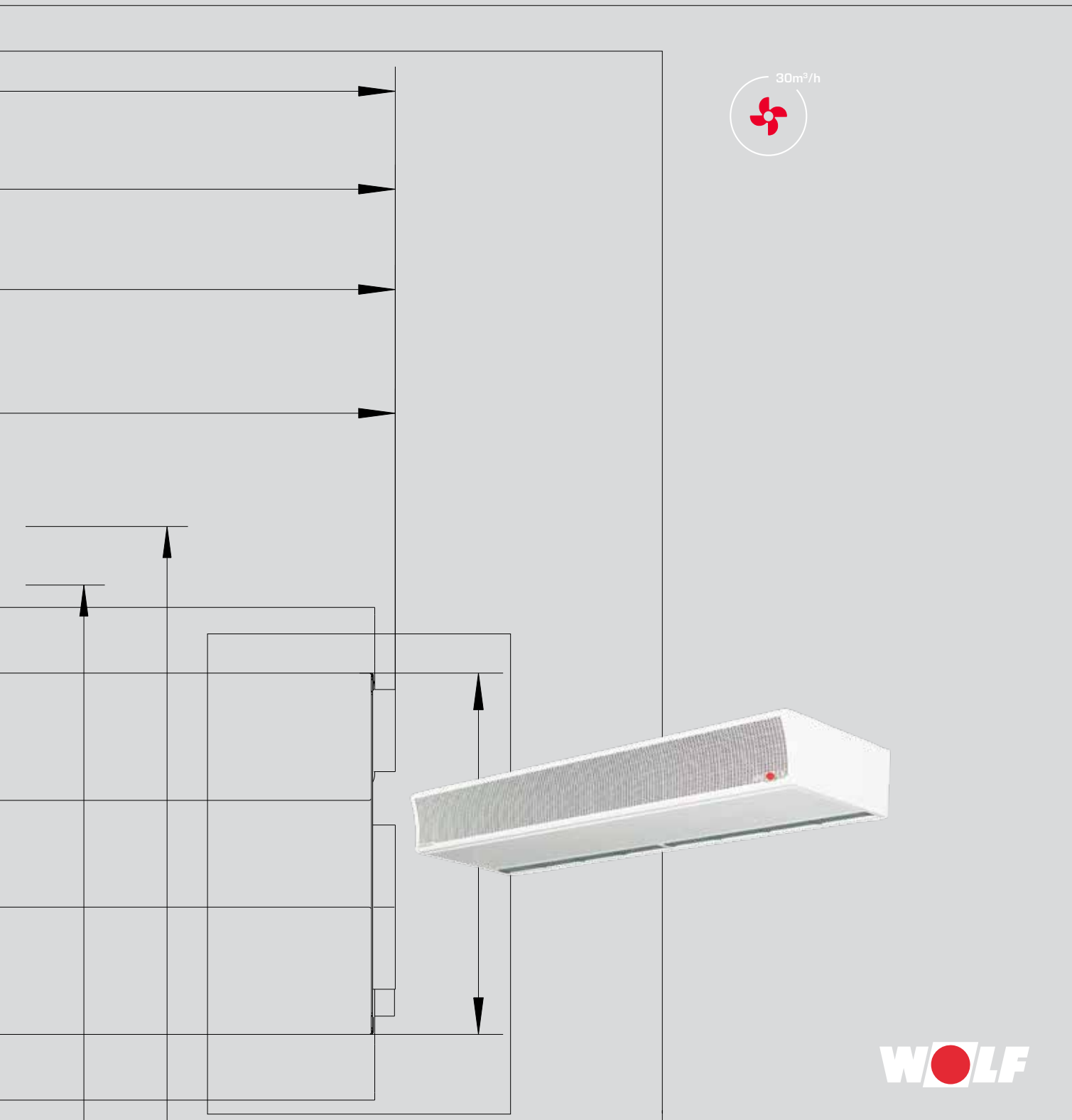
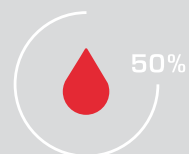


