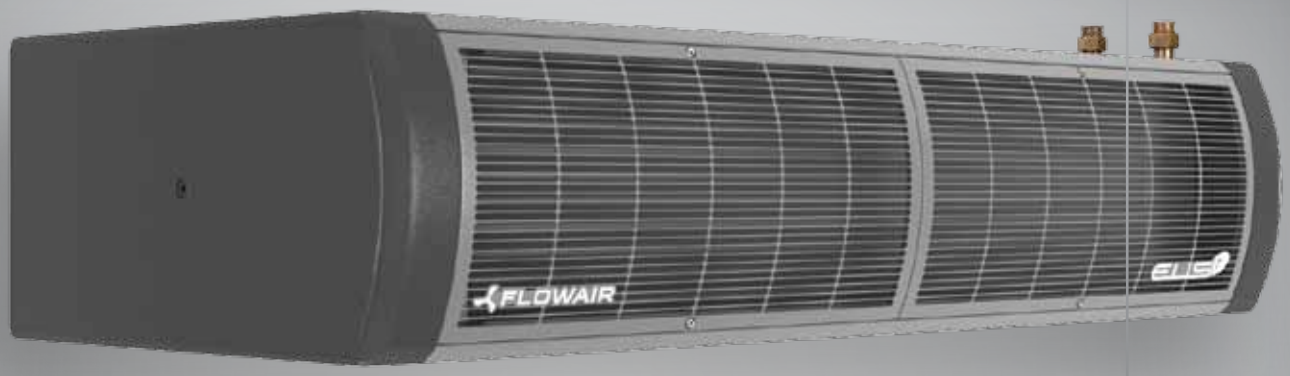
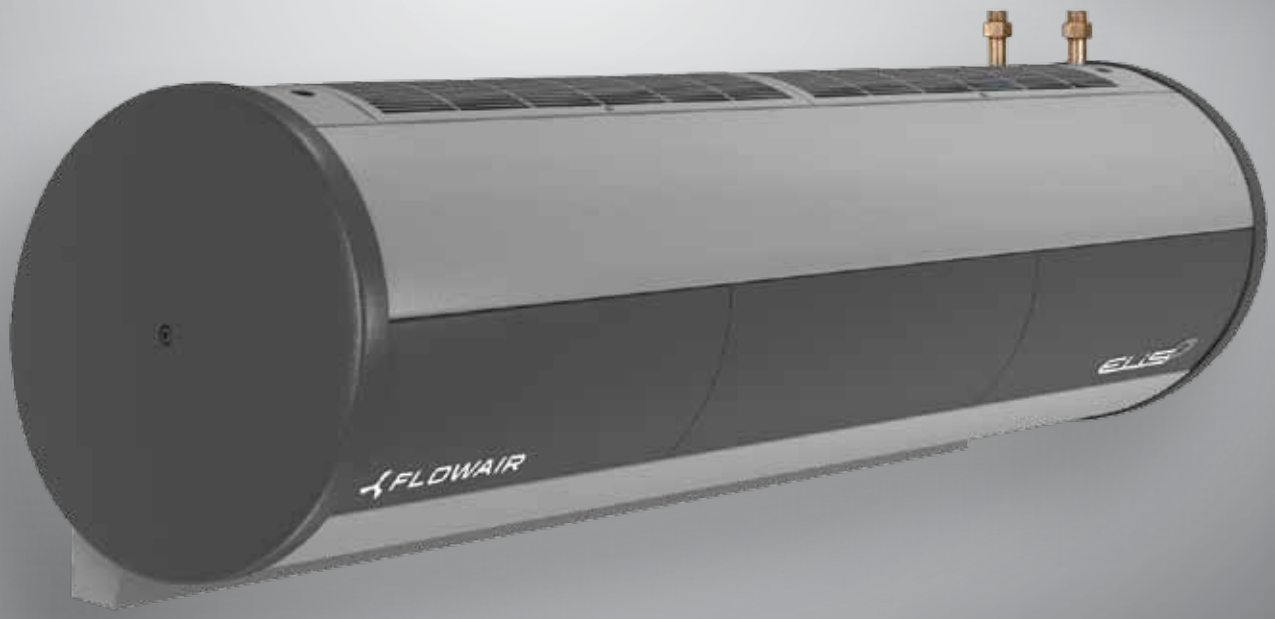
AIR CURTAINS

