



⚡ Electrical heat 6-36 kW
 💧 Water heat

CE

Thermozone® RD

Air curtains for revolving doors

Thermozone RD is an ideal solution for any environment with revolving doors. The air curtain is mounted on top of the door which is an advantage from a design point-of-view. It also keeps the floor space free and protects the air curtain from disturbance.

The revolving door is a very efficient solution in buildings where the wind stress and pressure difference over the entrance is high. Although the revolving door prevents the stream of cold air entering the building it brings cold air with every turn.

Thermozone RD prevents the cold air from leaving the revolving door, providing good heating comfort and the opportunity to make use of the floor space near by the opening.

The air curtain also contributes to the heating of the entrance.

When it is hot outside, the Thermozone RD prevents warm air from getting in and cold, conditioned air from being lost.

Thermozone RD also gives protection from fumes and dust - and has a drying effect on the area within and around the revolving doors.

- Thermozone RD represents an overall solution for revolving doors.
- Discrete mounting on top of the revolving door.
- Built-in frost protection thermostat in water heated units. The thermostat opens for full water flow when there is a freeze risk (at a preset temperature).
- To make the installation quicker and more compact, valves are integrated in the unit.
- Easy connection of water heated units with flexible hoses.
- Corrosion proof housing made of zinc-plated steel panels. The fascia front plate is powder coated (any RAL/NCS colour). Stainless steel or anodized aluminium are optional.

CE-compliant.

This product is sold and serviced by:



Technical specifications | Thermozone RD 300/400 E with electrical heat ⚡

Type	Output steps [kW]	Airflow [m ³ /h]	Sound level* ¹ [dB(A)]	Δt * ² [°C]	Voltage [V] Amperage [A] (control)	Voltage [V] Amperage [A] (heat)	Length [mm]	Weight [kg]
RD320E18	12/18	3600	56	15	230V~/4,20A	400V3~/26A	2000	106
RD415E23	15/22,5	3600	56	19	230V~/4,48A	400V3~/32,5A	1500	77
RD420E30	20/30	5400	57	17	230V~/6,72A	400V3~/43,5A	2000	107
RD425E36	24/36	6300	58	17	230V~/7,84A	400V3~/52A	2500	138

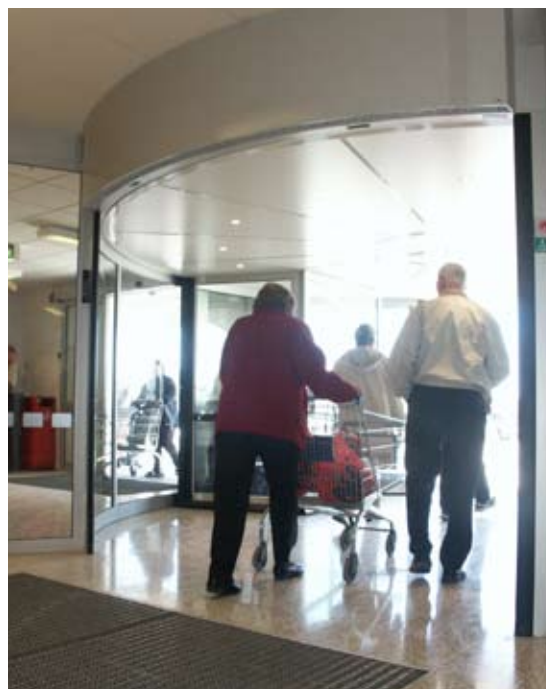
Technical specifications | Thermozone RD 300/400 W with water heat 💧

Type	Output* ³ [kW]	Airflow [m ³ /h]	Sound level* ¹ [dB(A)]	Δt * ^{2,3} [°C]	Voltage [V]	Amperage [A]	Length [mm]	Weight [kg]
RD320WL	16,6	3400	56	17	230V~	4,20	2000	106
RD415WL	14,5	3500	56	15	230V~	4,48	1500	77
RD420WL	21,4	5100	57	14	230V~	6,72	2000	107
RD425WL	26,1	6000	58	15	230V~	7,84	2500	138

*¹) Conditions: Distance to the unit 3 metres. Equivalent absorption area 50 m².