TECHNICAL DOCUMENTATION

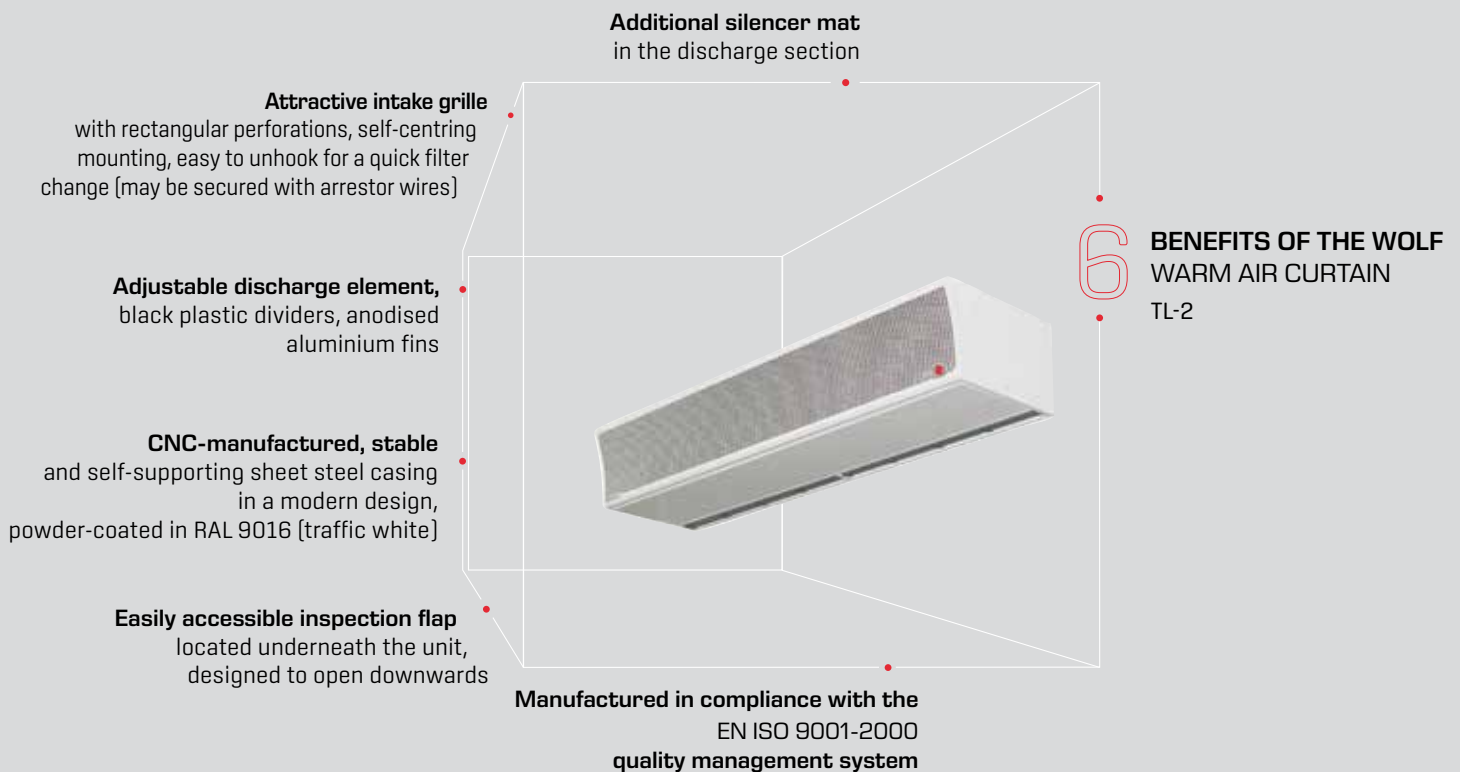
WOLF WARM AIR CURTAIN

TL-2



WOLF

TL-2 WARM AIR CURTAIN



CASING

Self-supporting casing made from powder-coated sheet steel (RAL 9016); vertical installation next to the entrance on request

