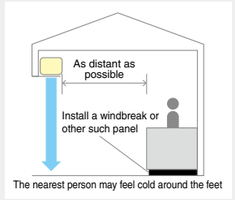
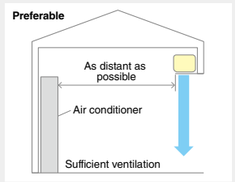
Keys to The Effective Use of the Air Curtains

1. Install the air curtain where the impact of outdoor (lateral) wind is insignificant.

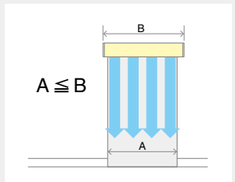
2. To prevent the flow of air from affecting people inside the room, install the air curtain as far as possible from the nearest people. If it is installed in proximity to the nearest people, a windbreak would be effective.



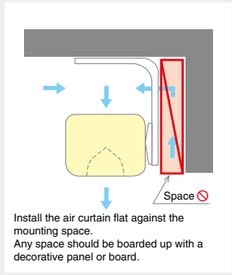
3. In an air-conditioned room, install the air curtain sufficiently away from the air conditioner.



4. Install an air curtain that is the same width as the doorway or slightly wider.

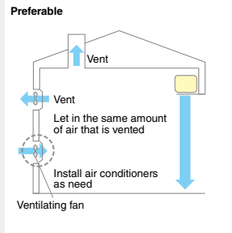


5. Install the air curtain flat against the mounting surface. Any unnecessary space should be boarded up with a decorative panel or board.



6. Install an air curtain in all doorways and openings.

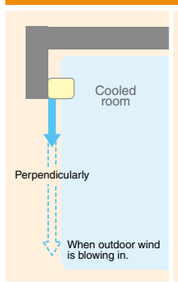
7. For effective operation of the air curtain, install air vents (or air supply) to avoid the accumulation of negative pressure inside the room.

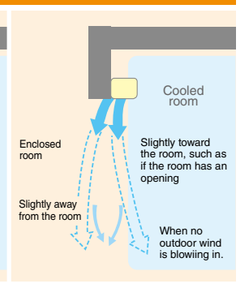


8. For effective operation of the air curtain, the length between the air curtain and the other side of the wall has to be wider than openings.

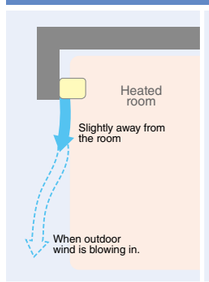
The direction of air can be adjusted according to your needs. Take into account the following when adjusting the direction of the generated wind.

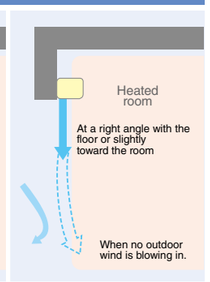
In summer



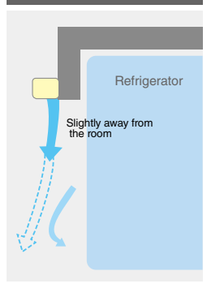


In winter





Other*



***The inside temperature differs significantly from the outside temperature (such as in the case of a refrigerator.)**
(Make sure there is nothing in the way of the generated wind.)

MITSUBISHI ELECTRIC CORPORATION
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www.MitsubishiElectric.com

Y22-005 Jun.2022(MEE)