*²) Δt = temperature rise of passing air at maximum heat output and highest airflow.

*³) Applicable at water temperature 60/40 °C, air temperature 20 °C.



Ordering

Order selections

Type	See Compatibility table.
Version	Electrically heated (E) or water heated (WL). See Compatibility table.
Mounting	Top mounted (TM). Read more under Mounting and installation.
Finish / Material	Coating, stainless steel or aluminium, see table.

Finish / Material selection, Fascia plate

Powder coating RAL	State RAL code
Powder coating NCS	State NCS code
Stainless steel	Cr-Ni Grinded K 240
Stainless steel	Cr-Ni Brushed 316
Stainless steel	Cr-Ni Bright annealed
Stainless steel	Cr-Ni Mirror no 8
Aluminium	Anodized

Compatibility Besam door and Frico air curtain

Top mounted

UniTurn	Electrical	Water
UniTurn 36	RD415E23-RD2-36-TM	RD415WL-RD2-36-TM
UniTurn 42	RD320E18-RD2-42-TM	RD320WL-RD2-42-TM
UniTurn 48	RD420E30-RD2-48-TM	RD420WL-RD2-48-TM
UniTurn 54	RD425E36-RD2-54-FM	RD425WL-RD2-54-FM

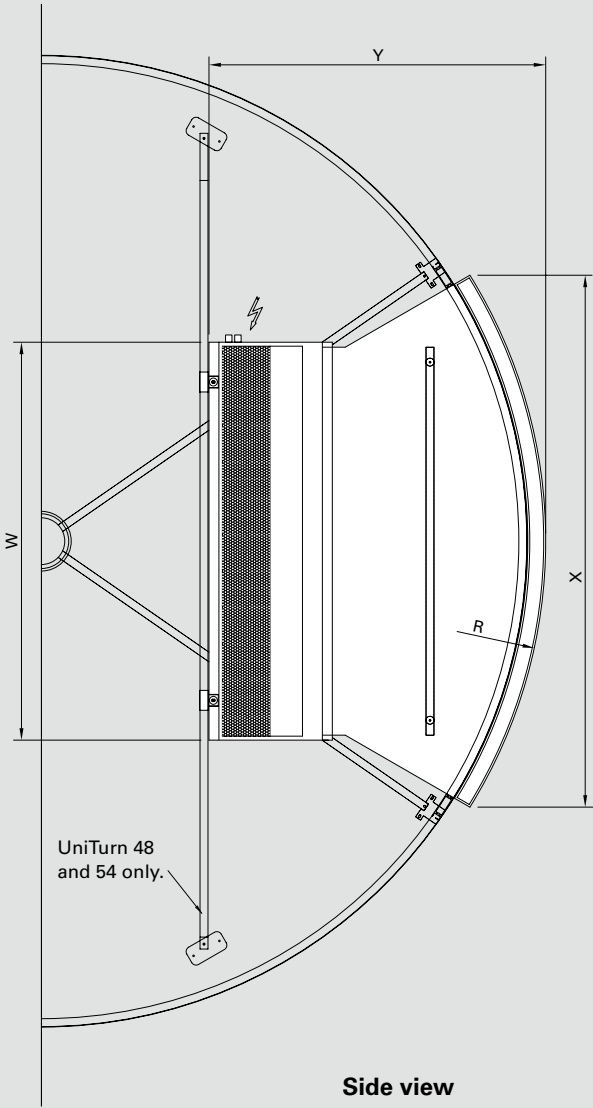
Mounting and installation

Thermozone RD is available "top mounted" (TM) for visible mounting on top of the revolving door. Visible mounting (TM) requires no specific fascia height and can be mounted on the existing revolving door. A minimum distance for service of 800 mm between revolving door and solid ceiling is, however, required. The air curtain is mounted on top of the revolving door and rest on rubber feet (included on delivery). UniTurn 48 and 54 are delivered with a mounting beam.

