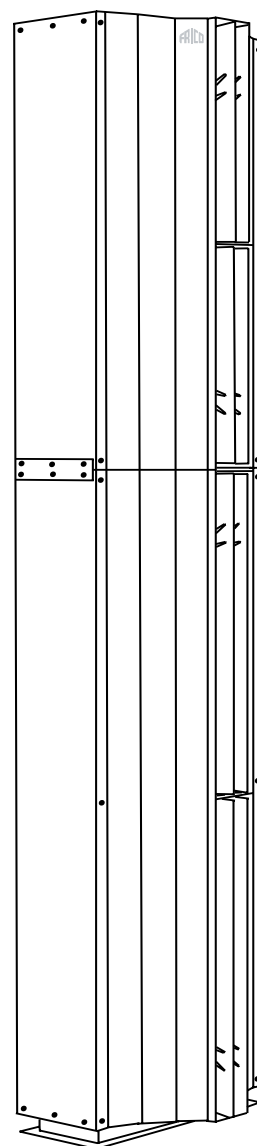


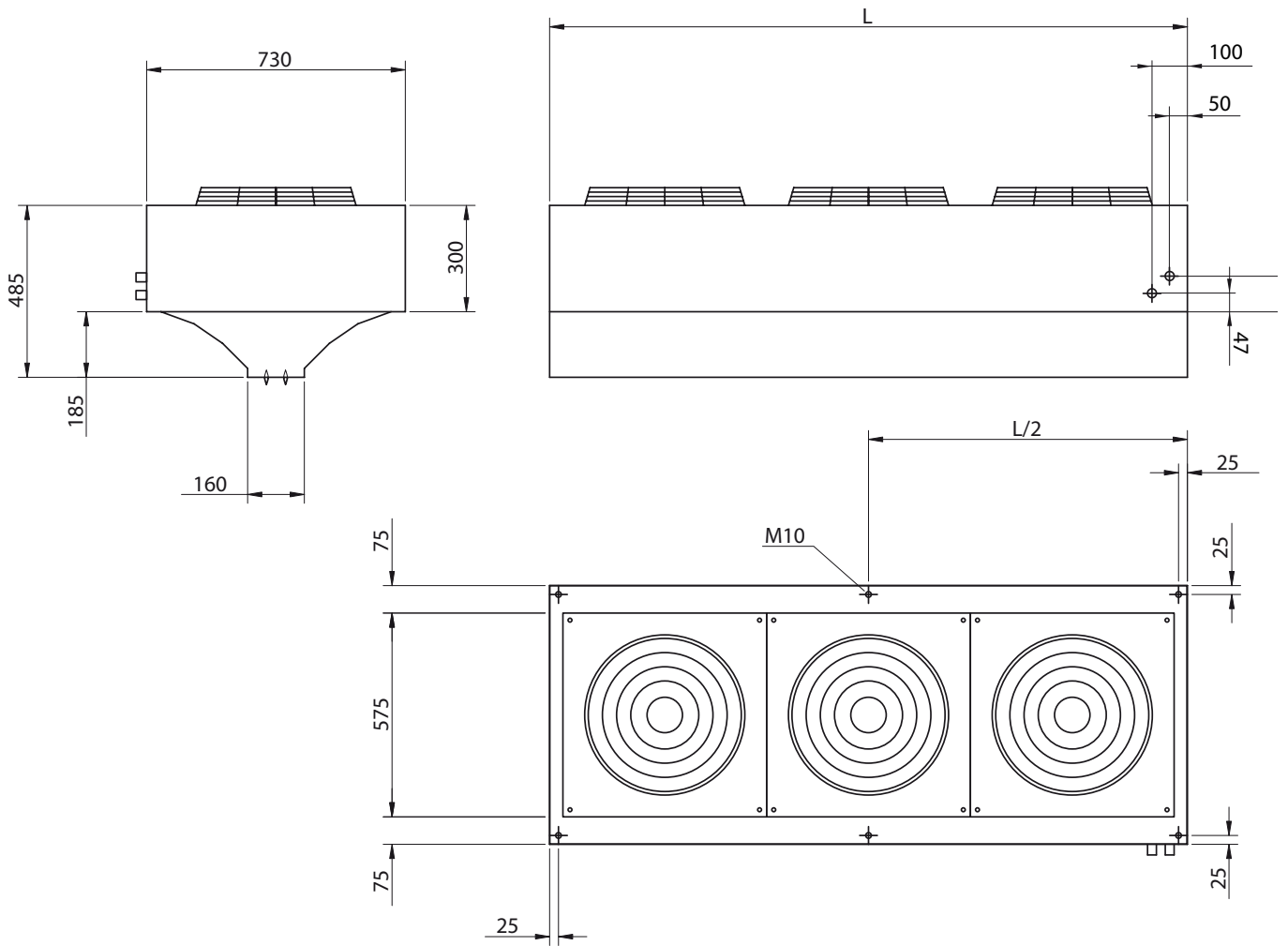
Thermozone AGI



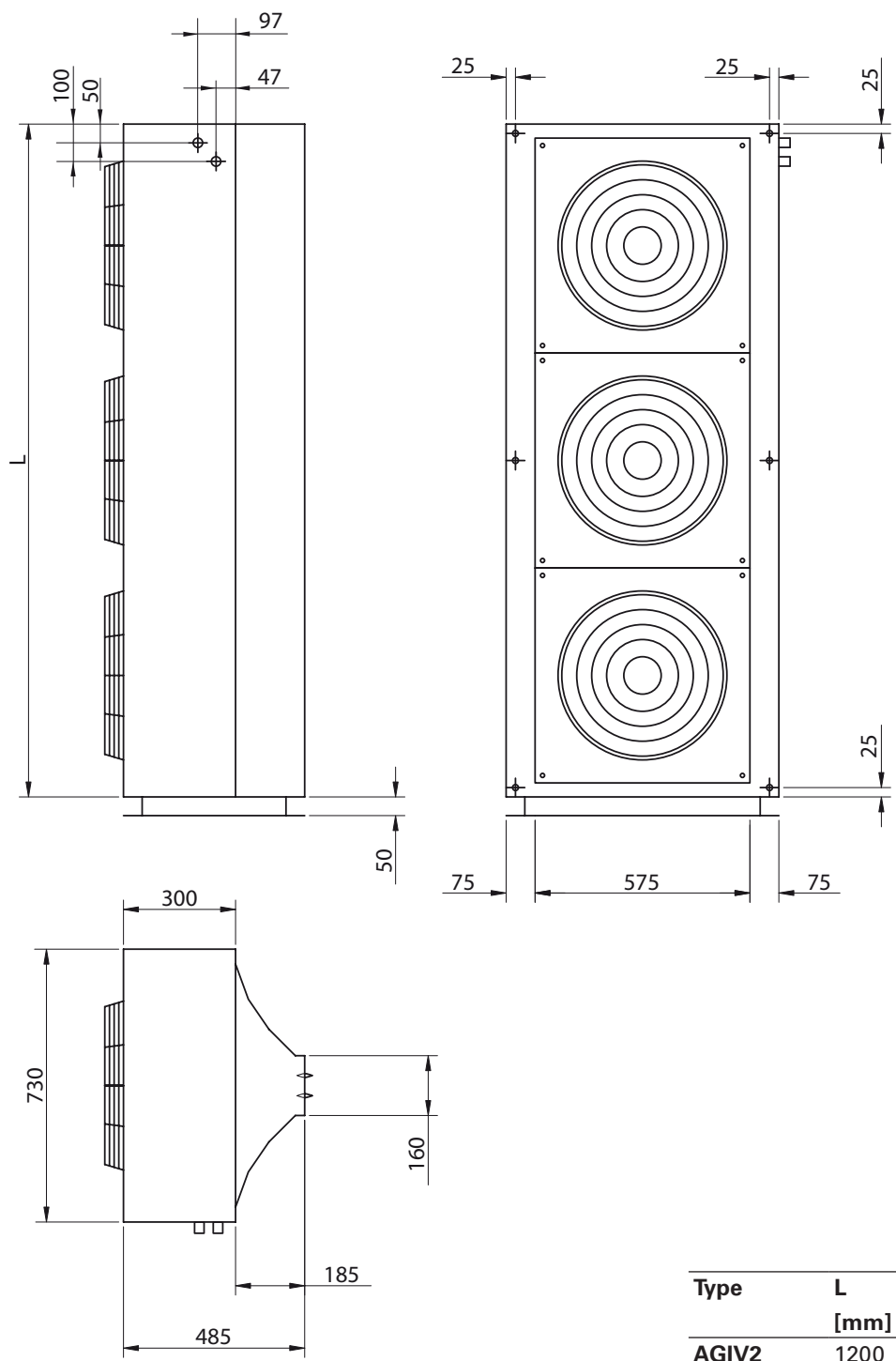
SE ... 15

GB ... 19

AGI A/W

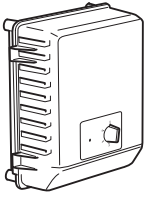


Type	L [mm]	DN25	DN32
AGIH2	1200	X	
AGIH3	1800	X	
AGIH4	2400	X	
AGIH5	3000		X

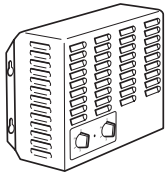


Type	L [mm]	DN25	DN32
AGIV2	1200	X	
AGIV3	1800	X	
AGIV4	2400	X	
AGIV5	3000		X

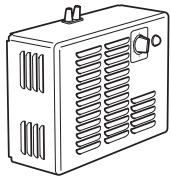
Accessories



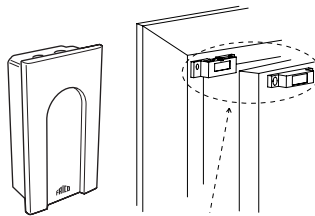
RTRD7



RTRD14



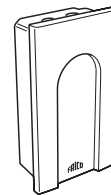
