

Pamir  
3500

FRICO



## Sleek and energy efficient air curtain for commercial premises

Pamir 3500, with a recommended installation height of 3,5 m or width of 5 m, has a modern and sleek design developed to fit all entrances. The air curtain is available for horizontal, vertical and recessed installation. The Pamir series is equipped with energy-efficient EC motors which enable stepless control of the airflow. An easy to open front allows quick access to facilitate both installation and maintenance.

### Energy efficient and sustainable

The air curtain is equipped with EC motors that are up to 50% more energy efficient than traditional AC motors, and have a lower weight which makes for easier installations and greener transports.

### Intelligent control options

The Pamir series is supplemented with an intelligent control system that allows you to optimize your comfort with minimum effort. Smart and automatic features enable simple set-up and operation for different Frico products groups.

### High performance

Frico air curtains are developed and manufactured in Sweden. The air curtains are tested in one of the most modern and advanced air and sound laboratories in Europe which means that we can guarantee a high performance product.

### Pamir 3500

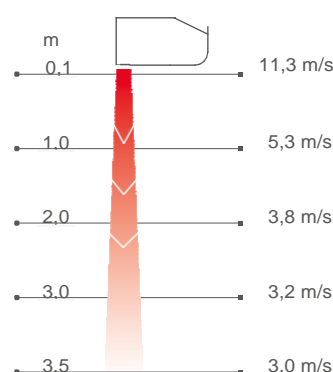


#### Available in 3 versions:

- ✱ Ambient (without heat)
- ⚡ Electrical heating
- 💧 Water heating



### Air velocity profile



Measurements according to ISO 27327-1. Average values for products in the series.

Frico air curtains create an invisible barrier at openings and doors which separates different temperature zones without limiting access for people and vehicles. Thermozone technology creates a highly uniform air barrier with a perfect balance between air volume and air velocity, regardless of whether it is the heat or the cold that you want to keep inside.



### Great energy savings

In many premises doors remain open for a significant part of the day, this results in huge losses of expensively heated or cooled air, especially when the temperature difference between outdoor and indoor air is great. With correctly installed air curtains great energy savings can be obtained.



### Comfortable indoor climate

Air curtains with Thermozone technology have optimized performance to provide a comfortable indoor climate free from drafts. The air curtain also keeps out emissions and insects.



### Low sound level

With Thermozone technology Frico manufactures air curtains with very high airflow performance. This does not just make the air curtain more effective, but also has other advantages such as extremely low sound levels and reduced turbulence.

## Create the optimal solution to suit your specific needs

After you selected the air curtain to suit your specific needs (ambient, electrical heating, water heating) and length 1, 1,5, 2, or 2,5 you assemble your control and accessory options:

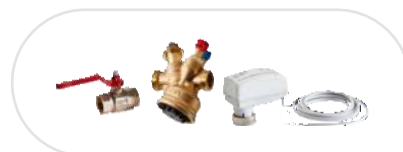
### Select control system

Choose one of our FC Control systems.



### Add valve system

Water heated units must be supplemented with a valve system.



### Select mounting options

Horizontal, recessed or vertical installation.



## 1 Ambient, no heat - PAFEC3500 A (IP24\*\*)

Voltage motor: 230V~

Item number	Type	Output [kW]	Airflow* <sup>1</sup> [m <sup>3</sup> /h]	Sound power* <sup>2</sup> [dB(A)]	Sound pressure* <sup>3</sup> [dB(A)]	Amperage motor [A]	Length [mm]	Weight [kg]
189577	PAFEC3510A	0	900/1800	75	44/60	2,3	1000	29
189581	PAFEC3515A	0	1400/2700	78	46/63	3,2	1500	42
189585	PAFEC3520A	0	1900/3500	79	47/64	4,1	2000	55
189589	PAFEC3525A	0	2350/4400	80	47/65	5,1	2500	64

