0 EASYHybrid Tower
- ✓ Edge EVO 2.0

- ✓ Edge EVO 2.0 Versione Hybrid
- 🗸 ELFOSun
- 🗸 ELFOFresh



#### REPLACEMENTS Get maximum results with minimum effort

Solutions designed to **update old generators without modifying the system**, using stage-of-theart products that require similar overall dimensions and no significant masonry works. Incentives and extremely quick intervention times clearly make this an obvious choice.

These systems are very versatile and can adapt to any existing facilities: they simply replace the generator that provides Heating and Domestic Hot Water, improving comfort and efficiency, as well as ensuring peace of mind.

- ✓ SPHERA EVO 2.0 Box
- ✓ SPHERA EVO 2.0 EASYHybrid Box
- ✓ SPHERA EVO 2.0 EASYHybrid Tower
- ✓ SPHERA EVO 2.0 Box Hybrid
- ✓ Edge EVO 2.0
- $\checkmark$  Edge EVO 2.0 Versione Hybrid
- 🗸 AQUA Plus









## Heat pumps:

- ✓ Split (Full electric/Hybrid)
- ✓ Split (only Hybrid)
- ✓ Monoblock (Full electric/Hybrid)
- $\checkmark$  Boilers for Hybrid versions

## Accessory products to heat pumps:

- ✓ DHW boilers
- $\checkmark$  Thermodynamic solar
- $\checkmark$  Storage for photovoltaic solar





# **SPLIT (FULL ELECTRIC/HYBRID)**



SPHERA EVO 2.0



SPHERA EVO 2.0 Box



SPHERA EVO 2.0 Invisible

# SPHERA EVO 2.0 SQKN-YEE 1 TC + MISAN-YEE 1 S 2.1÷8.1



#### **Everything under control**

The discreet and effective warning LED on the front of the unit indicates the unit's operating status in real time.

If the LED is pulsing white the unit is in stand-by or operating normally, if the LED is orange with quick pulsing there is a fault.





#### configurations

DHW STORAGE TANK:		BACK-UP ELECTRIC HEATER (integrated in the unit):				
ACS190 ACS250	190 liter DHW tank 250 liter DHW tank	-	No heater (standard)			
Note: there is n	o standard configuration	EH024 EH3	2/4 kW back-up heater 3 kW back-up heater			
OUTDOOR L	INIT POWER SUPPLY (size 6.1÷8.1):	EH6	6 kW back-up heater			
220M 400TN	Power supply 230/1/50 (standard) Power supply 400/3/50+N	EH9	9 kW back-up heater			

#### accessories

	ACSA250X	250 liter DHW tank with aesthetic cabinet	G(=1	T1BX	10m water temperature probe
til a	SOLX	Kit for the management of thermodynamic solar	540 ·	T1B30X	30m water temperature probe
5	KCSX	Kit for secondary circuit (1 liter circuit breaker + circulation pump)	a a a a a a a a a a a a a a a a a a a	VDACSX	Thermostated diverter valve for DHW
	KIRE2HLX	Two-zone distribution kit: direct +	65		
	KIRE2HX	Double zone distribution unit: direct	11-11	DTX	Drain pan with antifreeze electrical heater
1	אוס	1 liter hydraulic separator	٩	APAVX	Kit of antivibration mounts for floor installation
	ACI40X	40 liter system inertial storage		ASTFX	Antivibration mounts kit for installation on the brackets for wall installation or drain pan
.61	DI50-2X	50 liter hydraulic separator	R	KSIPX	Kit with wall fixing brackets
	COFX	Aesthetic cover for inertial storage tank		HIDTCBX to exhaustion	Black HID-TConnect chronothermostat for temperature control
围	KCCEX	Kit for management of a 2-pipe boiler in heating and DHW mode		HIDTCNX	White HID-TConnect chronothermostat for temperature
ۍ لړې	KCCE4X	Kit for the management of an instant gas boiler in heating and			white HID-TConnect <sup>2 NEW</sup>
₩ 12(=11	ANEDX	Electronic protection anode for		HTC2WX	chronothermostat for temperature control
			81 8-1	SWCX	Receiver / IoT switch SwitchConnect

#### dimensions and connections



Comply with the distances indicated by the green areas to ensure correct operation of the unit.

(\*) Water and gas connections

#### technical data

Size - Set					2.	1	3	.1	4	.1	5	.1	6.1	7.1	8.1
				DHW tank	190L	250L	190L	250L	190L	250L	190L	250L	250L	250L	250L
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,32 /	6,26	6,18	/ 7,41	8,30	/ 9,11	10,1	10,3	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	COP	Outdoor air 7°C	Nominal	-	5.4	2	5	.21	5	.31	5.	01	5.00	4.70	4.55
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4.17 / (	6.25	6.05	/ 6.97	7.33	/ 8.35	8.20	9.30	10.5 / 13.9	12.2 / 14.1	13.4 / 14.3
Heating	COP	Outdoor air -7°C	Nominal	-	3,1	6	3,	00	3.	23	3,	07	3,13	2,82	2,74
	Capacity	Water 45/40°C	Nominal / Maximum	kW	4.16 /	5.96	6.03	/ 7.13	8.22	/ 8.98	10.0	/ 10.3	12.3 / 14.5	14.0 / 15.7	16.0 / 16.6
	COP	Outdoor air 7°C	Nominal	-	3,9	3	3.	83	3.	95	3,	86	3,80	3,65	3,60
	Capacity	Water 18/23°C	Nominal / Maximum	kW	4,55/	6,88	6,44	/ 7,65	8,10	/ 11,1	10,0	/ 12,0	12,1 / 15,0	13,8 / 15,3	14,8 / 16,4
Contract	EER	Outdoor air 35°C	Nominal	-	6,0	8	5,	24	5	,12	4,	77	4,02	3,70	3,65
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,26 /	6,14	6,25	/ 6,39	7,46	/ 7,94	8,67	/ 9,10	11,2 / 11,8	11,7 / 12,9	12,9 / 14,2
	EER	Outdoor air 35°C	Nominal	-	3,5	0	3,	09	3,	33	3,	09	2,75	2,55	2,45
	Net tank capacity			1	190	250	190	250	190	250	190	250	250	250	250
DHW	Water mixed at 40	0°C (V40)1		1	204	269	204	269	204	269	204	269	269	269	269
	Heating time	me			2:30	2:25	2:30	2:25	2:08	2:05	2:08	2:05	1:46	1:46	1:46
Electrical power for meter	sizing			kW	2,2	0	2,	60	3,	30	3,	60	5,40	5,70	6,10
		Energy class		-	A+	+	A	++	A	++	A	++	A++	A++	A++
	Heating	Annual energy cor	sumption	-	2.54	42	3.2	283	3.8	324	4.7	49	6.793	7.380	7.915
	Water 55°C	SCOP		-	3,3	2	3,	54	3,72 3,73		73	3,56	3,52	3,48	
Seasonal efficiency Medium climate		ηs (seasonal outpu	ut)	%	130	0	13	38	146		14	16	139	138	136
		Energy class		-	A++	++	A+	++	A	A+++ A+++		A+++	A+++	A+++	
	Heating	Annual energy cor	sumption		2.16	51	2.5	502	3.	141	3.7	47	4.994	5.868	6.602
	Water 35°C	SCOP			5,1	3	5	,15	5,	32	5,	27	5,00	4,91	4,89
		ηs (seasonal outpu	ηs (seasonal output)		20	2	2	03	2	10	20	08	196	193	193
	DHW	Energy class			<b>A</b> +	<b>A</b> +	A+	<b>A</b> +	<b>A</b> +	<b>A</b> +	<b>A</b> +	<b>A</b> +	A+	A+	A+
	DIW	Withdrawal profile		-	L	XL	L	XL	L	XL	L	XL	XL	XL	XL
Size - Indoor unit								A						В	
Power supply		Voltage/Frequency	y/Phases	V/Hz/n°						2	30/50/1				
Water flow-rate		Water 35/30°C	Nominal	l/s	0,2	21	0,	30	0	,41	0,	49	0,57	0,67	0,75
Pump available pressure		Outdoor air /°C	Nominal	kPa	31,	2	36	5,5	3	3,1	31	,0	25,/	31,/	22,6
Minimum system water co	ntent			- <u> </u>							40				
Expansion tank capacity				_ <u> </u>							8				
Sound power			Nominai	dB(A)							41				
Sound pressure @1m			Nominal	dB(A)							26		~ ~	74	
Size - Outdoor unit		Valtere / Ereensee	./Dh	1/11-/	2:	1	3	5.1	4	1.1 ^	20/50/4	.1	6.1	7.1	8.1
Power supply		voitage/Frequency	//Phases	V/HZ/N <sup>-</sup>	50/		54		50	2	30/50/1		54/00	54/64	EA / CC
Sound power			Minimum / Nominal	(A)	50/	55	- 51	/ 5/	52	/ 58	52	60	54/63	54/64	54/60
Sound pressure @im			Minimum / Nominal	dB(A)	377	42	38	/ 44	39	/ 45	39	/ 4/	41/50	41/51	41/53
Operating range		Full all advis	Minimum / Massimum	00											
Water cupply temperature	Heating / DHW	Full electric	Minimum / Maximum								20/00				
water supply temperature	Cooling	πγρηα	Minimum / Maximum	- <u>c</u>							23/13 E/2E				
Operating range	Hoating / DHW		Minimum / Maximum	- <del>.</del>							5/25 25/ <i>1</i> 2				
(Outdoor air)	Cooling		Minimum / Maximum	- <del>c</del>						-	2J/43 E//2				
	Cooling	-	wiiniiiuiii / Widxiffiuffi	<u>ر</u>							-5/45				

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281). Energy classes with energy assistant for Clivet Smart Home

(1) Data according to EN 16147: amount of water at 40°C with the same enthalpy content as the water coming out of the Boiler at a temperature higher than 40°C

ize				2.1 3.4	1 4.1	5.1	6.1	7.1	8.1		
	Indoor unit ACS190	AxCxB	mm		-						
mensions	Indoor unit ACS250	AxCxB	mm			600x2.084x615					
	Outdoor unit	AxCxB	mm	986x712x426			1.104x866x523	7.1 			
	Indoor unit ACS190		kg		359			-			
Dimensions Operating weight Max / min equivalent leng Max difference in level OD Refrigerant precharge <sup>1</sup> Equivalent pipe length wir External diameters	Indoor unit ACS250		kg		419			421			
	Outdoor unit		kg	$\begin{array}{c c c c c c c c c c c c c c c c c c c $							
ax / min equivalent lengt	h	L	m	30 / 2							
ax difference in level OD	U / IDU	Н	m			25					
			type / GWP	R-32 / 675							
efrigerant precharge			kg	1,50		1,65		1,84			
			CO, tons	1,05		1,10	611 /1 615 1.104x866x523 421 112 5 1.84 1.24 3/8"				
uivalent pipe length with	h pre-charging only		m			15					
	Defrigorant piping	Liquid	inch	1/4"			3/8"				
tornal diamotors	Reingerant piping	Gas	inch			5/8"					
	Indoor unit	Water (System)	inch			1"					
		Water (DHW)	inch			3/4"					
f rofrigorant is added the	Indoor unit	Water (DHW)	inch				3/4"	3/4"	3/4"		

 If refrigerant is added, the indoor unit may need a minimal installation area Check the specifications in the manual

Size - Set (400TN version) 6.1 7.1 8.1 DHW tank ACS250 ACS250 ACS250 Water 35/30°C Nominal / Maximum 12,1 / 14,6 14,5 / 15,5 16.0 / 16.8 Capacity kW COP Outdoor air 7°C Nominal 5,00 4,70 4.55 13,4 / 14,3 kW 10,5 / 13,9 12,2 / 14,1 Capacity Water 35/30°C Nominal / Maximum Heating Outdoor air -7°C COP Nominal 3,13 2,82 2,74 Capacity Water 45/40° Nominal / Maximum kW 12,3 / 14,5 14,0 / 15,7 16,0 / 16,6 Outdoor air 7°C COP Nominal 3.80 3 65 3 60 12.1/15.0 13.8 / 15.3 Capacity kW Water 18/23°C Nominal / Maximum 14.8 / 16.4 Outdoor air 35°C 3,70 11,7 / 12,9 3,65 12,9 / 14,2 EER Nominal 4,02 Cooling Water 7/12°C Nominal / Maximum kW 11,2 / 11,8 Capacity 2.55 2.45 EER Outdor air 35°C Nominal 2.75 Net tank capacity 250 250 250 Water mixed at 40°C (V40)<sup>1</sup> DHW 269 269 269 1:46 1:46 1:46 Heating time h:min Electrical power for meter sizing kW 5.40 5.70 6.10 Energy class A++ A++ A++ Annual energy consumption 6.793 7.380 7.915 Heating Water 55°C SCOP 3.56 3.52 3.48 % ηs (seasonal output) 139 136 138 Seasonal efficiency Medium Energy class A+++ A+++ A+++ Climate Annual energy consumption 4.994 5.868 6.602 Heating Water 35°C SCOP 5,00 4,91 4,89 ηs (seasonal output) % 196 193 193 Energy class A+ A+ A+ DHW Withdrawal profile XL XL XL Size - Indoor unit В 230/50/1 Voltage/Frequency/Phases V/Hz/n° Power supply Water 35/30°C Nominal 0,57 0,75 Water flow-rate l/s 0,67 Pump available pressure Outdoor air 7°C Nominal kPa 25,7 22,6 31,7 Minimum system water content 40 Expansion tank capacity 8 Nominal Sound power dB(A) 41 Sound pressure @1m 26 Nominal dB(A) Size - Outdoor unit 6.1 7.1 8.1 Voltage/Frequency/Phases V/Hz/n° 400/50/3+N Power supply Sound power Minimum / Nominal 54/63 54/64 54/66 dB(A) Sound pressure @1m Minimum / Nominal dB(A) 41/50 41/51 41/53 **Operating range** Full electric Minimum / Maximum 25 / 65 °C Heating / DHW °C °C Water supply temperature Hybrid Minimum / Maximum 25 / 75 Cooling Minimum / Maximum 5/25 Heating / DHW Minimum / Maximum °C -25 / 43 Operating range (outdoor air) Cooling Minimum / Maximum °C -5/43

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281). Energy classes with energy assistant for Clivet Smart Home

(1) Data according to EN 16147: amount of water at 40°C with the same enthalpy content as the water coming out of the Boiler at a temperature higher than 40°C

<u>Сслует</u> 29



 \*from external supply



HEAT PUMPS

.... saana supply

# SPHERA EVO 2.0 Box

### SQKN-YEE 1 BC + MiSAN-YEE 1 S 2.1+8.1





- It does not need to be coupled to a boiler if DHW is produced by the boiler (Hybrid version)
- $\checkmark$  Energy efficiency at the highest level
- $\checkmark$  Designed not to disturb, operating very quietly
- Can be combined with DHW tanks of a volume suitable for the application in which it is to be installed
- Up to 6 units can be connected in cascade, for demands up to 100 kW

#### Ideal with AQUA PLUS

SPHERA EVO Box 2.0 is an excellent alternative for installations where it is not possible to install the tower or uncased version.

Combined with AQUA Plus, the heat pump for domestic hot water production, SPHERA EVO Box 2.0 offers the advantage of a system that provides simultaneous heating or cooling and domestic hot water production.





#### configurations

#### OUTDOOR UNIT POWER SUPPLY (size 6.1÷8.1):

200M	Power supply 230/1/50 (standard)	-	No heater (s
400TN	Power supply 400/3/50+N	EH024	2/4 kW back
PUMP:		EH3	3 kW back-u
	Standard numm (standard)	EH6	6 kW back-u
- 1DLIM	Standard pump (standard) Pump with larger available head	EH9	9 kW back-u
	i unip with arger available head		

#### BACK-UP ELECTRIC HEATER (integrated in the unit):

	No heater (standard)
H024	2/4 kW back-up heater
H3	3 kW back-up heater
H6	6 kW back-up heater
H9	9 kW back-up heater

#### accessories

	ACS200X	200 liter DHW tank	a ha	VDACSX	Thermostated diverter valve for DHW
	ACS300X	300 liter DHW tank	16		
•	ACS500X	500 liter DHW tank	11 11	DTX	Drain pan with antifreeze electrical heater
	SCS08X	Solar coil for ACS200X/ACS300X DHW tank		APAVX	Kit of antivibration mounts for floor installation
-69	SCS12X	Solar coil for ACS500X DHW tank			
P	KCSX	Kit for secondary circuit (1 liter circuit breaker + circulation pump)		ASTFX	Antivibration mounts kit for installation on the brackets for wall installation or drain pan
	KIRE2HLX	Two-zone distribution kit: direct + mixed	R	KSIPX	Kit with wall fixing brackets
	KIRE2HX	Double zone distribution unit: direct + direct		KISX	Kit di installazione semplificata con raccordi per SPHERA EVO 2.0 Box Hybrid
ł	DIX	1 liter hydraulic separator		HIDTCBX	Black HID-TConnect chronothermostat for temperature
n		40 liter system inertial storage			control
-@1		tank 50 liter bydraulic separator	. 😔 .	HIDTCNX to exhaustion	White HID-TConnect chronothermostat for temperature
185					control
世	KCCEX	Kit for management of a 2-pipe boiler in heating and DHW mode		HTC2WX	White HID-TConnect <sup>2 NEW</sup> chronothermostat for temperature
أأح		Kit for the management of an			control
5	КССЕ4Х	Instant gas boller in neating and DHW <sup>NEW</sup>	8 I 	SWCX	Receiver / IoT switch
	T1BX	10m water temperature probe			SwitchConnect
[≩[ <b>=──</b> ] <b>I</b>	T1B30X	30m water temperature probe			

#### technical data

Size - Set					2.1	3.1	4.1	5.1	6.1	7.1	8.1
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,32 / 6,26	6,18 / 7,41	8,30 / 9,11	10,1 / 10,3	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	COP	Outdoor air 7°C	Nominal	-	5,42	5,21	5,31	5,01	5,00	4,70	4,55
11	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,17 / 6,25	6,05/6,97	7,33 / 8,35	8,20 / 9,30	10,5 / 13,9	12,2 / 14,1	13,4 / 14,3
Heating	COP	Outdoor air -7°C	Nominal	-	3,16	3,00	3,23	3,07	3,13	2,82	2,74
	Capacity	Water 45/40°	Nominal / Maximum	kW	4,16 / 5,96	6,03 / 7,13	8,22 / 8,98	10,0 / 10,3	12,3 / 14,5	14,0 / 15,7	16,0 / 16,6
	COP	Outdoor air 7°C	Nominal	-	3,93	3,83	3,95	3,86	3,80	3,65	3,60
	Capacity	Water 18/23°C	Nominal / Maximum	kW	4,55 / 6,88	6,44 / 7,65	8,10 / 11,1	10,0 / 12,0	12,1 / 15,0	13,8 / 15,3	14,8 / 16,4
Cooline	EER	Outdoor air 35°C	Nominal	-	6,08	5,24	5,12	4,77	4,02	3,70	3,65
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,26 / 6,14	6,25 / 6,39	7,46 / 7,94	8,67 / 9,10	11,2 / 11,8	11,7 / 12,9	12,9 / 14,2
Heating Cooling Electrical power for meter sizing Seasonal efficiency Medium Climate Size - Indoor unit Power supply Water flow-rate Pump available pressure Minimum system water content Expansion tank capacity Sound power Sound pressure @1m Size - Outdoor unit Power supply Sound power Sound pressure @1m Operating range Water supply temperature	EER	Outdoor air 35°C	Nominal	-	3,50	3,09	3,33	3,09	2,75	2,55	2,45
Electrical power for meter sizing	g			kW	2,20	2,60	3,30	3,60	5,40	5,70	6,10
		Energy class		-	A++						
	Lipsting Water EE°C	Annual energy cor	sumption	-	2.542	3.283	3.824	4.749	6.793	7.380	7.915
	Heating water 55 C	SCOP		-	3,32	3,54	3,72	3,73	3,56	3,52	3,48
Seasonal efficiency Medium		ηs (seasonal outpu	it)	%	130	138	146	146	139	138	136
Climate	Usetine Weter 25°C	Energy class		-	A+++						
		Annual energy cor	sumption	-	2.161	2.502	3.141	3.747	4.994	5.868	6.602
	Heating water 35 C	SCOP		-	5,13	5,15	5,32	5,27	5,00	4,91	4,89
		ηs (seasonal outpu	ıt)	%	202	203	210	208	196	193	193
Size - Indoor unit						Δ				В	
Power supply		Voltage/Frequency	//Phases	V/Hz/n°				230/50/1			
Water flow-rate		Water 35/30°C	Nominal	1/s	0.21	0.30	0.41	0.49	0.57	0.67	0.75
Pump available pressure		Outdoor air 7°C	Nominal	kPa	31.2	36.5	33.1	31.0	25.7	31.7	22.6
Minimum system water content				1				40	,	,.	,-
Expansion tank capacity				1				8			
Sound power			Nominal	dB(A)				41			
Sound pressure @1m			Nominal	dB(A)				26			
Sino Outdoor unit					- 24			E 4	61	74	0.4
Size - Outdoor unit		Voltago/Eroguang	/Dhasas	V/Uz/p°	2.1	3.1	4.1	3.I	0.1	7.1	0.1
Fowel supply		vollage/Frequency	//Plidses			E1 / E7	E2 / E9	230/50/1	E4/62	E4/C4	EA/CC
Sound proseuro @1m			Minimum / Nominal		30/33		32/36	32/00			
Sound pressure @im			Millinium / Normina	UD(A)	57/42			59/4/	41/ 50	41/ 51	41/ 55
Operating range											
	Heating / DHW	Full electric	Minimum / Maximum	°C				25 / 65			
Water supply temperature		Hybrid	Minimum / Maximum	°C				25 / 75			
	Cooling	-	Minimum / Maximum	°C				5 / 25			
Operating range (outdoor air)	Heating / DHW		Minimum / Maximum	°C				-25 / 43			
	Cooling	-	Minimum / Maximum	°C				-5 / 43			

#### Size - Set (400TN version) 6.1 7.1 8.1 Water 35/30°C 12,1 / 14,6 14,5 / 15,5 16,0 / 16,8 Capacity Nominal / Maximum kW COP Outdoor air 7°C Nominal 5,00 4,70 4,55 Capacity Water 35/30°C Nominal / Maximum kW 10,5 / 13,9 12,2 / 14,1 13,4 / 14,3 Heating COP Outdoor air -7°C Nominal 3,13 2,82 2,74 Capacity Water 45/40° Nominal / Maximum kW 12,3 / 14,5 14,0 / 15,7 16,0 / 16,6 COP Outdoor air 7°C Nominal 3,80 3,65 3,60 Water 18/23°C kW 12,1 / 15,0 13,8 / 15,3 14,8 / 16,4 Capacity Nominal / Maximum EER Outdoor air 35°C Nominal 4,02 3,70 3,65 Cooling Water 7/12°C Nominal / Maximum kW 11,2 / 11,8 11,7 / 12,9 12,9 / 14,2 Capacity EER Outdor air 35°C Nominal 2,75 2,55 2,45 Electrical power for meter sizing kW 5,40 5,70 6,10 A++ Energy class A++ A++ Annual energy consumption 6.793 7.380 7.915 Heating Water 55°C SCOP 3,56 3,52 3,48 Seasonal efficiency Medium ηs (seasonal output) % 139 138 136 Climate Energy class A+++ A+++ A+++ Annual energy consumption 4.994 5.868 6.602 Heating Water 35°C SCOP 5,00 4,91 4,89 ηs (seasonal output) % 196 193 193 Size - Indoor unit В Power supply Voltage/Frequency/Phases V/Hz/n° 230/50/1 Water flow-rate Water 35/30°C Nominal l/s 0,57 0,67 0,75 Pump available pressure Outdoor air 7°C Nominal kPa 25,7 31,7 22,6 Minimum system water content 40 Expansion tank capacity 8 Sound power Nominal dB(A) 41 Sound pressure @1m Nominal dB(A) 26 Size - Outdoor unit 6.1 7.1 8.1 Power supply Voltage/Frequency/Phases V/Hz/n° 400/50/3+N Minimum / Nominal 54/63 54/66 Sound power dB(A) 54/64 Sound pressure @1m 41/51 Minimum / Nominal dB(A) 41/50 41/53 **Operating range** 25/65 Full electric Minimum / Maximum °C Heating / DHW Minimum / Maximum Water supply temperature Hybrid °C °C 25/75Minimum / Maximum Cooling 5/25 Heating / DHW Minimum / Maximum °C -25 / 43 Operating range (outdoor air) °C Cooling Minimum / Maximum -5/43

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

# HEAT PUMPS
#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

(\*) Gas connections

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1
Dimensione	Indoor unit	AxCxB	mm							
Dimensions	Outdoor unit	AxCxB	mm	986x7	l2x426			1.104x866x523		
Woight	Indoor unit		kg		Ę	52			54	
weight	Outdoor unit		kg	58		-	77		112	
Max / min equiv	alent length	L	m	30/2						
Max difference	in level ODU / IDU	Н	m	25						
		type / GWP				R-32 / 675				
Refrigerant pred	charge <sup>1</sup>		kg	1,50 1,65					1,84	
•	•		CO <sub>2</sub> tons	1,0	)5	1	10	1,24		
Equivalent pipe	length with pre-chargin	g only	 m		15					
	Definement sister	Liquid	inch	1/-	4"			3/8"		
External dia-	Reingerant piping	Gas	inch				5/8"			
meters		Water (System)	inch				1"			
	indoor unit	Water (DHW)	inch				3/4"			

(1) If refrigerant is added, the indoor unit may need a minimal installation area. Check the specifications in the manual





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HEAT PUMPS

## SPHERA EVO 2.0 Invisible

## SQKN-YEE 1 IC + MISAN-YEE 1 S 2.1÷5.1





- Space-saving: completely outdoor installation with uncased wallmounted unit only 36cm deep
- It adapts to every need: solar kit / inertial storage kit / additional storage tank / configurable boiler
- Components and uncased cabinet with telescopic frame can be supplied separately
- $\checkmark$  Compact outdoor unit requiring very little installation space
- Advanced connectivity: management via the dedicated MSmartHome App or via the Modbus port with CONTROL4 NRG included as standard

## **Optimize the space**

SPHERA EVO 2.0 Invisible is the ideal choice for all homes that do not have a technical room and which need to make the unit invisible by embedding it in the wall.

