

HEAT INTERFACE UNITS

 **TayTech®**
advanced automation solutions

www.taytech.com.tr

info@taytech.com.tr



★ Indirect SmartHexa SH

1. General Description



SmartHexa SH is equipped with an advanced electronic control system that ensures maximum efficiency in space heating applications.

The unit continuously monitors temperature, pressure, and flow at multiple points to maintain optimal operating conditions.

With a stainless steel heat exchanger and piping, the system delivers high durability and ensures reliable performance across various heating systems.

An optional outdoor compensation control allows quick adaptation to changing ambient conditions, improving overall energy efficiency. Proportional motorized control valves and advanced control algorithms provide precise temperature management in the heating circuit.

The electronic control system also offers smart features such as easy PC setup and commissioning, district return temperature control, and a “keep warm” mode supporting low return temperatures.

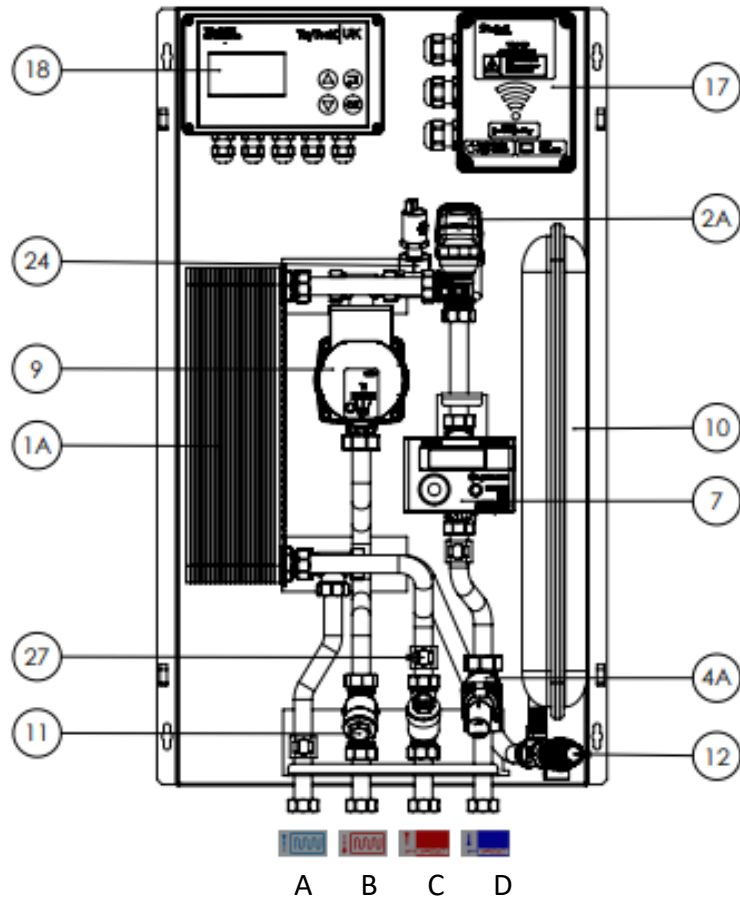
SmartHexa SH enables remote monitoring and control by transmitting all operational data to the BLES system.

Features

- Fully electronic control with PC connectivity via GSM or Ethernet for fast setup and commissioning
- Fast and precise DHW control with calibrated sensors
- Return temperature control for district heating with high-efficiency heat exchanger
- Smart anti-legionella function for safe domestic hot water
- Pump and valve exercise mode to prevent sticking and ensure reliability
- Optimized for low-temperature underfloor heating, providing stable and comfortable floor heating performance and integrated mixing loop for precise supply water temperature control