## 3 Electrical heat - PAFEC3500 E (IP20)

Item number	Type	Output steps [kW]	Airflow* <sup>1</sup> [m <sup>3</sup> /h]	$\Delta t$ * <sup>4</sup> [°C]	Sound power* <sup>2</sup> [dB(A)]	Sound pressure* <sup>3</sup> [dB(A)]	Amperage motor [A]	Voltage [V] Amperage [A] (heat)	Length [mm]	Weight [kg]
189576	PAFEC3510E08	2,7/5,4/8,1	900/1800	27/13	76	44/60	2,3	400V3~/11,7	1000	37
189580	PAFEC3515E12	3,9/7,8/12	1400/2700	26/13	79	46/63	3,2	400V3~/16,9	1500	50
189584	PAFEC3520E16	5,4/11/16	1900/3500	25/14	80	47/64	4,1	400V3~/23,4	2000	70
189588	PAFEC3525E20	6,6/13/20	2350/4400	25/14	81	47/65	5,1	400V3~/28,6	2500	89

2 Water heat - PAFEC3500 WL, coil for low water temperature ( $\leq 80$  °C) (IP24\*\*)

Item number	Type	Output* <sup>5</sup> [kW]	Airflow* <sup>1</sup> [m <sup>3</sup> /h]	$\Delta t$ * <sup>4,5</sup> [°C]	Water volume [l]	Sound power* <sup>2</sup> [dB(A)]	Sound pressure* <sup>3</sup> [dB(A)]	Amperage motor [A]	Length [mm]	Weight [kg]
189579	PAFEC3510WL	11	850/1700	24/19	1,5	75	42/59	2,3	1000	38
189583	PAFEC3515WL	18	1350/2600	25/20	2,4	77	45/61	3,2	1500	52
189587	PAFEC3520WL	24	1800/3400	25/21	3,2	78	45/62	4,1	2000	65
189591	PAFEC3525WL	31	2250/4300	26/21	4,0	80	47/64	5,1	2500	80

2 Water heat - PAFEC3500 WH, coil for high temperature water ( $\geq 80$  °C) (IP24\*\*)

Item number	Type	Output* <sup>6</sup> [kW]	Airflow* <sup>1</sup> [m <sup>3</sup> /h]	$\Delta t$ * <sup>4,6</sup> [°C]	Water volume [l]	Sound power* <sup>2</sup> [dB(A)]	Sound pressure* <sup>3</sup> [dB(A)]	Amperage motor [A]	Length [mm]	Weight [kg]
189578	PAFEC3510WH	9,9	850/1700	22/17	1,1	75	42/59	2,3	1000	35
189582	PAFEC3515WH	15	1350/2600	22/17	1,6	77	45/61	3,2	1500	50
189586	PAFEC3520WH	21	1800/3400	23/18	2,2	78	45/62	4,1	2000	63
189590	PAFEC3525WH	26	2250/4300	23/18	2,7	80	47/64	5,1	2500	77

2 Water heat - PAFEC3500 WLL, coil for very low temperature water ( $\leq 60$  °C) (IP24\*\*)

Item number	Type	Output* <sup>7</sup> [kW]	Airflow* <sup>1</sup> [m <sup>3</sup> /h]	$\Delta t$ * <sup>4,7</sup> [°C]	Water volume [l]	Sound power* <sup>2</sup> [dB(A)]	Sound pressure* <sup>3</sup> [dB(A)]	Amperage motor [A]	Length [mm]	Weight [kg]
189594	PAFEC3510WLL	6,8	800/1600	15/13	2,0	74	42/58	2,3	1000	40
189592	PAFEC3515WLL	10	1250/2500	14/12	4,1	76	44/60	3,2	1500	57
189593	PAFEC3520WLL	15	1700/3300	15/13	5,6	77	44/61	4,1	2000	72
189595	PAFEC3525WLL	19	2100/4200	15/13	8,3	79	46/63	5,1	2500	89

