

Air Curtains

Quiet and Compact Air Barrier – For a Comfortable Indoor Environment



GK Series Air Curtains – the energy efficient way to protect your indoor environment

Create an invisible airflow barrier to keep outside air separated from temperature controlled indoor air with the Mitsubishi Electric Air Curtain. Reduce energy waste and keep pests, odours and dust out at the same time.

Maintain a Comfortable Environment and Save Energy

Help maintain a constant comfortable indoor temperature and save energy at the same time by installing an Air Curtain.

Enhance the economical operation further by installing automatic doors to create an even more pleasant indoor environment.

Compact Design – Flexible Installation

Compact and stylish to blend in perfectly with your interior design, the Mitsubishi Electric Air Curtain also has the ability to be installed vertically or horizontally based on the available space.

The airflow angle can also be altered both internally and externally by adjusting the installation angle of the Air Curtain.

Propeller Fan – Powerful Airflow, Less Noise, and More Efficient

Innovative high-tech hydromechanics has enabled the Propeller Fan to achieve unparalleled quietness.

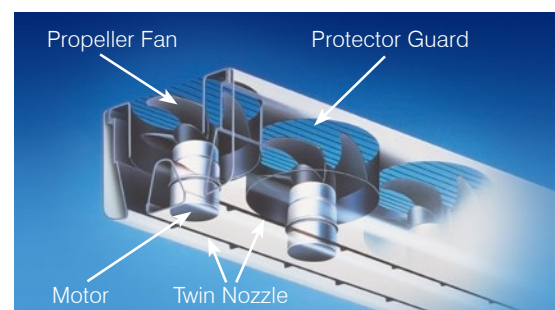
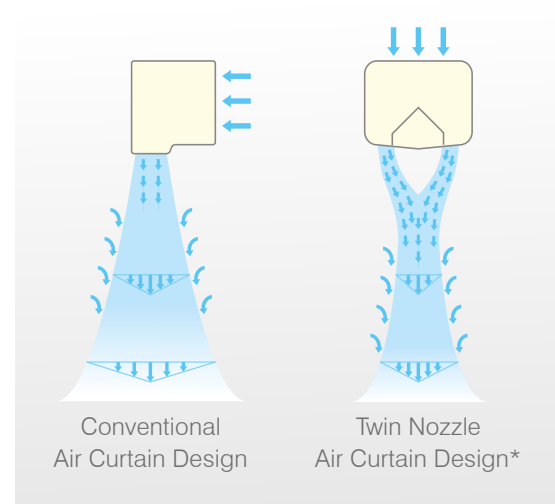
The Propeller Fan not only reduces noise, it is also the secret behind the GK Series' powerful, high-volume airflow.

Along with being a major improvement over the Line Flow Fan the Propeller Fan is driven by an energy efficient motor which also decreases operating cost.

Easy Maintenance

It is easy to maintain the unit and keep the Air Curtain in the best condition at all times through the use of the Axial Fan (Propeller Fan).

Improvements from the change to the Axial Flow Fan from the Line Flow Fan have resulted in an increase to the fan life.



Twin Nozzle* Design

Generate larger air velocity distribution with less air intake with the twin nozzle design.

Resistance to the influence of external airflow has been strengthened, greatly improving insulation against heat and cold.

Shut-out Testing

a. Increased cold storage efficiency and shut out effect test

Tested to ascertain the effectiveness of the Mitsubishi Electric Air Curtain in reducing temperature increases in a cold storage facility.

This test has shown that without an Air Curtain, the inside temperature increased from -5°C to +4°C in as little as two minutes.

While with an Air Curtain installed this time was extended to about ten minutes, or approximately five times as long.

If the door was left open for five minutes, the temperature increased up to 10°C if no Air Curtain was used as opposed to 2°C when one was used.