2. Hydraulic Review

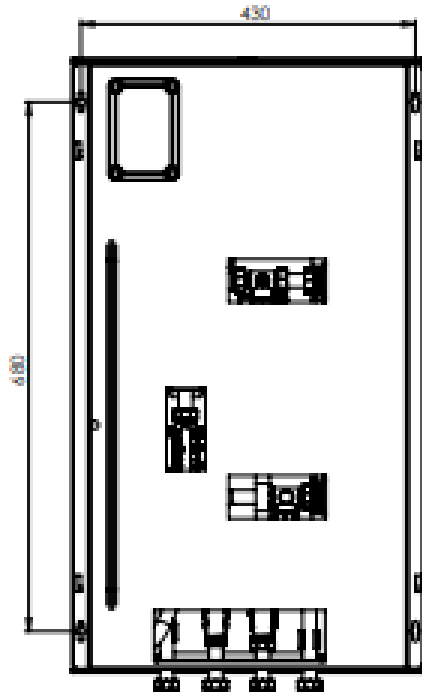
2.1 Component List



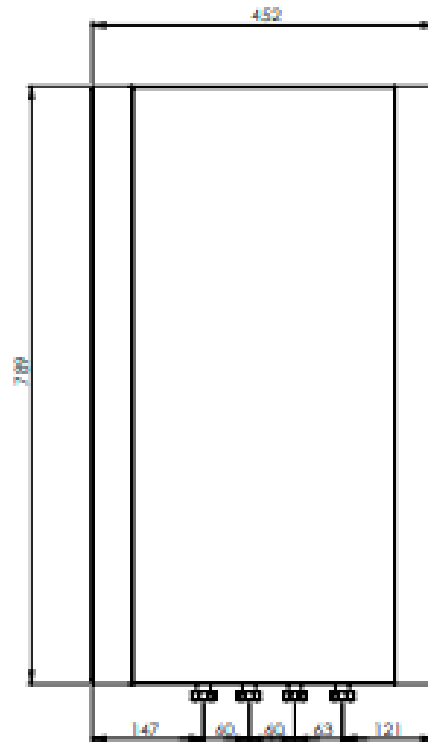
- | | |
|----------------------------------|--|
| 1A SH Heat Exchanger | 27.1 DHW Temperature Sensor |
| 2A SH Temperature Control Valve | 27.2 DHW Return Temperature Sensor |
| 4A Differential Pressure Sensor | 27.3 District Heating Temperature Sensor |
| 7 Heat Meter | 27.4 SH Return Temperature Sensor |
| 9 Space Heating Circulation Pump | 27.5 SH Temperature Sensor |
| 11 SH Strainer | 18 TT LogicBOX Controller |
| 24 Automatic Air Vent | |
| 17 Junction Box | |

2. Dimensions

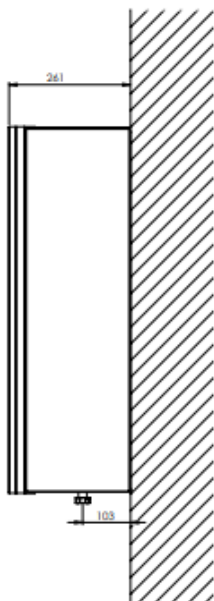
Back View



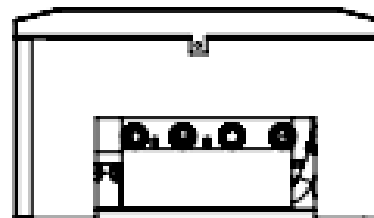
Front View



Wall Mounted View



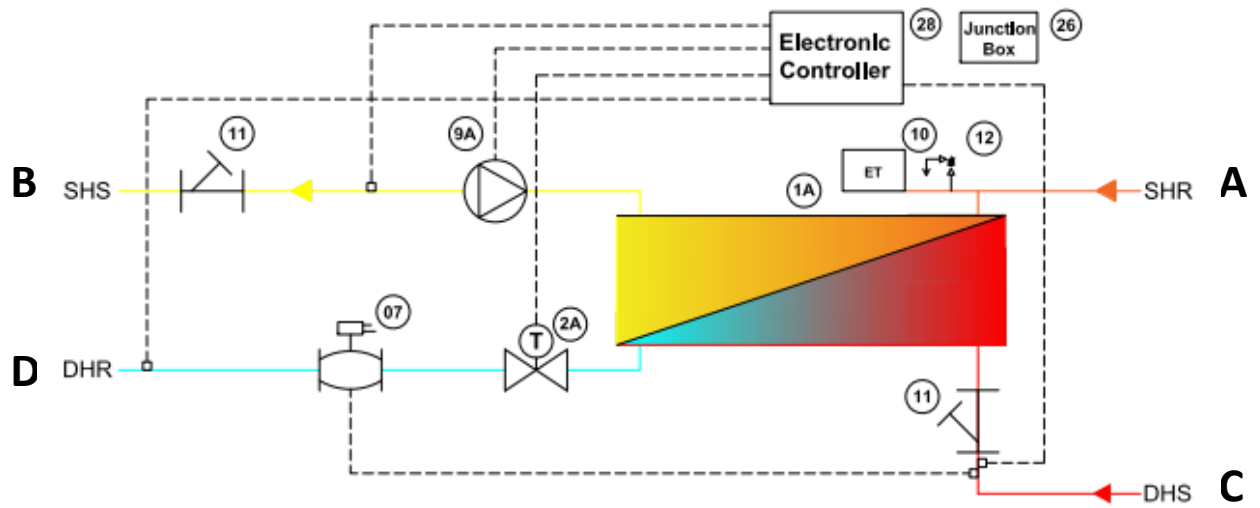
Bottom View



Indirect SmartHexa SH

2. Hydraulic Review

2.2 Flow Diagram



- | | | | | |
|---|---|-----|---|-------------------------|
| A | — | SHS | — | Space Heating Supply |
| B | — | SHR | — | Space Heating Return |
| C | — | DHS | — | District Heating Supply |
| D | — | DHR | — | District Heating Return |

3. Technical Specifications

Description	Data
Nominal primary supply temperature	70°C
Maximum primary supply temperature	85°C
Minimum primary supply temperature	55°C *
Nominal DHW supply temperature	50°C
DHW Set Range	45°C to 60°C
Return Temp Limit Range	35°C to 65°C
CH Limit Range	30°C to 80°C
Primary connections	Female / 18mm
Mains & DHW connections	Female / 18mm
Central heating connections	Female / 18mm
Pressure relief	15mm
Maximal primary differential pressure (without dP regulator)	450kPa
Pressure class DH circuit	PN16
Pressure class CH circuit (3 bar safety valve)	PN3
Pressure class DHW circuit	PN10
SH Maximum working pressure	2.5 Bar
Casing width	452mm
Casing height	789mm
Casing depth	261mm
Casing Material	Metal case with Insulation
Weight	35kg **
Electrical supply info	230V 50Hz
Fuse ratings	3 Amp
Sensor DHW	NTC 10k ohm @ 25°C
Functions	Keep Warm Legionella Pump Exercise Valve Exercise Pre-pay Shut Off Hot Water Priority Primary Return Temperature

* Minimum required DH supply temperature is DHW setpoint + 5°C with a minimum of 55°C.

