



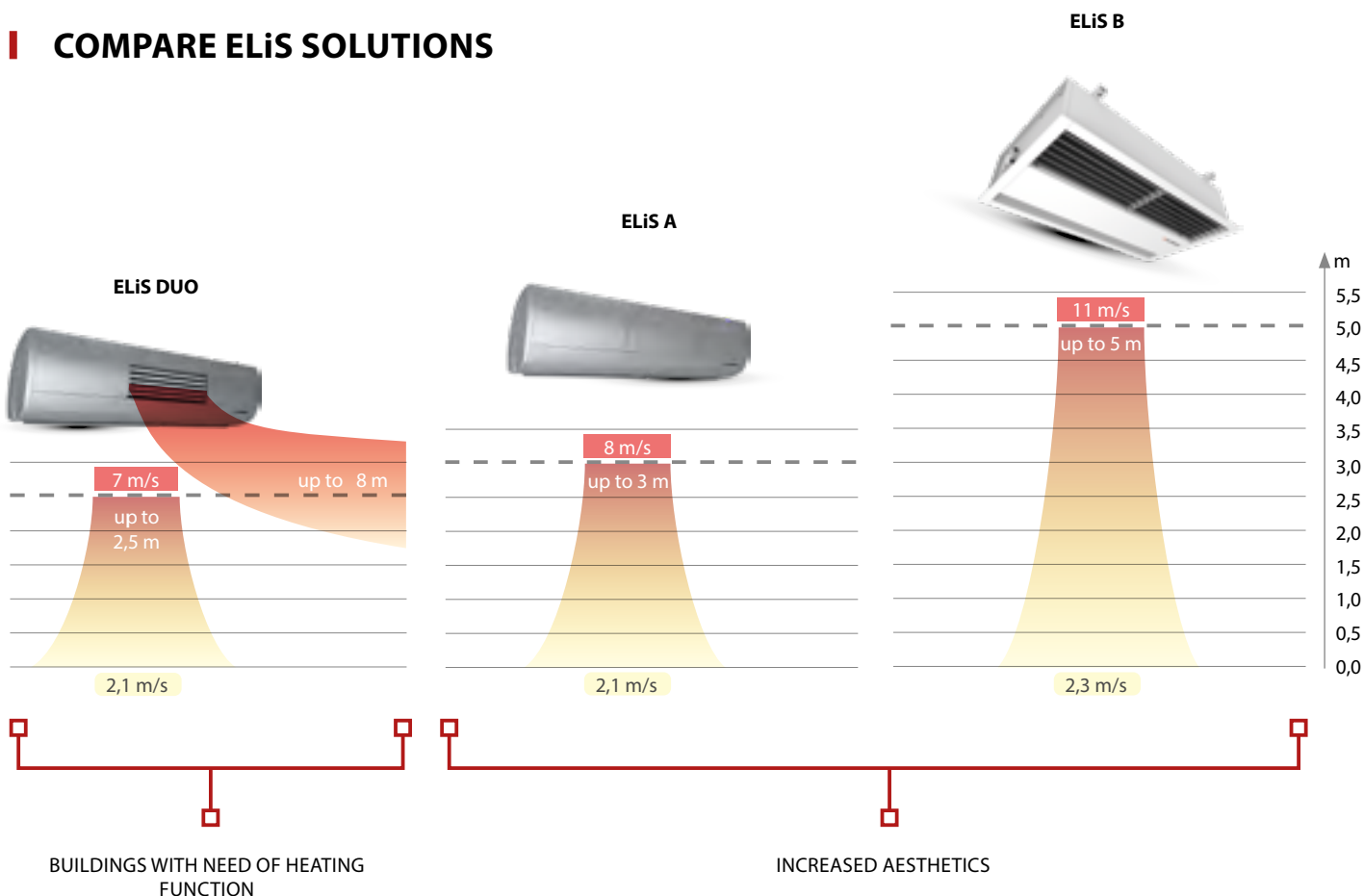
AIR CURTAINS AND AIR CURTAIN-FAN HEATER UNITS

Air curtains ELiS



AIR CURTAINS AND AIR CURTAIN-FAN HEATER UNITS

COMPARE ELiS SOLUTIONS



TECHNICAL DATA

	ELiS DUO	ELiS A	ELiS B
Version	W/E	W/E/N	W/E/N
Height of installation	up to 2,5 m	up to 3 m	up to 5 m
Air flow	1200–3700 m ³ /h	850–3500 m ³ /h	2200–6600 m ³ /h
Acoustic pressure level	45–60 dB(A)	44–59 dB(A)	55–66 dB(A)
BMS	as standard	as standard	as standard

N – without heating elements

W – water heat exchanger

E – electric heaters

■ – Speed limit at the floor level

■ – Outlet air velocity

APPLICATION



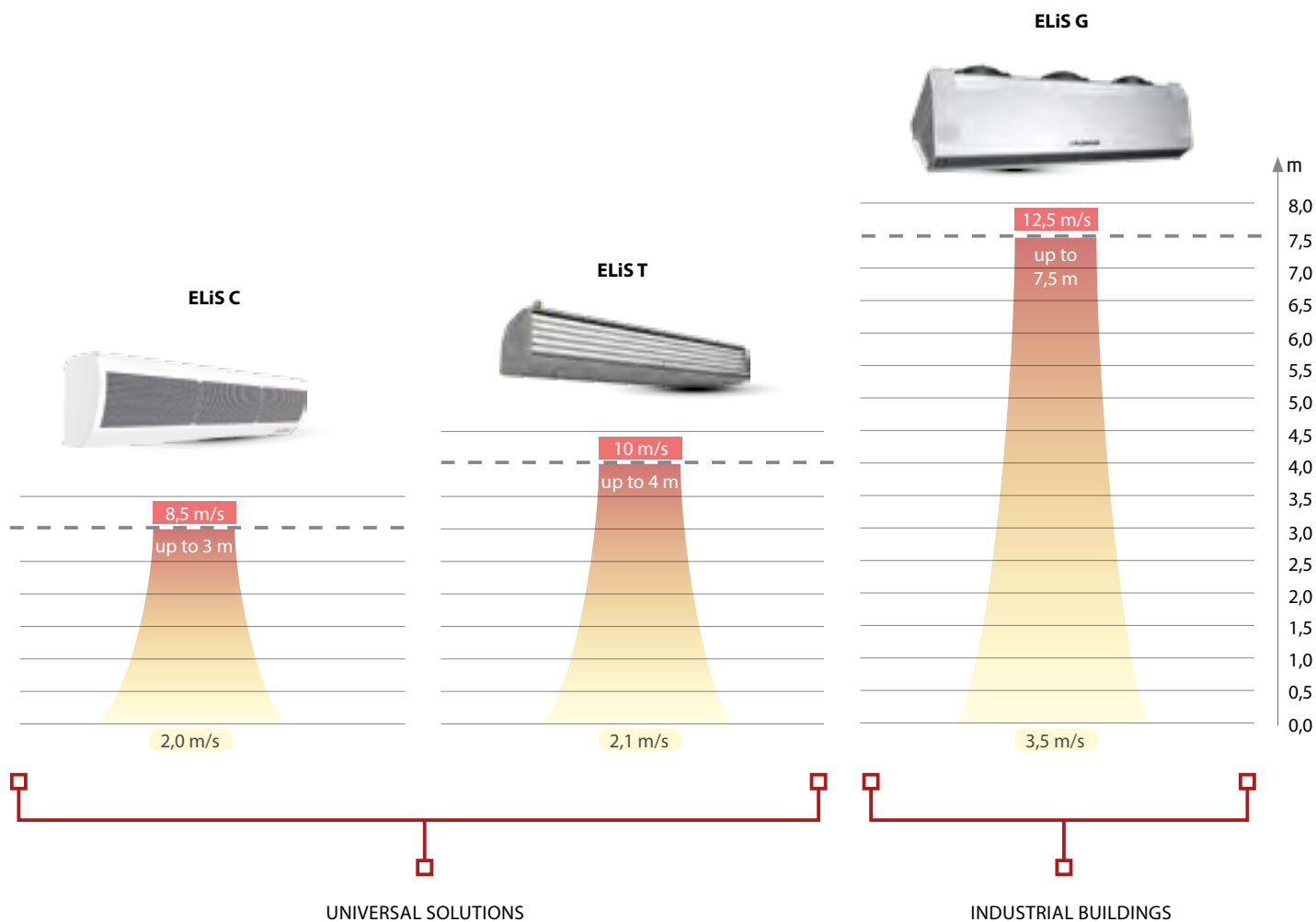
- reception
- banquet rooms
- shops



- exhibition centers
- banks
- airports



- hotels
- offices
- shopping centers



ELiS C	ELiS T	ELiS G
W/E	W/E/N	W/E/N
up to 3 m	up to 4 m	up to 7,5 m
900–3000 m ³ /h	1900–5300 m ³ /h	4100–8600 m ³ /h
49–56 dB(A)	55–65 dB(A)	44–68 dB(A)
via external DRV ELiS module	via external DRV ELiS module	via external DRV ELiS module

Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit
 The maximum value of the outlet speed of the device



- shops
- shopping centers
- petrol stations



- shopping centers
- restaurants
- train stations



- industrial halls
- logistics centers
- warehouses

FLOWAIR R&D LAB

FLOWAIR - expert and manufacturer of HVAC equipment is a member of the EUROVENT Europe's Industry Association for Indoor Climate. This organisation brings together the largest companies in the industry, which jointly create new guidelines and recommendations that are eventually presented to the European Commission. The Association is looking for solutions related to energy savings inside buildings and the use of air curtains is one of recommended solutions.

The use of air curtains allows for thermal protection of the room. Curtains create an air barrier in the door opening and reduce heat losses / heat gains resulting from the inflow of cold air from outside in the winter, as well as inflow of warm air into the air-conditioned rooms during the summer. Presently, the regulations regarding energy losses when the doors are opened are not very clear.

A special project group at EUROVENT is currently developing a methodology for testing and describing air curtains in terms of their effectiveness to get a reliable comparison of their parameters. FLOWAIR - the only Polish producer participating in the project group has created a test stand to measure the effectiveness of air curtains. Based on the tests carried out and subsequent results, new tools will be created to simplify making informed investment decisions. Simply put, to help the end clients choose a proper solution.



I ADVANTAGES OF LABORATORY TESTING FOR THE CLIENT

At FLOWAIR, we constantly undertake activities aimed at increasing the quality of our products and services. A laboratory test is yet another step on the way to continuous product improvement and greater customer satisfaction.



Confirmed parameters



Reliable comparison



Energy saving



Lower risk of investment



NEW FUTURE PROOF STANDARD

We strive for the highest quality of our products. Thanks to laboratory measurements of the effectiveness of air curtains, our customers can be sure that our devices will properly protect the door openings.

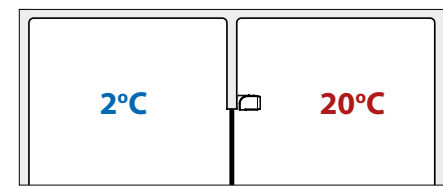


TEST OF AIR CURTAIN EFFICIENCY IN RELATION TO TEMPERATURE DIFFERENCES

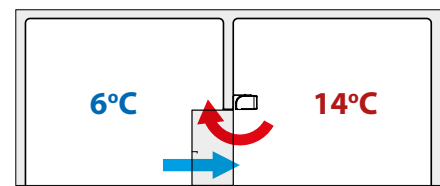
The test was carried out in the FLOWAIR R&D lab, in order to measure the effectiveness of the air barrier created by the air curtain relative to the temperature difference.

