Model name			EHSD-MEE	EHSD-VM2E	EHSD-VM6E	EHSD-YM9E	EHSD-TM9E	ERSD-VM2E	ERSD-VM6E	ERSD-YM9E
Overall unit dimensions (Height × Width × Depth)			800 × 530 × 360 mm							
Water volume of heating circuit in the unit *1			1.7 L	5.2 L						
Unvented expansion vessel (Primary heating)	Nominal volume		-	10 L						
	Charge pressure		-	0.1 MPa (1 bar)						
Safety device	Primary circuit	Control thermistor	80°C							
		Pressure relief valve	0.3 MPa (3 bar)							
		Flow sensor	Min. flow 5.0 L/min (See table 4.3.1 about water flow rate range)							
	Booster heater	BH manual reset thermostat	-	90°C						
		BH thermal cut-out	-	121°C						
Connections	Water	Primary circuit	G1							
	Refrigerant	Liquid	ø6.35 mm							
		Gas	ø12.7 mm							
Operating range	Heating	Room temperature	10 - 30°C							
		Flow temperature *4, *5	20 - 60°C							
	Cooling	Room temperature	-							
		Flow temperature	-					5 - 25°C		
Guaranteed operating range *2	Ambient		0 - 35°C (≤ 80 %RH)							
	Outdoor temperature	Heating	See outdoor unit spec table.							
		Cooling	-					*3		
Electrical data	Control board (Including 4 pumps)	Power supply (Phase, voltage, frequency)	~/N, 230 V, 50 Hz							
		Input	0.30 kW							
		Current	1.95 A							
		Breaker	10 A							
	Booster heater	Power supply (Phase, voltage, frequency)	-	~/N, 230 V, 50 Hz		3~, 400 V, 50 Hz	3~, 230 V, 50 Hz	~/N, 230 V, 50 Hz		3~, 400 V, 50 Hz
		Capacity	-	2 kW	2 + 4 kW	3 + 6 kW		2 kW	2 + 4 kW	3 + 6 kW
		Current	-	9 A	26 A	13 A	23 A	9 A	26 A	13 A
		Breaker	-	16 A	32 A	16 A	32 A	16 A	32 A	16 A
Sound power level (PWL)			41 dB(A)							

<Table 3.1>

*1 Piping to expansion vessel is not included in this value.
*2 The environment must be frost-free.
*3 See outdoor unit spec table. (min. 10°C)
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 damages by frozen water.
*4 Maximum temperature of E*****F model depending on the connected outdoor unit. PUZ: 70°C, Other: 60°C.
*5 Maximum temperature of E*****X model depending on the connected outdoor unit. WZ: 75°C, Other: 60°C.

Model name			ERSC-MEE	ERSC-VM2E	ERSC-VM6E	ERSC-YM9E	ERSF-MEE	ERSF-VM2E	ERSF-VM6E	ERSF-YM9E	ERSF-TM9E
Overall unit dimensions (Height × Width × Depth)			800 × 530 × 360 mm								
Water volume of heating circuit in the unit *1			2.6 L	6.1 L			5.3 L				
Unvented expansion vessel (Primary heating)	Nominal volume		-	10 L			-	10 L			
	Charge pressure		-	0.1 MPa (1 bar)			-	0.1 MPa (1 bar)			
Safety device	Primary circuit	Control thermistor	80°C								
		Pressure relief valve	0.3 MPa (3 bar)								
		Flow sensor	Min. flow 5.0 L/min (See table 4.3.1 about water flow rate range)								
	Booster heater	BH manual reset thermostat	-	90°C			-	90°C			
		BH thermal cut-out	-	121°C			-	121°C			
Connections	Water	Primary circuit	G1								
	Refrigerant	Liquid	ø9.52 mm				ø6.35 mm				
		Gas	ø15.88 mm				ø12.7 mm or ø15.88 mm *6				
Operating range	Heating	Room temperature	10 - 30°C								
		Flow temperature *4, *5	20 - 60°C				20 - 70°C				
	Cooling	Room temperature	-								
		Flow temperature	5 - 25°C								
Guaranteed operating range *2	Ambient		0 - 35°C (≤ 80 %RH)								
	Outdoor temperature	Heating	See outdoor unit spec table.								
		Cooling	*3								
Electrical data	Control board (Including 4 pumps)	Power supply (Phase, voltage, frequency)	~/N, 230 V, 50 Hz								
		Input	0.30 kW								
		Current	1.95 A								
		Breaker	10 A								
	Booster heater	Power supply (Phase, voltage, frequency)	-	~/N, 230 V, 50 Hz		3~, 400 V, 50 Hz	-	~/N, 230 V, 50 Hz		3~, 400 V, 50 Hz	3~, 230 V, 50 Hz
		Capacity	-	2 kW	2 + 4 kW	3 + 6 kW	-	2 kW	2 + 4 kW	3 + 6 kW	
		Current	-	9 A	26 A	13 A	-	9 A	26 A	13 A	23 A
		Breaker	-	16 A	32 A	16 A	-	16 A	32 A	16 A	32 A
Sound power level (PWL)			40 dB(A)				41 dB(A)				