\*<sup>1</sup>) Low/high airflow (2V/10V).\*<sup>2</sup>) Sound power ( $L_{WA}$ ) measurements according to ISO 27327-2: 2014, Installation type E.\*<sup>3</sup>) Sound pressure ( $L_{pA}$ ). Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m<sup>2</sup>. At low/high airflow (2V/10V).\*<sup>4</sup>)  $\Delta t$  = temperature rise of passing air at maximum heat output and low/high airflow (2V/10V).\*<sup>5</sup>) Applicable at water temperature 60/40 °C, air temperature, in +18 °C.\*<sup>6</sup>) Applicable at water temperature 80/60 °C, air temperature, in +18 °C.\*<sup>7</sup>) Applicable at water temperature 40/30 °C, air temperature, in +18 °C.\*<sup>5,6,7</sup>) See [www.frico.net](http://www.frico.net) for additional calculations.

\*\*\*) Horizontal mounting and vertical mounting to the right (seen from the inside): IP24.

Vertical mounting to the left (seen from the inside): IP21.

Manufactured in Sweden with a corrosion proof housing made of hot zinc-plate and powder coated steel panels. Front and service hatch are made of powder coated aluminium. Colour front and service hatch: white, RAL 9016, NCS S 0500-N. Colour grille, rear section and ends: grey, RAL 7046.





## Horizontal mounting

The recommended installation height of Pampir 3500 is 3,5 m. The air curtain can be installed on a wall or suspended from a ceiling. It can also be installed recessed into suspended ceilings.

When the air curtain is mounted horizontally the outlet air grille must be facing downwards as close to the door as possible. For the protection of wider openings, several units can be mounted next to each other using a joining kit. Design kits which conceal cables, pipes and mountings are available for both wall and ceiling installations.

