



Industrial air curtain

Axi SC XX5

Description

Open doors and gates are necessary for continuous movement of products in industrial settings. This inevitably results in generation of temperature fluctuations or negative pressure, which result in penetration of cold air into a building. AXI SC XX5 gate curtains perfectly serve to its purpose owing to high performance for curtaining of two spaces in the industrial environment. Their installation substantially reduces continuous inflow of cold air and noticeably eliminates undesired leakage of warm air. This saves heating costs, incapacity for work rate drops, and continuous operation is provided. The air curtains are provided with high performance axial EC fans mounted in two lines.

The industrial curtains are most applied in the warehouses, dispatch, or service spaces, on the loading ramps, gates for fork-lifting trucks, and other frequently and long-time open spaces. The air curtains of AXI SC XX5 model are designed for horizontal installation only. The air curtain is in standard made from zinc-coated metal sheet, and we defined RAL 7035 basic colour for painted versions. We can deliver any RAL colour upon request. The air curtains may also be delivered with stainless steel cladding if installation is requested to e.g., food processing facility.



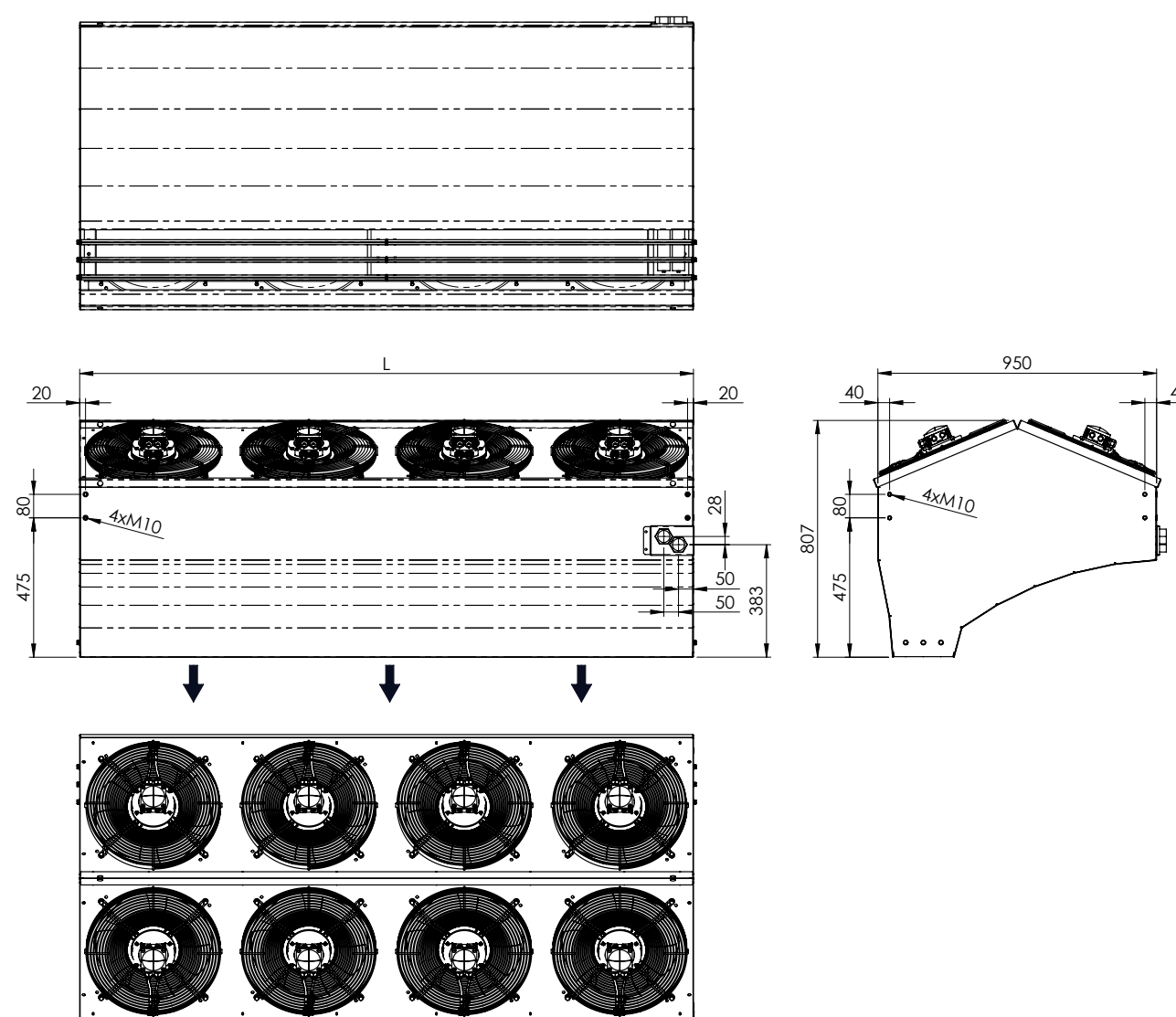
Basic features - industrial door air curtains are in particular designed for:

