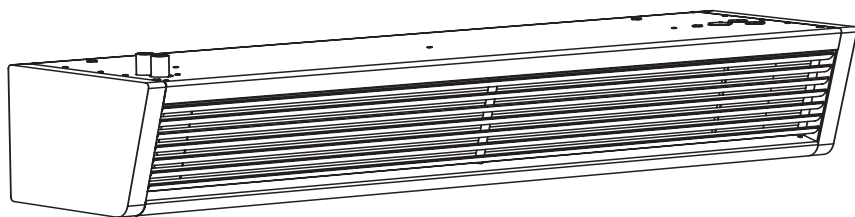




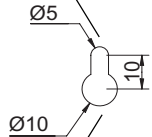
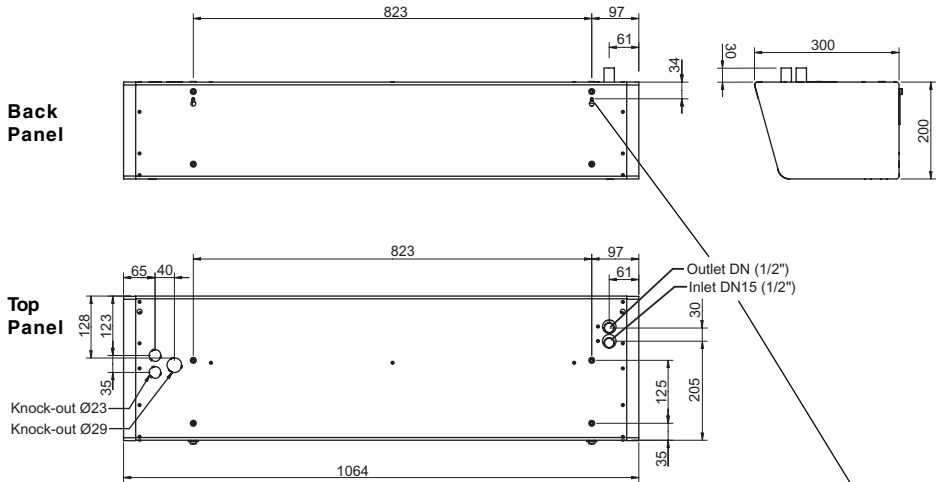
S10 W



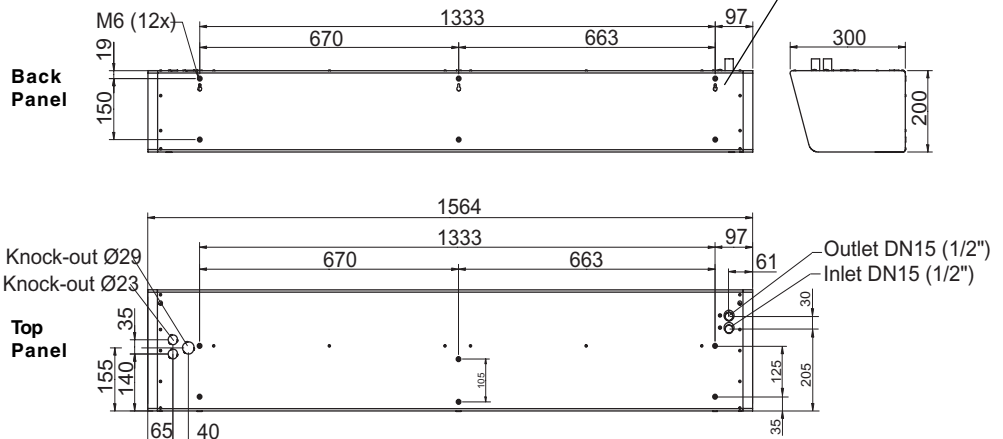
... 10

S10 W

S10-100 W (Figure 1)



S10-150 W (Figure 2)