FLOWAIR
intelligent air flow

ELIS T



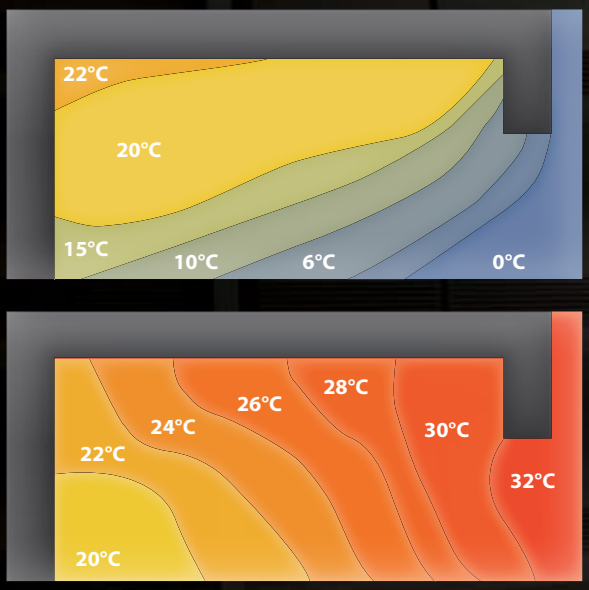
ELIS R



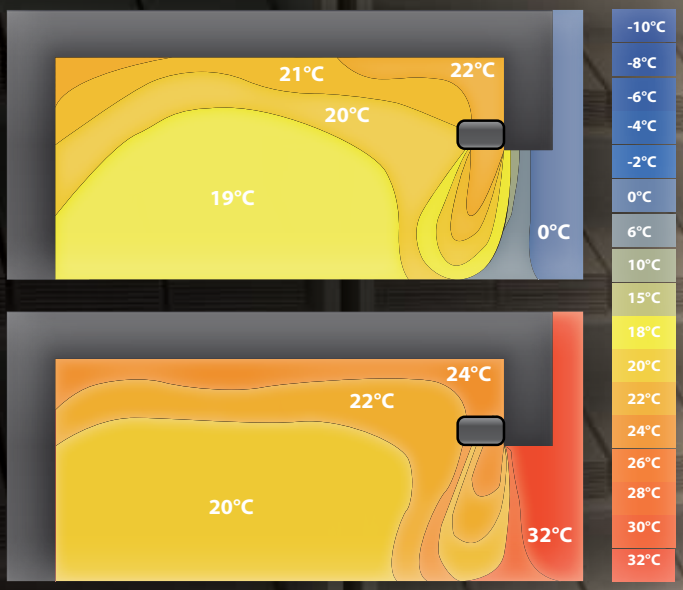
FLOWAIR.COM

AIR TEMPERATURE DISTRIBUTION IN THE ROOM

Without air curtain

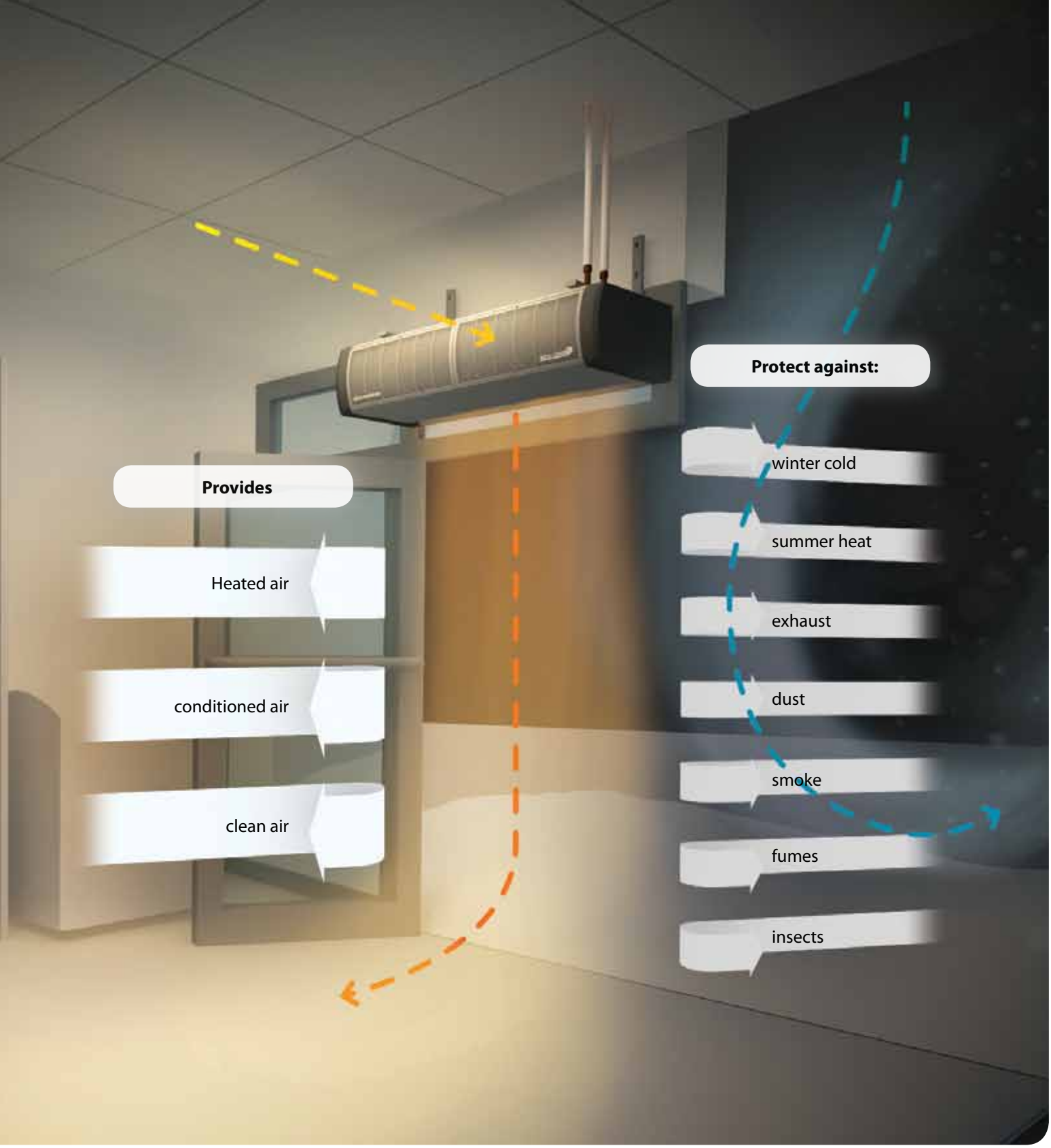


With air curtain



WHAT ARE AIR CURTAINS FOR?

Air curtains are mounted over doorways and create an invisible, downward thrusting air barrier. The primary purpose of the air curtain is to prevent the influx of outside air through openings into heated or conditioned areas. The air stream also prevents contamination from insects and dust. The Flowair air curtain enables a comfortable and clean environment for people.



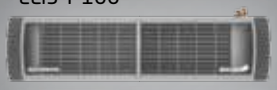
HOW DOES IT WORK?

The air stream coming from curtain outlet is divided, part of the stream is directed outside, and the greater part returned to the room. This causes the air entering from outside to be retained, and heated or cooled air inside the room remains inside. If part of the outside air enters inside it will be mixed with heated air and as a result, air will flow into the room with the desired temperature.

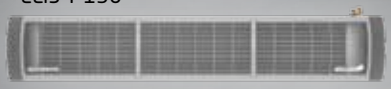
	ELiS T
Air stream range (m)	3,5 m*
Acoustic pessure dB(A)	53 – 58
Air flow (m^3/h)	1020 – 3500
Weight (kg)	20,5 – 48,2
Colour**	gray
Casing	steel+plastic

* range of isothermal stream, limit speed 2 m/s
** upon request other colors are available.

ELiS T 100



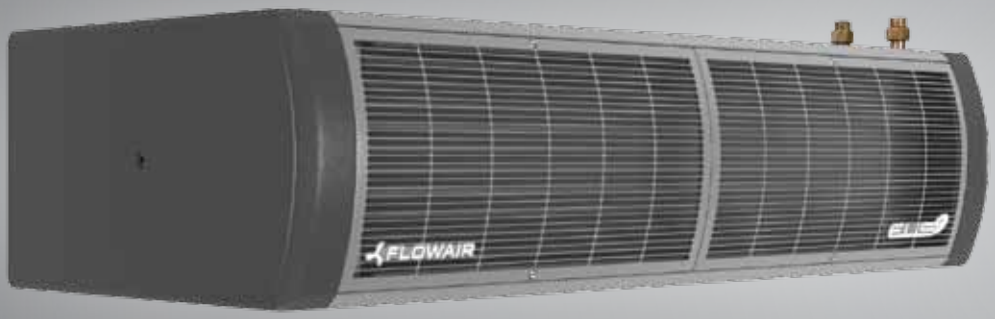
ELiS T 150



ELiS T 200

ELiS T has listed types:

- N ambient
- + with water exchanger (LPHW)
- ⚡ with electrical exchanger



ELIS T: COMPREHENSIVE CONSTRUCTION

Elis T curtain has an aesthetic shape with cuboid casing which enables ease of mounting in most rooms.