<Table 3.2>

*1 Piping to expansion vessel is not included in this value.
*2 The environment must be frost-free.
*3 See outdoor unit spec table. (min. 10°C)
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 damages by frozen water.
*4 Maximum temperature of E*****F model depending on the connected outdoor unit. PUZ: 70°C, Other: 60°C.
*5 Maximum temperature of E*****X model depending on the connected outdoor unit. WZ: 75°C, Other: 60°C.
*6 For more details, refer to the installation manual of PUZ-S(H)WM.

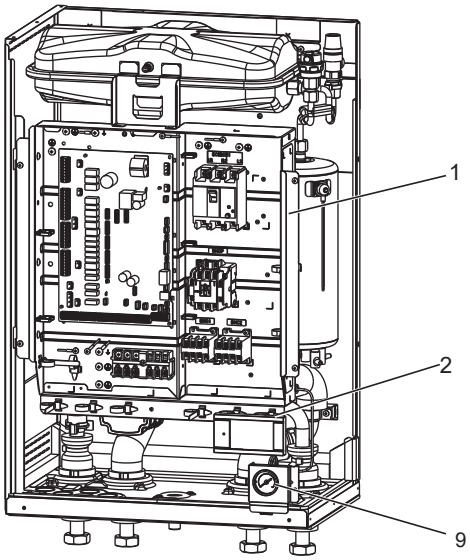
Model name			ERSE-MEE	ERSE-YM9EE	ERPX-ME	ERPX-VM2E	ERPX-VM6E	ERPX-YM9E
Overall unit dimensions (Height × Width × Depth)			950 × 600 × 360 mm		800 × 530 × 360 mm			
Water volume of heating circuit in the unit *1			10 L		1.0 L	4.5 L		
Unvented expansion vessel (Primary heating)	Nominal volume		-		10 L			
	Charge pressure		-		0.1 MPa (1 bar)			
Safety device	Primary circuit	Control thermistor	80°C					
		Pressure relief valve	0.3 MPa (3 bar)					
		Flow sensor	Min. flow 5.0 L/min (See table 4.3.1 about water flow rate range)					
	Booster heater	BH manual reset thermostat	-	90°C	-	90°C		
		BH thermal cut-out	-	121°C	-	121°C		
Connections	Water	Primary circuit	G1-1/2B		G1			
	Refrigerant	Liquid	ø9.52 mm		-			
		Gas	ø25.4 (Brazing) mm		-			
Operating range	Heating	Room temperature	10 - 30°C					
		Flow temperature *4, *5	20 - 60°C		20 - 75°C			
	Cooling	Room temperature	-					
		Flow temperature	5 - 25°C					
Guaranteed operating range *2	Ambient		0 - 35°C (≤ 80 %RH)					
	Outdoor temperature	Heating	See outdoor unit spec table.					
		Cooling	*3					
Electrical data	Control board (Including 4 pumps)	Power supply (Phase, voltage, frequency)	~/N, 230 V, 50 Hz					
		Input	0.34 kW		0.30 kW			
		Current	2.56 A		1.95 A			
		Breaker	10 A					
	Booster heater	Power supply (Phase, voltage, frequency)	-	3~, 400 V, 50 Hz	-	~/N, 230 V, 50 Hz		3~, 400 V, 50 Hz
		Capacity	-	3 + 6 kW	-	2 kW	2 + 4 kW	3 + 6 kW
		Current	-	13 A	-	9 A	26 A	13 A
		Breaker	-	16 A	-	16 A	32 A	16 A
Sound power level (PWL)			45 dB(A)		40 dB(A)			

