



E-Series U

High-performance Air Curtain for visible or suspended ceiling installation

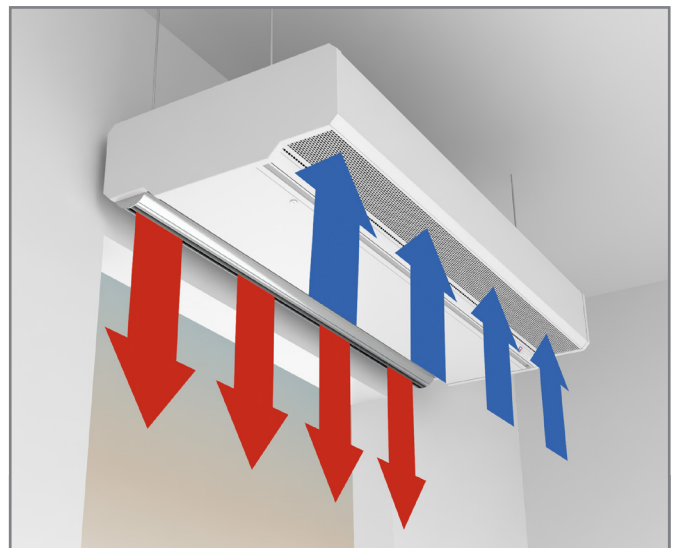
The E-Series combines Teddington's know-how from many years of development work. The wide range of options available for the E-Series enable tailor-made solutions and make the E-Series a powerful all-rounder.

Application

The air intake of the Air Curtain in housing type U is from below. This is ideal if the front intake does not work. With an installation frame, the Air Curtain can be installed discreet in the suspended ceiling.

Teddington works

Crucial for the successful shielding of doors and gates is the interplay between air discharge speed and air volume. The CONVERGO® pressure chamber nozzle system developed and patented by Teddington has been optimized for this purpose and ensures maximum shielding across the entire door.



Housing type U

For visible or suspended ceiling installation, with visible underside of device, air intake from below. Optionally available with ceiling installation frame.



VARIOUS OPTIONS

Individual unit length



Our Air Curtain systems are manufactured in predefined lengths as standard, which are suitable for most door situations. The longest single unit air curtains have a length of 3 m. In order to realize lengths exceeding this, devices are mounted and controlled in a group. If the situation requires a different length, we can manufacture the unit length to the exact millimeter according to your requirements.

Also available in an elegant stainless-steel design on request



Our E-Series Air Curtains are made of galvanized sheet steel as standard, which is powder-coated for a high-quality finish. On request, the housing of your Air Curtain unit can be made from high-quality stainless steel.

Heating modes



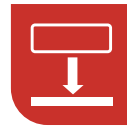
The Teddington E-Series is available as an ambient unit without heating and can be heated in the versions LTHW (water), electric, R410a / R32 (VRF), hybrid (e.g. water + electric).

3 power levels



The Teddington E-Series U is available in three power levels. This means that your Air Curtain is configured precisely for the respective requirement in order to guarantee optimum shielding and the lowest possible energy consumption.

Air Discharge range up to 4.4 m



Our powerful and fast-starting E-Series fans, in conjunction with our patented CONVERGO® pressure chamber nozzle system allow a maximum installation height of up to 4.4 metres.

AC or EC fans



A distinction is made between two fan technologies: AC and EC. Teddington is one of the few Air Curtain manufacturers to offer both technologies. This allows us to respond flexibly to project requirements and offer the optimal unit.

AC: The fast-starting AC fans are particularly suitable for doors and gates that open and close quickly or are only open for a short time.

EC: The energy-saving and infinitely variable EC fans are particularly suitable for doors and gates that are open for long periods (e.g. open glass front of a shop).

Installation types



Depending on whether there is positive or negative pressure inside the building, there are two different types of installation of the Air Curtain system which are used: IDW (internally rotating air roll) or ADW (externally rotating air roll) installation.

TCX - Our most innovative control system

With the TCX controller generation, you can now control your Teddington Air Curtain system even more easily and clearly. Just a few steps are all it takes for reliable configuration according to your requirements. Whether for a single Air Curtain system or a complex system grouping, TCX – the perfect controller for your Air Curtain system.