WIDE RANGE OF TYPES

Elis air curtains are available in three sizes: 1 m, 1,5 m and 2 m widths.
It is possible to join curtains together creating a cascade with other widths ie: 2,5 m, 3,5 m or 4 m, etc, and control VIA ONE controller.
THE RANGE INCLUDES:

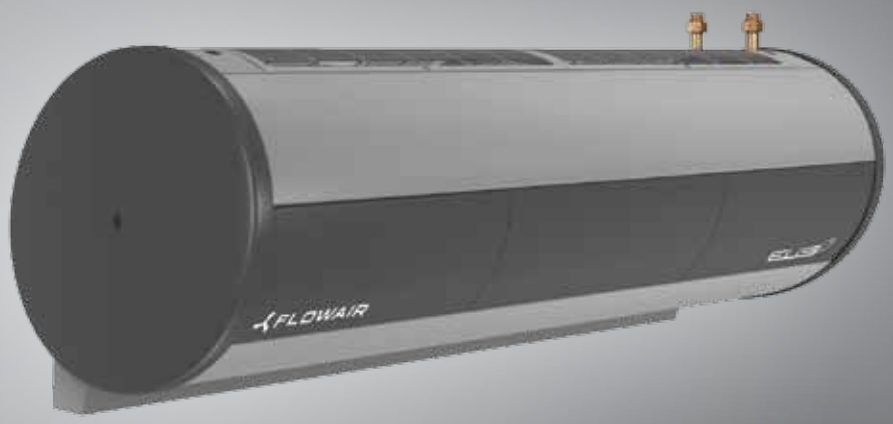
- WATER HEAT EXCHANGER (LPHW)
- ELECTRICAL
- AMBIENT

CENTRIFUGAL FANS - QUIET OPERATION AND EFFICIENCY PROTECTION.

Three step fans produced by EBM Papst are made of LIGHT MATERIALS and possess sound absorbing properties. Units are built to a stringent quality assurance process.

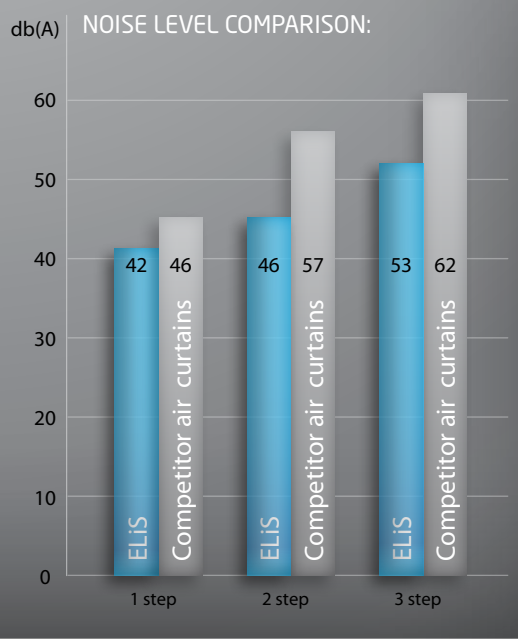
	ELiS R
Air stream range (m)	2,5 – 3,5 m*
Acoustic pessure dB(A)	53 – 56
Air flow (m^3/h)	850 – 2100
Weight (kg)	25,5 – 32,0
Colour**	gray
Casing	steel + plastic

* range of isothermal stream, limit speed 2 m/s
** upon request other colors are available.



ELiS R has listed types:

- N Ambient
- + With water exchanger (LPHW)



MODERN DESIGN

Elliptic shape has a modern, aesthetic look. Common applications are: restaurants, shop galleries and car salons.
The combination of steel and plastic results in a robust unit with noise and vibration absorbing properties.

AF SYSTEM

Advanced type of control system

STANDBY MODE

While doors are closed, Air curtains working on standby mode: preset by user idle speed. Door opening changes this setting and curtain begins operation at maximum speed.
Standby mode ensures that time from start signal to maximum speed is much shorter - nominal air flow is reached immediately. Standby mode ensures that heat losses close to doorways are minimized.

Operation scheme

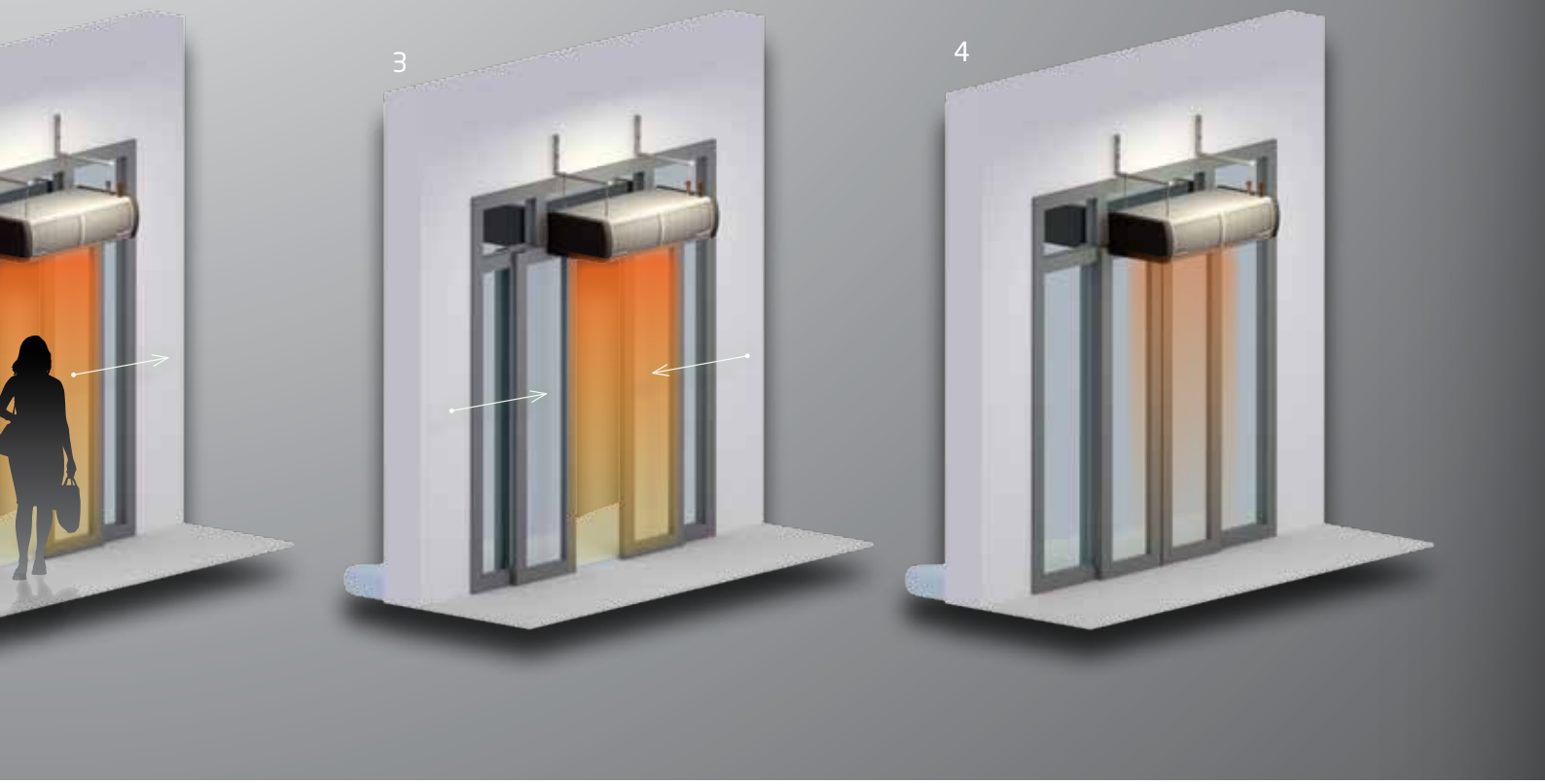
1. Standby mode
2. Rapid start and operation on maximum speed
3. Operating on maximum speed till the doors closing.
4. Back to standby mode

