



VOLCANO

HEATING UNIT

2022



www.vtsgroup.com

VOLCANO

NEW HEATING UNITS RANGE



Volcano combines innovative technical solutions with a modern and functional design. We precisely engineer each component to achieve „The Function“, and we also strive for „The Form“, a form that is neglected on the segment.

We were capable of conceptualizing a diamond, simplicity, strength, and beauty were the key concepts that we used, allowing us to create a contemporary and functional cover design.

The Volcano is the 1st Engineer/Design Unit heater in the market with the IF design award in 2017

VOLCANO VR4



Up to 100kW
heating power

- » 4 rows heat exchanger
- » **ABS** casing is characterized by high mechanical strength
- » Durable colour thanks to **anti-UV** pigment mixture
- » Resistance to high temperatures
- » Volcanos are equipped with 1R, 2R, 3R or 4R coils heaters



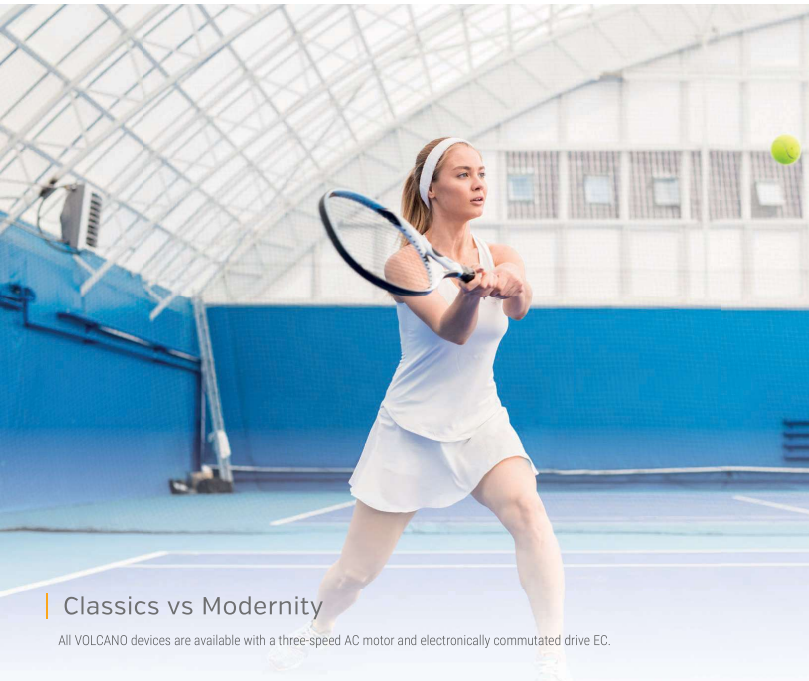
Cooling
mode

- » Dedicated drain pan
- » Unique design awarded with **IF Design award**
- » Failure-free proven by **3 year warranty**



Highly effective
with heat pump

- » **ECO FRIENDLY**
- » Equipped with **EC motors**
- » Performance efficiency is guaranteed, even at **low speeds**
- » Volcano fan design + ECM can save up to 40% of energy



Classics vs Modernity

All VOLCANO devices are available with a three-speed AC motor and electronically commutated drive EC.



VOLCANO AC

High quality and low price

- » mounting bracket included
- » high capacity of the device
- » reliable three-speed motor
- » three step fan speed control
- » quick assembly and intuitive connection
- » competitive price



VOLCANO EC

Convenience and energy savings

- » mounting bracket included
- » highly efficient EC motor
- » smooth fan speed control
- » up to 40% lower operating costs
- » possibility of direct connection to the BMS system
- » quiet running at high speeds
- » advance calendar options
- » up to 8 units connection possibility

Product range



VOLCANO	VR Mini	VR Mini 3	VR-D-Mini	VR1	VR2	VR3	VR4	VR-D
Type	AC/EC	AC/EC	AC/EC	AC/EC	AC/EC	AC/EC	AC/EC	AC/EC
Heating power range	3-20 kW	4-27 kW	-	5-30 kW	8-50 kW	13-75 kW	10-90 kW	-
Maximum air output	2100 m ³ /h	2000 m ³ /h	2330 m ³ /h	5300 m ³ /h	4850 m ³ /h	5700 m ³ /h	5300 m ³ /h	6500 m ³ /h
Horizontal range (max.)	14 m	14 m	16 m	23 m	22 m	25 m	23 m	28 m
Vertical range (max.)	8 m	8 m	10 m	12 m	11 m	12 m	12 m	15 m
electricity consumption*	13-91 W	13-91 W	13-91 W	41-202 W	45-226 W	55-355 W	55-355 W	55-355 W