The cabinet has an adjustable telescopic frame and can be painted to make the unit disappear completely.





The Hybrid version with FE Gas Boiler does not have an expansion tank in the heat pump module, it is in the boiler: the full electric version is not compatible with the Hybrid version boiler. Preview: the Hybrid version has an instant DHW production boiler and a thermostat-controlled 3-way switching valve.

### configurations

#### VERSION:

IC	Full electric (standard)
IH	Hybrid
PUMP:	
-	Standard pump (standard)
1PUM	Pump with larger available head

#### BACK-UP ELECTRIC HEATER (integrated in the unit):

-	No heater (standard)
EH024	2/4 kW back-up heater
EH3	3 kW back-up heater
EH6	6 kW back-up heater
EH9	9 kW back-up heater

Note: The hybrid version excludes the possibility of selecting electric back-up heaters

#### accessories

i.	ADIX	Main in-wall cabinet for Sphera EVO 2.0 Invisible		ACE50X	50 liter system inertial storage tank (for installation outside the unit)
	ACS150X	150 liter DHW tank		ADI50X	In-wall cabinet for inertial storage
a de la companya de l	KCIACSX	Pipe connection kit for DHW tank for SPHERA Invisible <i>NEW</i>			tank or solar kit
Ĩ	ADIAX	In-wall cabinet for 150 liter DHW tank	Ą.	KCIBOIX	DHW connection to SPHERA Invisible boiler kit <sup>PREVIEW</sup>
	ACSA150X	Additional 150 liter DHW tank	<b>E</b> .	KSDFX	Splitter for suction and flue gas discharge (d. 80/80 mm)
<b>A</b>	KCI150X	Pipe connection kit for additional DHW tank for SPHERA Invisible <sup>NEW</sup>		CCOAX	90° coaxial curve for suction and flue gas discharge, 360° adjustable (d. 60/100 mm)
	ACSA50X	Additional 50 liter DHW tank	11	DTX	Drain pan with antifreeze electrical heater
	SHWTX	150 liter DHW tank with solar coil		APAVX	Kit of antivibration mounts for floor installation
"A	KCVEX	Circulation group, control unit and expansion vessel		ASTFX	Antivibration mounts kit for installation on the brackets for wall installation or drain pan
<b>(</b>	KPRSX	DHW recirculation pump kit (for installation inside the unit)	R	KSIPX	Kit with wall fixing brackets
3	VCSV	Kit for secondary circuit (1 liter	(ğ(=1	ANEDX	Electronic protection anode for DHW tank <sup>NEW</sup>
		circuit breaker + circulation pump)		HIDTCBX to exhaustion	Black HID-TConnect chronothermostat for temperature
	KIR2HLX	Two-zone distribution kit: direct + mixed	101	HIDTONX	White HID-TConnect
	KIR2HX	Two-zone distribution kit: direct +		to exhaustion	chronothermostat for temperature control
_		mixed (for installation inside the unit)		HTC2WX	White HID-TConnect <sup>2 NEW</sup> chronothermostat for temperature
ſ	AC50X	tank (for installation inside the			control
5		unit)	8 I	SWCX	Receiver / IoT switch SwitchConnect

- 1. Inverter DC fan
- 2. Inverter DC twin-rotary compressor
- 3. Air-gas finned exchanger (blue fin treatment)
- 4. Gas/water plate exchanger
- 5. Inverter DC high efficiency pump
- 6. 8L system expansion tank
- 7. 3-way valve
- 8. Magnetic dirt separator filter
- 9. 150 L DHW tank with coil
- 10. 2 kW DHW safety heater

- **11.** 8 L DHW expansion tank
- 12. Anti-scalding valve
- **13.** Cabinet with adjustable telescopic frame
- 14. heating / cooling area (fan coils / radiant)
- Boiler (optional)
- 15. Additional 50 L DHW storage tank (optional) Two-zone kit management (optional)
- 16. Dedicated hydraulic connection for FE boiler (Hybrid version with FE Gas Boiler)

#### technical data

Size					2.1	3.1	4.1	5.1
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4.32 / 6.26	6.18 / 7.41	8.30 / 9.11	10.1 / 10.3
	COP	Outdoor air 7°C	Nominal	-	5.42	5.21	5.31	5.01
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,17 / 6,25	6,05 / 6,97	7,33 / 8,35	8,20 / 9,30
Heating	COP	Outdoor air -7°C	Nominal	-	3,16	3,00	3,23	3,07
	Capacity	Water 45/40°	Nominal / Maximum	kW	4,16 / 5,96	6,03 / 7,13	8,22 / 8,98	10,0 / 10,3
	COP	Outdoor air 7°C	Nominal	-	3,93	3,83	3,95	3,86
	Capacity	Water 18/23°C	Nominal / Maximum	kW	4,55 / 6,88	6,44 / 7,65	8,10 / 11,1	10,0 / 12,0
Carling	EER	Outdoor air 35°C	Nominal	-	6,08	5,24	5,12	4,77
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,26 / 6,14	6,25 / 6,39	7,46 / 7,94	8,67 / 9,10
	EER	Outdor air 35°C	Nominal	-	3,50	3,09	3,33	3,09
	Net tank capacity			1		1	43	
DHW	Mixed water at 40°C (	V40)1		1		1	88	
	Heating time			h:min	2:11	2:11	1:47	1:47
Electrical power for meter sizin	ng			kW	2,20	2,60	3,30	3,60
· · ·	-	Energy class		-	A++	A++	A++	A++
		Annual energy con	sumption	-	2.542	3.283	3.824	4.749
	Heating Water 55°C	SCOP	•	-	3,32	3,54	3,72	3,73
		ηs (seasonal outpu	it)	%	130	138	146	146
Seasonal efficiency Medium		Energy class	,	-	A+++	A+++	A+++	A+++
Climate		Annual energy con	sumption	-	2.161	2.502	3.141	3.747
	Heating Water 35°C	SCOP	·	-	5,13	5,15	5,32	5,27
		ns (seasonal outpu	it)	%	202	203	210	208
	5	Energy class	,	-	A+	A+	A+	<b>A</b> +
	DHW	Withdrawal profile		-	L	L	L	L
Size - Indoor unit						A	۱	
Power supply		Voltage/Frequency	ı/Phases	V/Hz/ n°		230	/50/1	
Water flow-rate		Water 35/30°C	Nominal	l/s	0,21	0,30	0,41	0,49
Pump available pressure		Outdoor air 7°C	Nominal	kPa	31,2	36,5	33,1	31,0
Minimum system water conter	nt			1		4	10	
Expansion tank capacity				<u> </u>			8	
Sound power			Nominal	dB(A)		4	41	
Sound pressure @1m			Nominal	dB(A)		2	26	
Boiler - Hybrid version						HYI	FE24	
	Nominal Heating		Nominal	kW		2	4.0	
Boiler	capacity ((LHV)	Water 80/60°C				2	1,0	
	Efficiency		Nominal	%		9	7,8	
Power supply		Voltage/Frequency	ı/Phases	V/Hz/ n°		230	/50/1	
Power input			Water content	W		8	32	
Sound power			Nominal	dB(A)		4	19	
Size - Outdoor unit					2.1	3.1	4.1	5.1
Power supply		Voltage/Frequency	ı/Phases	V/Hz/ n°		230	/50/1	
Sound power			Minimum / Nominal	dB(A)	50 / 55	51/57	52 / 58	52 / 60
Sound pressure @1m			Minimum / Nominal	dB(A)	37 / 42	38 / 44	39 / 45	39 / 47
Operating range								
	Heating / DHW	Full electric	Minimum / Maximum	°C		25	/ 65	
Water supply temperature		Hybrid	Minimum / Maximum	°C		25	/ 75	
	Cooling	-	Minimum / Maximum	°C		5/	25	
Operating range (outdoor air)	Heating / DHW	-	Minimum / Maximum	°C		-25	/ 43	
operating range (outdoor all)	Cooling	-	Minimum / Maximum	°C		-5	/ 43	

Data according to EN 14511:2018 and EN 14825:2016 The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 -2016/2281). Energy classes with energy assistant for Clivet Smart Home

(1) Data according to EN 16147: amount of water at 40°C with the same enthalpy content as the water coming out of the Boiler at a temperature higher than 40°C

SQKN-YEE 1 IC Indoor unit (IDU)

dimensions and connections

MiSAN-YEE1S Outdoor unit (ODU) For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

(\*) Water and gas connections

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Size				2.1	3.1	4.1	5.1		
Dimonsions	Indoor unit	AxCxB	mm		950x2.20	00x360			
Dimensions	Outdoor unit	AxCxB	mm	986x712x426	1.104x866x	523			
	Indoor unit		kg		31	7			
Operating weight	Boiler		kg		31	1			
	Outdoor unit		kg	58		77			
Max / min equiva	ent length	L	m		30 /	/2			
Max difference in	level ODU / IDU	Н	m	25					
			type / GWP	P R-32 / 675					
Refrigerant prech	arge <sup>1</sup>		kg	1,50		1,65			
			CO, tons	1,05		1,10			
Equivalent pipe le	ength with pre-ch	arging only	m		15	5			
	Refrigerant	Liquid	inch	1/4"		3/8"			
	piping	Gas	inch		5/8	3"			
	المراجع والمرا	Water (System)	inch		1"	2			
External dia-	indoor unit	Water (DHW)	inch		3/4	1"			
meters	Dailar Uubrid	Gas	inch		3/4	1"			
		Intake air	mm		80	0			
	version	Exhaust gas	mm		80	0			

Check in the manual if the indoor unit requires a minimum installation surface



HEAT PUMPS





Preview of operation with instantaneous boiler

HEAT PUMPS

\*from external supply





## **MONOBLOCK (Full electric / Hybrid)**



Edge EVO 2.0 - EXC



## Edge EVO 2.0 - EXC WISAN-YME <u>1 S 2.1÷14.1</u>



### $\checkmark$ Space saving: installed outdoors, no indoor unit is required

- Designed for harsh climates: excellent performance at low temperatures and optional 3 to 9 kW auxiliary heaters
- Simultaneous production of DHW and cooling/heating (Hybrid version)
- Modular: combines up to 6 units in cascade for capacities up to 180 kW
- Advanced connectivity: management via the dedicated MSmartHome App or via the Modbus port with CONTROL4 NRG included as standard

### Senza pensieri

Edge EVO 2.0 - EXC Hybrid version is the solution designed for upgrading old generators without having to alter the system. The system is in fact extremely versatile and able to adapt to whatever already exists: it simply replaces the generator that produces Heating and Domestic Hot Water, improving comfort and efficiency, as well as ensuring peace of mind.





## configurations

IBH

#### BACK-UP ELECTRIC HEATER (INTEGRATED IN THE UNIT):

- No heater (standard)

Back-up electric heater

accessorie	es				
5	KTFLX	Hose kit for connecting the unit to the system		ΤΑΝΚΧ	System inertial storage tank
\$	FDMX	Magnetic dirt separator filter for water distribution systems		КТСАХ	Piping kit for the connection to the buffer tank
-	VAGX	Safety antifreeze valve for system	19	PCSX	Secondary circuit pump
	ACS200X	200 liter DHW tank		PCS2X	Oversized secondary circuit pump
	ACS300X	300 liter DHW tank		PRSX	DHW recirculation pump
	ACS500X	500 liter DHW tank			Thermostat-controlled switching
•	ACS1000X	1000 liter DHW tank	e la	VDACSX	valve for domestic hot water
	ACS10SX	1.000 liter DHW tank with solar coil		IBHX	Single-phase back-up electric heater (2/4/6kW)
		Solar coil for ACS200X/ACS300X		IBHTX	Three-phase back-up electric heater (3/6/9kW)
63	505067	DHW tank		DTX	Auxiliary condensate collection tray
	SCS12X	1.2 m <sup>2</sup> solar exchanger for flange installation (for ACS500X)		AMRX	Kit of antivibration mounts for floor
	QERAX	Electrical panel for single-phase heater connection on DHW storage tank	1		Kit of antivibration anti-seismic
	QERATX	Electrical panel for three-phase heater connection on DHW storage			mounts for floor installation
<b>d</b> :	<b>3DHWX</b>	Three-way valve for domestic hot water	-1)	ASTFX	Kit of antivibration mounts for wall bracket installation
d'	ксѕх	Secondary circuit kit (1-litre circuit breaker + pump)	T	KSIPX	Kit with wall fixing brackets
	KIRE2HLX	Double zone distribution unit: direct + mixed (with mixing valve)	۵.	HIDTCBX to exhaustion	Black HID-TConnect chronothermostat for temperature control
	KIRE2HX	Double zone distribution unit: direct + direct		HIDTCNX to exhaustion	White HID-TConnect chronothermostat for temperature
	DIX	1 liter hydraulic separator			control
- M	DI50-2X	50 liter hydraulic separator		HTC2WX	White HID-TConnect <sup>2 NEW</sup> chronothermostat for temperature control
- (B)	DI100X	100-litre circuit breaker	2.1	SWCX	Receiver / IoT switch
197 <b></b> 1	T1BX	DHW temperature probe and additional heating source at 10 m			SwitchConnect
-	T1B30X	DHW temperature probe and			

additional heating source at 30 m

## dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

H = 300 mm F = 500 mm (2.1÷8.1) / 600 mm (9.1÷14.1) E = 500 mm (2.1÷8.1) / 300 mm (9.1÷14.1) G = 1000 mm (2.1÷3.1) / 1500 mm (5.1÷8.1) / 3000 mm (9.1÷14.1)

Size			2.1	3.1	4.1	5.1	6.1	7.1	8.1		
Dimensions	AxCxB	mm	1.295x7	'17x426			1.385x864x523				
Weight		kg	8	6	1	05		129			
-		type / GWP									
Refrigerant charge		kg		1	40			1,75			
		CO <sub>2</sub> tons		0	,95			1,18			
External diameters	Water	inch	1	**			1" 1/4				

Size			6.1T	7.1T	8.1T	9.1	10.1	12.1	14.1		
Dimensions	AxCxB	mm		1.385x864x523		1.120x1.557x528					
Weight		kg		144		177					
		type / GWP				R-32 / 675					
Refrigerant charge		kg	1,75			5,00					
		CO <sub>2</sub> tons	1,18			3,38					
External diameters Water inch 1" 1/4											

technical data											
Size					2.1	3.1	4.1	5.1	6.1	7.1	8.1
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,20 / 5,33	6,35 / 7,41	8,40 / 9,11	10,0 / 10,3	12,1 / 14,6	14,5 / 15,5	15,9 / 16,8
	COP	Outdoor air 7°C	Nominal	-	5,10	4,95	5,15	4,95	4,95	4,60	4,50
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,70 / 4,99	6,00 / 6,21	7,00 / 7,27	8,00 / 8,31	10,0 / 11,0	12,0 / 12,7	13,1 / 13,9
Heating	COP	Outdoor air -7°C	Nominal	-	3,10	3,00	3,20	3,05	3,00	2,85	2,70
	Capacity	Water 45/40°	Nominal / Maximum	kW	4,30 / 5,96	6,30 / 7,13	8,10 / 8,98	10,0 / 10,3	12,3 / 14,5	14,1 / 15,7	16,0 / 16,6
	COP	Outdoor air 7°C	Nominal	-	3,80	3,70	3,85	3,75	3,70	3,60	3,50
	Capacity	Water 18/23°C	Nominal / Maximum	kW	4,50 / 7,65	6,50 / 7,65	8,30 / 11,1	9,90 / 12,0	12,0 / 15,0	13,5 / 15,3	14,2 / 16,4
	EER	Outdoor air 35°C	Nominal	-	5,50	4,80	5,05	4,55	3,95	3,61	3,61
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,70 / 6,14	7,00 / 7,11	7,45 / 7,94	8,20/8,67	11,5 / 11,5	12,4 / 12,4	14,0 / 14,0
	EER	Outdoor air 35°C	Nominal	-	3,45	3,00	3,35	3,25	2,75	2,50	2,50
Electrical power for meter sizin	Ig			kW	2,30	2,70	3,40	3,70	5,50	5,80	6,20
· ·	•	Energy class		-	A++	A++	A++	A++	A++	A++	A++
	Heating Water 55°C	Annual energy co	nsumption	kWh/year	2.749	3.348	4.064	4.541	6.916	6.917	7.213
		SCOP		-	3,31	3,52	3,37	3,47	3,45	3,47	3,41
Seasonal efficiency Medium		ns (seasonal outp	ut)	%	129	138	131	137	135	135	133
Climate		Energy class		-	A+++	A+++	A+++	A+++	A+++	A+++	A+++
	Heating Water 35°C	Annual energy consumption		kWh/year	2.354	2.849	3.223	3.649	5.156	5.157	6.011
		SCOP		-	4,85	4,95	5,22	5,20	4,81	4,72	4,62
		ηs (seasonal output)		%	191	195	205	205	189	186	182
Technical specifications											
Power supply		Voltage/Frequence	v/Phases	V/Hz/n°				230/50/1			
Water flow-rate		Water 35/30°C	Nominal	l/s	0.20	0.30	0 40	0.48	0.58	0.69	0.76
Pump available pressure		Outdoor air 7°C	Nominal	kPa	85	85	86	86	88	87	87
Minimum system water conten	t			1	3	0			70		
Expansion tank capacity								4.8			
Sound power			Minimum / Nominal	dB(A)	53 / 55	55/58	54/59	55/60	59 / 65	59 / 65	59 / 68
Sound pressure @1m			Minimum / Nominal	dB(A)	39 / 41	41/44	40 / 45	40 / 46	44 / 50	44 / 50	44 / 53
Operating range											
operating range		Full electric	Minimum / Maximum	°C				25/65			
Water supply temperature	Heating / DHW	Hybrid	Minimum / Maximum	°C				25/75			
	Cooling	-	Minimum / Maximum	°C	· · · · · · · · · · · · · · · · · · ·			5/25			
	Heating / DHW	-	Minimum / Maximum	°C				-25 / 43			
Operating range (outdoor air)	Cooling	-	Minimum / Maximum	°C				-5 / 43			

Size					6.1T	7.1T	8.1T	9.1	10.1	12.1	14.1
	Capacity	Water 35/30°C	Nominal / Maximum	kW	12,1 / 14,6	14,5 / 15,5	15,9 / 16,8	18,0 / 20,7	22,0 / 24,9	26,0 / 29,1	30,1 / 31,8
	COP	Outdoor air 7°C	Nominal	-	4,95	4,60	4,50	4,70	4,40	4,08	3,91
Uppting	Capacity	Water 35/30°C	Nominal / Maximum	kW	10,0 / 11,0	12,0 / 12,7	13,1 / 13,9	18,0 / 19,9	21,0 / 21,3	22,0 / 23,5	23,0 / 23,3
Heating	COP	Outdoor air -7°C	Nominal	-	3,00	2,85	2,70	2,70	2,60	2,50	2,45
	Capacity	Water 45/40°	Nominal / Maximum	kW	12,3 / 14,5	14,1 / 15,7	16,0 / 16,6	18,0 / 18,5	22,0 / 22,7	26,0 / 27,4	30,0 / 31,0
	COP	Outdoor air 7°C	Nominal	-	3,70	3,60	3,50	3,50	3,40	3,10	2,90
	Capacity	Water 18/23°C	Nominal / Maximum	kW	12,0 / 15,0	13,5 / 15,3	14,2 / 16,4	18,5 / 21,7	23,0 / 26,6	27,0 / 29,2	31,0 / 31,9
Cooling	EER	Outdoor air 35°C	Nominal	-	3,95	3,61	3,61	4,75	4,60	4,30	4,00
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	11,5 / 11,5	12,4 / 12,4	14,0 / 14,0	17,0 / 17,1	21,0 / 21,0	26,0 / 26,0	29,5 / 29,7
	EER	Outdoor air 35°C	Nominal	-	2,75	2,50	2,50	3,05	2,95	2,70	2,55
Electrical power for meter sizing				kW	5,50	5,80	6,20	10,6	12,5	13,8	14,5
		Energy class		-	A++	A++	A++	A+	A++	A+	A+
	Heating Water 55°C	Annual energy co	nsumption	kWh/year	7.214	7.894	7.895	11.396	14.363	17.116	19.552
		SCOP		-	3,45	3,47	3,41	3,20	3,23	3,15	3,15
Seasonal efficiency Medium		ηs (seasonal outp	ut)	%	135	135	133	125	126	123	123
Climate		Energy class		-	A+++	A+++	A+++	A+++	A+++	A+++	A++
	Heating Water 35°C	Annual energy co	nsumption	kWh/year	6.012	6.803	6.805	8.077	10.167	11.513	14.372
		SCOP		-	4,81	4,72	4,62	4,60	4,53	4,50	4,20
		ηs (seasonal output)		%	189	186	182	181	179	177	165
Technical specifications											
Power supply		Voltage/Frequenc	v/Phases	V/Hz/n°				400/50/3+N			
Water flow-rate		Water 35/30°C	Nominal	l/s	0.58	0.69	0.76	0.86	1.05	1.25	1.44
Pump available pressure		Outdoor air 7°C	Nominal	kPa	88	87	87	112	111	111	110
Minimum system water content				I		70			10	00	
Expansion tank capacity				1				4,8			
Sound power			Minimum / Nominal	dB(A)	59/65	59/65	59 / 68	63/70	62 / 72	70 / 74	73 / 77
Sound pressure @1m			Minimum / Nominal	dB(A)	44 / 50	44 / 50	44 / 53	48 / 55	46 / 56	54 / 58	57 / 61
Operating range											
		Full electric	Minimum / Maximum	°C		25 / 65			25	/ 60	
Water supply temperature	Heating / DHW	Hybrid	Minimum / Maximum	°C		25 / 75			25	/ 70	
	Cooling	-	Minimum / Maximum	°C				5/25			
	Heating / DHW	-	Minimum / Maximum	°C				-25 / 43			
Operating range (outdoor air)	Cooling	-	Minimum / Maximum	°C		-5 / 43			-5	/ 46	

HEAT PUMPS



a heating area
bypass\*
hydraulic separator (optional)
secondary circuit pump (optional)
SwitchConnect Wi-Fi receiver (optional)
SwitchConnect Wi-Fi chronothermostat (optional)

instantaneous boiler (Hybrid version)

Hybrid single-zone system:

Heating / DHW

outdoor unit

0

2







1 outdoor unit 2 instantaneous boiler (Hybrid version) heating/cooling zone 3 4 3-way switching valve (optional) 6 bypass\* 6 boiler connection kit (optional) 1 DHW boiler with solar coil (optional) 8 DHW recirculation pump (optional) 9 solar circulation kit (optional) 10 ELFOSun solar thermal (optional) 1 SwitchConnect Wi-Fi receiver (optional) 12 SwitchConnect Wi-Fi chronothermostat (optional) B thermostatic switching valve for DHW (optional)

Hybrid single-zone system with thermodynamic solar system: Heating / Cooling / DHW



2 SwitchConnect Wi-Fi chronothermostat (optional)





\*from external supply



Hybrid single-zone system in cascade: Heating / DHW

- indoor unit (Slave)
- 2 outdoor unit (Slave)
- 3 instantaneous boiler (Hybrid version)
- 4 heating area
- 5 3-way switching valve (optional)6 hydraulic separator (optional)
- 9 secondary circuit pump (optional)
- 8 bypass\*

- 9 DHW tank (optional)
- boiler connection kit (optional)
- 1 DHW recirculation pump (optional)
- 12 SwitchConnect Wi-Fi receiver (optional)
- 13 SwitchConnect Wi-Fi chronothermostat (optional)
- \*from external supply









## SPLIT (only Hybrid)



SPHERA EVO 2.0 EASYHybrid Box



SPHERA EVO 2.0 EASYHybrid Tower



## SPHERA EVO 2.0 EASYHybrid Box

## **NEW** PRODUCT

## SQKN-YEE 1 BH + MiSAN-YEE 1 S 2.1÷8.1



### The €/Switch function

SPHERA EVO 2.0 EASYHybrid Box has a function that can be selected directly from the interface, which makes it possible to calculate the resource (heat pump and/or boiler) that is able to fulfil the heat demand with the lowest economic cost in every operating condition. To use the &-Switch function, simply enter the cost per kWh of electricity and the cost per m<sup>3</sup> of methane gas from the energy provider's supply contract, and define the main type of terminals in the building (radiant panel, fan coil, radiator).





