



Fan coil unit with Design cabinet, only 10 cm of minimum depth and BLDC motor

ART-U 1 - 4 kW



BLDC motor



Tangential fan



Supervision GARDA



2 pipes systems



Vertical installation

PLUS

- » A furnishing with an innovative design and width up to only 10 cm
- » Inverter-controlled BLDC motor
- » Low energy consumption

Design-driven innovation

From the extensive experience of Galletti in the development and design of fan coil units, and in confirmation of its continuous search for innovation, ART-U was created, a perfect combination of performance and design. ART-U is a unique product that, on the one hand is able to meet the increasingly stringent demands for energy efficiency, while on the other hand it reflects, for the first time, the latest trends in furnishings and interior design. With its width, which in some places is only 10 cm, and thanks to its unique lines, it was designed to be an absolutely all-purpose product that adapts perfectly to rigorous and essential environments as well as to warmer and more sophisticated spaces. The achievement of extremely high aesthetic standards has not weakened the usual construction integrity of Galletti products: striving for innovation has, in fact, also focused on the components and the use of new materials. With ART-U the state of the art has been redefined also in terms of technical performance, thanks to the use of computational fluid dynamics simulations for the optimisation of the heat exchange inside the indoor unit combined with the use of permanent magnet electric motors. It is the only innovative product that combines design, reduced width, and energy efficiency.

Design Award

Its evolution has just begun but has already received important endorsements, winning over the judging panels of the most prestigious international industrial product design awards.



reddot winner 2020



**BIGSEE
PRODUCT DESIGN
AWARD 2020
WINNER**



AVAILABLE VERSIONS

The versions of ART-U whose front panel has a metallic finish are summarised in the CMF table (Colours, Materials, Finishes). CMF is a true industrial design tool that focuses on the chromatic, tactile, and decorative identity of products and environments.

ART-U	Metallic Skin			
	Grey	White	Red	Black
Colour	Silver	White RAL9010	Red RAL3020	Black RAL9005
Material	Aluminium			
Finishing	Metallic brushed finish		Metallic matt finish	

MAIN COMPONENTS

Cabinet with a refined design

The elegant front panel consists of two sheets of aluminium with a polyethylene core and possibly a polyester-based surface coating. It is a light but very resistant material, created for covering façades in the building sector. The side panels are made of UV-stabilized ABS to maintain the colour over time. The polyethylene core acts as a flexible filler and thermal insulation while the aluminium provides structural strength and aesthetics.



Conveyors

Made of high-density polystyrene and ABS. They are designed to optimise the air flow inside the hydronic indoor unit allowing optimal distribution of the air flow in the coil and low noise in every operating mode.

Upper grille

Consisting of adjustable fins made of anodised aluminium, available in the version for on-board or wall-mounted control. The ABS combs support the grilles and prevent them from being bent, thus always guaranteeing the user's safety.



Front grille

Steel. Designed to stabilize the operation of the tangential fan.



Electric motor

Permanent magnet BLDC motor with inverter integrated in the ventilation unit. An IP44, protection rating is guaranteed; therefore, dust inside is avoided and resistance to water spray is guaranteed.



Tangential fans

Tangential fan, statically and dynamically balanced to reduce its noise during operation. The plastic material used for the blades guarantees, in comparison with metal fans, a reduction in vibrations and an absence of bending along the rotation axis. The blades are alternated with intermediate reinforcement disks in order to increase their sturdiness.

Heat exchangers

With a high efficiency turbocoil-type heat exchanger, and made with copper tubing and aluminium fins, it is equipped with brass manifolds and a vent valve. The hydrophilic treatment is applied to the fins as a standard treatment, to increase their efficiency during cooling and at the same time a greater resistance to aggressive atmospheres.



Air filter

Honey-comb polypropylene washable air filter, easily removable for maintenance operations.



Fan coil ART-U

AVAILABLE VERSIONS



ART-U Grey

The use of a natural brushed aluminium front panel combined with black side panels enhances the absolute elegance of this unique fan coil and its reduced width. This product, with its simple, clean, and essential lines, adapts perfectly to spaces where furnishings follow the latest trends and where a high level of design is required for each item.



ART-U White

The neutrality of the white ensures maximum integration with the space in an adaptive context, allowing the fan coil unit to almost disappear into the wall.

AVAILABLE VERSIONS



ART-U Red

Thanks to the refined and elegant lines of this product, even a strong and decisive colour like red actually further enhances the unique personality of ART-U and turns it into a true furnishing classic.