<Table 3.3>

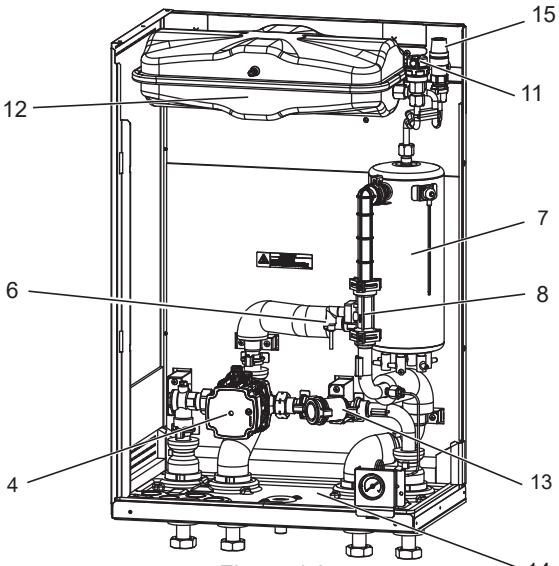
*1 Piping to expansion vessel is not included in this value.
*2 The environment must be frost-free.
*3 See outdoor unit spec table. (min. 10°C)
Cooling mode is not available in low outdoor temperature.
If you use our system in cooling mode at the low ambient temperature (10°C or below), there are some risks of plate heat exchanger damages by frozen water.
*4 Maximum temperature of E*****F model depending on the connected outdoor unit. PUZ: 70°C, Other: 60°C.
*5 Maximum temperature of E*****X model depending on the connected outdoor unit. WZ: 75°C, Other: 60°C.

4 PART NAMES AND FUNCTIONS

<ERPX-*M*E> (Packaged model system)