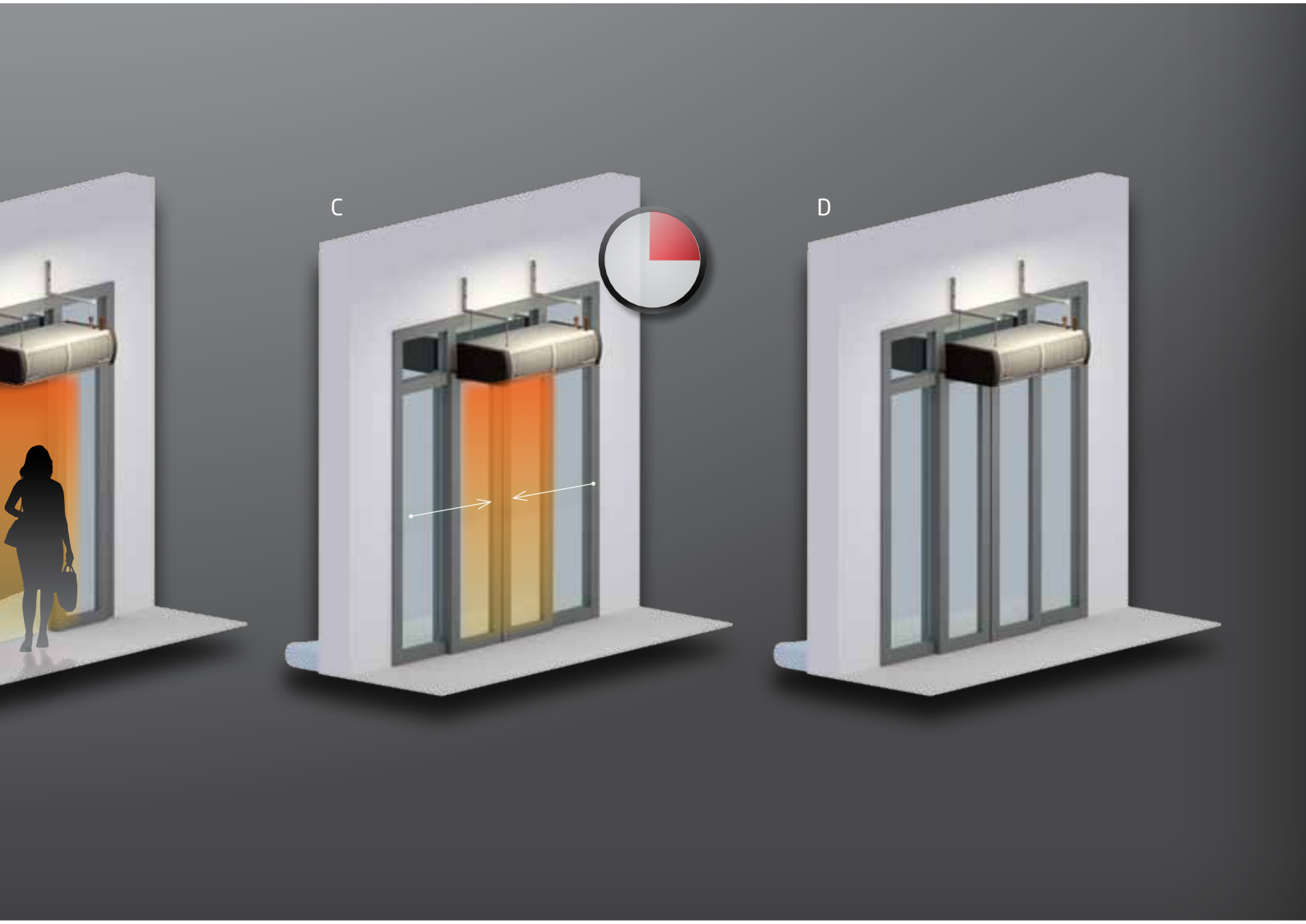
SWITCH OFF DELAY TIME

In buildings where doorways are frequently opened and closed it is necessary to set delay time of switching off air curtain. This increases the air stream provision and improves the efficiency of the air barrier.

Operation scheme:

A. Air curtain is switched off (can be set as option with Standby mode)
B. Rapid start and operates on maximum speed
C. Time delay, unit operate continuously till preset delay time elapses.
D. Backing to switch off (standby mode)


3
4


C
D

The volume of air stream can be regulated in three steps by a slide switch. Unit can operate via door contact signal. For LPHW, heating can be cut by valve with actuator, using thermostat or door contact signal.

L-TYPE CONTROL SYSTEM

L-type systems ensure basic air curtain control. User can change the speed of fans, connect door contact and valve (reg. curtains with water exchanger).

L-type control system allows for the possibility of 5 units to be regulated via one controller.

AF-TYPE CONTROL SYSTEM

AF-type control system has all possibilities listed in L-type. However, the AF-type provides additional parameters such as: idle speed, time delay.

Also available are BMS protocols so air curtains can be regulated as part of intelligent building monitoring.

VALVES WITH ACTUATOR:

SRS
two way valve
with actuator

SRS3d
three way valve
with actuator

DOOR CONTACTS:

DCe
magnetic door contact

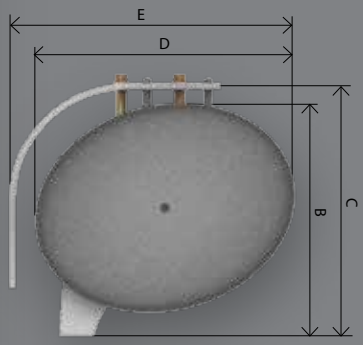
DCm
mechanical door contact

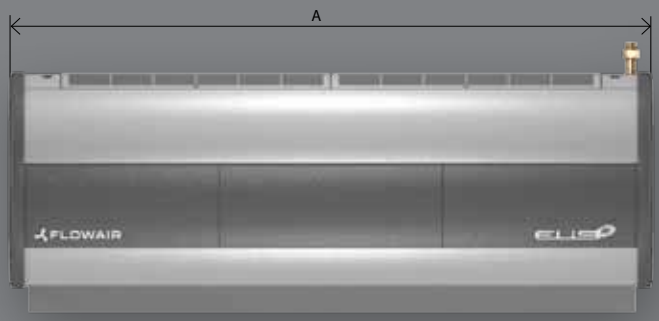
CONTROLLERS:

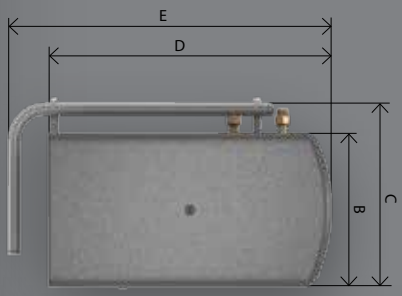
TA
three step slide switch

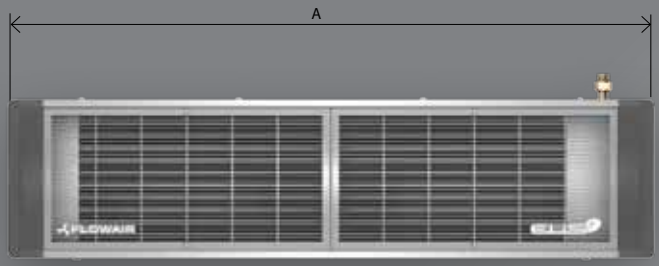
TS
room thermostat with
three step slide switch

Detailed information in ELiS technical manual.