MITSUBISHI ELECTRIC
Changes for the Better

Air Curtain

A Hidden Barrier Giving Tangible Benefits

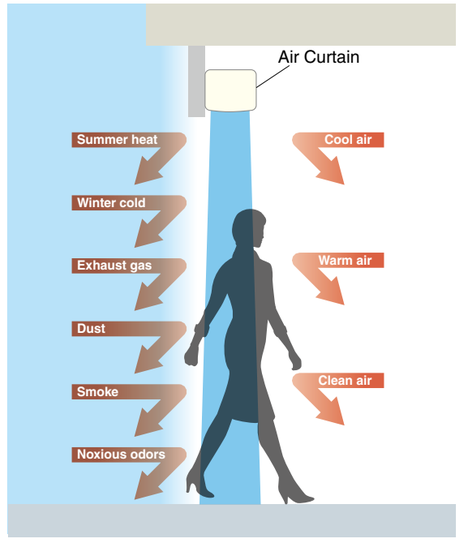

GK Standard Type


GK High-Power Type


MK High-Power Type

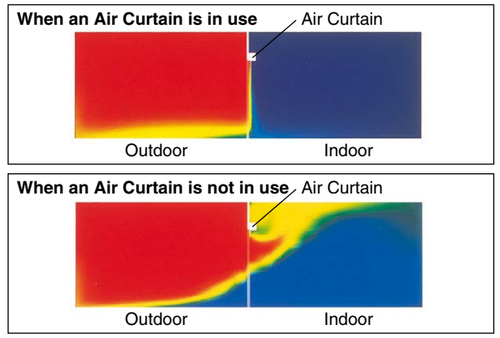
Mitsubishi Electric Air Curtains are an ideal solution for providing your premises with a comfortable, clean and hygienic environment while saving energy with quiet, efficient and powerful operation.

The Benefits of Air Curtains



◆ Temperature Insulation Effectiveness

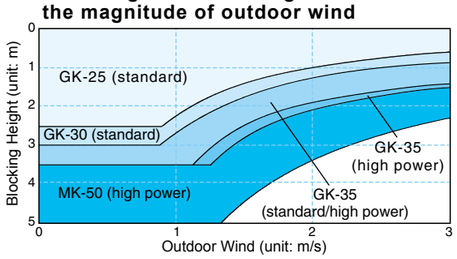
29°C — 35°C



Our experiments have proved that the Air Curtain effectively blocks 70-90% of outdoor heat or cold air where glass plates are assumed to block them 100%. (The effect may vary according to the difference between the indoor and outdoor temperatures, the existence of outdoor wind, or the position of the Air Curtain.)

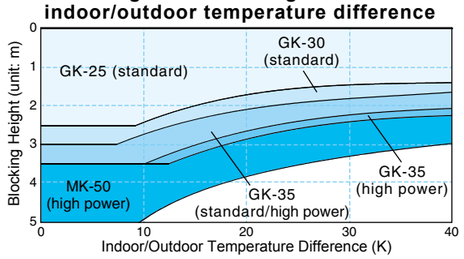
Choosing an Optimum Model

◆ Choosing a model taking into account the magnitude of outdoor wind



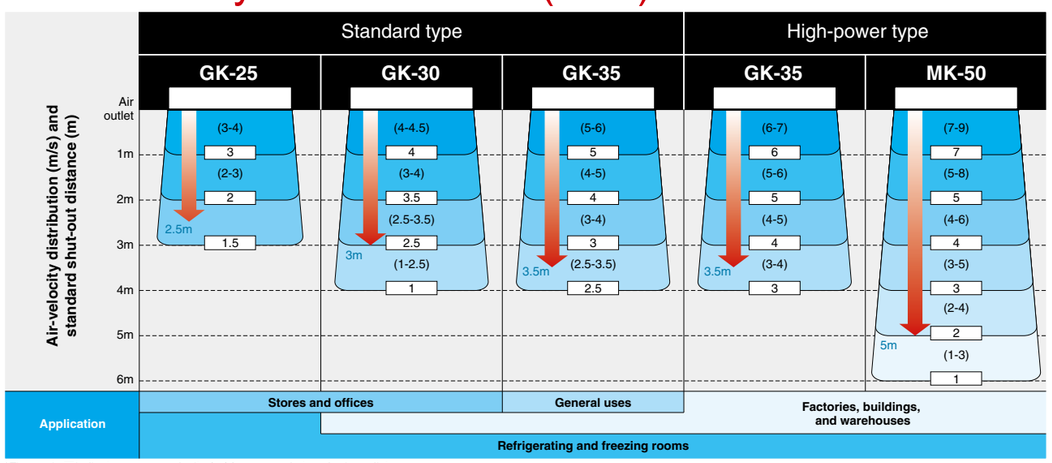
* Performance against outdoor wind is indicated with the Air Curtain at maximum blowing angle toward the outside.
* The above figure is based on the values calculated by applying the average blowout velocity.