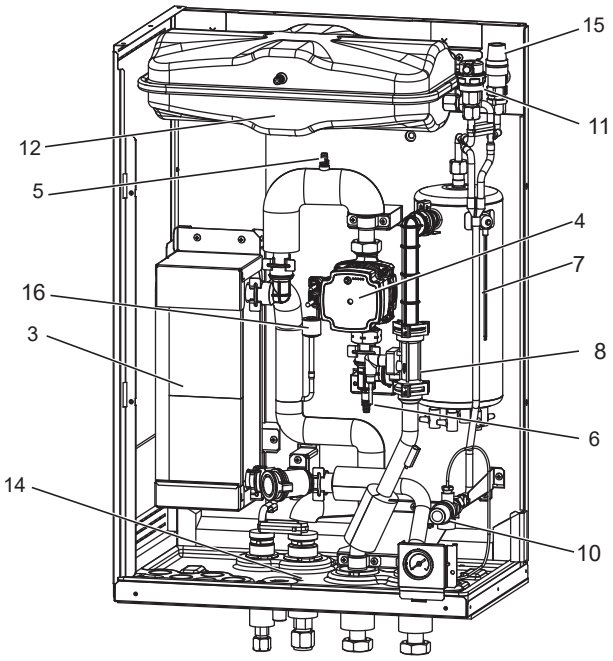


<Figure 4.1>



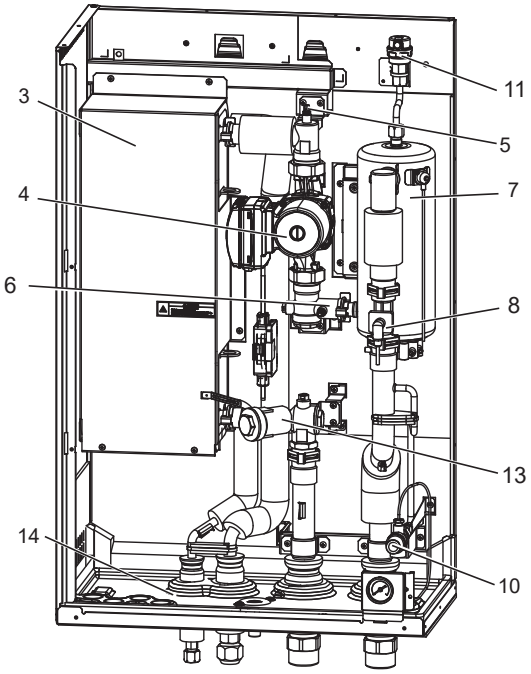
<Figure 4.2>

<E*S*-*M*E> (Split model system)



<Figure 4.3>

<ERSE-*M*EE> (Split model system)



<Figure 4.4>

No.	Part name	ERPX-ME	ERPX-*M*E	EHSD-MEE	EHSD-*M*E	ERS*-MEE	ERS*-*M*(E)E
1	Control and electrical box	✓	✓	✓	✓	✓	✓
2	Main remote controller	✓	✓	✓	✓	✓	✓
3	Plate heat exchanger (Refrigerant - Water)	–	–	✓	✓	✓	✓
4	Water circulation pump 1	✓	✓	✓	✓	✓	✓
5	Air vent (manual)	–	–	✓	✓	✓	✓
6	Drain cock (Primary circuit)	–	✓	✓	✓	✓	✓
7	Booster heater 1, 2	–	✓	–	✓	–	✓
8	Flow sensor	✓	✓	✓	✓	✓	✓
9	Manometer	✓	✓	✓	✓	✓	✓
10	Pressure relief valve (3 bar)	–	–	✓	✓	✓	✓
11	Automatic air vent	✓	✓	✓	✓	✓	✓
12	Expansion vessel	✓	✓	–	✓	–	✓*1
13	Magnetic filter	✓	✓	✓	✓	✓	✓
14	Drain pan	✓	✓	–	–	✓	✓
15	Pressure relief valve (5 bar)	✓	✓	–	✓	–	✓*1
16	Pressure sensor	–	–	✓	✓	✓*2	✓*2

<Table 4.1>

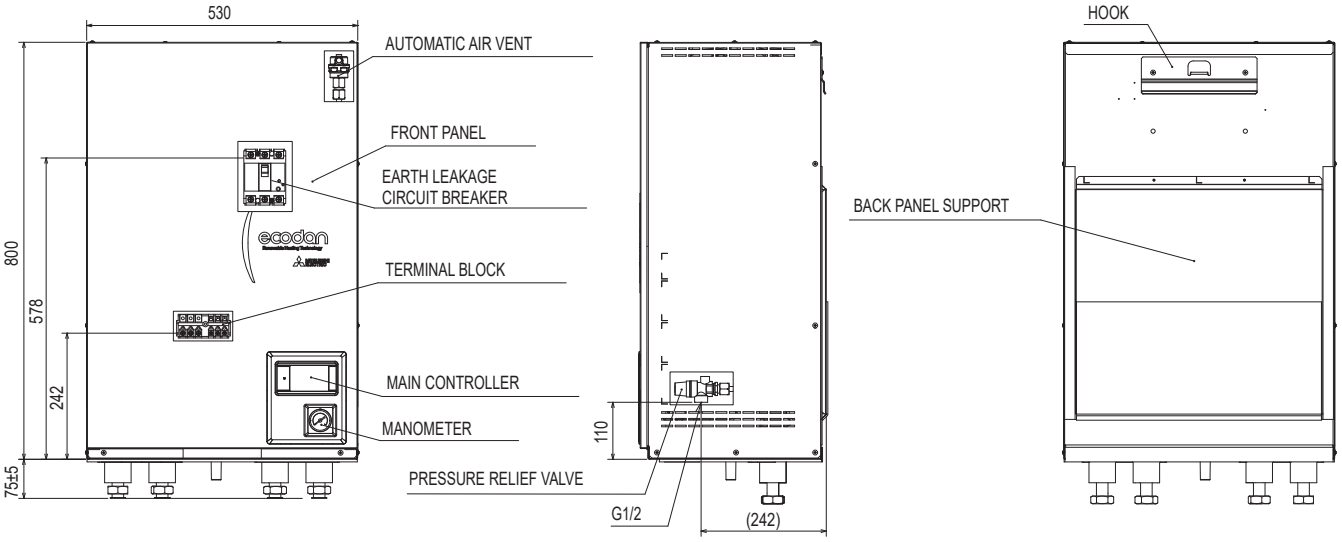
Note:
For installation of all E*-*M*EE models, make sure to install a suitably sized primary-side expansion vessel. (See figure 8.1 -8.2 for further guidance)**

