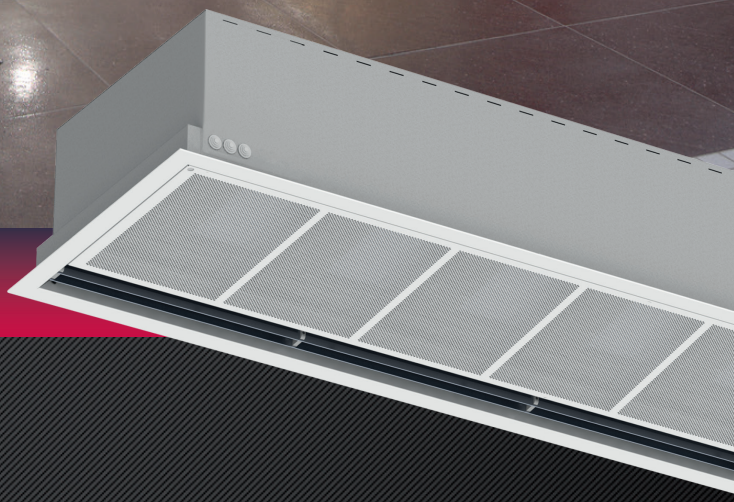

ERP
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Suspended ceiling air curtain

Econ C III

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Suspended ceiling air curtain **Econ C III**

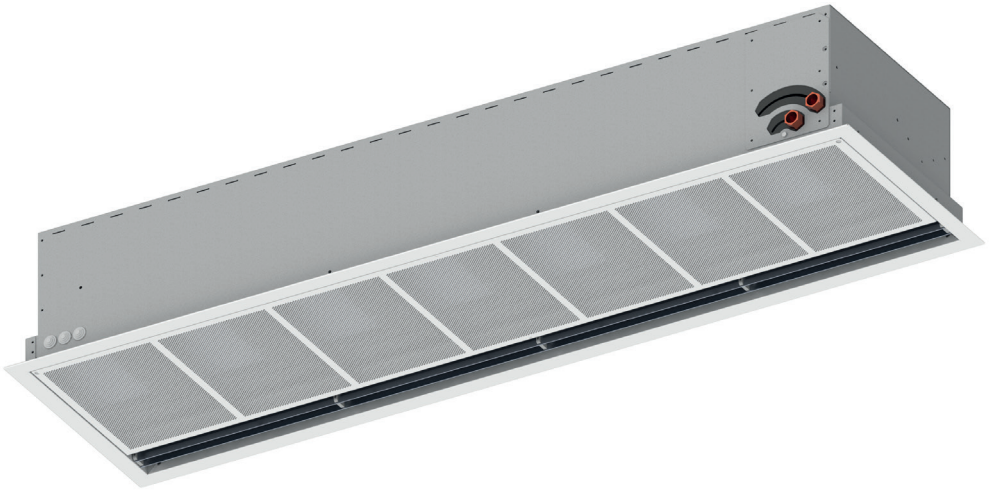
Description

Econ-C III is the air curtain designed for hidden installation in the suspended ceiling. Owing to its discrete design the air curtain is suitable for high aesthetic demand interiors, complements harmonically the space, and also meets all functional requirements. The air curtain forms a natural air barrier against penetrating cold air in the heated environment and vice versa, the air curtain prevents from hot air entering the air-conditioned environment in summer; and protects against undesirable smell, insects, and dust. In these installations, the air curtain will meet all requirements for the energy--saving equipment and thermal comfort in the building.

Standard dimension line and simple design predetermines Econ-C III for use in individual shops in office buildings, boutiques, restaurants, banks, or hotels.

The Ditronic Touch controller with precise processor control provides maximum operators comfort, and the Econ controller may be used for basic control.

The main advantages of the Econ-C III curtain consist in its price availability, quick and easy assembly, low noise level, low weight, the best quality materials and components used, and last but not least compact dimensions of the product. To make the air curtain complete, a wide range of accessories may be provided, and efficient EC fans may be installed for improved energy saving and smoother operation.