TEST 1

Measurement of air temperature difference between the „cooling“ and „heating“ chambers upon opening the door - with curtain in Off mode. Chamber 1 simulates external conditions (air temperature is 2°C), and chamber 2 simulates conditions inside the building (air temperature is 20°C).



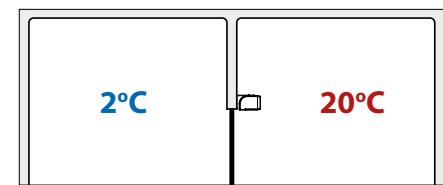
Simulation of external conditions - two closed chambers (cooling and heating).



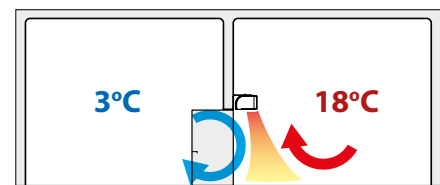
The door open for 60 seconds. Air temperature measurement with the curtain OFF.

TEST 2

The second measurement is the air curtain effectiveness test – the air temperature difference between the „cooling“ and „heating“ chambers upon opening the door with the air curtain ON.



Simulation of external conditions - two closed chambers (cooling and heating).



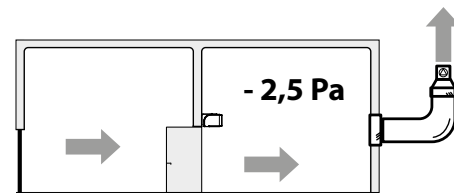
The door open for 60 seconds. Air temperature measurement with the curtain ON.

TEST OF AIR CURTAIN EFFICIENCY IN RELATION TO AIRFLOW

Testing the effectiveness of the air curtain in relation to the airflow (wind simulation) allows you to assess the airflow of the curtain.

TEST 1

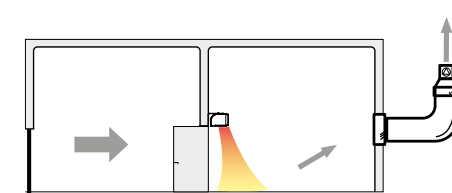
Stabilization of the vacuum pressure (-2.5 Pa) between the chambers and measurement of exhaust fan's efficiency with the door opened.



Stabilization of the vacuum pressure and efficiency of exhaust fan.

TEST 2

Efficiency test of exhaust fan with air curtain ON.



Measurement of the exhaust fan capacity with the air curtain ON.

ISO STANDARD

The FLOWAIR door and gate curtain tests are carried out based on ISO standards, defining the aerodynamic properties of the air curtains (ISO 27327-1) and laboratory methods for testing the sound power level (ISO 27327-2). We take the requirements of the future ISO 27327-3 standard into account, specifying testing methods to determine the effectiveness of the air curtains.

AIR CURTAINS

ELiS C

Range⁽¹⁾ [m] **3**

Heating capacity⁽²⁾ [kW] **14,9–32,5**

Weight [kg] **14,5–35,1**

Casing **Steel, aluminium**

Air flow [m³/h] **900–3000**

Colour⁽³⁾ **White**

⁽¹⁾ According to ISO 27327-1

⁽²⁾ For C-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C

⁽³⁾ RAL 9016



**SPECIAL PAINTING
ON REQUEST**

APPLICATION

ELiS C air curtains are dedicated for public buildings like markets, sports halls, stores, restaurants, etc. ELiS C air curtains are designed for horizontal and vertical installation directly above door openings, where height does not exceed 3 m.

AVAILABLE TYPES OF UNITS:

- 3 LENGTHS**
1 m, 1,5 m or 2 m
- 2 VERSIONS**
W – water heat exchanger
E – electric heaters

TECHNICAL DATA

Air curtains ELiS C

	ELiS C-W-100	ELiS C-E-100	ELiS C-W-150	ELiS C-E-150	ELiS C-W-200	ELiS C-E-200
Power supply [V/Hz]	230 / 50	3 x 400 / 50 or 1 x 230 / 50	230 / 50	3 x 400 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,14	6,5	0,21	10,0	0,26	13,0
Max. current consumption [A]	0,65	9,4 (3x400) 28 (1x230)	0,95	14,5	1,2	18,7
IP	21/F	21/F	21/F	21/F	21/F	21/F
Connection (interior thread)	¾"	–	¾"	–	¾"	–
Curtain air flow stream [m ³ /h]	1400	1300	2100	1950	3000	2700
Acoustic pressure level [dB(A)] ⁽¹⁾	54	54	55	55	56	56
Acoustic power level [dB(A)] ⁽²⁾	69	69	70	70	71	71
Max. water temperature [°C]	90	–	90	–	90	–
Max. operating pressure [MPa]	1,2	–	1,2	–	1,2	–
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	31	15	32	15	32	15
Unit weight [kg]	19,0	14,5	27,5	19,9	35,1	25,1
Range [m] ⁽⁴⁾	3	3	3	3	3	3

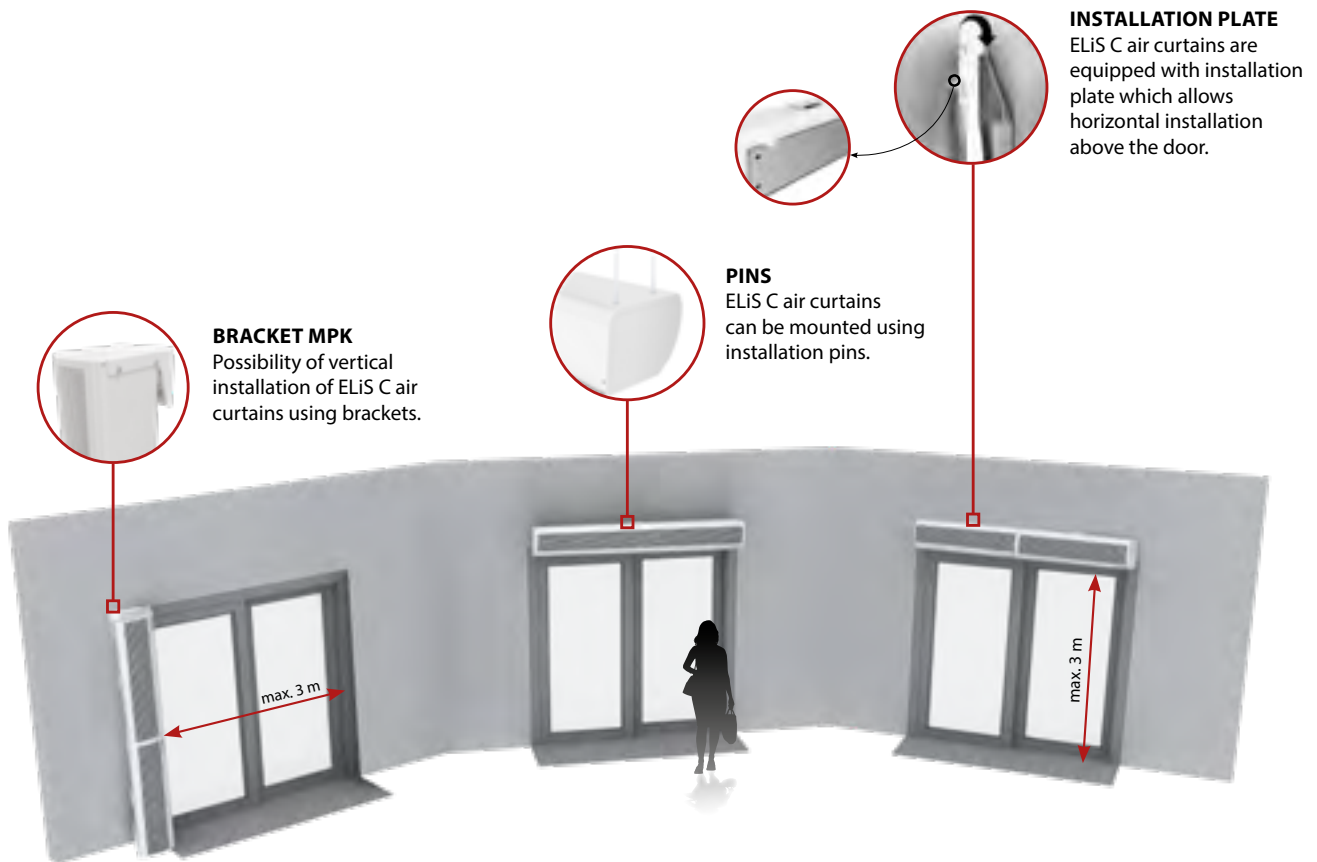
⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

⁽³⁾ For C-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for C-E at air inlet to the device 10 °C

