




Arctic Heat Pump Advanced Parameters

Note to access the advance parameter window you first need to ensure the controller is unlocked by holding down the power icon until the lock symbol disappears. Then hold  the mode button for 5 seconds until the screen switches to the advance parameters. Use the up and down key to access the menu. Select the mode button to enter the parameter and select the appropriate setting. **NOTE** this is for advanced installers only, changing parameters could cause system to run inefficiently and could result in permanent system damage. Consult and Arctic Rep prior to making any changes.

Item	Meaning	Setting Range °C	Setting Range °F	Default	Remarks
0	Start temperature difference for different mode – Delta T	2-30°C	3.5-54°F	Cooling 2°C Hot water 5°C	Suggest Hot Water Be set for 2°C or 3°C
13	Highest setting temperature of Hot Water	20~55°C	68~131°F	50°C	
23	Automatic mode – cooling outdoor temperature CM	10~45°C	50~113°F	26°C	Not Applicable
24	Automatic mode – heating outdoor temperature HM	10~45°C	50~113°F	18°C	Not Applicable
28	Automatic mode – mode switch waiting time N	0~99 (*10min)		3	Not Applicable
29	Compressor cumulative running time	0~90min		45 min	
30	Outdoor coil temperature to enter defrost mode	-20°C~5°C。	-4~41°F	-7°C	

31	Defrost outdoor temperature setting	-20°C~5°C	-4~41°F	-10°C	
32	Temp. difference between outdoor temp. and coil temp. to enter defrost mode	0°C~30°C	0~54°F	10°C	
33	Extended defrost time	0~90 min		45 min	
34	Maximum defrost time (condition to exit defrost mode)	5~45 min		8 min	
35	External coil temp. to exit defrost mode	5 ~45°C	41~113°F	13°C	
38	Low ambient temperature protection setting – Max Coldest Operating Temp	-30~0°C		-30°C	Do not set lower than -30°C if you set this parameter to be lower than -30, like -31, this protection is invalid. So please set-in range of -30~0°C
39	Whether to reduce the compressor frequency or not when reaching the setting temperature	10~120		40	40 is NO reducing the frequency, and any other value is reducing frequency
40	Cooling outdoor temp. over-low protection setting point	-1~20°C	30~68°F	5°C	If this parameter is set to -1, then P16 low outlet water temperature protection will be invalid - Assumes glycol system. If water system, please do not set this to -1 set to 5 or warmer to avoid HX from freezing
41	Main expansion valve over-heat degree control method	0-1		0	0-according to overheat degree 1- according to chart

42	Target overheat degree of the main expansion valve	0~20°C	0~36°F	5°C	If #41 is set to 0
44	Water pump working mode in cooling mode	0-2		2	(0: run at intervals, 1: follow the compressor, 2: run all the time)
45	Water pump running time interval	0~30min		5	If #44 is set to 0
46	Outdoor temperature setting point to force water pump to run under low temperature	-25°C~5°C	-13~41°F	-10 °C	Low Temp Protection
47	Water system cleaning/testing function - (Pauses water flow protection during this function)	0-3		0	0: No 1: test water pump 2: test water pump and 3-way valve 1 3: test water pump and 3-way valve 1&2 Note- unit must be turn off at controller to enter test mode