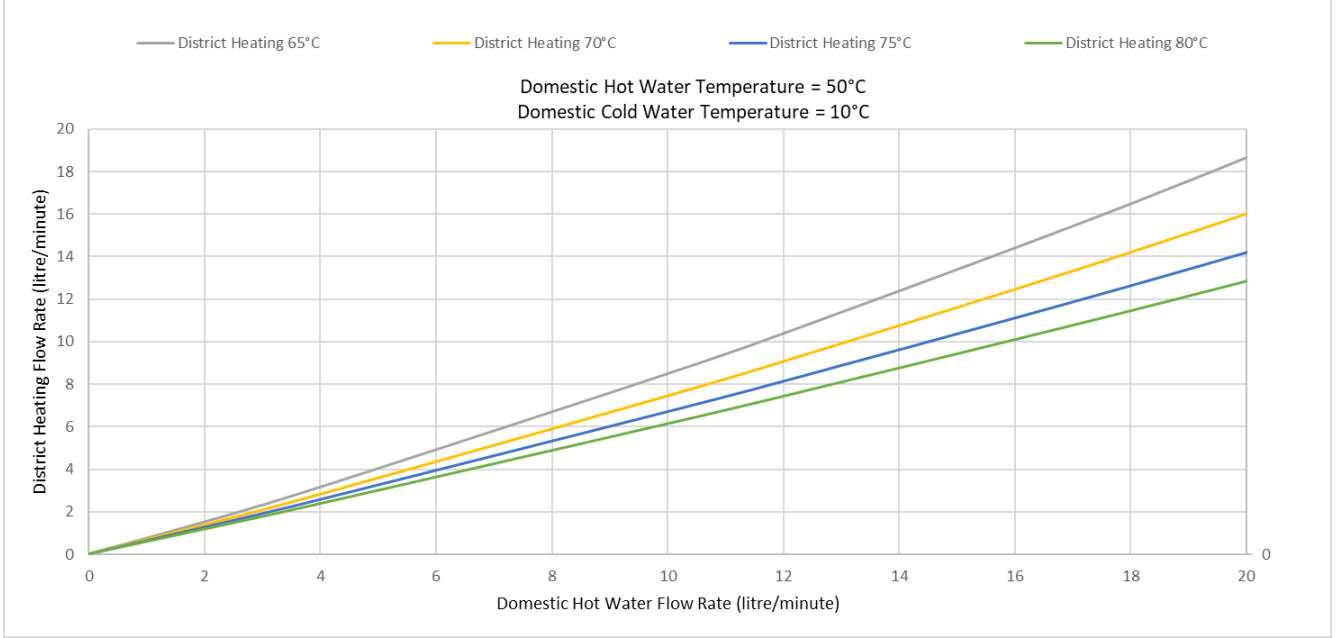
** Unit weight may vary depending on the optional components built into the unit.



4. Performans Eğrileri

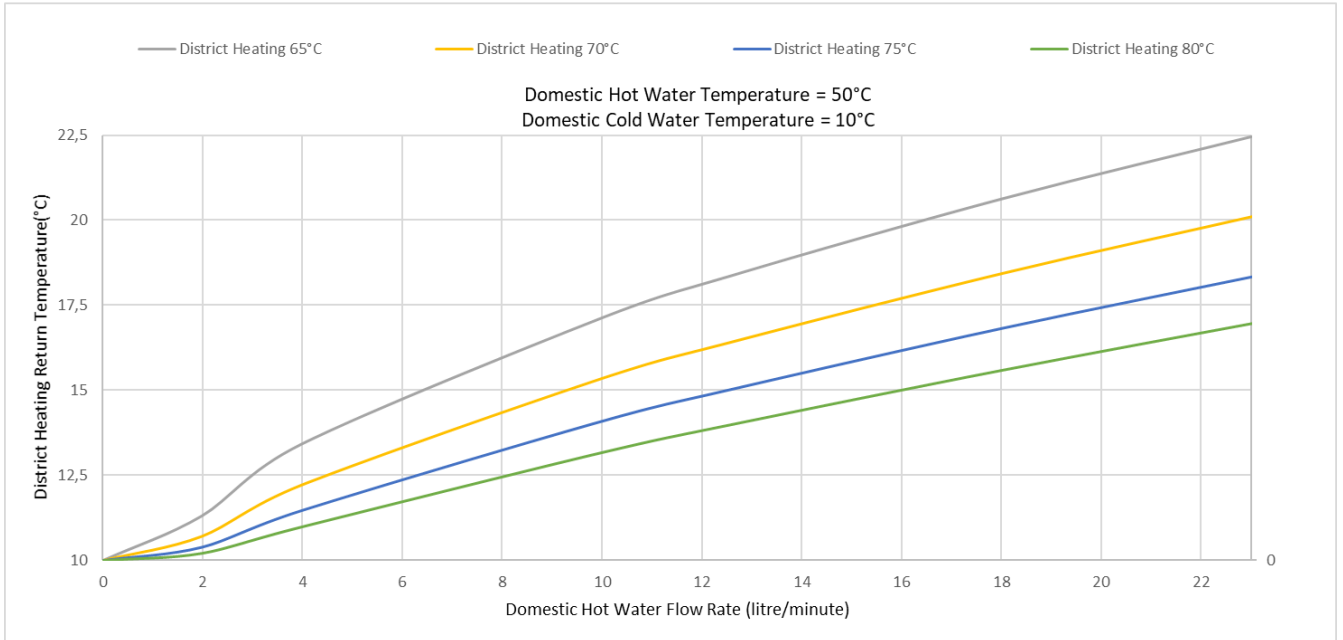
4.1 Kazan Hattı Besleme Debileri (Kapasite 1)