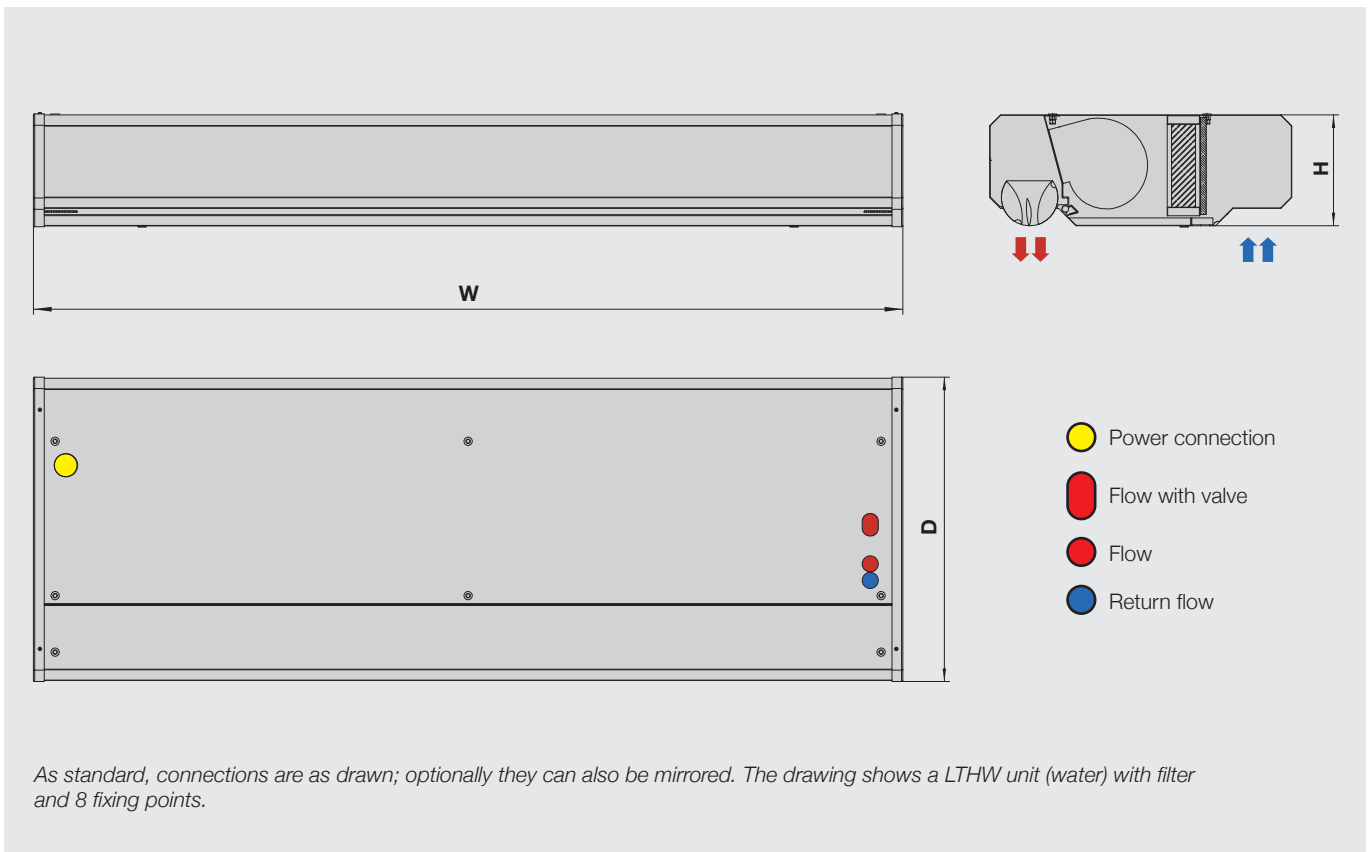




TECHNICAL DATA

| | Power level | E-Series 1 | | | | | E-Series 2 | | | | | E-Series 3 | | | | |
|--|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 |
| Performance data | | | | | | | | | | | | | | | | |
| Max. recommended installation height | [m] | 2.90 | | | | | 3.40 | | | | | 4.40 | | | | |
| Max. nominal flow rate | [m³/h] | 2100 | 3150 | 4200 | 5250 | 6300 | 2100 | 4200 | 5250 | 6300 | 7450 | 3800 | 5800 | 8500 | 11600 | 14500 |
| Max. effective flow rate* | [m³/h] | 1500 | 2400 | 3200 | 4000 | 4800 | 1600 | 3050 | 3800 | 4550 | 5300 | 2700 | 4300 | 6500 | 8600 | 11000 |
| Average air discharge speed* | [m/s] | 14.2 | | | | | 15.6 | | | | | 19.3 | | | | |
| Sound pressure level at a distance of 3 metres to the sound source (anechoic chamber) | | | | | | | | | | | | | | | | |
| Max. operating level | [dB(A)] | 57.0 | 59.0 | 61.0 | 63.0 | 64.0 | 58.4 | 60.4 | 62.4 | 64.4 | 66.4 | 60.0 | 62.0 | 63.0 | 64.0 | 65.0 |
| Standard operating level | [dB(A)] | 46.6 | 48.6 | 50.6 | 52.6 | 53.6 | 49.1 | 51.1 | 53.1 | 55.1 | 57.1 | 56.4 | 58.4 | 59.4 | 60.4 | 61.4 |
| Minimum operating level | [dB(A)] | 21.3 | 23.3 | 25.3 | 27.3 | 28.3 | 24.1 | 26.1 | 28.1 | 30.1 | 32.1 | 28.0 | 30.0 | 31.0 | 32.0 | 33.0 |