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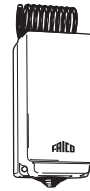
MDC (MDCDC included)



T10



RTI2



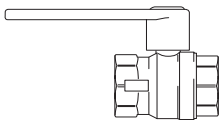
KRT1900/KRT2800



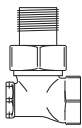
AGB304

Water regulators

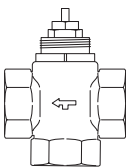
VR20/25



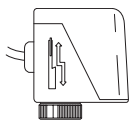
AV20/25



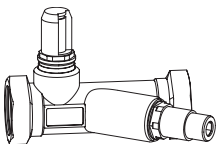
BPV10



TRV20/25



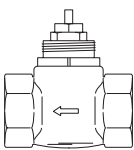
SD20



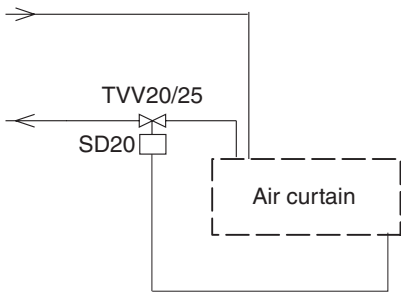
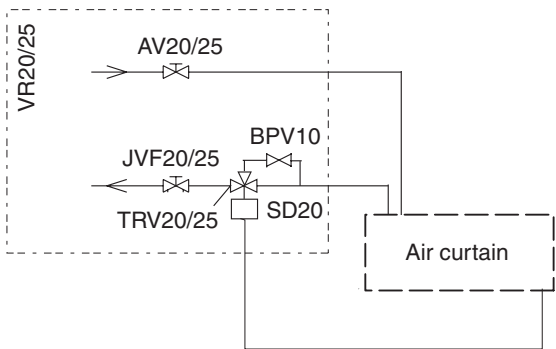
JVF20/25