District Heating Flow Rates (Capacity 1)



4.2 Kazan Hattı Dönüş Suyu Sıcaklıkları (Kapasite 1)

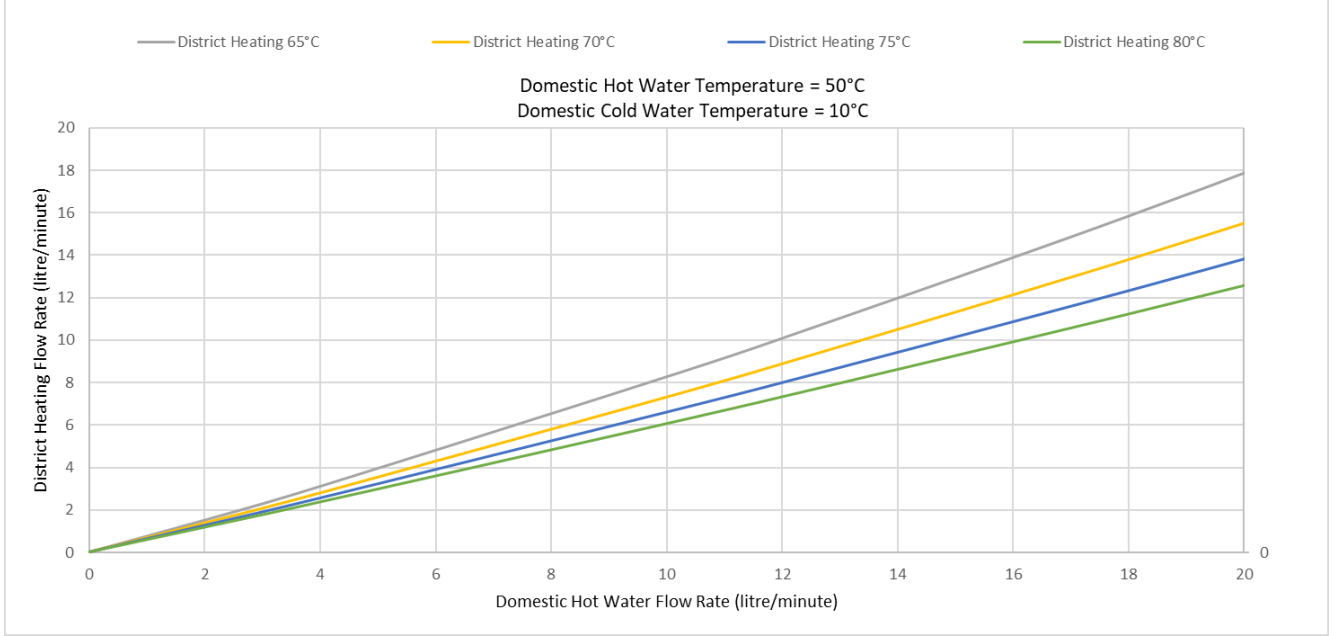
District Heating Return Temperatures (Capacity 1)



4. Performans Eğrileri

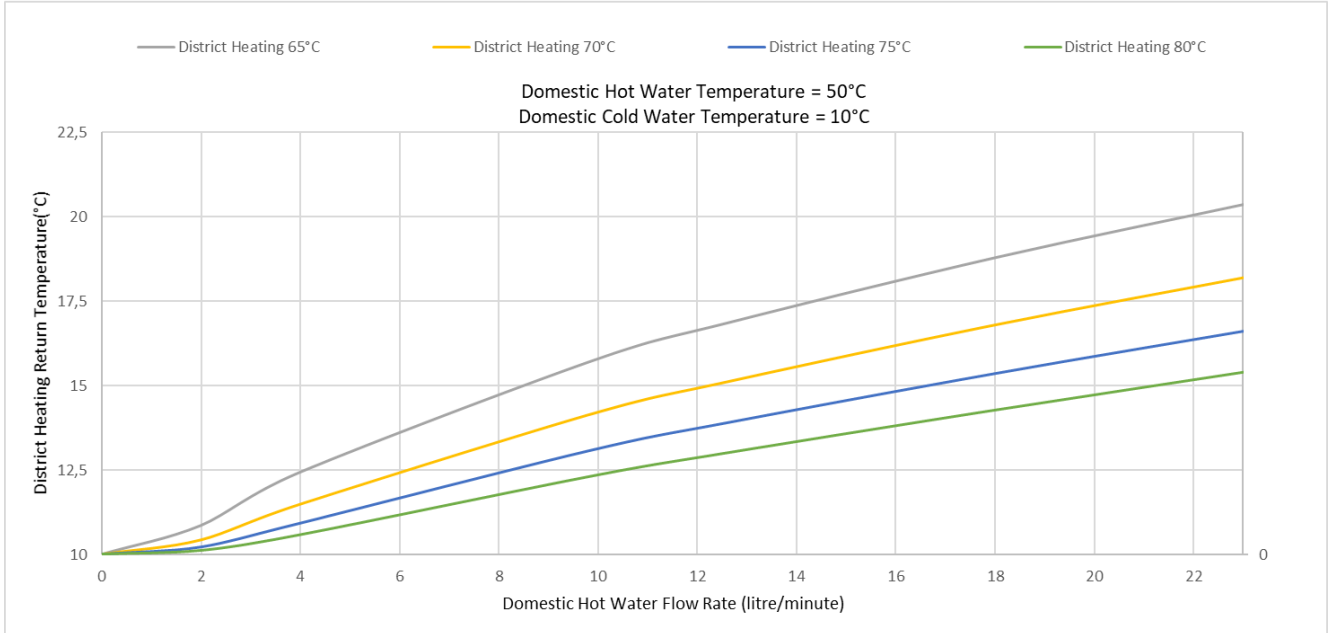
4.3 Kazan Hattı Besleme Debileri (Kapasite 2)

