1-1. Specifications

When using water as evaporation side fluid (SW6-10: OFF Water setting)

Model			ERCV-M900YA	
Capacity change mode			Capacity priority	Efficiency priority
Power source			3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity *1		kW	90.00	45.00
		kcal/h	77,400	38,700
		BTU/h	307,080	153,540
	Power input	kW	17.47	8.22
	EER		5.15	5.47
	IPLV *5		8.18	-
	Evaporation side water flow rate	m^3/h	15.5	7.7
	Condensation side water flow rate	m^3/h	17.9	8.9
Cooling capacity (EN14511) *2		kW	89.83	44.95
		kcal/h	77,254	38,657
		BTU/h	306,500	153,369
	Power input	kW	17.80	8.31
	EER		5.05	5.41
	SEER		7.66	-
	ηsc	%	303.4	-
	Evaporation side water flow rate	m^3/h	15.5	7.7
	Condensation side water flow rate	m^3/h	17.9	8.9
Heating capacity *3		kW	90.00	45.00
		kcal/h	77,400	38,700
		BTU/h	307,080	153,540
	Power input	kW	19.07	9.40
	COP		4.72	4.79
	Condensation side water flow rate	m^3/h	15.5	7.7
	Evaporation side water flow rate	m^3/h	21.5	10.7
Heating capacity (EN14511) *4		kW	90.12	45.03
		kcal/h	77,503	38,726
		BTU/h	307,489	153,642
	Power input	kW	19.53	9.52
	COP		4.61	4.73
	SCOP Low/Medium *11		7.10/4.86	-
	ηsh Low/Medium	%	281.0/191.0	-
	Condensation side water flow rate	m^3/h	15.5	7.7
	Evaporation side water flow rate	m^3/h	21.5	10.7
Current input	Cooling current 380-400-415V *1	A	29 - 27 - 26	13 - 13 - 12
	Heating current 380-400-415V *3	A	31 - 30 - 29	15 - 15 - 14
	Maximum current	A	60	
Water pressure drop *1	Evaporation side	kPa	10	3
	Condensation side	kPa	7	2
Temperature range (Cooling) *7	Evaporation side water outlet	°C	4~30	
		°F	39~86	
	Condensation side water inlet	°C	9~50	
		°F	48~122	
Temperature range (Heating) *8*9	Condensation side water outlet	°C	20~60 *6	20~55
		°F	68~140	68~131
	Evaporation side water inlet	°C	9~35	
		°F	48~95	
Circulating water volume range	Evaporation side	m^3/h	7.7~25.8	
	Condensation side	m^3/h	4.5~30.0 *10	
Sound pressure level (measured in anechoic room) at 1m *1		dB (A)	53	48
Sound power level (measured in anechoic room) *1		dB (A)	72	66
Diameter of water pipe (Evaporation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint	
	Outlet	mm (in)	65A (2 1/2B) housing type joint	
Diameter of water pipe (Condensation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint	
	Outlet	mm (in)	65A (2 1/2B) housing type joint	
External finish			Polyester powder coating steel plate	
External dimension H × W × D		mm	918 × 780 × 1350	
Net weight		kg (lbs)	430 (948)	
Design pressure	R32	MPa	4.15	
	Water	MPa	1.0	
Heat exchanger	Evaporation side		Stainless steel plate and copper brazing	
	Condensation side		Stainless steel plate and copper brazing	
Compressor	Type		Inverter scroll hermetic compressor	
	Maker		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Quantity		2	
	Motor output	kW	8.3 × 2	
	Lubricant		MEL46EH	
Protection	High pressure protection		High pressure Switch at 4.15MPa (601psi)	
	Inverter circuit		Over-heat protection, Over current protection	
	Compressor		Over-heat protection	
Refrigerant	Type × charge		R32 × 5.2(kg) × 2	
	Control		LEV	

Notes:

*1 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F).
Pump input is not included in cooling capacity and power input.
*2 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F).
Pump input is included in cooling capacity and power input based on EN14511.
*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F).
Pump input is not included in cooling capacity and power input.
*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C(50°F) outlet temp 7°C (44.6°F).
Pump input is included in cooling capacity and power input based on EN14511.
*5 IPLV is calculated in accordance with AHRI 551-591.
*6 When using in condensation side water outlet is more than 55°C (131°F), please adjust the condensation inlet water temperature to 50°C (122°F) or less.
*7 Please refer to 2-1-6 Operation temperature range.
*8 Please refer to 2-1-6 Operation temperature range.
*9 Please refer to 2-1-6 Operation temperature range.
*Please don't use the steel material for the water piping.
*Please always make water circulate, or pull the circulation water out completely when not in use.
*Please do not use groundwater or well water in direct.
*The water circuit must be closed circuit.
*Due to continuous improvement, the above specifications may be subject to change without notice.
*This model doesn't equip with a pump
*10 Set the minimum water flow rate on the condensation side water to 8.0m^3/h when the evaporation side water inlet temperature during operation is 15°C (59°F) or higher.
*11 This value is not certified by Eurovent.