- 1. Inverter DC fan
- 2. Inverter DC twin-rotary compressor
- Air-gas finned exchanger (blue fin treatment)
- Instantaneous condensing boiler
- 5. Gas/water plate exchanger
- 6. Inverter DC high efficiency pump
- 7. 8- or 10-litre system expansion tank
- 8. Electrical control panel

## configurations

#### OUTDOOR UNIT POWER SUPPLY (SIZES 6.1 TO 8.1):

220M 400TN Power supply 230/1/50 (standard) Power supply 400/3/50+N

#### INTEGRATED CONDENSING BOILER:

HYFE2424 kW instantaneous boilerHYFE3434 kW instantaneous boiler

## accessories

	ACS200X	200 liter DHW tank		ТСОАХ	1 m coaxial pipe with terminal (d. 60/100 mm)
*	ACS300X	300 liter DHW tank			
•	ACS500X	500 liter DHW tank	e p	VDACSX	Thermostated diverter valve for DHW
	SRICX	Additional PCB for 2-zone management		3DHWX	3-way deviating valve for system/ DHW 1" connections
3	KCSX	Kit for secondary circuit (1 liter circuit breaker + circulation pump + management PCB)		DTX	Drain pan with antifreeze electrical heater
G	SCS08X	Solar coil for ACS200X/ACS300X DHW tank	٩	APAVX	Kit of antivibration mounts for floor installation
	SCS12X	Solar coil for ACS500X DHW tank		ASTFX	Antivibration mounts kit for installation on the brackets for
(And and a	KIRE2HLX	Iwo-zone distribution kit management PCB: direct + mixed			wall installation or drain pan
	KIRE2HX	Two-zone distribution kit	R	KSIPX	Kit with wall fixing brackets
ł	DIX	1 liter hydraulic separator		HIDTCBX to exhaustion	Black HID-TConnect chronothermostat for temperature control
	DI50-2X	50 liter hydraulic separator	· @ `	HIDTCNX	White HID-TConnect
T	ACI40X	40 liter system inertial storage tank		to exhaustion	control
<b>E</b> .	KSDFX	Splitter for suction and flue gas discharge (d. 80/80 mm)		HTC2WX	White HID-TConnect <sup>2 NEW</sup> chronothermostat for temperature control
0.	KCSAFX	Vertical coaxial fitting for smoke intake and discharge (d. 60/100 mm)	81 844	SWCX	Receiver / IoT switch SwitchConnect
	CCOAX	90° coaxial curve for suction and flue gas discharge, 360° adjustable (d. 60/100 mm)			

### technical data

Size					2	.1	3	.1	4	.1	5	5.1	6.1	7.1	8.1
				HYFE boiler	24	34	24	34	24	34	24	34	34	34	34
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,32	/ 6,26	6,18	/ 7,41	8,30	/ 9,11	10,1	/ 10,3	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	COP	Outdoor air 7°C	Nominal	-	5,	42	5,	21	5,	,31	5,	,01	5,00	4,70	4,55
Heating Heat	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,17 /	6,25	6,05	/ 6,97	7,33	/ 8,35	8,20	/ 9,30	10,5 / 13,9	12,2 / 14,1	13,4 / 14,3
pump	COP	Outdoor air -7°C	Nominal	-	3,	,16		3	3,	23	3,	,07	3,13	2,82	2,74
	Capacity	Water 45/40°	Nominal / Maximum	kW	4,16 /	5,96	6,03	/ 7,13	8,22	/ 8,98	10,0	/ 10,3	12,3 / 14,5	14,0 / 15,7	16,0 / 16,6
	СОР	Outdoor air 7°C	Nominal	-	3,	93	3,	83	3,	95	3,	,86	3,80	3,65	3,60
Heating Boiler	Nominal Heating capacity ((LHV)	Water 80/60°C	Nominal	kW	24,0	34,0	24,0	34,0	24,0	34,0	24,0	34,0	34,0	34,0	34,0
	Efficiency		Nominal	%	97,8	97,7	97,8	97,7	97,8	97,7	97,8	97,7	97,7	97,7	97,7
	Capacity	Water 18/23°C	Nominal / Maximum	kW	4,55	/ 6,88	6,44	/ 7,65	8,10	/ 11,1	10,0	/ 12,0	12,1 / 15,0	13,8 / 15,3	14,8 / 16,4
Cooling	EER	Outdoor air 35°C	Nominal	-	6,	08	5,	24	5	,12	4,	,77	4,02	3,70	3,65
ocomig	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,26	/ 6,14	6,25	/ 6,39	7,46	/ 7,94	8,67	/ 9,10	11,2 / 11,8	11,7 / 12,9	12,9 / 14,2
	EER	Outdor air 35°C	Nominal		3,	50	3,	09	3,	33	3,	,09	2,75	2,55	2,45
DHW Boiler	Rated DC Power		Maximum	kW	24,0	34,0	24,0	34,0	24,0	34,0	24,0	34,0	34,0	34,0	34,0
Diffi Donei	Specific flow rate	Water with $\Delta T=30$	°C in 10 minutes	l/min	13,5	16,0	13,5	16,0	13,5	16,0	13,5	16,0	16,0	16,0	16,0
Electrical power fo	r meter sizing			kW	2,	20	2,	60	3,	30	3,	,60	5,40	5,70	6,10
		Energy class		-	A-	++	A	++	A	++	Α	++	A++	A++	A++
	Heating Water 55°C	Annual energy co	nsumption	kWh/year	2.5	542	3.2	283	3.8	324	4.7	749	6.793	7.380	7.915
	nearing match be e	SCOP		-	3,	32	3,	54	3,	,72	3,	,73	3,56	3,52	3,48
Seasonal effi-		ηs (seasonal outp	out)	%	13	30	13	38	14	46	14	46	139	138	136
ciency Medium		Energy class		-	A+	++	A+	++	A+	+++	A+	+++	A+++	A+++	A+++
Climate	Heating Water 35°C	Annual energy co	nsumption	kWh/year	2.1	161	2.5	502 15	3.	141	<u> </u>		4.994	5.868	6.602
		SCUP	+\	- 0/	5,	,13	5,	,15 N2	5,	3Z 10	5,	,27 09	5,00	4,91	4,89
		Enorgy class	luij	/0		•		•		•		•	130	155	
	DHW Boiler	Withdrawal profile	e		XL	XXL	XL	XXL	XL	XXL	XL	XXL	XXL	XXL	XXL
Size - Indoor unit								A					В	С	D
Power supply		Voltage/Frequence	cy/Phases	V/Hz/n°						23	80/50/1				
Water flow-rate		Water 35/30°C	Nominal	l/s	0,	,21	0,	30	0	,41	0,	,49	0,57	0,67	0,75
Pump available pro	essure	Outdoor air 7°C	Nominal	kPa	31	1,2	36	5,5	3	3,1	3	1,0	25,7	31,7	22,6
Minimum system v	vater content										40				
Expansion tank ca	pacity			1			8 (H	HYFE24)	10 (HYF	E34)				10	
Sound power	Operation: heat num	n only / hoat	Nominal	dB(A)						4	1/46				
Sound pressure @1m	pump + boiler	ip only / near	Nominal	dB(A)						2	8 / 33				
HVEE boilor					24	24									
Power supply		Voltago/Eroguon	ry/Phasos	V/Hz/n°	230	/50/1									
Power input		Voltage/Trequent	Water content	W	82	99									
Size - Outdoor un	it				2	2.1	3	.1	4	1.1	5	5.1	6.1	7.1	8.1
Power supply		Voltage/Frequence	cy/Phases	V/Hz/n°						23	80/50/1				
Sound power			Minimum / Nominal	dB(A)	50	/ 55	51,	/ 57	52	/ 58	52	/ 60	54 / 63	54 / 64	54 / 66
Sound pressure @	1m		Minimum / Nominal	dB(A)	37	/ 42	38	/ 44	39	/ 45	39	/ 47	41 / 50	41 / 51	41/53
Operating range															
Water supply	Heating / DHW	Full electric	Minimum / Maximum	°C						2	5/65				
temperature		Hybrid	Minimum / Maximum	°C						2	5 / 80				
	Cooling	-	Minimum / Maximum	°C						5	5/25				
Operating range	Heating / DHW		Minimum / Maximum	°C						-2	25/43				
(outdoor air)	Cooling	-	Minimum / Maximum	°C						-!	5/43				

Data according to EN 14511:2018 and EN 14825:2016 The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

Standard power supply: G20 (100% natural gas). Power supply with optional kit: G30 / G31 (LPG gas)

## dimensions and connections

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1
Dimensions	Indoor unit	AxCxB	mm			45	50x1.086x420			
Dimensions	Outdoor unit	AxCxB	mm	986x712	x426		1.1	04x866x523		
	Indoor unit		kg		3	9			41	
Mainha	Boiler - 24 kW		kg		3	1			-	
weight	Boiler - 34 kW		kg				34			
	Outdoor unit		kg	58		7	77		112	
Max / min equiva	alent length	L	m				30 / 2			
Max difference i	n level ODU / IDU	Н	m				25			
			type / GWP				R-32 / 675			
Refrigerant prec	harge <sup>1</sup>		kg	1,50	)	1,	65		1,84	
5	5		CO <sub>2</sub> tons	1,05	5	1,	,10		1,24	
Equivalent pipe	length with pre-chargir	ng only	m				15			
	Definement sister	Liquid	inch	1/4'	3			3/8"		
	Reingerant piping	Gas	inch				5/8"			
Extornal dia	Indoor unit	Water (System)	inch				1"			
External uid-		Water (DHW)	inch				3/4"			
meters		Gas	inch				3/4"			
	Boiler	Intake air	mm				80			
		Exhaust gas	mm				80			

(1) If refrigerant is added, the indoor unit may need a minimal installation area. Check the specifications in the manual

Size - Set (400TN ver	rsion)				6.1	7.1	8.1
				HYFE boiler	34	34	34
	Capacity	Water 35/30°C	Nominal / Maximum	kW	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	COP	Outdoor air 7°C	Nominal	-	5,00	4,70	4,55
11	Capacity	Water 35/30°C	Nominal / Maximum	kW	10,5 / 13,9	12,2 / 14,1	13,4 / 14,3
Heating Heat pump	COP	Outdoor air -7°C	Nominal	-	3,13	2,82	2,74
	Capacity	Water 45/40°	Nominal / Maximum	kW	12,3 / 14,5	14,0 / 15,7	16,0 / 16,6
	COP	Outdoor air 7°C	Nominal	-	3,80	3,65	3,60
Heating Boiler	Nominal Heating	Water 80/60°C	Nominal	kW	34,0	34,0	34,0
fielding bonon	Efficiency		Nominal	%	977	977	977
	Capacity	Water 18/23°C	Nominal / Maximum	kW	12.1 / 15.0	13.8 / 15.3	14.8 / 16.4
	EER	Outdoor air 35°C	Nominal	-	4.02	3.70	3.65
Cooling	Capacity	Water 7/12°C	Nominal / Maximum	kW	11 2 / 11 8	117/129	12 9 / 14 2
	EER	Outdor air 35°C	Nominal	-	2.75	2.55	2.45
	Rated DC Power		Maximum	kW	34.0	34.0	34.0
DHW Boiler	Specific flow rate	Water with $\Delta T=30^{\circ}$	C in 10 minutes	l/min	16.0	16.0	16.0
Electrical power for meter siz	ina			kW	5 40	570	610
	9	Energy class		-	Δ++	Δ++	Δ++
		Annual energy con	sumption	kWh/vear	6 793	7380	7 915
	Heating Water 55°C	SCOP	oumpaon	-	3 56	3.52	3 48
		ns (seasonal outpu	+)	%	139	138	136
Seasonal efficiency Medium		Energy class		-	Δ+++	Δ+++	Δ+++
Climate		Annual energy con	sumption	kWh/vear	4 994	5.868	6.602
omitate	Heating Water 35°C	SCOP	Sumption	-	5.00	4 91	4.89
		ns (seasonal outpu	+)	%	196	193	193
		Energy class	(j	-	Δ		Δ
	DHW Boiler	Withdrawal profile		-	XXI	X	XXI
					7012		,,,,,
Size - Indoor unit					В	C	D
Power supply		Voltage/Frequency	/Phases	V/Hz/n°		230/50/1	
Water flow-rate		Water 35/30°C	Nominal	l/s	0,57	0,67	0,75
Pump available pressure		Outdoor air 7°C	Nominal	kPa	25,7	31,7	22,6
Minimum system water conte	nt			1		40	
Expansion tank capacity				I		10	
Sound power	Operation: heat pum	p only / heat pump	Nominal	dB(A)		41 / 46	
Sound pressure @1m	+ boiler		Nominal	dB(A)		28/33	
				HYFF boiler	34		
Power supply		Voltage/Frequency	/Phases	V/Hz/n°	230/50/1		
Power input		voltage/inequency	Water content	W	99		
Size - Outdoor unit					61	71	81
		Voltago/Eroguopou	Phasos	V/Hz/n°	0.1	230/50/1	0.1
Sound power		voltage/Frequency	Minimum / Nominal	dP(A)	54/62	54/64	E4 / 66
Sound prossure @1m			Minimum / Nominal		41/50		J4/00
Sound pressure @nn				ub(A)	41/ 50	41/ 51	41/ 55
Operating range							
	Hosting / DHW	Full electric	Minimum / Maximum	°C		25 / 65	
Water supply temperature		Hybrid	Minimum / Maximum	°C		25 / 80	
	Cooling	-	Minimum / Maximum	°C		5 / 25	
Operating range (outdoor air)	Heating / DHW	-	Minimum / Maximum	°C		-25 / 43	
operating range (outdoor all	Cooling	-	Minimum / Maximum	°C		-5 / 43	

Data according to EN 14511:2018 and EN 14825:2016 The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

Standard power supply: G20 (100% natural gas). Power supply with optional kit: G30 / G31 (LPG gas)



Comply with the distances indicated by the green areas to ensure correct operation of the unit.

(\*) Gas connections



G

Hybrid single-zone system: Heating / DHW



8 SwitchConnect Wi-Fi chronothermostat (optional)

## Hybrid single-zone system: Heating / Cooling / DHW



- 2 indoor hybrid unit
- 3 heating/cooling zone 4
  - system inertial storage (optional)
- 6 bypass\*
- 6 SwitchConnect Wi-Fi receiver (optional)
- 6 SwitchConnect Wi-Fi chronothermostat (optional)

Hybrid single-zone system with thermodynamic solar system: Heating / Cooling / DHW

outdoor unit 0

- indoor hybrid unit 2
- 3 heating area
- 4 3-way switching valve (optional)
- 6 bypass\*
- 6 DHW boiler with solar coil (optional)
- DHW recirculation pump\* 0
- 8 solar circulation kit (optional)
- 9 ELFOSun solar thermal (optional)
- 10 SwitchConnect Wi-Fi receiver (optional)
- 1 SwitchConnect Wi-Fi chronothermostat (optional)
- 12 thermostatic switching valve for DHW (optional)

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## SPHERA EVO 2.0 EASYHybrid Tower

## **NEW** PRODUCT

SQKN-YEE 1 BH + MiSAN-YEE 1 S 2.1 ÷ 8.1 Air-to-water hybrid split heat pump with DHW tank for heating, cooling and domestic hot water production ENERGY SAVING CONVENIENCE COMFORT RELIABILITY Ę € switch (#{}~ ==55 \*\* Solar integration €-Switch Heating Cooling DHW Silont Eurovent Weekley Timer Integrated DHW Instant DHW (optional) MANAGEMENT AND CONNECTIVITY  $\bigcirc$ S) ,∔∔∔ MOD 1 55°C ErP . Input ON/OFF Modbus port Control via the App ELFOControl Clivet Eye management monitoring Optimised to maximise energy savings without sacrificing comfort Compatible with a radiator system: water temperature up to 80°C Customisable with numerous kits for a complete, yet discreet, central heating plant Domestic hot water volume can be increased to up to 300 litres Connectivity and the APP to keep the system under control

### **Flexible and compact**

SPHERA EVO 2.0 EASYHybrid Tower has the indoor Box unit fitted into modular units, so you can create the perfect solution for your system. Each module can be created and customised with all the necessary components for an efficient and reliable system, all inside a compact cabinet with an appearance that blends in with the environment in which it is installed.





- 1. Inverter DC fan
- Inverter DC twin-rotary compressor
- Air-gas finned exchanger (blue fin treatment)
- 4. DHW pressure relief valve
- 5. 150 L DHW tank with coil
- 6. 8-litre DHW expansion tank
- 3-way valve
- 8. 2kW DHW safety heater

- 9. Instantaneous condensing boiler
- 10. 8- or 10-litre system expansion tank
- 11. Electrical control panel
- 12. 1-zone booster kit (optional)
- heating / cooling area (fan coils / radiant)

HEAT PUMPS

## configurations

accessories

#### OUTDOOR UNIT POWER SUPPLY (SIZES 6.1 TO 8.1):

220M 400TN Power supply 230/1/50 (standard) Power supply 400/3/50+N

## INTEGRATED CONDENSING BOILER:

HYFE2424 kW instantaneous boilerHYFE3434 kW instantaneous boiler

	TUNOX	Main aesthetic cabinet for Sphera EVO 2.0 EASYHybrid		ANEDX	Electronic protection anode for DHW tank <sup>NEW</sup>
	TDUEX	Additional 150 liter DHW tank with aesthetic cabinet	٩.	KSDFX	Splitter for suction and flue gas discharge (d. 80/80 mm
	TDUESX	Additional 150 liter DHW tank with solar coil with aesthetic cabinet		KCSAFX	Vertical coaxial fitting for smoke intake and discharge (d. 60/100 mm)
A.	KCACSX	Pipe connection kit for TDUEX, TDUESX accessories		CCOAX	90° coaxial curve for suction and flue gas discharge, 360° adjustable (d. 60/100 mm)
G	TTREX	Additional aesthetic cabinet for system accessories		ТСОАХ	1 m coaxial pipe with terminal (d. 60/100 mm)
	TTREAX	Second additional 150 liter DHW tank with aesthetic cabinet		3DHWX	3-way deviating valve for system/DHW 1" connections
a de la compañía de	KC150X	Pipe connection kit for TTREAX accessory		DTX	Drain pan with antifreeze electrical heater
	SRICX	Additional PCB for 2-zone management		APAVX	Kit of antivibration mounts for floor installation
5	KCSIX	Kit for secondary circuit for installation inside the unit (1 liter circuit breaker + circulation pump + management PCB)		ASTFX	Antivibration mounts kit for installation on the brackets for wall installation or drain pan
	KIR2HLX	Two-zone distribution kit management PCB: direct +	R	KSIPX	Kit with wall fixing brackets
		the unit) Two-zone distribution kit with	Î	KCVEX	Circulation group, control unit, 3 probes and expansion vessel
	KIR2HX	management PCB: direct + direct (for installation inside the unit)	1990	HIDTCBX to exhaustion	Black HID-TConnect chronothermostat for
Į	AC50X	50 liter system inertial storage tank with connection kit for EASYHybrid (for installation inside the unit)	. 😔 .	HIDTCNX to exhaustion	White HID-TConnect chronothermostat for temperature control
	KPRSX	DHW recirculation pump kit		HTC2WX	White HID-TConnect <sup>2</sup> chronothermostat for temperature control <sup>NEW</sup>
1000			8 T	SWCX	Receiver / IoT switch SwitchConnect

### technical data

Size					2.1	3.1	4.1	5.1	6.1	7.1	8.1
			H	FE boiler	24 34	24 34	24 34	24 34	34	34	34
	Capacity	Water 35/30°C Outdo-	Nominal / Maximum	kW	4,32 / 6,26	6,18 / 7,41	8,30 / 9,11	10,1 / 10,3	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	COP	or air 7°C	Nominal	-	5,42	5,21	5,31	5,01	5,00	4,70	4,55
llesting llest sums	Capacity	Water 35/30°C Outdo-	Nominal / Maximum	kW	4,17 / 6,25	6,05/6,97	7,33 / 8,35	8,20/9,30	10,5 / 13,9	12,2 / 14,1	13,4 / 14,3
Heating Heat pump	COP	or air -7°C	Nominal	-	3,16	3	3,23	3,07	3,13	2,82	2,74
	Capacity	Water 45/40° Outdoor	Nominal / Maximum	kW	4,16 / 5,96	6,03 / 7,13	8,22 / 8,98	10,0 / 10,3	12,3 / 14,5	14,0 / 15,7	16,0 / 16,6
	COP	air 7°C	Nominal	-	3,93	3,83	3,95	3,86	3,80	3,65	3,60
	Nominal Heating		Nominal	LAM.	24.0 24.0	24.0 24.0	24.0 24.0	24.0 24.0	24.0	24.0	24.0
Heating Boiler	capacity ((LHV)	Water 80/60°C	NUTITIA	K V V	24,0 54,0	24,0 34,0	24,0 54,0	24,0 54,0	34,0	34,0	34,0
	Efficiency		Nominal	%	97,8 97,7	97,8 97,7	97,8 97,7	97,8 97,7	97,7	97,7	97,7
	Capacity	Water 18/23°C Outdo-	Nominal / Maximum	kW	4,55 / 6,88	6,44 / 7,65	8,10 / 11,1	10,0 / 12,0	12,1 / 15,0	13,8 / 15,3	14,8 / 16,4
Cooling	EER	or air 35°C	Nominal		6,08	5,24	5,12	4,77	4,02	3,70	3,65
cooning	Capacity	Water 7/12°C Outdoor	Nominal / Maximum	kW	4,26 / 6,14	6,25 / 6,39	7,46 / 7,94	8,67 / 9,10	11,2 / 11,8	11,7 / 12,9	12,9 / 14,2
	EER	air 35°C	Nominal	-	3,50	3,09	3,33	3,09	2,75	2,55	2,45
DHW Boiler	Rated DC Power		Maximum	kW	24,0 34,0	24,0 34,0	24,0 34,0	24,0 34,0	34,0	34,0	34,0
Bill Boller	Specific flow rate	Water with ∆T=30°C in	10 minutes	l/min	13,5 16,0	13,5 16,0	13,5 16,0	13,5 16,0	16,0	16,0	16,0
Electrical power for meter	sizing			kW	2,20	2,60	3,30	3,60	5,40	5,70	6,10
		Energy class			A++	A++	A++	A++	A++	A++	A++
	Heating Water 55°C	Annual energy consum	ption	kWh/year	2.542	3.283	3.824	4.749	6.793	7.380	7.915
	fielding flater oo o	SCOP		-	3,32	3,54	3,72	3,73	3,56	3,52	3,48
		ηs (seasonal output)		%	130	138	146	146	139	138	136
Seasonal efficiency Me-		Energy class		-	A+++	A+++	A+++	A+++	A+++	A+++	A+++
dium Climate	Heating Water 35°C	Annual energy consum	ption	kWh/year	2.161	2.502	3.141	3.747	4.994	5.868	6.602
	······	SCOP		-	5,13	5,15	5,32	5,27	5,00	4,91	4,89
		ηs (seasonal output)		%	202	203	210	208	196	193	193
	DHW Boiler	Energy class		-	<u>A</u> <u>A</u>	<u>A</u> <u>A</u>	<u>A</u> <u>A</u>	<u>A</u> <u>A</u>	A	A	A
		Withdrawal profile			XL XXL	XL XXL	XL XXL	XL XXL	XXL	XXL	XXL
Size - Indoor unit						A			В	C	D
Power supply		Voltage/Frequency/Pha	ases	V/Hz/n°				230/50/1			
Water flow-rate		Water 35/30°C Outdo-	Nominal	l/s	0,21	0,30	0,41	0,49	0,57	0,67	0,75
Pump available pressure		or air 7°C	Nominal	kPa	31,2	36,5	33,1	31,0	25,7	31,7	22,6
Minimum system water cor	ntent			_ I				40			
Expansion tank capacity				<u> </u>		8 (HYFE24)	10 (HYFE34)			10	
Sound power	Operation: heat pum	p only / heat pump +	Nominal	dB(A)				41 / 46			
Sound pressure @1m	boiler		Nominal	dB(A)				28/33			
HYFE boiler					24 34						
Power supply		Voltage/Frequency/Pha	ases	V/Hz/n°	230/50/1						
Power input			Water content	W	82 99						
Size - Outdoor unit					21	3.1	4.1	5.1	6.1	71	8.1
Power supply		Voltage/Frequency/Ph	1995	V/Hz/n°		•		230/50/1	•		•
Sound power		voltage/rrequency/rin	Minimum / Nominal	dB(A)	50/55	51/57	52 / 58	52/60	54/63	54/64	54/66
Sound pressure @1m			Minimum / Nominal	dB(A)	37/42	38/44	39 / 45	39 / 47	41/50	41/51	41/53
Operating range		Full all atria	Minimum / Manimum	°C				25/05			
Webser and the second	Heating / DHW		Minimum / Maximum	- <u>-</u>				25/05			
water supply temperature		Hybrid	Minimum / Maximum					25/80			
On eaching and the fill	Looling	-	Minimum / Maximum					5/25			
Operating range (outdoor	Heating / DHW		Minimum / Maximum	- <del>-</del> C				-25/43			
dll)	Cooling	-	winimum / Maximum	L				-5/43			