◆ Choosing a model taking into account the indoor/outdoor temperature difference



* Temperature difference is calculated at outdoor wind velocities shown in the left figure, and when indoor temperature is 20°C.

Air Velocity Distribution (m/s)



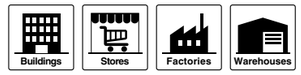
*Figures in □ indicate average velocity (m/s) measured at each given distance.
*Figures in parentheses indicate maximum velocity (m/s) measured in each one (1) meter area.
*The velocities indicated are velocities measured in spaces that are free of any effects from differences between outdoor and indoor pressure, temperature or ambient wind. Thus, the velocity near the floor may differ from those indicated.

Air Curtain Range

GK Standard Type

*Operating conditions: Ambient and transfer air temperatures between -10°C and +45°C, and relative humidity of 90% or less at room temperature. Usage outside of this range may result in burning, deformation, irregular rotation, or damage.

Applicable for



■ **Dimensions** Unit: mm

Model	A	B	C	D
GK-2509YS2-CE	900	750	5	-
GK-2512AS2-CE	1194	1044	6	-
GK-3009AS2-CE	900	750	5	-
GK-3012AS2-CE	1194	1044	6	-
GK-3509CS-E2	910	610	5	210
GK-3512DS-E2	1187	887	6	487

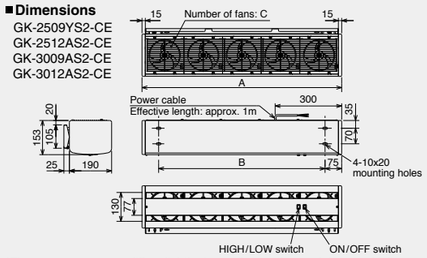
■ **Specifications**

Model	Power Supply	Fan Speed	Airflow Rate [m³/ h] (50/60Hz)	Current [A] (50/60Hz)	Power Consumption [W] (50/60Hz)	Max. Air Velocity [m/ sec] (50/60Hz)	Noise [dB] (50/60Hz)	Weight [kg]
GK-2509YS2-CE	Single-phase, 50/60Hz 220-240/220V	High	1260-1340/1220	0.25-0.26/0.31	54-61/69	9.5/9.5	44.5-46/44	10.5
		Low	910-1100/820	0.22-0.24/0.24	48-57/53	7/7	38-41/35	
GK-2512AS2-CE		High	1550-1620/1560	0.30-0.32/0.40	67-77/89	9.5/9.5	45-46/46	13.3
		Low	1160-1370/1000	0.25-0.28/0.29	55-66/64	7/7	37.5-42/36	
GK-3009AS2-CE		High	1450-1470/1640	0.41-0.49/0.47	80-96/102	12/12	47-47.5/50	11
		Low	1200-1250/1060	0.34-0.35/0.36	71-80/77	8/8	43.5-45.5/40	
GK-3012AS2-CE		High	1740-1760/1950	0.45-0.53/0.60	96-114/125	12/12	47.5-48.5/51	14
		Low	1460-1600/1220	0.38-0.40/0.43	84-96/95	8/8	46-47/42	

Model	Power Supply	Fan Speed	Airflow Rate [m³/ h] (50Hz)	Current [A] (50Hz)	Power Consumption [W] (50Hz)	Max. Air Velocity [m/ sec] (50Hz)	Noise [dB] (50Hz)	Weight [kg]
GK-3509CS-E2	Single-phase, 50Hz 220-240V	High	2100	0.87-0.94	191-223	13.5	58-58	22
		Low	1860	0.74-0.75	155-170	11	55.5-56	
GK-3512DS-E2		High	2640	1.05-1.13	227-267	13.5	58-58.5	28.5
		Low	2310	0.89-0.90	187-206	11	55.5-56.5	

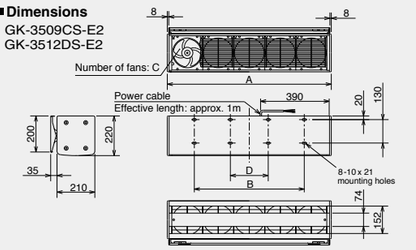
The printed color of the products may differ slightly from the actual products.
The above specifications are subject to change without notice due to continuing product improvement.

