

2 Specifications

Model name			ERST20D-VM2E	ERST20D-VM6E	ERST20D-VM9E	ERST30D-VM2EE	ERST30D-VM6EE	ERST30D-VM9EE	
Dimensions	Without package	Height	mm	1600	1600	1600	2050	2050	2050
		Width	mm	595	595	595	595	595	595
		Depth	mm	680	680	680	680	680	680
	With package	Height	mm	1850	1850	1850	2320	2320	2320
		Width	mm	660	660	660	660	660	660
		Depth	mm	800	800	800	800	800	800
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	
	RAL code	-	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	
Product weight (empty)		kg	94	95	96	108	109	110	
Product weight (full)		kg	300	301	304	414	415	419	
Water volume of heating circuit in the unit *1		L	3.5	3.5	5.8	3.9	3.9	6.2	
Type of Installation		-	Floor standing	Floor standing	Floor standing	Floor standing	Floor standing	Floor standing	
Electrical data	Control board *2 (Including 4 pumps)	Power supply	Ph	~N	~N	~N	~N	~N	~N
			V	230	230	230	230	230	230
			Hz	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
		Breaker	A	10	10	10	10	10	10
	Booster heater	Power supply	Ph	~N	~N	3~	~N	~N	3~
			V	230	230	400	230	230	400
			Hz	50	50	50	50	50	50
		Capacity	kW	2	2+4	3+6	2	2+4	3+6
		Heater step	-	1	3	3	1	3	3
		Current	A	9	26	13	9	26	13
	Breaker	A	16	32	16	16	32	16	
	Immersion heater	Power supply	Ph	-	-	-	-	-	-
			V	-	-	-	-	-	-
			Hz	-	-	-	-	-	-
		Capacity	kW	-	-	-	-	-	-
		Current	A	-	-	-	-	-	-
Breaker		A	-	-	-	-	-	-	
Water circulation pump (Primary circuit)	Type	-	DC motor	DC motor	DC motor	DC motor	DC motor	DC motor	
		Input (10/20/max L/min)*3	Speed 1	W	10/13/15	10/13/15	10/13/15	10/13/15	10/13/15
		Speed 2	W	16/21/27	16/21/27	16/21/27	16/21/27	16/21/27	
		Speed 3	W	24/32/42	24/32/42	24/32/42	24/32/42	24/32/42	
		Speed 4	W	34/46/58	34/46/58	34/46/58	34/46/58	34/46/58	
		Speed 5 (Default setting)	W	47/58/60	47/58/60	47/58/60	47/58/60	47/58/60	
	Performance curve: please refer to the following page	Current (10/20/max L/min)*3	Speed 1	A	0.2/0.2/0.3	0.2/0.2/0.3	0.2/0.2/0.3	0.2/0.2/0.3	0.2/0.2/0.3
			Speed 2	A	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.4	0.2/0.3/0.4
			Speed 3	A	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.4/0.5	0.3/0.4/0.5
			Speed 4	A	0.4/0.5/0.6	0.4/0.5/0.6	0.4/0.5/0.6	0.4/0.5/0.6	0.4/0.5/0.6
Speed 5 (Default setting)	A	0.5/0.6/0.6	0.5/0.6/0.6	0.5/0.6/0.6	0.5/0.6/0.6	0.5/0.6/0.6			
Water circulation pump (DHW circuit)	Input	Speed I	W	55	55	55	58	58	
		Speed II (Default setting)	W	69	69	69	72	72	
		Speed III	W	80	80	80	83	83	
	Current	Speed I	A	0.25	0.25	0.25	0.27	0.27	
		Speed II (Default setting)	A	0.31	0.31	0.31	0.33	0.33	
		Speed III	A	0.34	0.34	0.34	0.36	0.36	
	Flow rate	Speed I	L/min	13.5	13.5	13.5	14.5	14.5	
		Speed II (Default setting)	L/min	19.0	19.0	19.0	21.0	21.0	
		Speed III	L/min	22.9	22.9	22.9	25.2	25.2	
Flow rate	Primary circuit	Max.*4	L/min	36.9	36.9	36.9	36.9	36.9	
		Min.*5	L/min	5.0	5.0	5.0	5.0	5.0	
Domestic hot water tank	Volume	L	200	200	200	300	300	300	