Connections are made on the right side of the unit (seen from inside the building). Water heated units are delivered with pre-mounted valves and frost protection. Two flexible hoses (1" inside thread) are included on delivery for easy connection to existing hot water heating system. Length 1 m.

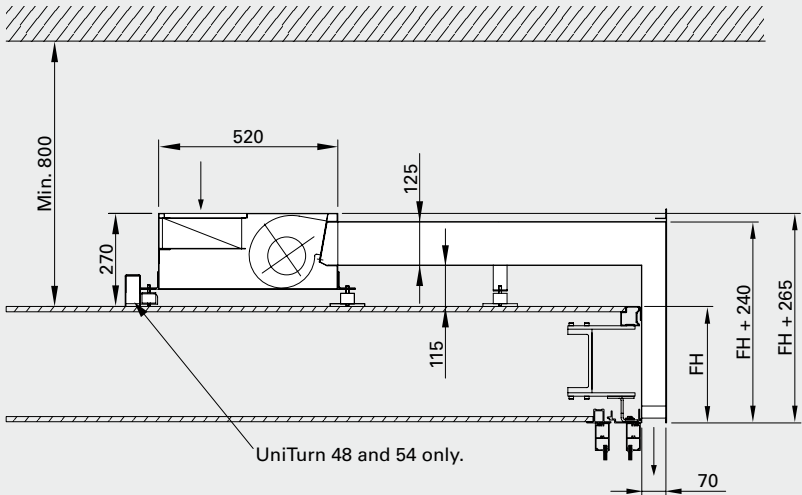
Dimensions – top mounted

Top view



UniTurn	R	X	Y	W
UniTurn 36	1935	2073	1543	1500
UniTurn 42	2235	2373	1443	2000
UniTurn 48	2535	2673	1693	2000
UniTurn 54	2835	2974	1738	2500

Side view



FH = fascia height.

Control kits

Electrical ⚡

Level 2

Airflow and heat output are controlled automatically based on the opening of the door and the room temperature.

When the door is open the fan runs on high speed, when the door closes the fan will continue to run for the desired time (2s–10 min.) set on MDC. When the door is closed the fan runs on low speed if there is a need for heating, if not the fan is switched off.

The room thermostat controls the heat output. E.g. the thermostat is set on 23 °C and the difference between the stages 4 °C. The thermostat will activate below 19 °C when the door is closed. When the door opens, the thermostat will activate below 23 °C and normally the heat is switched on.

Complete control kit:

- CB32N, control box, controls the airflow in 3 steps and heat output in 2 steps
- MDC, door contact with time delay
- RTI2, electronic 2-step thermostat

Water 💧

Level 2

Airflow and heat output are controlled automatically based on the opening of the door and the room temperature.

When the door is open the fan runs on high speed, when the door closes the fan will continue to run for the desired time (2s–10 min.) set on MDC. When the door is closed the fan runs on low speed if there is a need for heating, if not the fan is switched off.

The room thermostat controls the heat output on/off. E.g. the thermostat is set on 23 °C and the difference between the stages 4 °C. The thermostat will activate below 19 °C when the door is closed. When the door opens, the thermostat will activate below 23 °C and normally the heat is switched on.

Complete control kit:

- CB30N, control box, controls the air flow in 3 steps
- MDC, door contact with time delay
- RTI2, electronic 2-step thermostat
- Three-way motor valve with actuator and by-pass valve are integrated in the unit.

