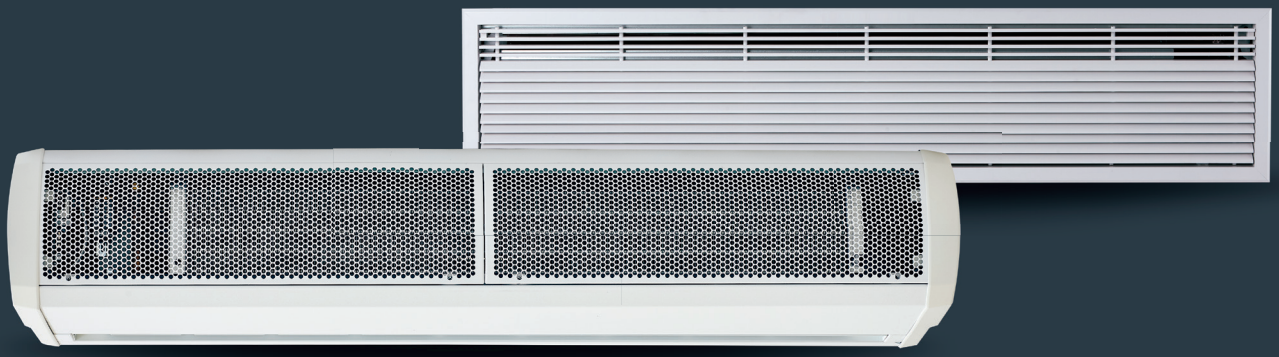
Thermoscreens

C EC Series.

An affordable solution for applications where space is at a premium.



Compact and cost-effective, **Thermoscreens C EC Series** air curtains are specifically designed for applications where there's limited headspace above the door. With a choice of surface or recessed mounting, there's a C EC Series solution to suit any doorway, no matter how restricted the space may be.

Sizes

Door Opening Width: 1m (36"), 1.5m (60"), 2m (72")

Mounting Height

Surface mounted
- up to 3 metres (10')

Recessed units
- up to 2.75 metres (9')

Colour

Standard RAL 9010 (White)

Warranty

2 years (Parts Only)

Key features.

Water | Electric | Ambient | EC Motor | App Control

- Compact, space-saving design
- Ambient, water heated or electric heated
- Surface or recessed mounting
- Energy efficient EC motor(s)
- Bacnet MS/TP, Modbus RTU or dry contacts
- Tangential fans - powerful uniform air flow
- Digital touch controller
- Water heated units supplied with a motorised three-port valve
- Instant heat, high-efficiency heating element (electric units)
- RAL colour matching available
- Supplied with wall brackets as standard
- Threaded Rod Fasteners Included
- Joining kits available for connecting surface mounted units
- Hinged grilles for easy installation and maintenance (recessed units)

www.thermoscreens.ca

C EC Series.

Surface Mounted.

Thermoscreens

C EC Series | Surface Mounted | 600 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/min)	Weight (kg)/(lbs)	Noise output dB(A) @3m
Electric								
C1000E EC	1137x275x198 45x11x8	600/3/60 + 208...240/1/60	4.5/9 15,370/30,735	9.3 + 0.5	9.0 1770	1250 740	16 35	55
C1500E EC	1669x275x198 66x11x8	600/3/60 + 208...240/1/60	6/12 20,490/40,980	12.8 + 0.7	9.0 1770	1800 1060	23 51	55
C2000E EC	2200x275x198 87x11x8	600/3/60 + 208...240/1/60	9/18 30,735/61,470	18.6 + 1.0	9.0 1770	2500 1470	33 73	56

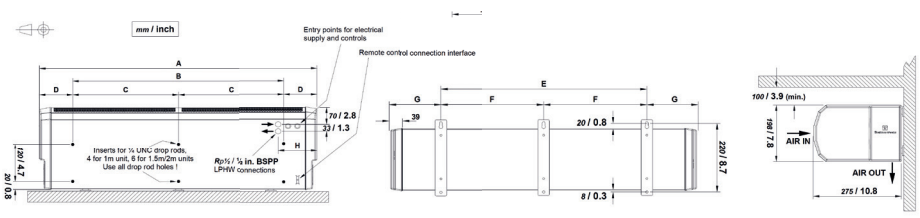
C EC Series | Surface Mounted | 480 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/min)	Weight (kg)/(lbs)	Noise output dB(A) @3m
Electric								
C1000E EC	1137x275x198 45x11x8	480/3/60 + 208...240/1/60	4.5/9 15,370/30,735	10.9 + 0.5	9.0 1770	1250 740	16 35	55
C1500E EC	1669x275x198 66x11x8	480/3/60 + 208...240/1/60	6/12 20,490/40,980	14.5 + 0.7	9.0 1770	1800 1060	23 51	55
C2000E EC	2200x275x198 87x11x8	480/3/60 + 208...240/1/60	9/18 30,735/61,470	21.7 + 1.0	9.0 1770	2500 1470	33 73	56