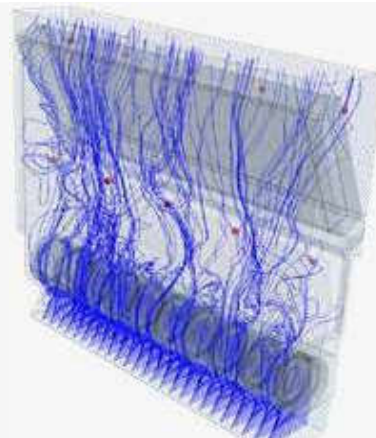
ART-U Black

The unique black colour solution allows the fan coil to blend into the surrounding space, providing a touch of absolute elegance.

COMPUTATIONAL FLUID DYNAMICS SIMULATIONS

In CFD simulations the following was considered: a computational domain discretized by means of a polyhedral computation grid (mesh) consisting of 12 million cells that best reproduces the whirling movement of the air inside the hydronic indoor unit. The research also focused on improving the air distribution along the longitudinal axis of the fan unit.

The study of the air motion field has allowed the reduction of fluid recirculation downstream from the fan, preventing unwanted pressure drop inside the fan coil. The end benefit obtained from CFD simulations is an improvement in heat exchange, with a consequent reduction in power consumption and noise emissions with the same components and under the same operating conditions.



ACCESSORIES

EVO-2-TOUCH

The new EVO-2-TOUCH controller can also be installed directly on the unit and guarantees maximum temperature and humidity comfort combined with the ergonomics of its touch screen. The tap and swipe functions make the control experience similar to that of your smartphone.

The various screens are designed to make human-machine communication intuitive. Each page contains a few essential items of information that allow the consultation of the unit's main operating parameters and enable the initial control configuration according to system requirements.

The external frame of the interface is available in four different chrome plating options and is made with double aluminium foil and a polyethylene core.



DISC-COVER

The minimalist style of the DISC-COVER is in harmony with the elegant and essential lines of ART-U. Available in three different colours: white RAL9010, black RAL9005, and red RAL3020. It adapts perfectly to the style of the space to be air-conditioned, whether it be severe and formal or ironic. Its shape was purposely designed to make installation quick and easy even during cleaning and maintenance operations. The magnet coupling system allows its position to be adjusted according to the installation height and the position of the pipes.



ACCESSORIES

Electronic microprocessor control panels with display

DIST	MY COMFORT controller spacer for wall mounting
E2TK	Touch screen 2.8" user panel for EVO control EVO-2-TOUCH, frame in aluminium color black RAL9005
E2TY	Touch screen 2.8" user panel for EVO control EVO-2-TOUCH, frame in natural brushed aluminium
EVOBOARD	EVO control circuit board ART-U
EVODISP	User interface for ART-U EVO control with display
EYNAVEL	Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone
KBEVS	EVODISP on-board installation Kit for ART-U
MCLE	Microprocessor control with display MY COMFORT LARGE
MCSUE	Humidity sensor for MY COMFORT (medium e large), EVO
MCSWE	Water sensor for MYCOMFORT and EVO controllers
TOUCHKB-K	Kit for installation of EVO-2-TOUCH onboard of ART-U, Grey, Red e Black version
TOUCHKB-W	Kit for installation of EVO-2-TOUCH onboard of ART-U version White

Electronic microprocessor control panels

TED10	Electronic controller for BLDC fan equipped with inverter and ON/OFF valves 230 V
TEDKB-W	On-board ART-U White version installation kit suitable for TED controller
TEDKB-Y	Kit for installation of TED onboard of ART-U, Grey, Red and Black version
TED SWA	Water temperature sensor for TED controls
Auxiliary water drip trays, insulating shell, condensate drainage pump	
GIVK-2	Insulating shell for KV - 2 ways valve
GIVK-3	Insulating shell for VKS - 3 ways valve
Base and enclosure elements	
DISC-K	Covering foot for ART-U fan coil - black RAL 9005
DISC-R	Covering foot for ART-U fan coil - red RAL 3020
DISC-W	Covering foot for ART-U fan coil - white RAL 9010
Valves	
V2VSTD	2-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger
V3VSTD	2-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