INTAKE GRILLE

Intake grille made from perforated sheet steel (CNC-manufactured, rectangular perforations), powder-coated in the appliance colour, easy to unhook for a quick filter change; the grille is self-centring and, after being removed, can be suspended on arrestor wires during filter maintenance

FILTER

Renewable filter element (category G2) ensures a consistently high heat transfer and a long service life for the appliance (only for PWW, PHW or appliances heated by steam)

HEAT EXCHANGER

3 types of heat exchanger for each air curtain for pumped hot water PWW / PHW (steam available on request)

Heat exchanger made from Cu/Al, collector made from Cu, secured to prevent twisting, heat exchanger fins made from Al
Imperial threaded connections (3/4" female thread)

IMPORTANT INFORMATION

For PWW and PHW - connections for PN 16 up to 110 °C: water flow and return in the top left (when viewed in the direction of airflow) for the TL-2 A10 to TL-2 A30; in the top right (when viewed in the direction of airflow) for the TL-2 A40
Change to top right or to the left or right side on request

ALTERNATIVE:

Electric heat exchanger

Electric heating coil, base frame made from zinc-plated sheet steel with resistance heater elements, corrosion-resistant with spiral-shaped fins and thermal overheating protection, available on request

ALTERNATIVE:

Zinc-plated steel heat exchanger

Heat exchanger and collector made from zinc-plated steel, suitable for pumped hot water PWW/PHW, available on request

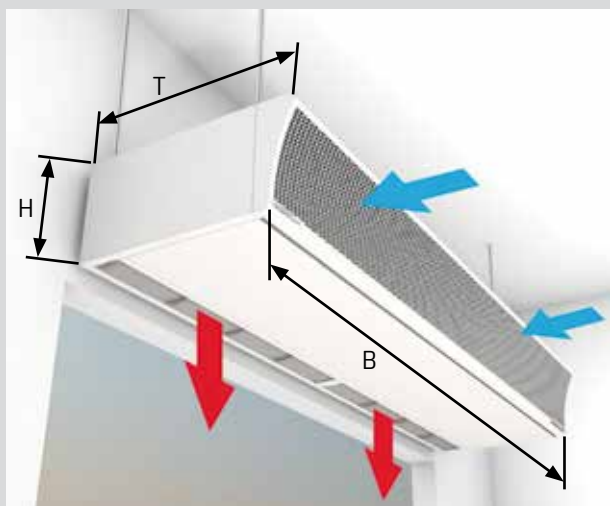
FANS

Radial fans with double-sided air intake, supported to provide vibration-free running, equipped with 230 V/50 Hz AC motors, direct drive, multiple fan vanes, operates quietly with high fan draught, motor protected via thermal cutouts routed to the outside

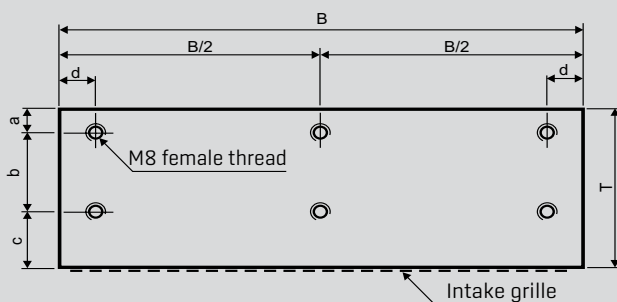
AIR DISCHARGE APERTURE

Air discharge can be pivoted by rotating the discharge system.