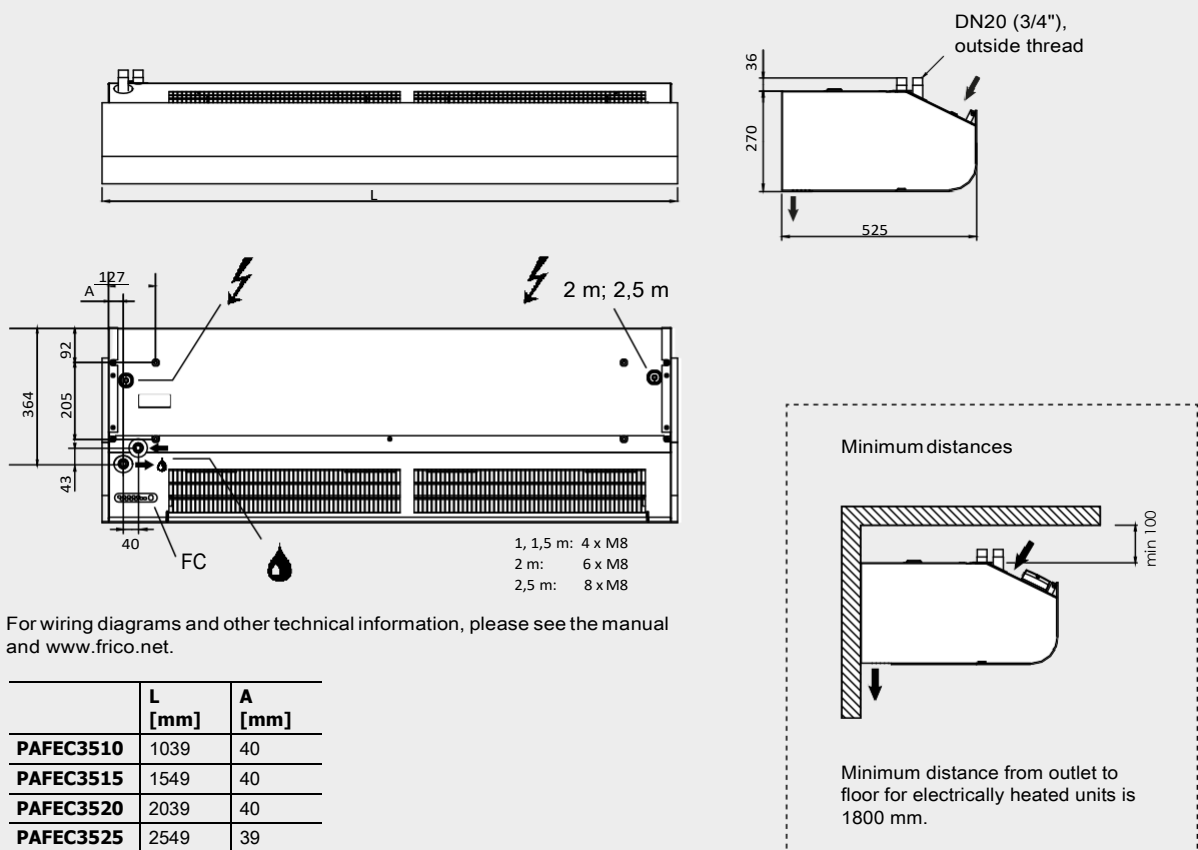
## Connection

An easy to open front allows quick access to facilitate both installation and maintenance.

The air curtain has an integrated PC board which is connected to the selected external control system FC. Control is supplied by 230V~ to the PC board. The PC board is accessed via cable glands on the top of the unit. Communication- and sensor cables are connected to the PC board.

The electrical connection is made on the top of the unit. Power supply for electrical heated air curtains (400V3~) is routed via the motor compartment.

Water heated units are connected to the water system on top of the unit. Flexible hoses are available as accessories. Water heated units must always be supplemented with a valve kit mounted outside of the unit, see Valves and Accessories.







## Vertical mounting

The recommended installation width of Pamir 3500 is 5 m with air curtains on both sides of the opening. Units from 1,5 metres and longer may be used vertically. They can be reversed and placed on either side of the door.

The air curtain is mounted vertically as close as possible to the door. For the best effect air curtains should be placed on both sides of the opening. Each unit must be supplemented with a vertical kit (accessory) to mount it on the floor and also to mount two units on top of each other for higher entrances. The air curtain must always be secured at the top. The design kit (accessory) is used to hide pipes and cables.

## Connection

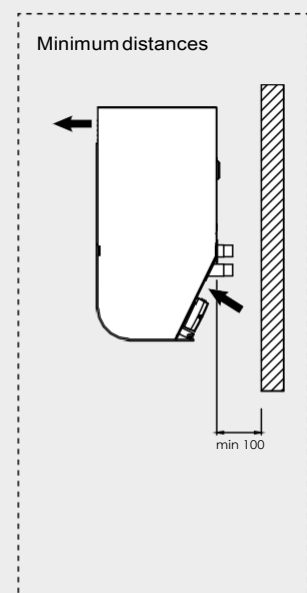
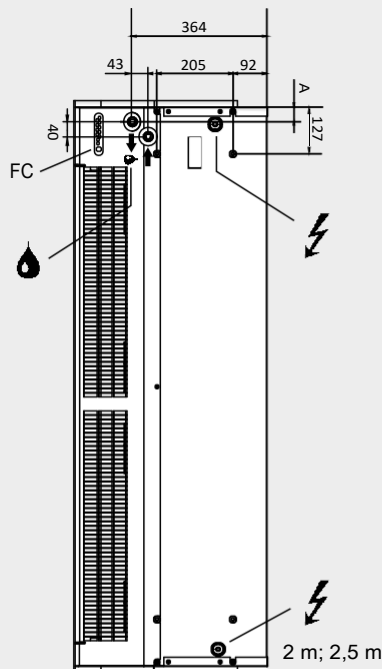
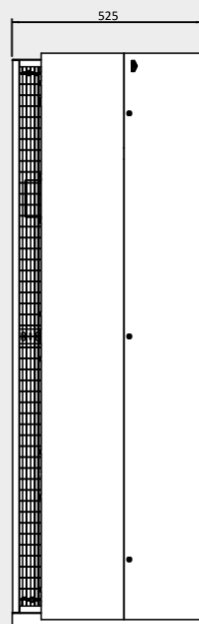
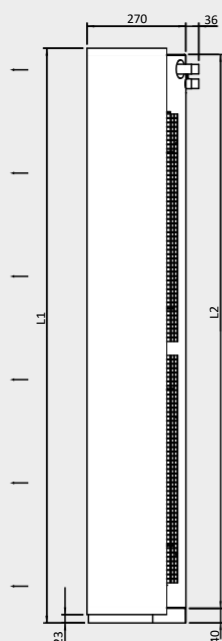
An easy to open front allows quick access to facilitate both installation and maintenance.