Basic features:

- location: horizontally only, hidden into the suspended ceiling
- version:

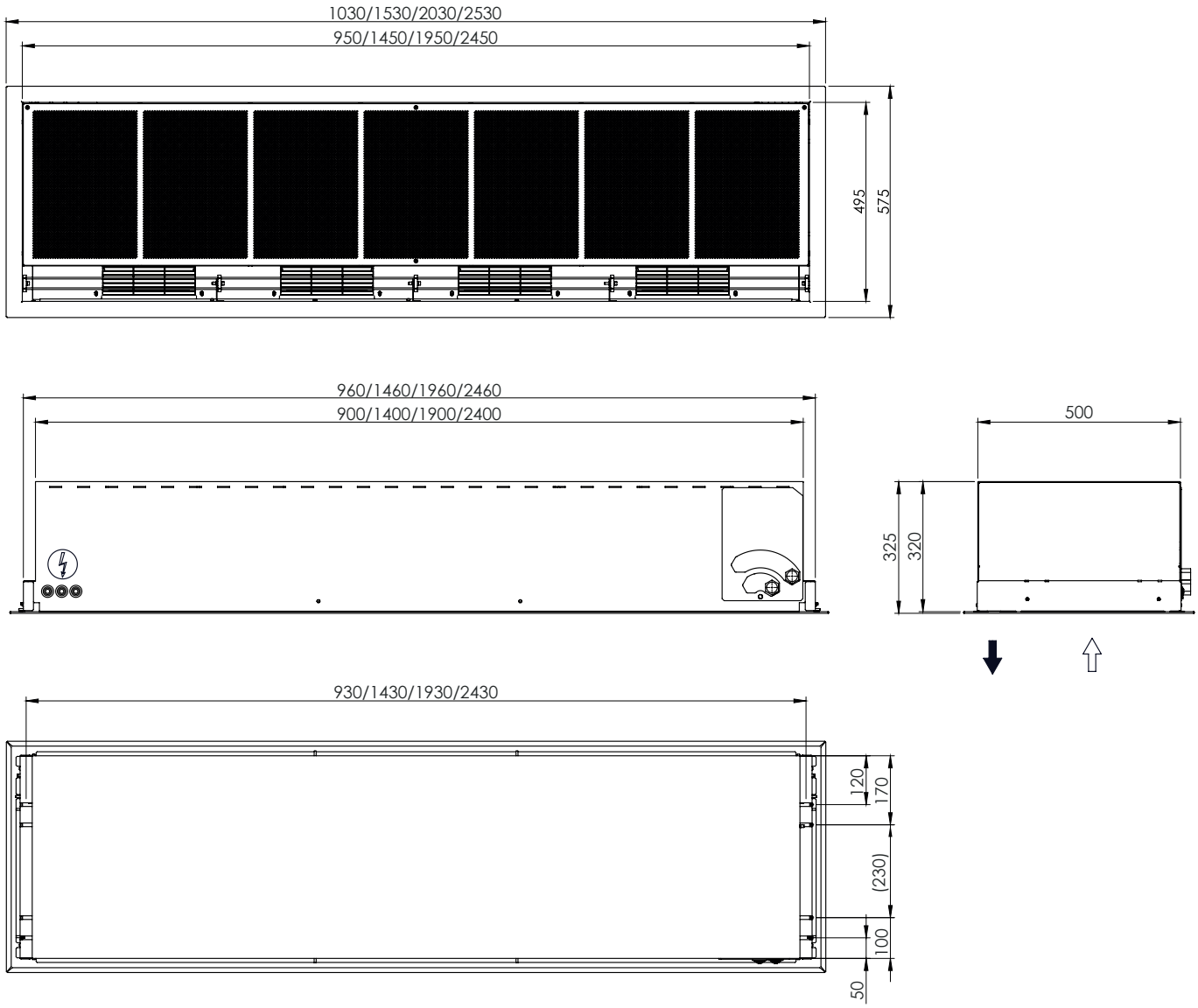
without heating, the air curtain operates with drawn air only

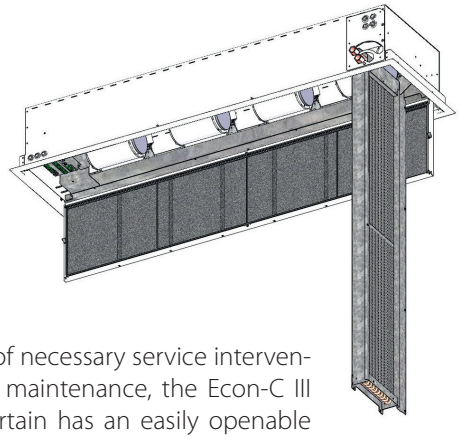
hot water – 3 types of hot water heat exchanger for various temperature gradients – N, NN, NX