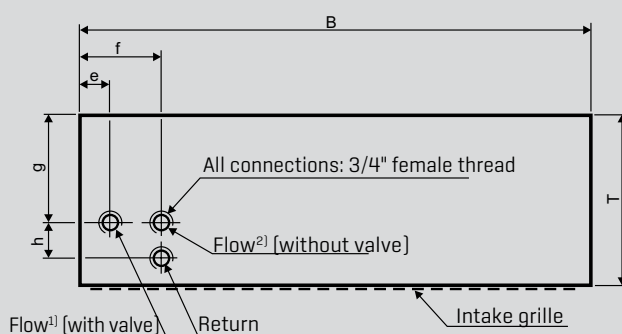
UNIT DIMENSIONS



TOP VIEW OF THE UNIT – CEILING MOUNTED



TOP VIEW OF THE UNIT – PIPE CONNECTION



¹ Connection only if valves are pre-assembled.

² Connection without valves or if valves are supplied loose.

TL-2 A10 - TL-2 A30

B	1000	1500	2000	2500	3000
T	555	555	555	555	555
H	260	260	260	260	260

TL-2 A40

B	1000	1500	2000	2500	3000
T	610	610	610	610	610
H	290	290	290	290	290

TL-2 A10 - TL-2 A30

B	1000	1500	2000	2500	3000
a	35	35	35	35	35
b	295	295	295	295	295
c	225	225	225	225	225
d	40	40	40	40	40
B/2	-	-	-	1250	1500

TL-2 A40

B	1000	1500	2000	2500	3000
a	50	50	50	50	50
b	325	325	325	325	325
c	235	235	235	235	235
d	40	40	40	40	40
B/2	-	-	-	1250	1500

TL-2 A10 - TL-2 A30

B	1000	1500	2000	2500	3000
e	80	80	80	80	80
f	175	175	175	175	175
g	366	366	366	366	366
h	50	50	50	50	50

TL-2 A40

B	1000	1500	2000	2500	3000
e	80	80	80	80	80
f	175	175	175	175	175
g	416	416	416	416	416
h	50	50	50	50	50

SPECIFICATION

TYPE	TL-2	A10					A20				
Part no.		2138003	2138004	2138005	2138006	2138007	2138008	2138009	2138010	2138011	2138012
Installed width	[mm]	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000
Installed height	Max. m	2.3	2.3	2.3	2.3	2.3	2.6	2.6	2.6	2.6	2.6
Air volume	Stage 3 m ³ /h	1400	1800	2700	3600	4100	1900	2700	3800	4600	5400
Max. discharge speed	m/s	5.4	5.4	5.4	5.4	5.4	7.5	7.5	7.5	7.5	7.5
Sound pressure level*	[3 m distance] dB(A)	53	54	55	56	58	54	55	56	57	59
Heating output	[70/50 °C]** kW	7.7	9.9	14.8	19.7	22.5	10.4	14.8	20.8	25.2	29.6
	[60/40 °C]** kW	6.1	7.9	11.8	15.8	18.0	8.3	11.8	16.7	20.2	23.7
Flow rate	[70/50 °C] m ³ /h	0.33	0.42	0.64	0.85	0.97	0.45	0.64	0.90	1.08	1.27
	[60/40 °C] m ³ /h	0.26	0.34	0.51	0.68	0.77	0.36	0.51	0.72	0.87	1.02
Water pressure drop	[70/50 °C] kPa	0.76	0.63	1.18	1.73	2.52	1.36	1.35	2.03	2.46	3.94
	[60/40 °C] kPa	0.73	0.73	1.43	2.15	3.68	1.05	1.19	2.14	2.87	5.11
Pipe connections (fem.)	flow/return inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Electrical data, fans	230 V kW	0.46	0.46	0.69	0.92	1.15	0.46	0.69	0.92	1.15	1.38
	A	2.10	2.10	3.15	4.20	5.25	2.10	3.15	4.20	5.25	6.30
Weights	kg	40	45	65	75	100	40	50	70	90	105

SPECIAL VERSION WITH ELECTRIC HEATING COIL (three-stage, 400 V, 3 phase, 50 Hz)