S10 W

Figure 3

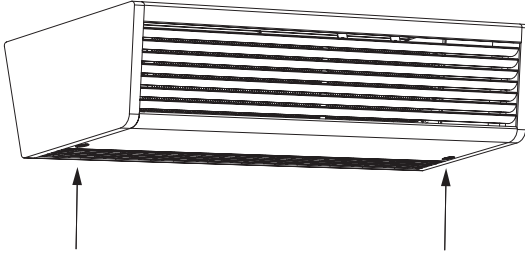


Figure 4

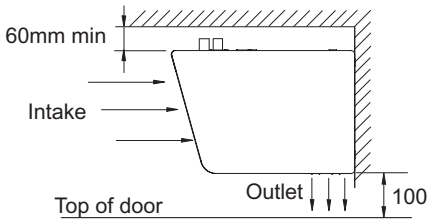


Figure 5

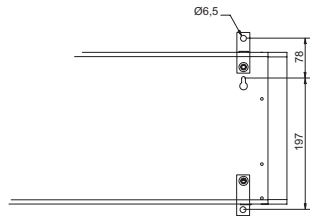


Figure 6

ADPF1

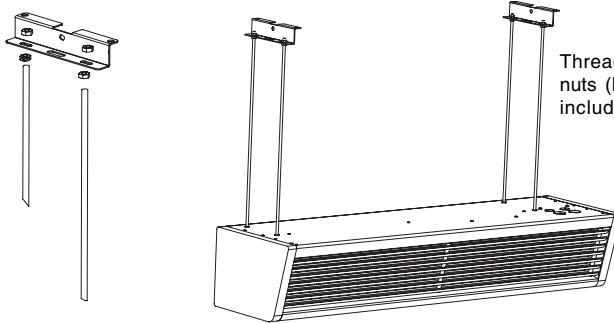
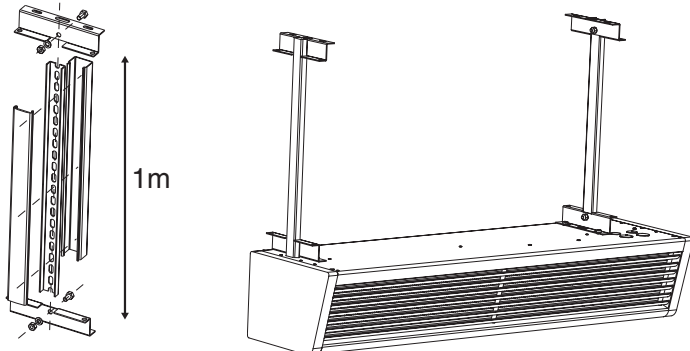


Figure 7

ADPK



S10 W

Figure 8

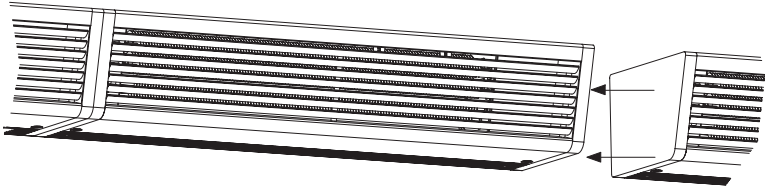
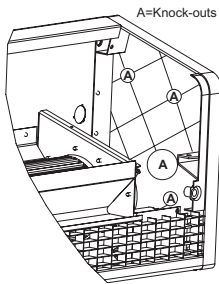