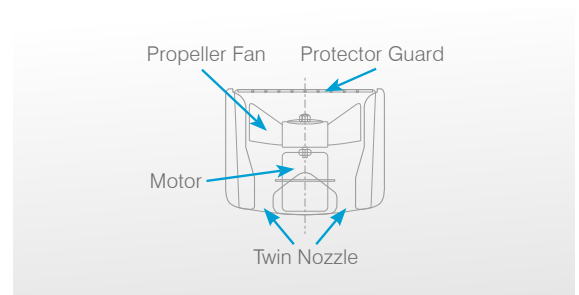
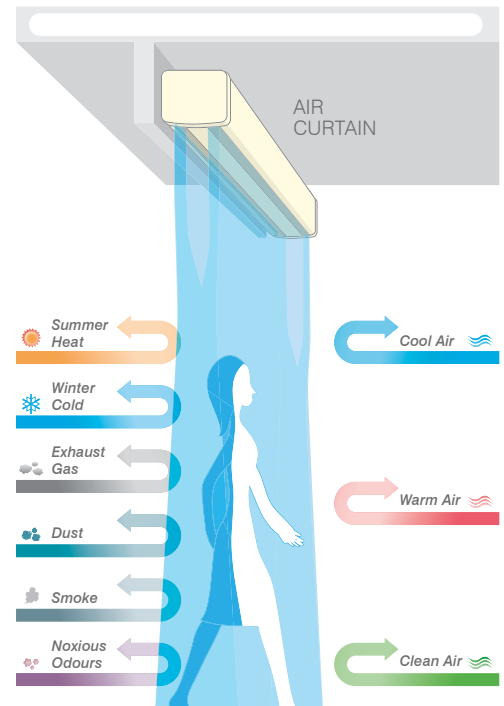
It was established that 50% less energy was required to reduce the inside temperature to -5°C when an Air Curtain was used.

b. Insect** Shut-Out Test

This night time test ascertained the effectiveness of Mitsubishi Electric Air Curtains in shutting out insects.

A 40W mercury lamp was placed inside an Air Curtain and ejected from a 40cm wide vent at a velocity of 8m/sec.

The insect shut-out rate was 70-80%.



Air Curtain Shut-out Effect – Economic Benefits

	Cooling Mode – Load factors (kW)	Load Factor	Heating Mode – Load factors (kW)	Load factor
Open plan premises, doors kept open and no air curtain	Energy loss due to other causes: 8.5 kW Energy loss from door area: 20.5 kW	29 kW	Energy loss due to other causes: 8.7 kW Energy loss from door area: 37.8 kW	46.5 kW
Open plan premises with air curtain or automatic door	Energy loss due to other causes: 8.5 kW Energy loss from door area: 4.1 kW Energy saved: 16.4 kW	12.6 kW	Energy loss due to other causes: 8.7 kW Energy loss from door area: 11.3 kW Energy saved: 26.5 kW	20 kW
Open plan premises with air curtain and automatic door	Energy loss due to other causes: 8.5 kW Energy loss from door area: 1 kW Energy saved: 19.5 kW	9.5 kW	Energy loss due to other causes: 8.7 kW Energy loss from door area: 2.8 kW Energy saved: 35 kW	11.5 kW

Assumptions for economic benefits calculations:

Environmental factors – Floor space is 66.4m². Shop height 2.75m, depth 7.3m and width 9.1m. Two door openings of 0.5m (w) and 2.4m (h). Shop is housed in a two-story building surrounded by other buildings on 3 sides (back, left and right). Both the air conditioner and the Air Curtain have the specifications and characteristics of 50Hz. Cooling Mode: indoor temperature 28°C and humidity 70%, outdoor temperature 32°C and humidity 60%. Heating Mode: indoor temperature 18°C and outdoor temperature 0°C.

* Twin Nozzle Air Curtain takes in air from above (please allow a minimum distance 100mm~150mm between the Air Curtain and the ceiling).

** Insects such as flies which have high flying power may fly into the room along the surface of the floor where wind velocity is comparatively low.