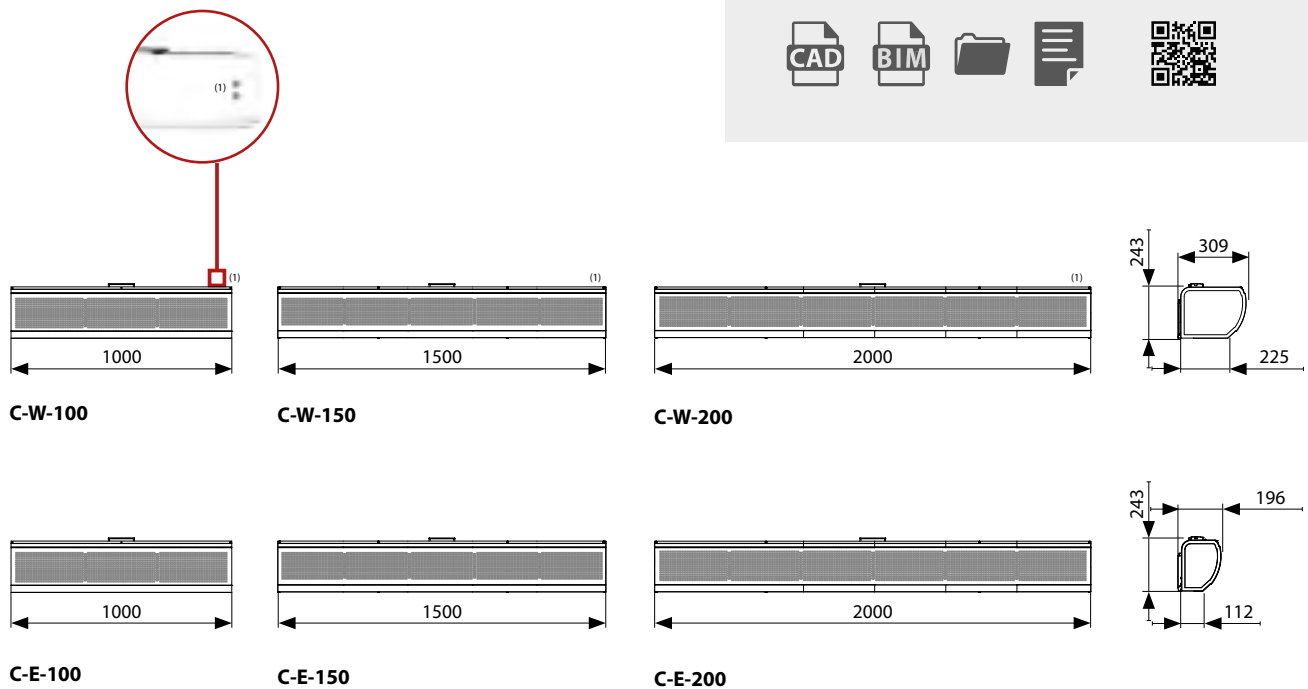
⁽⁴⁾ According to ISO 27327-1

INSTALLATION



DIMENSIONS

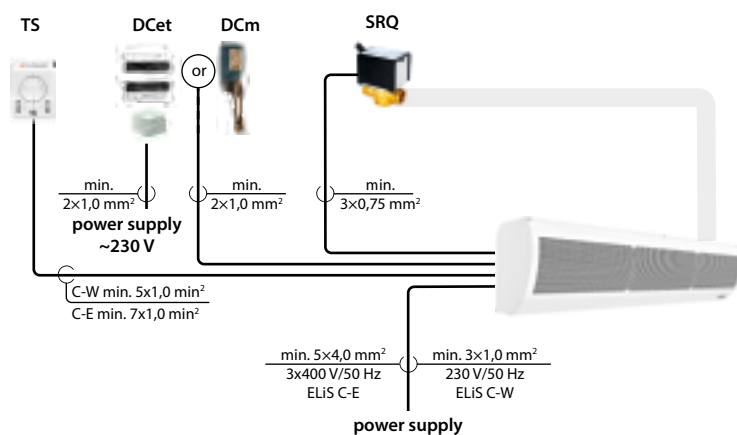
■ For CAD drawings, Revit files and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ connection interior thread

CONNECTION DIAGRAM

TS CONTROLLER



ELEMENTS:

- **TS** – 3-step fan speed controller with thermostat
- **DCet** – magnetic door sensor with relay box
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

ELiS C is compatible with T-box controller



ELiS C – EASY INSTALLATION

HEATING CAPACITIES

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS C-W-100																			
III step : V = 1400 m³/h																			
0,0	17,0	749	21,3	36,0	0,0	14,6	643	16,7	31,0	0,0	12,3	538	12,5	26,0	0,0	9,9	432	8,8	21,0
10,0	14,9	655	16,7	41,0	10,0	12,5	549	12,5	36,5	10,0	10,1	443	8,8	31,5	10,0	7,7	337	5,6	26,5
20,0	12,7	560	12,6	46,5	20,0	10,3	453	8,9	41,5	20,0	7,9	346	5,7	36,5	20,0	5,5	238	3,1	31,5
ELiS C-W-150																			
III step : V = 2100 m³/h,																			
0,0	26,1	1150	22,7	36,5	0,0	22,5	988	17,7	31,5	0,0	18,9	826	13,2	26,5	0,0	15,3	666	9,3	21,5
10,0	22,8	1006	17,8	42,0	10,0	19,2	843	13,3	37,0	10,0	15,6	681	9,4	32,0	10,0	11,9	519	6,0	26,5
20,0	19,5	860	13,4	47,0	20,0	15,8	696	9,4	42,0	20,0	12,2	533	6,0	37,0	20,0	8,5	368	3,3	32,0
ELiS C-W-200																			
III step : V = 3000 m³/h																			
0,0	37,1	1638	53,5	36,5	0,0	32,1	1411	41,9	31,5	0,0	27,1	1185	31,5	26,5	0,0	22,0	961	22,4	22,0
10,0	32,5	1436	42,0	42,0	10,0	27,5	1207	31,6	37,0	10,0	22,4	981	22,4	32,0	10,0	17,3	755	14,5	27,0
20,0	27,9	1229	31,7	47,0	20,0	22,8	1000	22,4	42,0	20,0	17,6	772	14,6	37,0	20,0	12,5	543	8,1	32,0

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow in the heat exchanger
Δpw – water pressure drop in the heat exchanger



HEAT POWER CALCULATOR

Select a device for different parameters, scan QR code

AIR CURTAINS

ELiS T

Range⁽¹⁾ [m] **4** Heating capacity⁽²⁾ [kW] **11,1–49,3** Weight [kg] **20,7–37,5**

Casing **Steel, EPP, plastic, aluminium** Air flow [m³/h] **1900–5300** Colour⁽³⁾ **Grey**



⁽¹⁾ According to ISO 27327-1

⁽²⁾ For T-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C

⁽³⁾ RAL 9007

APPLICATION

Modern shape and small size makes it suitable to install the units both in representative and industrial buildings. ELiS T air curtains are designed for both horizontal mounting – directly above the door openings – and vertical mounting on the side parts of the door opening.

AVAILABLE TYPES OF UNITS:

- 3 LENGTHS**
1 m, 1,5 m or 2 m
- 3 VERSIONS**
W – water heat exchanger (1- or 2-rows)
N – without heating elements („ambient“)
E – electric heaters

TECHNICAL DATA

Air curtains ELiS T

	ELiS T-W- 100	ELiS T-W- 100 2R	ELiS T-N- 100	ELiS T-E- 100	ELiS T-W- 150	ELiS T-W- 150 2R	ELiS T-N- 150	ELiS T-E- 150	ELiS T-W- 200	ELiS T-W- 200 2R	ELiS T-N- 200	ELiS T-E- 200
Power supply [V/Hz]	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,38	0,38	0,39	7,5	0,4	0,4	0,42	11,5	0,44	0,44	0,46	15,5
Max. current consumption [A]	1,7	1,7	1,8	11	1,8	1,8	1,9	16,6	2,0	2,0	2,1	22,4
IP	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F
Connection	½"	½"	-	-	½"	½"	-	-	½"	½"	-	-
Air flow [m³/h]	2300	2100	2900	2300	3900	3700	4000	3900	5100	4900	5300	5100
Acoustic pressure level [dB(A)] ⁽¹⁾	60	59	63	60	61	60	64	61	62	61	65	62
Acoustic power level [dB(A)] ⁽²⁾	75	74	78	75	76	75	79	76	77	76	80	77
Max. water temperature [°C]	95	95	-	-	95	95	-	-	95	95	-	-
Max. operating pressure [MPa]	1,6	1,6	-	-	1,6	1,6	-	-	1,6	1,6	-	-
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	14	27	-	11	15	29	-	12	16	30	-	13
Unit weight [kg]	22,1	23,5	20,7	24,0	29,5	32,0	27,0	31,5	34,3	37,5	31,5	37,0
Range [m] ⁽⁴⁾	4	4	4	4	4	4	4	4	4	4	4	4

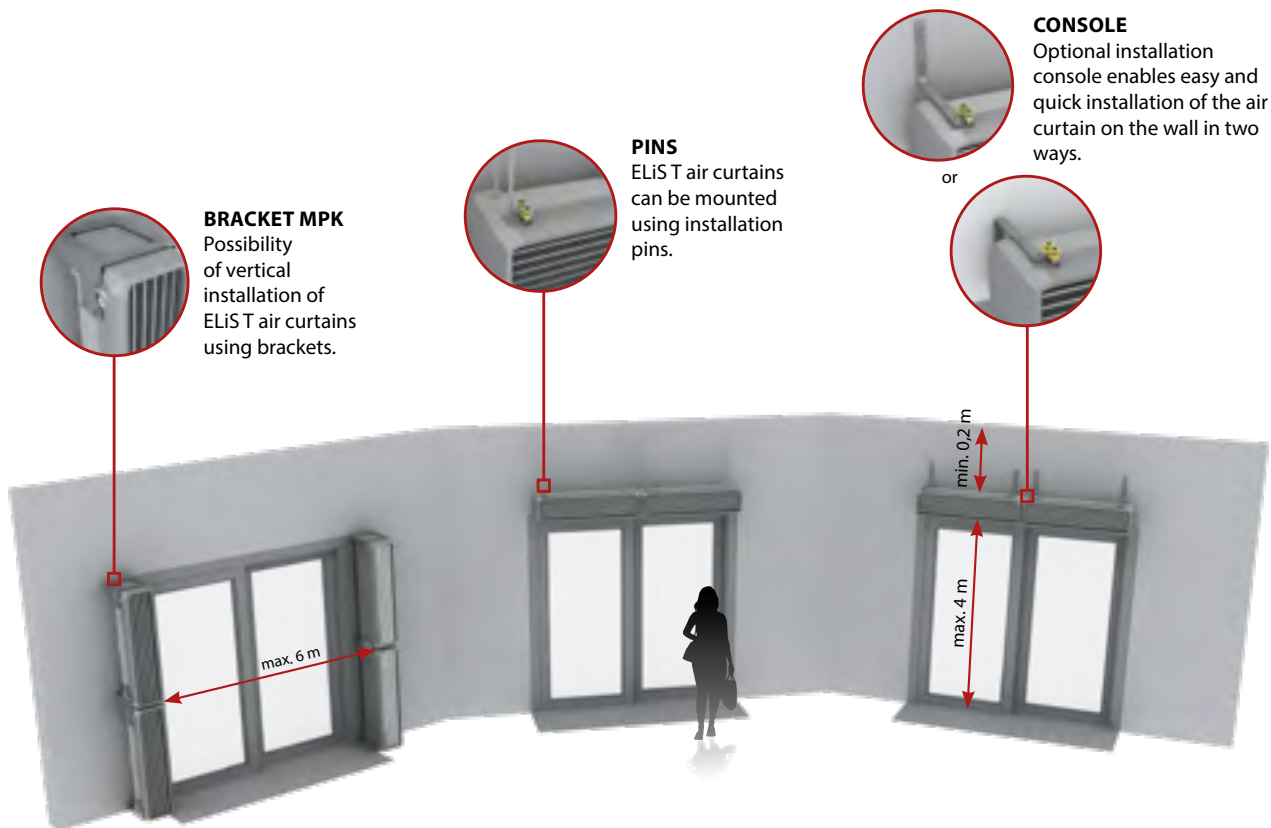
⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

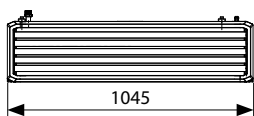
⁽³⁾ For T-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for T-E at air inlet to the device 10 °C