Accessories

Type	RSK-nr
	[SE]
VR20	672 59 98
VR25	672 59 99
TVV20	672 70 35
TVV25	672 70 36
SD20	672 70 37
TE3434	

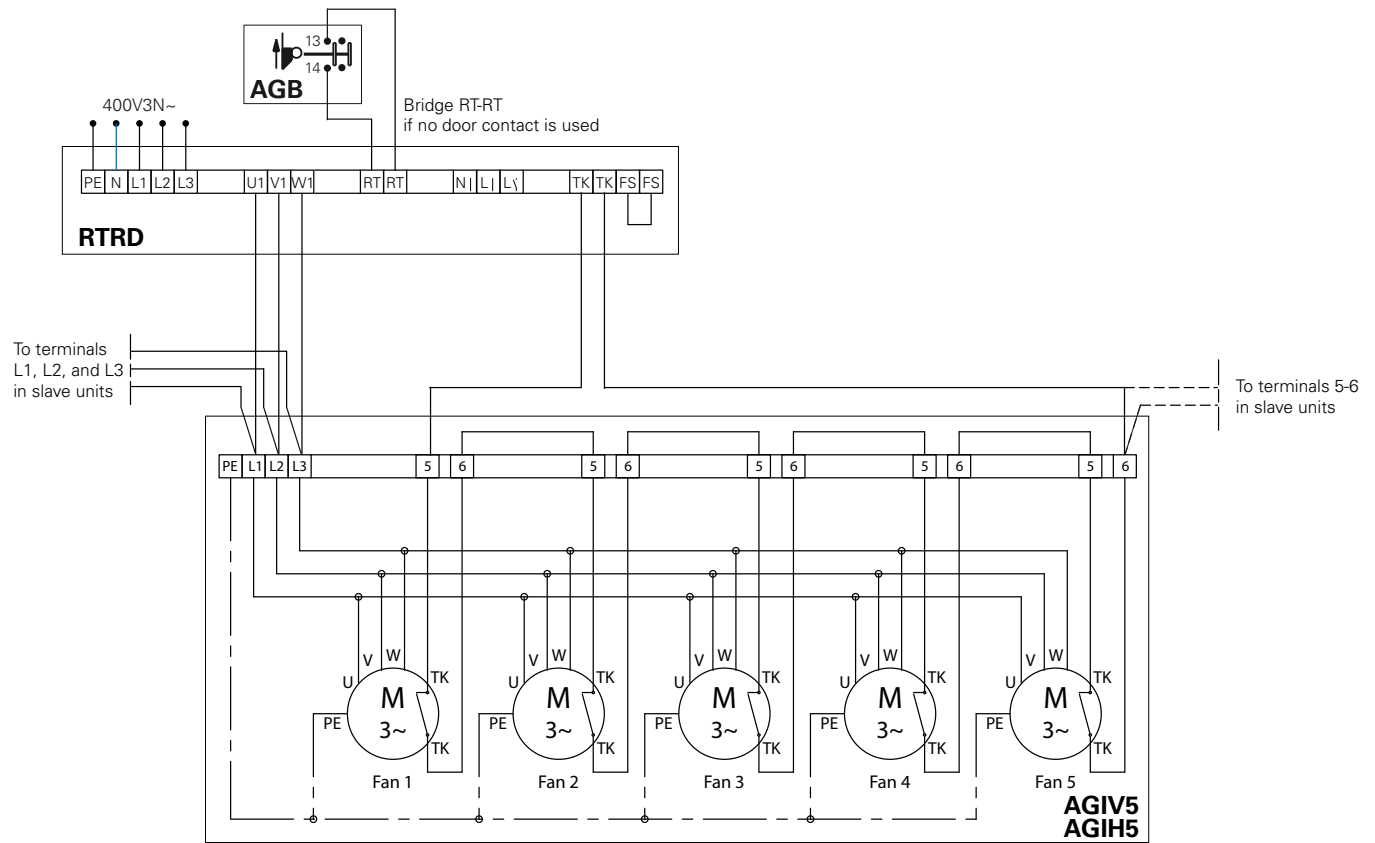


TVV20/25



Wiring diagrams AGI A

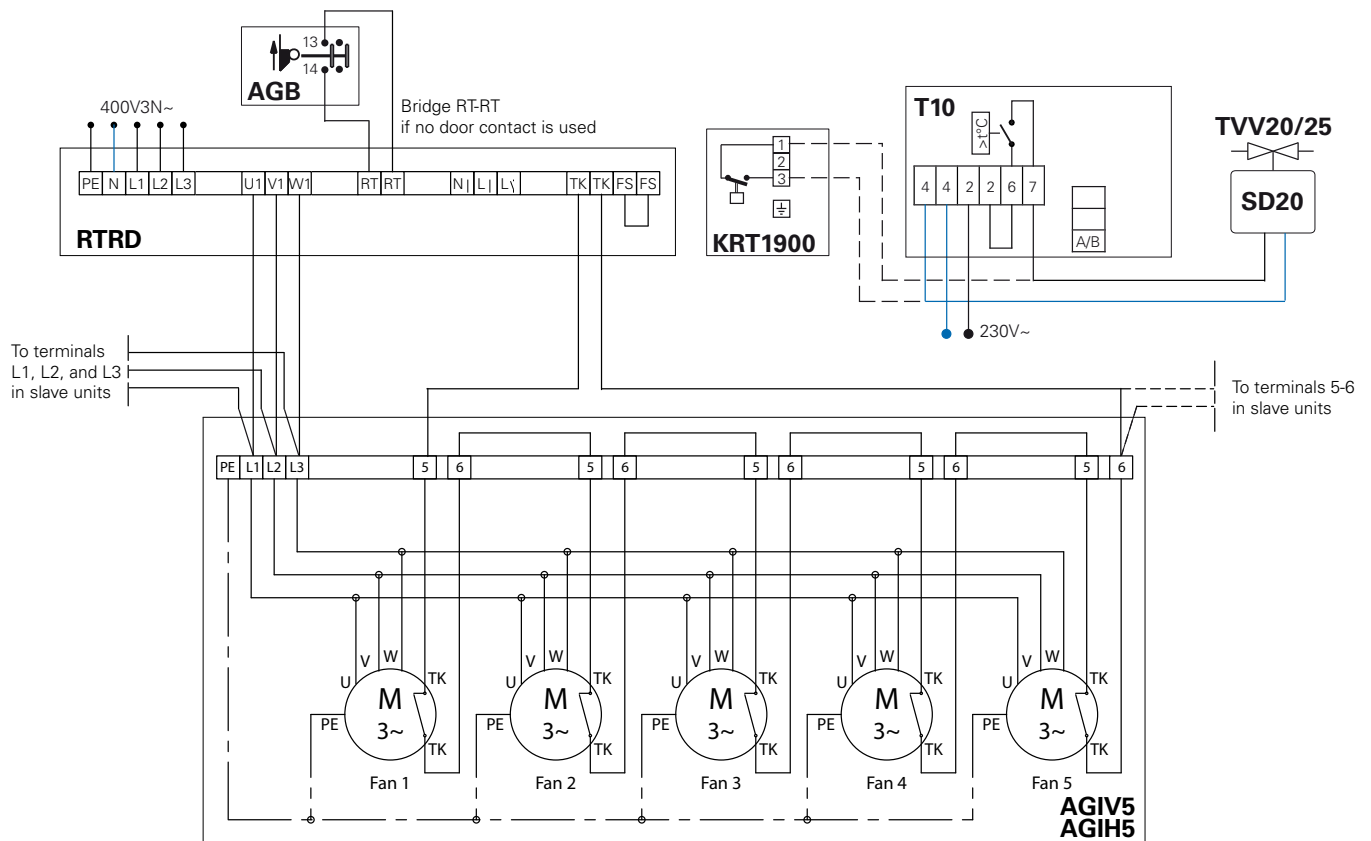
Ambient control option



Wiring diagrams AGI W

Water control options

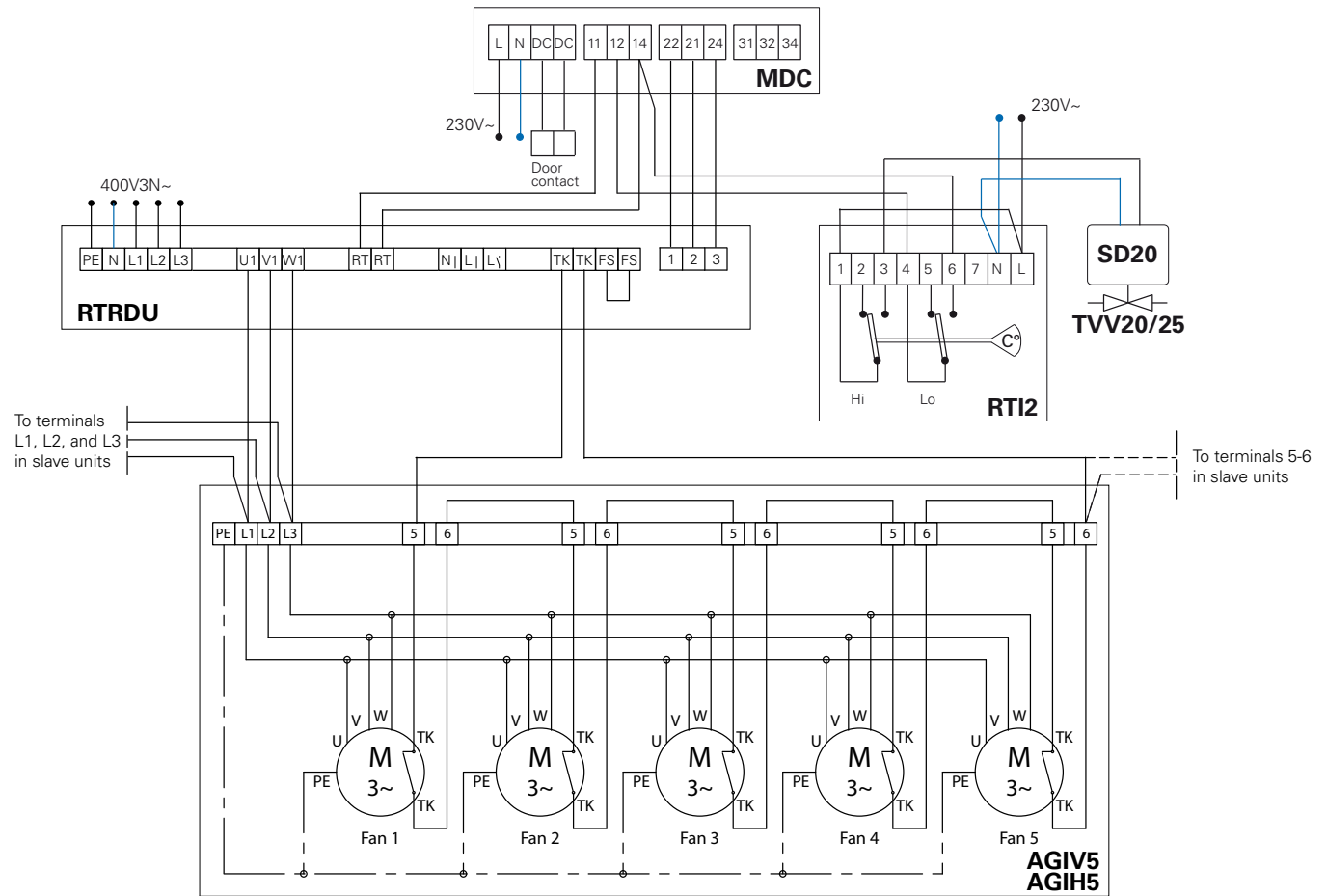
Level 1



Wiring diagrams AGI W

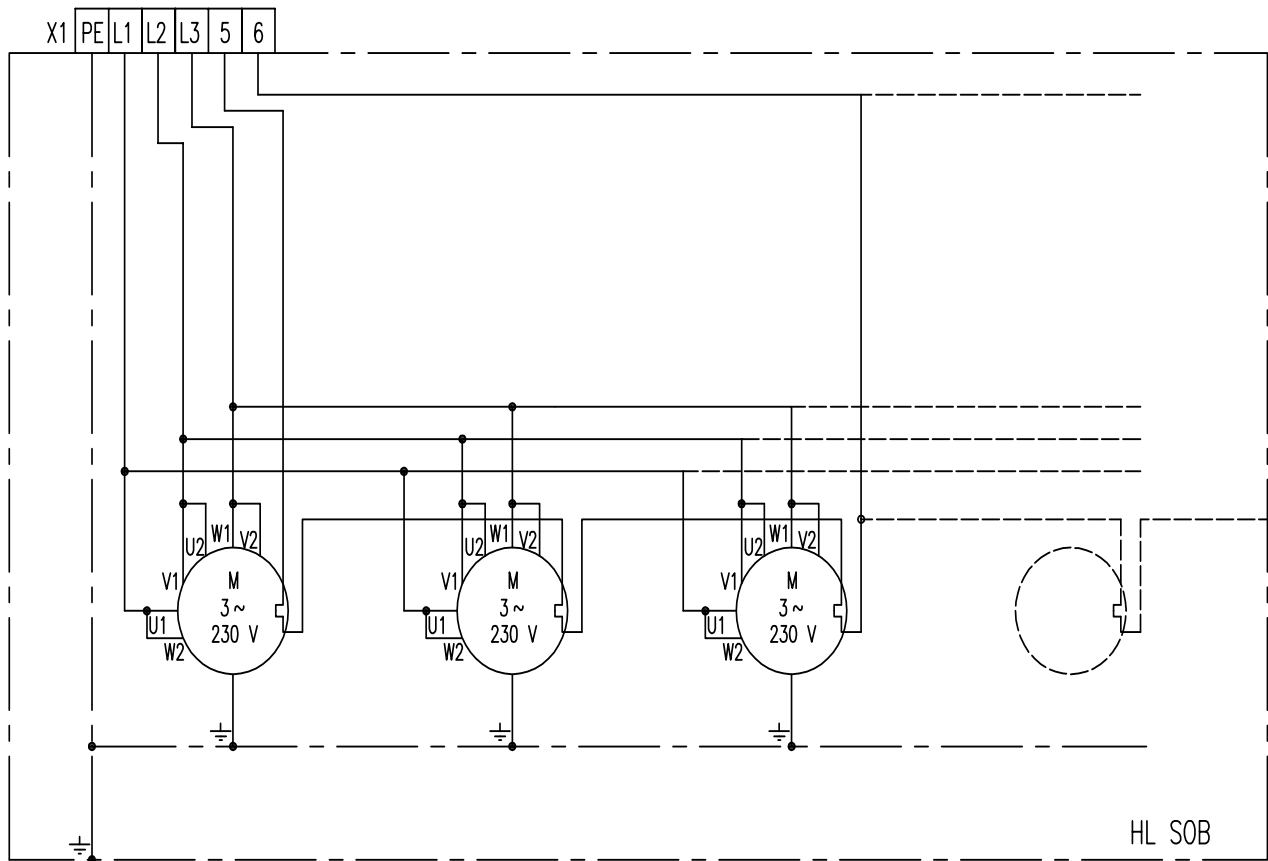
Water control options

Level 2



Wiring diagrams AGI W

Convertible connection 230V3~



△ -Anschluß- nur 3~ 230V zulässig
△ -connected- only for 3~ 230V

Output charts Water WL

Incoming / outgoing water temperature 80/60°C

Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C				Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]		Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	55,7	38,6	0,7		50,5	41,4	0,6