RATED TECHNICAL DATA

ART-U			10				20				30			
Speed			1	2	3	4	1	2	3	4	1	2	3	4
Control voltage	(E)	V	2,00	5,50	7,00	10,0	2,00	5,50	7,00	10,0	2,00	5,50	7,00	10,0
Total cooling capacity	(1)(E)	kW	0,31	0,71	0,84	1,08	0,58	1,15	1,41	1,76	0,66	1,63	1,97	2,44
Sensible cooling capacity	(1)(E)	kW	0,21	0,56	0,69	0,91	0,41	0,89	1,08	1,36	0,46	1,18	1,44	1,78
FCEER class	(E)		C				C				B			
Water flow	(1)	l/h	53	122	145	185	100	198	242	303	113	280	339	418
Water pressure drop	(1)(E)	kPa	1	4	5	8	2	6	9	13	2	12	17	24
Heating capacity	(2)(E)	kW	0,29	0,82	1,05	1,40	0,59	1,33	1,60	1,98	0,67	1,78	2,15	2,65
FCCOP class	(E)		C				C				B			
Water flow	(2)	l/h	51	143	183	243	103	231	278	345	117	310	374	461
Water pressure drop	(2)(E)	kPa	1	4	6	11	2	7	10	14	2	12	17	24
Rated air flow		m ³ /h	40	148	207	312	82	224	287	389	91	302	392	529
Power input	(E)	W	4	7	9	14	4	10	12	17	5	11	15	24
Total sound power level	(3)(E)	dB(A)	28	41	46	54	28	41	47	54	28	42	47	54

ART-U			40				50			
Speed			1	2	3	4	1	2	3	4
Control voltage	(E)	V	2,00	5,50	7,00	10,0	2,00	5,50	7,00	10,0
Total cooling capacity	(1)(E)	kW	0,76	1,84	2,37	3,12	0,92	2,32	2,89	3,69
Sensible cooling capacity	(1)(E)	kW	0,53	1,38	1,77	2,33	0,65	1,72	2,15	2,77
FCEER class	(E)		B				B			
Water flow	(1)	l/h	131	315	406	535	157	398	496	634
Water pressure drop	(1)(E)	kPa	2	12	18	29	3	13	19	29
Heating capacity	(2)(E)	kW	0,74	1,99	2,49	3,21	0,95	2,56	3,16	4,02
FCCOP class	(E)		C				B			
Water flow	(2)	l/h	128	347	433	559	165	446	550	698
Water pressure drop	(2)(E)	kPa	2	11	17	26	2	13	19	28
Rated air flow		m ³ /h	104	363	496	724	129	439	587	831
Power input	(E)	W	5	12	17	27	5	12	18	30
Total sound power level	(3)(E)	dB(A)	31	42	47	54	32	42	47	54

(1) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2015

(2) Water temperature 45°C / 40°C, air temperature 20°C

(3) Sound power measured according to standards ISO 3741 and ISO 3742

(E) EUROVENT certified data

Power supply 230-1-50 (V-ph-Hz)

NOTE: The dimensional drawings of the ART-U units are the same of the ART-U Canvas. They are reported at page 39



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- » A furnishing with an innovative design and width up to only 10 cm
- » Inverter-controlled BLDC motor
- » Low energy consumption
- » Complete customization of the front panel

Now it's up to you

Thanks to ART-U Canvas, a new level in indoor air conditioning is being achieved. A product that was already a unique offering in its field is now being further enhanced: ART-U is a versatile platform thanks to the complete customisation of the front panel.

The fan coil panel becomes a veritable painter's canvas, ready to be customized by the interior architect. On ART-U Canvas any solid colour, image, or high quality photograph can be reproduced. No minimum quantities are required for the customization of the fan coil, to ensure maximum freedom for the interior architect, whatever the size of the project.

With ART-U Canvas there are no limits to creativity; now it's up to you to choose the perfect version to blend in stylistically with the space to be air-conditioned.

AVAILABLE VERSIONS

Canvas is available in two versions:
Total Graphic Skin and Graphic Skin.

Total Graphic Skin allows for the customisation of the entire surface of the front panel with the reproduction of graphics or photographs.

The Graphic Skin version makes it possible to reproduce images while leaving the natural brushed aluminium or RAL9010 white panel partially visible.

These two versions of ART-U Canvas are summarized according to the CMF table (Colours, Materials, Finishes). CMF is a true industrial design tool that focuses on the chromatic, tactile, and decorative identity of products and environments.

VERSION

Total Graphic Skin

Graphic Skin



Colour

Customised

Material

Aluminium

Finishing

Matt

Matt graphics and brushed metallic background

Matt graphics and matt RAL9010 white metallic background

ART-U CANVAS



ART-U becomes a platform that can be customised according to the suggestions of the interior architect. The front panel colour can be selected from over 3000 colour variations offered by the RAL and PANTONE colour charts.



Any geometric texture or material effect can create a unique design that expresses your personality in every detail.



With ART-U Canvas there are no limits to creativity. The possibility of customising the panel with images and photographs makes this fan coil a true furnishing accessory.



Fan coil ART-U Canvas



With ART-U Canvas, innovation goes hand in hand with imagination. This smart, high-performance fan coil was created to rewrite the rules of design and inspire customisations that go far beyond the surface of the fan coil.