⁽⁴⁾ According to ISO 27327-1

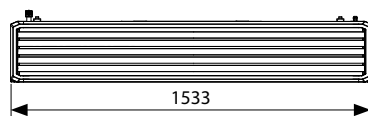
INSTALLATION



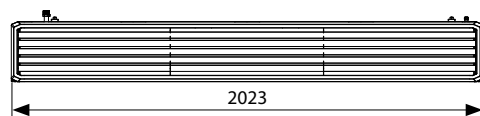
DIMENSIONS



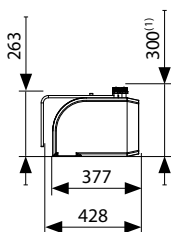
T-N|W|E-100



T-N|W|E-150



T-N|W|E-200



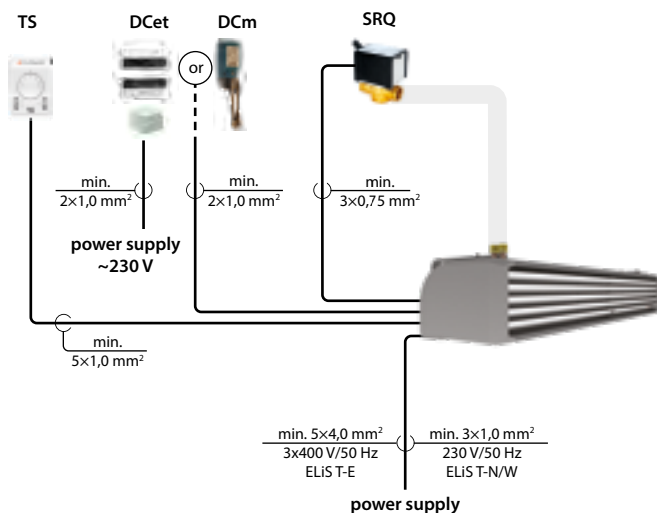
■ **CAD drawings** and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ the dimension refers to a curtain with an ELiS T-W exchanger

CONNECTION DIAGRAMS

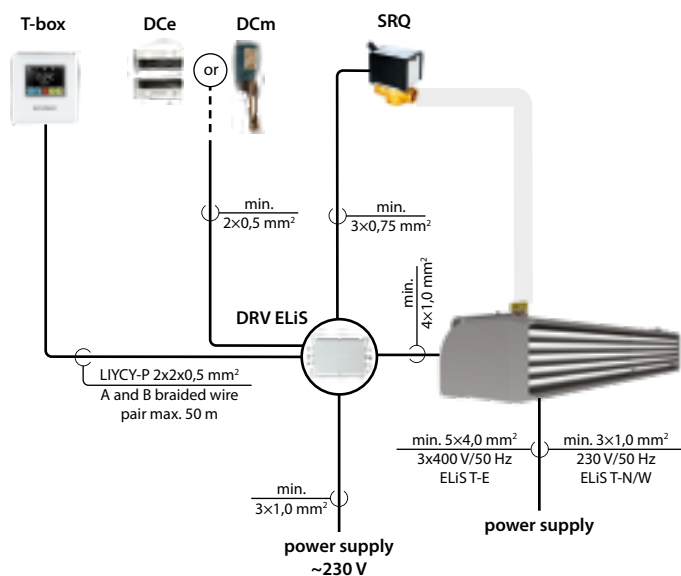
TS CONTROLLER



ELEMENTS:

- **TS** – 3-step fan speed controller with thermostat
- **DCe** – magnetic door sensor with relay box
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

T-box CONTROLLER



ELEMENTS:

- **T-box** – intelligent controller with touch screen
- **DRV ELIS** – external control module
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

ELIS T – UNIVERSAL INSTALLATION OPTION



HEATING CAPACITIES

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS T-W-100																			
III step : V = 2300 m³/h																			
0,0	12,9	571	2	17	0,0	10,8	476	1,5	14,0	0,0	8,7	379	1	11	0,0	6,3	276	0,6	8
10,0	11,1	492	1,5	24,5	10,0	9	395	1,1	21,5	10,0	6,8	296	0,7	18,5	10,0	4,2	183	0,3	15
20,0	9,3	411	1,1	32	20,0	7,1	314	0,7	29,	20,0	4,8	210	0,4	26	20,0	1,7	73	0,1	22
ELiS T-W-150																			
III step : V = 3900 m³/h																			
0,0	23,2	1026	7,2	17,5	0,0	19,8	870	5,5	15,0	0,0	16,3	714	4	12	0,0	12,8	556	2,6	9
10,0	20,2	892	5,6	25	10,0	16,7	735	4	22,5	10,0	13,2	578	2,7	20	10,0	9,6	417	1,6	16,5
20,0	17,2	757	4,1	32,5	20,0	13,6	599	2,8	30,0	20,0	10	439	1,6	27,5	20,0	6,2	272	0,07	24
ELiS T-W-200																			
III step : V = 5100 m³/h																			
0,0	31,4	1387	14,5	18	0,0	26,9	1183	11,1	15,0	0,0	22,4	980	8,1	12,5	0,0	17,8	776	5,5	10
10,0	27,4	1211	11,3	26	10,0	22,9	1005	8,2	23,0	10,0	18,3	801	5,6	20,5	10,0	13,6	595	3,4	18
20,0	23,4	1033	8,4	33	20,0	18,8	826	5,8	30,5	20,0	14,4	619	3,5	27,5	20,0	9,4	408	1,7	25
ELiS T-W-100 2R																			
III step : V = 2100 m³/h																			
0,0	22,6	998	1,57	32	0,0	18,9	832	1,16	27,0	0,0	15,1	662	0,79	21	0,0	11	479	0,46	16
10,0	19,5	858	1,19	37	10,0	15,7	691	0,83	32,0	10,0	11,8	517	0,51	27	10,0	6,96	304	0,2	19
20,0	16,3	718	0,86	43	20,0	12,5	547	0,54	37,0	20,0	8,3	362	0,27	31	20,0	3,17	138	0,5	24
ELiS T-W-150 2R																			
III step : V = 3700 m³/h																			
0,0	41,5	1833	5,9	33	0,0	35,4	1555	4,48	28	0,0	29,2	1276	3,22	23	0,0	22,8	994	2,1	18
10,0	36,1	1592	4,6	39	10,0	29,9	1313	3,29	34	10,0	23,6	1032	2,2	29	10,0	17,1	746	1,27	24
20,0	30,6	1351	3,4	44	20,0	24,3	1069	2,27	39	20,0	17,9	785	1,34	34	20,0	11,1	483	0,58	29
ELiS T-W-200 2R																			
III step : V = 4900 m³/h																			
0,0	56,5	2494	11,95	34	0,0	48,4	2127	9,17	29	0,0	40,3	1762	6,7	24	0,0	32	1396	4,54	19
10,0	49,3	2174	9,28	40	10,0	41,1	1806	6,8	35	10,0	32,9	1439	4,64	30	10,0	24,5	1069	2,81	25
20,0	42	1854	6,93	45	20,0	33,7	1483	4,75	40	20,0	25,4	1111	2,91	35	20,0	16,8	732	1,43	30

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow in the heat exchanger
Δpw – water pressure drop in the heat exchanger



HEAT POWER CALCULATOR

Select a device for different parameters, scan QR code.

AIR CURTAINS

ELiS B

Range⁽¹⁾ [m]
5

Heating capacity⁽²⁾ [kW]
10,9–49,9

Weight [kg]
31,7–53,2

Casing
**Steel,
plastic,
aluminium**

Air flow [m³/h]
2200–6600

Colour⁽³⁾
White



**SPECIAL PAINTING
ON REQUEST**

⁽¹⁾ According to ISO 27327-1

⁽²⁾ For B-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C

⁽³⁾ RAL 9016

APPLICATION

ELiS B air curtains are dedicated for shops, restaurants, exhibition rooms. Units are designed for installation in the ceilings. Advantage is the possibility to install in the existing ceiling without cutting additional holes.

AVAILABLE TYPES OF UNITS:

- 3 LENGTHS**
1 m, 1,5 m or 2 m
- 3 VERSIONS**
W – water heat exchanger (1- or 2-rows)
N – without heating elements („ambient“)
E – electric heaters

TECHNICAL DATA

Air curtains ELiS B

	ELiS B-W-100	ELiS B-W-100 2R	ELiS B-N-100	ELiS B-E-100	ELiS B-W-150	ELiS B-W-150 2R	ELiS B-N-150	ELiS B-E-150	ELiS B-W-200	ELiS B-W-200 2R	ELiS B-N-200	ELiS B-E-200
Power supply [V/Hz]	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,34	0,34	0,42	7,5	0,36	0,36	0,42	11,5	0,38	0,38	0,49	15,5
Max. current consumption [A]	1,5	1,5	1,9	11	1,6	1,6	2	16,6	1,7	1,7	2,2	22,4
IP	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F
Connection	½"	½"	-	-	½"	½"	-	-	½"	½"	-	-
Air flow [m³/h]	2600	2400	3500	2600	4000	3800	4800	4000	5200	4900	6600	5200
Acoustic pressure level [dB(A)] ⁽¹⁾	58	57	65	58	62	60	65	62	63	61	66	63
Acoustic power level [dB(A)] ⁽²⁾	73	72	80	73	77	75	80	77	78	76	81	78
Max. water temperature [°C]	95	95	-	-	95	95	-	-	95	95	-	-
Max. operating pressure [MPa]	1,6	1,6	-	-	1,6	1,6	-	-	1,6	1,6	-	-
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	15	28	-	11	15	31	-	12	16	33	-	13
Unit weight [kg]	32,3	33,7	31,7	34,5	41,2	43,7	38,9	42,4	50	53,2	47,2	53,2
Range [m] ⁽⁴⁾	5	5	5	5	5	5	5	5	5	5	5	5

⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

⁽³⁾ For B-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for B-E at air inlet to the device 10 °C

⁽⁴⁾ According to ISO 27327-1

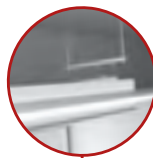
INSTALLATION

BRACKETS

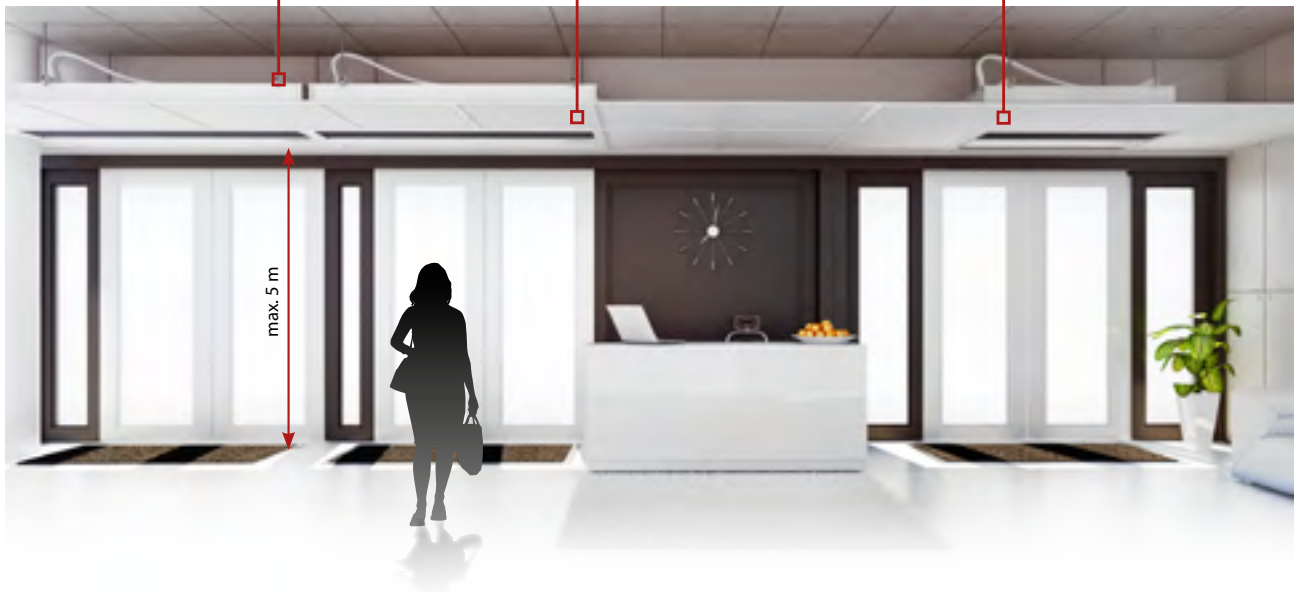
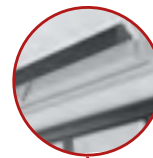
Brackets for installation using pins are included.