Output charts water

RD 300/400 WL

Incoming / outgoing water temperature 80/60 °C								
			Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
Type	Fan position	Airflow [m³/h]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
RD320WL	max	3400	32,6	44	0,40	29,6	46	0,36
RD415WL	max	3500	28,9	40	0,35	26,1	42	0,32
RD420WL	max	5100	42,1	40	0,51	38,1	42	0,47
RD425WL	max	6000	51,3	40	0,63	46,5	43	0,57

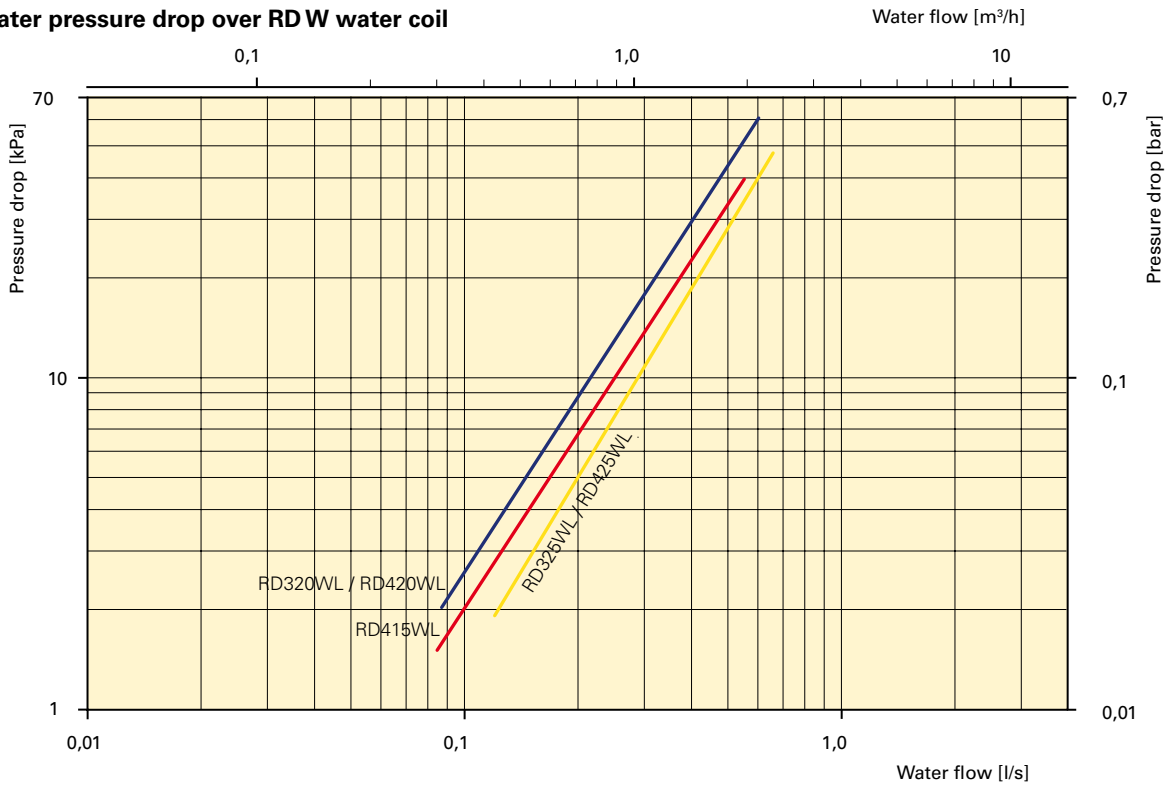
Incoming / outgoing water temperature 60/50 °C								
			Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
Type	Fan position	Airflow [m³/h]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
RD320WL	max	3400	23,9	36	0,58	20,9	38	0,51
RD415WL	max	3500	21,4	33	0,52	18,6	36	0,45
RD420WL	max	5100	31,1	33	0,75	27,0	36	0,66
RD425WL	max	6000	37,7	34	0,91	32,9	36	0,80

Incoming / outgoing water temperature 60/40 °C								
			Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
Type	Fan position	Airflow [m³/h]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
RD320WL	max	3400	19,8	32	0,24	16,6	35	0,20
RD415WL	max	3500	17,3	30	0,21	14,5	32	0,18
RD420WL	max	5100	25,6	30	0,31	21,4	33	0,26
RD425WL	max	6000	31,0	30	0,38	26,1	33	0,32