*Data are based on measurements in accordance with ISO 27327 conducted by the Institute of Air Handling and Refrigeration (ILK) in Dresden




| | Power level | E-Series 1 | | | | | E-Series 2 | | | | | E-Series 3 | | | | | |
|-------------------------------|-------------------------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|------|------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | |
| Measurements | | | | | | | | | | | | | | | | | |
| Width | W | [mm] | 1000 | 1500 | 2000 | 2500 | 3000 | 1000 | 1500 | 2000 | 2500 | 3000 | 1000 | 1500 | 2000 | 2500 | 3000 |
| Height | H | [mm] | 260 | 260 | 260 | 260 | 260 | 305 | 305 | 305 | 305 | 305 | 435 | 435 | 435 | 435 | 435 |
| Depth | D | [mm] | 700 | 700 | 700 | 700 | 700 | 825 | 825 | 825 | 825 | 825 | 1135 | 1135 | 1135 | 1135 | 1135 |
| Weight without heater battery | | [kg] | 44 | 64 | 75 | 89 | 114 | 48 | 73 | 95 | 111 | 135 | 115 | 145 | 179 | 205 | 219 |
| Weight with heater battery | | [kg] | 50 | 72 | 86 | 102 | 130 | 56 | 84 | 110 | 130 | 158 | 125 | 160 | 200 | 230 | 250 |
| Fixing Points | | [pcs.] | 4 | 4 | 4 | 6 | 6 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 8 | 8 |





TECHNICAL DATA

|  | Power level | E-Series 1 | | | | | E-Series 2 | | | | | E-Series 3 | | | | |
|---|-------------------------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|-------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 |
| Technical data of fans (230 V) | | | | | | | | | | | | | | | | |
| AC technology | | | | | | | | | | | | | | | | |
| Output | [kW] | 0.37 | 0.56 | 0.74 | 0.93 | 1.11 | 0.37 | 0.74 | 0.93 | 1.11 | 1.30 | 0.56 | 1.12 | 1.69 | 2.25 | 2.81 |
| Power consumption | [A] | 1.70 | 2.55 | 3.40 | 4.25 | 5.10 | 1.70 | 3.40 | 4.25 | 5.10 | 5.95 | 3.76 | 4.88 | 7.33 | 9.77 | 12.21 |
| EC technology | | | | | | | | | | | | | | | | |
| Output | [kW] | 0.34 | 0.51 | 0.68 | 0.85 | 1.01 | 0.34 | 0.68 | 0.85 | 1.01 | 1.18 | 0.50 | 1.00 | 1.50 | 2.00 | 2.50 |
| Power consumption | [A] | 2.70 | 4.05 | 5.40 | 6.75 | 8.10 | 2.70 | 5.40 | 6.75 | 8.10 | 9.45 | 2.20 | 4.40 | 6.60 | 8.80 | 11.00 |