* EC motor power for the above specified fan outputs

Technical parameters

Parameter	Unit	VR Mini		VR Mini 3		VR1		VR2		VR3		VR4		VR-D		VR-D Mini	
		AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC
VTS article No.		1-4-0101-0445	1-4-0101-0455	1-4-0101-0625	1-4-0101-0624	1-4-0101-0446	1-4-0101-0442	1-4-0101-0447	1-4-0101-0443	1-4-0101-0448	1-4-0101-0444	1-4-0101-0627	1-4-0101-0626	1-4-0101-0449	1-4-0101-0450	1-4-0101-0506	1-4-0101-0508
Number of heater rows	-	2	3	3	1	2	3	4	4	4	4	4	4	4	4	4	4
Maximum air output	m ³ /h	2100	2000	2330	5300	4850	5700	5300	6500	2200	2330						
Heating power range	kW	3-20	4-27	5-30	8-50	13-75	10-90	10-90	10-90	10-90	10-90						
Maximum temperature of the heating medium	°C	130						100									
Maximum working pressure	MPa	1,6						1,6									
Water capacity	dm ³	1,12	1,48	1,25	2,16	3,1	4,13	4,13	4,13	4,13	4,13						
Connection pipes diameter	mm	3/4						3/4									
Device weight (without water)	kg	13	14	14	15	21	21	21,5	21,5	25,5	24,5	27	26,5	18	15,5	10,6	8
Power supply voltage	V/Hz	1 ~ 230/50															
Motor power	kW	0,115	0,095	0,115	0,095	0,28	0,25	0,28	0,25	0,45	0,37	0,45	0,37	0,45	0,37	0,115	0,095
Rated current	A	0,53	0,51	0,53	0,51	1,3	1,3	1,3	1,3	1,95	1,7	1,95	1,7	1,95	1,7	0,53	0,51
Rated motor rotational speed	rpm	1450	1200	1450	1200	1380	1430	1380	1430	1380	1400	1380	1400	1380	1400	1450	1200
Motor protection level	IP	54															
Casing color palette		Front: RAL 9016 Traffic White; rear + console: RAL 7036 Platinum Gray; fan (EC): RAL 6038 Green															

PIPELINE DIAMETERS*	VR Mini		VR Mini 3		VR1		VR2		VR3		VR4	
	Max water flow [m ³ /h]	Pipeline diameter ["]	Max water flow [m ³ /h]	Pipeline diameter ["]	Max water flow [m ³ /h]	Pipeline diameter ["]	Max water flow [m ³ /h]	Pipeline diameter ["]	Max water flow [m ³ /h]	Pipeline diameter ["]	Max water flow [m ³ /h]	Pipeline diameter ["]
1	0,9	3/4	1,4	3/4	1,3	3/4	2,2	3/4	3,3	3/4	5,0	3/4
2	1,8	3/4	2,7	1	2,6	3/4	4,4	1	6,6	1 1/4	9,9	1 1/2
3	2,7	1	4,1	1	3,9	1	6,6	1 1/4	9,9	1 1/2	14,9	1 1/2
4	3,6	1	5,4	1	5,2	1	8,8	1 1/4	13,2	1 1/2	19,8	2
5	4,5	1	6,8	1 1/4	6,5	1 1/4	11	1 1/2	16,5	2	24,8	2
6	5,4	1 1/4	8,1	1 1/4	7,8	1 1/4	13,2	1 1/2	19,8	2	29,7	2 1/2
7	6,3	1 1/4	9,5	1 1/4	9,1	1 1/4	15,4	2	23,1	2 1/2	34,7	2 1/2
8	7,2	1 1/4	10,8	1 1/2	10,4	1 1/2	17,6	2	26,4	2 1/2	39,6	2 1/2
9	8,1	1 1/4	12,2	1 1/2	11,7	1 1/2	19,8	2	29,7	2 1/2	44,6	3
10	9,0	1 1/4	13,5	1 1/2	13	1 1/2	22	2 1/2	33	3	49,5	3

* Pipeline diameters selected for maximum water flow rate up to 2,5 m/s
** Heaters connected successively to one main line