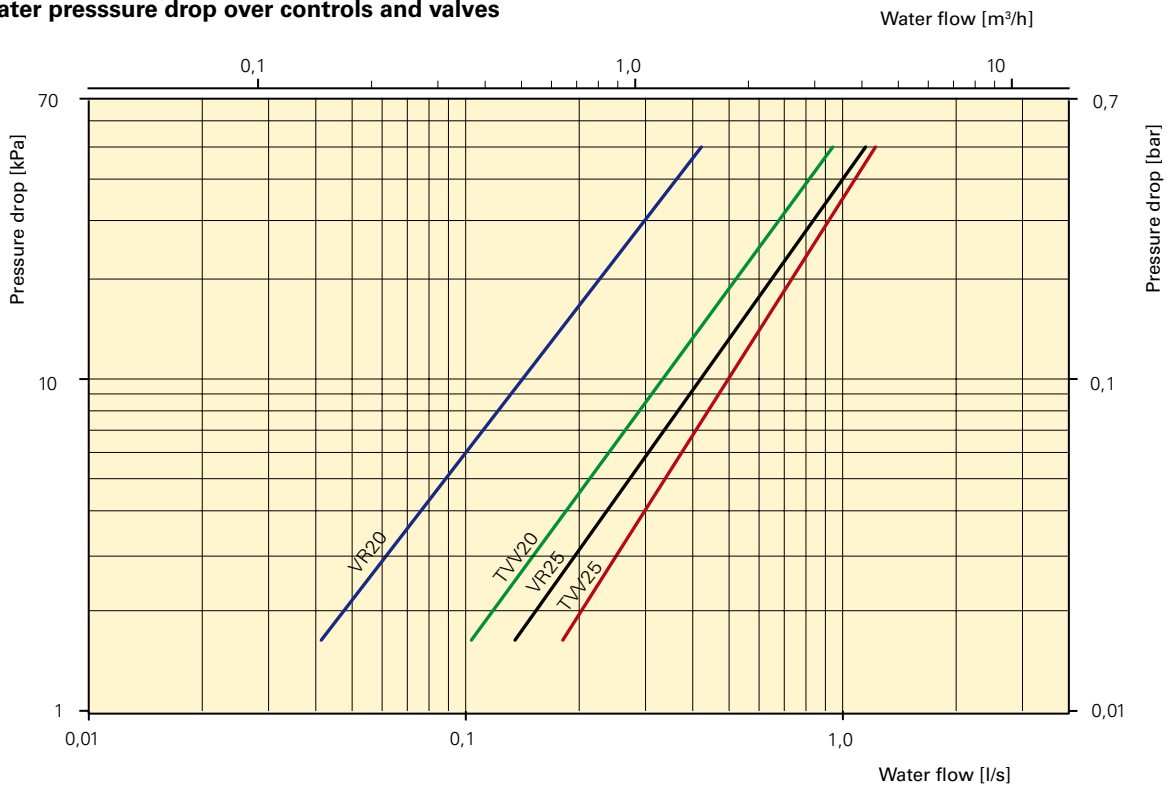
Incoming / outgoing water temperature 60/30 °C								
			Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
Type	Fan position	Airflow [m³/h]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
RD320WL	max	3400	15,1	28	0,12	11,6	30	0,09
RD415WL	max	3500	12,9	26	0,10	9,6	28	0,08
RD420WL	max	5100	19,3	26	0,16	14,9	29	0,12
RD425WL	max	6000	23,4	27	0,19	18,0	29	0,14