electric

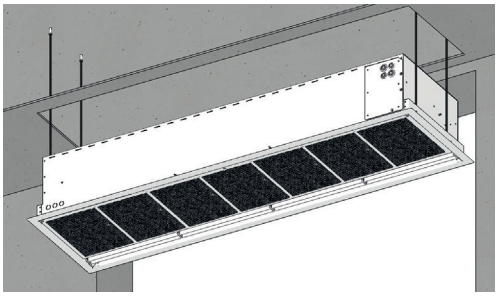
- for door heights 2,8 m
- suitable for door widths: 1,0; 1,5; 2,0; 2,5m
- colour design: zinc-coated steel cover, suction grid and covering frame normally in RAL 9010 (white), exhaust grid slats from anodized aluminium
- the air curtains with water heating are fitted with EU3 effective filter that can be replaced, if needed
- suction grid being also used as service door for easy service access
- interior arrangement of the air curtain designed to make all components accessible
- removable suction grid frame
- removable exhaust slats
- optional additional lining up the air curtain after embedding into the suspended ceiling (indoor access)

Dimensional parameters





In case of necessary service interventions or maintenance, the Econ-C III door curtain has an easily openable suction grille and a tilting heat exchanger or electric heater.



Due to the possibility of internal access to the suspension components, the door curtain can be additionally leveled after installation in the ceiling.

Technical data

Technical data - ambient air curtains / with hot water heat exchanger

Technical data	Econ C III 100S	Econ C III 150S	Econ C III 200S	Econ C III 250S	Econ C III 100N	Econ C III 150N	Econ C III 200N	Econ C III 250N	Econ C III 100NN	Econ C III 150NN	Econ C III 200NN	Econ C III 250NN	Econ C III 100NX	Econ C III 150NX	Econ C III 200NX	Econ C III 250NX
Air volume [m³/h]	2150	3250	4275	5225	2100	3225	4200	5175	1950	2950	4050	4700	1825	2800	3859	4400
Hot water coil **N** (water 80/60°C)																
i=18°C capacity [kW]	-	-	-	-	13,5	23,1	31,9	39,9	18,8	31,5	44,3	48,7	-	-	-	-
pressure loss [kPa]	-	-	-	-	7	9,5	12,3	9,3	6,5	13,2	13,2	15,6	-	-	-	-
flow volume rate [m³/h]	-	-	-	-	0,58	0,97	1,37	1,69	0,79	1,33	1,87	2,09	-	-	-	-
Hot water coil **NN** (water 60/40/18°C)																
i=18°C capacity [kW]	-	-	-	-	7,5	13,1	18,4	22,9	10,6	18,4	25,9	28,4	15,9	26,4	37,3	44,5
pressure loss [kPa]	-	-	-	-	2,6	3,7	4,9	3,7	2,5	5,4	5,4	6,3	4,5	6,7	8,5	10,6
flow volume rate [m³/h]	-	-	-	-	0,29	0,54	0,76	0,97	0,43	0,76	1,08	1,19	0,65	1,11	1,58	1,91
Hot water coil **NX** (water 40/30/18°C)																
i=18°C capacity [kW]	-	-	-	-	3,9	6,9	9,6	12	5,5	9,6	13,6	14,9	8,3	13,9	19,6	23,4
pressure loss [kPa]	-	-	-	-	2,9	4,2	5,6	4,2	2,8	6,2	6,2	7,3	5,1	7,7	9,8	12,3
flow volume rate [m³/h]	-	-	-	-	0,32	0,58	0,83	1	0,47	0,79	1,15	1,26	0,68	1,19	1,66	1,98
Connection [DN]	-	-	-	-	20	20	20	20	20	20	20	20	20	20	20	20
Fan																
fan power input [W]	552	828	1104	1380	552	828	1104	1380	552	828	1104	1380	552	1104	1380	1656
fan current [A]	2,4	3,6	4,8	6	2,4	3,6	4,8	6	2,4	3,6	4,8	6	2,4	4,8	6	7,2
fan voltage [V]	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
Controller	ECON, DITRONIC TOUCH															
Protection degree	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Noise level* dB (A)	60	61	61	62	58	59	59	60	58	59	59	60	63	61	61	62
Weight [kg]	40	53	68	82	50	70	90	110	52	75	98	121	55	82	105	130

* Acoustic pressure Lp(A) measurement taken at a distance of 3 m from the unit source