Dimensions [mm]	R1	R3	T2 -100	T2-150	T2-200
A	1100		1030	1530	2030
B	410		250	250	250
C	440		470	470	470
D	450		530	530	530
E	490		310	310	310
Max. installation level [m]					
	2,5	3,5	3,5	3,5	3,5

ELIS AIR CURTAIN OPTIONS AND LABELLING

R 1-W-100/AF
1 2 3 4 5

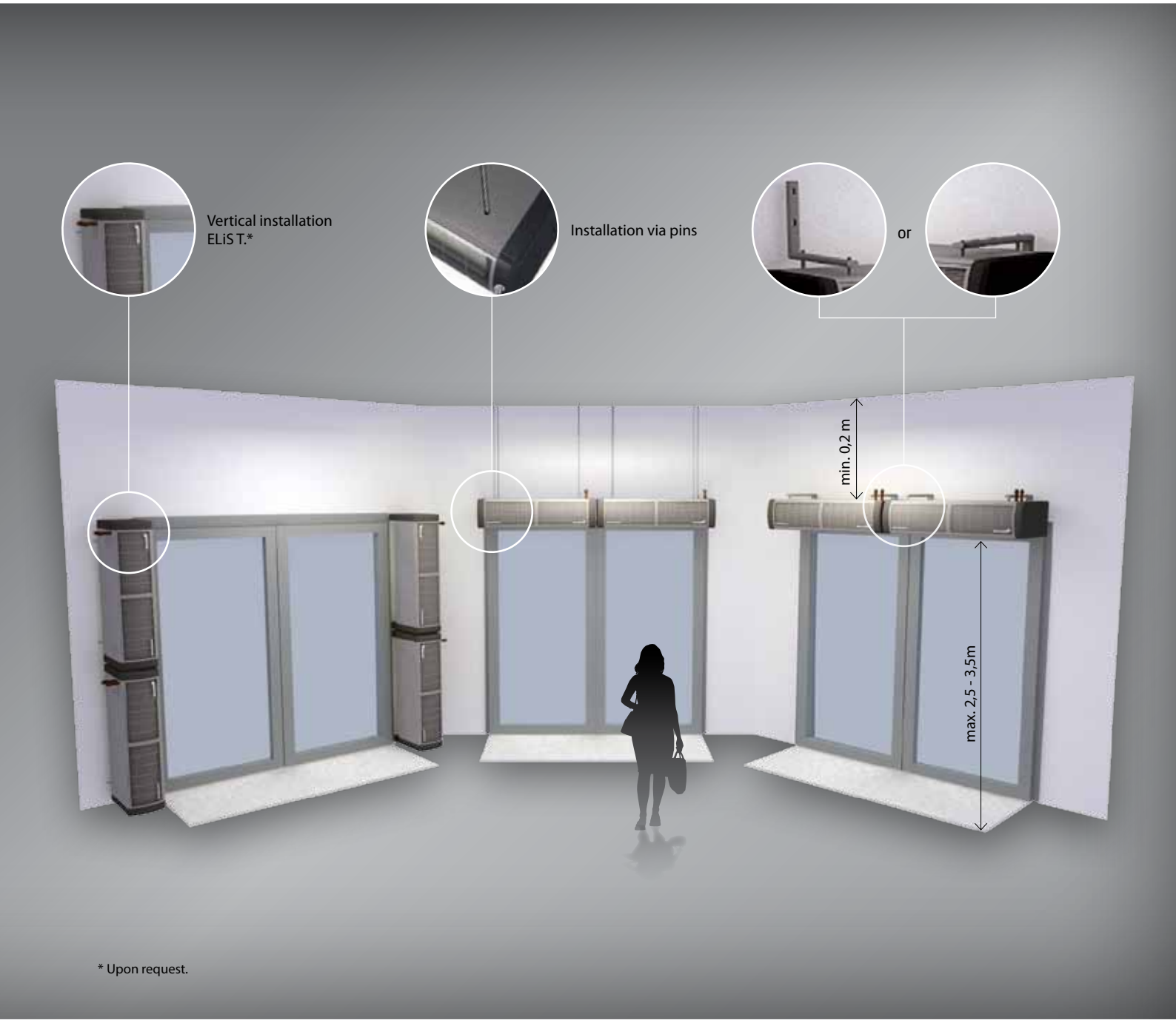
1
- T - ELIS T
- R - ELIS R

2
- 1 - max. installation height 2,5m
- 2 - max. installation height 3,5m
- 3 - max. installation height 3,5m

3
- W - air curtain with water heat exchanger
- N - ambient air curtain
- E - air curtain with electric heat exchanger

4 100/150/200 - air curtain width (cm)

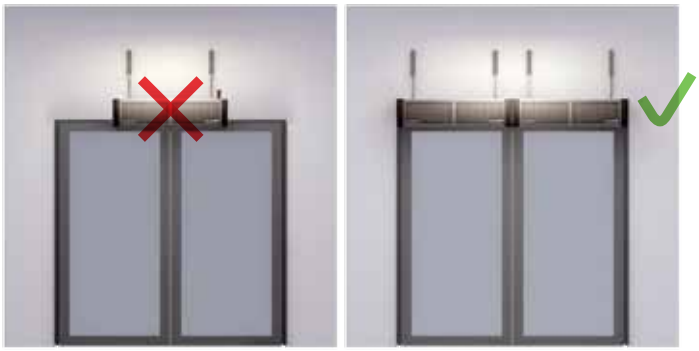
5
- L - basic type of control system
- AF - advanced type of control system



* Upon request.

INSTALLATION HEIGHT

Height of installation level is important for projects. Air stream range of air curtain should be equal or greater than doorway height. Depending on Elis type, the air stream range is between 2,5 and 3,5.



AIR CURTAIN WIDTH

Another important matter is to match the curtain to doorway width. Air curtain stream should be greater than or equal to door opening. ELiS curtains can be joined together creating cascade. Controlling of connected air curtains can be achieved using one regulator. Connection among the air curtains is very easy.