C EC Series | Surface Mounted | 208/480 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/min)	Weight (kg)/(lbs)	Noise output dB(A) @3m
Ambient								
C1000A EC	1137x275x198 45x11x8	208...240/1/60		0.5	9.0 1770	1250 740	15 33	55
C1500A EC	1669x275x198 66x11x8	208...240/1/60		0.7	9.0 1770	1800 1060	21 46	55
C2000A EC	2200x275x198 87x11x8	208...240/1/60		1.0	9.0 1770	2500 1470	31 68	56
Electric								
C1000E EC	1137x275x198 45x11x8	208/3/60	4.32/8.64 14,755/29,510	24.5	9.0 1770	1250 740	16 35	55
C1500E EC	1669x275x198 66x11x8	208/3/60	5.77/11.53 19,705/39,380	32.7	9.0 1770	1800 1060	23 51	55
C2000E EC	2200x275x198 87x11x8	208/3/60	8.64/17.28 29,510/59,010	49.0	9.0 1770	2500 1470	33 73	56
LPHW								
C1000W EC	1137x275x198 45x11x8	208...240/1/60	3/6 10,250/20,490	0.5	8.5 1670	1180 700	18 39	55
C1500W EC	1669x275x198 66x11x8	208...240/1/60	4.5/9 15,370/30,735	0.7	8.5 1670	1700 1000	26 57	55
C2000W EC	2200x275x198 87x11x8	208...240/1/60	6/12 20,490/40,980	1.0	8.5 1670	2360 1400	37 82	56

	C EC 1000	C EC 1500	C EC 2000
A (mm)	1137	1669	2200
B (mm)	908	1408	1928
C (mm)	-	704	964
D (mm)	115	131	136
E (mm)	710	1208	1748
F (mm)	-	604	874
G (mm)	214	231	226
H (mm)	152	172	172



C EC Series.

Recessed.

Thermoscreens

C EC Series | Recessed | 600 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Dimensions (inc. Flange) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/	Weight (kg)/ (lbs)	Noise output dB(A) @3m
Electric									
C1000ER EC	1200x347x205 47x13x8	1209x353 47.6x13.9	600/3/60 + 208...240/1/60	4.5/9 15,370/30,735	9.3 + 0.5	9.0 1770	1250 740	20 44	55
C1500ER EC	1600x347x205 63x14x8	1609x353 63.4x13.9	600/3/60 + 208...240/1/60	6/12 20,490/40,980	12.8 + 0.7	9.0 1770	1800 1060	27 60	55
C2000ER EC	2100x347x205 83x14x8	2120x353 83.5x13.9	600/3/60 + 208...240/1/60	9/18 30,735/61,470	18.6 + 1.0	9.0 1770	2500 1470	37 82	56

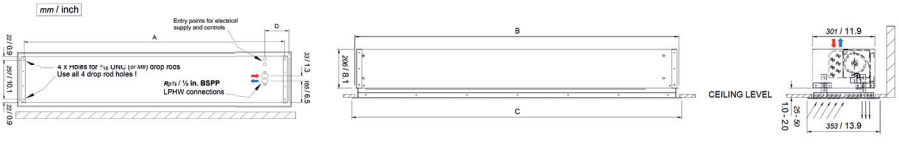
C EC Series | Recessed | 480 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Dimensions (inc. Flange) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/	Weight (kg)/ (lbs)	Noise output dB(A) @3m
Electric									
C1000AR EC	1200x347x205 47x13x8	1209x353 47.6x13.9	480/3/60 + 208...240/1/60	4.5/9 15,370/30,735	10.9 + 0.5	9.0 1770	1250 740	20 44	55
C1500AR EC	1600x347x205 63x14x8	1609x353 63.4x13.9	480/3/60 + 208...240/1/60	6/12 20,490/40,980	14.5 + 0.7	9.0 1770	1800 1060	27 60	55
C2000AR EC	2100x347x205 83x14x8	2120x353 83.5x13.9	480/3/60 + 208...240/1/60	9/18 30,735/61,470	21.7 + 1.0	9.0 1770	2500 1470	37 82	56