Technical data - air curtains with electrical heater

Technical data	Econ C III 100 E 5	Econ C III 100 E 7,5	Econ C III 100 E 10	Econ C III 150 E 10	Econ C III 150 E 12,5	Econ C III 150 E 15	Econ C III 200 E 10	Econ C III 200 E 15	Econ C III 200 E 20	Econ C III 250 E 15	Econ C III 250 E 20	Econ C III 250 E 25
Air volume [m³/h]	2000	2000	2000	3200	3200	3200	4200	4200	4200	5200	5200	5200
Electric heater												
Capacity max. [kW]	5	7,5	10	10	12,5	15	10	15	20	15,0	20	25
Power supply [V]	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230	3 x 230
Fan												
fan power input [W]	552	552	552	828	828	828	1104	1104	1104	1380	1380	1380
fan current [A]	2,4	2,4	2,4	3,6	3,6	3,6	4,8	4,8	4,8	6	6	6
fan voltage [V]	230	230	230	230	230	230	230	230	230	230	230	230
Controller	ECON, DITRONIC TOUCH											
Protection degree	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Noise level* dB (A)	59	59	59	60	60	60	60	60	60	61	61	61
Weight [kg]	44	44	44	60	60	60	78	78	78	95	95	95

* Acoustic pressure Lp(A) measurement taken at a distance of 3 m from the unit source

Table of cables and protection for electric heated models								
electric heater		**5 kW**	**7,5 kW**	**10 kw**	**12,5 kw**	**15 kw**	**20 kw**	**25 kW**
Fan	breaker FA2	B/16A/1p	B/16A/1p	B/16A/3p	B/16A/3p	B/16A/3p	B/16A/3p	B/32A/3p
	breaker FA3	B/16A/1p	B/16A/3p	B/16A/3p	B/16A/3p	B/16A/3p	B/32A/3p	B/32A/3p
Cable	cable WL2	3Jx4	3Jx4	5Jx4	5Jx4	5Jx4	5Jx4	5Jx6
	cable WL3	3Jx4	5Jx4	5Jx4	5Jx4	5Jx4	5Jx6	5Jx6

Table of cables and protection for water heated models			
FA1	1 X 16A/C	WL1	3C x 2,5
FA2	see table left	WL2	see table left
FA3	see table left	WL3	see table left

Controllers, wiring diagram

Controller: Econ

Controller description: Econ is intended for fan and heater (water or electrically heated) control, with connection possibility of external elements (door contact, room or outlet thermostat).

Dimensions w. 71 x h. 71 x d. 25 mm
The controller is intended only for wallmounting. IP 20.

Functions of Econ control:

	Free potential door contact incl. time delay	**standard**
	Connection in Master / Slave	**with controller Econ Dual only**
	Room thermostat, control via external remote contact	**standard**
	Small control dimensions, wall mounting	**standard**
	Possibility of electrothermic valve control	**standard**
	Processor control of the unit against overheating of the electro heater	**standard**

Controller: Ditronic Touch

Ditronic controller is fitted with an intelligent processor regulator, designed specifically for Comfort and Design air curtains that are fitted with AC or 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 intended for wall mounting IP 20.
Control connection via cable with connector RJ 45, see pic.

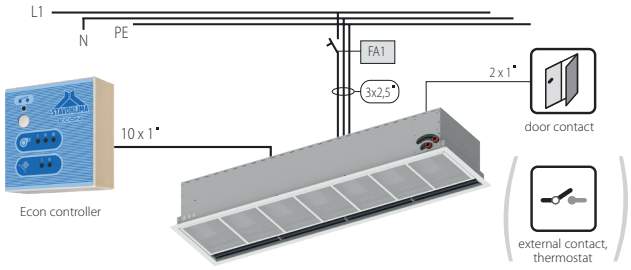
Dimensions:
w. 125 x h. 90 x d. 32 deep

Functions of Ditronic Touch:

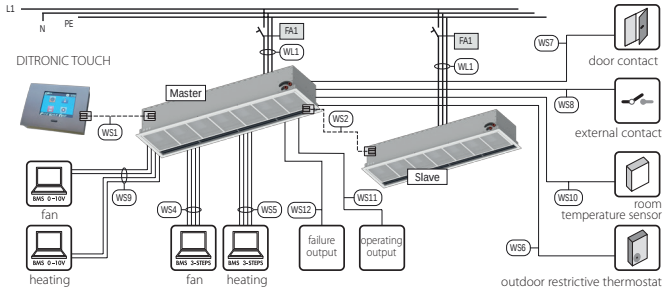
- control of the air curtain according to the room or outlet air temperature
- setting the valve function for door contact
- automatic mode
- room anti-frost protection
- week time clock.