*1 ERSE-YM9EE is not included.
2 ERSC-, ERSE-* is not included.

5 OUTLINES AND DIMENSIONS

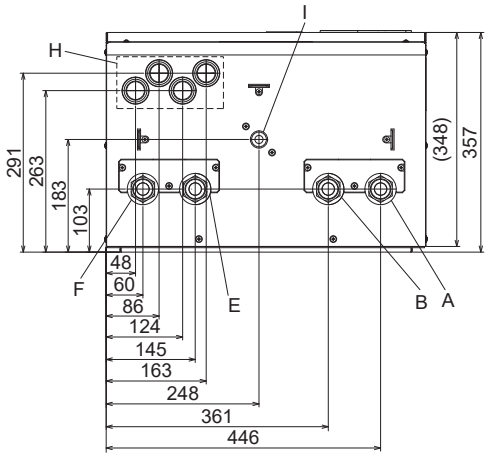
5-1. Technical Drawings

<Unit: mm>



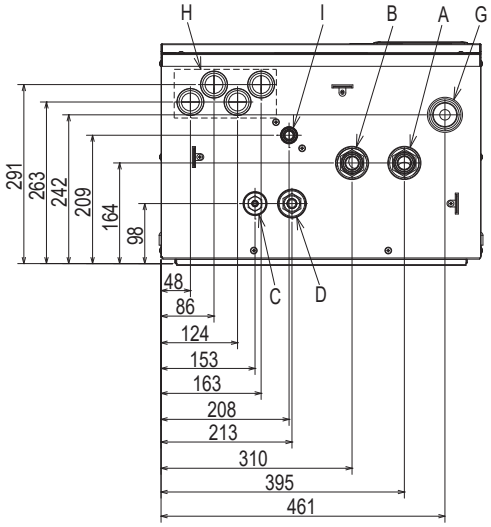
<Front> <Side> <Rear>

<ERPX> (Packaged model system for heating and cooling)



<View from below>

<ERS*> (Split model system for heating and cooling) (Except for ERSE series)



<View from below>

Letter	Pipe description	Connection size/type	
A	Space heating/Indirect DHW tank (primary) RETURN connection	G1 (EHSD/ERSD/ERSC/ERSF/ERPX-*)	
B	Space heating/Indirect DHW tank (primary) FLOW connection	G1 (EHSD/ERSD/ERSC/ERSF/ERPX-*)	
C	Refrigerant (Liquid)	6.35 mm/Flare (E*SD/F-*) 9.52 mm/Flare (E*SC-*)	⚠ **Warning** • Refrigerant pipes connection shall be accessible for maintenance purposes. • In case of reconnecting the refrigerant pipes after detaching, make the flared part of pipe re-fabricated.
D	Refrigerant (Gas)	12.7 mm/Flare (E*SD-*) 12.7 or 15.88mm/Flare (ERSF-*) 15.88 mm/Flare (E*SC-*)	
E	Flow connection FROM heat pump	G1 (ERPX-*)	
F	Return connection TO heat pump	G1 (ERPX-*)	
G	Discharge pipe (by installer) from pressure relief valve	G1/2 (valve port within hydrobox casing)	
H	Electrical cable inlets ① ② ③ ④	For inlets ① and ②, run high-voltage wires including power cable, indoor-outdoor cable, and external output wires. For inlets ③ and ④, run low-voltage wires including external input wires and thermistor wires. For a wireless receiver (option) cable, use inlet ④.	
I	Drain socket	Outside diameter 20 mm (EHSD-* not included.)	

<Table 5.1>