Data according to EN 14511:2018 and EN 14825:2016 The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

Standard power supply: G20 (100% natural gas). Power supply with optional kit: G30 / G31 (LPG gas)

## dimensions and connections

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1	
Dimensione	Indoor unit	AxCxB	mm			1.100x2.1	00x500 (TUNOX	+ TDUEX)			
Dimensions	Outdoor unit	AxCxB	mm	986x7	12x426		1.104x866x523				
	Indoor unit		kg				325				
Operating weight	Boiler - 24 kW		kg			31			-		
Operating weight	Boiler - 34 kW		kg				34				
	Outdoor unit		kg	5	58	7	7		112		
Max / min equivalent	length	L	m				30 / 2				
Max difference in lev	el ODU / IDU	Н	m				25				
			type / GWP				R-32 / 675				
Refrigerant precharge	e'		kg	1,	50	1,6	55		1,84		
			CO <sub>2</sub> tons	1,	05	1,1	0		1,24		
Equivalent pipe lengt	h with pre-charging or	lly	m				15				
	Defrigerent nining	Liquid	inch	1/	/4"			3/8"			
	Reingerant piping	Gas	inch				5/8"				
	la de en conte	Water (System)	inch				1"				
External diameters	Indoor unit	Water (DHW)	inch				3/4"				
		Gas	inch				3/4"				
	Boiler	Intake air	mm				80				
		Exhaust gas	mm				80				

(1) If refrigerant is added, the indoor unit may need a minimal installation area. Check the specifications in the manual



Size - Set (400TN version	on)				6.1	7.1	8.1
			н	YFE boiler	34	34	34
	Capacity	Water 35/30°C Outdoor	Nominal / Maximum	kW	12,1 / 14,6	14,5 / 15,5	16,0 / 16,8
	СОР	air 7°C	Nominal		5,00	4,70	4,55
Heating Heat nump	Capacity	Water 35/30°C Outdoor	Nominal / Maximum	kW	10,5 / 13,9	12,2 / 14,1	13,4 / 14,3
rieating rieat pump	СОР	air -7°C	Nominal		3,13	2,82	2,74
	Capacity	Water 45/40°	Nominal / Maximum	kW	12,3 / 14,5	14,0 / 15,7	16,0 / 16,6
	COP	Outdoor air 7°C	Nominal		3,80	3,65	3,60
Heating Boiler	Nominal Heating capaci- ty ((LHV)	Water 80/60°C	Nominal	kW	34,0	34,0	34,0
<b>,</b>	Efficiency		Nominal	%	97.7	97.7	97.7
	Capacity	Water 18/23°C Outdoor	Nominal / Maximum	kW	12.1 / 15.0	13.8 / 15.3	14.8 / 16.4
	EER	air 35°C	Nominal	-	4.02	3.70	3.65
Cooling	Canacity	Water 7/12°C	Nominal / Maximum	kW	11 2 / 11 8	117/129	12 9 / 14 2
	FFR	Outdoor air 35°C	Nominal	-	2 75	2 55	2 45
	Patod DC Power		Maximum	k/W	34.0	34.0	34.0
HW Boiler	Specific flow rate	Wator with AT-30°C in 10 m	inutos	l/min	16.0	16.0	16.0
ectrical nower for motor sizing	Specific now rate		mutta	kW	5.40	5 70	610
iccurcai power for meter sizility		Enorgy class		r\ ¥ ¥	J,+U		0,10 A+ -
		Annual operation		-	6 702	7 200	7.015
	Heating Water 55°C	Annual energy consumption	1	kwn/year	0.793	7.380	7.915
	•	SCOP			3,56	3,52	3,48
		ηs (seasonal output)		%	139	138	136
easonal efficiency Medium		Energy class			A+++	A+++	A+++
limate	Heating Water 35°C	Annual energy consumption	1	kWh/year	4.994	5.868	6.602
innate	<b>J</b>	SCOP			5,00	4,91	4,89
		ηs (seasonal output)		%	196	193	193
	DHW Boiler	Energy class			Α	Α	Α
		Withdrawal profile			XXL	XXL	XXL
iize - Indoor unit					В	С	D
ower supply		Voltage/Frequency/Phases		V/Hz/n°		230/50/1	
later flow-rate		Water 35/30°C Outdoor	Nominal	l/s	0,57	0,67	0,75
ump available pressure		air 7°C	Nominal	kPa	25,7	31,7	22,6
linimum system water content				1		40	
xpansion tank capacity				I		10	
ound power			Nominal	dB(A)		41/46	
ound pressure @1m	Operation: heat pump on	ly / heat pump + boiler	Nominal	dB(A)		28/33	
YFE boiler					34		
ower supply		Voltage/Frequency/Phases		V/Hz/n°	230/50/1		
ower input			Water content	W	99		
ize - Outdoor unit					6.1	7.1	8,1
ower supply		Voltage/Frequency/Phases		V/Hz/n°	•	230/50/1	
ound power		. strage/i requericy/i huses	Minimum / Nominal	dB(A)	54/63	54 / 64	54/66
ound pressure @1m			Minimum / Nominal	dB(A)	41 / 50	41 / 51	41 / 53
perating range							
		Full electric	Minimum / Maximum	°C		25 / 65	
later supply temperature	Heating / DHW	Hybrid	Minimum / Maximum	°C.		25/80	
ater supply temperature	Cooling	-	Minimum / Maximum			5/25	
	Heating / DHW		Minimum / Maximum			-25 / 42	
Operating range (outdoor air)	Cooling	-	Minimum / Maximum	~		-23/43	
	cooling			<u> </u>			

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

Standard power supply: G20 (100% natural gas). Power supply with optional kit: G30 / G31 (LPG gas)



Comply with the distances indicated by the green areas to ensure correct operation of the unit.





# Hybrid single-zone system with additional DHW boiler:

Heating / Cooling / DHW

- 1 outdoor unit
- indoor unit
- 3 hybrid module (heat pump / boiler)
- 4 mixed heating/cooling zone
- 6 direct heating/cooling zone
- 6 bypass\*
- kit for managing 2 areas (optional)
- 8 additional DHW tank (optional)
- 9 DHW recirculation pump (optional)
- 10 SwitchConnect Wi-Fi receiver (optional)
- 1 SwitchConnect Wi-Fi chronothermostat (optional)





## Gas Boiler FE 24.4-33.4







- ✓ Ideal for stand-alone systems
- ✓ Heat pump stand-by / replacement / back-up operation

Instantaneous wall-mounted condensing boiler for stand-alone systems

- ✓ Management with ON/OFF signal
- ✓ LPG or methane supply
- Instant DHW production

### The €/Switch function

Factory made hybrids have a function that can be selected directly from the interface, which makes it possible to calculate the resource (heat pump and/or boiler) that is able to fulfil the heat demand with the lowest economic cost in every operating condition. To use the  $\in$ -Switch function, simply enter the cost per kWh of electricity and the cost per m<sup>3</sup> of methane gas from the energy provider's supply contract, and define the main type of terminals in the building (radiant panel, fan coil, radiator).



#### accessories



Vertical coaxial fitting for smoke intake and discharge (d. 60/100 mm) 90° coaxial curve for suction and flue gas discharge, 360° adjustable (d. 60/100 mm)



1 m coaxial pipe with terminal (d. 60/100 mm)

Splitter for suction and flue gas discharge (d. 80/80 mm)

## **NEW PRODUCT**

## Gas Boiler UC 24.4÷200F.2

Instantaneous wall-mounted condensing boiler (24.4-33.4) Wall-mounted condensing boiler for heating only (70.2-115.2) Floor-standing condensing boiler for heating only (200F.2)

COMFORT























MANAGEMENT AND CONNECTIVITY

Ú

Input 0-10V (70.2optional with HIDUCX for 70.2-115.2, standard for 200F.2)

0-10V

200F.2)







- Dedicated versions for stand-alone and centralised systems  $\checkmark$
- Heat pump stand-by / replacement / back-up operation
- Management with ON/OFF signal and 0-10V signal
- LPG or methane supply
- Instant DHW production

accessorie	es				
0.	KCSAFX	Vertical coaxial fitting for smoke intake and discharge (d. 60/100 mm)	to a state of the	INAILX	Safety kit for single gas boiler installation
	CCOAX	90° coaxial curve for suction and flue gas discharge, 360° adjustable (d. 60/100 mm)	-	FH100X	Vertical flue gas discharge terminal (d. 100 mm)
	TCOAX	1 m coaxial pipe with terminal (d. 60/100 mm)		HIDUCX	Remote control for gas boiler (Gas Boiler UC 70.2-115.2)
<b>\$</b> .	KSDFX	Splitter for suction and flue gas discharge (d. 80/80 mm)		KAS80X	Fittings for suction and flue gas discharge (2 x d. 80 mm)

## technical data

Size					FE 24.4	FE 33.4	UC 24.4	UC 34.4	UC 70.2	UC 115.2	UC 200F.2
	Unation	Weter 00/00%	Water content	kW	24,0	34,0	23,4	33,2	67,5	115,0	199,0
	Heating	Water 80/60 C	Minimum	kW	4,70	4,90	4,80	4,80	9,10	19,2	19,1
		Water E0/20°C	Water content	kW	26,0	37,0	25,2	35,8	68,7	120,0	205,2
	(Pn) P.C.I.	water 50/30 C	Minimum	kW	5,20	5,40	5,30	5,40	10,3	21,8	21,1
Heating		Watar 00/00%0	Maximum	%	97,8	97,7	97,7	97,7	97,3	97,1	97,9
	Efficiency	Water 80/60 C	Minimum	%	97,6	97,2	96,5	96,4	94,9	95,9	95,6
	Enciency	Water 50/20%C	Maximum	%	106,1	106,2	105,1	105,2	101,7	104,6	103,1
		water 50/30°C	Minimum	%	107,3	107,1	106,9	107,0	107,6	108,8	105,4
	30% di Pn		-	%	109,7	109,7	108,7	108,6	107,3	107,3	108,9
	Nominal he	ating capacity	Maximum	kW	28,5	34,8	28,0	34,0		-	
DUN	(Qnw)		Minimum	kW	4,70	5,00	5,00	5,00		-	
DHW	Specific	ΔT=30 °C in 10 r	ninutes	l/min	13,4	16,2	13,5	15,8		-	
	flow rate	ΔT=25 °C in 10 r	ninutes	l/min	16,1	19,5	16,2	19,0		-	
	Heating	Energy class		-	Α	Α	Α	Α	Α	Α	Α
Seasonal effi-	Heating	ηs (seasonal ou	tput)	%	94	94	93	93	93	92	93
ciency		Energy class	class		Α	Α	Α	Α		-	
Medium climate	DHW	Withdrawal prof	file	-	XL	XXL	XL	XL		-	
		ηwh		%	85	85	87	90		-	
Technical specifi	cations										
Туре				-		instan	Itaneous			only heating	
Installation				-			wall-i	mounted			floor-standing
Power supply		Voltage/Freque	ncy/Phases	V/Hz/n°				230/50/1			
Expansion tank ca	apacity			- I	8		10			-	
Power input			Water content	w	82	99	95	122	267	314	580
Sound power			Nominal	dB(A)	49	52	53	56	63	-	-
Operating range											
Watan availabiliti		Heating	Minimum / Maximum	°C	20	/ 95	20	/ 85	15 / 85	20	/ 85
water supply tem	perature	DHW	Minimum / Maximum	°C	40	/ 65	38	/ 60		-	
Operating range (	outdoor air)	Heating / DHW	Minimum / Maximum	°C				-5* / 50			

\* with antifreeze kit down to -15°C

## dimensions and connections



Size			FE 24.4	FE 33.4	UC 24.4	UC 34.4	UC 70.2	UC 115.2	UC 200F.2		
Dimensions	AxCxB	mm	420x700x250	420x700x320	420x7	00x345	615x930x266	500x950x500	950x1.214x606		
Weight		kg	27	31	40	41	58,4	81	316		
	Water (System)	inch		3/4	4"		11	/4"	3 1/2"		
	Water (DHW)	inch		1/2		-					
External dia-	Gas	inch			3/4"			1"	2"		
meters	Intake air	mm				80					
	Exhaust gas	mm			80						
#### "Factory made" hybrid combinations

	Hybrid "Factory made"										
Combination	Size	24.4	33.4	70.2	115.2	200F.2					
	2.1										
	3.1										
	4.1										
	5.1	✓									
	6.1	-	✓	<b>/</b>	✓						
1 unit	7.1	-	✓	<b>/</b>	✓	<b>_</b>					
	8.1	-	✓		<b>√</b>	<b>√</b>					
	9.1	-	-		<b>√</b>	<b></b>					
	10.1	-	-	<b>√</b>	✓	<b></b>					
	12.1	-	-	✓	✓	<b>√</b>					
	14.1	-	-		✓	<b>_</b>					
	2.1+2.1	✓	✓	✓	✓	<b>√</b>					
	3.1+3.1	-	✓	✓	✓	✓					
	4.1+4.1	-	√*	$\checkmark$	✓	✓					
	5.1+5.1	-	-		✓	✓ <i>✓</i>					
	6.1+6.1	-			✓	<b>√</b>					
2 unit (cascade)	7.1+7.1	-			✓						
	8.1+8.1	-			✓	√					
	9.1+9.1	-	-	-							
	101+101										
	12 1+12 1										
	1/ 1+1/ 1				-						
		-									
	2.1+2.1+2.1	-	<b>v</b>								
	3.1+3.1+3.1	-	•		/						
3 unit (cascade)	4.1+4.1+4.1	-	-								
	5.1+5.1+5.1	-	-	✓	✓						
	6.1+6.1+6.1	-	•	-	<b>\</b>						
	7.1+7.1+7.1	-	•	-	<b>/</b>						
	8.1+8.1+8.1	-	-	-	✓	<b>_</b>					
	9.1+9.1+9.1	-	-	-	✓	<b>_</b>					
	10.1+10.1+10.1	-	· ·	-	-	<b></b>					
	12.1+12.1+12.1	-	-	-	-	<b>_</b>					
	14.1+14.1+14.1	-	-	-	-	<b>_</b>					
	2.1+2.1+2.1+2.1	-	-	✓	✓	✓					
	3.1+3.1+3.1+3.1	-		$\checkmark$	✓	√					
	4.1+4.1+4.1	-	-	-	✓	✓					
	5.1+5.1+5.1	-	-	-	✓	✓ ✓					
4 unit (cascade)	6.1+6.1+6.1	-	-	-	✓ ✓	<b>√</b>					
	7.1+7.1+7.1				-	√					
	8.1+8.1+8.1					√					
	9.1+9.1+9.1	-		-	-	√					
	10.1+10.1+10.1	-	-	-	-						
	21+21+21+21										
	31+31+31+31+31										
	<u> </u>	-									
	4.1*4.1*4.1*4.1*4.1 	-									
5 unit (cascade)		•	-		· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • •					
	0.1+0.1+0.1+0.1+0.1	•	-	-	-	<b>_</b>					
	<u>/.1+/.1+/.1+/.1</u>	-	•		-						
	8.1+8.1+8.1+8.1	-	-	· · · · · · · · · · · · · · · · · · ·	-						
	9.1+9.1+9.1+9.1	•	-		-	<b>√</b>					
	2.1+2.1+2.1+2.1+2.1	-	-	V	✓	<b>_</b>					
	3.1+3.1+3.1+3.1+3.1	•	·		✓	<b></b>					
	4.1+4.1+4.1+4.1+4.1	-	-	-	✓	<b>_</b>					
6 unit (cascade)	5.1+5.1+5.1+5.1+5.1+5.1	-	-	-	-	✓					
	6.1+6.1+6.1+6.1+6.1	-	-	-	-	✓					
	7.1+7.1+7.1+7.1+7.1	-	-	-	-	✓ ✓					
	8.1+8.1+8.1+8.1+8.1					√					

Note: \* only with Sphera EVO 2.0

HEAT PUMPS





## ACCESSORY PRODUCTS TO HEAT PUMPS



ELFOSun<sup>3 NEW</sup>



DWH boilers



#### **NEW** PRODUCT

## ELFOSun<sup>3</sup> F-L / F-XL / FH-XL

HEALTH

Flat-plate solar thermal collector for combination with domestic hot water production systems



- It uses renewable energy and contributes greatly to the increase in the building's energy class
- It can be combined in series and is ideal for empty and pressurised systems
- $\checkmark$  One of the most efficient solutions on the market
- Installation with specific kit for either a pitched or flat roof or uncased in the roof
- Tempered prismatic glass surface to capture maximum sunlight and resist weathering

#### Ideal with AQUA Plus and DHW Boilers

ELFOSun<sup>3</sup> is designed to supply the coil of a tank for domestic hot water production. Combined with AQUA Plus, the heat pump for domestic hot water production, or with specific Boiler versions for Heat Pumps, ELFOSun<sup>3</sup> uses the free thermal contribution of solar energy. It is essential to upgrade old residential heating systems and, depending on the case, increase the building's energy efficiency by up to two classes.



#### technical data

Version			F-L	F-XL	FH-XL
Installation	Туре	-	V	ert.	horiz.
Installation	no. (in parallel) Maximum	-		5	3
Surface	gross	m²	2,00	2,3	37
Sundce	opening	m²	1,86	2,2	23
Peak capacity		W	1.522	1.8	04
Technical specif	fications				
	ηCOL - collector efficiency	%	60		
Dorformoncoc	η0 - zero-loss collector efficiency	<del>-</del>	0,761		
Periorinalices	a1 - heat loss coefficient	W/m <sup>2</sup> K	3,60		
	a2 - Temperature / heat loss coefficient ratio	W/m <sup>2</sup> K <sup>2</sup>	0,014		
Stagnant temper	rature	°C	190		
Operating press	ure Water content	bar		10	
Panel water flow	V	1	1,36	1,7	0
Panel water flow	v Nominal	l/min/m <sup>2</sup>	1,6÷2	2÷2	2,7
Absorptance		%		≥ 95	

The Product complies with the European ErP Directive (UE Regulations 811/2013 - 813/2013)

(1) Control unit for indoor installation

RELIABILITY

Ē

accessorie	S	
	KFSX	Fixing kit on pitched or flat roofs for 1 vertical solar panel (per F-L / F-XL)
	KFDX	Fixing kit on pitched or flat roofs for 2 vertical solar panels (per F-L / F-XL)
	КҒРХ	Fixing kit on flat roofs for 1 horizontal solar panel (per FH-XL)
N N	KFP2X	Fixing kit on flat roofs for 2 horizontal solar panels (per FH-XL)
$\square$	KFIX	Sloping roof fixing kit for 1 horizontal collector (for FH-XL)
	KFI2X	Sloping roof fixing kit for 2 horizontal collectors (for FH-XL)
	KFIN1X	Uncased fixing kit for 1 vertical collector (for F-L / F-XL)
	KFIN2X	Uncased fixing kit for 2 vertical collectors (for F-L / F-XL)
99	КСІХ	Connection kit for intermediate connection between solar collectors
Ĵ	кссх	Kit for single-column circulation, solar control unit and 3/4" non return valve
	КССВХ	Kit for two-column circulation, solar control unit and 3/4" non return valve
	VE18X	18 liter expansion vessel
	VE25X	25 liter expansion vessel
	VE40X	40 liter expansion vessel
	VMTX	Thermostatic mixing valve
6	GP10X	10 liter tank of concentrated propylene glycol

#### dimensions and connections

#### $\ensuremath{\mathsf{F-L}}\xspace$ / $\ensuremath{\mathsf{F-XL}}\xspace$ up to 5 panels can be connected in parallel



FH-XL: up to 3 panels can be connected in parallel



Note: refer to the specific documentation to connect several panels



			F-L	F-XL	FH-XL	
Dimensions	AxCxB	mm	1.980x1.010x86	1.930x1.230x86	1.230x1.930x86	
Weight		kg	38	43		
External diameters		mm		22 (x4)		

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CLIVET





## **DWH BOILERS**









✓ Additional pipe coil for connection to solar thermal ELFOSun (optional)

- ✓ Inspection flange
- ✓ Magnesium anodic protection
- $\checkmark$  Carbon steel tank with vitrification treatment
- ✓ 70 or 100 mm rigid polyurethane insulation

				ACS200X	ACS300X	ACS500X	ACS1000 <sup>new</sup>	ACS10SX <sup>new</sup>
	Net water volume		I	196	273	475	930	900
	Energy efficiency of	lass	-		В		(	С
	Maximum water te	mperature	°C			95		
Performance	Insulation: Materia	I / Medium thickness1	mm		PU / 70		PE /	100
	Thermal dispersion	IS	W/K	1,13	1,40	1,78	3.	,16
	Electric heater		kW/p		2 / 1-phase		4,5/3	-phase
Maximum operating pre	ssure		bar			10		
Quantity of exchangers			-			1		2
Technical features - sta	andard version							
	Surface		m <sup>2</sup>	1,50	1,80	2,20	3,50	6,00
Linner ceil	Internal volume		<u> </u>	8,60	10,4	12,7	21,0	35,0
	Heat exchange <sup>2</sup>	Coil water 60/50°C Tank water 10/45°C	kW	36	44	55	88	35
Technical features - so	lar version							
Additional accessory			-	SCS08X	SCS08X	SCS12X	-	Standard
	Surface		m <sup>2</sup>	0,80	0,80	1,20	-	3,70
Detter size sell	Internal volume		I	0,65	0,65	0,95	-	23
Bottom pipe coll	Heat exchange <sup>2</sup> Coil water 60/50°C Tank water 10/45°C		kW	24	24	36	-	88
Data according to DIN 4	708 / EN 12897 / EN 1	5332		(2) Water p	ipe coil 60/50°C / Wa	ter tank 10/45°C		

(1) PU = Polyurethane

dimensions and connections



			ACS200X	ACS300X	ACS500X	ACS1000X	ACS10SX
Dimensions	ØxA	mm	640x1.215	640x1.615	790x1.705	990X2	2.205
Weight		kg	77	98	128	224	294
	DHW supply	inch			1" 1/4		
	DHW inlet	inch		1"	1" 1/4		
External dia-	Return bottom pipe coil / drain	inch		1/2"		1	9
meters	Coil supply	inch		1"		1" '	1/4
	Coil return / discharge	inch		1"		1" '	1/4
	Return bottom pipe coil / drain	inch		1/2"		1'	9

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#### **NEW** PRODUCT

### SINERGY Inverter module: CEC-S 5K Battery pack: CEC-S B 5K

#### Electric storage system



- $\checkmark$  Modular system with up to 4 storage tanks for capacities of 5/10/15/20 kWh
- ✓ Dual MPPT input for 6.2 kW photovoltaic system
- $\checkmark$  On-grid function and integrated 5 kW back-up output for connecting loads in the event of a power failure
- ✓ «Anti-islanding» protection system
- ✓ 10,000 charging / discharging cycles
- ✓ Extended operating range from -25 °C to +60 °C
- ✓ IP65 protection rating

#### self-consumption optimisation

The SINERGY storage system is Clivet's solution for storing the electricity produced by the photovoltaic system during daylight hours and using it to power the air-conditioning and domestic hot water production system during the night or in the event of a grid power failure. Combined with the CONTROL4 NRG energy assistant, the SINERGY series of electric accumulators ensures maximum selfconsumption and energy independence in the home.

SINERGY is suitable for both new and existing installations. Thanks to the high degree of protection and operating range, SINERGY can be installed outdoors.

The special construction technology of the lithium iron-phosphate cell batteries provides a system life of up to 10,000 charging and discharging cycles.