Figure 9

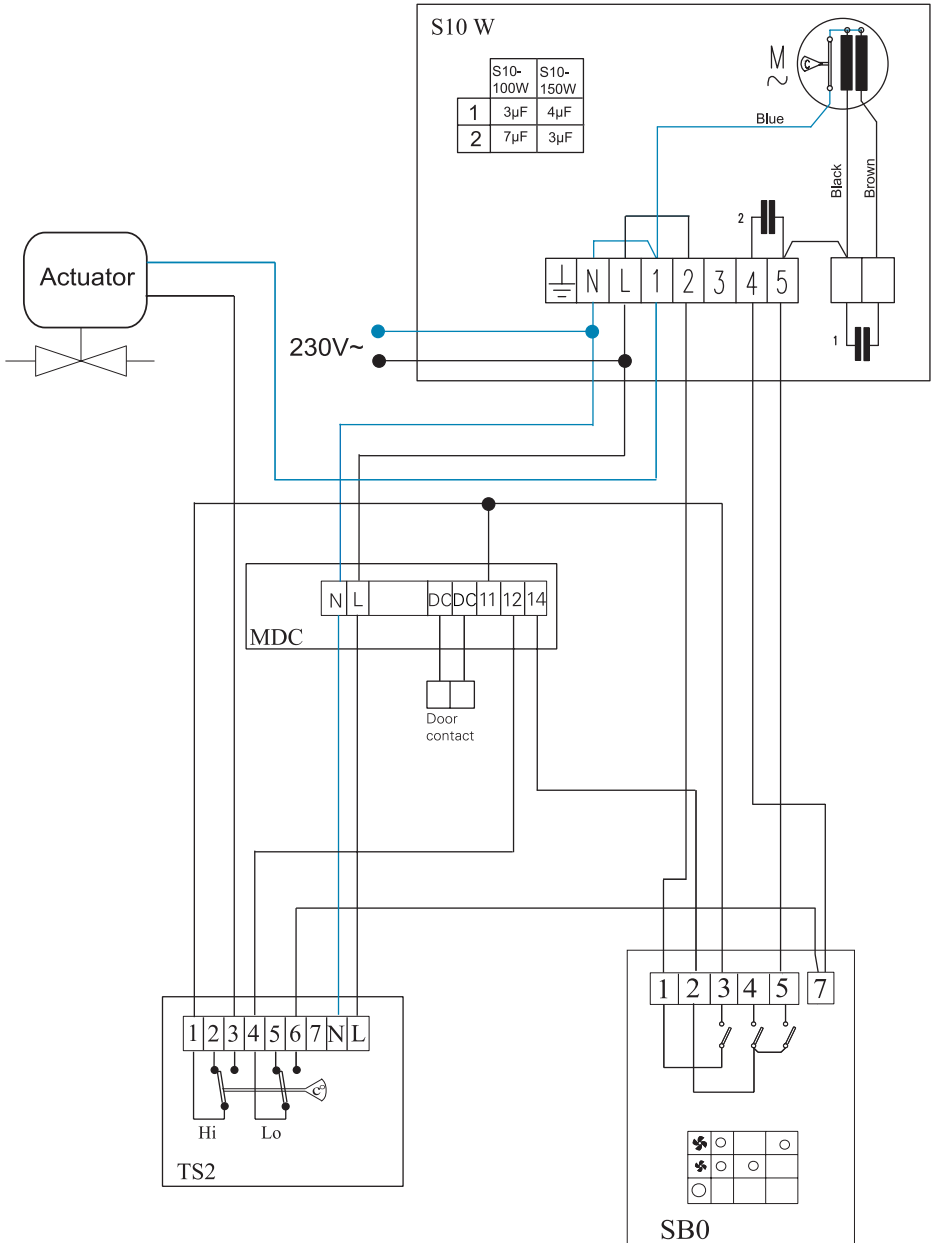


Data

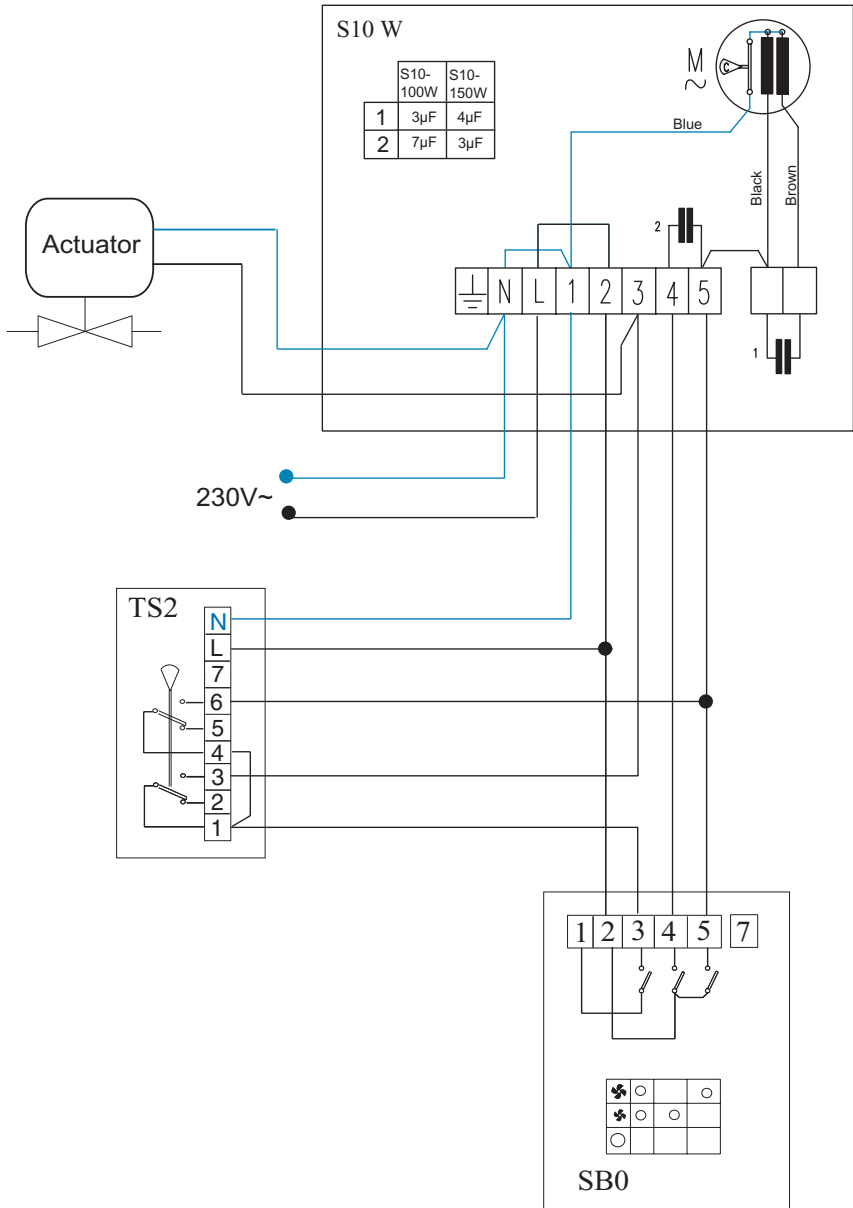
Type	S10-100W	S10-150W
Output 82 / 71°C [kW]	8,4	13,2
Voltage, motor [V]	230V~	230V~
Current, motor [A]	0,5	0,6
Airflow [m³/h]	950/1150	1100/1700
Sound level* ¹⁾ [dB(A)]	47 / 52	40 / 48
Weight [kg]	17	23,5
Length [mm]	1064	1564
Protection class	IP 24	IP 24

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

S10 W



S10 W



S10 W

Water 130/65°C

Typ	Fan-speed	Air-flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water flow [l/s]
S10-100W	max	1150	9,8	40	0,03	9,0	43	0,03
	min	950	8,8	42	0,03	8,1	45	0,02
S10-150W	max	1700	15,7	42	0,05	14,5	45	0,05
	min	1100	12,5	49	0,04	11,7	51	0,03

Water 90/70°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water-flow [l/s]
S10-100W	max	1150	8,6	37	0,10	7,9	40	0,09
	min	950	7,7	39	0,09	7,1	32	0,03
S10-150W	max	1700	13,6	38	0,16	12,5	41	0,14
	min	1100	10,5	43	0,12	9,6	46	0,11

