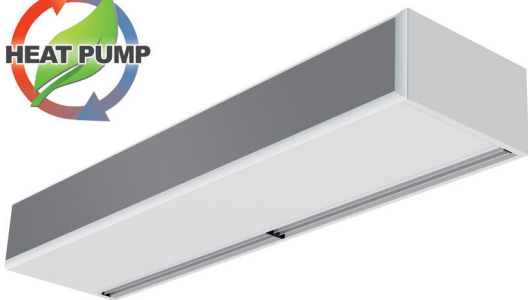




## Characteristics



- Energy saving heat pump air curtains: Up to 70% reduction in costs and CO<sub>2</sub> emissions (heating mode).
- Self-supporting casing construction made of galvanized steel plate, finished in structural epoxy-polyester painting white colour RAL9016 as standard. Other colours or stainless steel are available on request.
- Micro-perforated inlet grille with filter functions and easy service. Internal prefilter included.
- Anodized aluminium outlet vanes, airfoil shaped, adjustable from 0 to 15° each side.
- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires TOSHIBA DX Interface KIT adapted for air curtain and programmable control, please consult.
- Ready to connect to TOSHIBA Inverter outdoor heat pump unit (R410A) with expansion valve, not included, the customer should purchase it.

## Specifications

Model	Airflow m <sup>3</sup> /h	Outdoor Unit (*)		Power Fan	Current Fan	Noise Level	Weight kg
		230Vx1	400Vx3	230V-50Hz kW	230V-50Hz A	(5 m) dB(A)	
ECM 1500 DX11-TO	2460	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,213	1,86	57	53
ECM 2000 DX16-TO	3280	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,284	2,48	58	69
ECM 2000 DX19-TO	3280	-	RAV-SM2244AT8-E	0,284	2,48	58	69
ECM 2500 DX21-TO	4100	-	RAV-SM2244AT8-E	0,355	3,10	59	86
ECM 2500 DX24-TO	4100	-	RAV-SM2804AT8-E	0,355	3,10	59	86
ECM 3000 DX26-TO	4920	-	RAV-SM2804AT8-E	0,426	3,72	60	103
ECG 1000 DX10-TO	2190	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,213	1,86	61	50
ECG 1500 DX13-TO	2920	RAV SM1404ATP-E	RAV SP1404AT8-E	0,284	2,48	62	59
ECG 1500 DX15-TO	2920	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,284	2,48	62	59
ECG 2000 DX22-TO	4380	-	RAV-SM2244AT8-E	0,426	3,72	63	92
ECG 2000 DX24-TO	4380	-	RAV-SM2804AT8-E	0,426	3,72	63	92
ECG 2500 DX22-TO	5110	-	RAV-SM2244AT8-E	0,497	4,34	64	96
ECG 2500 DX27-TO	5110	-	RAV-SM2804AT8-E	0,497	4,34	64	96
ECG 3000 DX27-TO	5840	-	RAV-SM2804AT8-E	0,568	5,96	65	109

(\*) Includes direct expansion valve.

TOSHIBA Inverter Outdoor Units	Heating Capacity kW	Heating Power kW	SCOP or COP	Cooling Capacity kW	Cooling Power kW	SEER or EER	Power Supply	Pipes		Pipes Minimum Length m	Pipes Maximum Length m	Pipes Maximum Height m
								Gas	Liquid			
								inch	inch			
RAV-SM1104ATP-E	11,2	2,93	3,54	10,0	3,11	5,58	230Vx1	5/8	3/8	5	50	30
RAV-SP1104AT8-E	11,2	2,42	4,28	10,0	2,37	6,57	400Vx3	5/8	3/8	3	75	30
RAV SM1404ATP-E	14,0	3,80	3,68	12,0	3,74	3,21	230Vx1	5/8	3/8	5	50	30
RAV SP1404AT8-E	14,0	3,42	4,09	12,5	3,46	3,61	400Vx3	5/8	3/8	3	75	30
RAV-SM1603AT-E	16,0	4,43	3,61	14,0	4,49	3,12	230Vx1	5/8	3/8	5	50	30
RAV-SP1604AT8-E	16,0	4,30	3,72	14,0	4,49	3,12	400Vx3	5/8	3/8	3	75	30
RAV-SM2244AT8-E	22,4	6,49	3,45	20,0	7,20	2,78	400Vx3	1"1/8	1/2"	7,5	70	30
RAV-SM2804AT8-E	27,0	8,15	3,31	23,0	8,75	2,63	400Vx3	1"1/8	1/2"	7,5	70	30

Energy efficiency: SCOP/SEER seasonal ≤12kW, COP/EER >12kW.

Outdoor unit capacities depending on standard conditions: heating 20°CDB indoor / 7°CDB and 6°CWB outdoor, cooling 27°CDB and 19°CWB indoor / 35°CDB outdoor.

When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



## Characteristics



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- EC Double-inlet centrifugal fans driven by an external rotor motor and low noise level, with very low consumption efficient fans.
- Includes direct expansion coil with sensors. Optional condensate water pump.
- CS-5DX-NE Plug&Play control with 5 speeds and telephone cable 7m included.
- Requires TOSHIBA VRF Interface KIT adapted for air curtain, programmable control and expansion valve, please consult.
- Ready to connect to TOSHIBA VRF outdoor heat pump unit (R410A), not included, the customer should purchase it.