R

GENERAL INFORMATION		R1-W/N-100	R3-W/N-100
Max. air stream range**	m	2,5	3,5
Casing		steel + plastic	
Colour		gray	
Installation		inside the building	
Mounting position		horizontal	

WEIGHT		R1-W-100	R1-N-100	R3-W-100	R3-N-100
Unit	kg	29	25,5	32	28,5
UNit filled with water	kg	30,2	-	33,2	-

ELECTRICAL CHARACTERISTICS		R1-W/N-100	R3-W/N-100
Fan		2 x double side intake centrifugal fan, single phase AC	3 x double side intake centrifugal fan, single phase AC
Air flow	m^3/h	1500	2100
Power supply	V/Hz	230 / 50	
Current consumption	A	0,72	1,1
Power consumption	W	165	250
Insulation class (IP)		21	
Acoustic pressure	dB(A)	53	56

WATER HEAT EXCHANGER CHARACTERISTICS		T2-W-100/150/200
Construction		Two-row, Copper + Aluminium
Max. pressure	MPa	1,6
Max. medium temperature	°C	95
Connecting stub	″	½″

T

GENERAL INFORMATION		T2-W/N/E-100/150/200
Max air stream range	m	3,5
Casing		steel + plastic
Colour		gray
Installation		inside the building
Mounting position		horizontal / vertical ***

WEIGHT		T2-W-100	T2-N-100	T2-E-100	T2-W-150	T2-N-150	T2-E-150	T2-W-200	T2-N-200	T2-E-200
Unit	kg	24	20,5	26	34,3	29,9	38	46,8	42,1	49,4
Unit filled with water	kg	25,2	-	-	35,9	-	-	48,2	-	-

ELECTRICAL CHARACTERISTICS		T2-W/N/E-100	T2-W/N/E-150	T2-W/N/E-200
Fan		2 x double side intake centrifugal fan, single phase AC	3 x double side intake centrifugal fan, single phase AC	4 x double side intake centrifugal fan, single phase AC
Air flow	m^3/h	1770	2500	3500
Power supply	V/Hz	230 / 50		
Current consumption	A	0,72	1,1	1,45
Power consumption	W	165	250	334
Insulation class (IP)		21		
Acoustic pressure	dB(A)	53	56	58

WATER HEAT EXCHANGER CHARACTERISTICS		T2-W-100/150/200
Construction		Two-row, Copper + Aluminium
Max. pressure	MPa	1,6
Max. medium pressure	°C	95
Connecting stub	″	½″

AIR CURTAIN WITH ELECTRICAL HEAT EXCHANGER CHARACTERISTICS		T2-E-100	T2-E-150	T2-E-200
Exchanger		2 x PTC heater	3 x PTC heater	4 x PTC heater
Power supply	V / Hz	3 x 400 / 50		
Current consumption	A	10	15	22
Heat exchanger power	kW	6,9	10,6	15,1

HEATING CAPACITY TABLE											
ELiS R1-W-100											
Tp1	V	PT	Qw	Δpw	Tp2	Tp1	V	PT	Qw	Δpw	Tp2
°C	m³/h	kW	l/h	kPa	°C	°C	m³/h	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70 °C						Tw1/Tw2 = 80/60 °C					
0	850/ 1150/ 1500	14,4/17,7/21,0	637/781/927	4,4/6,4/8,8	47/43/39	**0**	850/ 1150/ 1500	12,4/15,2/18,0	545/668/793	3,4/5,0/6,8	40/37/33
5		13,3/16,4/19,4	588/721/857	3,8/5,5/7,6	49/45/41	**5**		11,3/13,9/16,5	497/610/724	2,9/4,2/5,7	43/39/36
10		12,3/15,0/17,9	541/663/788	3,3/4,8/6,5	51/47/44	**10**		10,3/12,6/15,0	451/553/657	2,4/3,5/4,8	45/41/39
15		11,2/13,7/16,3	494/606/721	2,8/4,0/5,5	53/50/47	**15**		9,2/11,3/13,5	405/497/591	2,0/2,9/4,0	47/44/41
20		10,2/12,5/14,8	448/550/654	2,3/3,4/4,6	55/52/49	**20**		8,2/10,1/12,0	360/442/526	1,6/2,4/3,2	49/46/44
Tw1/Tw2 = 70/50 °C						Tw1/Tw2 = 70/40 °C					
0	850/ 1150/ 1500	10,4/12,7/15,1	453/555/659	2,5/3,7/5,0	34/31/28	**0**	850/ 1150/ 1500	8,6/10,5/12,5	249/306/363	0,9/1,3/1,7	28/25/23
5		9,3/11,4/13,5	407/498/592	2,1/3,0/4,1	36/33/30	**5**		7,5/9,2/10,9	218/268/319	0,7/1,0/1,4	30/28/26
10		8,3/10,1/12,0	361/443/526	1,7/2,4/3,3	38/35/33	**10**		6,4/7,9/9,4	186/230/274	0,5/0,8/1,1	31/30/28
15		7,2/8,9/10,5	316/388/461	1,3/1,9/2,6	40/37/35	**15**		5,2/6,6/7,9	153/191/229	0,4/0,6/0,8	33/32/30
20		6,2/7,6/9,1	271/334/397	1,0/1,5/2,0	42/40/38	**20**		3,9/5,1/6,3	114/150/182	0,2/0,4/0,5	34/33/32
Tw1/Tw2 = 60/40 °C						Tw1/Tw2 = 50/40 °C					
0	850/ 1150/ 1500	8,3/10,1/12,0	360/442/525	1,8/2,5/3,4	27/24/22	**0**	850/ 1150/ 1500	8,0/9,8/11,6	693/850/1010	5,8/8,3/11,4	26/24/21
5		7,2/8,9/10,5	315/386/459	1,4/2,0/2,7	29/27/25	**5**		6,9/8,5/10,1	603/740/880	4,5/6,5/8,9	28/26/24
10		6,2/7,6/9,0	269/331/394	1,0/1,5/2,0	31/29/27	**10**		5,9/7,3/8,6	515/633/752	3,4/4,9/6,7	30/28/27
15		5,1/6,3/7,5	224/276/329	0,8/1,1/1,5	33/31/30	**15**		4,9/6,1/7,2	428/526/626	2,4/3,5/4,8	32/30/29
20		4,1/5,1/6,1	177/220/264	0,5/0,7/1,0	34/33/32	**20**		3,9/4,9/5,8	343/422/502	1,6/2,4/3,2	34/32/31