AGIV2	high	7000	50,1	36,3	0,6		45,5	39,0	0,5
AGIH3	high	10500	85,6	39,2	1,0		77,5	41,9	1,0
AGIV3	high	10500	77,0	36,8	0,9		69,8	40,0	1,0
AGIH4	high	14000	117,9	40,0	1,4		106,4	42,6	1,3
AGIV4	high	14000	106,1	37,5	1,3		95,8	40,2	1,2
AGIH5	high	17500	147,1	40,0	1,8		132,8	42,5	1,6
AGIV5	high	17500	132,4	37,5	1,6		119,5	40,2	1,4

Incoming / outgoing water temperature 70/40°C

Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C				Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]		Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	37,2	30,8	0,3		31,8	33,5	0,3
AGIV2	high	7000	33,5	29,2	0,1		28,6	32,2	0,1
AGIH3	high	10500	56,6	31,0	0,5		48,0	33,6	0,4
AGIV3	high	10500	50,9	29,4	0,2		43,2	32,2	0,2
AGIH4	high	14000	77,9	31,5	0,6		66,3	34,1	0,5
AGIV4	high	14000	70,1	29,9	0,3		59,7	32,7	0,2
AGIH5	high	17500	96,9	31,5	0,8		82,5	34,0	0,7
AGIV5	high	17500	87,2	29,8	0,4		74,2	32,6	0,3

Incoming / outgoing water temperature 60/40°C

Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C				Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]		Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	33,7	29,3	0,4		28,4	32,1	0,3
AGIV2	high	7000	30,3	27,9	0,1		25,6	30,9	0,1
AGIH3	high	10500	51,5	29,6	0,6		43,2	32,2	0,5
AGIV3	high	10500	46,3	28,1	0,2		38,9	31,0	0,2
AGIH4	high	14000	71,0	30,1	0,9		59,5	32,6	0,7
AGIV4	high	14000	64,0	28,6	0,3		53,6	31,4	0,2
AGIH5	high	17500	88,5	30,0	1,1		74,1	32,6	0,9
AGIV5	high	17500	79,7	28,5	0,3		66,7	31,3	0,3