Water 82/71°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water flow [l/s]
S10-100W	max	1150	8,4	37	0,18	7,6	40	0,16
	min	950	7,5	39	0,16	6,9	41	0,14
S10-150W	max	1700	13,2	37	0,28	12,1	41	0,26
	min	1100	10,1	42	0,21	9,3	45	0,20

Water 80/70°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water-flow [l/s]
S10-100W	max	1150	8,2	36	0,19	7,5	39	0,17
	min	950	7,3	38	0,17	6,7	41	0,15
S10-150W	max	1700	12,9	37	0,30	11,8	40	0,28
	min	1100	9,9	41	0,23	9,0	44	0,21

Water 80/60°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water-flow [l/s]
S10-100W	max	1150	7,1	33	0,08	6,4	37	0,07
	min	950	6,4	35	0,07	5,8	38	0,06
S10-150W	max	1700	11,3	34	0,13	10,2	37	0,12
	min	1100	8,7	38	0,10	7,9	41	0,09



S10 W

Water 70/40°C

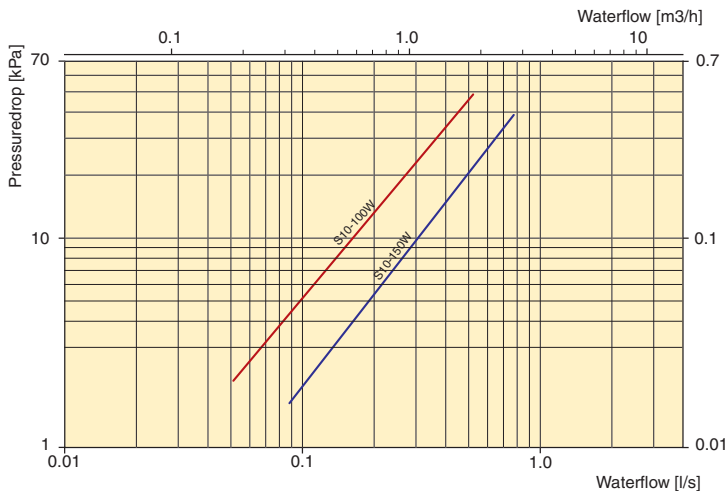
Typ	Fan-speed	Air-flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water flow [l/s]
S10-100W	max	1150	4,5	27	0,03	3,8	30	0,02
	min	950	4,1	28	0,03	3,4	31	0,02
S10-150W	max	1700	7,3	27	0,05	6,2	30	0,04
	min	1100	5,7	30	0,04	4,8	33	0,03

Water 60/40°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water-flow [l/s]
S10-100W	max	1150	4,2	26	0,04	3,4	29	0,04
	min	950	3,7	27	0,04	3,1	30	0,03
S10-150W	max	1700	6,7	26	0,07	5,6	30	0,06
	min	1100	5,2	29	0,06	4,4	32	0,05

Water 55/35°C

Typ	Fan-speed	Air flow [m³/h]	Air in = +15°C			Air in = +20°C		
			Power [kW]	Air out [°C]	Water flow [l/s]	Power [kW]	Air out [°C]	Water flow [l/s]
S10-100W	max	1150	3,4	24	0,04	2,7	27	0,03
	min	950	3,1	25	0,03	2,4	28	0,02
S10-150W	max	1700	5,5	24	0,06	4,4	28	0,05
	min	1100	4,3	27	0,05	3,4	29	0,04



The pressure drop is referring to the water temperature 70°C, (P_W 80/60).
Correction factor K for other temperatures.

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

Assembly and operating instructions

General recommendations

Carefully read this instruction manual before installation and use of the S10 unit. Keep these instructions in a safe place for future reference.

Application area

The S10 air curtains are intended for stationary/permanent installation above entrances and smaller doors with a height up to 2.5 metres, but can also be used for industrial heating and drying. The unit can be surface mounted above a doorway or recessed into a ceiling.

Protection class: IP24 (splashproof)

Operation

The air is drawn in at the front of the unit and blown out at high velocity across the doorway, providing a protective air shield. The air shield minimises cold draughts and reduces heat loss through open doorways. For best efficiency, the air curtain(s) should cover the whole width of the opening.