HEATING CAPACITY TABLE											
ELiS R3-W-100											
Tp1	V	PT	Qw	Δpw	Tp2	Tp1	V	PT	Qw	Δpw	Tp2
°C	m³/h	kW	l/h	kPa	°C	°C	m³/h	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70 °C						Tw1/Tw2 = 80/60 °C					
0	1200/ 1600/ 2100	18,2/21,9/25,9	803/965/1141	6,7/9,5/12,8	42/38/34	**0**	1200/ 1600/ 2100	15,6/18,8/22,2	687/826/976	5,2/7,3/9,9	36/32/29
5		16,8/20,2/23,9	742/893/1056	5,8/8,2/11,1	44/41/37	**5**		14,3/17,2/20,3	627/754/892	4,4/6,2/8,4	38/35/32
10		15,5/18,6/22,0	682/821/972	5,0/7,0/9,6	47/43/40	**10**		12,9/15,6/18,4	569/684/810	3,7/5,2/7,0	41/38/35
15		14,1/17,0/20,1	624/751/889	4,3/6,0/8,1	49/46/43	**15**		11,6/14,0/16,6	511/616/729	3,1/4,3/5,8	43/41/38
20		12,8/15,5/18,3	566/682/808	3,6/5,0/6,8	52/49/46	**20**		10,4/12,5/14,8	455/548/649	2,5/3,5/4,7	46/43/41
Tw1/Tw2 = 70/50 °C						Tw1/Tw2 = 70/40 °C					
0	1200/ 1600/ 2100	13,1/15,7/18,5	571/686/811	3,8/5,4/7,3	30/27/24	**0**	1200/ 1600/ 2100	10,8/13,0/15,4	315/379/447	1,3/1,9/2,5	25/23/20
5		11,7/14,1/16,7	513/617/729	3,2/4,4/6,0	32/30/27	**5**		9,5/11,4/13,5	275/332/392	1,1/1,5/2,0	27/25/23
10		10,4/12,5/14,8	455/548/648	2,6/3,6/4,8	35/32/30	**10**		8,1/10,0/11,6	236/285/338	0,8/1,1/1,5	29/28/26
15		9,1/11,0/13,0	399/480/568	2,0/2,8/3,8	37/35/33	**15**		6,8/8,2/9,7	196/238/283	0,6/0,8/1,1	31/30/29
20		7,9/9,5/11,2	343/414/490	1,5/2,2/2,9	39/38/36	**20**		5,3/6,5/7,8	155/190/228	0,4/0,6/0,8	33/32/31
Tw1/Tw2 = 60/40 °C						Tw1/Tw2 = 50/40 °C					
0	1200/ 1600/ 2100	10,4/12,6/14,8	454/546/646	2,6/3,7/5,0	24/22/20	**0**	1200/ 1600/ 2100	10,1/12,1/14,3	874/1052/1245	8,8/12,3/16,7	23/21/19
5		9,1/11,0/13,0	397/478/565	2,1/2,9/3,9	26/24/22	**5**		8,8/10,5/12,5	762/917/1085	6,8/9,6/13,0	26/24/22
10		7,8/9,4/11,1	340/410/485	1,6/2,2/3,0	29/27/25	**10**		7,5/9,0/10,7	651/784/928	5,1/7,2/9,8	28/26/25
15		6,5/7,9/9,3	284/343/406	1,4/1,6/2,2	31/29/28	**15**		6,2/7,5/8,9	542/653/773	3,7/5,2/7,0	30/29/27
20		5,2/6,3/7,5	227/275/327	0,8/1,1/1,5	33/32/31	**20**		5,0/6,0/7,1	434/523/620	2,5/3,5/4,7	32/31/30

V – air flow
Tp1 – inlet air temperature
Tw1 – inlet water temperature
Qw – heating water stream

PT – heating capacity
Tp2 – outlet air temperature
Tw2 – outlet water temperature
Δpw – water pressure drop

* Acoustic pressure level measured in the room with average sound absorption, capacity 500m3, at distance of 2m from the unit.
** range of isothermal horizontal stream, limit speed 2 m/s.
*** Air curtain with installed set for vertical mounting.

HEATING CAPACITIES TABLE											
ELiS T2-W-100											
Tp1	V	PT	Qw	Δpw	Tp2	Tp1	V	PT	Qw	Δpw	Tp2
°C	m³/h	kW	l/h	kPa	°C	°C	m³/h	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70 °C						Tw1/Tw2 = 80/60 °C					
0	1020/ 1340/ 1770	15,4/18,3/21,7	678/808/959	4,6/6,4/8,7	42/38/34	**0**	1020/ 1340/ 1770	13,2/15,7/18,6	578/689/818	3,5/4,9/6,7	36/32/29
5		14,2/16,9/20,1	626/746/886	4,0/5,5/7,6	44/41/37	**5**		12,0/14,3/17,0	528/629/747	3,0/4,1/5,7	36/35/32
10		13,0/15,5/18,5	575/686/815	3,4/4,7/6,5	47/43/40	**10**		10,9/13,0/15,4	478/570/677	2,5/3,5/4,7	41/38/35
15		11,9/14,2/16,9	525/627/745	2,9/4,0/5,5	49/46/43	**15**		9,8/11,7/13,8	429/512/608	2,1/2,8/3,9	43/40/38
20		10,8/12,9/15,3	476/568/676	2,4/3,3/4,6	51/48/46	**20**		8,7/10,4/12,3	381/455/540	1,7/2,3/3,1	45/43/41
Tw1/Tw2 = 70/50 °C						Tw1/Tw2 = 70/40 °C					
0	1020/ 1340/ 1770	10,9/13,0/15,5	479/570/677	2,6/3,6/4,9	30/27/24	**0**	1020/ 1340/ 1770	8,9/10,6/12,6	259/309/367	0,9/1,2/1,6	24/22/20
5		9,8/11,7/13,9	429/512/607	2,1/2,9/4,0	32/30/27	**5**		7,7/9,3/11,0	225/269/320	0,7/0,9/1,3	26/24/23
10		8,7/10,4/12,3	380/454/539	1,7/2,4/3,2	34/32/30	**10**		6,6/7,9/9,4	191/229/274	0,5/0,7/1,0	28/27/25
15		7,6/9,1/10,8	332/396/471	1,4/1,9/2,5	37/35/33	**15**		5,3/6,5/7,8	155/188/226	0,4/0,5/0,7	30/29/28
20		6,5/7,8/9,2	285/340/404	1,0/1,4/1,9	39/37/35	**20**		3,7/4,9/6,1	108/143/176	0,2/0,3/0,5	31/31/30
Tw1/Tw2 = 60/40 °C						Tw1/Tw2 = 50/40 °C					
0	1020/ 1340/ 1770	8,7/10,4/12,3	378/451/535	1,8/2,4/3,3	24/21/19	**0**	1020/ 1340/ 1770	8,5/10,1/12,0	736/878/1043	6,0/8,2/11,3	23/21/19
5		7,6/9,0/10,7	329/393/467	1,4/1,9/2,6	26/24/22	**5**		7,4/8,8/10,4	640/764/908	4,6/6,4/8,7	25/23/22
10		6,4/7,7/9,2	280/335/399	1,0/1,4/1,9	28/26/25	**10**		6,3/7,5/8,9	546/651/774	3,5/4,8/6,5	28/26/24
15		5,3/6,4/7,6	231/278/331	0,7/1,0/1,4	30/29/28	**15**		5,2/6,2/7,4	452/540/643	2,5/3,4/4,7	30/29/27
20		4,2/5,0/6,0	181/219/263	0,5/0,7/0,9	32/31/30	**20**		4,1/5,0/5,9	360/431/513	1,7/2,3/3,1	32/31/30