Pressure drop water

Water pressure drop over RD W water coil



Water pressure drop over controls and valves



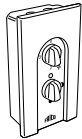
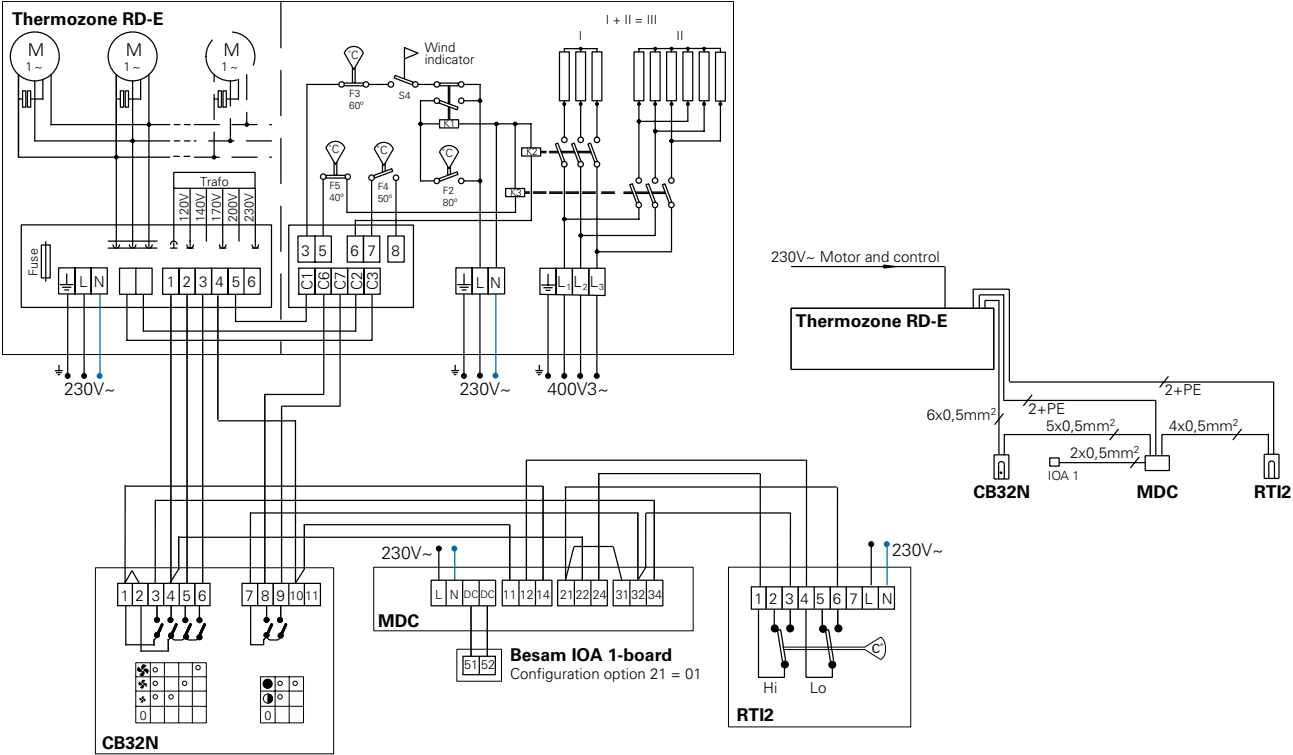
The pressure drop is calculated for an average temperature of 70 °C (PVV 80/60). For other water temperatures, the pressure drop is multiplied by the factor K.