Controls



PARAMETERS Model	Wall controller WING/VOLCANO	VR Thermostat	Speed regulator ARW 3.0/2	Speed regulator ARW 0.6	Potentiometer VR EC (0-10V)	Potentiometer with thermostat VR EC (0-10V)	HMI VOLCANO EC controller	HMI VOLCANO EC WIFI controller
VTS product number	1-4-0101-0438	1-4-0101-0038	1-4-0101-0434	1-4-0101-0167	1-4-0101-0453	1-4-0101-0473	1-4-2801-0157	1-4-2801-0158
Motor support	AC				EC			
Power supply voltage V/ph/Hz	~230/1/50	~230/1/50	~230/1/50	~230/1/50	~230/1/50	~230/1/50	~230/1/50	~230/1/50
Permissible load current A	6(3)	3	3	0,6	0,02 A for 0-10V		1A for 230VAC 0,02A for 0-10V	1A for 230VAC 0,02A for 0-10V
Settings range °C	10...30	10...30	10...30	10...30	-	5...30	5...40	5...40
Work mode	—	manual	manual	manual	manual	manual	manual/automatic	manual/automatic
Hourly-weekly calendar	—	No	No	No	No	No	Yes	Yes
Clock	—	No	No	No	No	No	Yes	Yes
Temperature measurement The possibility of connecting a separate temperature sensor	—	Integrated in the device	No	No	No	Integrated in the device	Integrated in the device	Integrated in the device
pcs.		No			No	1 or 4	1 or 4	1 or 4
Output signal	—	on/off					0-10 V DC	
Protection rate IP		50		54		30		20

COOPERATION OF CONTROLS AND REGULATORS WITH HEATING UNITS

VR Mini/ VR Mini 3/ VR-D Mini	pcs.	4	1	4	1		8	
VR1/ VR2	pcs.	2	1	1	0		8	
VR3/ VR4/ VR-D	pcs.	1	1	1	0		8	

Accessories



Valve with actuator

VTS article No.	1-2-1204-2019
power supply voltage	~230V/1ph /50Hz
power consumption electrical	1 W
connection	3/4"
Coefficient of volume	4,5 m ³ /h
opening/ closing time	3/3 min.
protection rating	IP 54



Room NTC sensor

VTS article No.	1-2-1205-0007
resistance measurement element	NTC 10K ΩD
assembly	surface-mounted
max. signal wire length	100 m
ambient	-20...+70°C
protection rating	-20...+70°C
step/echo	IP 66



Flex. connecting hoses (set)

VTS article No.	1-2-2702-0076
length	0,6-0,9 m
connection type	GW 3/4"
max. fluid pressure	1,6 MPa
min. working temperature for water	5°C
min. working temperature for glycol	-20°C
max. working temperature	130°C
set includes	hose (2 pcs) gasket (4 pcs)



Surface mounted box for HMI

VTS article No.	1-2-0393-1987
dimensions	100x100x70mm
type	surface mounted
color	RAL 9016
set includes	bracket and 2 screws



Drain pan for VR Mini - VR Mini 3

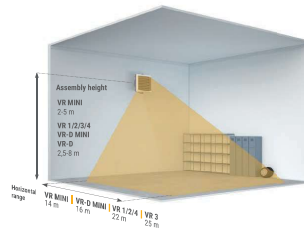
VTS article No.	1-2-2701-4021
dimensions	532x145x43 mm

Drain pan for VR1-4

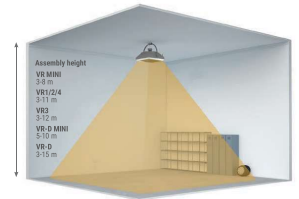
VTS article No.	1-2-2701-4019
dimensions	702x145x43

Assembly

ASSEMBLY WALL



ASSEMBLY CEILING



WING

YOUR INVISIBLE BARRIER

WING is the next generation air curtain created from a passion for a light and modern design representing characteristics of gliders.



Unique shape

A minimal casing with a streamlined form of a wing that seems to float in the air. The diamond style side panels hide the excellent components in an innovative curtain body to set new standards for air curtains. WING combines the unique design and excellent efficiency to redefine the air curtain image.