- 5 kW Hybrid inverter including 2
   6.2 kW MPPT inputs
- 2. Display
- 3. Cable entry for connection to the system
- 4. Battery pack charge level indicator
- 5. 5 kWh battery pack including BMS (battery management system)
- 6. Battery pack charge level indicator
- 7. 5 kWh battery pack including BMS (battery management system)

#### **Operating mode**

#### **Self-consumption**

The energy generated by the solar panels will be used in the following order:

- 1. to supply domestic loads
- 2. to charge the battery
- 3. Charging via grid again

When there is no sun, the battery will support the load to improve self-consumption.

If the power supply from the batteries is not enough, the grid will supply the load demand.



#### **Battery charging priority**

In this mode, the battery is only used as a backup power supply when the grid fails, and as long as the grid works, the batteries will not be used to supply the loads.

The battery will be charged with the energy generated by the photovoltaic system or by the grid.



#### **Recharging using a time slot**

This mode is used to activate the timed charge and discharge functions.

Used to charge the battery from the grid in the absence of a photovoltaic system.

Two (2) charge and discharge time slots (adjacent) time slot 1 – charge and discharge time slot 2 – charge and discharge

#### Example:

fascia 1 – 8.00.12.00 (charge) and 12.00.16.00 (discharge) fascia 2 – 16.00..24.00 (charge) and 00.00.8.00 (discharge)



#### **BATTERY PACK Technical Characteristics**

BATTERT FACK Technic	archaracteristics	Electrical Data				
Physical		Energy capacity	5,12 kWh			
Battery type	LFP (LiFeO4)	Usable capacity	4,6 kWh			
Weight	54 kg	Depth of discharge (DoD)	0.9			
Dimensions W x H x D	540 x 490 x 255 mm	Nominal Voltage	51 2 V			
IP protection	IP65	DC Circuit Breakers	125A			
Warranty	10 years	Operating Voltage Range	44,8 - 56,6 V			
		Internal Resistance	<20mΩ			
Operation		Cycle life (charge/discharge)	10.000 cycles			
Maximum charge/discharge power	50A/80A					
Rated DC Power	4.096 W	PMC				
Maximum charge/discharge power	2.825 W / 4.096 W	BMS				
Operating temperature range	050°C charging	Modules connection	Up to 4 modules			
Operating temperature range	'-1050°C discharging	Capacity	100-400 Ah			
Humidity	0°C ~ 95% (non condensante)	Power consumption	<2 W			

Safety (cells) Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

#### **INVERTER Technical Characteristics**

#### PV String Input

PV String Input		Max. Output Apparent Power	5.000 VA
Max. DC Voltage	580V	Peak Output Apparent Power	6.900 VA 10sec
Nominal Voltage	400V	Max. Output Current	20A
MPPT Voltage Range	80V-560V	Nominal Output Voltage	230V
Start Voltage	130V	Nominal Output Frequency	50/60 Hz
MPPT string inputs	2	Output THDv (@Linear Load)	<3% (Linear Load)
Strings Per MPP Tracker	1		
Max. Input Current Per MPPT	15A	Efficiency	
Max. Short-circuit Current Per MPPT	18A	Max. PV Efficiency	97,0%

Protection

Display

#### AC Output (Grid)

Nominal AC Output Power	4.999 W	DC Switch	Bipolar DC Switch (125A/Pole)
Max. AC Apparent P ower	7.360VA (from grid)	Anti-islanding Prote ction	YES
Max. AC Output Power	5'000 W (1)	Output Over Current	YES
Naminal AC Valance	2201/	DC Reverse Polarity Protection	YES
Nominal AC Voltage	230080	String Fault Detection	VES
AC Grid Frequency Range	50/60 Hz ±5 Hz	Stillig Faar Detection	125
Max. Output Current	22A (2)	AC/DC Surge Protection	DC type II; AC type III
Max Input Current	224 (2)	Insulation Detection	YES
		AC Short Circuit Protection	YES
Power Factor (cosΦ)	0.8 leading - 0.8 lagging		
THDi	< 3%	General Specifications	

#### **Battery Input**

Battery type	LFP (LiFePO4)
Nominal Battery Voltage	48V
Max. Charging Voltage Range	40-60V
Max. Charging Current	100A
Max. Discharging Current	100A
Battery Capacity	100-400 Ah
AC Output (Backup)	

String Fault Detection	YES
AC/DC Surge Protection	DC type II; AC type III
Insulation Detection	YES
AC Short Circuit Protection	YES
General Specifications	
Dimensions W x H x D	540 x 590 x 255 mm
Weight	32 kg
Operating Temperature Range	-25°C ~ +60°C
Humidity	0°C ~ 95% (non condensing)
Noise (dB)	<25
Cooling Type	Natural convection
Max. Operation Altitude	2.000 m
IP Class	IP65
Communication	R\$485

LCD

Certification & Standard IEC/EN 62109-182;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CE10-21;G98;G99;C10/C11 NOTE 1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa 2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa





#### **Existing system**

Connection to an existing system is made without replacing existing inverters and photovoltaic panels.

The SINERGY system automatically stores the energy produced by the panels when it is not used by users connected to the grid. The photovoltaic inverter inputs are not used in this case.

Installation is direct to the home network without additional wiring and/or connections.



#### **New system**

In new installations, the photovoltaic system strings can be connected directly to the two direct current inputs in Clivet's SINERGY inverter.

The inverter has 2 string inputs for a total of 6.2kW.

This configuration keeps the photovoltaic inverter costs low.



#### full installation

SINERGY makes it possible to extend the photovoltaic range and have more installed power.

In this type of installation, the new photovoltaic system can be installed without changing the existing system. The inverter has 2 string inputs for a total of 6.2kW.

Newly installed panels can be connected directly to the two direct current inputs in Clivet's SINERGY inverter.





## FAN COILS



#### Distribution fan coils

of heating and cooling at home



MOOD



ELFOSpace BOX3



ELFORoom<sup>2</sup>



NEBULA MP NEW





NEBULA HP NEW

## MOOD CFW-2 1÷5

											fo	r heating	g and cooling
COMFORT					HEALTH	MANA	EMENT AND CON	NECTIVITY					
**-	$(\nearrow)$									MOD		0-10V	
Hot Cold	Dehumidification	Follow Me (optional KJR-90D)	Anti cold air	Temperature compensation	High density filter	Inp ON/	ut Remote DFF contro	e Wired controller (optional)	Centralised controller (optional)	Port Modbus	ELFOControl management	Input 0-10 V	Output ON/OFF
CONVENIENCE	RELIABILIT												
Standard supplied with 3-way ON/OFF valves and potential-free contact for generator demand													

- ✓ Quiet and efficient, thanks to the fan's brushless DC motor
- $\checkmark$  Standard supplied infrared remote control
- ✓ Standard supplied input contact for 0-10V management
- Management via Modbus port with connection to BMS or CONTROL4 NRG

#### Management with energy assistant

Mood can be connected to CONTROL4 NRG, the touch-screen centraliser that coordinates the entire system intelligently and efficiently to always ensure the utmost comfort at the lowest possible cost.

By connecting the fan coils to this central "brain", the heat diffusion system can be managed with "room by room" temperature control by turning the individual thermostats with temperature and humidity control (where available) or directly on the terminal units, changing their speed and reducing consumption. The temperature in the house will certainly be more consistent and controlled, for maximum comfort.

Wall-mounted fan ceil with inverter meter

It is also possible to create and manage dual emitter systems: fan coils for cooling and radiant panels for heating.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size			1	2	3	4	5
Dimensions	AxCxB	mm		916x290x233		1.074x3	317x237
Weight		kg		12,7		14	,9
External dia-	Water	inch			3/4"		
meters	Condensate drain	mm			20		

#### accessories

	KJR90X	KJR90 electronic room control for wall installation
	KJR150X	Indoor units' group controller
0	CCM30BX	Touch-key indoor units' centralized controller
	CCM09 to exhaustion	Wired centraliser with weekly scheduler



Wired centraliser with 6.2" touchscreen display and weekly scheduler



Wired centraliser with 10.1" touchscreen display and weekly scheduler

#### technical data

			1	2	3	4	5
Total Capacity	Water 7/12°C	kW	2,70	2,91	3,81	4,47	4,87
Sensible Capacity	Ambient air 27°C/19°Cwb Maximum ventilation speed	kW	2,15	2,33	3,18	3,67	4,11
Water flow-rate		l/h	465	501	656	770	839
Water pressur drop		kPa	31,6	37,2	56,8	41,2	50,7
Capacity	Water 45/40°C	kW	2,12	3,23	4,30	4,36	5,26
Water flow-rate	Ambient air 20°C	l/h	365	556	741	751	906
Water pressur drop	Maximum ventilation speed	kPa	37,5	40,6	61,9	43,7	51,7
Capacity	Water 50°C/cool water flow-rate	kW	3,4	3,68	4,59	5,43	5,98
Water flow-rate	Ambient air 20°C	l/h	465	501	656	770	839
Water pressur drop	Maximum ventilation speed	kPa	13,8	15,7	24,8	45,7	54,6
apacity	Minimum / Maximum	W	10/13	9/15	15/34	13/26	18/38
Operating pressure Water content		bar			16		
	Minimum / Nominal / Maximum	m³/h	400/454/492	413/485/585	590/689/825	634/741/862	717/849/979
	Minimum / Maximum	dB(A)	39/44	35/44	47/57	42/50	47/56
Sound pressure @1m Minimum / Maximum		dB(A)	27/32	23/32	35/45	30/38	35/44
	Voltage/Frequency/Phases	V/Hz/n°			230/50/1		
	Total Capacity         Sensible Capacity         Water flow-rate         Water pressur drop         Capacity         Water flow-rate         Water pressur drop         Capacity         Water flow-rate         Water flow-rate         Water flow-rate         Water flow-rate         Water flow-rate         Water glow-rate         Water flow-rate         Water glow-rate         Water flow-rate         Water glow-rate         Water glow-rate         Water flow-rate         Water glow-rate         Water flow-rate         Water flow-rate         Water glow-rate         Water glow-rate         Water flow-rate         Water glow-rate         Water glow-rate	Total Capacity         Water 7/12°C           Sensible Capacity         Ambient air 27°C/19°Cwb           Water flow-rate         Maximum ventilation speed           Water pressur drop         Water 45/40°C           Water flow-rate         Ambient air 20°C           Water pressur drop         Maximum ventilation speed           Qapacity         Water 50°C/cool water flow-rate           Water pressur drop         Maximum ventilation speed           ure         Water content           Water content         Minimum / Nominal / Maximum           @1m         Minimum / Maximum           Voltage/Frequency/Phases         Voltage/Frequency/Phases	Total Capacity         Water 7/12°C         kW           Sensible Capacity         Ambient air 27°C/19°Cwb         I/h           Water flow-rate         Maximum ventilation speed         kPa           Capacity         Water 45/40°C         kW           Water flow-rate         Ambient air 20°C         I/h           Water pressur drop         Maximum ventilation speed         kPa           Capacity         Water 20°C/cool water flow-rate         kW           Water pressur drop         Maximum ventilation speed         kPa           apacity         Minimum / Maximum         W           ure         Water content         bar           Minimum / Nominal / Maximum         MB(A)         Minimum / Maximum           @1m         Minimum / Maximum         dB(A)         Voltage/Frequency/Phases         V/Hz/n°	Image: Total Capacity     Water 7/12°C     kW     2,70       Sensible Capacity     Ambient air 27°C/19°Cwb     kW     2,15       Water flow-rate     Maximum ventilation speed     kPa     31,6       Capacity     Water 45/40°C     kW     2,12       Water flow-rate     Ambient air 20°C     l/h     365       Water flow-rate     Ambient air 20°C     l/h     365       Water pressur drop     Maximum ventilation speed     kPa     37,5       Capacity     Water 50°C/cool water flow-rate     kW     3,4       Water pressur drop     Maximum ventilation speed     kPa     13,8       Water pressur drop     Maximum ventilation speed     kPa     13,8       apacity     Minimum / Maximum     W     10/13       ure     Water content     bar     400/454/492       Minimum / Nominal / Maximum     dB(A)     39/44       @1m     Minimum / Maximum     dB(A)     27/32       Voltage/Frequency/Phases     V/Hz/n°     27/32	Image: 1Image: 2Total CapacityWater 7/12°CkW2,702,91Sensible CapacityAmbient air 27°C/19°CwbkW2,152,33Water flow-rateMaximum ventilation speedkPa31,637,2CapacityWater 45/40°CkW2,123,23Water flow-rateAmbient air 20°Cl/h365556Water pressur dropMaximum ventilation speedkPa37,540,6CapacityWater 50°C/cool water flow-ratekW3,43,68Water flow-rateAmbient air 20°Cl/h465501Water flow-rateAmbient air 20°Cl/h465501Water flow-rateAmbient air 20°Cl/h365556Water flow-rateAmbient air 20°Cl/h465501Water flow-rateAmbient air 20°Cl/h465501Water pressur dropMaximum ventilation speedkPa13,815,7apacityMinimum / MaximumW10/139/15ureWater contentbar10/139/15Minimum / Nominal / MaximumdB(A)39/4435/44@1mMinimum / MaximumdB(A)27/3223/32Voltage/Frequency/PhasesV/Hz/n°2/322/3/22	Image: Note of the image: No	Image: Note of the second se

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters



## **ELFORoom<sup>2</sup>** ELFORoom<sup>2</sup> 003.0÷017.0

		Slim floor- or ceiling-mounted	fan coil with inverter motor
			for heating and cooling
COMFORT	HEALTH	MANAGEMENT AND CONNECTIVITY	
Hot Dehumidification Follow Me Anti cold air Temperature Cold compensation	High density Air purificati filter (optional)	ion Input Wired controller Centralised controller Port ON/OFF (optional) Modbus (IN-MOD/MOD) (IN-MOD/M	ELFOControl input Output management 0-10 V ON/OFF DD) (IN-MOD/MOD) (SC010V) (IN-MOD/MOD
CONVENIENCE RELIABILITY			
Auto Restart Eurovent			
	<ul> <li>Suitable uncased</li> <li>Quiet and</li> <li>Manager OFF outp</li> <li>Optional</li> <li>Manager CONTRC</li> </ul>	for any installation: vertical or horiz d efficient, thanks to the fan's brush nent via ON/OFF, 3-speed or 0-10 out for calling an external device germicidal UV lamp for air purifica nent via Modbus port with connect DL4 NRG	rontal, cased or hless DC motor / contacts and ON/ tion ion to BMS or

#### **Ready for anything**

ELFORoom<sup>2</sup> is highly flexible, thanks to the availability of many accessories that enhance its potential.

The unit can be managed with the on-board control, with LCD display and very discreet, with external thermostat, ON/OFF input via potential-free contact or input with 0-10V signal. Multiple ELFORoom<sup>2</sup> units can also be grouped together in mini-networks of up to 9 units with master/slave management by thermostat or by CONTROL4 NRG centraliser or BMS with Modbus protocol.

The rest of the optional equipment is designed to facilitate installation: feet for fixing to the ground, recessed fan coil / grid kit to make uncased installations invisible, telescopic or 90° plenum for ducting.



#### dimensions and connections







ELFORoom<sup>2</sup> INVOT Uncased unit



ELFORoom<sup>2</sup> INVOT

For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

ELFORoom<sup>2</sup> OUTVOT Cased unit

ELFORoom<sup>2</sup> OUTVL-OUTVOT Cased unit

Size (CC2 v	ersion)		003.0	005.0	011.0	015.0	017.0
Dimonsions	with casing AxCxB	mm	737x579x130	937x579x130	1.137x579x130	1.337x579x130	1.537x579x130
Dimensions	uncased AxCxB	mm	527x586x130	727x586x130	927x586x130	1.127x586x130	1.327x586x130
Woight	with casing	kg	17	20	23	26	29
weight	uncased	kg	9	12	15	18	21
External dia-	Water	inch	3/4"				
meters	Condensate drain	mm	14				

#### configurations

TYPE OF CONFIGURATION:		CONTROL ELECTRONIC:		
CC2	2-pipe (Standard)	IN-MOD	Onboard thermostat and RS485 port as standard	
CC4	4 pipe	CSEMP	Onboard simplified 4-speed thermostat	
HYDRAULIC CONNECTIONS		MOD	RS485 port as standard and provision for	
SX	Connections on the left (standard)	mob	connection to Modbus thermostat	
DX	Right side fittings	SC3V	Ready for connection to 3-speed thermostat	
TYPE OF IN	ISTALLATION:	SC010	Ready for connection to 0-10V thermostat	
OUTVL	With casing for vertical installation	AIR PURIFICATION:		
ουτνοτ	With casing for vertical or horizontal installation	-	Standard filter (standard)	
OUTRAD	With casing for vertical installation, with ventilated radiant plate	UVPCO	UV germicidal lamp kit with support	
ΙΝΥΟΤ	Uncased for vertical or horizontal installation			

#### accessories

	KASPX	Return plenum kit		FXPPX	Floor fixing brackets kit
0.00			þ	KV3VBX	3-way valve kit with electrothermal head and balancing
	GRA1X	Air outflow grille		KV3B4X	3-way valve kit with electrothermal head and balancing for 4-pipe system (Available only with B4T)
	PR90MX	90° air outlet plenum	0	KCMDX	Motor connection cables for unit with couplings on the right
	PMSTX	Telescopic upper supply plenum kit	3340	HIDE2X	Electro-mechanical thermostat for wall installation with built-in temperature probe
	GMX	Outlet grille	110	HIDE3X	Electro-mechanical thermostat for wall installation with built-in
	BACKVX	Rear painted panel for cased units			
	PCIX	Uncased closure panel	000000	HIDT3X	Electronic thermostat for wall installation with display and built-in humidity / temperature probes
	CSFIX	Formwork for uncased installation	23	HIDT6X	Electronic thermostat for wall installation with built-in temperature probe
<b>3</b> 5	KPDX	Plinth kit			

#### technical data

Size				003.0	005.0	011.0	015.0	017.0
	Total Capacity	Wator 7/12°C	kW	0,91	2,12	2,81	3,30	3,71
Size Cooling Heating Heat recovery capa Operating pressure Airflow <sup>1</sup> Sound power	Sensible Capacity	Waler //12 C	kW	0,73	1,72	2,11	2,71	2,90
	Water flow-rate	Ambient air 27 C/19 CWb     Maximum ventilation speed	l/h	157	365	483	568	638
	Water pressur drop	Maximum ventilation speed	kPa	12,1	8,2	17,1	18,0	21,2
	Capacity	Water 45/40°C	kW	1,02	2,21	3,01	3,80	4,32
	Water flow-rate	Ambient air 20°C	l/h	175	380	518	654	743
11	Water pressur drop	Maximum ventilation speed	kPa	9,1	9,2	19,1	21,2	23,3
Heating	Capacity	Water 50°C/cool water flow-rate	kW	1,17	2,55	3,52	4,43	5,09
	Water flow-rate	Ambient air 20°C	l/h	157	365	483	568	638
	Water pressur drop	Maximum ventilation speed	kPa	5,8	6,6	14,6	14,4	22,9
Heat recovery	capacity	Minimum / Maximum	W	5/11	4/19	6/20	5/29	5/33
Operating pres	ssure	Water content	bar			10		
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	49/91/146	124/210/294	194/318/438	302/410/567	364/479/663
Sound power		Minimum / Maximum	dB(A)	33/51	35/53	36/54	36/55	37/57
Sound pressure @1m Minimum / Maximum		Minimum / Maximum	dB(A)	24/41	25/42	26/44	26/46	28/47
Power supply		Voltage/Frequency/Phases	V/Hz/n°			230/50/1		

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters







### AURA - 3-Speed Version CFFAC / CFFAU 1÷12



#### **Dedicated control**

The unit can be selected with the innovative, specially designed KJRP-86R user interface. The controller can either be installed on board the unit (for cased versions) or remotely on the wall. It has a touch screen, back-light, 3-speed control + AUTO, ON/OFF timer and water probe for anticold air function.



The controller has a Modbus port for connection to CONTROL4 NRG or BMS controllers operating with this protocol.

#### configurations

TYPE	OF	SYS	TEM:
------	----	-----	------

CC2	2-pipe (Standard)
CC4	4 pipe

#### AIR RETURN:

R3	From the bottom (vertical installation) / from the back (horizontal installation) (standard)			
RF	From the front (vertical installation) / from the bottom (horizontal installation)			
HYDRAULIC CONNECTIONS				

SX	Connections on the left	(standard)
----	-------------------------	------------

DX Right side fittings

#### VALVES MOUNTED ON BOARD:

-	not required (standard)
3V2	3-way ON/OFF valves for 2-pipe version
3V4	3-way ON/OFF valves for 4-pipe version
BUILT-IN TH	HERMOSTAT:

NOHMI	not required (standard)
HMIAM	KJRP-86R control

#### accessories

3	BRVHX	Auxiliary condensate collection tray for vertical/horizontal installation		HMIFACX	KJRP-86R electronic wired controller for unit- or wall-mounting <i>NEW</i>		
	KPDX	Feet kit	150	BOXX	Box for wall installation of KJRP-		
	3V2DX		1.	DOAX	86R user interface		
		3-way ON/OFF valves kit for 2-pipe system (3V2DX for right side fittings			5		
	3V2SX	/ 3V2SX for left side fittings)		DCPRX	Power interface to control 4 fan coils and valves for 2-4 systems		
	3V4DX	3-way ON/OFF valves kit for 4-pipe	e 245° *	HIDTI9X	Electro-mechanical thermostat for uncased installation + Modbus		
	3V4SX	/ 3V4SX for left side fittings)					



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 version)			1	2	3	4	5	6	7	8	9	10	11	12	
Dimonsions	with casing	AxCxB	mm	790x49	790x495x200 1.020x495x200 1.240x495x200				1.360x4	1.360x495x200		1.360x591x200			
Dimensions	uncased	AxCxB	mm	628x20	628x200x455		858x200x455		1.078x200x455				00x455	1.198x200x551	
Mainha	with casing kg		kg	16,3	16,7	20,0	20,8	24,0	25,4	25,5	26,3	27,3	28,5	31,7	34,0
weight	uncased		kg	11,6	12,0	13,9	14,8	17,3	18,2	17,9	18,8	20,5	21,7	24,0	25,2
External dia-	a- Water inch			3/4"											
meters	Condensate d	Irain	mm					18,5							

#### technical data

Size			R3 Version	1**	2	3**	4	5*	6			
	Total Capacity	Watas 7/12%C	kW	1,65	2,25	2,65	3,05	3,85	4,20			
Cooling	Sensible Capacity	Water //IZ C	kW	1,25	1,65	2,05	2,23	2,91	3,05			
Cooling	Water flow-rate	Amblent an 27 C/19 Cwb	l/h	283	386	454	523	660	720			
	Water pressur drop	Maximum ventilation speed	kPa	15,8	33,2	18	26,7	38,2	41,2			
	Capacity	Water 45/40°C	kW	1,85	2,35	3,05	3,15	4,10	4,30			
Heating	Water flow-rate	Ambient air 20°C	l/h	317	403	523	540	705	740			
	Water pressur drop	Maximum ventilation speed	kPa	15,1	33,2	17,6	23,3	35,5	37,2			
	Capacity	Water 50°C/cool water flow-rate	kW	1,93	2,02	2,89	3,28	4,32	4,55			
	Water flow-rate	Ambient air 20°C	l/h	283	386	454	523	660	720			
	Water pressur drop	Maximum ventilation speed	kPa	11	19,5	11,8	20,1	30,7	21,1			
Heat recovery c	apacity	Minimum / Maximum	W	14/35	15/40	14/47	14/47	19/51	19/51			
Operating press	sure	Water content	bar			1	6					
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	142/165/255	139/192/255	180/273/400	184/284/425	319/447/595	319/450/595			
Sound power	und power Minimum / Maximum dB(A) 34/47 39/53 31/46 32/47 36		36/52	37/52								
Sound pressure @1m Minimum / Maximum		Minimum / Maximum	dB(A)	21/35	27/42	18/34	19/34	23/39	31/40			
Power supply Voltage/Frequency/Phases		Voltage/Frequency/Phases	V/Hz/n°	230/50/1								

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters \*all versions available while stocks last \*\*RF version available while stocks last

Size			R3 Version	7*	8**	9*	10**	11*	12**		
	Total Capacity	Water 7/12°C	kW	4,65	5,35	6,00	6,75	7,35	8,25		
Casling	Sensible Capacity	Water //12 C	kW	3,58	3,96	4,83	5,09	5,63	6,08		
Cooling	Water flow-rate	Ambient alf 27 C/19 CWb	l/h	797	917	1.029	1.157	1.260	1.414		
	Water pressur drop	Maximum ventilation speed	kPa	56,9	61,5	53,8	40,3	45,4	64,7		
	Capacity	Water 45/40°C	kW	5,20	5,70	6,15	7,15	8,20	8,50		
	Water flow-rate	Ambient air 20°C	l/h	894	977	1.054	1.226	1.406	1.457		
Heating	Water pressur drop	Maximum ventilation speed	kPa	56,7	60,9	57,9	42,2	44,6	62,0		
	Capacity	Water 50°C/cool water flow-rate	kW	5,51	5,99	7,59	7,91	8,83	9,35		
	Water flow-rate	Ambient air 20°C	l/h	797	917	1.029	1.157	1.260	1.414		
	Water pressur drop	Maximum ventilation speed	kPa	44,2	32,9	36,4	18,9	25,1	39,3		
Heat recovery capacity		Minimum / Maximum	W	34/91	35/91	68/123	64/110	83/123	82/118		
Operating press	sure	Water content	bar	16							
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	392/560/790	404/574/800	555/855/1.190	591/885/1.150	782/1.088/1.300	836/1.132/1.300		
Sound power		Minimum / Maximum	dB(A)	43/59	43/59	45/64	46/62	50/63	50/63		
Sound pressure	@1m	Minimum / Maximum	dB(A)	31/48	31/47	33/50	33/50	36/51	37/50		
Power supply		Voltage/Frequency/Phases	V/Hz/n°	230/50/1							
The Product is c Sound levels tes (1) With clean filte *all versions ava **RF version ava	ompliant with the Erp (regu sted in an anechoic chambe ers ilable while stocks last ilable while stocks last	lation 2016/2281) er according to ISO 3744									





## AURA - Inverter version CFFC / CFFU 1÷12



#### **Dedicated control**

The unit can be selected with the innovative, specially designed KJRP-75A user interface. The controller can either be installed on board the unit (for cased versions) or remotely on the wall (also with optional 2 m extension lead). It has a touch screen, back-light and 7-speed control + AUTO.