The airflow can be regulated by use of the fan speed selector (See accessories)

The efficiency of the air curtain(s) depends on the air temperature and pressure differences across the doorway and any wind pressure.

NOTE! Negative pressure in the building considerably reduces the efficiency of the air curtain. Ventilation should therefore be balanced.

Mounting

The units may only be installed horizontally over a doorway with the air-stream directed downwards.

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

For optimal performance it is recommended that a minimum gap of 60mm is maintained above the air-curtain. Regarding other dimensions and minimum assembly distances, please see page 3. **NOTE!** S10-150 W must be fixed using the three points of attachment (on each end and in the middle), when suspended from the ceiling or mounted on the wall.

The air curtains should be installed as close as possible to the top of the door for maximum effectiveness (see Figure 4).

Intake and outlet grilles must be completely free from obstruction.

If multiple modules are to be used in one application (Figure 8) the knock-outs shown in Figure 9 must be removed to secure the interlocking faces. Refer to instructions in the linking kit for further details on mounting and wiring.

Fitted on the wall or beam

1. The S10 is to be suspended on the 2 / 3 keyhole slots on the rear of the unit. Suitable threads can be M6S or M6. **NOTE!** The unit must be secured using the supplied locking strip if fitted using the keyhole slots. The brackets can be fitted either facing upwards or downwards, see Figure 5.
2. The S10 can be bolted direct to the wall/beam. For this application, there are 4 / 6 M6 threads on the rear of the unit, see Figure 5.

Suspended from the ceiling

1. For pendulum fixing there are 4 / 6 M6 threads on the top of the unit, for fixing centres see Figure 1 / 2. Brackets for pendulum fixing are available as accessories.

Alternative mounting

When using the brackets for pendulum fixing ADPF1 or suspension set ADPK see Figure 6 / 7.

Electrical installation

The air curtain(s) should only be wired by a competent electrician, and in accordance with the latest edition of IEE wiring regulations.

1. Unscrew the lower panel fasteners and remove the lower panel from the air curtain (Figure 3).
2. Remove the lid of the connection box by removing the three screws placed on the right side of the unit. Remove the knockouts on top of the unit (2xØ23mm, 2xØ29mm) for routing of electrical supply and remote switching cables.

If considering a multiple module installation, connect the control box to one of the end modules, and connect adjoining modules using cross-over wiring. Further details can be found in the linking kit.

Wiring diagram for installation of the air curtain with accessories, see page 5-7.

NOTE! The cable-glands used must guarantee the protection class requirements!

Water connection

The air curtain has an aluminium finned heating coil (fin distance 4 mm) with copper tubes 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. The water pipes (DN15 - 1/2", outside thread) are connected on the left hand side

(when facing the air curtain) on top of the unit, see Figure 1 / 2. The installation should be carried out by a competent installer.

NOTE! Be careful while connecting the pipes to prevent pipe damage and water leakage.

Prior to use, the pipe system should be vented. An air release valve should be connected on a high point in the pipe system.

It is also recommended that a drain valve is fitted in the supply pipe-work. This should be mounted on the outside of the S10 unit. *Air release and drain valves are not included in the heating coil.*

Overheating

All motors are equipped with an integral thermal safety cut-out. If the motor temperature rises too high this will stop the air curtain.

The cut-out will automatically reset when the motor temperature has returned to within the motor's operating limits.

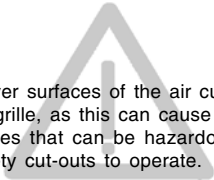
Maintenance

To ensure performance and reliability of the air curtain, inspection and cleaning should be carried out regularly.

Before removing any panels, the power supply must first be disconnected.

Safety

Do not cover surfaces of the air curtain or obstruct air intake grille, as this can cause excessive temperatures that can be hazardous and may cause safety cut-outs to operate.



S10 W

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