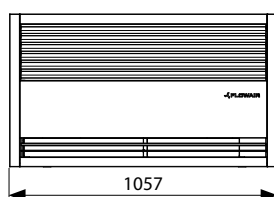
Installation of the unit doesn't require additional holes in the ceiling.



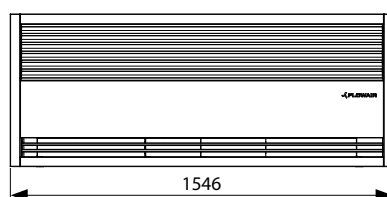
Access from the front makes installation, connection and cleaning the air curtain much easier.



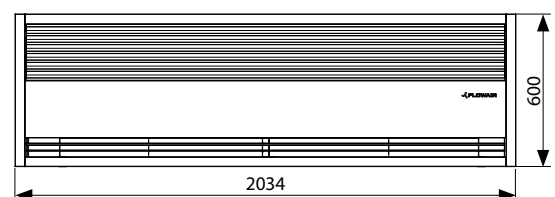
DIMENSIONS



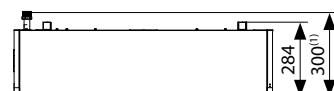
B-N|W|E-100



B-N|W|E-150



B-N|W|E-200



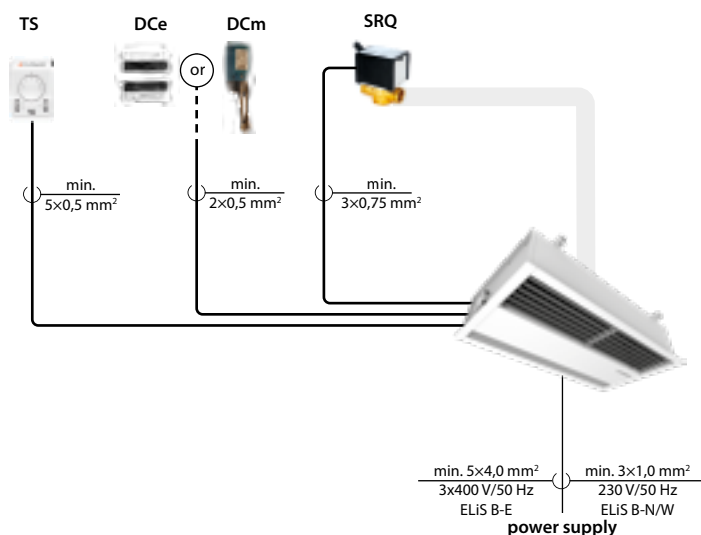
■ **CAD drawings** and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ the dimension refers to a curtain with an ELiS B-W exchanger

CONNECTION DIAGRAMS

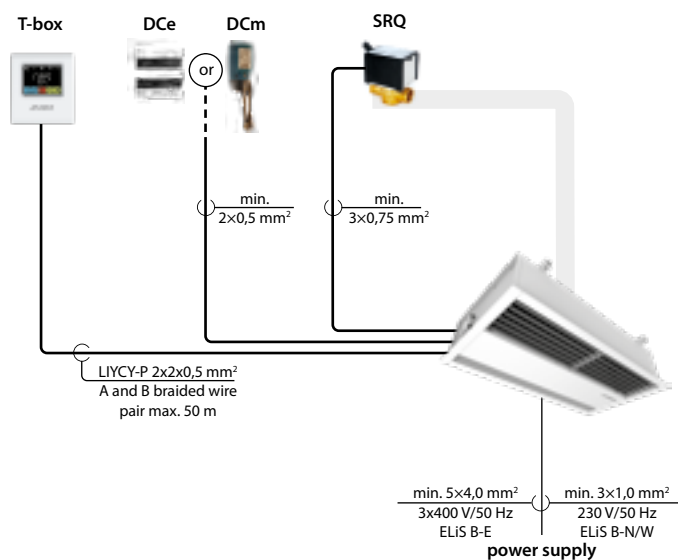
TS CONTROLLER



ELEMENTS:

- **TS** – 3-step fan speed controller with thermostat
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

T-box CONTROLLER



ELEMENTS:

- **T-box** – intelligent controller with touch screen
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

ELIS B – RECESSED AIR CURTAINS



HEATING CAPACITIES

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS B-W-100																			
III step : V = 2600 m³/h																			
0,0	13,8	609	2,3	15,5	0,0	11,5	507	1,7	13,0	0,0	9,2	404	1,2	10,5	0,0	6,8	295	0,7	7,5
10,0	11,9	524	1,7	24,5	10,0	9	395	1,1	21,5	10,0	7,2	316	0,7	18,0	10,0	4,6	198	0,3	15,0
20,0	9,9	438	1,2	31,0	20,0	7,6	334	0,8	28,5	20,0	5,1	225	0,4	25,0	20,0	1,7	74	0,1	22,0
ELiS B-W-150																			
III step : V = 4000 m³/h																			
0,0	23,5	1039	7,4	17,5	0,0	20,0	881	5,6	15,0	0,0	16,5	723	4,0	12,5	0,0	13,0	563	2,7	9,5
10,0	20,5	904	5,7	25,0	10,0	17,0	745	4,1	22,5	10,0	13,4	585	2,8	20,0	10,0	9,7	423	1,6	17,0
20,0	17,4	767	4,2	32,5	20,0	13,8	607	2,8	30,0	20,0	10,2	445	1,7	27,5	20,0	6,3	276	0,7	24,5
ELiS B-W-200																			
III step : V = 5200 m³/h																			
0,0	31,8	1402	14,7	18,0	0,0	27,7	1195	11,3	15,5	0,0	22,5	990	8,3	13,0	0,0	18,0	784	5,6	10,5
10,0	27,7	1223	11,5	25,7	10,0	23,1	1016	8,4	22,5	10,0	18,5	809	5,7	20,5	10,0	13,8	601	3,5	18,0
20,0	23,6	1043	8,8	33,0	20,0	19,0	834	5,9	30,5	20,0	14,3	625	3,6	28,0	20,0	9,5	412	1,8	25,0
ELiS B-W-100 2R																			
III step : V = 2400 m³/h																			
0,0	24,5	1080	1,82	30	0,0	20,5	900	1,34	27,0	0,0	11,8	716	0,91	20	0,0	12	521	0,53	15
10,0	21	928	1,38	36	10,0	17	747	0,95	31	10,0	12,8	560	0,58	26	10,0	7,8	341	0,25	20
20,0	17,6	776	0,99	41	20,0	13,5	592	0,63	36	20,0	9	395	0,31	31	20,0	3,3	142	0,05	24
ELiS B-W-150 2R																			
III step : V = 3800 m³/h																			
0,0	42,2	1863	6,1	33	0,0	36	1580	4,6	28	0,0	29,6	1296	3,3	23	0,0	23,2	1010	2,2	18
10,0	39,4	1618	4,7	38,5	10,0	30,4	1334	3,4	33,5	10,0	24	1049	2,3	28,5	10,0	17,4	758	1,3	23,5
20,0	31,1	1373	3,5	44	20,0	24,7	1086	2,3	39	20,0	18,2	797	1,4	34	20,0	11,3	492	0,6	28,5
ELiS B-W-200 2R																			
III step : V = 4900 m³/h																			
0,0	57,2	2524	12,2	34	0,0	49	2153	9,37	29	0,0	40,8	1783	6,85	24	0,0	32,4	1413	4,64	19
10,0	49,9	2200	9,49	39	10,0	41,6	1828	6,95	34	10,0	33,3	1456	4,74	30	10,0	24,8	1082	2,87	25
20,0	42,5	1876	7,09	45	20,0	34,2	1501	4,85	40	20,0	25,7	1125	2,97	35	20,0	17	741	1,46	30

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow in the heat exchanger
Δpw – water pressure drop in the heat exchanger



HEAT POWER CALCULATOR

Select a device for different parameters, scan QR code.

AIR CURTAINS

ELiS A

Range⁽¹⁾ [m]
3

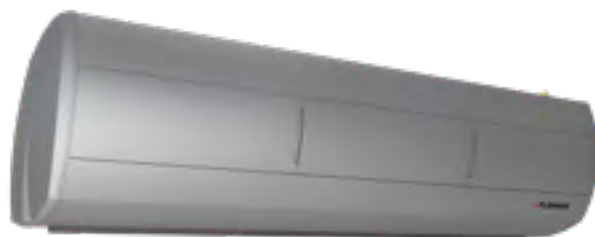
Heating capacity⁽²⁾ [kW]
17,6–28,0

Weight [kg]
18,4–39,0

Casing
Steel with polyester coating

Air flow [m³/h]
850–3500

Colour⁽³⁾
Silver or white



**SPECIAL PAINTING
ON REQUEST**

⁽¹⁾ According to ISO 27327-1

⁽²⁾ For A-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C

⁽³⁾ RAL 9006 or RAL 9010

APPLICATION

Representative rooms such as shops, restaurants, exhibition rooms, etc. ELiS A devices are designed for horizontal installation directly above door openings. They produce an air barrier that reduces heat/cool losses.