- warehouses
- loading ramps
- gate entries
- exhibition halls and supermarkets

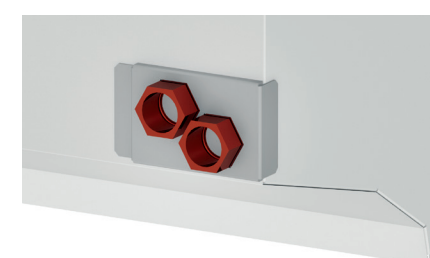
For curtaining, the following may be used:

- circulating air – at room temperature
- circulating air – heated by hot-water heater
- location: horizontal
- version: cold air/hot water
- suitable for door heights: 7.9 m
- suitable for door widths: 1.8; 2.1; 2.6; and 31 m; also, with connection component for any door width
- version: zinc-coated cladding or RAL 7035 (grey), all RAL colours upon request, stainless steel cladding available as well
- high performance EC fans
- wide range of control elements and accessories

Dimensions



INLET/OUTLET FLANGE BRACKET



Undesired twisting off or tearing away the connection of the heat exchanger (especially during the installation) is prevented thanks to the special protective bracket reinforcing the strained area. This is a standard feature.

INTEGRATED FAN DIFFUSER



All AXI units are equipped with integrated fan diffuser in order to reduce the turbulent air flow inside the unit and thus increase the total air volume. This feature also reduces the noise generated by the fans. Thanks to the integrated fan diffuser the unit is fully compliant with ERP 2015 regulation.

Technical data

Technical data of units with heating

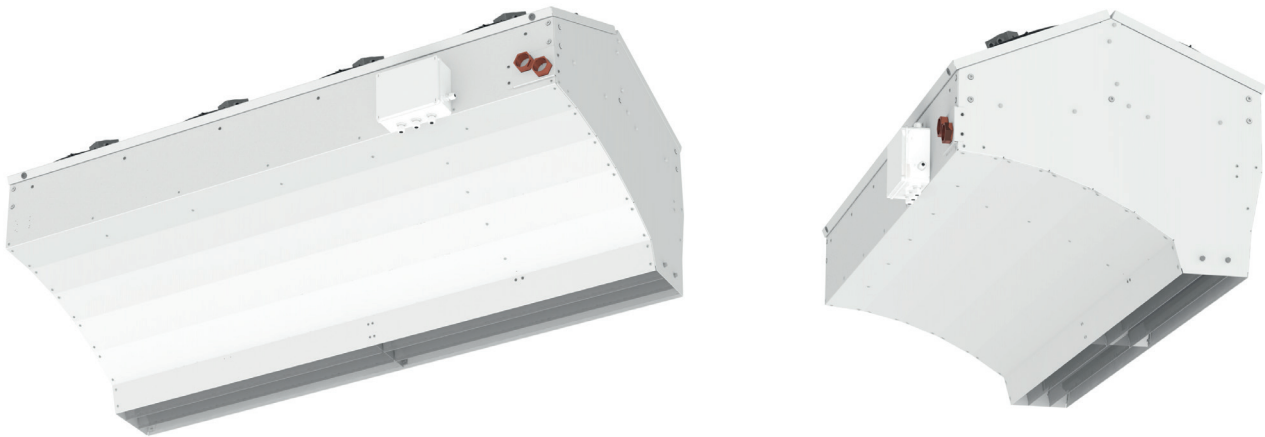
Model		THCP-185-4-AXI SC EC	THCP-215-4-AXI SC EC	THCP-265-4-AXI SC EC	THCP-315-4-AXI SC EC
Heat exchanger type		2	2	2	2
Air volume	[m³/h]	17000	23000	30000	35000
Heating capacity (water 70/50°C, Ti=15°C)					
heating capacity	[kW]	77,1	100,2	133	161,1
water pressure drop	[kPa]	2,6	4,5	8,2	12,7
volume flow rate	[m³/h]	3,31	4,3	5,69	6,91
Heating capacity (water 60/40°C, Ti=15°C)					
heating capacity	[kW]	60,6	79,3	106,1	129,4
water pressure drop	[kPa]	1,8	3,1	5,7	8,8
volume flow rate	[m³/h]	2,59	3,38	4,54	5,54
EC fans					
voltage	[V]	230	2x 230	2x 230	2x 230
consumption	[W]	2400	3200	4000	4800
nominal current	[A]	15,6	2x 10,4	2x 13	2x 15,6
IP rating		IP 54	IP 54	IP 54	IP 54
Controller		Unireg DIT EC	Unireg DIT EC PLUS	Unireg EC DUAL	Unireg EC DUAL
Acoustic pressure min*	dB[A]**	38	40	42	43
Acoustic pressure max	dB[A]**	70	72	73	74
Weight	[kg]	175	205	278	290