District Heating Flow Rates (Capacity 2)



4.4 Kazan Hattı Dönüş Suyu Sıcaklıkları (Kapasite 2)

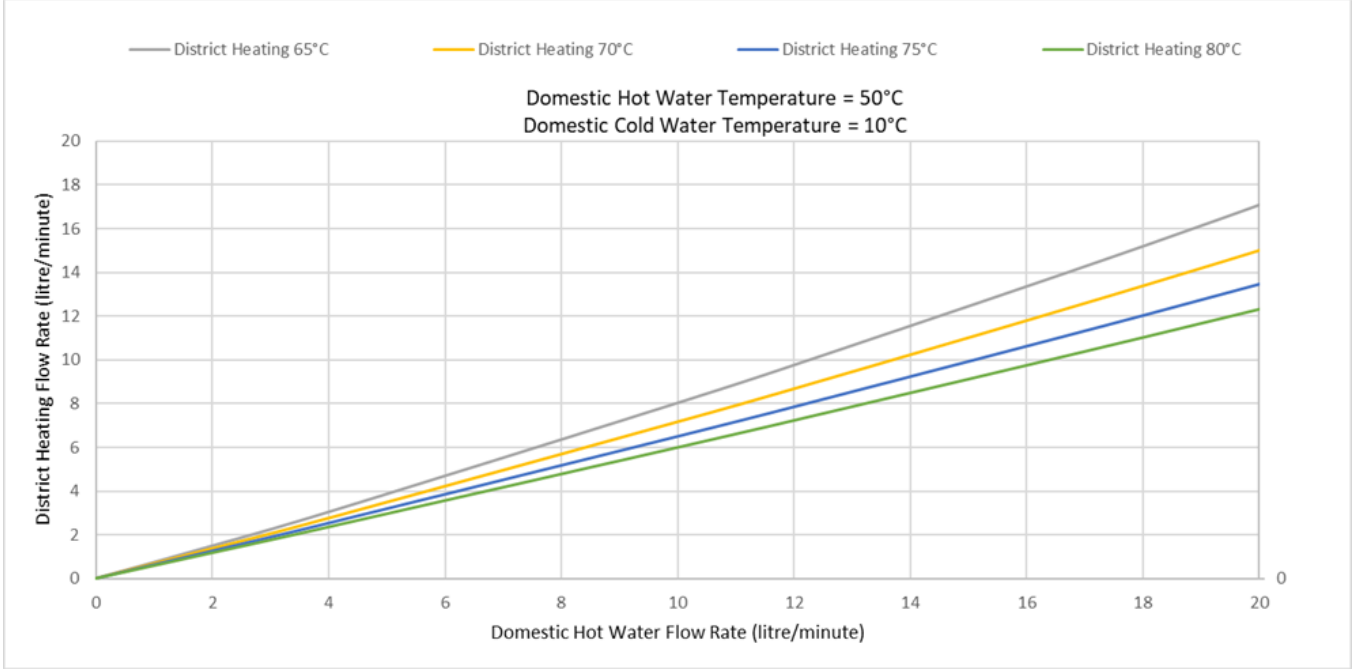
District Heating Return Temperatures (Capacity 2)