AVAILABLE TYPES OF UNITS:

- 3 LENGTHS**
1 m, 1,5 m or 2 m
- 3 VERSIONS**
W – water heat exchanger
N – without heating elements („ambient“)
E – electric heaters

TECHNICAL DATA

Air curtains

ELiS A

	ELiS A-W-100	ELiS A-N-100	ELiS A-E-100	ELiS A-W-150	ELiS A-N-150	ELiS A-E-150	ELiS A-W-200	ELiS A-N-200	ELiS A-E-200
Power supply [V/Hz]	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,17	0,17	7,0	0,25	0,25	10,7	0,34	0,34	15,0
Max. current consumption [A]	0,72	0,72	10,0	1,1	1,1	15,5	1,45	1,45	21,5
IP	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F	21/F
Connection	½"	-	-	½"	-	-	½"	-	-
Air flow [m³/h]	1500	1500	1500	2500	2500	2500	3500	3500	3500
Acoustic pressure level [dB(A)] ⁽¹⁾	57	57	57	58	58	58	59	59	59
Acoustic power level [dB(A)] ⁽²⁾	72	72	72	73	73	73	74	74	74
Max. water temperature [°C]	95	-	-	95	-	-	95	-	-
Max. operating pressure [MPa]	1,6	-	-	1,6	-	-	1,6	-	-
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	34	-	25	25	-	21	24	-	18
Unit weight [kg]	20,9	18,4	21,4	28,3	25,3	28,5	37,1	33,6	39,0
Range [m] ⁽⁴⁾	3	3	3	3	3	3	3	3	3

⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

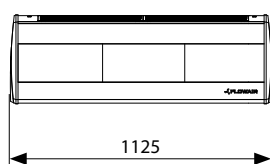
⁽³⁾ For A-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for A-E at air inlet to the device 10 °C

⁽⁴⁾ According to ISO 27327-1

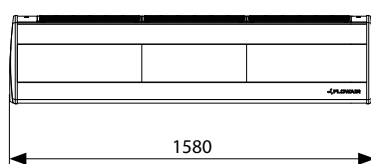
INSTALLATION



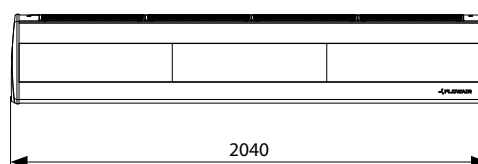
DIMENSIONS



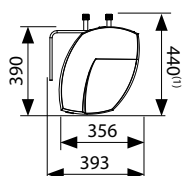
A-N|W|E-100



A-N|W|E-150



A-N|W|E-200



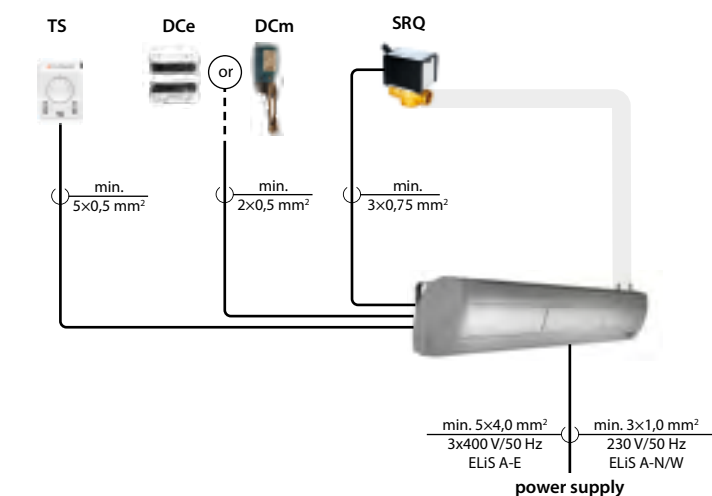
■ For CAD drawings, Revit files and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ the dimension refers to a curtain with an ELiS A-W exchanger

CONNECTION DIAGRAMS

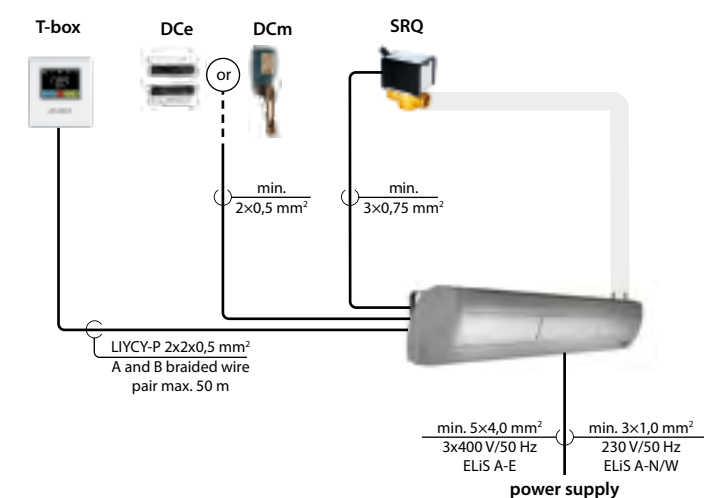
TS CONTROLLER



ELEMENTS:

- **TS** – 3-step fan speed controller with thermostat
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

T-BOX CONTROLLER



ELEMENTS:

- **T-box** – intelligent controller with touch screen
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

ELIS A – REPRESENTATIVE AND AESTHETIC SPACES



HEATING CAPACITIES

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS A-W-100																			
III step : V = 1500 m³/h																			
0,0	20,1	887	8,1	40	0,0	17,3	759	6,2	34	0,0	14,4	631	4,6	28	0,0	11,5	502	3,2	23
10,0	17,6	775	6,3	44	10,0	14,7	646	4,7	39	10,0	11,8	517	3,2	33	10,0	8,9	87	2,0	27
20,0	15,0	663	4,7	49	20,0	12,1	533	3,3	43	20,0	9,2	402	2,0	38	20,0	6,1	267	1,0	32
ELiS A-W-150																			
III step : V = 2500 m³/h																			
0,0	22,9	1011	8,3	27	0,0	19,6	861	6,3	23	0,0	16,2	709	4,6	19	0,0	12,8	556	3,0	15
10,0	20	881	6,5	34	10,0	16,6	728	4,7	30	10,0	13,2	576	3,1	26	10,0	9,7	421	1,8	21
20,0	17	748	4,8	40	20,0	13,5	593	3,2	36	20,0	10	439	1,9	32	20,0	6,4	279	0,9	27
ELiS A-W-200																			
III step : V = 3500 m³/h																			
0,0	32,2	1419	18	27	0,0	27,6	1212	13,6	23	0,0	23	1007	10	20	0,0	18,4	801	6,7	16
10,0	28	1240	14	34	10,0	23,5	1031	10,1	30	10,0	18,9	824	6,9	26	10,0	14,1	616	4,2	22
20,0	24	1054	10,3	40	20,0	19,2	845	7	36	20,0	14,6	637	4,3	32	20,0	9,8	425	2,2	28

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow in the heat exchanger
Δpw – water pressure drop in the heat exchanger



HEAT POWER CALCULATOR

Select a device for different parameters, scan QR code.

AIR CURTAIN-FAN HEATERS

ELiS DUO

 Range ⁽¹⁾ [m] 2,5	 Heating capacity ⁽²⁾ [kW] 14,5–29,0	 Weight [kg] 23,9–41,1
 Casing Steel with polyester coating	 Air flow [m³/h] 1200–3700	 Colour ⁽³⁾ Silver or white



**SPECIAL PAINTING
ON REQUEST**

⁽¹⁾ According to ISO 27327-1

⁽²⁾ For DUO-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C

⁽³⁾ RAL 9006 or RAL 9010

AVAILABLE TYPES OF UNITS:

- **2 LENGTHS**
1 m or 2 m
- **2 VERSIONS**
W – water heat exchanger
E – electric heaters

APPLICATION

Device combines functionality of the air curtain and the fan heater. Modern design of the unit makes it especially suitable for buildings with high aesthetic values. Where there is a need of heating a room while providing an effective air barrier in the door opening, e.g. small grocery stores, petrol stations etc.

TECHNICAL DATA

Air curtain-fan heaters ELiS DUO

	DUO-W-100	DUO-W-200	DUO-E-100
Power supply [V/Hz]	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,25	0,43	10,1
Max. current consumption [A]	1,1	1,85	14,7
IP	21/F	21/F	21/F
Connection	½"	½"	½"
Air flow curtain heater [m³/h]	1400 700	3000 700	1400 700
Acoustic pressure level [dB(A)] ⁽¹⁾	58	58	60
Acoustic power level [dB(A)] ⁽²⁾	73	73	75
Max. water temperature [°C]	95	95	–
Max. operating pressure [MPa]	1,6	1,6	–
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	30	23	20
Unit weight [kg]	23,9	41,1	28,5
Range [m] ⁽⁴⁾	2,5	2,5	2,5

⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

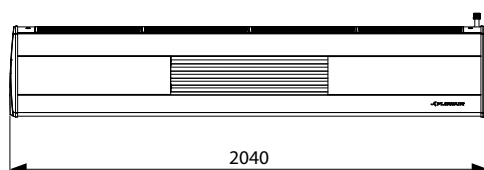
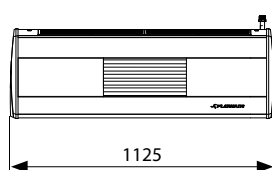
⁽³⁾ For DUO-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for DUO-E at air inlet to the device 10 °C

⁽⁴⁾ According to ISO 27327-1

INSTALLATION

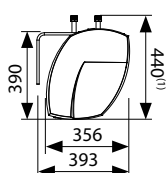


DIMENSIONS



DUO-W|E-100

DUO-W-200



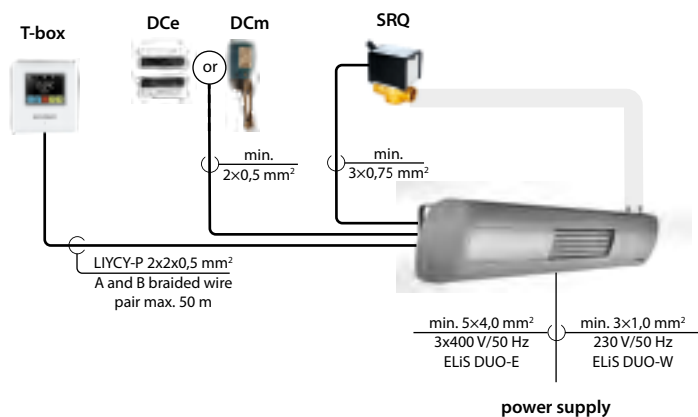
■ **CAD drawings** and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ the dimensions refer to the ELiS DUO-W unit with water exchanger

CONNECTION DIAGRAM

T-box CONTROLLER



ELEMENTS:

- **T-box** – intelligent controller with touch screen
- **DCe** – magnetic door sensor
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

POSSIBILITY OF INTEGRATION OF DEVICES WITH FLOWAIR SYSTEM



ELIS DUO – AIR BARRIER AND HEATING IN ONE CASING

HEATING CAPACITIES

Tw1/Tw2 = 90/70°C							Tw1/Tw2 = 70/50°C						Tw1/Tw2 = 60/40°C					
Tp1	PK	PN	PC	Qw	Δpw	Tp2	PK	PN	PC	Qw	Δpw	Tp2	PK	PN	PC	Qw	Δpw	Tp2
[°C]	[kW]	[kW]	[kW]	[l/h]	[kPa]	[°C]	[kW]	[kW]	[kW]	[l/h]	[kPa]	[°C]	[kW]	[kW]	[kW]	[l/h]	[kPa]	[°C]
ELiS DUO-W-100																		
III step: V 2100 m³/h (curtain = 1400 m³/h; heater = 700 m³/h)																		
0	16,5	8,3	24,8	1095	11,9	35	11,9	5,9	17,8	778	6,7	25	9,5	4,7	14,2	620	4,6	20
10	14,5	7,2	21,7	956	9,3	41	9,7	4,9	14,6	638	4,7	31	7,3	3,7	11	477	2,9	26
20	12,3	6,2	18,5	817	7	46	7,5	3,8	11,3	496	3	36	5,1	2,5	7,6	331	1,5	31
ELiS DUO-W-200																		
III step: V 3700 m³/h (curtain = 3000 m³/h; heater = 700 m³/h)																		
0	26,6	6,6	33,2	1465	18,9	27	19,0	4,8	23,8	1 039	10,6	19	15,2	3,8	19	826	7,2	15
10	23,2	5,8	29	1280	14,7	33	15,6	3,9	19,5	851	7,3	25,5	11,7	2,9	14,6	637	4,5	21,5
20	19,8	5,0	24,8	1094	11	40	12,1	3,0	15,1	661	4,6	32	8,1	2,0	10,1	441	2,3	28

V – air flow

PK – heating capacity of curtain

PN – heating capacity of fan heater

PC – heating capacity of fan heater and curtain

PT – heating capacity

Tp1 – inlet air temperature

Tp2 – outlet air temperature

Tw1 – inlet water temperature

Tw2 – outlet water temperature

Qw – water flow in the heat exchanger

Δpw – water pressure drop in the heat exchanger



HEAT POWER CALCULATOR

Select a device for different parameters, scan QR code

AIR CURTAINS

ELiS G

Range⁽¹⁾ [m]
7,5

Heating capacity⁽²⁾ [kW]
22,9–62,8

Weight [kg]
43,0–67,0

Casing
Galvanized steel

Air flow [m³/h]
4100–8600

Colour
Grey, silver

⁽¹⁾ According to ISO 27327-1

⁽²⁾ For G-W at inlet/outlet water temperature 90/70°C, inlet air temperature 10°C



**SPECIAL PAINTING
ON REQUEST**

APPLICATION

Warehouses, halls, logistics centers. ELiS G devices are intended for horizontal and vertical installation. They create an air barrier that reduces the various losses associated with the exchange of air between the room and the outside area.

