

Air Curtains

The air curtain is used to separate one environment from another where either doors are left open, or when automatic doors frequently open due to high traffic levels. It creates a “curtain” of moving air that is blown over the opening of a doorway. The invisible “wall” will not allow air to flow through it.

FEATURES

These units present a solution which will enable quick installation with easy access for maintenance.

Integrated electrical box design

This solution gives the following advantages:

- Easy access for unit installation and maintenance
- No need to install separate DX interface
- ‘Plug and Play’ solution with the PCB fully configured at the factory
- The electrical supply for the air curtain is taken from the outdoor unit meaning there is no need for additional power supplies

Flare nut connections

The Toshiba air curtains are fitted with flare nut connections for ease of installation.

Selectable discharge grille position

The discharge grille can be adjusted to 5 positions (+15°, +10°, 0°, -10°, -15°) to regulate the air stream.

Defrost tray

A defrost tray is fitted to all Toshiba air curtains. During defrost cycles the fan motors continue to operate. Any moisture collected in the defrost tray evaporates when heating resumes.

Energy savings

Prevents draughts and reduces infiltration of unconditioned outdoor air into heated or air conditioned areas and at the same time stops the conditioned air inside the building from escaping.

Comfort

Improve comfort for customers and employees by reducing the admittance of insects, dust, smoke and odours which would otherwise enter through an open door.

Renewable heat pump energy

Compared to conventionally-heated air curtains the Toshiba Digital and Super Digital Inverters offer significant environmental benefits. Renewable heat pumps offer an alternative solution where future legislation may restrict the use of directly-heated air curtains.



Fre-sh-air and Enviroscreen VRF Air Curtain

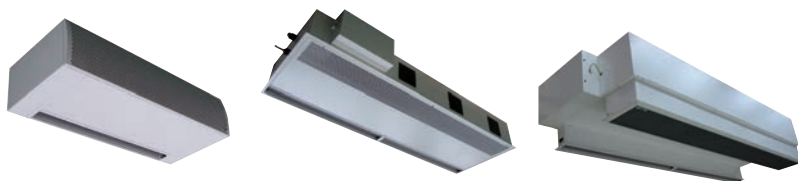
CODE		93	103
Air Curtain Model		Fre-sh-air Universal DX VRF - SM2000DH-FS	Enviroscreen - D-ES15-HP (Type D 1500 HP VRF)
Capacity Code	hp	5	4
VRF System Interface (factory-fitted)		MMD-ODH1	MMD-ODH1
Heating	Capacity	9.30	10.30
	COP	3.00	3.11
Air Flow	Standard	611	630
	Standard	m ³ /h	2200
	Air Velocity Uniformity	%	91.4
Electrical	Fan Motor Power	kW	0.165 x 4
	Fan Motor Current (max.)	A	4.8
	Power Input Indoor	kW	0.66
Air Curtain Universal		RAV-SM2000DH-FS	ES - Type D 1500 HP
Door	Width	mm	2000
	Maximum Height	m	3.2
Sound	Pressure Level M	dB(A)	54
	Power Level M	dB(A)	69.3
Unit	Height x Width x Depth	mm	320 x 2340 x 550
	Weight	kg	90
Pipe Connection	Connections (gas - liquid)	inch	5/8 - 3/8
Electrical	Power Supply	V/ph/Hz	220-240/1/50
	Suggested Fused Supply	A	10