4. Performans Eğrileri

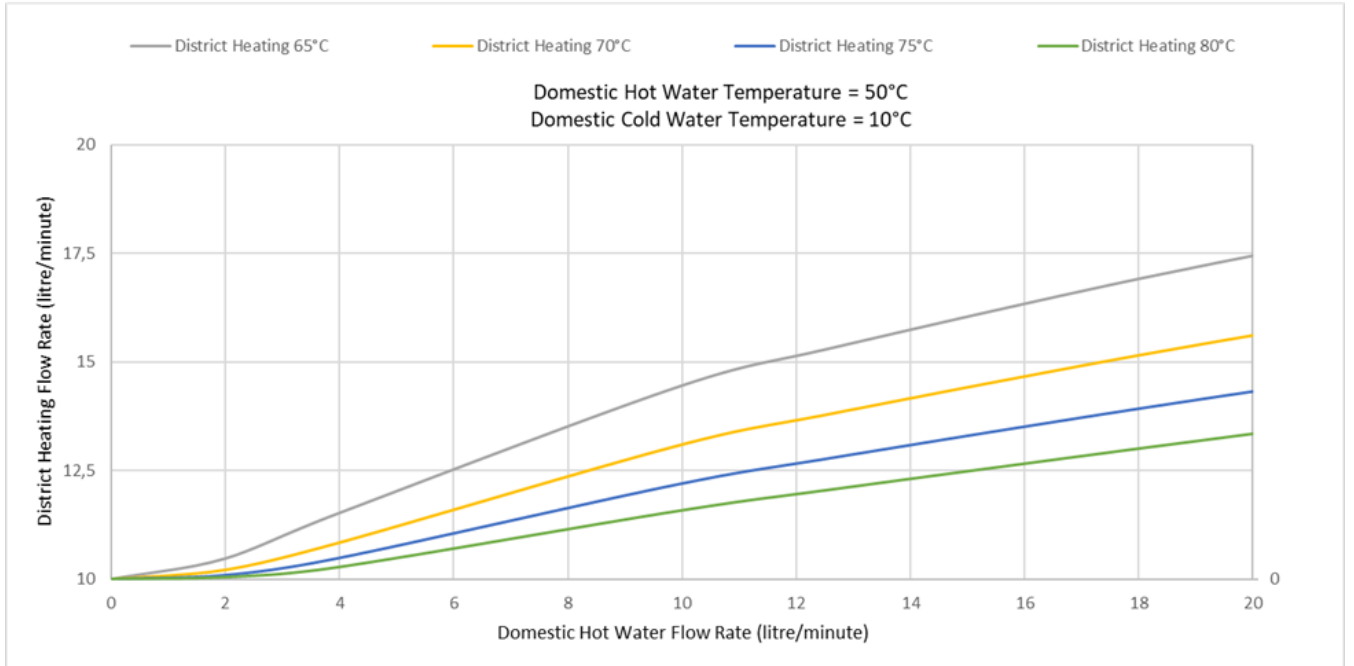
4.5 Kazan Hattı Besleme Debileri (Kapasite 3)

District Heating Flow Rates (Capacity 3)



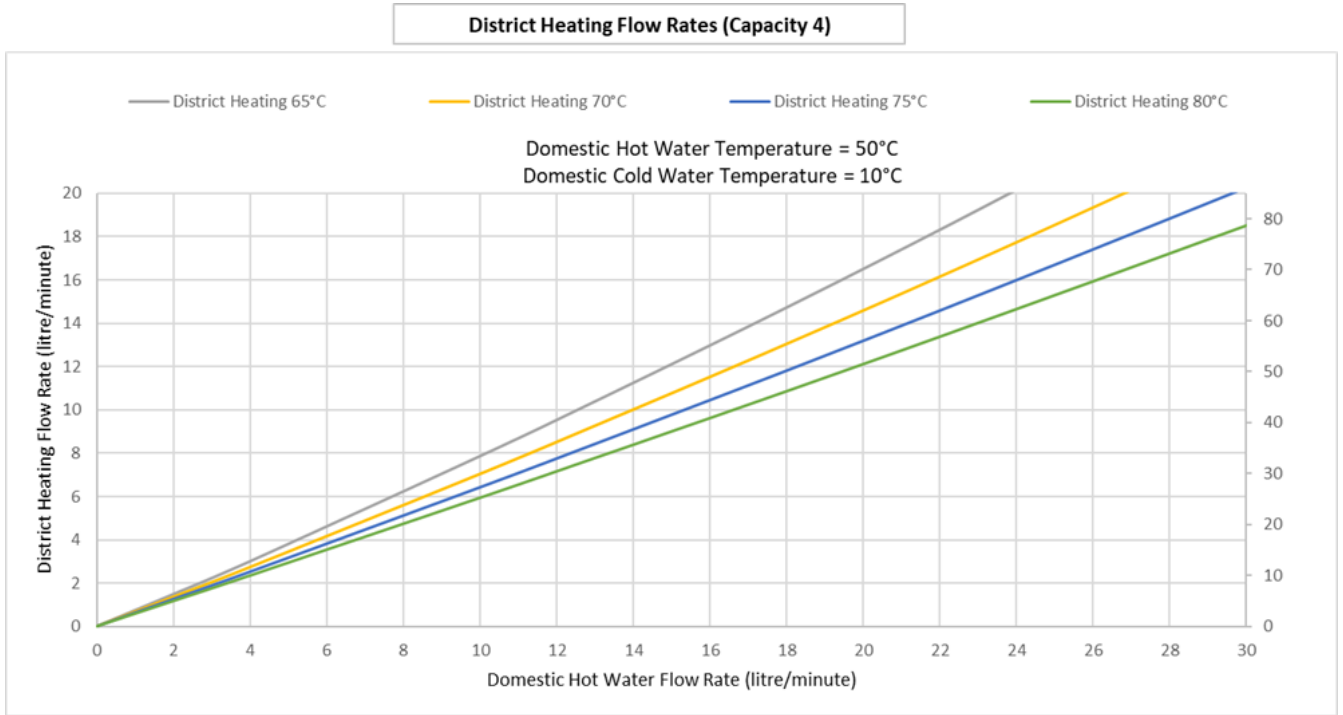
4.6 Kazan Hattı Dönüş Suyu Sıcaklıkları (Kapasite 3)

District Heating Return Temperatures (Capacity 3)