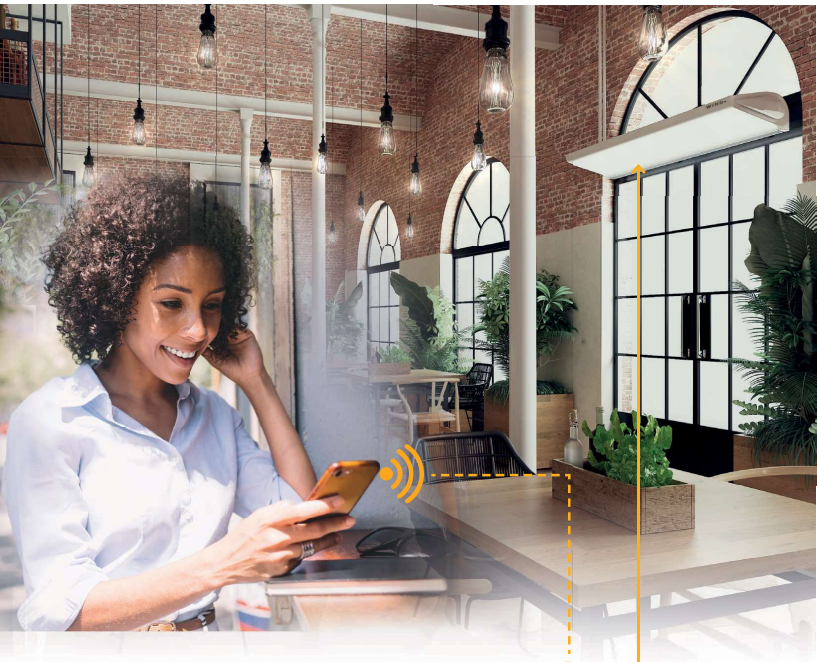
Quality and design

High quality materials, unique shape and rigid construction are the basic assumptions of the designers of the curtain. Simple cleaning of the curtain, double protective coating and efficient and durable EC motor ensure trouble-free operation of the device.

Energy efficiency

- » highly efficient EC motor
- » maximum unit efficiency even at reduced speed
- » smooth speed regulation
- » optimal fan shape and EC motor let save up to 40% of energy





HMI WiFi Wing controller

- » modern and compact design
- » high contrast and clear screen
- » advanced calendar for each day of the week
- » door sensor cooperation
- » wireless communication with a smartphone
- » preset 3-levels speed control
- » build-in thermostat
- » 3-levels of heating power
- » up to 8 air curtains connected with the one controller



DOOR OPTIMUM function

Door Optimum function allows the WING to maintain full protection of the door opening and at the same time optimize costs associated with its operation. It keeps the air curtain operating at minimum speed and continues to protect the door, from the outside air, once the door begins opening it also increases the speed of air by +1 or +2 levels, depending on user's preferences.

Product range

WING W

WATER HEAT EXCHANGER

HEATING POWER RANGE:
4 - 47 kW

EXHAUST FLOW RAT:
1850-4400 m³/h

MAXIMUM AIR COVERAGE:
3,7 m

WING E

ELECTRIC HEATER

HEATING POWER RANGE:
2 - 15 kW

EXHAUST FLOW RAT:
1850-4500 m³/h

MAXIMUM AIR COVERAGE:
3,7 m

WING C

WITHOUT HEAT EXCHANGER (AMBIENT)

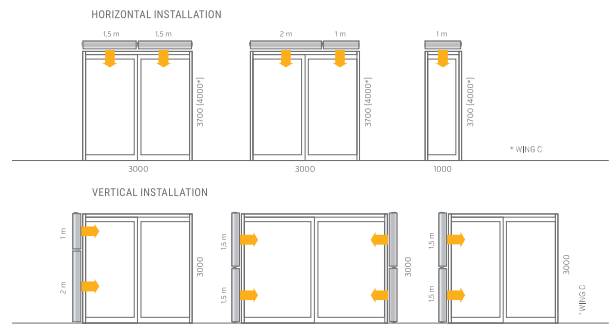
EXHAUST FLOW RATE:
4 m

EXHAUST FLOW RAT:
1950-4600 m³/h

WING 100/150/200

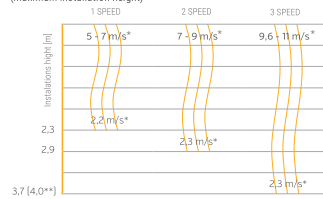


* width does not include side covers



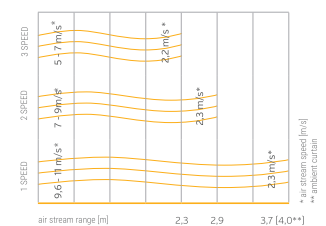
Stream range

Vertical air stream range (maximum installation height)