Incoming / outgoing water temperature 60/30°C

Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C				Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]		Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	25,7	25,9	0,2		19,8	28,4	0,2
AGIV2	high	7000	23,1	24,8	0,1		17,8	27,6	0,1
AGIH3	high	10500	38,6	26,0	0,3		28,9	28,2	0,2
AGIV3	high	10500	34,7	24,8	0,1		26,0	27,4	0,1
AGIH4	high	14000	53,3	26,3	0,4		40,9	28,7	0,3
AGIV4	high	14000	48,0	25,5	0,2		36,8	27,8	0,2
AGIH5	high	17500	66,2	26,2	0,5		48,4	28,2	0,4
AGIV5	high	17500	59,5	25,1	0,2		43,6	27,4	0,2

AGI A/W

Incoming / outgoing water temperature 55/35°C

Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C				Air temp. in = +20°C		
			Output [kW]	Air.temp. out. [°C]	Water flow [l/s]		Output [kW]	Air.temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	28,2	27,0	0,3		22,8	29,7	0,3
AGIV2	high	7000	25,4	25,8	0,1		20,6	28,7	0,1
AGIH3	high	10500	43,0	27,1	0,5		34,6	29,8	0,4
AGIV3	high	10500	38,6	25,9	0,2		31,1	28,8	0,1
AGIH4	high	14000	59,1	27,5	0,7		47,6	30,1	0,6
AGIV4	high	14000	53,2	26,3	0,2		42,9	29,1	0,2
AGIH5	high	17500	73,5	27,5	0,9		59,3	30,1	0,7
AGIV5	high	17500	66,19	26,3	0,3		53,3	29,1	0,2

Output charts water WH

Incoming / outgoing water temperature 130/70°C								
Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C			Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]	Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	59,9	40,4	0,2	55,8	43,7	0,2
AGIV2	high	7000	53,9	38,0	0,1	50,2	41,4	0,2
AGIH3	high	10500	92,9	41,3	0,4	86,6	44,5	0,3
AGIV3	high	10500	83,6	38,9	0,3	77,9	42,1	0,3
AGIH4	high	14000	128,4	42,2	0,5	119,7	45,4	1,0
AGIV4	high	14000	115,6	39,8	0,4	107,7	42,9	0,4
AGIH5	high	17500	159,7	42,1	0,7	148,9	45,3	0,6
AGIV5	high	17500	143,7	39,7	0,6	134,0	42,8	0,5

Incoming / outgoing water temperature 110/80°C								
Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C			Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]	Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	61,0	40,9	0,5	57,1	44,2	0,5
AGIV2	high	7000	54,9	38,3	0,4	51,4	41,8	0,4
AGIH3	high	10500	95,0	41,9	0,8	88,8	45,1	0,7
AGIV3	high	10500	85,5	39,2	0,7	80,0	42,6	0,6
AGIH4	high	14000	131,2	42,8	1,1	122,8	46,0	1,0
AGIV4	high	14000	118,1	40,1	0,9	110,5	43,5	0,9
AGIH5	high	17500	163,7	42,8	1,4	153,1	46,0	1,3
AGIV5	high	17500	147,4	40,1	1,2	137,8	43,4	1,1

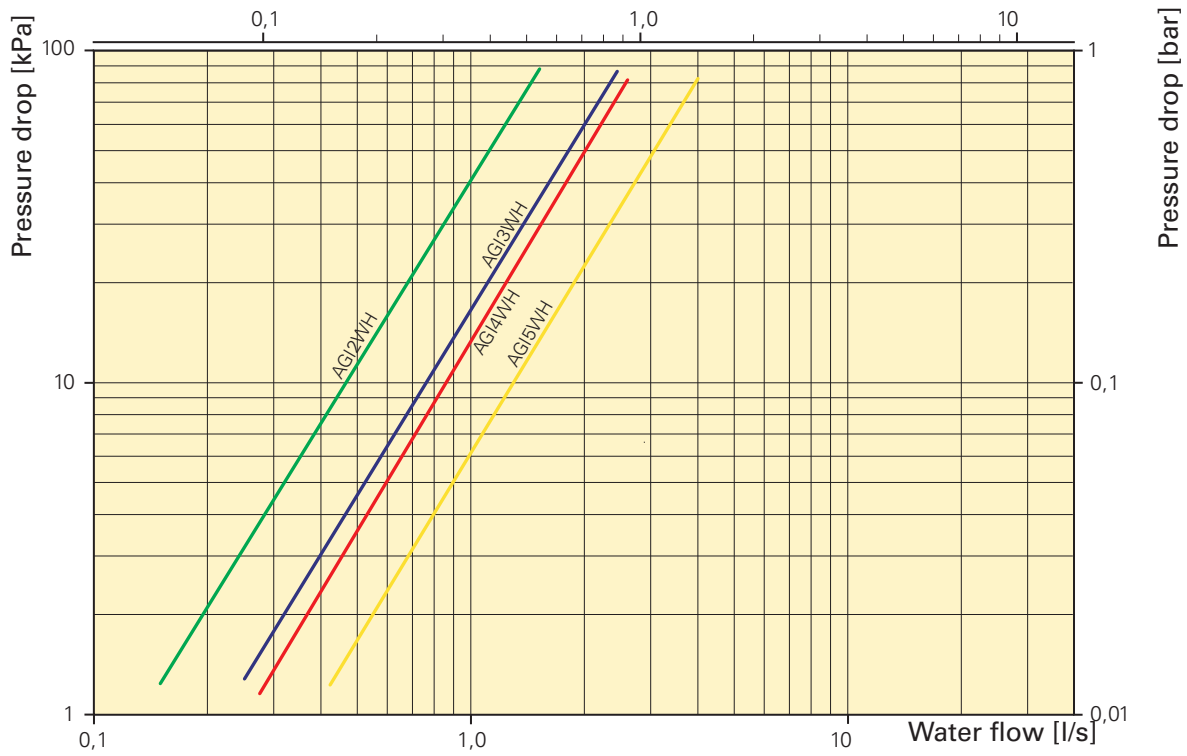
Incoming / outgoing water temperature 90/70°C								
Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C			Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]	Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	49,8	36,2	0,6	46,0	39,5	0,6
AGIV2	high	7000	45,5	34,1	0,5	41,4	37,6	0,5
AGIH3	high	10500	78,1	37,1	1,0	71,9	40,3	0,9
AGIV3	high	10500	70,3	34,9	0,8	64,7	38,3	0,8
AGIH4	high	14000	107,5	37,8	1,3	99,0	41,0	1,2
AGIV4	high	14000	96,7	35,6	1,2	89,1	38,9	1,1
AGIH5	high	17500	134,1	37,8	1,5	123,5	41,0	1,1
AGIV5	high	17500	120,7	35,5	1,5	111,1	38,9	1,3