The interface also has a temperature sensor: with the Follow-me function, the unit can be controlled according to the temperature read by this probe, replacing the temperature that would be detected as standard when the unit is restarted.



Floor- or ceiling-mounted fan coil with inverter motor

#### configurations

TYPE	OF	SYS	TEM:
------	----	-----	------

CC2	2-pipe (Standard)	-
CC4	4 pipe	3
AIR RETURN	N:	3
RP	From the back (standard)	В
RB	Downward	N
HYDRAULIC	CONNECTIONS	н
SX	Connections on the left (standard)	
DX	Right side fittings	

#### VALVES MOUNTED ON BOARD:

-	not required (standard)
3V2	3-way ON/OFF valves for 2-pipe version
3V4	3-way ON/OFF valves for 4-pipe version
BUILT-IN	THERMOSTAT:
NOHMI	not required (standard)
HMIDM	KJRP-75A control

#### accessories

3	BRVHX	Auxiliary condensate collection tray for vertical/horizontal installation		KJR90X	KJR90 electronic room control for wall installation
<b>45</b>	KPDX	Feet kit	A.F	KJR150X	Indoor units' group controller
	3V2DX	3-way ON/OFF valves kit for 2-pipe	0	ССМЗОВХ	Touch-key indoor units' centralized controller
A State	3V2SX	/ 3V2SX for left side fittings)		CCM09 to exhaustion	Wired centraliser with weekly scheduler
	3V4DX	3-way ON/OFF valves kit for 4-pipe system (3V4DX for right side fittings 3V4SX for left side fittings)		CCM-180A/WS	Wired centraliser with 6.2" touchscreen display and weekly
	3V4SX	7 SV HOM TO HER SIDE Haings)	<b>1</b>		Wired centraliser with 10.1"
	HMIFDCX	KJRP-75A electronic wired controller for unit- or wall-mounting	CONTRACTOR OF	CCM-270A/WS	touchscreen display and weekly scheduler
J	EXTENX	KJRP-75A wired controller connection extension cable (2 m)			
	KCMDX	Fan connection cables for units with connections on the right (per AURA DC 9 to 12)			

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For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 version)			1	2	3	4	5	6	7	8	9	10	11	12
Dimonsions	with casing AxCxB	mm	790x49	790x495x200		1.020x495x200		1.240x495x200				1.360x495x200		591x200
Dimensions	uncased AxCxB	mm	628x200x455		858x2	00x455	1.078x200x455				1.198x200x455		1.198x200x551	
Mainht	with casing	kg	18,0	18,5	21,5	22,0	25,5	26,5	25,5	26,5	28,5	29,5	32,5	34,5
weight	uncased	kg	11,8	12,1	13,9	14,8	17,3	18,2	17,3	18,2	19,6	20,8	23,1	24,3
External dia-	Water	inch	3/4"											
meters Condensate drain mm			18,5											

#### technical data

Size			R3 Version	1**	2	3**	4	5*	6			
	Total Capacity	W-+ 7/12%C	kW	1,50	1,95	2,35	2,85	3,50	3,90			
Contract	Sensible Capacity	Water //12 C	kW	1,14	1,42	1,79	2,06	2,65	2,90			
Cooling	Water flow-rate	Ambient air 27°C/19°Cwb	l/h	260	330	400	490	600	670			
	Water pressur drop	Maximum ventilation speed	kPa	13,9	27,2	13,3	26	34,1	37,4			
	Capacity	Water 45/40°C	kW	1,57	2,05	2,60	2,95	3,80	4,00			
	Water flow-rate	Ambient air 20°C	l/h	270	350	450	510	650	700			
	Water pressur drop	Maximum ventilation speed	kPa	15,1	25,3	14,3	24,4	35,1	36,5			
Heating	Capacity	Water 50°C/cooling water	kW	1,81	1,93	2,92	3,14	4,34	4,37			
, , , , , , , , , , , , , , , , , , ,	Water flow-rate	flow-rate	l/h	260	330	400	490	600	670			
	Water pressur drop	Ambient air 20°C Maximum ventilation speed	kPa	9,6	17,0	10,3	18,2	27,4	19,0			
Heat recover	y capacity	Minimum / Maximum	W	8/15	9/19	7/16	8/18	10/24	10/28			
Operating pr	essure	Water content	bar			1	6					
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	150/170/255	150/210/255	190/315/400	190/300/425	340/470/595	310/450/595			
Sound power		Minimum / Maximum	dB(A)	34/47	38/52	29/43	29/46	36/52	39/52			
Sound pressure @1m Minimum / Maximum		Minimum / Maximum	dB(A)	21/34	25/39	18/29	19/32	23/38	30/40			
Power supply Voltage/Frequency/Ph			V/Hz/n°	230/50/1								

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters

\*all versions available while stocks last \*\*RF version available while stocks last

Size			R3 Version	7*	8**	9*	10**	11*	12**	
	Total yield	Water 7/12°C	kW	4,30	4,85	5,60	6,35	7,35	8,25	
Cooling	Sensible yeld	Waler //12 C	kW	3,25	3,63	4,62	4,98	5,87	6,12	
Cooling Heating Heat recovery capa	Water flow-rate	Amblent an 27 C/19 CWb	l/h	740	830	960	1.090	1.270	1.430	
	Water pressur drop	Maximum ventilation speed	kPa	54,2	54,3	50,7	32,8	44,1	71,4	
	Yeld	Water 45/40°C	kW	4,70	$\gamma$ $8^{+-}$ $9^{-}$ $10^{+-}$ $11^{+-}$ $12^{+-}$ $4,30$ $4,85$ $5,60$ $6,35$ $7,35$ $8,25$ $3,25$ $3,63$ $4,62$ $4,98$ $5,87$ $6,12$ $740$ $830$ $960$ $1.090$ $1.270$ $1.430$ $54,2$ $54,3$ $50,7$ $32,8$ $44,1$ $71,4$ $4,70$ $5,25$ $6,00$ $7,05$ $8,05$ $8,70$ $810$ $910$ $1.040$ $1.220$ $1.390$ $1.510$ $54,3$ $53,4$ $55,5$ $37,6$ $46,9$ $62,6$ $5,43$ $5,68$ $7,27$ $8,15$ $9,30$ $9,37$ $740$ $830$ $960$ $1.090$ $1.270$ $1.430$ $39,7$ $28,5$ $32,2$ $17,6$ $25,8$ $39,9$ $14/47$ $13/47$ $17/84$ $18/87$ $21/107$ $22/106$ 16 $16$	8,70				
	Water flow-rate	Ambient air 20°C	l/h	810	910	1.040	1.220	1.390	1.510	
Heating	Water pressur drop	Maximum ventilation speed	kPa	54,3	53,4	55,5	37,6	46,9	62,6	
	Yeld	Water 50°C/cool water flow-rate	kW	5,43	5,68	7,27	8,15	9,30	9,37	
	Water flow-rate	Ambient air 20°C	l/h	740	830	960	1.090	1.270	1.430	
	Water pressur drop	Maximum ventilation speed	kPa	39,7	28,5	32,2	17,6	25,8	39,9	
Heat recovery ca	pacity	Minimum / Maximum	W	14/47	13/47	17/84	18/87	21/107	22/106	
Operating pressu	re	Water content	bar			1	6			
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	410/580/790	420/600/800	505/855/1.190	530/875/1.190	685/1.015/1.360	/1.360 680/980/1.300	
Sound power		Minimum / Maximum	dB(A)	43/59	43/59	45/64	46/62	49/63	47/63	
Sound pressure @	⊉1m	Minimum / Maximum	dB(A)	30/46	30/45	31/50	31/50	33/51	33/50	
Power supply		Voltage/Frequency/Phases	V/Hz/n°			230	/50/1			

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters \*all versions available while stocks last \*\*RF version available while stocks last





## **ELFOSpace BOX3** CFK 007.0÷041.0

		Boxed 4-way fan coil with inverter mot					
			for heating and cooling				
COMFORT	RELIABILITY HEALTH	MANAGEMENT AND CONNECTIVITY					
Hot Dehumidification Follow Me Anti cold air Temperature Cold (on thermostat) compensation	Condensate drain High density pump filter	input Remote control Wired controller Cen ON/OFF (optional)	tralised controller Port ELFOControl input (optional) Modbus management 0-10 V (021.0=041.0)				
CONVENIENCE RELIABILITY							
Auto Restart Eurovent							
	<ul> <li>Managalarm</li> <li>Quiet</li> <li>Stand</li> <li>Stand</li> <li>Manag CONT</li> </ul>	gement with potential-free con output and efficient, thanks to the far ard supplied infrared remote c ard supplied condensate drain gement via Modbus port with c ROL4 NRG	itact input or 0-10V input, i's brushless DC motor ontrol pump on board connection to BMS or				
Efficient and quiet							

#### Efficient and quiet



The power consumption of fan coils with brushless DC ventilation motor is reduced by up to 60% compared to corresponding models with asynchronous motor, while the noise level is 2÷5 dB(A) lower, making the environment more comfortable with lower costs.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 vers	ion)			007.0	011.0	015.0	021.0	031.0	041.0
Dimonsions	unit	AxCxB	mm	575x261x575	575x261x575	575x261x575	840x230x840	840x300x840	840x300x840
P	panel	AxCxB	mm	647x50x647	647x50x647	647x50x647	950x45x950	950x45x950	950x45x950
Weight	unit		kg	16,5+2,5	16,5+2,5	16,5+2,5	23+6	27+6	27+6
	panel		kg						
Enternal discussions	Water		inch			3/	/4"		
External diameters	Condensat	e drain	mm		25			32	

#### CLIVET

#### configurations

SYSTEM TYPE: 2-pipe (Standard) CC2 CC4 4 pipe

#### accessories

	KJR90X	KJR90 electronic room control for wall installation		360PX	Air return and supply frame with supply at 360°
a.p	KJR150X	Indoor units' group controller	1000	3V2X	Three-way valve kit for 2-pipe "on/off" system
0	CCM30BX	Touch-key indoor units' centralized controller	×	3V4X	Three-way valve kit for 4-pipe "on/off" system
ala e	CCM09 to exhaustion	Wired centraliser with weekly scheduler	11-11	DTX	Auxiliary condensate collection tray
	CCM-180A/WS	Wired centraliser with 6.2" touchscreen display and weekly scheduler			
0	CCM-270A/WS	Wired centraliser with 10.1" touchscreen display and weekly scheduler			

#### technical data

Size				007.0	011.0	015.0	021.0	031.0	041.0
	Total Capacity	Watar 7/12°C	kW	2,98	3,96	4,20	5,93	7,87	11,2
Casling	Sensible Capacity	Waler 7/12 C	kW	2,49	3,20	3,45	5,00	6,68	9,04
Cooling	Water flow-rate	Ambient air 27 C/19 Cwb	l/h	513	681	722	1.020	1.354	1.925
	Water pressur drop	Maximum ventilation speed	kPa	10,0	11,5	12,3	23,8	22,3	36,6
	Capacity	Water 45/40°C	kW	2,61	4,08	4,95	6,06	9,16	10,07
	Water flow-rate	Ambient air 20°C	l/h	450	700	870	1.040	1.580	1.735
Heating	Water pressur drop	Maximum ventilation speed	kPa	12,1	9,2	9,4	25,9	28,8	49,2
	Capacity	Water 50°C/cool water flow-rate	kW	3,11	4,58	5,58	7,01	10,4	11,5
	Water flow-rate	Ambient air 20°C	l/h	513	681	722	1.020	1.354	1.925
	Water pressur drop	Maximum ventilation speed	kPa	16,3	10,7	9,0	12,8	10,7	8,9
Heat recovery ca	pacity	Minimum / Maximum	W	5/15	9/28	21/43	20/41	45/85	39/126
Operating pressu	re	Water content	bar			1	6		
Airflow <sup>1</sup>		Minimum / Nominal / Maximum	m³/h	322/429/535	381/477/610	494/611/781	768/987/1.175	1.236/1.371/1.581 1.198/1.415/1.87	
Sound power		Minimum / Maximum	dB(A)	39/51	42/54	44/55	45/55	53/60	51/64
Sound pressure @	⊉1m	Minimum / Maximum	dB(A)	27/39	30/42	32/43	33/43	41/48	39/49
Power supply		Voltage/Frequency/Phases	V/Hz/n°			230	/50/1		

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters

## NEBULA MP - 3-Speed Version

#### **NEW** PRODUCT

**Ducted medium-pressure fan coil** 

#### DUA-MP 13÷44

#### with 3-speed motor for heating and cooling COMFORT HEALTH RELIABILITY CONVENIENCE MANAGEMENT AND CONNECTIVITY 0.00 \*\* ┎┛╤┙ 0 MOD Auto Restart (on thermostat) Hot Cold Dehumidification High density Anti cold air Port management Eurovent Modbus (on thermostat) ELFOControl (on thermostat) (on thermostat filter Extremely slim, can easily be installed even in space-restricted false ceilings ✓ Wide range of accessories and configurations to fulfil all installation requirements

- ✓ Unit for horizontal installation
- Management via Modbus port with connection to BMS or CONTROL4 NRG

#### **Fully Configurable**

Nebula fulfils all installation requirements: it comes with a full selection of factory-made configurations and accessories that can be supplied separately.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 ver	sion)		13	14	23	24	33 34 4		43	44	
Dimensions	AxCxB	mm	700x225x550 920x225x550				1.140x2	1.140x255x580 1.250x255x580			
Weight	RP version	kg	14,7	15,5	19,2	20,1	19,8	20,7	27,7	29,5	
External dia-	Water	inch		1/2"							
meters	Condensate drain	inch				1/	4"				

#### 102 🔪 🏠 🔁 🕹

#### configurations

TYPE OF SY	′STEM:	VALVES MOUNTED ON BOARD:				
CC2	2-pipe (Standard)	-	not required (standard)			
CC4	4 pipe	2V2	2-way ON/OFF valves for 2-pipe version			
	N:	3V2	3-way ON/OFF valves for 2-pipe version			
RP	From the back (standard)	2V4	2-way ON/OFF valves for 4-pipe version			
RB	Downward	3V4	3-way ON/OFF valves for 4-pipe version			
HYDRAULIC	CONNECTIONS	auxiliary	tray:			
sx	Connections on the left (standard)	-	not required (standard)			
DX	Right side fittings	BRO	drain pan mounted on board			

#### accessories

8	PRAX	Straight return plenum		BRODXX	Horizontal auxiliary tray, right connection	
	P90RAX	90° return plenum		BROSXX	Horizontal auxiliary tray, left connection	
5.00	PCCRAX	Return plenum with round fittings	3380	HIDE2X	Electro-mechanical thermostat for wall installation with built-in temperature probe (ON/OFF - Cool/Heat - 3 speeds)	
	PR90MX	90° supply plenum	1 16		Electro-mechanical thermostat for wall installation with built-in	
	PCCMAX	Supply plenum with round fittings		презх	temperature probe (Auto mode - auto speed))	
Ľ.	CDPX	Condensate drain pump		HMIFACX	KJRP-86R electronic wired controller for unit- or wall-mounting	
	2V2X	Two-way valve kit for 4-pipe Two-way valve kit for 4-pipe	1000		Box for wall installation of KJRP-	
10.60	3V2X	Three-way valve kit for 2-pipe "on/ off" system	· · ·	BOXX	86R user interface	
1	2V4X	Two-way valve kit for 4-pipe "on/off" system	÷24.5*	HIDTI9X	Electro-mechanical thermostat for	
	3V4X	Three-way valve kit for 4-pipe "on/ off" system	4 tm.		uncased installation + Modbus	

#### technical data

Size (CC2	version)			13	14	23	24	33	34	43	44	
	Total Capacity	Water 7/1090	kW	1,57	1,14	2,35	2,68	3,18	3,75	5,53	7,25	
C	Sensible Capacity	water //12°C	kW	1,11	0,98	1,67	1,85	2,32	2,63	4,58	5,22	
Cooling	Water flow-Capacity	Ambient air 27°C/19°Cwb	l/h	269	196	403	460	546	644	949	1.244	
	Water pressur drop	Maximum ventilation speed	kPa	7,7	4,4	7,8	11,8	13,8	20,5	32,0	26,1	
	Capacity	Water 45/40°C	kW	1,39	1,17	1,84	2,47	3,45	3,45	5,78	7,28	
	Water flow-rate	Ambient air 20°C	l/h	242	202	320	486	601	601	1.007	1.268	
	Water pressur drop	Maximum ventilation speed	kPa	15,9	4,1	34,8	10,3	13,3	15,0	32,8	24,6	
Heating	Capacity	Water 50°C/cool water	kW	1,69	1,41	2,25	2,99	4,1	4,17	6,9	8,73	
	Water flow-rate	flow-rate	l/h	269	196	403	460	546	644	949	1.244	
	Water pressur drop	Ambient air 20°C Maximum ventilation speed	kPa	20,8	4,3	54,8	12,1	12,7	17,9	33,8	27,0	
Heat recovery	capacity	Minimum / Maximum	W	37/	/67	39/	100	71/	110	156/228		
Operating pres	ssure	Water content	bar					8				
Airflow <sup>1</sup>			m³/h	120/170/250	97/130/147	140/230/370	140/230/310	430/5	10/560	572/807/840	770/1.030/1.200	
Available station	c pressure		Pa	35/50/55	35/50/55	35/50/65	29/50/65	45/50/55	45/50/55	27/50/55 35/50/55		
Sound pressur	e level (return + irradiated)	Minimum / Maximum	dB(A)	52/	/62	53	/64	56	/62	57/66		
Sound power I	evel (supply)	Minimum / Maximum	dB(A)	46/	/56	47/	/58	50/56	53/56	Ę	51/60	
Power supply Voltage/Frequency/Phases V/Hz/n°					230	)/50/1						

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744

(1) With clean filters







# NEBULA MP - Inverter version

#### **NEW** PRODUCT

Ducted medium-pressure fan coil with inverter motor for heating and cooling



 Management via Modbus port with connection to BMS or CONTROL4 NRG

#### **Fully Configurable**

Nebula fulfils all installation requirements: it comes with a full selection of factory-made configurations and accessories that can be supplied separately.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 ve	rsion)		13	14	23	24	33 34 43 4				
Dimensions	AxCxB	mm	700x225x550 920x225x550				1.140x255x580				
Weight	RP version	kg	18,7	19,6	22,4	24,2	29,5	30,6	31,2	33,2	
External dia-	Water	inch				1/	2"				
meters	Condensate drain	inch				1/	4"				
#### configurations

TYPE OF SYSTEM:			VALVES MOUNTED ON BOARD:			
CC2	2-pipe (Standard)	-	not required (standard)			
CC4	4 pipe	2V2	2-way ON/OFF valves for 2-pipe version			
AIR RETURN:			3-way ON/OFF valves for 2-pipe version			
RP	From the back (standard)	2V4	2-way ON/OFF valves for 4-pipe version			
RB	Downward	3V4	3-way ON/OFF valves for 4-pipe version			
HYDRAULIC	CONNECTIONS	AUXILIARY TRAY:				
SX	Connections on the left (standard)	-	not required (standard)			
DX	Right side fittings	BRO	drain pan mounted on board			

#### accessories

	PRAX	Straight return plenum		BRODXX	Horizontal auxiliary tray, right connection
	P90RAX	90° return plenum		BROSXX	Horizontal auxiliary tray, left connection
	PCCRAX	Return plenum with round fittings	Eurol :0		Electro-mechanical thermostat for wall installation with display and
	PR90MX	90° supply plenum	110 10 	HIDTI8X	built-in temperature probe (0-10V fan control, Auto/ECO/Cool/Heat mode - Auto/3 speeds)
	PCCMAX	Supply plenum with round fittings	Conver Conver		
Ċ.	CDPX	Condensate drain pump	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	HIDTI10X	Electronic thermostat for uncased installation + Modbus
	2V2X	Two-way valve kit for 4-pipe Two-way valve kit for 4-pipe			
10.00	3V2X	Three-way valve kit for 2-pipe "on/ off" system			
N.	2V4X	Two-way valve kit for 4-pipe "on/off" system			
	3V4X	Three-way valve kit for 4-pipe "on/ off" system			

#### technical data

Size (CC2	version)			13	14	23	24	33	34	43	44
	Total Capacity		kW	2,62	2,98	3,61	4,05	5,53	6,28	6,69	7,80
Casling	Sensible Capacity	Water //12 C	kW	1,94	2,14	2,67	2,87	4,07	4,47	5,03	5,66
Cooling	Water flow-rate	Ambient air 27 C/19 Cwb	l/h	450	511	620	695	949	1.078	1.149	1.339
	Water pressur drop	Maximum ventilation speed	kPa	19,6	10,8	15,6	22,9	26,3	19,6	36,5	29,4
	Capacity	Water 45/40°C	kW	2,90	3,14	3,78	3,58	5,95	6,42	7,33	8,22
	Water flow-rate	Ambient air 20°C	l/h	505	547	659	623	1.037	1.119	1.277	1.432
Heating	Water pressur drop	Maximum ventilation speed	kPa	19,7	10,1	14,5	20,5	25,3	17,4	36,2	27,5
пеашу	Capacity	Water 50°C/cool water flow-rate	kW	3,44	3,75	4,51	4,34	7,08	7,69	8,70	9,81
	Water flow-rate	Ambient air 20°C	l/h	450	511	620	695	949	1.078	1.148	1.339
	Water pressur drop	Maximum ventilation speed	kPa	18,2	10,0	14,6	25,9	24,7	18,5	34,3	28,0
Heat recovery	capacity	Minimum / Maximum	W	21/73	17/70	20/80	19/79	33/151	30/145	46/167	46/163
Operating pres	ssure	Water content	bar				8				
Airflow <sup>1</sup>		m³/h	270/3	60/460	350/428/600	350/480/600	530/73	30/930	790/1.03	30/1.260	
Available static pressure		Pa	28/50/78	28/50/80	29/50/78	28/50/77	28/50/80	28/50/80	30/50/77	28/50/75	
Sound pressure level (return + irradiated) Minimum / Maximum		dB(A)	49/64	9/64 49/63 50/63 49/62 54/67		/67	56	/68			
Sound power I	level (supply)	Minimum / Maximum	dB(A)	43/58 43/57 44/61 46/60 48/61				50	/62		
Power supply Voltage/Frequency/Phases V/Hz/			V/Hz/n°				230/50/	'1			

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744

(1) With clean filters





# NEBULA HP - 3-Speed Version

#### **NEW PRODUCT**

## DUA-HP 13÷64

#### **Ducted high-pressure fan coil** with 3-speed motor for heating and cooling







MOD	
$\square$	$\bigcirc$
Port	management

MANAGEMENT AND CONNECTIVITY

MOD	
Port	management
Modbus	ELFOControl
n thermostat)	(on thermostat)

(on th

RELIABILITY
Eurove (no 53-54-





- Extremely slim, can easily be installed even in space-restricted false ceilings
- Wide range of accessories and configurations to fulfil all installation requirements
- Unit for horizontal installation
- Management via Modbus port with connection to BMS or **CONTROL4 NRG**

#### **Fully Configurable**

Nebula fulfils all installation requirements: it comes with a full selection of factory-made configurations and accessories that can be supplied separately.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 ve	rsion)		13	23	33	43	53	54	63	64
Dimensions	AxCxB	mm	590x299x580	700x299x580	920x299x580	1.030x369x650	1.390x3	99x680	1.550x4	149x760
Weight	RP version	kg	23,0	27,6	39,3	47,4	60,0	63,0	84,7	88,2
External dia-	Water	inch		1/2"		3/4"		1	**	
meters	Condensate drain	inch				1/4"				