|  | Power level | E-Series 1 | | | | | E-Series 2 | | | | | E-Series 3 | | | | |
|--|-------------------------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 |
| Technical data of LTHW heater battery | | | | | | | | | | | | | | | | |
| Pipe connections | | | | | | | | | | | | | | | | |
| Flow / Return flow | [inch] | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| LTHW 70/50 at an air intake temperature of 20°C and air discharge temperature of 32°C | | | | | | | | | | | | | | | | |
| Heat output | [kW] | 7.6 | 11.5 | 15.2 | 19.0 | 23.7 | 6.3 | 12.9 | 15.4 | 19.1 | 22.9 | 11.2 | 18.8 | 25.8 | 36.6 | 46.4 |
| Flow rate | [m³/h] | 0.30 | 0.50 | 0.70 | 0.90 | 1.00 | 0.30 | 0.60 | 0.70 | 0.80 | 1.00 | 0.50 | 0.80 | 1.10 | 1.60 | 2.00 |
| Water resistance | [kPa] | 0.76 | 0.78 | 0.77 | 0.92 | 0.83 | 1.13 | 1.96 | 1.16 | 1.23 | 1.27 | 1.06 | 1.51 | 1.39 | 1.60 | 1.91 |
| LTHW 70/50 at an air intake temperature of 10°C and air discharge temperature of 32°C | | | | | | | | | | | | | | | | |
| Heat output | [kW] | 12.0 | 18.2 | 24.4 | 31.1 | 36.6 | 12.4 | 23.2 | 28.1 | 33.7 | 40.1 | 20.2 | 31.6 | 50.6 | 65.8 | 83.4 |
| Flow rate | [m³/h] | 0.50 | 0.80 | 1.10 | 1.40 | 1.60 | 0.50 | 1.00 | 1.20 | 1.50 | 1.80 | 0.90 | 1.40 | 2.20 | 2.90 | 3.60 |
| Water resistance | [kPa] | 1.69 | 1.75 | 1.76 | 1.83 | 1.77 | 3.72 | 5.53 | 3.36 | 3.34 | 3.44 | 3.02 | 3.75 | 4.53 | 4.50 | 5.36 |
| LTHW 50/35 at an air intake temperature of 20°C and max. air discharge temperature | | | | | | | | | | | | | | | | |
| Heat output | [kW] | 0.7 | 6.7 | 9.5 | 12.3 | 15.0 | 7.8 | 14.6 | 18.7 | 23.4 | 27.7 | 11.3 | 19.3 | 28.7 | 42.8 | 48.2 |
| Air discharge temperature | [°C] | 27.2 | 28.2 | 28.7 | 29.0 | 29.2 | 34.0 | 34.0 | 34.4 | 35.0 | 35.3 | 32.2 | 33.0 | 33.0 | 35.0 | 32.8 |
| Flow rate | [m³/h] | 0.20 | 0.40 | 0.60 | 0.70 | 0.90 | 0.40 | 0.80 | 1.10 | 1.30 | 1.60 | 0.70 | 1.10 | 1.70 | 2.50 | 2.80 |
| Water resistance | [kPa] | 0.28 | 0.54 | 0.60 | 0.63 | 0.66 | 2.90 | 4.35 | 2.91 | 3.07 | 3.77 | 1.90 | 2.78 | 2.95 | 4.86 | 3.61 |

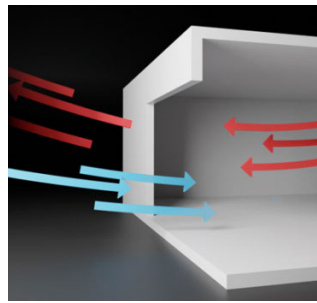
Ask our experts for data on your individual media temperatures.

|  | Power level | E-Series 1 | | | | | E-Series 2 | | | | | E-Series 3 | | | | |
|---|-------------------------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 |
| Technical data electrical heater battery | | | | | | | | | | | | | | | | |
| Electrical heater battery (three-stage, 400V, 3 Ph, 50 Hz) | | | | | | | | | | | | | | | | |
| Level 1 | [kW] | 3.0 | 4.5 | 6.0 | 6.0 | 9.0 | 3.0 | 6.0 | 6.0 | 12.0 | 12.0 | 6.0 | 9.0 | 12.0 | 12.0 | 12.0 |
| Level 2 | [kW] | 6.0 | 9.0 | 12.0 | 18.0 | 18.0 | 9.0 | 12.0 | 18.0 | 18.0 | 24.0 | 12.0 | 18.0 | 24.0 | 24.0 | 24.0 |
| Level 3 | [kW] | 9.0 | 13.5 | 18.0 | 24.0 | 27.0 | 12.0 | 18.0 | 24.0 | 30.0 | 36.0 | 18.0 | 27.0 | 36.0 | 36.0 | 36.0 |
| Max dt. | [K] | 17 | 15 | 16 | 17 | 16 | 21 | 17 | 18 | 18 | 19 | 19 | 18 | 16 | 12 | 10 |