Incoming / outgoing water temperature 80/60°C								
Type	Fan position	Airflow [m³/h]	Air temp. in = +15°C			Air temp. in = +20°C		
			Output [kW]	Air temp. out. [°C]	Water flow [l/s]	Output [kW]	Air temp. out [°C]	Water flow [l/s]
AGIH2	high	7000	41,6	32,7	0,5	37,6	36,0	0,5
AGIV2	high	7000	37,4	30,9	0,5	33,9	34,4	0,4
AGIH3	high	10500	64,7	33,3	0,8	58,5	36,5	0,7
AGIV3	high	10500	58,2	31,5	0,7	52,6	34,9	0,9
AGIH4	high	14000	89,5	34,0	1,1	80,6	37,1	1,0
AGIV4	high	14000	80,5	32,1	1,0	72,6	35,4	0,9
AGIH5	high	17500	111,6	33,9	1,4	100,5	37,1	1,2
AGIV5	high	17500	100,4	32,1	1,2	90,4	35,4	1,1

Pressure drop water

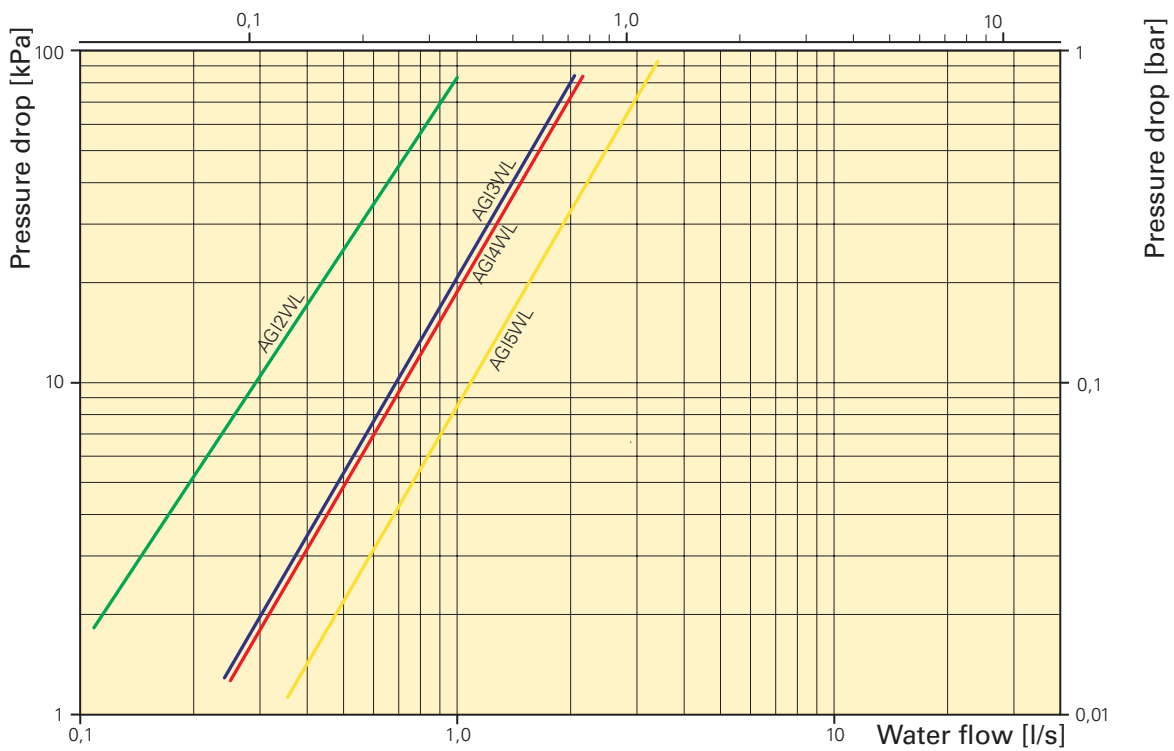
Water pressure drop over AGI WH water coil

Water flow [m³/h]



Water pressure drop over AGI WL water coil.

Water flow [m³/h]



The pressure drop is calculated for an average temperature of 70°C (PVV 80/60). For other water temperatures, the pressure drop is multiplied by the factor K.

