

Application

Replacing existing air/water heat pump or supplementing existing boiler. Select installation alternative by clicking on the buttons at the upper edge.

Function

SMO 10 controls up to nine F20XXs (of which max one for hot water), additional heat, circulation pumps, shuttle valve, etc. F20XX HP1 prioritises hot water charging via a shuttle valve (19.1). If there are no hot water or heating demands, F20XX is available for pool heating via shuttle valve (19.2). F20XX runs with floating condensing towards the heating system.

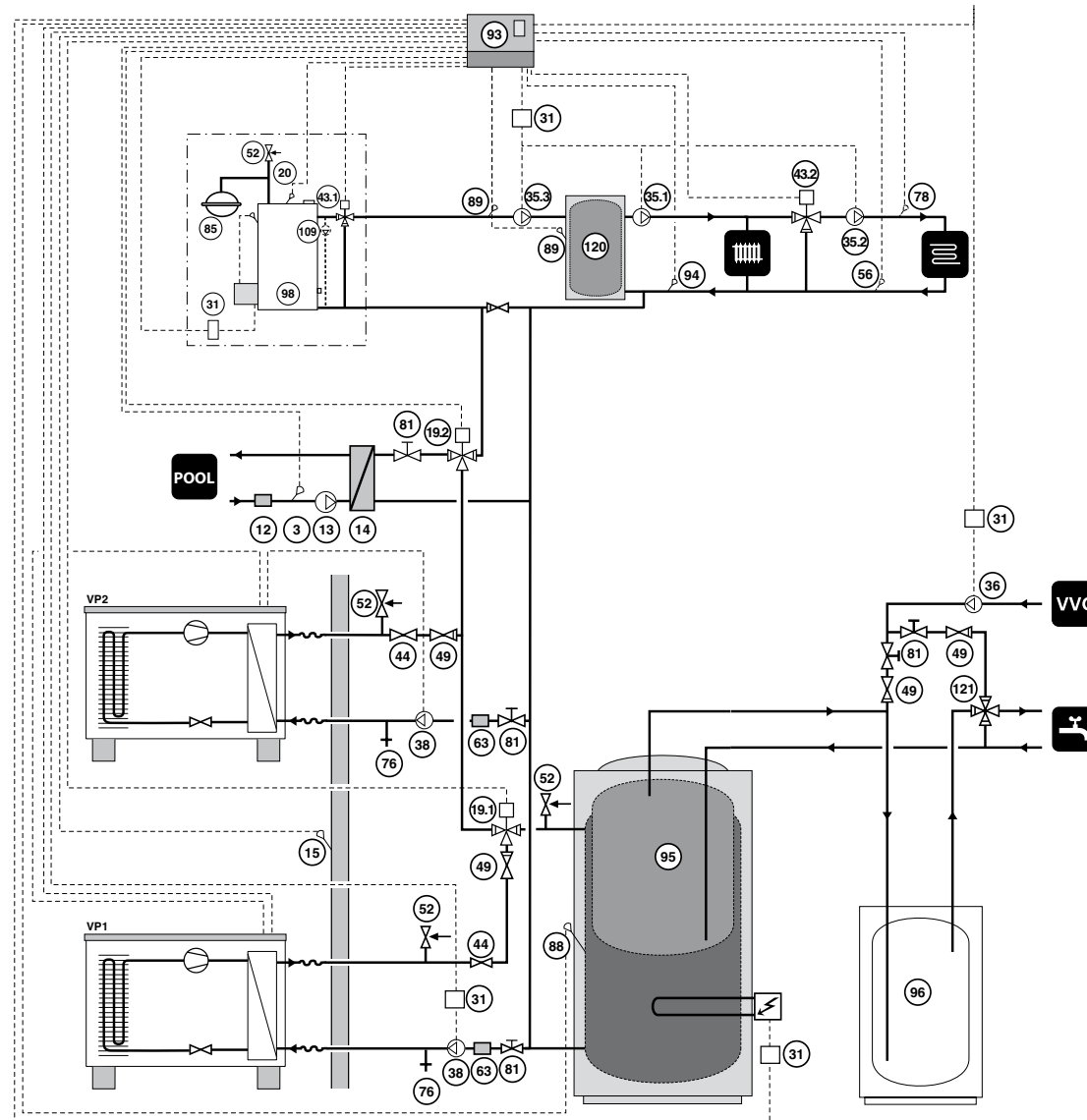
If F20XX cannot handle the heating demand, the additional heat is connected.

When additional heat is engaged, hot water is heated using the immersion heater in the hot water heater.

The fan works in stage 1 or stage 2 depending on the outdoor air temperature.

In cases where the system volume in the radiator circuit is below 20 l/kW (heat pump output at 7/45 °C) and/or the radiator flow is choked uncontrolled, a UKV tank (120) is installed as a volume and flow increaser.

See the appropriate "Installation and Maintenance Instructions" for more information.



Note! This is an out-line diagram. Actual installations must be planned according to applicable standards.

M10567 – F20XX together with SMO10, additional heat, water heater as well as any pool and heating system 2 (liquid condensing)

List of Components

Pos	Name	Specification	Manufacturer	Part No.	Remarks
VP1	Heat pump	F2005/2020/2025	NIBE		
VP2	Heat pump	F2005/2020/2025	NIBE		
3	Pool temperature sensor		NIBE		Included in SMO 10
12	Particle filter, pool		Pahléns Fabriker		08 - 59 41 10 50
13	Circulation pump, pool		Pahléns Fabriker		08 - 59 41 10 50
14	Exchanger		Pahléns Fabriker		08 - 59 41 10 50
15	Outside temperature sensor		NIBE		Included in SMO 10
19 *	Shuttle valve	VST 11	NIBE	089 152	VST 11 max 15 kW charge power
19 *	Shuttle valve	VST 20	NIBE	089 388	VST 20 max 40 kW charge power
20	Boiler sensor		NIBE		Included in SMO 10
31	Auxiliary relay/Contactor	HR 10	NIBE	089 423	
35	Circulation pump				
36	HWC pump				Hot water circulation
38	Charge pump				
43	Shunt valve				Also included in existing control equipment
44	Shut-off valve				
49	Non-return valve				
52	Safety valve				
56	Return sensor 2		NIBE		Included in SMO 10
63	Particle filter		NIBE		Included in F20XX
76	Draining, heating system				
78	Flow sensor 2		NIBE		Included in SMO 10
81	Control valve				
85	Expansion vessel				With req. safety equipment
88	Hot water sensor		NIBE		Included in SMO 10
89	Flow line sensor		NIBE		Included in SMO 10
93	SMO 10		NIBE		
94	Return sensor		NIBE		Included in SMO 10
95	Accumulator with hot water heater	e.g. VPA	NIBE		
96	Hot water heater		NIBE		
99	Immersion heater / Electric boiler	EK15/EP26/EP42	NIBE		
109	Circulation pump, boiler				
116	Remote heat exchanger				
120	Neutralization vessel	UKV	NIBE		
121	Shuttle valve HWC				

* Selected depending on connected compressor power for hot water charging.