Accessories

RBC-AMS41E	Remote Controller Built-In Timer	Full control including service functions with fully-programmable 7-day timer
RBC-AMS55E-ES	Remote Controller	Includes timer and backlight display as well as power-save functions, multilingual
RBC-AS41E	Simplified Controller	Ideal for hotel and basic use applications (no service function available)
RBC-ASC11E	Compact Remote Controller	Simplified backlight display controller with timer off, multilingual
RBC-SMF1	Fan Interface	Interface to provide an output to enable an external fan from the unit
RBC-SMT1	CN02 Connector Timer Interface Lead	Lead to provide ON/OFF control from the RBC-AMT32E remote or any central controller
RBC-SMIM2	Indicator Module Mode	Interface to indicate the mode of unit operation output for Cool, Heat and Fan Only
RBC-SMIM3	Indicator Module ON/OFF And Stopping Fault	Interface to indicate unit operation and stopping fault
RBC-SMIM4	Indicator Module ON/OFF, Stopping Fault And Unit Enable	Interface to indicate unit operation and stopping fault and connections to enable the unit
RBC-FMC2	Flush Mount Collar Kit (for Fre-sh-air model)	Enables air curtain to be mounted in void space

ECA eligible ✓

Note: Air Curtain model Fre-sh-air Universal DX VRF - SM2000DH-FS unit can be mounted in ceiling void using accessory RBC-FMC2

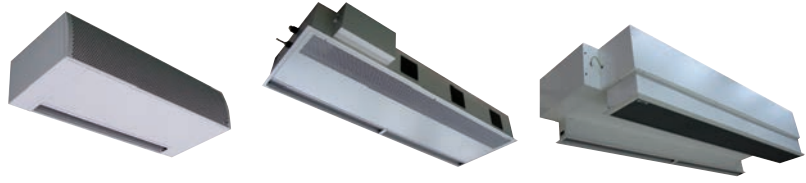


VRF Air Curtains

CODE		80	80	112	112	140	140	160	160	
Air Curtain Model		RAV-	CT101***M	CT101***L	CT151***M	CT151***L	CT201***M	CT201***L	CT251***M	CT251***L
Capacity Code		hp	3	3	4	4	5	5	6	6
VRF System Interface (factory-fitted)		HP	MMD-ODH1	MMD-ODH1	MMD-ODH1	MMD-ODH1	MMD-ODH1	MMD-ODH1	MMD-ODH1	MMD-ODH1
Heating	Capacity	kW	8.0	8.0	11.2	11.2	14.0	14.0	16.0	16.0
	COP		2.63	2.77	2.56	2.93	2.75	3.20	3.27	3.81
Air Flow	Standard	l/s	444	614	667	819	889	1228	1111	1433
	Standard	m ³ /h	1600	2210	2400	2950	3200	4420	4000	5160
	Power Input Indoor	kW	0.35	0.53	0.53	0.70	0.70	1.05	0.88	1.23
Door	Width	mm	1000	1000	1500	1500	2000	2000	2500	2500
	Maximum Height	m	3.0	3.2	3.0	3.2	3.0	3.2	3.0	3.2
Sound	Pressure Level M	dB(A)	54	55	55	56	56	57	57	58
	Power Level M	dB(A)	69	70	70	71	71	72	72	73
Free-Hanging Type		RAV-	CT101CH-M	CT101CH-L	CT151CH-M	CT151CH-L	CT201CH-M	CT201CH-L	CT251CH-M	CT251CH-L
Unit	Height x Width x Depth	mm	260 x 1210 x 490	260 x 1210 x 490	260 x 1710 x 490	260 x 1710 x 490	260 x 2210 x 490	260 x 2210 x 490	260 x 2710 x 490	260 x 2710 x 490
	Weight	kg	48	51	77	80	101	107	132	138
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Electrical	Power Supply	V/ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
	Suggested Fused Supply	A	10	10	10	10	10	16	10	16
Cassette Type		RAV-	CT101UH-M	CT101UH-L	CT151UH-M	CT151UH-L	CT201UH-M	CT201UH-L	CT251UH-M	CT251UH-L
Unit	Height x Width x Depth	mm	260 x 1050 x 780	260 x 1050 x 780	260 x 1550 x 780	260 x 1550 x 780	260 x 2050 x 780	260 x 2050 x 780	260 x 2550 x 780	260 x 2550 x 780
	Weight	kg	40	43	95	98	99	105	120	126
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Electrical	Power Supply	V/ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
	Suggested Fused Supply	A	10	10	10	10	10	16	10	16
Built-In Type		RAV-	CT101BH-M	CT101BH-L	CT151BH-M	CT151BH-L	CT201BH-M	CT201BH-L	CT251BH-M	CT251BH-L
Unit	Height x Width x Depth	mm	405-485 x 1105 x 720	405-485 x 1105 x 720	405-485 x 1605 x 720	405-485 x 1605 x 720	405-485 x 2105 x 720	405-485 x 2105 x 720	405-485 x 2605 x 720	405-485 x 2605 x 720
	Weight	kg	71	74	105	108	129	135	170	176
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Electrical	Power Supply	V/ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
	Suggested Fused Supply	A	10	10	10	10	10	16	10	16