The air curtain has an integrated PC board which is connected to the selected external control system FC. Control is supplied by 230V~ to the PC board. The PC board is accessed via cable glands on the back of the unit. Communication- and sensor cables are connected to the PC board.

The electrical connection is made on the back of the unit. Power supply for electrical heated air curtains (400V3~) is routed via the motor compartment.

Water heated units are connected to the water system on the back of the unit. Flexible hoses are available as accessories. Water heated units must always be supplemented with a valve kit mounted outside of the unit, see Valves and Accessories.

DN20 (3/4"),  
outside thread



	L1 [mm]	L2 [mm]
PAFEC3515	1572	1515
PAFEC3520	2062	2004
PAFEC3525	2572	2515

The unit can be reversed and placed on either side of the door. Connections and PC Board are positioned near floor level when the air curtain is placed to the left of the door and at the top when it is placed to the right (seen from the inside). For wiring diagrams and other technical information, please see the manual and [www.frico.net](http://www.frico.net).

Frico air curtains come with an integrated PC-board and are supplemented with the intelligent control system FC of your choice, working together to create many smart and energy saving features. There are four different packages to choose from, depending on your requirements.

### FC Direct

#### Entry level

- Door contact
- Calendar function
- Filter timer

### FC Smart

#### FC Direct +

- Control via app (Bluetooth)
- Wireless sensors possible
- Adjustable calendar function
- Away and Boost function
- Adjustable filter timer
- Vestibule function
- Zone possibility

### FC Pro

#### FC Direct + FC Smart +

- Automatic air flow control
- Automatic heat blocking

### FC Building - BMS

#### FC Direct +

- 0-10V or Modbus
- Automatic air flow control\*
- Automatic heat blocking\*
- Heat and fan settings
- Alarm indication
- Read values

\* Requires outdoor temp signal



### FC Direct

Entry level control system for a great start. The door contact provides an automatic energy-saving function, as the air curtain becomes active only when the door is open. When the door is closed, it remains on stand-by or runs on a lower fan speed if extra heat is needed. With the calendar function, you can schedule when the system should be active.



### FC Smart

Second level control system for full freedom. FC Smart comes with all features from FC Direct plus additional energy saving features and the possibility of app control (Bluetooth). The app gives you access to all functions in the system, allowing you to set it up exactly the way you want it. It also enables you to create different zones with different settings in a larger system.



### FC Pro

Third level control system for maximum savings. FC Pro comes with all features from FC Direct and FC Smart plus additional automatic energy saving features. By receiving and reacting to information about indoor and outdoor temperatures, the right amount of heat and air flow is added to avoid overshoots and thus reducing energy consumption.



### FC Building - BMS system

Comprehensive control system for buildings, with the option to control via 0-10V or Modbus. FC Building enables you to receive product information status and alarms. Modbus allows for full use of all the energy saving features within the control system.

Item number	Type	Description
74684	<b>FCDA</b>	FC Direct, first level control system
74685	<b>FCSA</b>	FC Smart, second level control system
74686	<b>FCPA</b>	FC Pro, third level control system
74687	<b>FCBA</b>	FC Building, BMS system