#### configurations

TYPE OF SYSTEM:		VALVES	VALVES MOUNTED ON BOARD			
CC2	2-pipe (Standard)	-	not required (standard)			
		2V2	2-way ON/OFF valves for 2-pipe version			
SX	Connections on the left (standard)	3V2	3-way ON/OFF valves for 2-pipe version			
DX	Right side fittings	2V4	2-way ON/OFF valves for 4-pipe version			
		3V4	3-way ON/OFF valves for 4-pipe version			

accessorie	es.				
8	PRAX	Straight return plenum	3380	HIDE2X	Electro-mechanical thermostat for wall installation with built-in temperature probe (ON/OFF - Cool/Heat - 3 speeds)
**	P90RAX PCCRAX	90° return plenum Return plenum with round fittings	TIC	HIDE3X	Electro-mechanical thermostat for wall installation with built-in temperature probe (Auto mode - auto speed))
8	PRMX	Straight supply plenum, integrated on main unit		HMIFACX	KJRP-86R electronic wired controller for unit- or wall-mounting
	PR90MX	90° supply plenum	ST.	BOXX	Box for wall installation of KJRP- 86R user interface
	PCCMAX	Supply plenum with round fittings	ราย ราย ราย ราย ราย ราย ราย ราย ราย ราย		
2	CDPX	Condensate drain pump		HIDTI9X	Electro-mechanical thermostat for uncased installation + Modbus
	2V2X	Two-way valve kit for 4-pipe Two-way valve kit for 4-pipe			
10.00	3V2X	Three-way valve kit for 2-pipe "on/ off" system			
No.	2V4X	Two-way valve kit for 4-pipe "on/off" system			
	3V4X	Three-way valve kit for 4-pipe "on/ off" system			

#### technical data

Size (CC2	version)			13	23	33	43
	Total Capacity	Water 7/12%C	kW	2,99	4,68	7,00	10,3
Cooling	Sensible Capacity	- Water //12°C	kW	2,39	4,04	6,22	9,50
	Water flow-rate	Ambient air 27 C/19 Cwb	l/h	513	803	1.201	1.768
	Water pressur drop	Maximum ventilation speed	kPa	43,3	35,8	39,5	34,0
	Capacity	Water 45/40°C	kW	3,27	5,53	8,33	12,8
	Water flow-rate	Ambient air 20°C	l/h	570	963	1.451	2.231
	Water pressur drop	Maximum ventilation speed Water 50°C/cool water flow-rate	kPa	40,2	37,4	42,4	38,7
Heating	Capacity		kW	3,88	6,49	9,76	14,9
-	Water flow-rate		l/h	513	803	1.201	1.768
	Water pressur drop	Ambient air 20°C Maximum ventilation speed	kPa	38,2	30,8	34,4	28,6
Heat recovery	capacity	Minimum / Maximum	W	49/113	140/228	144/274	284/515
Operating pres	ssure	Water content	bar	8			
A:#[				275/370/	650/900/	805/1.270/	1.770/2.450/
AITTIOW.			m²/n	455	1.100	1.740	2.840
Available static pressure		Pa	27/50/85	24/50/71	25/50/82	29/50/73	
Sound pressure level (return + irradiated) Minimum / Maximum		dB(A)	50/62	57/70	50/68	61/75	
Sound power I	level (supply)	Minimum / Maximum	dB(A)	48/60	54/66	48/62	60/71
Power supply Voltage/Frequency/Phases V		V/Hz/n°	230/50/1				

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters

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Size (CC2	version)			53*	54*	63*	64*	
Cooling	Total Capacity	Weter 7/12%C	kW	15,8	18,5	22,0	26,8	
	Sensible Capacity	Water 7/12 C	kW	12,5	14,1	17,5	20,5	
	Water flow-rate	Ambient air 27 C/19 Cwb	l/h	2.718	3.175	3.768	4.606	
	Water pressur drop	Maximum ventilation speed	kPa	32,9	20,8	33,1	34,0	
	Capacity	Water 45/40°C	kW	18,2	21,0	25,7	30,4	
	Water flow-rate	Ambient air 20°C	l/h	3.165	3.651	4.481	5.287	
	Water pressur drop	Maximum ventilation speed	kPa	35,5	22,0	37,0	35,7	
Heating	Capacity	Water 50°C/cool water	kW	21,4	24,8	30,2	35,9	
	Water flow-rate	flow-rate	l/h	2.718	3.175	3.768	4.606	
	Water pressur drop	Ambient air 20°C Maximum ventilation speed	kPa	31,1	19,6	31,0	32,0	
Heat recovery	capacity	Minimum / Maximum	W	499	/878	1.410/1.760		
Operating pres	ssure	Water content	bar					
Airflow <sup>1</sup>		m³/h	2.500/3.200/ 3.780	2.490/3.160/ 3.700	4.180/4.900/ 5.600	4.165/4.860/ 5.550		
Available static pressure		Pa	38/50/80	38/50/80	40/50/60	40/50/60		
Sound pressure level (return + irradiated) Minimum / Maximum		dB(A)	69	69/79		78/83		
Sound power le	evel (supply)	Minimum / Maximum	dB(A)	69	69/79		78/83	
Power supply		Voltage/Frequency/Phases	V/Hz/n°					

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters \* Sizes not covered by Eurovent Certification





## **NEBULA HP** - Inverter version DU-HP 13÷64

#### **NEW PRODUCT**

**Ducted high-pressure fan coil** 

with inverter motor for heating and cooling





HEALTH 3 High density filter

MANAGEMENT AND CONNECTIVITY						
0-10V	MOD					
0-10 V input	Port Modbus (on thermostat)	management ELFOControl (on thermostat)				



(on thermostat

- Extremely slim, can easily be installed even in space-restricted false ceilings
- Quiet and efficient, thanks to the fan's brushless DC motor
- ✓ Wide range of accessories and configurations to fulfil all installation requirements
- Unit for horizontal installation  $\checkmark$
- Management via Modbus port with connection to BMS or **CONTROL4 NRG**

#### **Fully Configurable**

Nebula fulfils all installation requirements: it comes with a full selection of factory-made configurations and accessories that can be supplied separately.

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size (CC2 v	ersion)		13	23	33	43	53	54	63	64
Dimensions	AxCxB	mm	590x299x580	700x299x580	920x299x580	1.030x369x650	1.390x3	399x680	1.550x4	149x760
Weight	RP version	kg	23,0	27,6	39,3	47,4	60,0	63,0	84,7	88,2
External dia-	Water	inch		1/2"		3/4"		1	1"	
meters	Condensate drain	inch				1/4	3			

114 CLIVET

#### configurations

accessories

TYPE OF SYSTEM:			VALVES MOUNTED ON BOARD		
CC2	2-pipe (Standard)	-	not required (standard)		
CC4	4 pipe	2V2	2-way ON/OFF valves for 2-pipe version		
HYDRAULIC	CONNECTIONS	3V2	3-way ON/OFF valves for 2-pipe version		
SX	Connections on the left (standard)	2V4	2-way ON/OFF valves for 4-pipe version		
DX	Right side fittings	3V4	3-way ON/OFF valves for 4-pipe version		

#### Two-way valve kit for 4-pipe PRAX 2V2X Straight return plenum Two-way valve kit for 4-pipe Three-way valve kit for 2-pipe "on/ P90RAX 90° return plenum 3V2X off" system Two-way valve kit for 4-pipe PCCRAX 2V4X Return plenum with round fittings "on/off" system Straight supply plenum, integrated Three-way valve kit for 4-pipe "on/ PRMX 3V4X on main unit off" system Electro-mechanical thermostat for PR90MX 90° supply plenum wall installation with display and HIDTI8X built-in temperature probe (0-10V 115 Supply plenum with round fan control, Auto/ECO/Cool/Heat PCCMAX fittings mode - Auto/3 speeds) CDPX Condensate drain pump 245 Electronic thermostat for uncased HIDTI10X

**Осциет** / 115

installation + Modbus

#### technical data

Size (CC2 v	ersion)			13	23	33	43		
	Total Capacity	Water 7/12°C	kW	3,08	4,70	6,92	10,5		
Cooling	Sensible Capacity	Water //12 C	kW	2,48	4,06	6,12	9,67		
	Water flow-rate	Amplent an 27 C/19 Cwb	l/h	529	807	1.188	1.795		
	Water pressur drop	Maximum ventilation speed	kPa	44,3	35,1	38,5	34,4		
	Capacity	Water 45/40°C	kW	3,31	4,92	8,19	12,9		
	Water flow-rate	Ambient air 20°C	l/h	577	857	1.427	2.246		
Heating	Water pressur drop	Maximum ventilation speed	kPa	41,2	36,5	41,2	50,6		
Heating	Capacity	Water 50°C/cool water flow-rate	kW	3,94	5,87	9,61	15,0		
	Water flow-rate	Ambient air 20°C	l/h	529	807	1.188	1.795		
	Water pressur drop	Maximum ventilation speed	kPa	40,4	37,7	33,8	38,1		
Heat recovery ca	apacity	Minimum / Maximum	W	19/60	46/147	44/245	126/418		
Operating press	ure	Water content	bar		8				
Airflow <sup>1</sup>		m³/h	370/480/585	785/960/1.080	930/1.229/1.700	1.625/2.270/2.870			
Available static pressure		Pa	27/50/78	28/50/68	24/50/86	27/50/57			
Sound pressure level (return + irradiated) Minimum / Maximum		dB(A)	47/60	58/68	56/70	62/74			
Sound power level (supply) Minimum / Maximum		dB(A)	45/57	54/65	51/67	60/70			
Power supply		Voltage/Frequency/Phases	V/Hz/n°	230 / 50 / 1					

The Product is compliant with the Erp (regulation 2016/2281) Sound levels tested in an anechoic chamber according to ISO 3744 (1) With clean filters

Size (CC2 ve	ersion)			53*	54*	63*	64*
	Total Capacity	Water 7/12°C	kW	16,5	19,2	21,1	25,7
Cooling	Sensible Capacity	- Ambient air 27°C/10°Curb	kW	13,1	14,6	16,8	19,6
Cooling	Water flow-rate	- Maximum vontilation speed	l/h	2.835	3.290	3.624	4.416
	Water pressur drop	Maximum ventilation speed	kPa	35,5	22,2	30,9	31,6
	Capacity	Water 45/40°C	kW	19,1	21,8	24,6	28,9
	Water flow-rate	Ambient air 20°C	l/h	3.323	3.802	4.283	5.037
Heating	Water pressur drop	Maximum ventilation speed	kPa	38,6	23,6	34,2	32,8
riedung	Capacity	Water 50°C/cool water flow-rate	kW	22,4	25,8	28,9	34,2
	Water flow-rate	Ambient air 20°C	l/h	2.835	3.290	3.624	4.416
	Water pressur drop	Maximum ventilation speed	kPa	33,4	20,9	29,0	29,7
Heat recovery ca	pacity	Minimum / Maximum	W	86/674		112/1.160	
Operating pressu	ire	Water content	bar				
Airflow <sup>1</sup>			m³/h	1.890/3.150/4.050	1.815/3.050/3.905	2.345/4.465/5.200	2.280/4.380/5.200
Available static p	ressure		Ра	20/50/80	20/50/80	20/50/71	20/50/71
Sound pressure I	evel (return + irradiated)	Minimum / Maximum	dB(A)	63/80		65/84	
Sound power lev	el (supply)	Minimum / Maximum	dB(A)	63	3/80	65/84	
Power supply Voltage/Frequency/Phases		V/Hz/n°					
The Product is co Sound levels test (1) With clean filter * Sizes not covere	mpliant with the Erp (regula ed in an anechoic chamber 's ed by Eurovent Certification	tion 2016/2281) according to ISO 3744					





# SYSTEM DIAGRAMS



- 1 outdoor unit
- 2 indoor unit
- 3 heating/cooling zone
- 4 3-way valve kit (optional)
- 5 system inertial storage (optional)

6 bypass\*7 box for signal to generator\*

Note: if valves kits are not present in the terminal unit, the heat pump needs to be always operating





# HEAT PUMPS FOR DHW (Domestic Hot Water)







AQUA Plus



## AQUA PLUS SWAN-2 190÷300



#### Reliable all year round

AQUA Plus transforms the renewable energy in the air into heat to be used to increase the temperature of the domestic hot water in the storage tank. This is done with minimal use of electricity, so much so that it boasts the market-leading A+ efficiency class.

The total heating capacity available (1.6 kW or 2.2 kW heat pump and 1.5 kW additional heater) means that hot water can always be produced in the best possible way.

Operation with renewable energy alone, which for even more virtuous operations can be enhanced by the contribution of ELFOSun solar collectors, is guaranteed in practically all climates: between -7°C and 43°C. In extreme conditions, the production of hot water continues in combination with the electric heater with the outdoor air down to -20°C





- 1. AC fan
- 2. Twin-rotary compressor
- 3. Air-gas finned exchanger
- 4. 180-litre/280-litre DHW tank
- 5. Coil exchanger (wound around the tank)
- 6. Electronic anode

Packaged monoblock heat pump for domestic hot water production

- 7. 1.5kW safety/auxiliary heater
- 8. Solar coil (only on solar version)

# accessories Image: VENX Additional fan Image: COPX Additional fan Image: COPX Accessory connection cables

#### dimensions and connections



Size			190	190S	300	300S		
Dimensions	AxCxB	mm	610x1.8	330x560	700x1.	930x650		
Operating weight kg		kg	287	310	412	434		
		type / GWP	R-134a / 1.430					
Refrigerant char	qe	kg	1,	,10	1,50			
C		CO <sub>2</sub> tons	1,57			2,15		
	Air	mm	1	60	1	90		
External dia-	Water	inch	3/4"					
meters	Condensate drain	mm						
	Solar	inch	-	3/4"				

#### technical data

Size					190	190S	300	300S
	Heating capa	acity	Water 10/52%C	kW	1,!	59	2	,16
	COP	•	- Water 10/53°C	-	3,	69	3.	97
DHW	Heating time	;	Outdoor air 14°C DB/87% UR	h:min	5:	41	6	:31
	Heating capa	acity	Web 40/5290	kW	1,	38	1,	84
	COP	•	- Water 10/53°C	-	3,	29	3,	46
	Heating time	ļ	Outdoor air /°C DB/87% UR	h:min	6:	40	7:	40
	Nominal tank	< volume		1	176	168	284	272
Electrical power for meter sizing		kW	2,	10	2,	25		
Power heater			kW		1,	50		
Soccanal offi		Energy class		-	Д	(+	ļ	<b>\</b> +
ciency Medium climate	DUW	Annual energy cons	sumption	kWh/year	890 L		1.356 XL	
	DHW	Withdrawal profile		-				
		ns (seasonal output)			115		123	
Technical specifi	cations							
	Air flow rate		Nominal	m³/h	2	70	4	14
Fall	Available pre	essure	Water content	Pa	25 45		15	
Sound power			Water content	dB(A)	51 53		53	
Sound pressure @	⊉1m		Water content	dB(A)	36	36,6 38,2		3,2
Tank insulation		Material / Medium	hickness 1	-	PU+ / 50mm			
Thermal dispersion	ons			W/K	0,	91	0,	94
Solar pipe coil		Surface		m <sup>2</sup>	-	- 1,10 -		1,30
Maximum operati	ng pressure			bar	10			
Power supply Voltage/Frequency/Phases		V/Hz/n°	230/50/1					
Operating range								
Water temperatur	e		Minimum / Maximum	°C	10 / 70			
Operating range	outdoor air)		Minimum / Maximum	°C	-20 / 43			













ELFOFresh EVO



ELFOFresh<sup>2</sup>



## ELFOFresh EVO CPAN-YIN SIZE2

## Controlled mechanical ventilation unit with thermodynamic heat recovery





- Innovative heat recovery system that alone fulfils over 85% of the building's demands
- Intake air humidity control: perfect for coupling with radiant panel cooling systems
- Purifies the air with the high efficiency electrostatic filter (optional)
- Inverter DC compressor and constant flow DC fan for the best modulation operation
- Advanced connectivity: management via the dedicated MSmartLife App or via the Modbus port with CONTROL4 NRG included as standard

#### Heats or cools for free

As well as renewing and purifying the ambient air, ELFOFresh EVO is a real support for the main heating and cooling generator.

Alone, it can fulfil up to 85% of the thermal demands of the house, whereas a traditional passive recuperator can typically only contribute between 10% (in summer) and 45% (in winter). In spring or autumn, when the weather is mild, ELFOFresh EVO works mainly in Free Cooling / Heating: it only uses the thermal content of outdoor air for air conditioning, working at virtually zero (energy and economic) cost.

Chosen during design, ELFOFresh EVO allows a smaller generator to be used: less space and cheaper!



1. DC inverter fan with constant flow
2. Inverter DC rotary compressor
4. Air filter

VMC WITH RECOVERY



El false ceiling (standard)

AIR FILTRATION:	
<ul> <li>Standard</li> </ul>	filter

-	Standard filter (standard)
FIFD	Electronic filters with iFD technology (ISO 16890 ePM1 90%)

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size			Size 2	
Dimensions	AxCxB	mm	1.107x290x900	
Weight		kg	44	
		tipo / GWP	R-32 / 675	
Refrigerant charge		kg	0,30	
		CO <sub>2</sub> tons	0,20	
	Air	mm	200	
External diameters	Condensate drain	mm	32	

#### technical data

Sino									
Size	C			2.0			Size z		
	Settable air flow			m <sup>3</sup> /h	125	150	210	2/0	320
	Available pressure		Nominal / Maximum	Pa			50 / 120		
Ventilation	Fresh Air		-				100%		
	Filters type						Folded filter		
	Filtration class			-			PM10 50%		
	Heating capacity	Ambient Air 20 °C/50% UR	Minimum / Nominal / Maximum	kW	1,42	1,55	1,86	2,05	2,49
Winter recovery	COP	Outdoor air 7 °C/6°C WB	Minimum / Nominal / Maximum	-	3,09	3,69	4,13	4,93	4,61
	Heating capacity	Ambient Air 20 °C/50% UR	Minimum / Nominal / Maximum	kW	1,97	2,1	2,21	2,37	2,45
	COP	Outdoor air -5 °C/80% UR	Minimum / Nominal / Maximum	-	4,93	4,04	4,7	6,5	7,66
Summer recovery	Cooling cpacity	Ambient Air 26 °C/50% UR	Minimum / Nominal / Maximum	kW	1,57	1,64	1,73	1,92	2,23
	EER	Outdoor air 35 °C/50% UR	Minimum / Nominal / Maximum	-	4,34	3,15	3,26	3,5	2,77
Electrical power for meter sizing				kW			1,08		
Power supply Voltage/Frequency/Phases				V/Hz/n°	230/50/1				
Sound power			Minimum / Maximum	dB(A)			47 / 58		
Sound pressure @1	lm		Minimum / Maximum	dB(A)	34 / 45				
Operating range									
Operating range	Heating		Minimum / Maximum	°C			15 / 30		
(Indoor air)	Cooling		Minimum / Maximum	°C			16 / 30		
Operating range	Heating		Minimum / Maximum	°C			-20 <sup>new</sup> / 28		
(outdoor air)	Cooling		Minimum / Maximum	°C			16 / 45		

Data according to EN 14511: 2018 and referred to available pressure of 50 Pa.

#### system diagrams



- 4 Fresh Air duct (optional)
- 6 intake air duct (optional)

- 9 Extraction grille (optional)

Note: for the distribution system in detail see the ELFOAir section





## ELFOFresh<sup>2</sup> CPAN-U 500



- 600
- Much more efficient than a traditional passive recuperator, especially in spring and autumn
- Humidity control: perfect for coupling with radiant panel cooling systems

Mechanical ventilation unit with thermodynamic heat recovery

- Purifies the air with the high efficiency electrostatic filter (optional)
- Designed for large environments, ideal for buildings from 350 to 600 m<sup>2</sup>

#### Fresh air

ELFOFresh<sup>2</sup> expels the exhaust air and supplies purified, air-conditioned outdoor air. Harmful elements in the outdoor air are eliminated by the efficient filtration system, also active on fine dust and nanoparticles, which are the most dangerous to human health as they reach the alveoli of the lungs and from there enter the bloodstream. The optional electrostatic filter makes outdoor air filtration even more efficient and

simultaneously reduces ventilation and maintenance costs compared to traditional systems.





- 1. Inverter DC fan
- 2. Rotary compressor
- 3. Air-gas finned exchanger
- Outdoor air filter
- 5. Exhaust air filter (optional)
- 6. Remote electrical panel

#### configurations

#### FEATURES:

- Standard

OHO heating only

#### accessories

	FESX	Electronic filter kit		AL12X	Power supply unit for HID-Ti5 thermostats and HID-UR sensor
	FAEX	Kit of exhaust air filter	2	HSE3MX	Immersed electrode steam humidifier for Elfofresh DN250
~ <i>§</i>	CDPX	Condensate drain pump		HIDTI52BX	Temperature and humidity thermostat / Remote control with touch screen display, for built-in installation (box
-	СММВХ	Serial communication module for supervisor (Modbus)			503) or for wall installation. Colour white
					Temperature and humidity
	EHPCX	Preheating elements in duct	100	HIDTI52NX	thermostat / Remote control with touch screen display, for built-in installation (box 503) or for wall
					installation. Colour black

Note: see the ELFOAir section for the aeraulic distribution systems

#### dimensions and connections



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size			500
Dimensions	AxCxB	mm	1.158x407x752
Weight		kg	92,5
		tipo / GWP	R-410A / 2088
Refrigerant charge		kg	1,45
		CO <sub>2</sub> tons	1,62
External diameters	Air	mm	250
	Condensate drain	mm	26

#### technical data

Size					500
	Airflow		Nominal	m³/h	500
	Available press	sure	Nominal / Maximum	Pa	40 / 120
Ventilation	Fresh Air		-	-	100%
	Filters type		-	-	Folded filter
	Filtration class		-	-	Coarse 50%
	Heating capacity	Ambient air 20°C/50% UR	Nominal	kW	3,58
Winter an environme	COP	Ambient air 20°C/50% UR Outdoor air -5°C/80% UR	Nominal	-	4,27
winter recovery	Heating capacity		Nominal	kW	3,74
	COP		Nominal	-	5,57
Summer recovery	Cooling cpacity	Ambient air 26°C/50% UR Outdoor air 35°C/50% UR	Nominal	kW	3,13
-	EER		Nominal	-	2,86
Electrical power for meter sizing				kW	1,51
Power supply		Voltage/Frequency/Phases		V/Hz/n°	400/50/3+N
Sound power			Nominal	dB(A)	62
Sound pressure @1m			Nominal	dB(A)	48
Operating range					
Operating range (Indeer air)	Heating		Minimum / Maximum	°C	16 / 28
Operating range (indoor all)	Cooling		Minimum / Maximum	°C	18 / 30
Operating range (outdoor air)	Heating		Minimum / Maximum	°C	-15 / 25
operating range (outdoor all)	Cooling		Minimum / Maximum	°C	15 / 40

Data according to EN 14511:2018 and referring to available pressure of 50 Pa. In cooling mode, the unit can reduce the capacity to ensure specific humidity of the air supplied at the set-point

(1) In locations where the temperature drops below -5  $^{\circ}$ C for a substantial number of hours per year, it is advisable to use the EHPCX duct preheating heater kit

## **ELFOAir**

The air distribution system for ELFOFresh



- Flexible in installation thanks to the use of flexible and usable ducts
- / Simple in selecting the components and in the installation
- $\checkmark$  Air quality assured by the use of antistatic and antibacterial ducts
- $\checkmark$  Homogenous air diffusion thanks to the special diffusers AIRJET

#### **ANTISTATIC AND ANTIBACTERIAL**

The inner surface of the flexible ducts is lined with a special plastic film treated with silver ions that provides excellent antistatic and antibacterial properties and guarantees top hygiene levels of the treated air.



Furthermore the internal smooth surface of the ducts ensures low pressure drops and therefore reduces consumptions for ventilation.