Stage 1	kW	3	4	6	6	8	3.5	5	6	8	10
Stage 2	kW	6	8	12	12	16	8.5	12.5	17	20	25
Stage 3	kW	9	12	18	18	24	12	17.5	23	28	35

TYPE	TL-2	A30					A40				
Part no.		2138013	2138014	2138015	2138016	2138017	2138018	2138019	2138020	2138021	2138022
Installed width	[mm]	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000
Installed height	Max. m	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5
Air volume	Stage 3 m ³ /h	2700	3600	5400	6300	7200	2900	4300	5700	7100	8300
Max. discharge speed	m/s	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
Sound pressure level*	[3 m distance] dB(A)	55	56	57	58	60	58	60	62	63	64
Heating output	[70/50 °C]** kW	14.8	19.7	29.6	34.6	39.5	15.6	23.1	30.6	38.2	44.6
	[60/40 °C]** kW	11.8	15.8	23.7	27.6	31.6	12.5	18.5	24.5	30.5	35.7
Flow rate	[70/50 °C] m ³ /h	0.64	0.85	1.27	1.49	1.70	0.60	1.02	1.35	1.46	1.96
	[60/40 °C] m ³ /h	0.51	0.68	1.02	1.19	1.36	0.54	0.79	1.05	1.31	1.53
Water pressure drop	[70/50 °C] kPa	2.68	2.29	3.78	4.33	7.33	3.27	1.40	3.13	1.85	3.20
	[60/40 °C] kPa	1.53	1.64	3.17	4.10	7.11	2.86	1.27	2.47	2.00	3.55
Pipe connections (fem.)	flow/return inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Electrical data, fans	230 V kW	0.69	0.92	1.38	1.61	1.84	0.50	0.66	0.83	0.99	1.16
	A	3.15	4.20	6.30	7.35	8.40	3.90	5.20	6.50	7.80	9.10
Weights	kg	42	65	80	100	120	80	95	130	150	195

SPECIAL VERSION WITH ELECTRIC HEATING COIL (three-stage, 400 V, 3 phase, 50 Hz)

Stage 1	kW	5	7.5	10	12	15	5	7.5	10	12	15
Stage 2	kW	10	15	20	24	30	10	15	20	24	30
Stage 3	kW	15	22.5	30	36	45	15	22.5	30	36	45

* Sound pressure level – centre of area, distance 3.0 m, room volume 3000 m³, reverberation time 1.0 s

** Heating output at intake temperature 20 °C, discharge temperature 35 °C [70/50 °C] or 32 °C [60/40 °C]

Selection of warm air curtain unit taking all important criteria into account.

TL-2 checklist to evaluate ambient and local conditions

1. Installation height: [passage]	Max.	2.3 m	① ... points
	Max.	2.5 m	③ ...
	Max.	3.0 m	④ ...
2. Passage width:	Max.	1.5 m	① ...
	Max.	2.0 m	② ...
	Max.	3.0 m	③ ...
	Max.	4.0 m	⑤ ...
	≥	6.0 m	⑧ ...
3. Room surface area:	Up to	100 m ²	① ...
	Up to	250 m ²	② ...
	Up to	500 m ²	③ ...
	Up to	750 m ²	④ ...
	Up to	1000 m ²	⑤ ...
	Over	1000 m ²	⑦ ...
4. Room height:	Standard height		① ...
	High ceiling		③ ...
	Upper floor with (indoor) staircase		⑤ ...
5. Further passages	None or on same wall		① ...
	Lateral		③ ...
	Opposite		⑤ ...
6. Porch:	Closed (double doors)		① ...
	Open		② ...
	None		④ ...
7. Climatic conditions:	Positive pressure		① ...
	Pressure compensation		② ...
	Negative pressure		④ ...
8. Local conditions:	Separate row of houses		① ...
	Corner location/ bordering a square		⑤ ...
	Extreme location (e.g. riverbank, lakeside, hill top)		⑩ ...
9. Wind exposure:	Generally weak		② ...
	Average		⑤ ...
	Strong		⑩ ...
10. Direction:	North, east, south, west		- ① ...
	Sum of points		