## Specifications

Model	Airflow m <sup>3</sup> /h	Toshiba Direct Expansion Valve	Power Fan 230V-50Hz kW	Current Fan 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
ECM 1500 VRF12-TO	2460	MMDXV140	0,213	1,86	57	53
ECM 2000 VRF16-TO	3280	MMDXV140	0,284	2,48	58	69
ECM 2000 VRF19-TO	3280	MMDXV280	0,284	2,48	58	69
ECM 2500 VRF21-TO	4100	MMDXV280	0,355	3,10	59	86
ECM 2500 VRF24-TO	4100	MMDXV280	0,355	3,10	59	86
ECM 3000 VRF26-TO	4920	MMDXV280	0,426	3,72	60	103
ECG 1000 VRF10-TO	2190	MMDXV140	0,213	1,86	61	50
ECG 1500 VRF13-TO	2920	MMDXV140	0,284	2,48	62	59
ECG 1500 VRF15-TO	2920	MMDXV140	0,284	2,48	62	59
ECG 2000 VRF20-TO	4380	MMDXV280	0,426	3,72	63	92
ECG 2000 VRF24-TO	4380	MMDXV280	0,426	3,72	63	92
ECG 2500 VRF25-TO	5110	MMDXV280	0,497	4,34	64	96
ECG 2500 VRF29-TO	5110	MMDXV280	0,497	4,34	64	96
ECG 3000 VRF29-TO	5840	MMDXV280	0,568	5,96	65	109

### TOSHIBA VRF Outdoor Units

Mini, Mini SMMSe, SMMSe (Heat Pump)

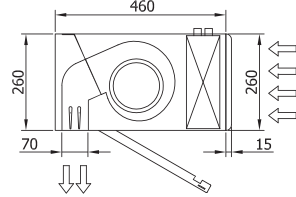
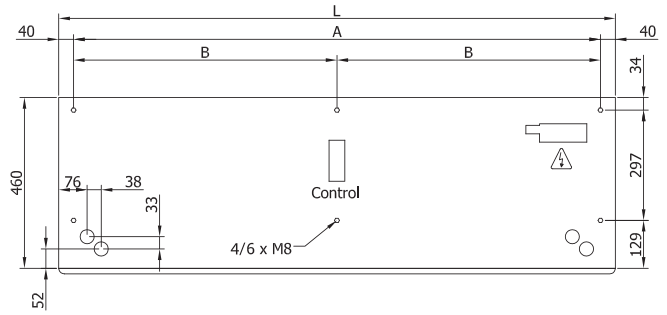
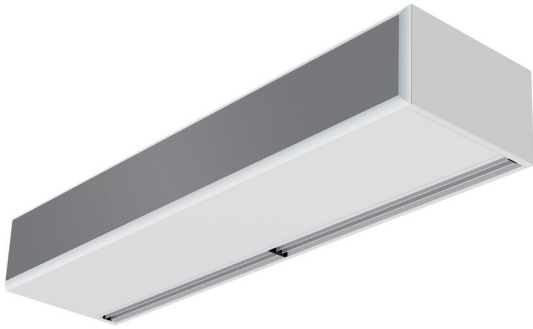
SHRMe (Heat Recovery)



When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.

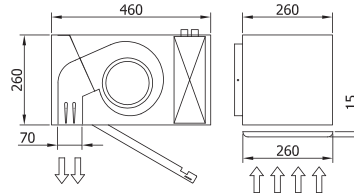
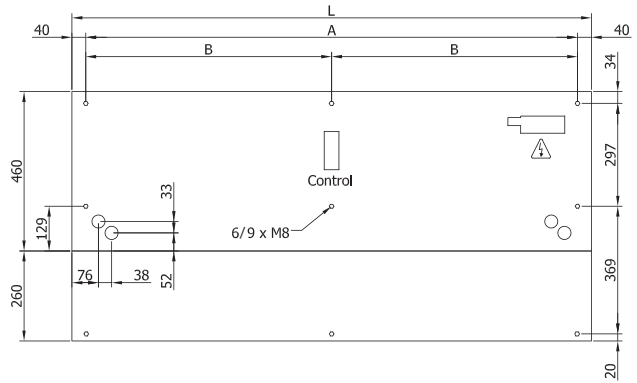


Layouts and dimensions



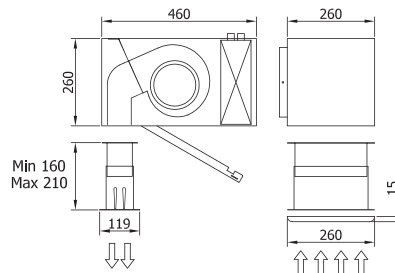
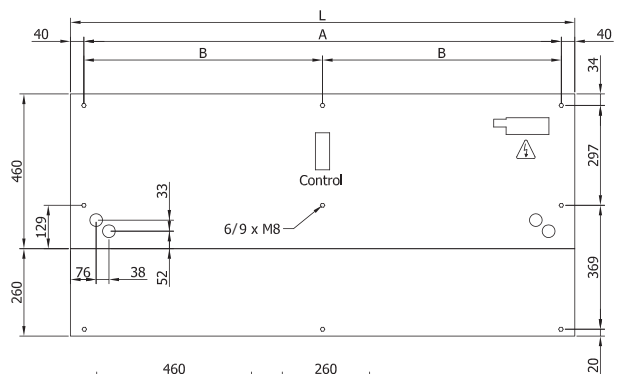
L	A	B
1000	920	-
1500	1420	710
2000	1920	960
2500	2420	1210
3000	2920	1460

Free hanging mounting



L	A	B
1000	920	-
1500	1420	710
2000	1920	960
2500	2420	1210
3000	2920	1460

Inside ceiling surface mounting



L	A	B
1000	920	-
1500	1420	710
2000	1920	960
2500	2420	1210
3000	2920	1460

False ceiling invisible mounting