Specifications

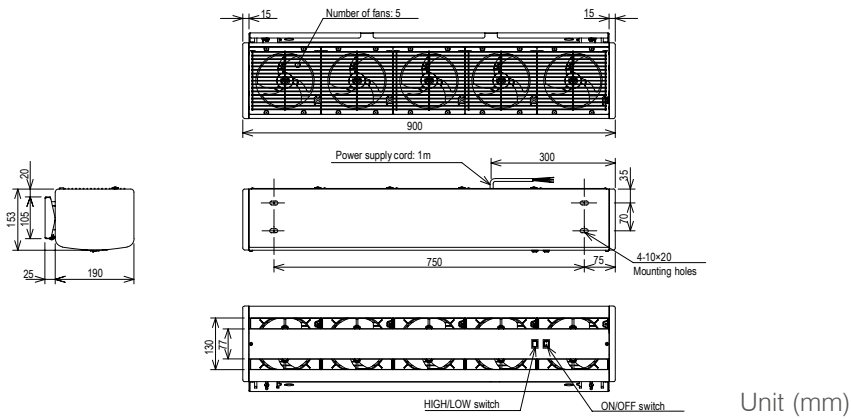
Model	Dimensions (WxHxD) (mm)	Avg. Airflow Shutout Distance* (m)	Fan Speed	Single-phase 50Hz 220-240V					Weight (kg)
				Air Volume (m³/h)	Running Current (A)	Input Power (W)	Air Velocity Max. (m/sec)	Noise (dB)	
GK-2509YS2-CE	900x153x190	2.5	High	1260-1340	0.25-0.26	54-61	9.5	44.5-46	10.5
			Low	910-1100	0.22-0.24	48-57	7	38-41	
GK-2512AS2-CE	1194x153x190	2.5	High	1550-1620	0.30-0.32	67-77	9.5	45-46	13.3
			Low	1160-1370	0.25-0.28	55-66	7	37.5-42	
GK-3009AS2-CE	900x153x190	3	High	1450-1470	0.41-0.49	80-96	12	47-47.5	11
			Low	1200-1250	0.34-0.35	71-80	8	43.5-45.5	
GK-3012AS2-CE	1194x153x190	3	High	1740-1760	0.45-0.53	96-144	12	47.5-48.5	14
			Low	1460-1600	0.38-0.40	84-96	8	46.47	

*Average airflow shutout distance measured when unit is operating at high fan speed.

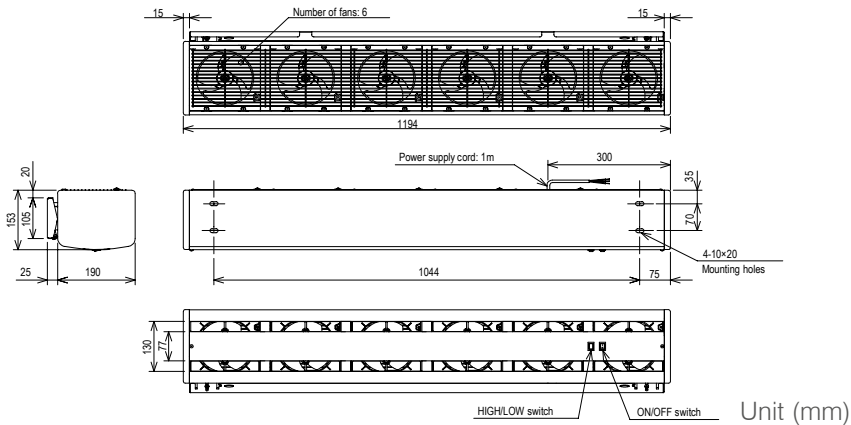
Use conditions: The temperature should be between -10 and +45°C. The RH should be less than 90% at room temperature. Any condition outside of this range could result in burnout, deformed, malrotating or damaged parts.

Dimensions

GK-2509YS2-CE and GK-3009AS2-CE



GK-2512AS2-CE and GK-3012AS2-CE



Certain ratings and specifications may change due to product improvements or modifications. Refer to the product manuals for safety precautions.

For more information please visit our website

or call our Customer Service Team.

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