

# 1 Specifications

## Cylinder unit / Hydrobox

Cylinder / Hydrobox

Model name			ERSD-VM2C	ERSC-MEC	ERSC-VM2C	EHSD-YM9C	EHSD-MC	EHPX-VM2C	EHPX-YM9C	EHPX-VM6C	
Dimensions	Without package	Height	mm	800	800	800	800	800	800	800	
		Width	mm	530	530	530	530	530	530	530	
		Depth	mm	360	360	360	360	360	360	360	
	With package	Height	mm	990	990	990	990	990	990	990	
		Width	mm	600	600	600	600	600	600	600	
		Depth	mm	560	560	560	560	560	560	560	
Casing	Munsell	-	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	6.2PB 9/0.9	
	RAL code	-	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05	260 90 05	
	Material	-	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	Pre-coated metal	
Product weight (empty)			kg	45	43	49	45	43	37	38	
Product weight (full)			kg	51	50	56	51	49	42	43	
Gross weight			kg	58	56	62	58	56	50	51	
Water volume of heating circuit in the unit *1			L	5.5	6.4	6.4	5.2	5.2	4.5	4.5	
Type of Installation			-	Wall mounted							
Electrical data	Control board *2 (Including 4 pumps)	Power supply	Ph	~N							
			V	230	230	230	230	230	230	230	
			Hz	50	50	50	50	50	50	50	
			Input	kW	0.30	0.30	0.30	0.30	0.30	0.30	
		Current	A	1.95	1.95	1.95	1.95	1.95	1.95	1.95	
			Breaker	A	10	10	10	10	10	10	
	Booster heater	Power supply	Ph	~N	-	~N	3~	-	~N	3~	
			V	230	-	230	400	-	230	400	
			Hz	50	-	50	50	-	50	50	
			Capacity	kW	2	-	2	3+6	-	2	
		Heater step	-	1	-	1	3	-	1	3	
			Current	A	9	-	9	13	-	9	
	Immersion heater	Power supply	Ph	-	-	-	-	-	-	-	
			V	-	-	-	-	-	-	-	
			Hz	-	-	-	-	-	-	-	
			Capacity	kW	-	-	-	-	-	-	
		Current	A	-	-	-	-	-	-	-	
			Breaker	A	-	-	-	-	-	-	
Water circulation pump (Primary circuit)	Type			DC motor							
	Performance curve: please refer to section 4.3	(10/20/27.7 L/min)*3	Input Speed 1	W	19/26/32	19/26/32	19/26/32	18/25/29	18/25/29	18/25/29	
			Speed 2	W	26/37/45	26/37/45	26/37/45	25/34/41	25/34/41	25/34/41	
			Speed 3	W	34/49/60	34/49/60	34/49/60	34/46/56	34/46/56	34/46/56	
			Speed 4	W	45/65/70	45/65/70	45/65/70	45/60/63	45/60/63	45/60/63	
			Speed 5	W	57/70/70	57/70/70	57/70/70	57/63/63	57/63/63	57/63/63	
	Head difference	(10/20/27.7 L/min)*3	Current Speed 1	A	0.2/0.2/0.3	0.2/0.2/0.3	0.2/0.2/0.3	0.1/0.2/0.2	0.1/0.2/0.2	0.1/0.2/0.2	
			Speed 2	A	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.3	0.2/0.3/0.3	0.2/0.3/0.3	
			Speed 3	A	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.3/0.4	0.3/0.3/0.4	0.3/0.3/0.4	
			Speed 4	A	0.4/0.5/0.6	0.4/0.5/0.6	0.4/0.5/0.6	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.4/0.5	
			Speed 5	A	0.5/0.6/0.6	0.5/0.6/0.6	0.5/0.6/0.6	0.4/0.5/0.5	0.4/0.5/0.5	0.4/0.5/0.5	
Water circulation pump (DHW circuit)	Input	Speed I	Speed I	W	-	-	-	-	-	-	
			Speed II (Default setting)	W	-	-	-	-	-	-	
			Speed III	W	-	-	-	-	-	-	
		Current	Speed I	A	-	-	-	-	-	-	
			Speed II (Default setting)	A	-	-	-	-	-	-	
	Flow rate	Speed I	Speed I	L/min	-	-	-	-	-	-	
			Speed II (Default setting)	L/min	-	-	-	-	-	-	
			Speed III	L/min	-	-	-	-	-	-	
		Flow rate	Max.*4	L/min	27.7	27.7	27.7	27.7	27.7	27.7	
			Min.*5	L/min	5.0	5.0	5.0	5.0	5.0	5.0	
Heat exchanger	Refrigerant - Primary circuit water			-	Plate	Plate	Plate	Plate	Plate	-	
	Primary circuit water - Domestic hot water			-	-	-	-	-	-	-	
	Volume			L	-	-	-	-	-	-	
	Material			-	-	-	-	-	-	-	
	Time to raise DHW tank temp 15 - 65°C *6			min	-	-	-	-	-	-	
	Time to reheat 70% of DHW tank to 65°C *6			min	-	-	-	-	-	-	
Expansion vessel (Primary circuit)	Heat loss *7			kWh/24h	-	-	-	-	-	-	
	Volume			L	10	-	10	10	10	10	
	Charge pressure			MPa	0.1	-	0.1	0.1	0.1	0.1	
Safety device	Primary circuit	Control thermistor	°C	1~80	1~80	1~80	1~80	1~80	1~80	1~80	
		Pressure relief valve	MPa	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
		Flow sensor (Min. flow)	L/min	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
		BH manual reset thermostat	°C	90	-	90	90	-	90	90	
	DHW tank	BH thermal Cut Off	°C	121	-	121	121	-	121	121	
		Control thermistor	°C	-	-	-	-	-	-	-	
		IH manual reset thermostat	°C	-	-	-	-	-	-	-	
		Temperature & pressure relief valve	°C	-	-	-	-	-	-	-	
Connections	Water	Primary circuit	mm	G1-A	G1-A	G1-A	ø28	ø28	ø28	ø28	
		DHW circuit	mm	-	-	-	-	-	-	-	
		Gas	mm	ø12.7	ø15.88	ø15.88	ø12.7	ø12.7	-	-	
	Refrigerant	Liquid	mm	ø6.35	ø9.52	ø9.52	ø6.35	ø6.35	-	-	
		-	mm	R410A							
Refrigerant *8			-	-	-	-	-	-	-	-	
Guaranteed operating range *9	Ambient			°C	0~35	0~35	0~35	0~35	0~35	0~35	
	Outdoor temperature			%RH	≤80	≤80	≤80	≤80	≤80	≤80	
	Cooling			°C	-	-	-	-	-	-	
See outdoor unit spec table			-	-	-	-	-	-	-	-	
Operating range	Heating			Room temperature	°C	10~30	10~30	10~30	10~30	10~30	
	Flow temperature			°C	25~60	25~60	25~60	25~60	25~60	25~60	
	Cooling			Room temperature	°C	-	-	-	-	-	
	Flow temperature			°C	5~25	5~25	5~25	-	-	-	
	DHW			°C	-	-	-	-	-	-	
Legionella prevention			°C	-	-	-	-	-	-	-	
Sound pressure level			dB(A)	28	28	28	28	28	28	28	
Sound power level			dB(A)	40	40	40	40	40	40	40	
*1 Volume of sanitary water circuit, primary DHW circuit (from 3-way valve to confluent point with Heating circuit), piping to Expansion vessel, and Expansion vessel is not included in this value.											
*2 When powered from independent source.											
*3 Allowable flow rate range differs depending on connected outdoor unit. Please refer to section 4.2.											
*4 If the water flow rate exceeds maximum, the flow speed will be greater than 1.5 m/s, which could corrode the pipes.											
*5 If the water flow is less than the minimum, the flow error will be activated.											
*6 Tested under BS206 conditions(Primary flow in cylinder coil 80-82 deg C). Conducted by WRc.											
*7 Calculated from 24h temperature decay at top of the tank from 65degC (ambient temperature approx. 20degC). Tested by WRc.											
*8 Refrigerant of outdoor unit connected to cylinder unit.											
*9 The environment must be frost-free.											
*10 Cooling mode is not available in low outdoor temperature. If you use our system in cooling mode at the low ambient temperature (10°C or below), there are some risks of plate heat exchanger breaking by frozen water.											