NEW CONFIGURATOR ART-U CREATOR

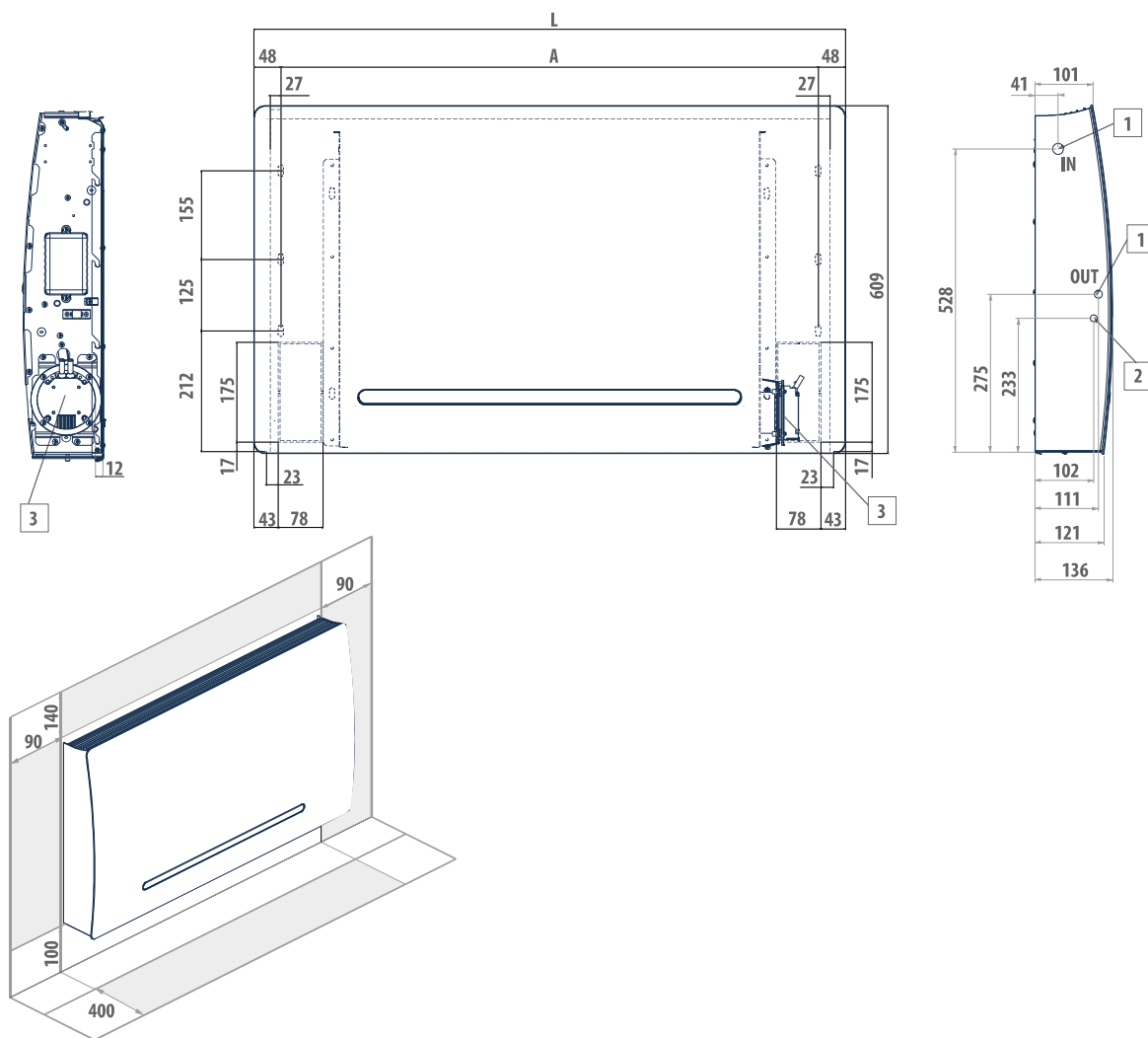


Using the online ART-U Creator software you can give shape to your air conditioning design idea. This tool allows you to quickly configure your ART-U Canvas, choosing the graphics for the front panel and the colour of the other product components. There is a product for every solution: configuring the style of your interiors has never been so easy.

Contact us at art-u@galletti.it to request access to the first aesthetic configurator dedicated to fan coils.

DIMENSIONAL DRAWINGS

ART-U



ART-U	A mm	L mm	kg
10	616	711	12
20	772	867	14
30	941	1036	17
40	1173	1268	19
50	1307	1402	21

LEGEND

- 1 Water connections standard heat exchanger \varnothing 1/2"
- 2 Condensate discharge diameter for vertical installation \varnothing 17 mm

NOTE: FOR THE TECHNICAL DATA, REFER TO THE PAGE 35 TABLE OF ART-U