C EC Series | Recessed | 208/480 Volt

Model	Dimensions (L x W x D) (mm)/(in)	Dimensions (inc. Flange) (mm)/(in)	Supply (50Hz)	Heat output (kW)	Loading per (A) current	Max velocity (m/s)/(ft/min)	Max air volume (m^3/h)/(ft3/	Weight (kg)/ (lbs)	Noise output dB(A) @3m
Ambient									
C1000ER EC	1200x347x205 47x13x8	1209x353 47.6x13.9	208...240/1/60		0.5	9.0 1770	1250 740	19 42	55
C1500ER EC	1600x347x205 63x14x8	1609x353 63.4x13.9	208...240/1/60		0.7	9.0 1770	1800 1060	25 55	55
C2000ER EC	2100x347x205 83x14x8	2120x353 83.5x13.9	208...240/1/60		1.0	9.0 1770	2500 1470	35 77	56
Electric									
C1000ER EC	1200x347x205 47x13x8	1209x353 47.6x13.9	208/3/60	4.32/8.64 14,755/29,510	24.5	9.0 1770	1250 740	20 44	55
C1500ER EC	1600x347x205 63x14x8	1609x353 63.4x13.9	208/3/60	5.77/11.53 19,705/39,380	32.7	9.0 1770	1800 1060	27 60	55
C2000ER EC	2100x347x205 83x14x8	2120x353 83.5x13.9	208/3/60	8.64/17.28 29,510/59,010	49.0	9.0 1770	2500 1470	37 82	56
LPHW									
C1000WR EC	1200x347x205 47x13x8	1209x353 47.6x13.9	208...240/1/60	3/6 10,250/20,490	0.5	8.5 1670	1180 700	22 49	55
C1500WR EC	1600x347x205 63x14x8	1609x353 63.4x13.9	208...240/1/60	4.5/9 15,370/30,735	0.7	8.5 1670	1700 1000	30 66	55
C2000WR EC	2100x347x205 83x14x8	2120x353 83.5x13.9	208...240/1/60	6/12 20,490/40,980	1.0	8.5 1670	2360 1400	41 90	56

	C1000R	C1500R	C2000R
A (mm)	1129	1529	2040
B (mm)	1179	1579	2090
C (mm)	1209	1609	2120
D (mm)	140	140	150
Ceiling cut-out			
Length (mm)	1179	1579	2090
Width (mm)	301	301	301



*Sound pressure levels (dBA) at 3m, as given in our brochure, are for a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics (reverberation time 0.7s at 1kHZ) and a room size equivalent to 8 air changes per hour (ac/h). Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more "live" (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors. Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. + 3dBA for 2 equal point sources: direct field).

Water flow rate and pressure drop calculations for different water temperatures.

To calculate water flow rate and pressure drops for coil and valve at different water temperatures than 82/71°C :-

For the new water temperatures use the Thermoscreens coil calculation programme to get the new water flow rate and the new water pressure drop (coil). Then calculate the new water pressure drop (valve) using the following formula:

$$\text{New Water Pressure Drop (valve)} = \text{82/71 Water Pressure Drop (valve)} \times \left(\frac{\text{New Water Flow Rate}}{\text{82/71 Water Flow Rate}} \right)^2$$

Example:

C1500W at 85/65°C, EAT = 20°C

82/71 Water flow rate = 11.7 l/min
(from water flow rate and pressure drop table below)

New water flow rate = 5.8 l/min
(from Thermoscreens coil calculation programme)

New water pressure drop (coil) = 2.2 kPa
(from Thermoscreens coil calculation programme)

Therefore:

New water pressure drop (valve) =

$$3.0 \times \left(\frac{5.8}{11.7} \right)^2 = 0.7 \text{ kPa}$$

Conversion factors:
1 kPa = 0.145 PSI = 0.333 ft water column
10 l per minute = 2.64 US GPM

Water flow rate and pressure drop.

C Series	1 row coil (based on 82/71˚C / 180/160˚F)		
	Water flow rate (l/min)	**Water pressure drop (coil)** ΔP (kPa)	**Water pressure drop (valve)** ΔP (kPa)
C1000W/C1000WR	7.8	3.2	2.0
C1500W/C1500WR	11.7	7.8	3.0
C2000W/C2000WR	15.6	15.2	4.0

A control valve is supplied loose with C Series air curtains which is fitted into the pipework during installation.

Accessories.

Description	Part no.
Master and slave lead: 3m	T5951110
Ecopower extension lead: 10m	T5951112
Ecopower extension lead: 15m	T5951113
Ecopower extension lead: 30m	T5951114

Thermoscreens

Your environment is our expertise.

Thermoscreens were one of the pioneers of modern air curtain technology, and we remain at the forefront of its evolution today. Our sales team work hand-in-hand with an international network of distributors, providing solutions to customers of all types and sizes, in more than 50 countries. Across the globe, our name is synonymous with the highest quality standards; our products renowned for their energy efficiency, reliability and ease of use.

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