Technical data of units without heating

Model		SHCP-185-3-AXI SC EC	SHCP-215-3-AXI SC EC	SHCP-265-3-AXI SC EC	SHCP-315-3-AXI SC EC
Air volume	[m³/h]	19 000	27 500	34 000	40 000
EC fans					
voltage	[V]	230	2x 230	2x 230	2x 230
consumption	[W]	2400	3200	4000	4800
nominal current	[A]	15,6	20,8	2x 13	2x 15,6
IP rating		IP 54	IP 54	IP 54	IP 54
Controller		Unireg DIT EC	Unireg DIT EC PLUS	Unireg EC DUAL	Unireg EC DUAL
Acoustic pressure min*	dB[A]**	40	42	44	45
Acoustic pressure max	dB[A]**	73	75	76	77
Weight	[kg]	142	168	203	240

* - EC control 0-10V -2V
** - Lp(A) Acoustic pressure measured from the distance of 5m from the unit

Product noise level measurement:
– test standards: ČSN EN ISO 1996-1, ČSN EN ISO 1996-2, and ČSN EN ISO 3746
– description of measurement: at distances of 5 m from the unit front, height 1.1 m (±0.1) above the floor, microphone axis directs against the unit out of air flow
– conditions of measurement: free space 30x60x7m



Accessories



TP1 room thermostat (230V/3A/AC15) – temperature range 5-35°C, IP 30



TP4 room thermostat for industrial application - IP54 protection



DKMG magnetic door contact, changeover contact, 24V/50Hz/1A/AC15



DKM mechanical door contact



VKMG mechanical gate contact

Valves

As required by the customer, a non-embedded 2-way and 3-way valve with control head can be delivered for the hot water heat exchanger.

The electrothermic valve drive can be supplied to the hot water heat exchanger as non-embedded. The valve is characterized by quiet and failure-free operation. Should the thermal drive be under voltage, the built-in sensor heats up. Following some time difference the drive starts continuously closing. Opening time about 4 minutes for cold start. When power is interrupted, smooth opening of thermal drive occurs. The drive is always delivered in “normally open” (NO – 230V/3W) version.

ETVQ 5/4"-N

A pressure-independent adjustment and control valve with electrothermic head. The valve offers linear control feature and is pressure-independent, which means the control feature is not dependent on pressure available, and not influenced by low authority. Minimum/maximum pressure difference 0,23/4 bar for medium temperature max 90°C at max 16 bar pressure. The electrothermic head included in the valve for 230V/3W (NO). Opening time about 4 minutes at cold start, IP54.

ETVT 5/4"-N

3-way valve for medium flow control through the air curtain. The valve body comprises corrosion resistant bronze, the spindle comprises stainless steel, maximum pressure difference 0,25 bar, kvs=6.4 m3/h f or medium max temperature 100°C at max 10bar. The electrothermic head included in the valve for 230V/3W (NO), opening time 4 minutes, IP54, embedded surge protection.