#### accessories

		DAIR50X	AIRJET 50/I supply diffuser - white frame and black inside
		DAIR80X	AIRJET 80/I supply diffuser - white frame and black inside
		GAIR50X	Intake grille + extractable filter AIRJET 50/A - white frame and black inside
		GAIR80X	Intake grille + extractable filter AIRJET 80/A - white frame and black inside
	G	PAIR50X	Suction/supply plenum with AIRJET 50 control damper - rear connection
Internal suction		PAIR80X	Suction/supply plenum with AIRJET 80 control damper - rear connection
supply grilles	1010 B	GINOX	Rectangular supply/intake grille 350x130 mm stainless steel
		GIVEX	Rectangular supply/intake grille 350x130 mm white
		FREX	Filter for rectangular grille 350x130 mm (5pcs)
	O.	VIEX	Extraction/intake valve in ABS DN125 without air filter
		FT125X	Filter for DN125 valve (5pz.)
	***	GQIEX	Extraction/intake squared grill of DN125 joint with air filter
	0	TFT90X	Round hose DN90 (Int.D 78 mm) in 20 m coil without insulation
	9	ІТ90Х	Insulation in a 15mt. coil for DN90 round flexible tube
Round tube		СВТ90Х	Connector to distribution box for DN90 round tube
distribution (from the distribution box to outlet) (from the distribution box to outlet)		GIUTX	Connecting joint for DN90 round tube
	<b>U</b> .	СТ90Х	Printed curve of 90-degree angle for DN90 round tube
	T	A90DTX	90-degree adaptor, double DN90 round tube for DN125 valve
		ТАСТХ	Blind plug for DN90 round tube (5pz.)
	0	ANFTX	DN90 seal O-Ring (10pz.)

		TFPNX	Flat flexible tube 132x52mm in a 20mt. coil without insulation
	9	IT100X	Insulation in a 20mt. coil for flat flexible tube 132x52
		СОВРХ	Connector to distribution box for flat tube
	0	GIUPX	Seal and connecting joint for flat tube (10pz.)
	5	CVP90X	Vertical 90-degree curve for flat tube
	-	COP90X	Horizontal 90-degree curve for flat tube
	0	CTP180X	Joint for 180-degree flat tube rotation
Flat tube distribution	ſ	A90MPX	90-degree adaptor, single tube for DN125 valve
distribution box to outlet)	Ĩ	A90DPX	90-degree adaptor, double flat tube for DN125 valve
		ADMPX	Straight adaptor, single flat tube for DN125 valve
		A90GPX	90-degree adaptor, single flat tube for level grill
		ТАСРХ	Blind plug for flat tube (5pz.)
	9	ANFPX	Fixing ring for flat tube (10pz.)
	(119)	REPPX	Flow controller for flat tube
		RTPTX	Round/flat tube connecting joint
		REGPX	Automatic capacity controller DN 75-90 mm (20-50 m³/h)
	0	BD8CX	Distribution box of DN150-200 joint with 8 connections
	0	BD14CX	Distribution box of DN200 joint with 14 connections
		TFIS150X	DN150 soundproofing insulated flexible tube in a 10mt. coil
		TFIS200X	DN200 soundproofing insulated flexible tube in a 10mt. coil
	0	TFIS250X	DN250 soundproofing insulated flexible tube in a 10mt. coil
		GR150X	Exhaust / return square wall grille with circular coupling DN150
External distribution (Ducts from the		GR200X	Exhaust / return square wall grig with circular coupling DN200
outside to the unit and from		GR250X	Exhaust / return square wall grig with circular coupling DN250
the unit to the distribution boxes)		GF150X	F/F DN150 Joint
	317	GF200X	F/F DN200 Joint
		GF250X	F/F DN250 Joint
		R2015X	DN200-DN150 Reducer
		R2520X	DN250-DN200 Reducer
	V	DY200X	DN200-DN200-DN200 Y-branch
		DY250X	DN250-DN200-DN200 Y-branch





System control and all-in-one system solutions



HID-TConnect



CONTROL4 NRG - PREVIEW



HID-TConnect<sup>2</sup> - PREVIEW



**Centralised systems** 







# HID-TConnect TO EXHAUSTION HID-TConnect<sup>2</sup> PREVIEW



#### Management via App

HID-TConnect is managed as standard with the dedicated Clivet Home Connect APP, available for Google Play and the App Store. This is used to set the main functions, such as the ambient setpoint change or the weekly scheduling or you can check the temperature and consumption log.



#### Cabled connection to the generator

HID-TConnect can be cabled directly to the heat pump without additional accessories: ideal to manage a heat-only radiator system.



Note: mode change and distribution system management not available

SOLUTIONS

#### Cabled connection to the generator and Wi-Fi distribution connection

HID-TConnect can be cabled to the heat pump and communicate via Wi-Fi with up to 2 SwitchConnect accessories. Each of these accessories has a relay that can open/close the heads of a radiant system or remotely turn a fan coil ON/OFF.



Note: the mode change must be managed in the heat pump (from the user interface or the MSmartLife App).

#### Wi-Fi connection to the generator and cabled distribution connection

HID-TConnect can be connected via a cable and open/close the heads of a radiant system or remotely turn a fan coil ON/OFF. The signal of a single thermostat can manage several fan coils or radiant panels.

The request to the heat pump is made via Wi-Fi through SwitchConnect, which thanks to the double relay changes the generator mode (can only be managed via the App).

Each SwitchConnect can support up to 6 thermostats.



Note: in the event of conflicting heating / cooling requests, priority is given to cooling.







Note: can support up to 6 thermostats.

The thermostats must all be in heating or cooling mode. In the event of conflicting requests, priority is given to cooling





Note: can support up to 6 thermostats.

The mode must be changed directly on the unit

The thermostats must all be in heating or cooling mode. In the event of conflicting requests, priority is given to cooling

Heating/cooling dual area system, radiant / terminal units, Wi-Fi connection to the generator and cabled distribution connection



Note: can support up to 6 thermostats.

The mode must be changed directly on the unit

The thermostats must all be in heating or cooling mode. In the event of conflicting requests, priority is given to cooling





**Осціле**т / 141

# ELFOControl<sup>3</sup> EVO until exhaustion

Energy assistant for the air-conditioning system



It manages up to 12 elements simultaneously

- Management of scenarios with different operating conditions and related programming bands
- Class A control according to European standard EN15232
- Scalable system for potential system expansions and integration of additional appliance control and self-consumption
- $\checkmark$  Energy management with power consumption data display
- $\checkmark$  Option for remote monitoring and control of systems from a PC or APP

#### The whole system at your fingertips

ELFOControl<sup>3</sup> EVO is a centralised supervision and management system for hydronic systems used for cooling, heating, domestic hot water production and air quality control in residential buildings and small businesses. It enables the centralised management of systems made with compatible Clivet units, intelligently controlling all the system elements in order to obtain optimal comfort with maximum efficiency.



#### **Energy management**

ELFOControl<sup>3 EVO</sup> guarantees top system performance thanks to the Class A energy classification according to the strictest requirements for the energy classification of buildings in compliance with the European standard UNI EN15232 (Energy performance of buildings - Impact of building automation, controls and technical building management) Check self-consumption levels and decide when to switch on or off the air conditioning system according to the availability of energy from the photovoltaic system.

#### In synergy with renewable energy sources

ELFOControl<sup>3 EVO</sup> is designed to integrate with the most advanced renewable energy technologies for a cleaner, more sustainable future.

It captures the energy produced by your photovoltaic system as well as that of your air conditioning system, and displays the energy profiles in a simple and intuitive way.



#### **Comfort and air quality**

ELFOControl<sup>3</sup> EVO manages room comfort also thanks to the management of air renewal systems, ensuring that healthy environments are kept in line with the most stringent regulatory requirements on the well-being and health of people. Plus, ELFOFresh EVO makes it possible to replace the hydronic system mid-season to fulfil heating requirements, thus ensuring more energy is saved.

Plus, ELFOFresh EVO makes it possible to replace the hydronic system in mid-seasons to fulfil heating requirements, thus ensuring more energy is saved.





SOLUTIONS
### accessories

Remote management		ΜΙΟΤΧ	Clivet EYE: Cloud monitoring system for remote management from smartphones, tablets and PCs.	-
Home automation connection		DOMX	Device for connection with home automation systems	53 x 92 x 63 mm
Energy management		M1NRGX NEW	Single-phase electricity meter with EIA-485 ModBUS serial	53 X 32 X 63 mm
		M3NRGX PREVIEW	Three-phase electricity meter with EIA-485 ModBUS serial	17,5 X 90 X 68,3 mm
	-23	HIDT6X	Electronic thermostat for wall installation with built-in temperature probe	108 X 78 X 16mm
Communication with the room thermostat for temperature and humidity control		HID-TI52	Temperature and humidity thermostat / Remote keypad with touch screen display for uncased (box 503) or wall-mounted installation.	121 x 94 x 19 mm
	and the second s	HIDURX	Temperature and humidity probe - uncased installation	22 x 45 x 50 mm
Management of radiant panels (heat and cool),	• • •	BMZRX	Module for managing up to 6 HID thermostats and 6 shut-off valve control outputs supplying radiant panels, radiators or heated towel rails and generic input/output functionality	157 x 90 x 60 mm 9 DIN modules
radiators, heated towel rails, Management of zone		AL12X	Power supply unit for thermostats and probes	85 x 90 x 65 mm 4 DIN modules
valve, circulation pump, remote start-up		CMRSX	Module to manage up to 1 HID thermostat and 1 control output, shut-off valves to feed radiant panels, radiators or heating furniture	105 x 90 x 60 mm 6 DIN modules
Elements for the complete - installation		CIECX	Allows recessed installation of ELFOControl <sup>3</sup> EVO	154 x 92 x 70 mm
		CBSX	Shielded cable for connection via bus of all devices	Spool da 50 m
Dual temperature system	Ro	KGPRX	Management module of a mixing group	210 x 155 x 80 mm

SPHERA includes all system elements such as domestic hot water production with 280 litres water storage tank and up to a maximum of two pumps for the secondary circuit, one with possible mixing valve. These components are already connected to the control of SPHERA and is therefore it is not necessary to use other control elements connected to ELFOControl<sup>3</sup> EVO.

If there is a SPHERA in the system managed by ELFOControl<sup>3</sup> EVO, with a system that requires additional pumps to the two internal ones, or one of the other Clivet heat pumps, the controller for all the components outside the heat pump must be managed with KGPRX and input/output functionality of the BMZRX module.

### technical data

### ELFOControl<sup>3</sup> EVO

Display dimensions	inches	7"	
Display type		TFT color	
Power supply voltage	Vdc	12	
Rated DC Power	VA	10	
Protection rating		IP 20	
Weight	kg	0,5	

- ✓ Maximum of 12 climate areas
- ✓ 2 pipe system
- ✓ Maximum of 40 elements manageable
- Maximum of 1 heat pump: SPHERA EVO 2.0, SPHERA EVO 2.0 Box, SPHERA EVO 2.0 Invisible, SPHERA EVO 2.0 EASYHybrid Box, SPHERA EVO 2.0 EASYHybrid T, SPHERA EVO 2.0 Box Hybrid, SPHERA EVO 2.0 Hybrid, SPHERA EVO 2.0 Invisible Hybrid, ELFOEnergy Edge EVO Hybrid, Edge EVO 2.0 EXC Hybrid, ELFOEnergy Edge EVO, Edge EVO 2.0. EXC
- ✓ 1 heat pump max for DHW: AQUA Plus

- Maximum 4 unit for mechanical ventilation: ELFOFresh EVO, ELFOFresh<sup>2</sup>,, ELFOFresh Large
- Hydronic terminal units: CFW-2, ELFORoom<sup>2</sup>, AURA (AC), AURA (DC), CFK, Nebula MP, Nebula HP
- ✓ Maximum of 5 radiant modulesi BMZRX
- ✓ Maximum of 3 mixed zones KGPRX
- ✓ Single zone module CMRSX
- ✓ Maximum of 1 connection device with domotics DOMX
- ✓ 3 energy meters max M1NRGX or M3NRGX

# **Control4 NRG**





- It manages up to 12 elements simultaneously
- ✓ Air quality control
- ✓ Heat pump power modulation
- Class A control of the environments according to European standard EN15232
- Energy management with power consumption data display
- ✓ Integration with photovoltaic systems
- ✓ Integration with Clivet SINERGY electricity storage system
- Direct connection to the Internet via TCP/IP or integrated Wi-Fi with automatic update
- Remote system management via PC or APP

Note: Available in white or black with Ethernet port and in versions with additional Wi-Fi

### **Clivet Smart Home**

The new Control4 NRG is the heart of the Clivet Smart Home as it maximises energy consumption so that the home becomes energy-independent.

The operating principle is based on using two available forms of storage:

- Electricity storage, available with Clivet SINERGY
- ✓ Thermal storage, using the heat pump intelligently during sunlight hours

The heat pump is intelligently controlled by CONTRL4 NRG during daylight hours when sunlight can be used. CONTROL 4 NRG allows you to track home comfort requirements based on the availability of electricity produced by the photovoltaic system, without affecting how the SINERGY coils are charged. The living areas are then pre-treated according to the availability of electricity produced by the photovoltaic system in order to prevent electricity consumption peaks on the grid due to the heat pump switching on typically during the night, thus using the SINERGY electricity storage to supply the domestic users.

The correct sizing of the systems, together with favourable climatic conditions, allows CONTROL4 NRG to manage home comfort and domestic hot water production storage completely free of charge, thereby achieving the goal of an energy-independent home.

# **HID-TSmart**

HID-TSmart evolves the thermostat concept with a new generation device from which you can access all the information you need for efficient, all-electric home management. HID-TSmart provides simple, intuitive and immediate access to the system's main operating parameters. Combined with CONTROL4 NRG, with the same device you can acquire different types of information from all the electrical elements in the home such as temperature, humidity, electricity consumption, electricity produced by the photovoltaic system, and the Clivet SINERGY electricity storage charge level.



## Z-IAQ

To ensure the utmost comfort, the new z-IAQ air quality sensor measures the temperature, humidity, noise, VOC, carbon monoxide, carbon dioxide and methane values. CONTROL4 NRG can then assess the air quality based on the parameters acquired in the various zones and manage the fresh air to restore health and comfort in the various environments.





#### 1. Electric storage system

Optimisation of the electricity storage system to ensure maximum charge and discharge during the night.

#### 2. Photovoltaics

Acquisition of the electricity produced by the photovoltaic system

#### 3. CONTROL4 NRG

System energy assistant with electricity and thermal storage management. Remote automatic software updates to constantly keep the system in line with new available functions.

### 4. Clivet Eye

Cloud solution for remote system control and management from a single App with display of energy levels produced and consumed by the home

### 5. HID-TSmart thermostats

These provide simple, intuitive and immediate access to the home system's main operating parameters (temperature and humidity, air quality, coil charge level, electricity produced by the photovoltaic system)

### 6. z-IAQ air quality sensor

Acquisition of temperature, humidity, noise, VOC carbon monoxide, carbon dioxide and methane values

### 7. Heat pump, fan coil, distribution system

Smart modulation of the heat pump and domestic hot water tank charging based on the energy available from the photovoltaic system.

Management of active thermodynamic recovery ventilation systems to ensure the highest level of indoor air quality

### accessories

Home automation connection		DOMX	Device for connection with home automation systems	53 x 92 x 63 mm
Energy management		M1NRGX	Single-phase electricity meter with EIA-485 ModBUS serial	53 X 32 X 63 mm
	2	M3NRGX	Three-phase electricity meter with EIA-485 ModBUS serial	17,5 X 90 X 68,3 mm
Communication with the room thermostat for temperature and humidity control	ຼື 📕 📩	HID-Tsmart (Withe)	Thermostat with 3.5" touchscreen display and temperature or	112 x 77 x 18 mm
	12.3%	HID-Tsmart (Black)	temperature and humidity sensor	
		z-IAQX	Acquisition of temperature, humidity, noise, VOC carbon monoxide, carbon dioxide and methane values	110 x 70 x 28 mm
		HIDURX	Temperature and humidity probe - uncased installation.	22 x 45 x 50 mm
Management of radiant panels – (heat and cool), radiators, heated towel rails, Management of zone valve, circulation pump, remote start-up		BMZRX	Module for managing up to 6 HID thermostats and 6 shut-off valve control outputs supplying radiant panels, radiators or heated towel rails and generic input/output functionality.	157 x 90 x 60 mm 9 DIN modules
		AL12X	Power supply unit for thermostats and probes	85 x 90 x 65 mm 4 DIN modules
		CMRSX	Module to manage up to 1 HID thermostat and 1 control output, shut- off valves to feed radiant panels, radiators or heating furniture	105 x 90 x 60 mm 6 DIN modules
	g di dan Angel yan	EMRSX	Mixing unit control module for managing a section of the circuit at a different temperature to that of the main system.	105 x 90 x 60 mm 6 DIN modules
Elements for the complete installation		CBSX	Shielded cable for connection via bus of all devices	Spool da 50 m

# technical data

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NS

CONTROL	4 NRG
CONTROL	

CONTROL4 NRG		
Display dimensions	inches	7"
Display type		TFT color
Power supply voltage	Vdc	12
Rated DC Power	VA	10
Protection rating		IP 20
Weight	kg	0,5

Dimensions

194mm (width), 134mm (height), 5mm (thickness), 55mm (overall depth without wall-mounted box)





# INTELLIPLANT

Management and optimisation system for centralised residential systems



- $\checkmark$  Control and optimisation of heat pumps in centralised systems
- ✓ Backup boiler management
- Central heating plant and individual user consumption metering
- ✓ Housing unit management with the new CONTROL4 NRG
- Local and remote management by administrators via cloud connection
- Multi-site platform for the remote management of different systems located across the country

# Safety and professionalism

The INTELLIPLANT system separates the management of centralised systems by professionals from the management of residential environments by private users via two separate cloud platforms.

This allows condominium administrators and personnel to access the central heating plant without being given access to individual homes, while maintaining data protection privacy levels in accordance with the most stringent provisions of the GDPR (Global Data Protection Regulation).

At the same time, the owners and tenants of the various housing units can manage their own flat but not the centralised system, thus avoiding tampering or management problems of professional systems.

### **System managers**

The INTELLIPLANT system allows you to efficiently and continuously manage the system on the local operator panel and the remote interface on a computer, smartphone or tablet.

- $\checkmark$  Secure management by connection to the Clivet cloud for professional environments
- $\checkmark$  Management of operating parameters such as temperature and seasonal mode change
- ✓ Scheduled and manual system switch-on
- ✓ Wear check of the main components
- ✓ Management of scheduled and preventive maintenance
- ✓ Online management of system documentation
- $\checkmark$  Lower maintenance costs, prevention of system downtime due to faults
- $\checkmark$  Management of thermal energy produced by the central heating plant and electricity consumption
- Calculation of system efficiency
- Consumption metering via connection to the CONTROL4 NRG energy assistants of the housing units

### **Private users**

Each housing unit is managed by the CONTROL4 NRG energy assistant, which optimises room comfort while reducing energy consumption.

- ✓ Safe management by connection to Clivet Eye for private-use residential environments
- $\checkmark$  Remote system management via the App for iOS and Android devices
- $\checkmark$  Separate management of zones and their comfort levels
- Compatibility with HID-TSmart thermostats to display the home operating parameters such as temperature, humidity, electricity consumption, air quality, SINERGY coil charge level (when present)

# **Example of infrastructure**

COOLING



**Осціле**т / 149

# **Central heating plant**

The INTELLIPLANT system optimises the production and distribution of thermal energy up to the floors where the individual housing units are disconnected

INTELLIPLANT ensures proper management of the heating and cooling plant to guarantee continuity in the production of thermal energy while reducing electricity consumption of the whole system. More specifically, INTELLIPLANT ensures:

- Optimisation of heat pump operation and back-up device management.
- ✓ Domestic hot water production by means of specific heat pump systems for high temperature water production
- ✓ Management of antilegionella cycles
- Optimisation of primary and secondary circuit flow-rates
- Climate compensation based on operating conditions
- Remote management of system loads
- Integration with photovoltaic panels
- Energy page with system load profiles and generation of energy reports (includes flow and electricity meters in the central heating plant)
- Multi-site management of systems located across the country



**MULTI-SITE SYSTEM** 

Centralised management of sites located across the country from head office



### CLIVET CLOUD, THE SYSTEM IN YOUR HANDS

Responsive interface with remote access to all system sections for management by service centres and maintenance companies operating in the field





# **Clivet Eye**

Smart Home remote monitoring and management system





- App and PC control of all elements connected to Clivet Smart Home
- Display of system energy data
- Display of any malfunctions of individual air conditioning control system elements
- Accessible from the App and web browser via PC
- 🗸 App available on Android and iOS platform

# **General characteristics**

Clivet Eye is the IoT platform for interconnecting all Clivet solutions securely and reliably with end users and residential professionals. Clivet Eye allows users to take advantage of all the services related to remote access, maintenance of system components and optimisation of air conditioning systems.

When electricity meters are present, you can view the total system energy data which is organised on simple and intuitive graphical pages.

More specifically, you can view:

- Energy produced by the photovoltaic system
- $\checkmark$  Energy consumed by the air conditioning system
- Energy consumed by domestic users
- ✓ Self-consumption level
- $\checkmark$  Charge and discharge levels of the SINERGY storage system (when present)

# Smart Home from a single App

Clivet Eye combines management of all the elements that make up the Clivet Smart Home and the energy produced and consumed by the home in a single App. Management via the App is possible through connection with the CONTROL4 NRG energy and comfort assistant, which combines all system parameters and optimises operation of the whole system.



# **Overall system view**

Display of the status of all devices connected to CONTROL4 NRG. Active user – icon shown with display of the relative operating parameter Inactive user – "grey" icon

### **Climate zone management**

Management of the individual climate zones used to optimise comfort. Up to 12 completely independent climate zones are provided, each of which has the option of changing the temperature and setting the «energy saving» function, as well as the option of switching the zone on and off (the names of the zones are only displayed with CONTROL4 NRG)





# Scheduler

Allows you to schedule comfort in different zones of the house from the App

# **Energy page**

Designed to display the energy data of the last 7 days. Data are acquired by the electricity meters located in the system for the photovoltaic system

< Control4 NRG ····	14TH00E- 80EDL
Scheduler	Service 18 en Ecoroja (**
ndario	28 gennaio 2022
Control 4 NRG	
SETTEMBRE 2022	27 gesnale 2022
0 SETTIMANA MICE OGGI	26 gennale 2022
MAR MER GIO VEN SAB DOM	
30 31 01 02 03 04	25 gennaio 2022
06 07 68 09 10 11	
13 14 15 16 17 18	24 gennalii 2022
20 21 22 23 24 25	23 gennaio 2022
SALVA IL CALENDARIO	22 gennalo 2022
ssence of a calendar event	Energy produced by the photovo
	system
empty cell means that no events	
ve been scheduled for that day	Total energy consumed by the sy
	from the two electricity meters (a conditioning system and domest users)
	Single day energy values



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Clivet, in compliance with Regulation 517/2014, informs that its products contain or function with the use of fluorinated greenhouse gases: R-32 (GWP 675), R-410A (GWP 2087,5), R-134a (GWP 1430) and R-407C (GWP 1773,85), R-513A (GWP 631), R-1234ze (GWP 7).

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Updated data available on www.clivet.com



# **ICONS GUIDE**

Designed for buildings with

almost no energy consumption

n7FB

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# ENERGY SAVING



Solar integration Ideal for use with solar thermodynamic systems



Cascade Many units can be used together to provide big capacities

# COMFORT



Heating/Cooling For both heating and cooling



Silent For more silent operation



Anti cold air It does not supply air into the

room until it is hot enough

Fitted with an electric heater

that can operate if necessary in

Backup heater

Heating mode

Produces Domestic Hot Water

Smart Grid ready

Grid technology

Activates the most cost-

effective generator

€-Switch

DHW

Ideal for integration with Smart

SG

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SWITCH

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FREE

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Temperature compensation Considers the stratification

of air to create a fairer

Performance certified by

temperature

EUROVENT

FUROVENT

Removes humidity in the room

Dehumidification

Free Cooling / Heating

Provides Cooling / Heating for

free (on certain conditions)



Follow Me P

### Temperature sensor built in the remote controller will sense its surrounding temperature

**High temperature** Produces heating at high temperature

Keymark



,

Condensate drain pump Condensate disposal with a dedicated pump



ProdottiQualità CasaClima Product excellence certified by the KlimaHaus / CasaClima agency

# HEALTH



High Density filter Filters the air inlet



**Renewable Energy** Uses only renewable energy, with zero CO<sub>2</sub> emissions

# CONVENIENCE



Weekley Timer Weekly programmable settings (ON-OFF / temperature / ...)





Contemporaneity Produces Heating and Domestic Hot Water at the same time



### Instant DHW Quickly produces Domestic Hot



Water on demand

MANAGEMENT AND CONNECTIVITY

MOD

0-10V



Input ON/OFF fitted with ON/OFF contact for management via remote device



Centralised control Manageable through centralized controller



**Clivet Eye monitoring** Can be monitored remotely with Clivet Eye





Input 0-10V fitted with ON/OFF contact for management via remote device



Managed with the remote control





Output ON/OFF fitted with ON/OFF contact for managing an external device







### **ELFOControl** management

Can be managed with the ELFOControl smart centralised system



Remote control

User interface / thermostat

Air renew Exchanges the air inside with air from the outside



Air purification Purifies incoming air



Eco-friendly refrigerant

Performance certified by CEN

3







Uses refrigerant with low environmental impact

# FOR OVER 30 YEARS WE HAVE BEEN

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