For other functions see catalogue **Li.**

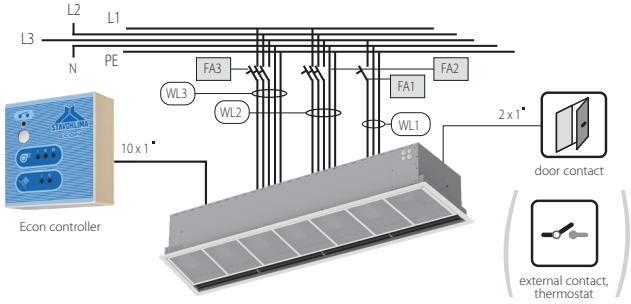
Water heated air curtains - wiring diagram



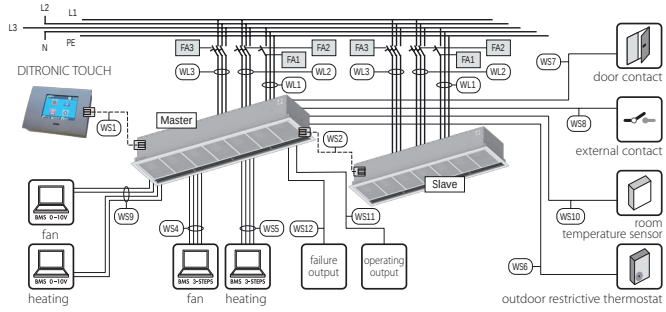
Water heated air curtains - wiring diagram



Electrically heated air curtains - wiring diagram



Electrically heated air curtains - wiring diagram



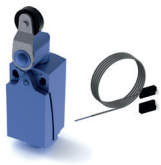
Suspended ceiling air curtain **Econ C III**

Accessories, order key

2-way and 3-way valves for temperature regulation
According to the customers request it is possible to deliver 2-way or 3-way valve. Control head of the valve can be either self--acting (thermostatic) or electrothermic. Electrothermic head of the valve must be connected into the electronic placed in the unit and it is necessary to connect the thermostat. All valves are delivered as loose - non-built in, due to space reasons.

Thermostatic head
- always delivered with a separated sensor being located behind the water heat exchanger - exhausted air temperature control.

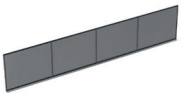
Electrothermic valve drive
- can be supplied to the hot water heat exchanger as embedded either as 2-way or 3-way.The valve is characterized by quiet and failure-free operation. Should the thermal drive be under voltage, the built--in sensor heats up. Following some time difference the drive starts continuously closing. Upon voltage interruption, the thermal drive continuously opens up; the opening time is about 4 minutes in case of cold-start.The drive is always delivered in normally open (NO 230V/3W) version.



Door contact:
DKM - mechanical door contact
DKMG - magnetical door contact

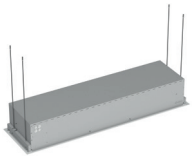
Room thermostat: 230V
- wall mounting
- basic, with a switch, digital or industry with IP54

BMS 0-10V
- controlling the unit by BMS 0-10V



NF - Spare filters for air curtains
- set of 3 pieces depending on size and air screen performance optioni.

PPH 3/4":
flexible pressure tubes with stainless or reinforced sleeve for easy & comfortable connection of the water heat exchanger with a female thread, set of 2 pieces, length 300mm, DN 20.



ZS-Econ C
- under ceiling suspension with adjustable length of 1000 mm.

Order key

Econ-C III – 100 – N

100 - unit length 1000 mm
150 - unit length 1500 mm
200 - unit length 2000 mm
250 - unit length 2500 mm

N - heat exchanger 80/60°C
NN – heat exchanger 60/40°C
NX - heat exchanger 40/30°C
S - ambient unit without heat exchanger
E 5 - electric heater 3x 230V - 5 kW; unit length 1000 mm
E 7,5 - electric heater 3x 230V - 7,5 kW; unit length 1000 mm
E 10 - electric heater 3x 230V - 10 kW; unit length 1000 mm
E 10 - electric heater 3x 230V - 10 kW; unit length 1500 mm
E 12,5 - electric heater 3x 230V - 12,5 kW; unit length 1500 mm
E 15 - electric heater 3x 230V - 15 kW; unit length 1500 mm
E 10 - electric heater 3x 230V - 10 kW; unit length 2000 mm
E 15 - electric heater 3x 230V - 15 kW; unit length 2000 mm
E 20 - electric heater 3x 230V - 20 kW; unit length 2000 mm
E 15 - electric heater 3x 230V - 15 kW; unit length 2500 mm
E 20 - electric heater 3x 230V - 20 kW; unit length 2500 mm
E 25 - electric heater 3x 230V - 25 kW; unit length 2500 mm

Representative:

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