AVAILABLE TYPES OF UNITS:

- **3 LENGTHS**
0,5 m, 1,5 m or 2 m
- **3 VERSIONS**
W – water heat exchanger (1- or 2-rows)
N – without heating elements („ambient“)
E – electric heaters

TECHNICAL DATA

Air curtains

ELiS G

	G-N-50	G-W-150	G-W-150 2R	G-N-150	G-E-150	G-W-200	G-W-200 2R	G-N-200	G-E-200
Power supply [V/Hz]	230 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,34	0,69	0,69	0,69	12,0	1,0	1,0	1,0	20,0
Max. current consumption [A]	1,4	2,8	2,8	2,8	17,0	4,2	4,2	4,2	29,0
Fan IP	54	54	54	54	54	54	54	54	54
Connection	-	¾"	¾"	-	-	¾"	¾"	-	-
Air flow [m³/h]	2500	6200	5700	6500	6300	8100	7600	8600	8200
Acoustic pressure level [dB(A)] ⁽¹⁾	64	66	66	66	66	68	68	68	68
Acoustic power level [dB(A)] ⁽²⁾	79	81	81	81	81	83	83	83	83
Max. water temperature [°C]	-	130	130	-	-	130	130	-	-
Max. operating pressure [MPa]	-	1,6	1,6	-	-	1,6	1,6	-	-
Curtain's air temperature rise (ΔT) [°C] ⁽³⁾	-	14	28	-	7	13	26	-	7
Unit weight [kg]	19,3	47,4	51,8	43,0	49,8	62,0	66,4	58,0	67,0
Range [m] ⁽⁴⁾	7,5	7,0	7,0	7,5	7,0	7,0	7,0	7,5	7,0

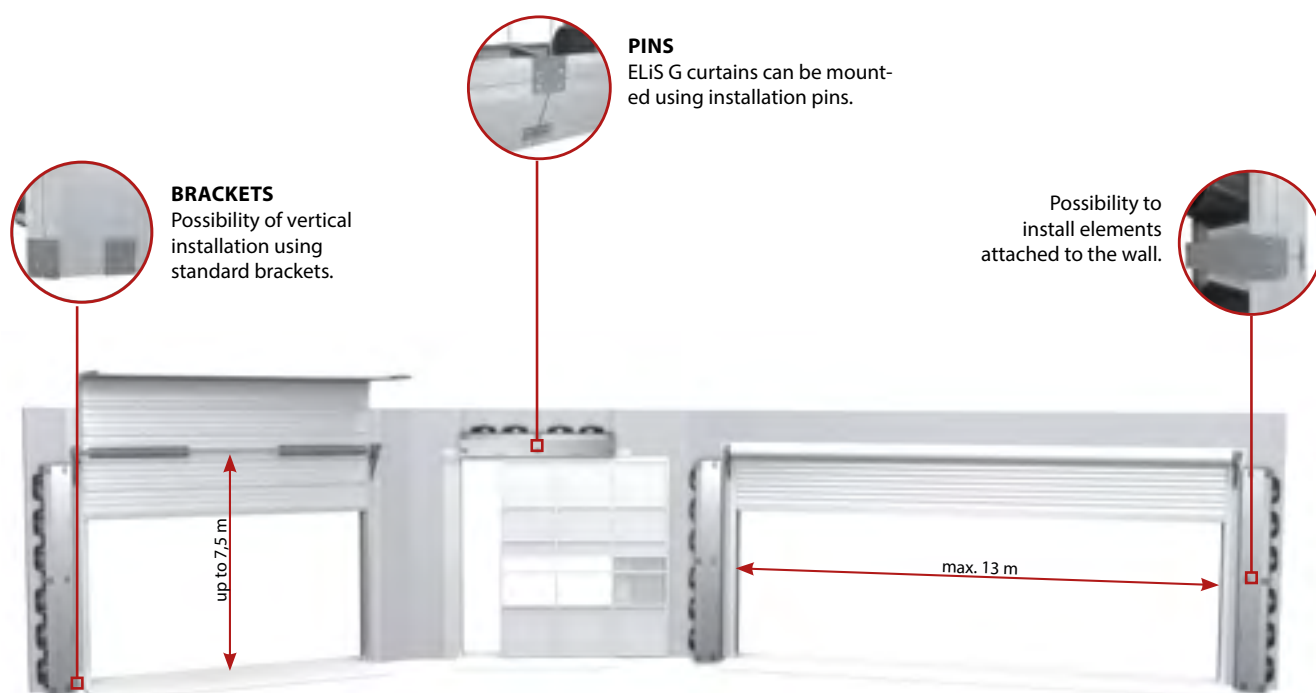
⁽¹⁾ Average acoustic pressure level in the room of average sound absorption, volume of 1500 m³, at a distance of 5 m from the unit

⁽²⁾ Acoustic power according to ISO 27327-2

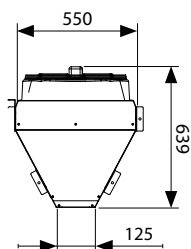
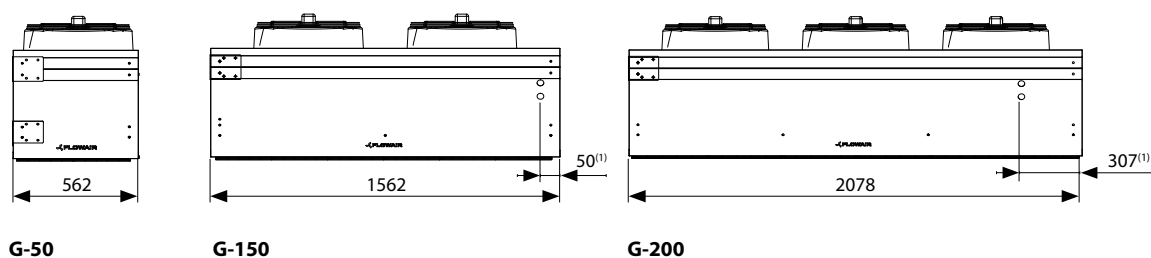
⁽³⁾ For G-W at heating medium temperature 90/70 °C at air inlet to the device 10 °C / for G-E at air inlet to the device 10 °C

⁽⁴⁾ According to ISO 27327-1

INSTALLATION



DIMENSIONS



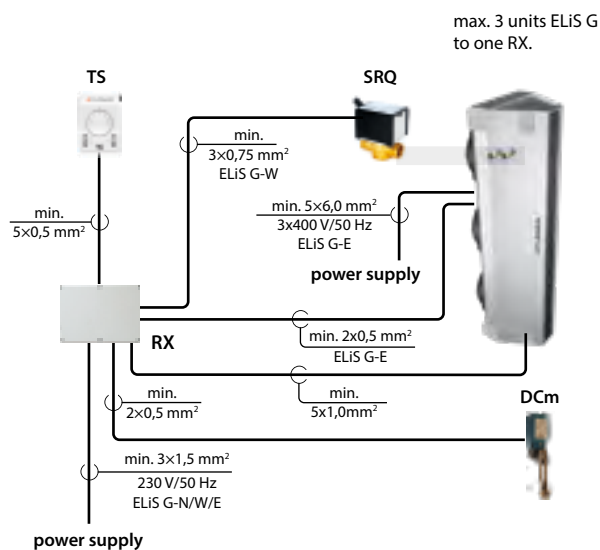
■ For CAD drawings, Revit files and documentation for all available versions of ELiS visit www.flowair.com



⁽¹⁾ the dimension refers to ELiS G-W curtain with water heat exchanger

CONNECTION DIAGRAMS

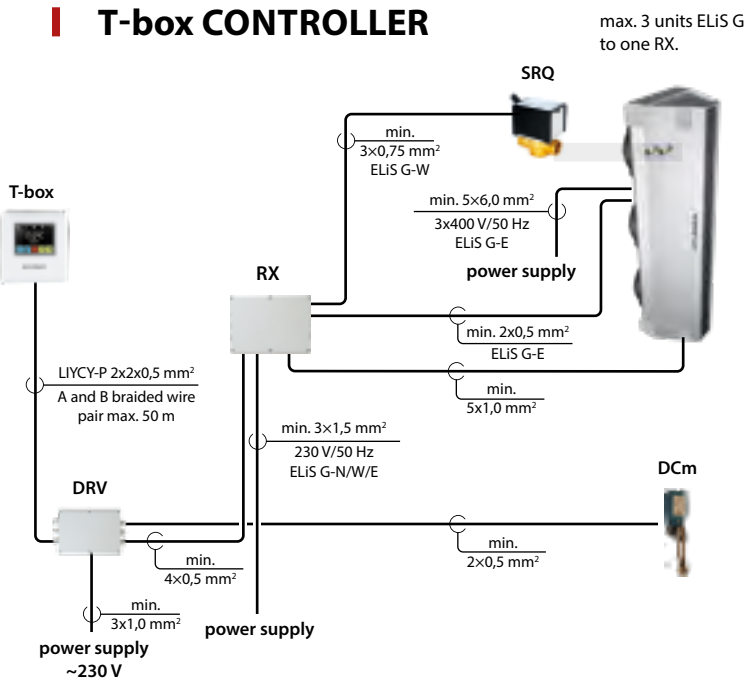
TS CONTROLLER



ELEMENTS:

- **TS** – 3-step fan speed controller with thermostat (can control up to 1 pc. of ELiS G without using RX)
- **RX** – signal splitter for 3 ELiS G curtains
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

T-box CONTROLLER



ELEMENTS:

- **T-box** – intelligent controller with touch screen
- **DRV ELiS** – external control module
- **RX** – signal splitter for 3 ELiS G curtains
- **DCm** – mechanical door sensor
- **SRQ** – valve with actuator