Accessories

RBC-AMS41E	Remote Controller Built-In Timer	Full control including service functions with fully-programmable 7-day timer
RBC-AMS55E-ES	Remote Controller	Includes timer and backlight display as well as power-save functions, multilingual
RBC-AS41E	Simplified Controller	Ideal for hotel and basic use applications (no service function available)
RBC-ASC11E	Compact Remote Controller	Simplified backlight display controller with timer off, multilingual
RBC-SMF1	Fan Interface	Interface to provide an output to enable an external fan from the unit
RBC-SMT1	CN02 Connector Timer Interface Lead	Lead to provide ON/OFF control from the RBC-AMT32E remote or any central controller
RBC-SMIM2	Indicator Module Mode	Interface to indicate the mode of unit operation output for Cool, Heat and Fan Only
RBC-SMIM3	Indicator Module ON/OFF And Stopping Fault	Interface to indicate unit operation and stopping fault
RBC-SMIM4	Indicator Module ON/OFF, Stopping Fault And Unit Enable	Interface to indicate unit operation and stopping fault and connections to enable the unit

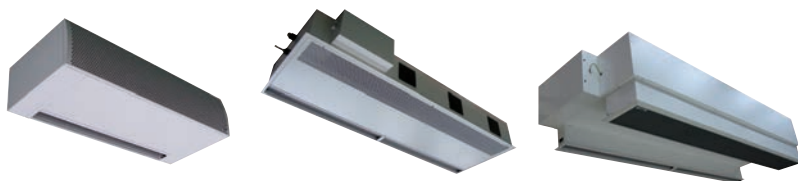


Air Curtains Digital Inverter

CODE		112	112	140	140	160	160	
Air Curtain Model		RAV-	CT151***M	CT15CT1***L	CT201***M	CT201***L	CT251***M	CT251***L
Outdoor Unit		RAV-	SM1104AT8P-E	SM1104AT8P-E	SM1404AT8P-E	SM1404AT8P-E	SM1603AT-E	SM1603AT-E
Capacity Code		hp	4	4	5	5	6	6
Heating	Capacity	kW	11.2	11.2	14.0	14.0	16.0	16.0
	COP		3.15	3.21	3.03	3.09	2.86	2.91
Air Flow	Standard	l/s	667	819	889	1228	1111	1433
	Standard	m³/h	2400	2950	3200	4420	4000	5160
Door	Power Input Indoor	kW	0.53	0.70	0.70	1.05	0.88	1.23
	Width	mm	1500	1500	2000	2000	2500	2500
Sound	Maximum Height	m	3.0	3.2	3.0	3.2	3.0	3.2
	Pressure Level M	dB(A)	55	57	56	58	57	59
	Power Level M	dB(A)	70	72	71	73	72	74
Free-Hanging Type		RAV-	CT151CH-M	CT151CH-L	CT201CH-M	CT201CH-L	CT251CH-M	CT251CH-L
Unit	Height x Width x Depth	mm	260 x 1710 x 490	260 x 1710 x 490	260 x 2210 x 490	260 x 2210 x 490	260 x 2710 x 490	260 x 2710 x 490
	Weight	kg	77	80	101	107	132	138
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Cassette Type		RAV-	CT151UH-M	CT151UH-L	CT201UH-M	CT201UH-L	CT251UH-M	CT251UH-L
Unit	Height x Width x Depth	mm	260 x 1550 x 780	260 x 1550 x 780	260 x 2050 x 780	260 x 2050 x 780	260 x 2550 x 780	260 x 2550 x 780
	Weight	kg	95	98	99	105	120	126
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Built-In Type		RAV-	CT151BH-M	CT151BH-L	CT201BH-M	CT201BH-L	CT251BH-M	CT251BH-L
Unit	Height x Width x Depth	mm	405-485 x 1605 x 720	405-485 x 1605 x 720	405-485 x 2105 x 720	405-485 x 2105 x 720	405-485 x 2605 x 720	405-485 x 2605 x 720
	Weight	kg	105	108	129	135	170	176
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Outdoor Unit		RAV-	SM1603AT-E1					
Heating Capacity Range (Min. - Max.)		kW	3.0 - 18.0					
Ambient Operating Range Cooling/Heating		°C	43 to -15/15 to -15					
Air Flow	Standard Air Flow	l/s	1717					
	Standard Air Flow	m³/h	6180					
Sound	Pressure Level C/H	dB(A)	51/53					
	Power Level C/H	dB(A)	68/70					
Unit	Height x Width x Depth	mm	1340 x 900 x 320					
	Weight	kg	99					
	Base Charge/Chargeless To	kg/m	3.1/30					
	Additional Charge Main Liquid Side	g/m	40					
Pipe Connections	Min.-Max. Length	m	5-50					
	Height Difference Outdoor To AHU	m	±30					
	Flare Connections (gas - liquid)	inch	5/8 - 3/8					
Electrical	Drain Port Connector Hose Inner Diameter	mm	16					
	Power Supply	V/ph/Hz	220-240/1/50					
	Maximum Run Current	A	21.70					
	Suggested Fused Supply	A	32					

Accessories

RBC-AMS41E	Remote Controller Built-In Timer	Full control including service functions with fully-programmable 7-day timer
RBC-AMS55E-ES	Remote Controller	Includes timer and backlight display as well as power-save functions, multilingual
RBC-AS41E	Simplified Controller	Ideal for hotel and basic use applications (no service function available)
RBC-ASC11E	Compact Remote Controller	Simplified backlight display controller with timer off, multilingual
RBC-SMF1	Fan Interface	Interface to provide an output to enable an external fan from the unit
RBC-SMT1	CN02 Connector Timer Interface Lead	Lead to provide ON/OFF control from the RBC-AMT32E remote or any central controller
RBC-SMIM2	Indicator Module Mode	Interface to indicate the mode of unit operation output for Cool, Heat and Fan Only
RBC-SMIM3	Indicator Module ON/OFF And Stopping Fault	Interface to indicate unit operation and stopping fault
RBC-SMIM4	Indicator Module ON/OFF, Stopping Fault And Unit Enable	Interface to indicate unit operation and stopping fault and connections to enable the unit



Air Curtains Super Digital Inverter

CODE		112	112	140	140	160	160	
Air Curtain Model		RAV-	CT151***M	CT151***L	CT201***M	CT201***L	CT251***M	CT251***L
Outdoor Unit		RAV-	SP1104AT8-E	SP1104AT8-E	SP1404AT8-E	SP1404AT8-E	SP1604AT8-E	
Capacity Code		hp	4	4	5	5	6	6
Heating	Capacity	kW	11.2	11.2	14.0	14.0	16.0	16.0
	COP		3.39	3.45	3.20	3.26	2.92	2.97
Air Flow	Standard	l/s	667	819	889	1228	1111	1433
	Standard	m³/h	2400	2950	3200	4420	4000	5160
Door	Power Input Indoor	kW	0.53	0.70	0.70	1.05	0.88	1.23
	Width	mm	1500	1500	2000	2000	2500	2500
Sound	Maximum Height	m	3.0	3.2	3.0	3.2	3.0	3.2
	Pressure Level M	dB(A)	55	57	56	58	57	59
	Power Level M	dB(A)	70	72	71	73	72	74
Free-Hanging Type		RAV-	CT151CH-M	CT151CH-L	CT201CH-M	CT201CH-L	CT251CH-M	CT251CH-L
Unit	Height x Width x Depth	mm	260 x 1710 x 490	260 x 1710 x 490	260 x 2210 x 490	260 x 2210 x 490	260 x 2710 x 490	260 x 2710 x 490
	Weight	kg	77	80	101	107	132	138
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Cassette Type		RAV-	CT151UH-M	CT151UH-L	CT201UH-M	CT201UH-L	CT251UH-M	CT251UH-L
Unit	Height x Width x Depth	mm	260 x 1550 x 780	260 x 1550 x 780	260 x 2050 x 780	260 x 2050 x 780	260 x 2550 x 780	260 x 2550 x 780
	Weight	kg	95	98	99	105	120	126
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Built-In Type		RAV-	CT151BH-M	CT151BH-L	CT201BH-M	CT201BH-L	CT251BH-M	CT251BH-L
Unit	Height x Width x Depth	mm	405-485 x 1605 x 720	405-485 x 1605 x 720	405-485 x 2105 x 720	405-485 x 2105 x 720	405-485 x 2605 x 720	405-485 x 2605 x 720
	Weight	kg	105	108	129	135	170	176
Pipe Connection	Flare Connection (gas - liquid)	inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
Power Cable From Outdoor To Indoor			3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth	3 core + earth
Outdoor Unit		RAV-	SP1104AT8-E1	SP1104AT8-E1	SP1404AT8-E1	SP1404AT8-E1	SP1604AT8-E1	SP1604AT8-E1
Heating Capacity Range (Min. - Max.)		kW	2.4 - 15.6	2.4 - 15.6	2.4 - 18.0	2.4 - 18.0	2.4 - 19.0	2.4 - 19.0
Ambient Operating Range Cooling/Heating		°C	46 to -15/15 to -15	46 to -15/15 to -15	46 to -15/15 to -15	46 to -15/15 to -15	46 to -15/15 to -15	46 to -15/15 to -15
Air Flow	Standard Air Flow	l/s	1683	1683	1717	1717	1717	1717
	Standard Air Flow	m³/h	6060	6060	6180	6180	6180	6180
Sound	Pressure Level C/H	dB(A)	49/50	49/50	51/52	51/52	51/53	51/53
	Power Level C/H	dB(A)	66/67	66/67	68/69	68/69	68/70	68/70
Unit	Height x Width x Depth	mm	1340 x 900 x 320	1340 x 900 x 320	1340 x 900 x 320	1340 x 900 x 320	1340 x 900 x 320	1340 x 900 x 320
	Weight	kg	95	95	95	95	95	95
	Base Charge/Chargeless To	kg/m	3.1/30	3.1/30	3.1/30	3.1/30	3.1/30	3.1/30
	Additional Charge Main Liquid Side	g/m	40	40	40	40	40	40
Pipe Connections	Min.-Max. Length	m	3-75	3-75	3-75	3-75	3-75	3-75
	Height Difference Outdoor To AHU	m	±30	±30	±30	±30	±30	±30
Flare Connections (gas - liquid)		inch	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8	5/8 - 3/8
	Drain Port Connector Hose Inner Diameter	mm	16	16	16	16	16	16
Electrical	Power Supply	V/ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
	Maximum Run Current	A	3.72	3.72	5.42	5.42	6.66	6.66
	Suggested Fused Supply	A	10	10	16	16	16	16

Accessories

RBC-AMS41E	Remote Controller Built-In Timer	Full control including service functions with fully-programmable 7-day timer
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