1. Product Specifications

When using brine as evaporation side fluid (SW6-10: ON Brine setting)

Model			ERCV-M900YA
Power source			3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity *1*5		kW	90.00
		kcal/h	77,400
		BTU/h	307,080
	Power input	kW	17.47
	EER		5.15
	Evaporation side brine flow rate	m^3/h	17.2
	Condensation side water flow rate	m^3/h	17.9
Cooling capacity (EN14511) *2*5		kW	89.73
		kcal/h	77,168
		BTU/h	306,159
	Power input	kW	17.91
	EER		5.01
	SEER		7.65
	ηsc	%	303.0
	Evaporation side brine flow rate	m^3/h	17.2
	Condensation side water flow rate	m^3/h	17.9
Heating capacity *3*5		kW	80.00
		kcal/h	68,800
		BTU/h	272,960
	Power input	kW	22.13
	COP		3.62
	Condensation side water flow rate	m^3/h	13.8
	Evaporation side brine flow rate	m^3/h	19.1
Heating capacity (EN14511) *4*5		kW	80.10
		kcal/h	68,886
		BTU/h	273,301
	Power input	kW	22.59
	COP		3.55
	SCOP Low/Medium *10		4.87/3.52
	ηsh Low/Medium	%	192.0/138.0
	Condensation side water flow rate	m^3/h	13.8
	Evaporation side brine flow rate	m^3/h	19.1
Current input *5	Cooling current 380-400-415V *1	A	29 - 27 - 26
	Heating current 380-400-415V *3	A	36 - 34 - 33
	Maximum current	A	60
Brine/Water pressure drop *1*5	Evaporation side brine	kPa	17
	Condensation side water	kPa	7
Temperature range (Cooling) *5*7	Evaporation side brine outlet	°C	-10~30
		°F	14~86
	Condensation side water inlet	°C	9~50
		°F	48~122
Temperature range (Heating) *5*8	Condensation side water outlet	°C	20~60 *6
		°F	68~140
	Evaporation side brine inlet	°C	-7~35
		°F	19~95
Circulating brine/water volume range	Evaporation side brine	m^3/h	7.7~28.7
	Condensation side water	m^3/h	4.5~30.0 *9
Sound pressure level (measured in anechoic room) at 1m *1		dB (A)	53
Sound power level (measured in anechoic room) *1		dB (A)	72
Diameter of water pipe (Evaporation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint
Diameter of water pipe (Condensation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint
External finish			Polyester powder coating steel plate
External dimension H × W × D		mm	918 × 780 × 1350
Net weight		kg (lbs)	430 (948)
Design pressure	R32	MPa	4.15
	Water	MPa	1.0
Heat exchanger	Evaporation side		Stainless steel plate and copper brazing
	Condensation side		Stainless steel plate and copper brazing
Compressor	Type		Inverter scroll hermetic compressor
	Maker		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Quantity		2
	Motor output	kW	8.3 × 2
	Lubricant		MEL46EH
Protection	High pressure protection		High pressure Switch at 4.15MPa (601psi)
	Inverter circuit		Over-heat protection, Over current protection
	Compressor		Over-heat protection
Refrigerant	Type × charge		R32 × 5.2(kg) × 2
	Control		LEV

Notes:

*1 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.
*2 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.
*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is not included in cooling capacity and power input.
*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is included in cooling capacity and power input based on EN14511.
*5 When using brine (ethylene glycol 35wt%) as evaporation side fluid.
*6 When using in condensation side water outlet is more than 55°C (131°F), please adjust the condensation inlet water temperature to 50°C (122°F) or less.
*7 Please refer to 2-1-6 Operation temperature range.
*8 Please refer to 2-1-6 Operation temperature range.
*Please don't use the steel material for the water piping.
*Please always make water circulate, or pull the circulation water out completely when not in use.
*Please do not use groundwater or well water in direct.
*The water circuit must be closed circuit.
*Due to continuous improvement, the above specifications may be subject to change without notice.
*This model doesn't equip with a pump.
*9 Set the minimum water flow rate on the condensation side water to 8.0m^3/h when the evaporation side brine inlet temperature during operation is 15°C (59°F) or higher.
*10 This value is not certified by Eurovent.

