



VOLCANO

Water air heater



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VOLCANO



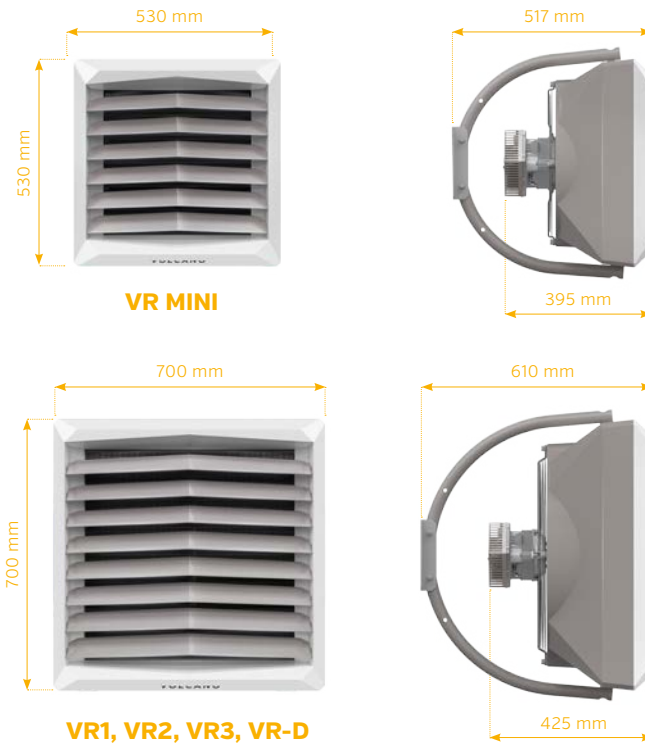
ECONOMICAL AND RELIABLE EC MOTORS

5 years warranty on the device
Lifetime warranty for the housing



HEAT EXCHANGERS

- 1, 2 and 3-row heaters featuring increased heat exchange surfaces provide optimal match of heating power to the needs of the facility;
- Additional anti-corrosive coating of all louvers increases their durability;
- A test of all exchangers guarantees 100% verification of their tightness.