* air stream speed [m/s]
** ambient curtain

Horizontal air stream range (for vertical installation)



* air stream speed [m/s]
** ambient curtain

WING

YOUR INVISIBLE BARRIER

RAL7016

NO MORE COMPROMISES

The color RAL7016 is currently the most commonly used color in the residential construction industry. Color will no longer stand in the way of the designer's vision. WING DARK RAL7016 will effectively complement roof, doors, windows and gates.



Technical parameters

PARAMETERS	WATER AIR CURTAIN						ELECTRIC AIR CURTAIN						AMBIENT AIR CURTAIN							
	W100		W150		W200		E100		E150		E200		C100		C150		C200			
	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC	AC	EC		
Colour ○ WHITE (RAL 9016) ● DARK (RAL 7016)	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●
VTS article No.	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659	1-4-2801-02659
maximum door width (1 device)	m		1		1,5		2		1		1,5		2		1		1,5		2	
maximum door height (vertical stream range)*	m		3,7		3,7		3,7		3,7		3,7		3,7		3,7		3,7		3,7	
maximum exhaustflow rate	m³/h		1850		3100		4400		1850		3150		4500		1950		3200		4600	
heating power range**	kW		4-17		10-32		17-47		2 Lub 4/6		8/12		10/15		-		-		-	
maximum temperature of heating agent	°C		95		-		-		-		-		-		-		-		-	
maximum operating pressure	MPa		1,6		-		-		-		-		-		-		-		-	
water volume	dm³		1,6		2,6		3,6		-		-		-		-		-		-	
number of heat exchanger rows	pcs		2		-		-		-		-		-		-		-		-	
supply voltage	V/ph/Hz		~ 230V/1/50		-		-		~230V/1/50 for 20W ~400V/3/50 for 4/6/8W		~400V/3/50		-		~230V/1/50		-		-	
electric heating coil power	kW		-		-		-		2 and 4		4 and 8		5 and 10		-		-		-	
electric heating coil current draw	A		-		-		-		6/max 9		11,5/max 17,3		14,5/max 21,4		-		-		-	
motor power	kW		0,235	0,2	0,375	0,3	0,58	0,47	0,235	0,2	0,375	0,3	0,58	0,47	0,235	0,2	0,375	0,3	0,58	0,47
rated current	A		1,2	1,1	1,7	1,3	2,6	1,9	1,2	1,1	1,7	1,3	2,6	1,9	1,2	1,1	1,7	1,3	2,6	1,9
weight (without water)	kg		20,8	21,2	27,8	24,5	34,6	30,4	20	17,3	26,8	23,4	33,3	29,1	17,9	15,3	23,8	20,4	29,3	25,1
protection rating	IP		20		20		20		20		20		20		20		20		20	

Accessories



Sterownik HMI WING EC

VTS article No.	1-4-2801-0155
Motor support	EC
Power supply voltage	~230V/1ph/50Hz
Permissible load	1A for 230VAC 0,02A for 0-10V
Setting range	5...40 °C
Protection rating	IP 20



Controller WING EC WIFI

VTS article No.	1-4-2801-0156
Motor support	EC
Power supply voltage	~230V/1ph/50Hz
Permissible load	1A for 230VAC 0,02A for 0-10V
Setting range	5...40 °C
Protection rating	IP 20



Wall controller WING/VOLCANO

VTS article No.	1-4-4101-0438
Motor support	AC
Power supply voltage	6/3 V/ph/Hz
Permissible load	1A for 230VAC 0,02A for 0-10V
Setting range	10...30 °C
Protection rating	IP 30



Door sensor (reed switch)

VTS article No.	1-4-0101-0454
Contact configuration	N0
Switching current	500 mA
Switching voltage	max 200 V
Connection	screw



Door sensor adapter WING AC

VTS article No.	1-4-0101-0578
Power supply	~230V/1ph/50Hz
Rated input power	1W
Protection rating	IP 55
* Dedicated to curtains with AC motor. Adapter gives possibility to use door sensor (1-4-0101-0454) with Wall controller (1-4-0101-0438).	