1. Product Specifications

When using water as evaporation side fluid (SW6-10: OFF Water setting)

Model			ERCV-M900YA × 2	
Capacity change mode			Capacity priority	Efficiency priority
Power source			3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity *1		kW	180.00	90.00
		kcal/h	154,800	77,400
		BTU/h	614,160	307,080
	Power input	kW	33.07	15.24
	EER		5.44	5.91
	IPLV *5		8.61	-
	Evaporation side water flow rate	m^3/h	31.0	15.5
	Condensation side water flow rate	m^3/h	35.9	17.5
Cooling capacity (EN14511) *2		kW	178.71	89.66
		kcal/h	153,691	77,108
		BTU/h	609,759	305,920
	Power input	kW	35.54	15.87
	EER		5.03	5.65
	Evaporation side water flow rate	m^3/h	31.0	15.5
	Condensation side water flow rate	m^3/h	35.9	17.5
Heating capacity *3		kW	180.00	90.00
		kcal/h	154,800	77,400
		BTU/h	614,160	307,080
	Power input	kW	37.22	18.39
	COP		4.84	4.89
	Condensation side water flow rate	m^3/h	31.0	15.5
	Evaporation side water flow rate	m^3/h	42.7	21.7
Heating capacity (EN14511) *4		kW	180.87	90.23
		kcal/h	155,548	77,598
		BTU/h	617,128	307,865
	Power input	kW	40.90	19.26
	COP		4.42	4.68
	Condensation side water flow rate	m^3/h	31.0	15.5
	Evaporation side water flow rate	m^3/h	42.7	21.7
Current input	Cooling current 380-400-415V *1	A	54 - 51 - 49	25 - 24 - 23
	Heating current 380-400-415V *3	A	61 - 58 - 56	30 - 29 - 28
	Maximum current	A	120	
Water pressure drop *1	Evaporation side	kPa	85	25
	Condensation side	kPa	66	18
Temperature range (Cooling) *6	Evaporation side water outlet	°C	4~30	
		°F	39~86	
	Condensation side water inlet	°C	9~50	
		°F	48~122	
Temperature range (Heating) *7	Condensation side water outlet	°C	20~55	
		°F	68~131	
	Evaporation side water inlet	°C	9~35	
		°F	48~95	
Circulating water volume range	Evaporation side	m^3/h	15.4~50.0	
	Condensation side	m^3/h	9.0~50.0 *8	
Sound pressure level (measured in anechoic room) at 1m *1		dB (A)	56	51
Sound power level (measured in anechoic room) *1		dB (A)	75	69
Diameter of water pipe (Evaporation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint	
	Outlet	mm (in)	65A (2 1/2B) housing type joint	
Diameter of water pipe (Condensation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint	
	Outlet	mm (in)	65A (2 1/2B) housing type joint	
External finish			Polyester powder coating steel plate	
External dimension H × W × D		mm	1836 × 780 × 1350	
Net weight		kg (lbs)	863 (1903)	
Design pressure	R32	MPa	4.15	
	Water	MPa	1.0	
Heat exchanger	Evaporation side		Stainless steel plate and copper brazing	
	Condensation side		Stainless steel plate and copper brazing	
Compressor	Type		Inverter scroll hermetic compressor	
	Maker		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Quantity		4	
	Motor output	kW	8.3 × 4	
	Lubricant		MEL46EH	
Protection	High pressure protection		High pressure Switch at 4.15MPa (601psi)	
	Inverter circuit		Over-heat protection, Over current protection	
	Compressor		Over-heat protection	
Refrigerant	Type × charge		R32 × 5.2(kg) × 4	
	Control		LEV	

Notes:

*1 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) codensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F).
Pump input is not included in cooling capacity and power input.
*2 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F).
Pump input is included in cooling capacity and power input based on EN14511.
*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F).
Pump input is not included in cooling capacity and power input.
*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F).
Pump input is included in cooling capacity and power input based on EN14511.
*5 IPLV is calculated in accordance with AHRI 551-591.
*6 Please refer to 2-1-6 Operation temperature range.
*7 Please refer to 2-1-6 Operation temperature range.
*Please don't use the steel material for the water piping.
*Please always make water circulate, or pull the circulation water out completely when not in use.
*Please do not use groundwater or well water in direct.
*The water circuit must be closed circuit.
*Due to continuous improvement, the above specifications may be subject to change without notice.
*This model doesn't equip with a pump
*8 Set the minimum water flow rate on the condensation side water to 16.0m^3/h when the evaporation side water inlet temperature during operation is 15°C (59°F) or higher.

1. Product Specifications

When using brine as evaporation side fluid (SW6-10: ON Brine setting)

Model			ERCV-M900YA × 2
Power source			3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity *1*5		kW	180.00
		kcal/h	154,800
		BTU/h	614,160
	Power input	kW	33.07
	EER		5.44
	Evaporation side brine flow rate	m^3/h	34.5
	Condensation side water flow rate	m^3/h	35.9
Cooling capacity (EN14511) *2*5		kW	177.72
		kcal/h	152,839
		BTU/h	606,381
	Power input	kW	36.53
	EER		4.87
	Evaporation side brine flow rate	m^3/h	34.5
	Condensation side water flow rate	m^3/h	35.9
Heating capacity *3*5		kW	160.00
		kcal/h	137,600
		BTU/h	545,920
	Power input	kW	43.39
	COP		3.69
	Condensation side water flow rate	m^3/h	27.5
	Evaporation side brine flow rate	m^3/h	38.4
Heating capacity (EN14511) *4*5		kW	160.69
		kcal/h	138,193
		BTU/h	548,274
	Power input	kW	47.29
	COP		3.40
	Condensation side water flow rate	m^3/h	27.5
	Evaporation side brine flow rate	m^3/h	38.4
Current input *5	Cooling current 380-400-415V *1	A	54 - 51 - 49
	Heating current 380-400-415V *3	A	71 - 67 - 65
	Maximum current	A	120
Brine/Water pressure drop *1*5	Evaporation side brine	kPa	149
	Condensation side water	kPa	66
Temperature range (Cooling) *5*6	Evaporation side brine outlet	°C	-10~30
		°F	14~86
	Condensation side water inlet	°C	9~50
		°F	48~122
Temperature range (Heating) *5*7	Condensation side water outlet	°C	20~55
		°F	68~131
	Evaporation side brine inlet	°C	-7~35
		°F	19~95
Circulating brine/water volume range	Evaporation side brine	m^3/h	15.4~50.0
	Condensation side water	m^3/h	9.0~50.0 *8
Sound pressure level (measured in anechoic room) at 1m *1		dB (A)	56
Sound power level (measured in anechoic room) *1		dB (A)	75
Diameter of water pipe (Evaporation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint
Diameter of water pipe (Condensation side)	Inlet	mm (in)	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint
External finish			Polyester powder coating steel plate
External dimension H × W × D		mm	1836 × 780 × 1350
Net weight		kg (lbs)	863 (1903)
Design pressure	R32	MPa	4.15
	Water	MPa	1.0
Heat exchanger	Evaporation side		Stainless steel plate and copper brazing
	Condensation side		Stainless steel plate and copper brazing
Compressor	Type		Inverter scroll hermetic compressor
	Maker		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Quantity		4
	Motor output	kW	8.3 × 4
	Lubricant		MEL46EH
Protection	High pressure protection		High pressure Switch at 4.15MPa (601psi)
	Inverter circuit		Over-heat protection, Over current protection
	Compressor		Over-heat protection
Refrigerant	Type × charge		R32 × 5.2(kg) × 4
	Control		LEV

Notes:

*1 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.
*2 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.
*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is not included in cooling capacity and power input.
*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is included in cooling capacity and power input based on EN14511.
*5 When using brine (ethylene glycol 35wt%) as evaporation side fluid.
*6 Please refer to 2-1-6 Operation temperature range.
*7 Please refer to 2-1-6 Operation temperature range.
*Please don't use the steel material for the water piping.
*Please always make water circulate, or pull the circulation water out completely when not in use.
*Please do not use groundwater or well water in direct.
*The water circuit must be closed circuit.
*Due to continuous improvement, the above specifications may be subject to change without notice.
*This model doesn't equip with a pump.
*8 Set the minimum water flow rate on the condensation side water to 16.0m^3/h when the evaporation side brine inlet temperature during operation is 15°C (59°F) or higher.