Average temp. water °C	40	50	60	70	80	90
K	1,10	1,06	1,03	1,00	0,97	0,93

AGI A/W

Technical specifications | Thermozone AGI A with ambient ⚡

Type	Airflow [m³/h]	Sound level*2 [dB(A)]	Voltage Amperage (control)	Voltage Amperage (heat)	Weight [kg]
AGIH/V2	7000	69	400V3~/2,4A	2,4	51
AGIH/V3	10500	71	400V3~/3,5A	3,5	75
AGIH/V4	14000	72	400V3~/4,7A	4,7	97
AGIH/V5	17500	73	400V3~/5,9A	5,9	120

Technical specifications | Thermozone AGI W with water heat

Type	Output*3 [kW]	Airflow [m³/h]	$\Delta t^{*1,*3}$ [°C]	Sound level*2 [dB(A)]	Voltage [V]	Amperage [A]	Weight [kg]
AGIH/V2	56/50	7000	21	69	400V3~	2,4	82
AGIH/V3	86/77	10500	22	71	400V3~	3,5	125
AGIH/V4	118/106	14000	23	72	400V3~	4,7	165
AGIH/V5	147/132	17500	22	73	400V3~	5,9	205

Protection class AGI A/W : IP54.

GB

*1) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*2) Conditions: Distance to the unit: 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

*3) Applicable at water temperature 80/60 °C, air temperature, in +15 °C.

Assembly and operating instructions

General Instructions

Read these instructions carefully before installation and use. Keep this manual for future reference.

The guarantee is only valid if the units are used in the manner intended by the manufacturer and in accordance with the Frico mounting and operating instructions.

Application area

The Thermozone AGI air curtain is supplied with ambient heat or water coil and is intended to be installed above industrial- and warehouse doors up to 6,0 meters height.

Protection class IP21.

Function

Air is drawn in at the rear of the unit and blown out downwards so that it shields the door opening and minimizes heat loss. To achieve the optimum curtain effect the unit must extend the full width of the door opening.

The grille for directing exhaust air is adjustable and is normally angled outwards to achieve the best protection against incoming cold air.

The efficiency of the air curtain depends on the air temperature, pressure differences across the doorway and any wind pressure.
NOTE! Negative pressure in the building considerably reduces the efficiency of the air curtain. The ventilation should therefore be balanced.

Mounting

1. Place the air curtain in the correct position.
2. Mark the holes and remove the air curtain.
3. Drill holes into the floor and replace the air curtain.
4. Screw the frame to the floor.

See fig. 1.

The unit is installed vertical or horizontal as close to the door as possible.

For the protection of wider doorways, several units can be mounted next to each other.

Ensure that the front panel/service hatch is accessible and can be fully opened. For minimum distance see fig. 2

Electrical installation

The installation, which should be preceded by an omnipolar switch with a contact separation of at least 3 mm, should only be wired by a competent electrician, in accordance with the latest edition of IEE wiring regulations and in accordance with this instructions. The unit is connected to a connection box on the side of the air curtain, below the pipe connections.

Water coil connection (AGI W)

The installation must be carried out by an authorised installer. The water coil has copper tubes with aluminium fins and is suitable for connection to a closed water heating system. The heating coil must not be connected to a mains pressure water system or an open water system.

Note that the unit should be preceded by a regulating valve, see eg Frico valve assemblies.

The pipe connections (1 " and 1 1/2", internal thread) are connected on the top side of the unit.

The connections to the coil must be equipped with shutdown valves to enable easy disassembly.

Adjustment of air flow

The direction and speed of the air flow should be adjusted considering the load on the opening. Compressive forces affect the air stream and make it bend inwards into the premises (when the premises are heated and the outdoor air is cold). The air stream should therefore be directed outwards to withstand the load. (Generally speaking, the higher the load, the bigger the angle needed.)

Basic setting of fan speed

The fan speed when the door is open is set using the speed control. Note that the air flow direction and speed may need fine adjustment depending on the loading of the door.

Filter (AGI)

The distance between the coil plates protects against dirt and blockage and makes a separate filter unnecessary.

Service, repairs and maintenance

For all service, repair and maintenance first carry out the following:

1. Disconnect the power supply. Note! Units with electrical heaters can be supplied from more than one connection.
2. The front panel/service hatch is opened by slackening off the screws on the unit.

Maintenance

Since fan motors and other components are maintenance free, no maintenance other than regular cleaning is necessary. The frequency of cleaning can vary depending on local conditions, but undertake cleaning at least twice a year. Inlet and exhaust grilles, impeller and elements can be vacuum cleaned or wiped using a dry cloth. Use a brush when vacuuming to prevent damaging sensitive parts. Avoid the use of strong alkaline or acidic cleaning agents.

Overheating

The motors in all the air curtain units have a built-in thermal safety cut-out to protect against overheating. This will reset automatically once the motor has cooled.

Fan replacement

1. Determine which of the fans is not functioning.
2. Disconnect the cables to the relevant fan.
3. Remove the screws securing the fan and lift the fan out.
4. Install the new fan in reverse order to the above.

Changing the water coil (AGI W)

1. Turn off the unit's water supply.
2. Disconnect the cables to the water coil.
3. Remove the mounting screws securing the water coil in the unit and lift the water coil out.
4. Install the new water coil in reverse order to the above.

Draining the water coil (AGI W)

The drain valve is on the underside of the coil on the connector side. It can be accessed via the service hatch.

Troubleshooting

If the fans are not working or not blowing enough, check the following:

- Operating power supply to the unit; check fuses, circuit-breaker, time switch/thermostat (if any) that starts and stops the unit.
- That the speed regulator is correctly set.
- That any position limit switch is working.
- That the thermal safety cut-out for the motors has not been deployed.
- That the intake grille/filter is not dirty.

If there is no heat, check the following:

- Check that the settings for the thermostat, switches etc. are set so that the unit can produce heat.

For units with water coil, also check the following:

- That the water coil is bled.
- That there is a sufficient water flow.
- That the incoming water is sufficiently hot.

If the error cannot be fixed, please contact a qualified service technician.

Safety

- *Keep the areas around the air intake and exhaust grilles free from possible obstructions!*
- *During operation the surfaces of the unit are hot!*
- *The unit must not be fully or partially covered with clothing, or similar materials, as overheating can result in a fire risk!*
- *This appliance is not intended for use by persons (including children) with reduced physical or mental capabilities, or lack of experience and knowledge, unless they*

have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Technical data is shown on page 14.

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