



**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.
- Front panel with option to customize and the possibility of including personalized logos, signs, graphic designs, images, etc.
- The inlet areas are located behind the front panel. They do not need maintenance.
- 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 efficiency 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 (*) 230Vx1	Outdoor Unit (*) 400Vx3	Power Fan 230V-50Hz kW	Current Fan 230V-50Hz A	Noise Level (5 m) dB(A)	Weight kg
DAM ECM 1500 DX11-TO	2460	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,213	1,86	57	64
DAM ECM 2000 DX16-TO	3280	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,284	2,48	58	81
DAM ECM 2000 DX19-TO	3280	-	RAV-SM2244AT8-E	0,284	2,48	58	81
DAM ECM 2500 DX21-TO	4100	-	RAV-SM2244AT8-E	0,355	3,10	59	89
DAM ECM 2500 DX24-TO	4100	-	RAV-SM2804AT8-E	0,355	3,10	59	89
DAM ECM 3000 DX26-TO	4920	-	RAV-SM2804AT8-E	0,426	3,72	60	103
DAM ECG 1000 DX10-TO	2190	RAV-SM1104ATP-E	RAV-SP1104AT8-E	0,213	1,86	61	48
DAM ECG 1500 DX13-TO	2920	RAV SM1404ATP-E	RAV SP1404AT8-E	0,284	2,48	62	70
DAM ECG 1500 DX15-TO	2920	RAV-SM1603AT-E	RAV-SP1604AT8-E	0,284	2,48	62	70
DAM ECG 2000 DX22-TO	4380	-	RAV-SM2244AT8-E	0,426	3,72	63	91
DAM ECG 2000 DX24-TO	4380	-	RAV-SM2804AT8-E	0,426	3,72	63	91
DAM ECG 2500 DX22-TO	5110	-	RAV-SM2244AT8-E	0,497	4,34	64	97
DAM ECG 2500 DX27-TO	5110	-	RAV-SM2804AT8-E	0,497	4,34	64	97
DAM ECG 3000 DX27-TO	5840	-	RAV-SM2804AT8-E	0,568	5,96	65	111

(\*) 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 Gas inch	Pipes Liquid inch	Pipes Minimum Length m	Pipes Maximum Length m	Pipes Maximum Height m
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.



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- 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
DAM ECM 1500 VRF12-TO	2460	MMDXV140	0,213	1,86	57	64
DAM ECM 2000 VRF16-TO	3280	MMDXV140	0,284	2,48	58	81
DAM ECM 2000 VRF19-TO	3280	MMDXV280	0,284	2,48	58	81
DAM ECM 2500 VRF21-TO	4100	MMDXV280	0,355	3,10	59	89
DAM ECM 2500 VRF24-TO	4100	MMDXV280	0,355	3,10	59	89
DAM ECM 3000 VRF26-TO	4920	MMDXV280	0,426	3,72	60	103
DAM ECG 1000 VRF10-TO	2190	MMDXV140	0,213	1,86	61	48
DAM ECG 1500 VRF13-TO	2920	MMDXV140	0,284	2,48	62	70
DAM ECG 1500 VRF15-TO	2920	MMDXV140	0,284	2,48	62	70
DAM ECG 2000 VRF20-TO	4380	MMDXV280	0,426	3,72	63	91
DAM ECG 2000 VRF24-TO	4380	MMDXV280	0,426	3,72	63	91
DAM ECG 2500 VRF25-TO	5110	MMDXV280	0,497	4,34	64	97
DAM ECG 2500 VRF29-TO	5110	MMDXV280	0,497	4,34	64	97
DAM ECG 3000 VRF29-TO	5840	MMDXV280	0,568	5,96	65	111

**TOSHIBA VRF Outdoor Units**

Mini, Mini SMMSe, SMMSe (Heat Pump)