■ **Dimensions**
GK-2509YS2-CE
GK-2512AS2-CE
GK-3009AS2-CE
GK-3012AS2-CE



*The appearance may differ slightly depending on the model. Unit: mm

■ **Dimensions**
GK-3509CS-E2
GK-3512DS-E2



*The appearance may differ slightly depending on the model. Unit: mm

GK High-Power Type

*Operating conditions: Ambient and transfer air temperatures between -10°C and +45°C, and relative humidity of 90% or less at room temperature. Usage outside of this range may result in burning, deformation, irregular rotation, or damage.

Applicable for

■ **Dimensions** Unit: mm

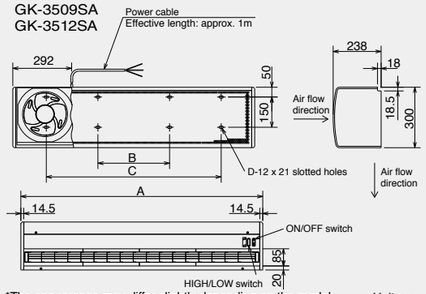
Model	A	B	C	D
GK-3506SA	600	287.5	-	4
GK-3509SA	900	76	588	8
GK-3512SA	1180	355.5	867.5	8

■ **Specifications**

Model	Power Supply	Fan Speed	Airflow Rate [m³/ h] (50Hz)	Current [A] (50Hz)	Power Consumption [W] (50Hz)	Max. Air Velocity [m/ sec] (50Hz)	Noise [dB] (50Hz)	Weight [kg]
GK-3506SA	Single-phase, 50Hz 220-240V	High	1440-1560	0.75-0.75	165-175	16-17.5	64.5-66.5	15.5
		Low	1190-1350	0.75-0.75	165-180	12-14	61-64	
GK-3509SA		High	2160-2340	1.1-1.1	250-265	16-17.5	66-68.5	20
		Low	1790-2030	1.1-1.1	250-270	12-14	63-66	
GK-3512SA		High	2880-3120	1.5-1.5	335-355	16-17.5	67.5-70	25
		Low	2380-2700	1.5-1.5	335-360	12-14	64.5-67.5	

The printed color of the products may differ slightly from the actual products.
The above specifications are subject to change without notice due to continuing product improvement.

■ **Dimensions**
GK-3506SA
GK-3509SA
GK-3512SA



*The appearance may differ slightly depending on the model. Unit: mm

MK High-Power Type

*Operating conditions: Ambient and transfer air temperatures between -10°C and +45°C, and relative humidity of 90% or less at room temperature. Usage outside of this range may result in burning, deformation, irregular rotation, or damage.

Applicable for

■ **Dimensions** Unit: mm

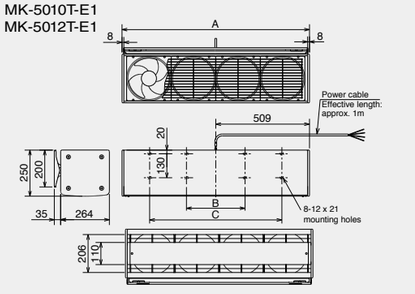
Model	A	B	C
MK-5010T-E1	1018	318	718
MK-5012T-E1	1260	560	960

■ **Specifications**

Model	Power Supply	Airflow Rate [m³/ h] (50/60Hz)	Current [A] (50/60Hz)	Power Consumption [W] (50/60Hz)	Max. Air Velocity [m/ sec] (50/60Hz)	Noise [dB] (50/60Hz)	Weight [kg]
MK-5010T-E1	Three-phase, 50/60Hz 380-415/380V	3950/4250	0.64-0.67/0.74	336-368/432	16/17	62/64	25.5
MK-5012T-E1		5000/5400	0.80-0.84/0.93	420-460/540	16/17	63.5/63.5	32

The printed color of the products may differ slightly from the actual products.
The above specifications are subject to change without notice due to continuing product improvement.

■ **Dimensions**
MK-5010T-E1
MK-5012T-E1



*The appearance may differ slightly depending on the model. Unit: mm