CAPACITY SELECTION ACCORDING TO TABLE [depending on total number of points]

Number of points	Models	Door widths in m	Air handling rate per m door width m ³ /h	Heating output per m curtain kW *	Discharge velocity from curtain m/s	Installation height m
10	TL-2 A10	1 / 1.5 / 2 / 2.5 / 3	1400	7.7	5.4	2.3
20	TL-2 A20	1 / 1.5 / 2 / 2.5 / 3	1900	10.4	7.5	2.6
30	TL-2 A30	1 / 1.5 / 2 / 2.5 / 3	2900	14.8	10.0	3
40	TL-2 A40	1 / 1.5 / 2 / 2.5 / 3	4000	15.9	11.5	3.5

* for PWW 70/50 °C, intake temperature 20 °C, discharge temperature 35 °C

ACCESSORIES

CONTROLLERS

Controller type WTMC 300

3-stage fan speed controller with additional functions for matching the air flow rate to different weather conditions; max. 10 A

- Graphic touchscreen
- Key lock
- ON/OFF changeover key
- Manual/automatic setting; e.g. automatic door contacts, room thermostat
- Summer/winter setting (with or without heating medium)
- Full motor protection; electronic processing and signalling in the event of motor failure
- Fault messages can be retrieved from memory for remote diagnosis

Controller type WTMC 500

5-stage fan speed controller with additional functions for matching the air flow rate to different weather conditions; max. 10 A

- Graphic touchscreen
- Key lock
- Enable DDC/BMS
- Integral electronic filter monitor
- ON/OFF changeover key
- Manual/automatic setting; e.g. automatic door contacts, room thermostat
- Summer/winter setting (with or without heating medium)
- Fault messages can be retrieved from memory for remote diagnosis
- Run-on control via door contact with adjustable run-on time
- Floating changeover contacts, operating and central fault messaging 16 A

FROST STAT

Frost stat type WTF, part no. 21 00 355

Version with capillary sensor

Capillary length 3 m, with 1 switching circuit, designed as changeover switch.

For units with **WTC 3** and **WTC 5** controllers.

Function

The frost stat has a changeover contact that switches over when the temperature falls below 5 °C. The temperature can be set to between -10 °C and +12 °C.

Example:

If the temperature falls to 5 °C, the frost stat switches off the fans to prevent the heating coils from cooling down or freezing.

THERMOSTATIC CONTROL VALVE

Type WTR 2 (2-way valve) / WTR 3 (3-way valve)

WTR 2 / WTR 3 thermostatic control valve with thermostatic head for a constant discharge temperature.

The WTR 2 / WTR 3 thermostatic control valves are automatic proportional controllers that regulate water flow rates. The valve opens when the sensor temperature drops.

Capillary length: sensor 2 m

WTR 2 design: straight-through valve DN 20, kvs = 5.0 or right angle valve DN 20, kvs = 7.0

WTR 3 design: three-way valve DN 20, kvs = 4.5

THERMOELECTRIC SHUT-OFF VALVE

Type WTAV (2-way valve)

Thermoelectric shut-off valve, type **WTAV**, 230 V, normally closed.

In conjunction with WTC 3 or WTC 5 controllers.

To shut off the water flow in "summer" mode in conjunction with our controllers, or to regulate water flow rates with control systems provided by the customer.

