KP/BN Air Curtains

KP/BN air curtains provide a reliable and effective air barrier for large industrial doors and building openings, helping to protect indoor spaces from the unwanted inflow of outdoor air. Designed for industrial facilities, warehouses, retail premises and similar applications, they help reduce unwanted air exchange through open doorways, supporting more stable and comfortable indoor conditions. A distinctive feature of the KP/BN design is the discharge slot positioned towards the doorway side of the casing, allowing the air stream to be discharged closer to the door opening. The units are designed to recirculate and heat indoor air. They can also operate as ambient (unheated) air curtains where heating is not required. KP/BN air curtains are suitable for doorways and building openings from 2.5 to 6 m high.

- Horizontal (Over-Door) Installation Installed above the doorway, with multiple units mounted side by side for wider openings.
- Vertical (Side-Mounted) Installation Installed at either side of the doorway, with multiple units combined where required for larger openings.

DESCRIPTION

PRODUCT DESCRIPTION

The air curtains consist of the following components:

- A robust galvanised sheet steel casing, painted RAL 9010 on one side, with a full-length discharge slot
- A copper/aluminium water heating coil or an electric heater
- Axial fans with single-phase motors, available in configurations of 2, 3 or 4 fans

The air curtains are available in two sizes, each offered in four lengths: 150, 200, 250 and 300 cm, allowing the configuration to be matched to different doorway dimensions. On request and subject to consultation with the manufacturer, KP/BN air curtains can also be supplied:

- With three-phase fan motors
- In alternative colours

OPERATING CONDITIONS

KP/BN air curtains are designed to provide an air velocity of approximately 4–6 m/s at floor level, ensuring effective airflow across door openings up to 6 m high. Water-heated models are designed for operation with heating water temperatures up to 110°C and operating pressures up to 1.5 MPa. On request and subject to consultation with the manufacturer, versions suitable for heating water temperatures up to 150°C are also available. Electric-heated models operate on a 400 V three-phase power supply. Airflow control can be extended to five stages by using an additional fan speed controller.

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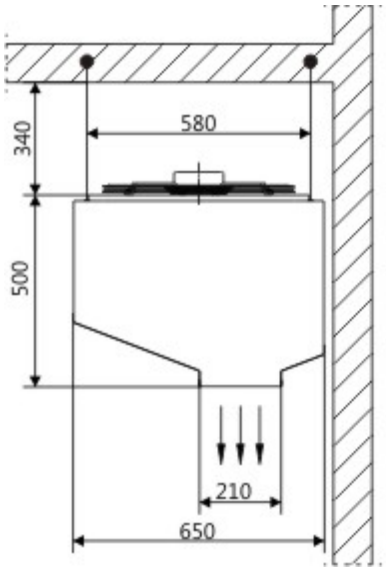
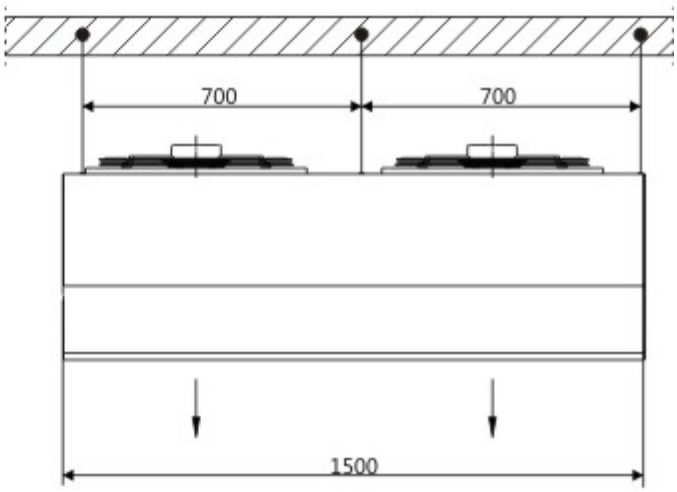
KP/BN-2-150-Z

DIMENSIONS





Fan Parameters	
Number of fans	2
Voltage (V)	230
Motor power (kW)	0,25
Current (A)	1,2
Fan speed (rpm)	1380

Airflow and Heating Capacity of Water-Heated Air Curtain				
Airflow (m^3/h)		9000		
Heating capacity (kW), discharge air temperature (°C) and water pressure drop (kPa)				
Water temperatures (°C)	**Entering air temperature (°C)**	**kW**	**°C**	**kPa**
90/70	**5**	55,4	22	1,2
	10	50,6	26	1,1
	15	45,8	30	1,0
80/60	**5**	46,7	19	1,0
	10	41,4	23	0,9
	15	36,8	27	0,8
70/50	**5**	37,1	17	0,8
	10	32,5	20	0,7
	15	28,2	24	0,6

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60/40	**5**	28,4	16	0,6
	10	24,1	18	0,7
	15	20,1	21	0,6

Noise Level (dB(A))	
At a distance of 3 m	64
Weight	
Weight (kg)	79

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