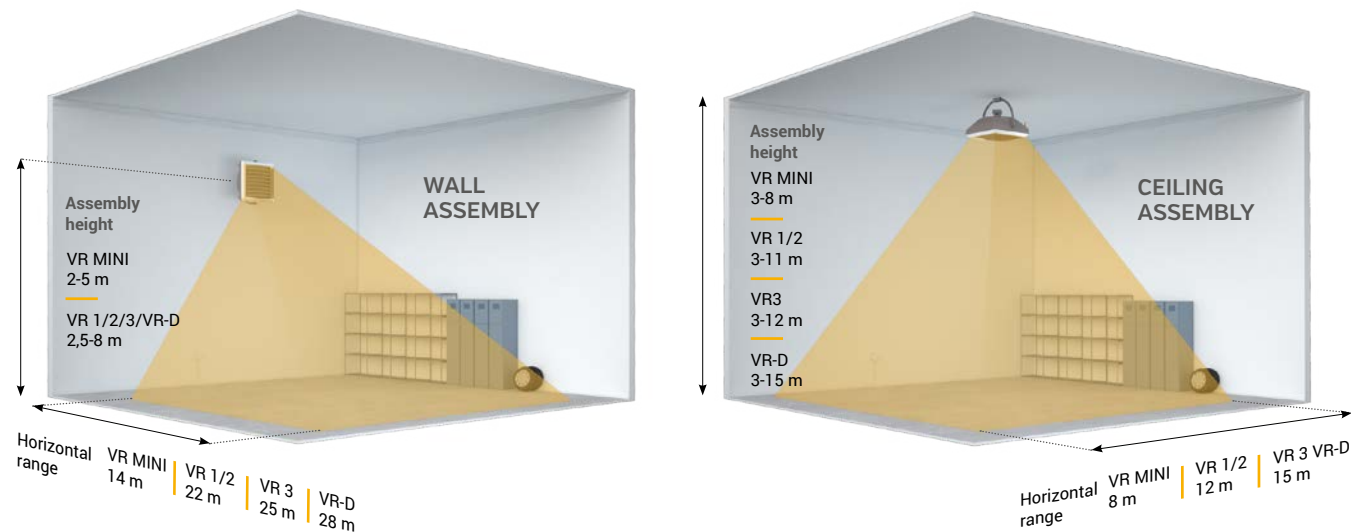


EFFECTIVE MOTORS AND EFFICIENT FANS

- Higher efficiency throughout the adjustment range in comparison to regular motors;
- Excellent durability;
- Low maintenance costs;
- Possibility of connecting directly to BMS system;
- Silent with considerable rates of rotation;
- Adjustment of fan rates rotation with 0-10 V DC signal

HIGH-QUALITY, DURABLE CASING

Made of the highest class ABS with an anti-UV pigment mixture. The casing is characterized by high mechanical strength, durability, and resistance to high temperatures.



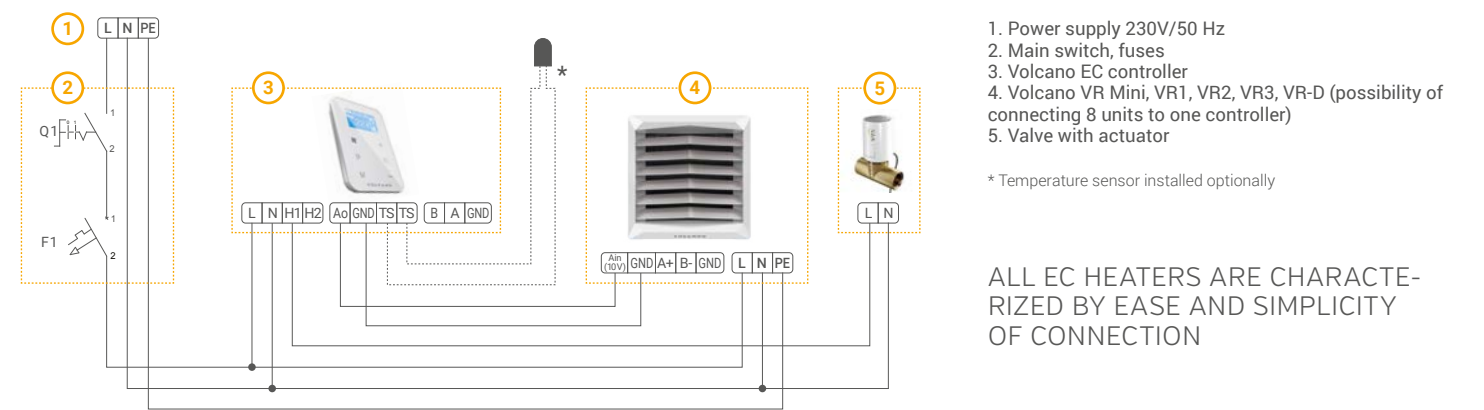
AUTOMATION

Parameters		Potentiometer VR EC (0-10 V)	Potentiometer with thermostat VR EC (0-10 V)	Controller HMI VR (0-10V)*	Controller Volcano EC*
Model	-	Potentiometer VR EC (0-10 V)	Potentiometer with thermostat VR EC (0-10 V)	Controller HMI VR (0-10V)*	Controller Volcano EC*
VTS product number	-	1-4-0101-0453	1-4-0101-0473	1-4-0101-0169	1-4-0101-0457
Motor support	-	EC			
Power supply voltage	V/ph/Hz	~230/1/50	~230/1/50	~230/1/50	~230/1/50
Permissible load	A	0,02 A for 0-10V	0,02 A for 0-10V	1A for 230VAC 0,02A for 0-10V	1A for 230VAC 0,02A for 0-10V
Setting range	°C	-	5...40	5...40	5...40
Work mode	---	Manual		Manual / automatic	
Hourly-weekly calendar	---	No	No	Yes	Yes
Clock	---	No	No	Yes	Yes
Temperature measurement	---	-	Integrated in the device		Integrated in the device
The possibility of connecting a separate temperature sensor	pcs.	No	No	1 or 4	1 or 4
Output signal	---	0-10V DC			
Protection rating	IP	30			