ELiS G – WHEN RANGE IS PRIORITY



HEATING CAPACITIES

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2	Tp1	PT	Qw	Δpw	Tp2
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS G-W-150																			
III step : V = 6200 m³/h																			
0,0	34,8	1530	9	15,5	0,0	29,9	1310	7	13,5	0,0	25	1090	6	11	0,0	20,1	880	4	9
10,0	29,5	1300	6	23,5	10,0	24,8	1090	6	21,5	10,0	20	870	4	19,5	10,0	15,1	660	4	17
20,0	24,5	1080	6	32	20,0	19,8	870	4	29,5	20,0	15,1	660	4	27,5	20,0	10,4	450	4	25
ELiS G-W-200																			
III step : V = 8100 m³/h																			
0,0	38,9	1720	9	14,5	0,0	33,5	1470	8	12	0,0	28	1220	6	10	0,0	22,4	980	5	8
10,0	33,1	1460	8	22,5	10,0	27,7	1220	6	20,5	10,0	22,3	980	5	18,5	10,0	16,9	740	5	16,5
20,0	27,4	1210	6	31	20,0	22,1	970	5	28,5	20,0	16,9	740	5	26,5	20,0	11,6	500	2	24,5
ELiS G-W-150 2R																			
III step : V = 5700 m³/h																			
0,0	65,2	2870	4	32	0,0	56	2460	4	27	0,0	46,6	2040	3	23	0,0	37,3	1620	2	18
10,0	55,3	2440	4	38	10,0	46,2	2030	3	33	10,0	37,1	1620	2	29	10,0	27,9	1220	2	24
20,0	45,7	2020	3	44	20,0	36,8	1620	2	39	20,0	28	1220	2	35	20,0	19	830	2	30
ELiS G-W-200 2R																			
III step : V = 7600 m³/h																			
0,0	74,2	3270	5	29	0,0	63,5	2790	4	25	0,0	52,9	2310	4	21	0,0	42,2	1840	3	17
10,0	62,8	2770	4	36	10,0	52,5	2300	4	31	10,0	42,1	1840	3	27	10,0	31,6	1380	3	23
20,0	52	2290	4	42	20,0	41,9	1840	3	38	20,0	31,7	1390	3	33	20,0	21,4	930	2	29

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow in the heat exchanger
Δpw – water pressure drop in the heat exchanger

CONTROL SYSTEMS

for ELiS air curtains



TS CONTROLLER basic version

Simplest regulation of 3-step fans. Fan heater operation is controlled by 3-step fan speed controller with thermostat.



T-box CONTROLLER BMS version

Intelligent regulation system of 3-step fans. Speed regulation of energy-efficient fan via T-box controller.

Air curtains ELiS

Controlling options

Type of devices

Manual 3-step air flow regulation

TS Controller

T-box Controller

ELiS C, ELiS T, ELiS B,
ELiS A, ELiS G

ELiS T⁽¹⁾, ELiS C⁽¹⁾, ELiS A,
ELiS B, ELiS DUO, ELiS G⁽¹⁾

✓

✓

Modes

Heating/Ventilation

Operation depending on door sensor and temperature

Weekly programmer

BMS

Switch-off delay

Idle speed mode

INTEGRATION WITH FLOWAIR SYSTEM

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

Max. number of connected units

Via controller

ELiS T / C – 2,
ELiS A / B / DUO – 5,
ELiS G – 1

31

Via additional splitters

ELiS G – 9,
ELiS T / C⁽²⁾ – 18

–

Type of fan

AC – standard 3-step fan

✓

✓

⁽¹⁾ External control module DRV ELiS required

⁽²⁾ According to ELiS C-W

CONTROL ELEMENTS

DOOR SENSORS



Door sensors inform the control system about the opening / closing of the door.

Compatibility of sensors with ELiS air curtains

Sensor	ELiS C	ELiS T	ELiS B	ELiS A	ELiS DUO	ELiS G
DCet	✓	✓				
DCe			✓	✓	✓	
DCm	✓	✓	✓	✓	✓	✓

VALVES SRQ



Two or three-way valves with an electric actuator are available to control the flow of the heating medium.

Compatibility of valves with ELiS air curtains

Valve	ELiS C	ELiS T	ELiS B	ELiS A	ELiS DUO	ELiS G
SRQ2d ½"		✓	✓	✓	✓	
SRQ2d ¾"	✓					✓
SRQ3d ½"		✓	✓	✓	✓	
SRQ3d ¾"	✓					✓

RX SPLITTERS

Control signal distributor for connecting several ELiS G air curtains with 3-stage fans to one controller.



The maximum number of devices supported by one controller

Splitter	ELiS G	ELiS T	ELiS C-W
1 pcs. RX	3	6	6
2 pcs. RX	6	12	12
3 pcs. RX	9	18	18

INSTALLATION ELEMENTS

CONSOLE ELiS



For horizontal mounting
ELiS T, ELiS A, curtain
heater ELiS DUO.
Available in silver or
white colours.

MPK SET

for ELiS T



For vertical mounting
ELiS T curtain. Available
in silver color.

MPK SET

for ELiS C



For vertical mounting
ELiS C-W and ELiS C-E
curtain. Available in
white colour.

SYNERGY OF DEVICES

Integration of all devices from FLOWAIR'S offer into one system means easy control and management of devices and synergy effect- more effective heating. Control of all parameters from one location, thanks to T-box intelligent touch screen controller.



T-box REGULATION

integration with FLOWAIR SYSTEM - control of operation of LEO, ELiS, OXeN units via single T-box controller.



heating



air curtain



ductless ventilation with heat recovery

EXAMPLES OF SYSTEM FLOWAIR

WAREHOUSES AND PRODUCTION HALL

Heating and gate curtain

The requirement was to provide thermal comfort even during opening of the gate. Thanks to FLOWAIR SYSTEM integration of ELiS T air curtains and LEO fan heaters is easy. Beside, their standard operation controlled by a temperature sensor, LEO fan heaters have an additional functionality: upon opening of the gate both the ELiS T air curtain and the LEO fan heater switch on providing thermal comfort even during long openings of the gate.

SYSTEM FUNCTIONS:

- controlling two groups of devices from one place
- reheating the air in the gate area



HOTEL

Personalization of curtains for a representative object

The hotel is connected with a shopping center, service center and the railway station in Sopot. All curtains together (ELiS T, ELiS A, and air curtain-fan heater combo units ELiS DUO) from the FLOWAIR SYSTEM are controlled by one T-box controller. Thanks to the weekly programmer, you can automatically switch all devices ON/OFF, according to the user's needs and change the mode of their operation.

SYSTEM FUNCTIONS:

- air barrier and reheating the air in the door area and reception
- weekly programmer



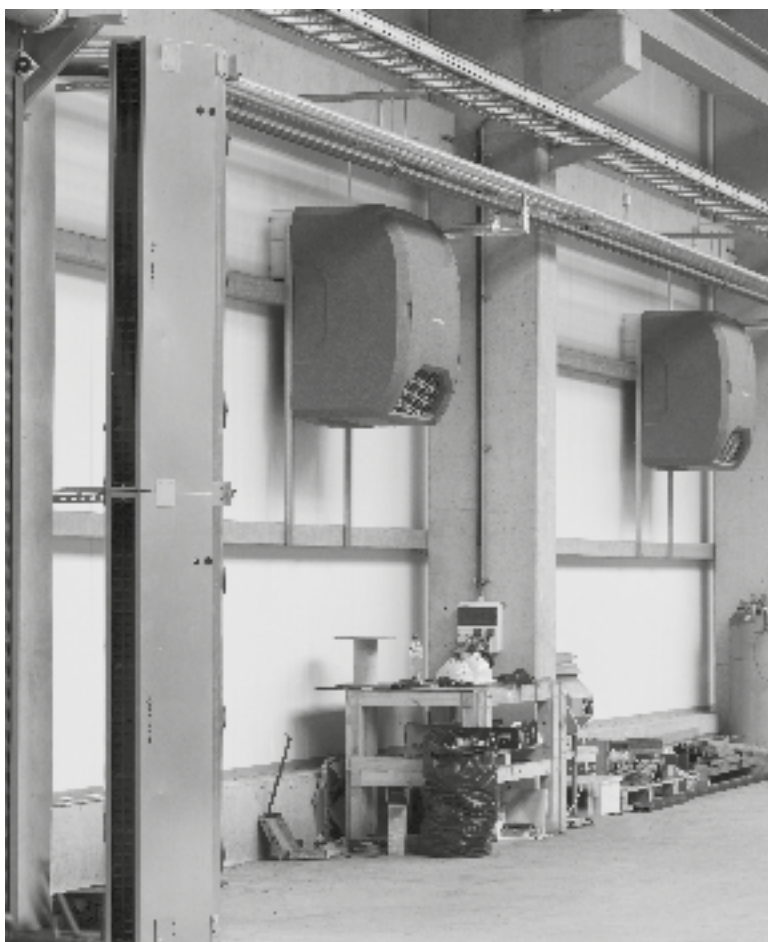
PRODUCTION HALL

Heating and ductless ventilation

A warehouse for raw materials with an area of nearly 15,000 m³, has been modernized and turned into a production hall. Due to the architectural constraints and light construction of the building, ventilation was provided by OXeN's compact, light, wall-mounted ventilation units with heat recovery. Additionally, the system included LEO fan heaters and - to minimize heat losses - the ELiS G industrial gate curtains.

SYSTEM FUNCTIONS:

- energy-efficient ventilation of the room
- ensuring thermal comfort



SYSTEM FLOWAIR

mini BMS at your finger tips

T-box
intelligent controller
with touch screen



LEO BMS
fan heaters



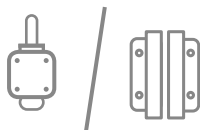
LEO KM
mixing chamber

INTEGRATION OF DEVICES

SYSTEM FLOWAIR is an intelligent solution which makes it possible to integrate the devices into a system with only one controller. T-box offers many necessary functions for effective management of a heating-ventilating system. These function were previously reserved for an extensive Building Management System (BMS).



Control of devices with
one T-box



Local regulation
of devices



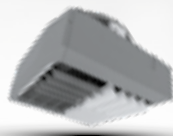
Advanced control of
ventilating and heating
devices



Control the devices
according to your time
schedule and individual
needs



Antifreeze protects the
devices against
low temperatures



LEO D BMS
destratifiers



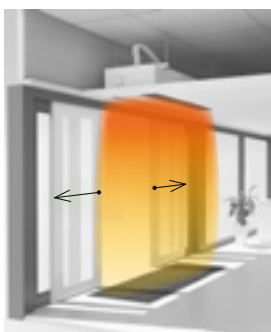
ELiS
air curtains



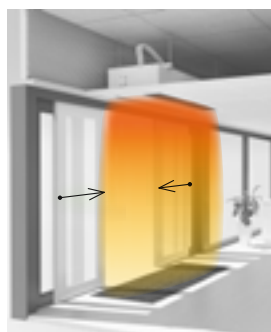
OXeN
ventilation unit with heat recovery

I DELAY TIME AND IDLE SPEED

The function of the curtain off delay time allows the curtain to be automatically turned off after the set time has been counted down. The idle speed of the curtain allows the curtain to be set when the door is closed at reduced capacity for a pre-set time. After the set time has been deducted, the curtain is switched off.



■ 3rd speed



■ 3rd speed



■ 1st speed/ 1st minute

■ curtain idle speed

■ curtain delay time



FIND OUT MORE!

Get to know SYSTEM FLOWAIR - check how the curtain delay time and idle speed works.



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