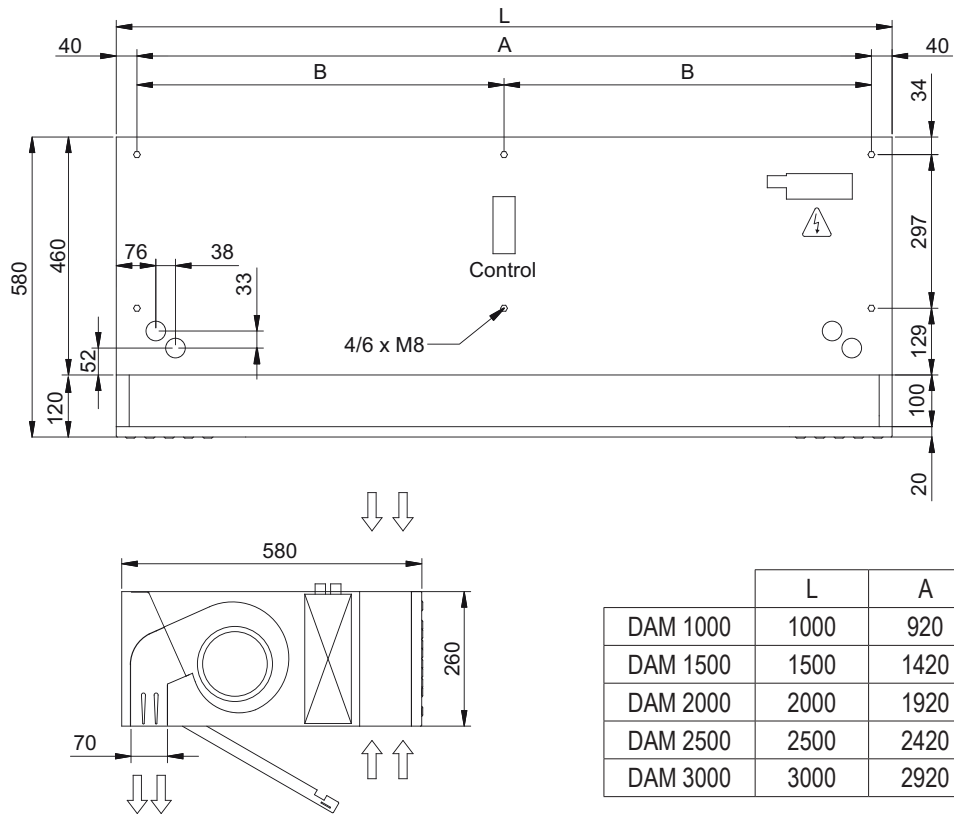
SHRMe (Heat Recovery)



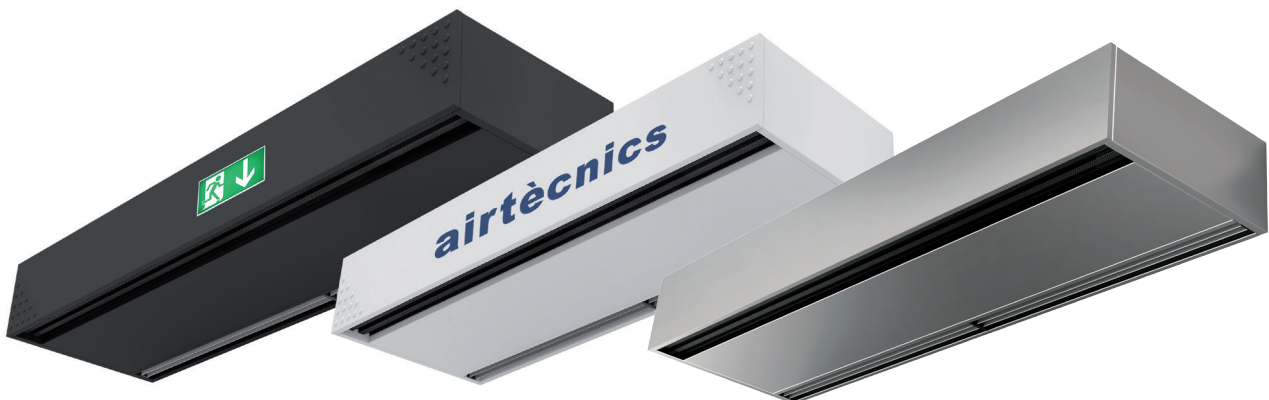
When adverse weather conditions, the outdoor unit capacity can decrease. It is recommendable to oversize the units.



**Dimensions**



**Finishes and details**



- Painted any RAL colour
- Available in stainless steel AISI 304 (brushed)
- Customizable with logos, signs, vinyls, etc.