* Please check the availability with Your local distributor

Cooperation of controllers and regulators with water heaters					Parameters		Parameters	
Model	Potentiometer VR EC (0-10 V)	Potentiometer with thermostat VR EC (0-10 V)	Controller HMI VR (0-10V)	Controller Volcano EC	Valve with actuator (VA-VEH202TA)		Room NTC sensor (for the VOLCANO EC controller)	
VTS article No.	1-4-0101-0453	1-4-0101-0473	1-4-0101-0169	1-4-0101-0457	VTS product number	1-2-1204-2019	VTS product number	1-2-1205-0007
Cooperation with motors	EC				Power supply voltage	V/ph/Hz ~230/1/50	Resistance measurement element	kΩ NTC 10K
VR Mini	8	8	8	8	Power consumption	W 1	Assembly	on-plaster
VR1	8	8	8	8	Connection	3/4"	Maximum length of signal wire	100 m
VR2	8	8	8	8	Kvs	m³/h 4,5	Ambient temperature	°C -20...+70
VR3	8	8	8	8	Opening/closing time	min. 3/3	Temperature measurement range	°C -20...+70
VR-D	8	8	8	8	Protection rating	IP 54	Protection rating	IP 66

EXAMPLE CONNECTION DIAGRAM OF VOLCANO EC



ALL EC HEATERS ARE CHARACTERIZED BY EASE AND SIMPLICITY OF CONNECTION

TECHNICAL PARAMETERS

Parameter	Unit	VOLCANO VR MINI	VOLCANO VR1	VOLCANO VR2	VOLCANO VR3	VOLCANO VR-D
		EC	EC	EC	EC	EC
VTS product number		1-4-0101-0455	1-4-0101-0442	1-4-0101-0443	1-4-0101-0444	1-4-0101-0450
Number of heater rows	-	2	1	2	3	---
Maximum air output	m³/h	2100	5300	4850	5700	6500
Heating power range	kW	3-20	5-30	8-50	13-75	---
Maximum temperature of heating medium	°C	130				---
Maximum working pressure	MPa	1,6				---
Maximum horizontal air range	m	14	23	22	25	28
Maximum vertical air range	m	8	12	11	12	15
Water capacity	dm³	1,12	1,25	2,16	3,1	---
Connection stub pipe diameter	"	3/4				---
Device weight (without water) EC	kg	14	21	21,5	24,5	15,5
Power supply voltage	V/Hz	1 ~ 230/50				
Noise level for heaters with EC motors	dB(A)	27-50	38-54	38-54	43-55	43-56
EC motor power	kW	0,095	0,25		0,37	
EC motor rated current	A	0,51	1,3		1,7	
EC motor rotations	rpm	1450	1430		1400	
EC motor protection rating	IP	44				
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		VR1		VR2		VR3	
	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	1,3	3/4	2,2	3/4	3,3	3/4
2	1,8	3/4	2,6	3/4	4,4	1	6,6	1 1/4
3	2,7	1	3,9	1	6,6	1 1/4	9,9	1 1/2
4	3,6	1	5,2	1	8,8	1 1/4	13,2	1 1/2
5	4,5	1	6,5	1 1/4	11	1 1/2	16,5	2
6	5,4	1 1/4	7,8	1 1/4	13,2	1 1/2	19,8	2
7	6,3	1 1/4	9,1	1 1/4	15,4	2	23,1	2 1/2
8	7,2	1 1/4	10,4	1 1/2	17,6	2	26,4	2 1/2
9	8,1	1 1/4	11,7	1 1/2	19,8	2	29,7	2 1/2
10	9,0	1 1/4	13	1 1/2	22	2 1/2	33	3

* Pipeline diameters selected for maximum water flow rate up to 2.5 m / s
 ** Heaters connected successively to one main line

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The features mentioned are subject to continuous upgrade and can change any time. VTS assuring continuous improvement for product and data and reserves the right to change design and specifications without notice.