**Unireg DIT EC**

UNIREG is the distribution board suitable for hot water air curtains with 230V EC fans where it is not possible to integrate the control electronics into the unit. The system permits the use of all functions offered by Ditrionic Touch controllers.

Type of controller	Unireg DIT EC
Power supply	230V
Output power limitation	14A
IP rating	IP 20
Rozměry (š x v x h)	300x400x170 mm

**Unireg DIT EC PLUS**

UNIREG is the distribution board suitable for hot water air curtains with 230V EC fans where it is not possible to integrate the control electronics into the unit. The system permits the use of all functions offered by Ditrionic Touch controllers.

Type of controller	Unireg DIT EC PLUS
Power supply	3 x 230V
Output power limitation	16A
IP rating	IP 20
Rozměry (š x v x h)	300x400x170 mm

**Unireg DIT EC DUAL**

UNIREG is the distribution board suitable for multiple hot water air curtains with 230V EC fans where it is not possible to integrate the control electronics into the unit. There are two Ditrionic controllers fitted in the distribution board and connected each other in MASTER-SLAVE arrangement. The system permits the use of all functions offered by Ditrionic Touch controllers.

Type of controller	Unireg DIT EC DUAL
Power supply	3 x 230V
Output power limitation	32A
IP rating	IP 65
Rozměry (š x v x h)	500x500x210 mm

**Unireg DIT EC TRIPLE**

UNIREG is the distribution board suitable for multiple hot water air curtains with 230V EC fans where it is not possible to integrate the control electronics into the unit. There are two Ditrionic controllers fitted in the distribution board and connected each other in MASTER-SLAVE arrangement. The system permits the use of all functions offered by Ditrionic Touch controllers.

Type of controller	Unireg DIT EC TRIPLE
Power supply	3 x 230V
Output power limitation	48A
IP rating	IP 65
Rozměry (š x v x h)	500x700x210 mm

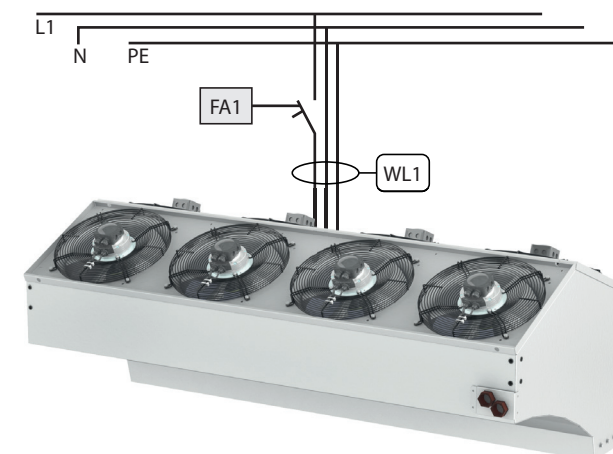
DITRONIC TOUCH controller

Ditrionic controller is fitted with an intelligent processor regulator, designed specifically for Comfort and Design air curtains that are fitted with EC fans. Due to the units sleek design and readable blue colour screen, it is suitable for most kinds of interior design applications (from a basic type to the more expensive stylish type). The controller offers local control, control from superior system (BMS) or Modbus compatibility..

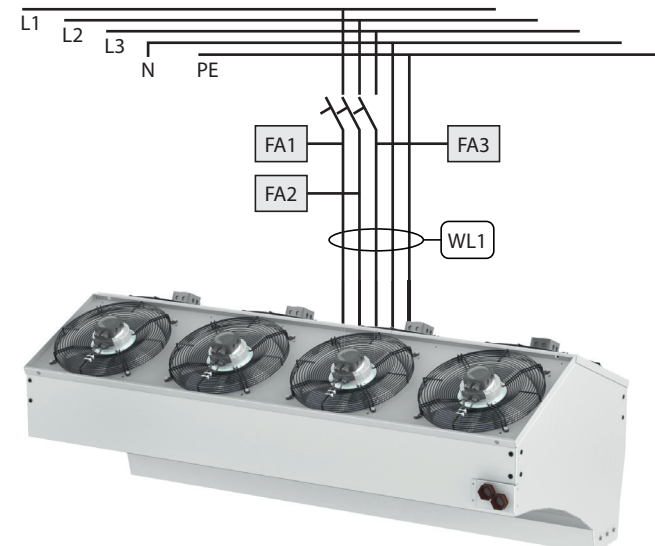
The controller is suitable for the wall mounting and IP20 environment. The controller is to be connected via cable with the RJ45 connector.