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

Wiring diagrams RD E

Electrical control options

Level 2



CB32N, control box



RTI2, electronic 2-stage thermostat



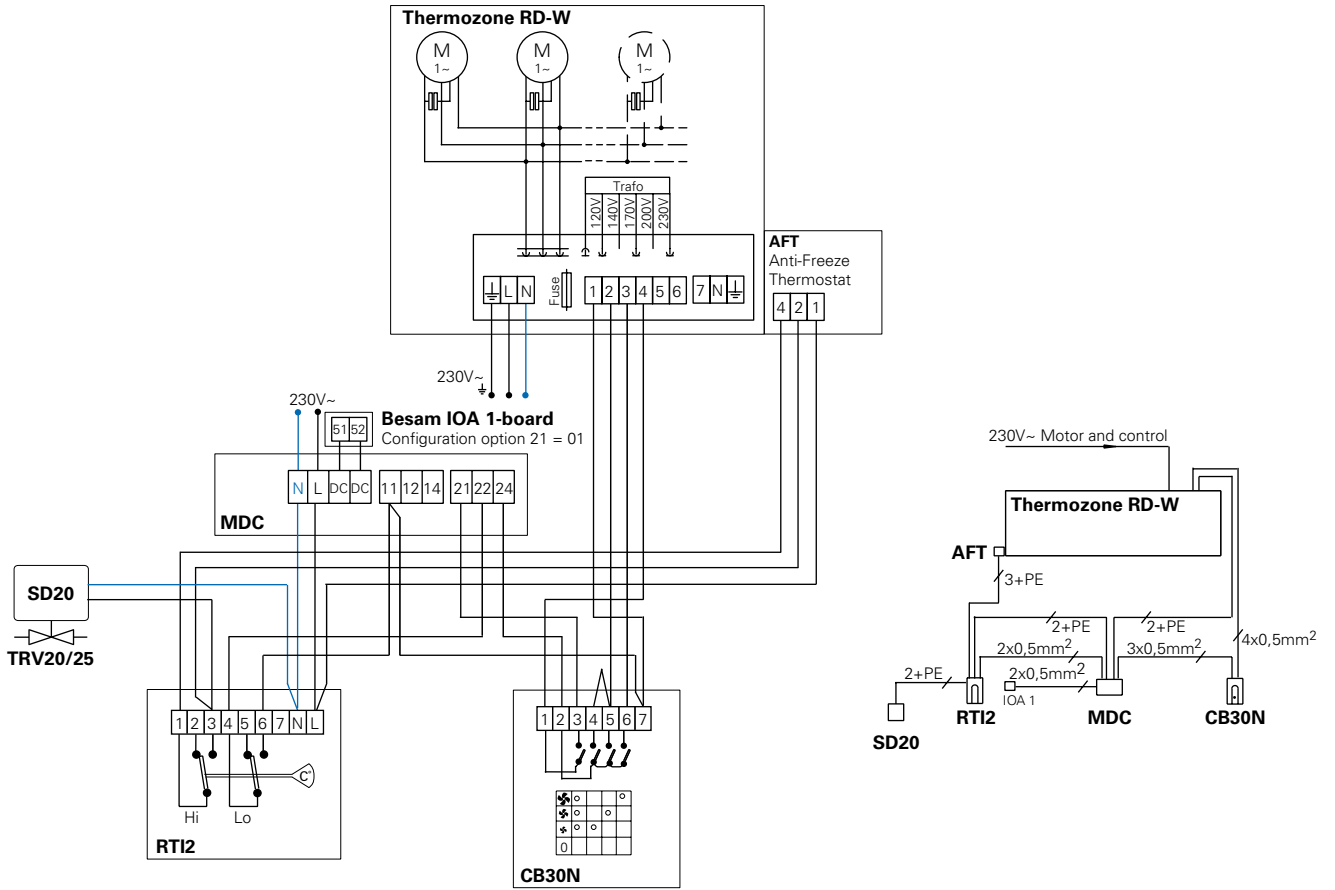
MDC, magnetic door contact with time delay

Thermozone RD

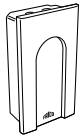
Wiring diagrams RD W

Water control options

Level 2



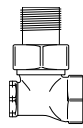
Integrated valves



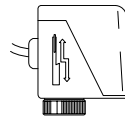
RTI2, electronic 2-stage thermostat



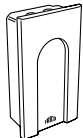
CB30N, control box



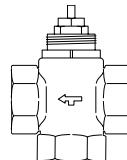
BPV10



SD20



MDC, magnetic door contact with time delay



TRV25