WTAV design: straight-through valve DN 20, kvs = 5.0 or right angle valve DN 20, kvs = 7.0

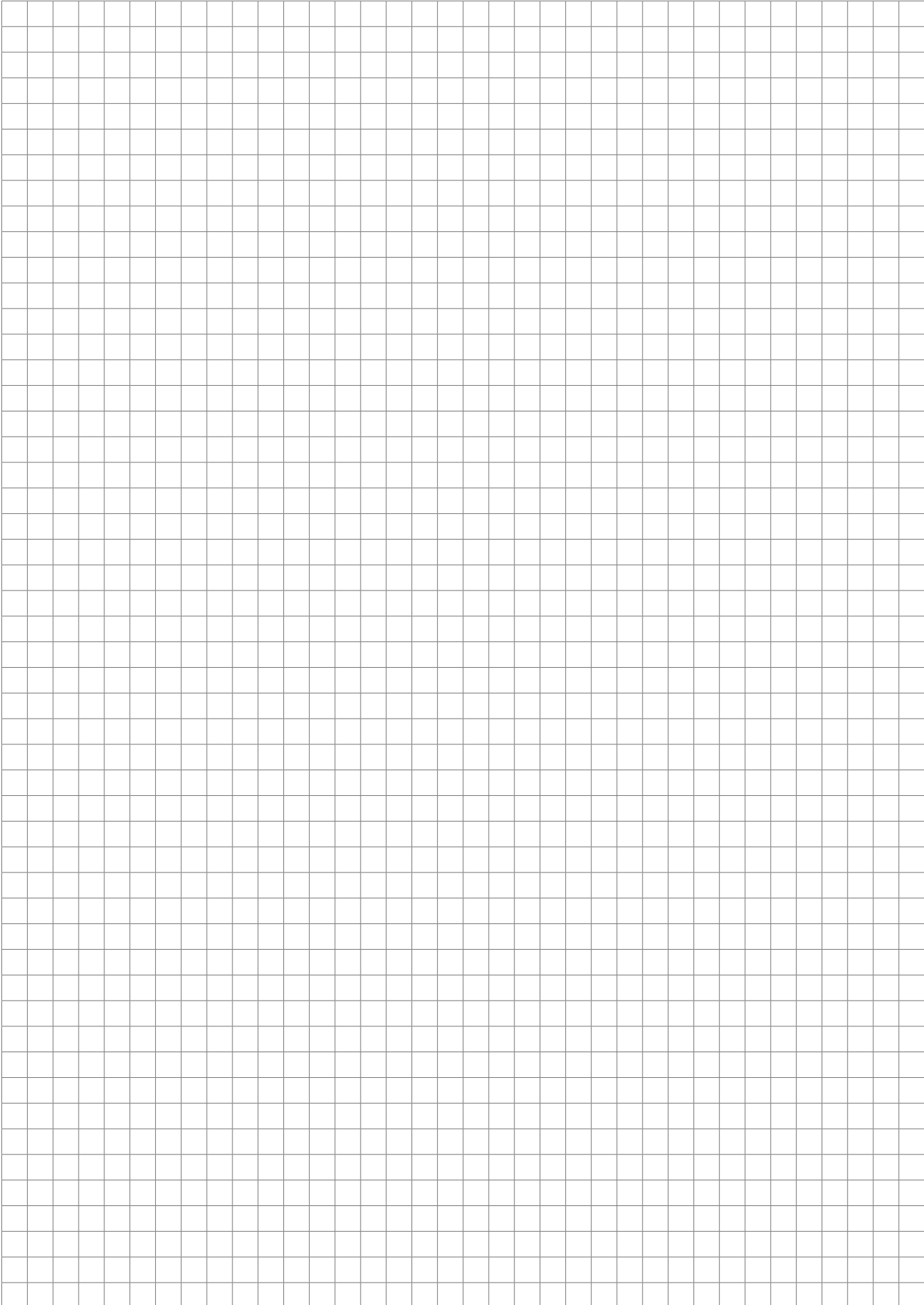
CEILING SUSPENSION DEVICE

Type WDH 4 / WDH 6

The ceiling suspension device, type **WDH 4 / WDH 6** has threaded rods for length adjustment.

The threaded rods allow the ceiling suspension devices (which are required for an air curtain) to be adjusted, thereby ensuring that the air curtain is level.

Design options: WDH 4 up to 2.0 m installed width; WDH 6 for 2.5 m installed width or more.



Dealer address

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