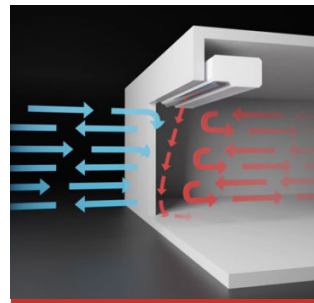
|  | Power level | E-Series 1 | | | | | E-Series 2 | | | | |
|---|-------------------------|------------|------|------|------|------|------------|------|------|------|------|
| | Length of the unit (cm) | 100 | 150 | 200 | 250 | 300 | 100 | 150 | 200 | 250 | 300 |
| Technical data of heater R410a for a condensation temperature of 50 °C | | | | | | | | | | | |
| Max. heat output | [kW] | 7.3 | 12.1 | 15.8 | 20.6 | 25.3 | 7.6 | 14.2 | 17.8 | 22.5 | 28.0 |
| Max. air discharge at Ta 20°C | [°C] | 34.2 | 34.7 | 34.5 | 35.0 | 35.4 | 33.9 | 33.7 | 33.7 | 34.5 | 35.0 |
| Heat output 20/32°C | [kW] | 6.5 | 10.3 | 13.8 | 17.2 | 20.6 | 6.9 | 13.1 | 16.3 | 19.6 | 22.8 |
| Volume | [l] | 0.9 | 1.6 | 2.3 | 3.0 | 3.6 | 0.9 | 1.6 | 2.3 | 3.0 | 3.6 |
| Max. pressure drop | [kPa] | 5.5 | 6.6 | 2.1 | 4.1 | 7.1 | 6.0 | 8.8 | 2.5 | 4.8 | 8.1 |



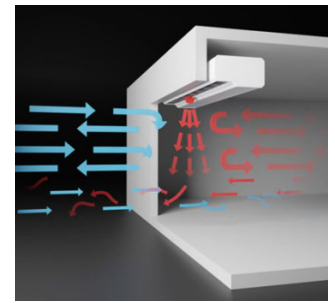
**Example:
Comparison
of energy
consumption**



**Door without
Air Curtain system**



**Door with
Teddington
Air Curtain system**



**Door with
conventional
Air Curtain system**

Energy consumption winter*: ~ 41.100 kWh

Energy consumption summer**: ~ 18.300 kWh

~ 16.800 kWh

~ 4.800 kWh

~ 23.400 kWh

~ 6.900 kWh

Energy savings with Teddington Air Curtain system compared to a door without Air Curtain system

| Savings | Door without Air Curtain system | Door with Teddington Air Curtain system |
|---|---------------------------------|---|
| Energy consumption winter*: 59% | ~ 41.100 kWh | ~ 16.800 kWh |
| Energy consumption summer**: 74% | ~ 18.300 kWh | ~ 4.800 kWh |

Energy savings with Teddington Air Curtain system compared to a door with conventional Air Curtain system

| Savings | Door with conventional Air Curtain system | Door with Teddington Air Curtain system |
|---|---|---|
| Energy consumption winter*: 28% | ~ 23.400 kWh | ~ 16.800 kWh |
| Energy consumption summer**: 30% | ~ 6.900 kWh | ~ 4.800 kWh |

* heated inside

** cooled down inside

Assumptions on which the calculation is based:

- Door dimensions 2.5 x 2.5 m, installation height 2.5 m, door opening time 3 h per day.
- The system is in operation for 4 months in summer at a temperature difference (inside/outside) of 10 K.
- The system is in operation for 6 months in winter at a temperature difference (inside/outside) of 15 K.
- The system is out of operation for 2 months as the temperature difference between inside and outside is equalised.
- During operation in winter, a heat exchanger is used in the Air Curtain unit to heat the discharged air.

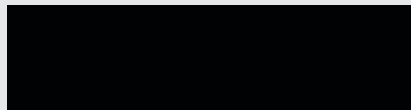


Individual colours

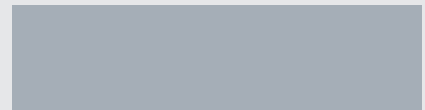
Teddington Air Curtain systems are powder-coated to a high quality. Our units are manufactured in RAL 9016 Traffic White as standard. On request, you can choose from six timeless colours for a small surcharge. – Would you like a very special colour? Talk to us about your desired colour.



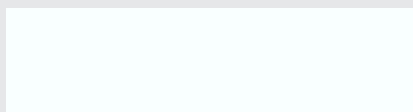
RAL 7011
Iron Grey



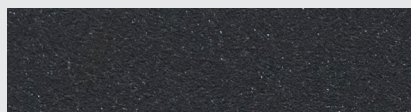
RAL 9005
Deep Black



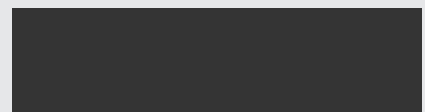
RAL 9006
White Aluminium



RAL 9010
Pure White



Black grey metallic
Metallic fine structure / matt



DB 703
Dark Grey



Teddington Luftschleieranlagen GmbH
Industriepark Nord 42 • D-53567 Buchholz (Mendt)
Tel. +49 (2683) 9694-0 • info@teddington.de
www.teddington.de