	Material	-	Duplex 2304 stainless steel (EN10088)	Duplex 2304 stainless steel (EN10088)	Duplex 2304 stainless steel (EN10088)	Duplex 2304 stainless steel (EN10088)	Duplex 2304 stainless steel (EN10088)	Duplex 2304 stainless steel (EN10088)	
	Declared load profile	-	L	L	L	XL	XL	XL	
Expansion vessel (Primary circuit)	Volume	L	12	12	12	-	-	-	
	Charge pressure	MPa	0.1	0.1	0.1	-	-	-	
Safety device	Primary circuit	Control thermistor	°C	1 to 80	1 to 80	1 to 80	1 to 80	1 to 80	
		Pressure relief valve	MPa	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	
		BH manual reset thermostat	°C	90	90	90	90	90	
		BH thermal Cut Off	°C	121	121	121	121	121	
		Control thermistor	°C	75	75	75	75	75	
	DHW tank	IH manual reset thermostat	°C	-	-	-	-	-	
		Temperature & pressure relief valve	°C	-	-	-	-	-	
		MPa	1.0	1.0	1.0	1.0	1.0		
		MPa	1.0	1.0	1.0	1.0	1.0		
Connections	Water	Primary circuit for local system	-	G1	G1	G1	G1	G1	
		Primary circuit for outdoor unit	-	-	-	-	-	-	
		DHW circuit	-	G3/4	G3/4	G3/4	G3/4	G3/4	
	Refrigerant	Gas	mm	φ12.7	φ12.7	φ12.7	φ12.7	φ12.7	
Liquid		mm	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35		
Refrigerant *6	-	R32/R410A	R32/R410A	R32/R410A	R32/R410A	R32/R410A	R32/R410A		
Guaranteed operating range *7	Ambient	°C	0 to 35	0 to 35	0 to 35	0 to 35	0 to 35		
	%RH	°RH	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80		
Operating range	Heating	Outdoor temperature	Heating	See outdoor unit spec table					
		Cooling *8	°C	See outdoor unit spec table					
	Room temperature	Room temperature	°C	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	
		Flow temperature *10, 11	°C	20 to 60	20 to 60	20 to 60	20 to 60	20 to 60	
	Cooling	Room temperature	°C	-	-	-	-	-	
		Flow temperature *10, 11	°C	5 to 25	5 to 25	5 to 25	5 to 25	5 to 25	
DHW *9	°C	40 to 60	40 to 60	40 to 60	40 to 60	40 to 60			
	Legionella prevention *9	°C	60 to 70	60 to 70	60 to 70	60 to 70	60 to 70		
Sound power level (PWL)		dB(A)	41	41	41	41	41		

*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 by an independent source.

*3 Allowable flow rate range differs depending on connected outdoor unit.

*4 If the water flow rate range exceeds maximum, the flow speed will be greater than 2.0 m/s, which could corrode the pipes.

*5 If the water flow is less than the minimum, the flow error will be activated.

*6 Refrigerant of outdoor unit connected to cylinder unit.

*7 The environment must be frost-free.

*8 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.

*9 For the model without both booster heater and immersion heater, the max. hot water temperature is [Max. outlet water of outdoor unit -3 °C]. For the max. outlet of outdoor unit spec table.

*10 Maximum temperature of E****F model depending on the connected outdoor unit. PUZ: 70°C, Other: 60°C.

*11 Maximum temperature of E****X model depending on the connected outdoor unit. WZ: 75°C, Other: 60°C.