Valve with actuator

VTS article No.	1-2-1204-2019
Power supply voltage	~230V/1ph/50Hz
Opening	3/3 min
Kvs	4,5
Protection rating	IP 54



Flex. connection hoses (set)

VTS article No.	1-2-2702-0076
Length	0,6-0,9 m
Connection type	G1/2" G1/4"
Max. fluid pressure	1,6 MPa
Min. working temperature for water	5 °C
Min. working temperature for glycol	-20 °C
Max. working temperature	130 °C
Set includes	hose (2 pcs) gasket (4 pcs)



Surface mounted box for HMI

VTS article No.	1-2-0393-1987
dimensions	100x100x70mm
type	surface mounted
color	RAL 9016
set includes	bracket and 2 screws

INSIDE

- ← CHILLED AIR
- ← CLEAN AIR

OUTSIDE

- WARM AIR
- DUST
- INSECTS
- POLLUTION
- UNPLEASANT SCENTS

Noise level

Fan speed	Noise level	WING W100-200			WING E100-200			WING C100-200		
		1m	1,5m	2m	1m	1,5m	2m	1m	1,5m	2m
I	dB(A)**	52	53	56	49	51	55	53	54	57
II		55	58	61	51	56	59	59	62	61
III		57	59	62	58	58	60	62	63	63

* air stream range depends on curtain operation speed

** available heating power in the control option configuration: WING E100 2 or 4-194W, for WING E150 8-124W, for WING E200 10-154W

*** speed measurement conditions: semi open space, horizontal installation on the wall, measurement performed 5 m away from the device



Smart entrance protection

WING PRO

AIR CURTAINS
FOR PROFESSIONALS



Energy saving

EC motor use even 40% less electrical energy and allow for **BMS direct connection**.



Power

The wide air stream, range up to **8 meters**, capacity up to **88 kW**.



Installation

Vertical or horizontal mounting possibility plus easy unit connection.



Price

Intelligent design with never-before-seen performance available at a **competitive price**.



Product range

WING PRO HRP

DOUBLE ROW COIL

HEATING POWER RANGE:
17 - 88 kW
EXHAUST FLOW RATE:
7 300 - 10 700 m³/h
MAXIMUM AIR STREAM RANGE:
7 m

WING PRO HRV

SINGLE ROW COIL

HEATING POWER RANGE:
9 - 48 kW
EXHAUST FLOW RATE:
7 900 - 11 900 m³/h
MAXIMUM AIR STREAM RANGE:
7,5 m

WING PRO EC

WITHOUT HEATING (AMBIENT)

EXHAUST FLOW RATE:
8 500 - 12 800 m³/h
MAXIMUM AIR STREAM RANGE:
8 m

WING PRO 200



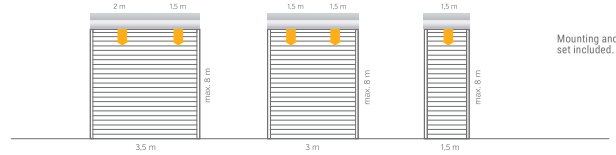
WING PRO 150



EC

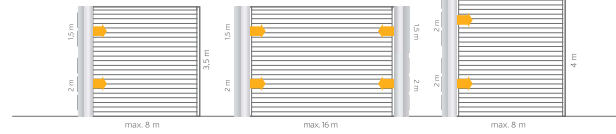


HORIZONTAL INSTALLATION

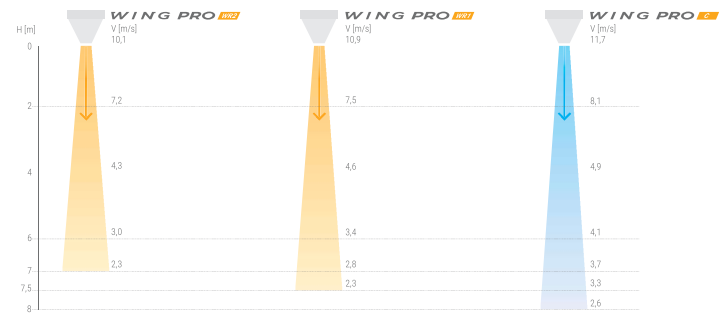


Mounting and connection set included.

VERTICAL INSTALLATION



Stream range



Technical parameters

PARAMETERS	WING PRO DOUBLE ROW COIL		WING PRO SINGLE ROW COIL		WITHOUT HEATING (AMBIENT)	
	W150 EC	W200 EC	W150 EC	W200 EC	C150 EC	C200 EC
VTS article No.	1-4-2801-0349	1-4-2801-0355	1-4-2801-0348	1-4-2801-0354	1-4-2801-0347	1-4-2801-0353
Max. height of door	m		m		m	
Max. air stream range	7		7,5		8	
Max. flow rate	7 300	10 700	7 900	11 900	8 500	12 800
Heating power range	17-58	28-88	3-32	15-48	-	
Max. temperature of heating medium	130		-		-	
Max. Working pressure	1,6		-		-	
Diameter of stub pipe connectors	3/4		-		-	
Supply voltage	V/ph/Hz					
	~230/1/50					
EC motor power	2 x 0,25	3 x 0,25	2 x 0,25	3 x 0,25	2 x 0,25	3 x 0,25
Rated current (EC motor)	2 x 1,3	3 x 1,3	2 x 1,3	3 x 1,3	2 x 1,3	3 x 1,3
Weight AC/EC (without water)	53,6	69,6	50,5	66,1	43,4	58,3
IP protection rating	IP 54					



Accessories



HMI WING EC controller

VTS article No.	1-4-2801-0155
Motor support	EC
Power supply voltage	~230V/1ph /50Hz
Permissible load	1A for 230VAC, 0,02A for 0-10V
Setting range	5...40 °C
Protection rating	IP 20



Controller WING EC WIFI

VTS article No.	1-4-2801-0156
Motor support	EC
Power supply voltage	~230V/1ph /50Hz
Permissible load	1A for 230VAC, 0,02A for 0-10V
Setting range	5...40 °C
Protection rating	IP 20



Door sensor (reed switch)

VTS article No.	1-4-0101-0454
Contact configuration	NO
Switching current	500 mA
Switching voltage	max 200 V
Connection	screw



Valve with actuator

VTS article No.	1-2-1204-2019
Power supply voltage	~230V/1ph /50Hz
Opening	3/3 min
Kvs	45
Protection rating	IP 54



Flex. connection hoses (set)

VTS article No.	1-2-2702-0076
Length	0,6/0,9 m
Connection type	GW 3/4"
Max. fluid pressure	1,6 MPa
Min. working temperature for water	5 °C
Min. working temperature for glycol	-20 °C
Max. working temperature	130 °C
Set includes	hose (2 pcs), gasket (4 pcs)



Surface mounted box for HMI

VTS article No.	1-2-6393-1987
dimensions	100x100x70mm
type	surface mounted
color	RAL 9016
set includes	bracket and 2 screws

Noise level

Fan speed	Noise level	WING PRO W R1		WING PRO W R2		WING PRO C	
		1,5m	2m	1,5m	2m	1,5m	2m
I	dB(A)*	45	46	45	45	47	48
II		55	57	54	55	57	58
III		64	65	62	63	65	66

* speed measurement conditions: semi-open space, horizontal installation on the wall, measurement performed 5 m away from the device

References

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Coca Cola Arena
Dubai, UAE

VOLCANO



Green Plantations
Piaseczno, Poland



IKEA
Poznan, Poland



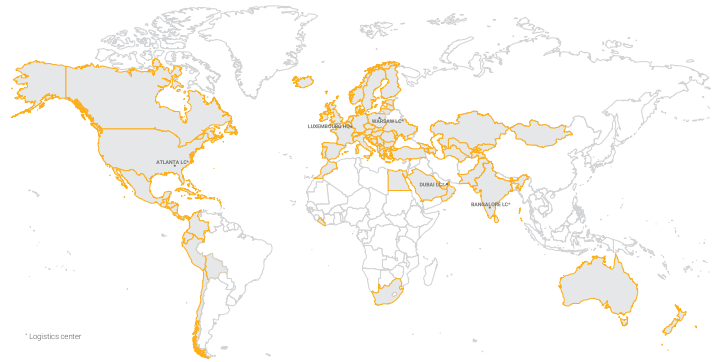
Claas factory
Woippy, France



Dubai Expo Pavilions
Dubai, UAD



Daxing Airport
Beijing, China



COMPETITIVE
\$ PRICE

HIGH
CROWN QUALITY

OVER
1 000 000
UNITS
SOLD

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