HEATING CAPACITIES TABLE											
ELiS T2-W-150											
Tp1	V	PT	Qw	Δpw	Tp2	Tp1	V	PT	Qw	Δpw	Tp2
°C	m³/h	kW	l/h	kPa	°C	°C	m³/h	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70 °C						Tw1/Tw2 = 80/60 °C					
0	1650/ 2100/ 2500	25,6/29,9/33,3	1128/1318/1470	14,8/19,8/24,2	43/39/37	**0**	1650/ 2100/ 2500	22,0/25,8/28,7	968/1132/1262	11,6/15,4/18,8	37/34/32
5		23,6/27,6/30,9	1043/1220/1361	12,9/17,2/20,1	45/42/40	**5**		20,2/23,6/26,3	886/1036/1156	9,8/13,1/16	39/37/35
10		21,8/25,5/28,4	960/1124/1254	11,1/14,8/18,1	48/45/43	**10**		18,3/21,4/23,9	805/942/1051	8,3/10,1/13,4	42/39/37
15		19,9/23,3/26,0	879/1029/1149	9,4/12,6/15,4	50/47/45	**15**		16,5/19,3/21,6	726/849/948	6,8/9,1/11,1	44/42/40
20		18,1/21,2/23,7	799/936/1045	7,9/10,6/12,9	52/50/48	**20**		14,7/17,2/19,3	647/758/846	5,6/7,4/9,0	46/44/43
Tw1/Tw2 = 70/50 °C						Tw1/Tw2 = 70/40 °C					
0	1650/ 2100/ 2500	18,5/21,6/24,1	810/947/1056	8,6/11,4/14,0	31/28/27	**0**	1650/ 2100/ 2500	15,7/18,4/20,5	459/536/597	3,2/4,2/5,1	26/24/35
5		16,7/19,5/21,7	730/853/951	7,1/9,5/11,5	33/31/29	**5**		13,9/16,3/18,1	405/473/528	2,5/3,3/4,1	29/27/25
10		14,9/17,4/19,4	650/760/849	5,8/7,7/9,4	36/34/32	**10**		12,1/14,1/15,8	352/411/459	2,0/2,6/3,2	31/29/28
15		13,1/15,3/17,1	572/669/747	4,6/6,1/7,5	38/36/35	**15**		10,3/12,0/13,4	299/350/391	1,5/2,0/2,4	33/32/31
20		11,3/13,3/14,8	496/580/647	3,6/4,72/5,8	40/39/37	**20**		8,4/9,9/11,1	246/288/322	1,0/1,4/1,7	35/34/33
Tw1/Tw2 = 60/40 °C						Tw1/Tw2 = 50/40 °C					
0	1650/ 2100/ 2500	15,0/17,5/19,5	652/762/850	6,1/8,0/9,7	25/23/22	**0**	1650/ 2100/ 2500	14,2/16,6/18,5	1233/1442/1609	19,5/25,9/31,6	24/22/20
5		13,2/15,4/17,1	573/670/747	4,8/6,3/7,7	27/26/24	**5**		12,4/14,5/6,2	1077/1260/1406	15,2/20,2/24,7	26/24/23
10		11,4/13,3/14,8	495/579/646	3,7/4,9/5,9	30/28/27	**10**		10,6/12,4/13,9	924/1081/1207	11,5/15,3/18,7	28/27/26
15		9,6/11,2/12,5	418/489/546	2,7/3,6/4,4	32/31/30	**15**		8,9/10,4/1,6	773/905/1010	8,4/11,1/13,6	31/29/28
20		7,8/9,2/10,2	341/400/446	1,9/2,5/3,1	34/33/32	**20**		7,2/8,4/9,4	624/731/817	5,7/7,6/9,2	33/32/31

HEATING CAPACITY TABLE											
ELiS T2-W-200											
Tp1	V	PT	Qw	Δpw	Tp2	Tp1	V	PT	Qw	Δpw	Tp2
°C	m³/h	kW	l/h	kPa	°C	°C	m³/h	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70 °C						Tw1/Tw2 = 80/60 °C					
0	2400/ 2900/ 3500	37,0/41,8/47,1	1633/1845/2077	35,4/44,3/55,1	43/40/37	**0**	2400/ 2900/ 3500	32,0/36,2/40,7	1406/1589/1789	27,6/34,6/42,9	37/34/32
5		34,3/38,7/43,6	1512/1710/1925	30,7/38,5/47,9	45/43/40	**5**		29,3/33,1/37,3	1288/1456/1639	23,6/29,5/36,6	39/37/35
10		31,6/35,7/40,2	1394/1576/1775	26,5/33,1/41,2	48/45/43	**10**		26,7/30,2/34,0	1172/1326/1493	19,9/24,8/30,8	42/40/38
15		28,9/32,8/36,9	1278/1445/1628	22,6/28,3/35,2	50/48/46	**15**		24,1/27,3/30,7	1059/1197/1345	16,5/20,6/25,6	44/42/40
20		26,4/29,8/33,6	1164/1317/1484	19,0/23,9/29,7	52/50/48	**20**		21,6/24,4/27,5	947/1071/1207	13,5/16,8/20,9	47/45/43
Tw1/Tw2 = 70/50 °C						Tw1/Tw2 = 70/40 °C					
0	2400/ 2900/ 3500	27,0/30,5/34,3	1181/1335/1502	20,7/25,9/32,1	31/29/27	**0**	2400/ 2900/ 3500	23,4/26,4/39,7	680/768/864	7,8/9,7/11,9	27/25/23
5		24,4/27,5/31,0	1066/1205/1356	17,2/21,5/26,7	34/32/30	**5**		20,7/23,4/26,3	603/681/766	6,2/7,8/9,7	29/28/26
10		21,8/24,6/27,7	952/1077/1212	14,0/17,5/21,8	36/34/33	**10**		18,11/20,5/23,0	527/596/670	4,9/6,2/7,6	32/30/29
15		19,2/21,7/24,5	841/951/1071	11,2/14,0/17,4	38/37/35	**15**		15,5/17,6/19,8	452/511/575	3,8/4,7/5,8	34/33/31
20		16,7/18,9/21,3	731/827/931	8,7/10,9/13,5	40/39/38	**20**		12,9/14,6/16,5	377/426/480	2,7/3,4/4,2	36/35/34
Tw1/Tw2 = 60/40 °C						Tw1/Tw2 = 50/40 °C					
0	2400/ 2900/ 3500	21,9/24,8/27,9	958/1082/1217	14,7/18,3/22,7	25/24/22	**0**	2400/ 2900/ 3500	20,6/23,3/26,2	1790/2024/2279	46,5/58,2/72,4	24/22/21
5		19,4/21,9/24,6	844/954/1074	11,7/14,6/18,1	28/26/25	**5**		18,0/20,4/22,9	1567/1772/1995	36,5/45,6/56,7	26/25/23
10		16,8/19,0/21,4	733/828/933	9,1/11,3/14,0	30/29/27	**10**		15,5/17,5/19,7	1347/1524/1717	27,8/34,7/43,1	28/27/26
15		14,3/16,2/18,2	623/704/793	6,8/8,5/10,5	32/31/30	**15**		13,0/14,7/16,6	1132/1280/1443	20,2/14,7/31,4	31/30/29
20		11,8/13,3/15,0	514/581/655	4,8/6,0/7,4	35/34/33	**20**		10,6/12,0/13,5	920/1040/1173	13,9/17,4/21,6	33/32/31

V - air flow
Tp1 - inlet air temperature
Tw1 - inlet water temperature
Qw - heating water stream

PT - heating capacity
Tp2 - outlet air temperature
Tw2 - outlet water temperature
Δpw - water pressure drop

www.flowair.com