

2 Specifications

Model name				ERST17D-VM2D	ERST17D-VM6D	ERST20D-VM2D	ERST20D-VM6D	ERST20D-VM9D	ERST30D-VM2ED	
Dimensions	Without package	Height	mm	1400	1400	1600	1600	1600	2050	
		Width	mm	595	595	595	595	595	595	
		Depth	mm	680	680	680	680	680	680	
	With package	Height	mm	1670	1670	1850	1850	1850	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	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	
	Material	-	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	94	94	100	100	102	115	
Product weight (full)			kg	269	273	306	306	310	422	
Gross weight			kg	109	110	117	117	119	134	
Water volume of heating circuit in the unit *1			L	3.4	5.7	3.5	3.5	5.8	3.9	
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	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	~N	~N	3~	~N	
			V	230	230	230	230	400	230	
			Hz	50	50	50	50	50	50	
		Capacity	kW	2	2+4	2	2+4	3+6	2	
		Heater step	-	1	3	1	3	3	1	
		Current	A	9	26	9	26	13	9	
	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	10/13/14	10/13/14	10/13/15	10/13/15	10/13/15
			Speed 2	W	16/21/24	16/21/24	16/21/27	16/21/27	16/21/27	16/21/27
			Speed 3	W	24/32/36	24/32/36	24/32/42	24/32/42	24/32/42	24/32/42
			Speed 4	W	34/46/54	34/46/54	34/46/58	34/46/58	34/46/58	34/46/58
		Performance curve: please refer to section 4.6.4	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			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	55	55	58	
		Speed II (Default setting)	W	69	69	69	69	69	72	
		Speed III	W	80	80	80	80	80	83	
	Current	Speed I	A	0.25	0.25	0.25	0.25	0.25	0.27	
		Speed II (Default setting)	A	0.31	0.31	0.31	0.31	0.31	0.33	
		Speed III	A	0.34	0.34	0.34	0.34	0.34	0.36	
	Flow rate	Speed I	L/min	13.5	13.5	13.5	13.5	13.5	14.5	
		Speed II (Default setting)	L/min	19.0	19.0	19.0	19.0	19.0	21.0	
		Speed III	L/min	22.9	22.9	22.9	22.9	22.9	25.2	
Flow rate	Primary circuit	Max.*4	L/min	25.8	25.8	36.9	36.9	36.9	36.9	
		Min.*5	L/min	5.0	5.0	5.0	5.0	5.0	5.0	
Heat exchanger	Refrigerant - Primary circuit water		-	MWA1-44DM	MWA1-44DM	MWA1-44DM	MWA1-44DM	MWA1-44DM	MWA1-44DM	
	Primary circuit water - Domestic hot water		-	CBH18-18H	CBH18-18H	CBH18-18H	CBH18-18H	CBH18-18H	CBH18-24H	
Domestic hot water tank	Volume		L	170	170	200	200	200	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	L	L	XL	
	Average climate	η _{th} (water heating efficiency) *6	-	135 to 148	135-148	141 to 159	141-159	141-159	119 to 128	
			P _{st} (standby power input) *6	kW	0.026 to 0.039	0.026-0.039	0.024 to 0.035	0.024-0.035	0.024-0.035	0.026 to 0.041
		Water heater energy efficiency class	-	A+	A+	A+	A+	A+	A or A+	
			Heat loss *7	kWh/24hr	1.65	1.65	1.89	1.89	1.89	2.27
Expansion vessel (Primary circuit)	Volume		L	12	12	12	12	12		
	Charge pressure		MPa	0.1	0.1	0.1	0.1	0.1		
Safety device	Primary circuit	Control thermistor	°C	1 to 80	1-80	1 to 80	1-80	1-80	1 to 80	
		Pressure relief valve	MPa	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	
		BH manual reset thermostat	°C	90	90	90	90	90	90	
		BH thermal Cut Off	°C	121	121	121	121	121	121	
		DHW tank	Control thermistor	°C	75	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	1.0		
		MPa	1.0	1.0	1.0	1.0	1.0	1.0		
Connections	Water	Primary circuit	mm	φ28	φ28	φ28	φ28	φ28		
		DHW circuit	mm	φ22	φ22	φ22	φ22	φ22		
	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 *8	Guaranteed operating range *9		-	R32/R410A	R32/R410A	R32/R410A	R32/R410A	R32/R410A		
	Ambient	°C	0 to 35	0-35	0 to 35	0-35	0-35	0 to 35		
		%RH	≤80	≤80	≤80	≤80	≤80	≤80		
	Outdoor temperature	Heating	°C	See outdoor unit spec table						
		Cooling	°C	10 to 46	10-46	10 to 46	10-46	10-46	10 to 46	
Operating range	Heating	Room temperature	°C	10 to 30	10-30	10 to 30	10-30	10-30	10 to 30	
		Flow temperature	°C	20 to 60	20-60	20 to 60	20-60	20-60	20 to 60	
		Cooling	Room temperature	°C	-	-	-	-	-	-
	Flow temperature	°C	5 to 25	5-25	5 to 25	5-25	5-25	5 to 25		
	DHW *10	°C	40 to 60	40-60	40 to 60	40-60	40-60	40 to 60		
		°C	60 to 70	60-70	60 to 70	60-70	60-70	60 to 70		
Legionella prevention *10			°C	60 to 70	60-70	60 to 70	60-70	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 from independent source.
 *3 Allowable flow rate range differs depending on connected outdoor unit. Please refer to section 4.6.4.
 *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 Hot water performance differs depending on connected outdoor unit.
 *7 24h temperature decay at top of the tank from 65degC at ambient temperature 20degC (BS EN 12897)
 *8 Refrigerant of outdoor unit connected to cylinder unit.
 *9 The environment must be frost-free.
 *10 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.