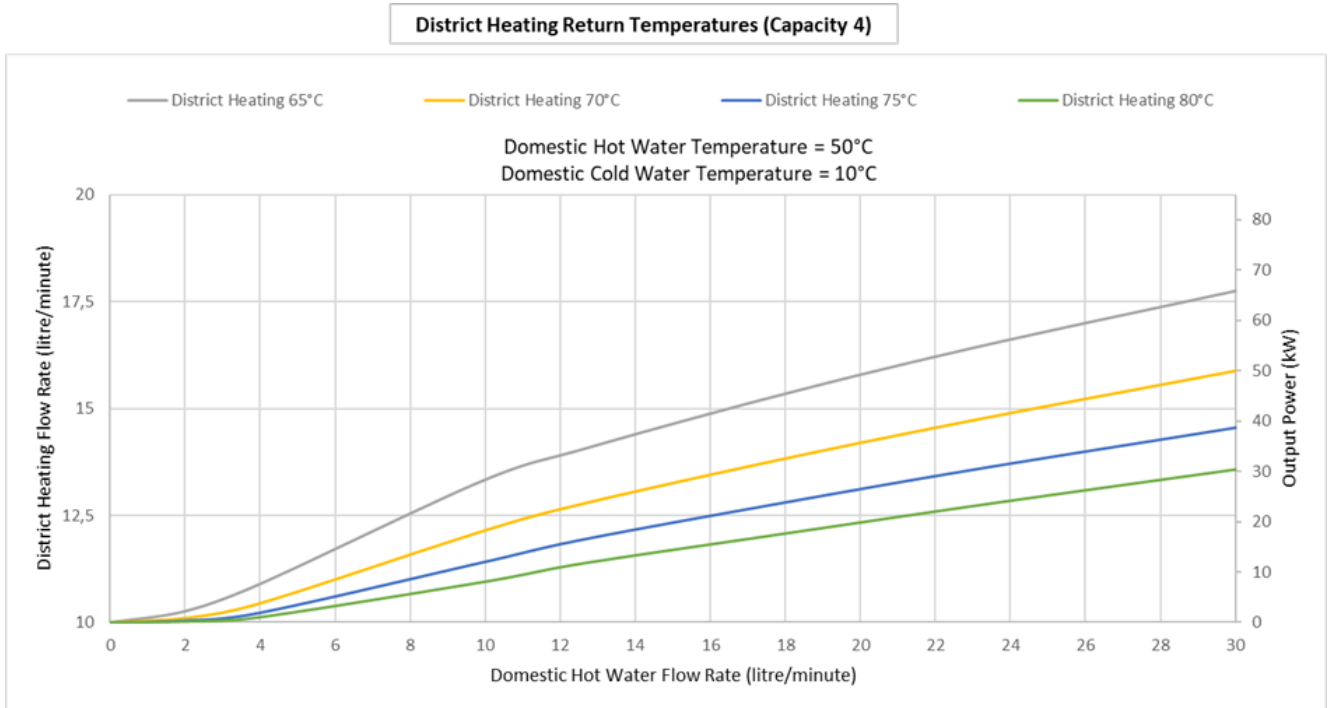


4. Performans Eğrileri

4.7 Kazan Hattı Besleme Debileri (Kapasite 4)



4.8 Kazan Hattı Dönüş Suyu Sıcaklıkları (Kapasite 4)



5. Performans Değerleri

5.1 Kapasite 1

Sıcak Su Performansı Kapasite 2					
Sıcak Su Giriş Çıkış Sıcaklığı °C	Kazan Besleme Sıcaklığı °C	Kapasite (kW)	Sıcak Su Debisi (l/m)	Kazan Dönüş Suyu Sıcaklığı °C	Kazan Besleme Debisi (l/min)
10-50°C	55	5,5	1,983	15,36	2,021
		11	3,966	19,29	4,487
		27,5	9,915	24,54	13,15
		35	12,62	26,25	17,73
	60	5,5	1,983	12,53	1,692
		11	3,966	15,47	3,608
		27,5	9,915	19,78	9,986
		35	12,62	21,27	13,2
	65	5,5	1,983	11,31	1,5
		11	3,966	13,41	3,122
		27,5	9,915	17,08	8,404
		35	12,62	18,38	10,99
	70	5,5	1,983	10,71	1,362
		11	3,966	12,21	2,795
		27,5	9,915	15,31	7,384
		35	12,62	16,43	9,594
	75	5,5	1,983	10,39	1,254
		11	3,966	11,46	2,55
		27,5	9,915	14,06	6,646
		35	12,62	15,04	8,596
80	5,5	1,983	10,21	1,164	
	11	3,966	10,98	2,354	
	27,5	9,915	13,14	6,076	
	35	12,62	14	7,833	

5. Performans Değerleri

5.2 Kapasite 2

Sıcak Su Performansı Kapasite 2					
Sıcak Su Giriş Çıkış Sıcaklığı °C	Kazan Besleme Sıcaklığı °C	Kapasite (kW)	Sıcak Su Debisi (l/m)	Kazan Dönüş Suyu Sıcaklığı °C	Kazan Besleme Debisi (l/min)
10-50°C	55	5,5	1,983	14,18	1,963
		11	3,966	17,75	4,301
		27,5	9,915	22,72	12,41
		35	12,62	24,27	16,59
		50	18,03	26,83	25,86
	60	5,5	1,983	11,8	1,667
		11	3,966	14,13	3,503
		27,5	9,915	18,23	9,616
		35	12,62	19,54	12,63
		50	18,03	21,77	19,1
	65	5,5	1,983	10,85	1,488
		11	3,966	12,42	3,063
		27,5	9,915	15,76	8,178
		35	12,62	16,87	10,65
		50	18,03	18,81	15,85
	70	5,5	1,983	10,42	1,356
		11	3,966	11,47	2,76
		27,5	9,915	14,18	7,235
		35	12,62	15,12	9,365
		50	18,03	16,81	13,8
75	5,5	1,983	10,21	1,25	
	11	3,966	10,91	2,528	
	27,5	9,915	13,1	6,543	
	35	12,62	13,9	8,435	
	50	18,03	15,36	12,35	
80	5,5	1,983	10,11	1,163	
	11	3,966	10,57	2,34	
	27,5	9,915	12,33	6,003	
	35	12,62	13,01	7,717	
	50	18,03	14,28	11,24	

5. Performans Değerleri

5.3 Kapasite 3

Sıcak Su Performansı Kapasite 3					
Sıcak Su Giriş Çıkış Sıcaklığı °C	Kazan Besleme Sıcaklığı °C	Kapasite (kW)	Sıcak Su Debisi (l/m)	Kazan Dönüş Suyu Sıcaklığı °C	Kazan Besleme Debisi (l/min)
10-50°C	55	5,5	1,983	13,02	1,908
		11	3,966	15,83	4,091
		27,5	9,915	20,72	11,69
		35	12,62	22,08	15,49
		50	18,03	24,35	23,76
		65	23,43	26,22	32,89
	60	5,5	1,983	11,14	1,644
		11	3,966	12,83	3,406
		27,5	9,915	16,6	9,255
		35	12,62	17,7	12,08
		50	18,03	19,59	18,07
		65	23,43	21,22	24,48
	65	5,5	1,983	10,47	1,477
		11	3,966	11,51	3,012
		27,5	9,915	14,42	7,961
		35	12,62	15,32	10,32
		50	18,03	16,92	15,23
		65	23,43	18,32	20,39
	70	5,5	1,983	10,21	1,351
		11	3,966	10,83	2,73
		27,5	9,915	13,07	7,093
		35	12,62	13,81	9,147
		50	18,03	15,16	13,39
		65	23,43	16,37	17,8
75	5,5	1,983	10,09	1,248	
	11	3,966	10,48	2,511	
	27,5	9,915	12,18	6,447	
	35	12,62	12,79	8,285	
	50	18,03	13,93	12,06	
	65	23,43	14,98	15,95	
80	5,5	1,983	10,04	1,161	
	11	3,966	10,27	2,33	
	27,5	9,915	11,57	5,936	
	35	12,62	12,07	7,61	
	50	18,03	13,02	11,03	
	65	23,43	13,94	14,53	

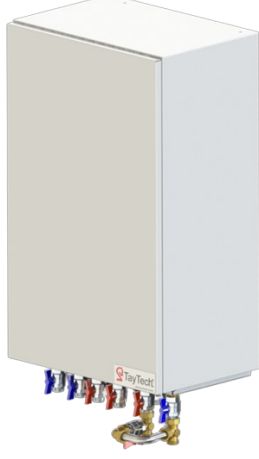
5. Performans Değerleri

5.4 Kapasite 4

Sıcak Su Performansı Kapasite 4					
Sıcak Su Giriş Çıkış Sıcaklığı °C	Kazan Besleme Sıcaklığı °C	Kapasite (kW)	Sıcak Su Debisi (l/m)	Kazan Dönüş Suyu Sıcaklığı °C	Kazan Besleme Debisi (l/min)
10-50°C	55	5,5	1,983	12,12	1,869
		11	3,966	14,29	3,936
		27,5	9,915	18,99	11,12
		35	12,62	20,17	14,64
		50	18,03	22,16	22,18
		65	23,43	23,8	30,35
		85	30,65	25,67	42,21
	60	5,5	1,983	10,7	1,629
		11	3,966	11,87	3,338
		27,5	9,915	15,24	8,974
		35	12,62	16,16	11,66
		50	18,03	17,76	17,29
		65	23,43	19,12	23,22
		85	30,65	20,72	31,61
	65	5,5	1,983	10,26	1,471
		11	3,966	10,89	2,977
		27,5	9,915	13,31	7,791
		35	12,62	14,06	10,06
		50	18,03	15,36	14,75
		65	23,43	16,51	19,63
		85	30,65	17,88	26,42
	70	5,5	1,983	10,1	1,348
		11	3,966	10,44	2,712
		27,5	9,915	12,13	6,979
		35	12,62	12,78	8,983
		50	18,03	13,84	13,07
		65	23,43	14,8	17,29
		85	30,65	15,99	23,11
	75	5,5	1,983	10,04	1,247
		11	3,966	10,22	2,501
		27,5	9,915	11,4	6,369
		35	12,62	11,94	8,175
		50	18,03	12,81	11,84
		65	23,43	13,63	15,6
		85	30,65	14,64	20,74
	80	5,5	1,983	10,02	1,161
		11	3,966	10,12	2,325
		27,5	9,915	10,94	5,882
		35	12,62	11,38	7,535
		50	18,03	12,08	10,87
		65	23,43	12,77	14,28
		85	30,65	13,65	18,92

6. Opsiyonel Parçalar

Dekoratif Koruma Kapağı



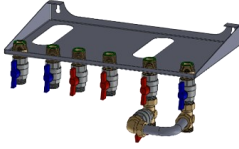
Sıcak Su Re-Sirkülasyon Kiti



Bağlantı Kutusu



Kolay Kurulum İçin Montaj Öncesi Kit



Tesisat Yıkama By-Pass Kiti



Kalorimetre

