

## KP/Dp



### INTENDED USE

Air curtains are used for protection against outer air inflow at doors and construction outer holes in shops, department stores, workshops etc.

They are fitted for deriving and heating air from inside a room.

The curtains are fitted for installation at doors high up to 2 m.

### DEVICE DESCRIPTION

The curtains consist of:

- housing made of steel sheet with an intake crack
- electric or water heater
- fan

The curtains are made in three lengths 103, 171 and 200 cm.

KP/DP curtains should be suspended to the ceiling or supporting construction with use of 4 threaded bars.

### WORKING CONDITIONS

Water heaters are fed with water of 110/70°C or lower temperature and pressure of 1Mpa.

Electric heater power supply is three-phase 400V. Curtains with 103cm length could be equipped with single phase electric heater with thermal power of 3kW.

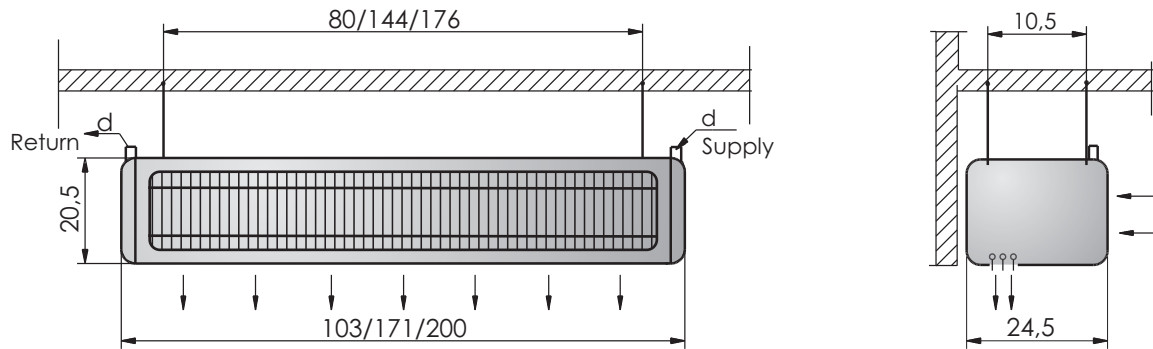
The heaters are equipped with protection against exceeding max. temperature of heaters operation.

### DESIGNATIONS

Air curtain	KP/Dp- 171 - W
Unit length	103; 171; 200
Heater	water heater W; electric heater E "cold" curtain without heater Z

## TECHNICAL DATA

### Basic dimensions



Connectors diameter  $d=1/2''$  for length 103cm  
 $d=3/4''$  for length 171 and 200cm

Size	KP/Dp-103	KP/Dp-171	KP/Dp-200
<b>Length [cm]</b>	103	171	200
<b>Fan parameters in curtains</b>			
<b>Voltage [V]</b>	230	230	230
<b>Motor power [kW]</b>	0,145	0,19	0,29
<b>Current [A]</b>	0,64	0,90	1,28
<b>Revolutions [rpm]</b>	1150	1220	1150
<b>IP</b>	10	10	10
<b>Insulation class</b>	B	B	B
<b>Curtain weight [kg]</b>			
<b>With water heater</b>	20	32	40
<b>With electric heater</b>	22	33	--
<b>Without heater</b>	17	25	32

### Thermal power of curtains with water heater

Size		KP/Dp-103			KP/Dp-171			KP/Dp-200		
Air capacity [m <sup>3</sup> /h]		1350			2200			2700		
Water temp. [°C]	Inflow air temp. [°C]	Thermal power [kW], outflow air temperature [°C] and resistance of water flow [kPa]								
		kW	°C	kPa	kW	°C	kPa	kW	°C	kPa
90/70	10	9,9	31	1,4	14,5	29	0,5	17,6	29	0,7
	15	8,9	34	1,1	13,2	32	0,4	15,9	33	0,6
	20	8,0	37	0,8	11,8	36	0,3	14,3	36	0,5
80/60	10	8,1	27	1,0	11,9	25	0,3	14,4	26	0,5
	15	7,2	30	0,8	10,6	29	0,2	12,8	29	0,4
	20	6,3	34	0,6	9,3	32	0,1	11,3	33	0,3
70/50	10	6,4	23	0,7	9,4	22	0,1	11,3	22	0,3
	15	5,5	27	0,5	8,1	25	0,1	9,8	26	0,2
	20	4,7	30	0,4	6,9	29	0,1	8,4	29	0,1
60/40	10	4,8	20	0,4	7,0	19	0,1	8,5	19	0,1
	15	3,9	23	0,3	5,8	22	0,1	7,0	23	0,1
	20	3,2	27	0,2	4,7	26	0,1	5,7	26	0,1

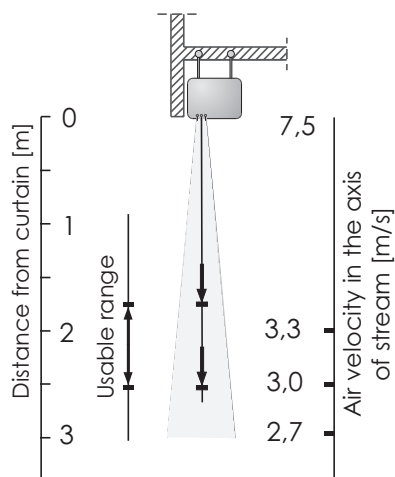
### Thermal power of curtains with electric heater

Size	KP/Dp		
<b>Length [cm]</b>	103	171	200
<b>Thermal power [kW]</b>	1,5; 3; 4,5 1; 2; 3*	3; 6; 9	-

\* mono-phase heater

Air efficiency of "cold" curtains and curtains with electric heater are ~10% higher than air efficiency of curtains with water heater.

## Extents of curtain air stream for curtains



Sizes KP/Dp-103, KP/Dp-171, KP/Dp-200

## Noise level of curtains with water heater and 5 step revolutions controller

Selected speed	KP/Dp - 103			KP/Dp - 171			KP/Dp - 200		
	Air capacity [m <sup>3</sup> /h]	Noise level [dB(A)]		Air capacity [m <sup>3</sup> /h]	Noise level [dB(A)]		Air capacity [m <sup>3</sup> /h]	Noise level [dB(A)]	
		From dist. of 1m	From dist. of 3m		From dist. of 1m	From dist. of 3m		From dist. of 1m	From dist. of 3m
5	1350	64	61	2200	67	63	2700	68	64
4	1250	61	58	2050	64	60	2500	65	61
3	1180	57	54	1900	60	56	2360	61	57
2	1100	53	49	1650	55	51	2200	56	52
1	900	47	43	1300	49	45	1800	50	46

Level of operation noise level of acoustic pressure from a distance of 1 and 3 m from the curtain, with room absorbing capabilities  $A=50 \text{ m}^2$  and directivity factor  $Q=2$  taken into account.

Noise level of curtains with electric heater or without heater increases about 2dB(A) over the level of corresponding air curtains with water heater.

## AUTOMATICS

Description of air curtains automatics components selection are presented in the section: AIR CURTAINS CONTROL AND AUTOMATICS in this catalogue