

8.2 WEATHER COMPENSATION

8.2.1 WATER TEMPERATURE CONTROL POINT

The water temperature control point is based on a variable set point calculated automatically using climatic (weather compensation) curves as described below.

8.2.2 HEATING CLIMATIC CURVES

The regulation of the temperature of the outlet water from the heat pump, in normal winter heating operation, is based on the climatic curves.

The basic logic is to modulate the temperature of the outlet water depending on the outdoor air temperature.

During commissioning, the four climatic curve parameters must be checked and the default values adjusted to suit the design parameters for the system in question.

For example:

Maximum outgoing (flow) temperature in heating mode (Tm1) – Parameter 2102, must be set to the design maximum flow temperature for the system.

Minimum outdoor air temperature (Te1) – Parameter 2104, must be set to the same value as used in the design heat loss calculations for the building.

8.2.3 FIXED SET POINT

The heat pump is supplied with parameter 2100 set to a default setting of 1 (Climatic curve operation).

For the heat pump to operate based on a fixed outgoing water set point parameter 2100 must be reset to 0 (fixed set point).

With parameter 2100 set to 0, the outgoing water fixed set point is determined by parameter 2101 (factory default value = 45°C).

To stop operation of the weather compensation function, and set the outgoing water temperature control to 'fixed set point', set Parameter 2100 to 0 and parameter 2101 to the required 'fixed set point' value.

! NOTE !

If the installation is receiving an RHI payment, do NOT set the outgoing water control to 'fixed set point' as the weather compensation function MUST be operational.

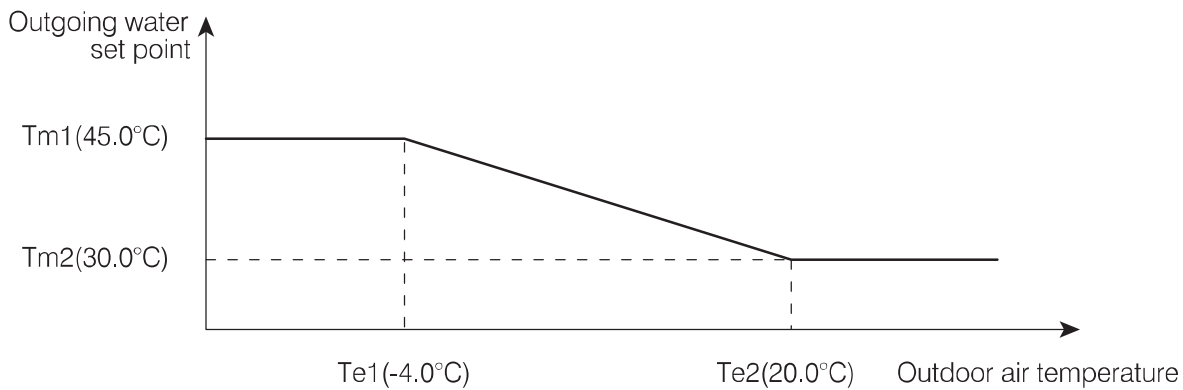


Figure 8-2: Climatic curves

Table 8-3: Outgoing water temperature parameters

Level	Parameter		Function description	Display and input value				Remarks
	Group	Code		Default	Min.	Max.	Unit	
I	21	00	Enable outgoing water set point 0=fixed set point* 1=climatic curve	1	0	1	-	
I	21	01	Fixed outgoing water set point*	45.0	23.0	60.0	0.5°C	
I	21	02	Maximum outgoing water temperature in Heating mode (Tm1)	45.0	23.0	60.0	0.5°C	
I	21	03	Minimum outgoing water temperature in Heating mode (Tm2)	30.0	23.0	60.0	0.5°C	
I	21	04	Minimum outdoor air temperature corresponding to maximum outgoing water temperature (Te1)	-4	-20.0	50.0	0.5°C	
I	21	05	Maximum outdoor air temperature corresponding to maximum outgoing water temperature (Te2)	20.0	0.0	40.0	0.5°C	
I	21	41	Hysteresis of water set point in heating	8.0	0.5	10.0	0.5°C	

* Fixed set point - thermal store require temperature sensor

For details of how to access the parameter settings, refer to Section 9.3.