Dimensions of
DITRONIC TOUCH
controller
w. 125 x h. 90 x d. 32 [mm]

Connection diagram:**1) 230V**

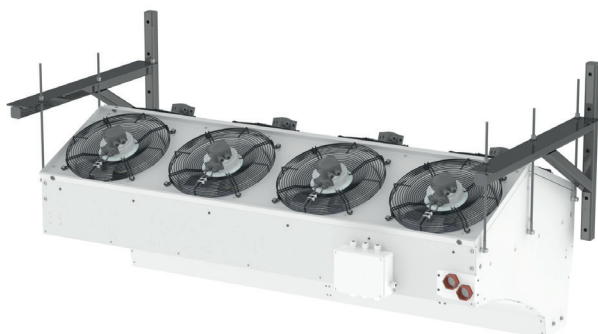
Cables and protection		
Unireg DIT EC	FA1	B/16A/1p
	WL1	3J x 2,5

2) 3 x 230V

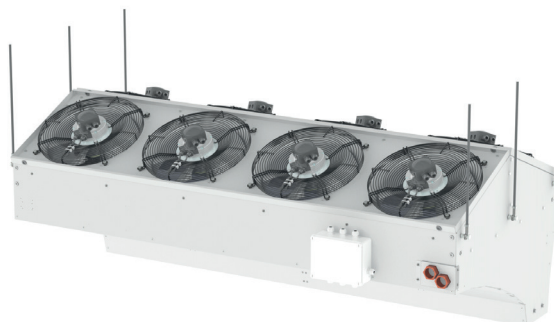
Cables and protection		
Unireg DIT EC PLUS	FA1, 2, 3	C/20A/1p
	WL1	5J x 4
Unireg DIT EC DUAL	FA1, 2, 3	C/20A/1p
	WL1	5J x 10
Unireg DIT EC TRIPLE	FA1, 2, 3	C/20A/1p
	WL1	5J x 10

Installation

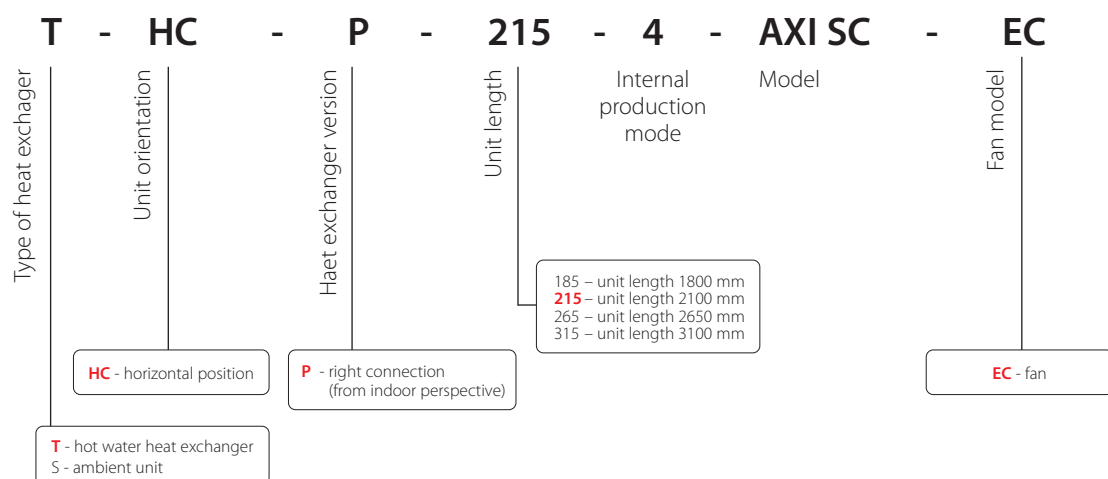
Wall suspension



Underceiling suspension



Order key



Distributor: