



VOLCANO

HEATING UNIT

2022



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 callendar 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 m³/h	2000 m³/h	2330 m³/h	5300 m³/h	4850 m³/h	5700 m³/h	5300 m³/h	6500 m³/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	1-4-0101-0498
Number of heater rows	-	2		3		1		2		3		4		---		---	
Maximum air output	m³/h	2100		2000		5300		4850		5700		5300		6500		2200 2330	
Heating power range	kW	3-20		4-27		5-30		8-50		13-75		10-90		---		---	
Maximum temperature of the heating medium	°C	130						100						---		---	
Maximum working pressure	MPa	1,6						---						---		---	
Water capacity	dm³	1,12		1,48		1,25		2,16		3,1		4,13		---		---	
Connection pipes diameter	"	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				1,95	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*

Number of heaters connected to the main line**	VR Mini		VR Mini 3		VR1		VR2		VR3		VR4	
	Max water flow [m³/h]	Pipeline diameter ["]	Max water flow [m³/h]	Pipeline diameter ["]	Max water flow [m³/h]	Pipeline diameter ["]	Max water flow [m³/h]	Pipeline diameter ["]	Max water flow [m³/h]	Pipeline diameter ["]	Max water flow [m³/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	Integrated in the device		No		No		Integrated in the device	
The possibility of connecting a separate temperature sensor pcs.	No		No		No		1 or 4	1 or 4
Output signal	on/off				0-10 V DC			
Protection rate IP	30		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 m³/h
opening/ closing time	3/3 min.
protection rating	IP 54



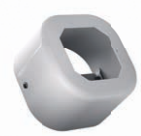
Room NTC sensor

VTS article No.	1-2-1205-0007
resistance measurement element	NTC 10K kΩ
assembly	surface-mounted
max. signal wire length	100 m
ambient	-20...+70°C
protection rating	-20...+70°C
stopień ochrony	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

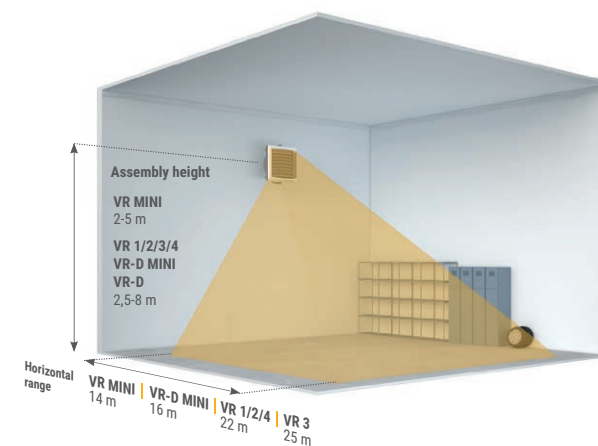
VTS article No.	1-2-2701-4021
dimensions	532x145x43 mm

Drain pan for VR1-4

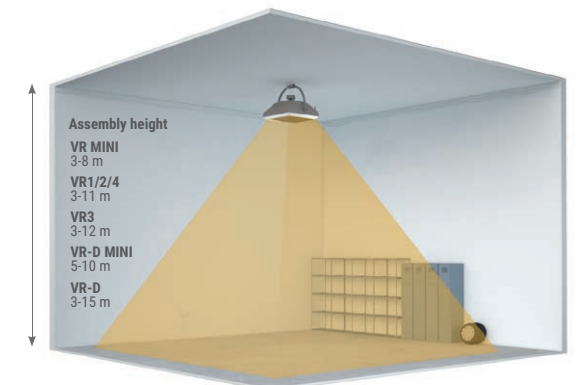
VTS article No.	1-2-2701-4019
dimensions	702x145x43

Assembly

ASSEMBLY WALL



ASSEMBLY CEILING





COMPETITIVE
\$ PRICE

HIGH
QUALITY

OVER
1 000 000
UNITS
SOLD

EH CAD SELECTION TOOL



Maahantuonti ja myynti: Factotel Oy, Espoo
+358 50 500 3863, www.factotel.fi