



ENERG

енергия · ενεργεια

Y

IJA



IE

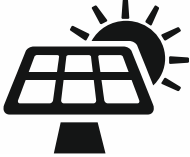
IA


 WATERKOTTE


EcoTouch Air Kaskade 5045.5





+ 


+ 

+ 

+ 





 


















Product fiche requirements for heat pump space heaters and heat pump combination heaters (in accordance with EU regulation no. 811/2013)

Supplier's name		Waterkotte GmbH, Gewerkestr. 15, 44628 Herne, Germany							
Model(s):		1	2	3	4	5	6	7	
		EcoTouch Air Kaskade 5030.5	EcoTouch Air Kaskade 5045.5	EcoTouch Air Kaskade 5060.5	EcoTouch Air Kaskade 5075.5	EcoTouch Air Kaskade 5090.5	EcoTouch Air Kaskade 5105.5	EcoTouch Air Kaskade 5120.5	
Item	Symbol	Unit	1	2	3	4	5	6	7
Medium temperature / Low temperature									
Seasonal space heating energy efficiency class of the model	-	-	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++	55°C / 35°C A+/A+++
Declared load profile for water heating	-	-	-	-	-	-	-	-	-
Water heating energy efficiency class	-	-	-	-	-	-	-	-	-
Rated heat output, including the rated heat output of any supplementary heater under average climate conditions	P _{rated}	kW	18 / 24	28 / 36	37 / 48	46 / 60	55 / 72	64 / 84	74 / 96
Seasonal space heating energy efficiency under average climate conditions	η _s	%	127 / 190	127 / 190	128 / 191	129 / 190	127 / 190	128 / 191	128 / 191
Space heating, annual energy consumption under average climate conditions	Q _{HE}	kWh	11698 / 10304	17466 / 15421	23250 / 20454	28839 / 25726	34932 / 30846	40716 / 35939	46506 / 41043
Water heating energy efficiency	η _{wh}	%	-	-	-	-	-	-	-
Water heating, the annual electricity consumption	AEC	kWh	-	-	-	-	-	-	-
Sound power level L _{WA} , indoors	L _{WA}	dB(A)	44	46	47	48	49	50	50
Any specific precautions that shall be taken when the heater is assembled, installed or maintained: see installation manual Alle beim Zusammenbau, der Installation oder Wartung des Raumheizgerätes zu treffenden besonderen Vorkehrungen: siehe Installationsanleitung Les éventuelles précautions particulières qui doivent être prises lors du montage, de l'installation ou de l'entretien du dispositif de chauffage des locaux: voir manuel d'installation									
Rated heat output, including the rated heat output of any supplementary heater under colder climate conditions	P _{rated}	kW	18 / 23	27 / 34	35 / 45	44 / 57	53 / 68	62 / 79	71 / 91
Rated heat output, including the rated heat output of any supplementary heater under warmer climate conditions	P _{rated}	kW	16 / 27	25 / 41	33 / 54	41 / 68	49 / 81	58 / 95	66 / 108
Seasonal space heating energy efficiency under colder climate conditions	η _s	%	102 / 149	102 / 153	105 / 149	103 / 149	103 / 151	104 / 151	104 / 152
Seasonal space heating energy efficiency under warmer climate conditions	η _s	%	147 / 237	157 / 231	150 / 212	150 / 235	149 / 230	156 / 231	152 / 232
Space heating, annual energy consumption under colder climate conditions	Q _{HE}	kWh	16683 / 14676	24882 / 21435	32258 / 29452	41081 / 36719	49565 / 43350	57407 / 50668	65581 / 57794
Space heating, annual energy consumption under warmer climate conditions	Q _{HE}	kWh	5871 / 6026	8278 / 9313	11518 / 13495	14333 / 15247	17415 / 18637	19405 / 21640	22730 / 24658
Sound power level L _{WA} , outdoors	L _{WA}	dB(A)	67	69	70	71	72	73	73

Information requirements for heat pump space heaters and heat pump combination heaters (in accordance with EU regulation no. 813/2013)

Model(s):		1	2	3	4	5	6	7
		EcoTouch Air Kaskade 5030.5	EcoTouch Air Kaskade 5045.5	EcoTouch Air Kaskade 5060.5	EcoTouch Air Kaskade 5075.5	EcoTouch Air Kaskade 5090.5	EcoTouch Air Kaskade 5105.5	EcoTouch Air Kaskade 5120.5

Air-to-water heat pump		1	2	3	4	5	6	7
Water-to-water heat pump		yes	yes	yes	yes	yes	yes	yes
Brine-to-water heat pump		-	-	-	-	-	-	-
Low-temperature heat pump		-	-	-	-	-	-	-
Equipped with a supplementary heater		-	-	-	-	-	-	-
Heat pump combination heater		-	-	-	-	-	-	-

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average climate conditions.

Item	Symbol	Unit	1	2	3	4	5	6	7
Rated heat output (*)	P _{rated}	kW	18	28	37	46	55	64	74
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _i									
T _i = -7 °C	P _{dh}	kW	16,9	25,3	33,7	42,2	50,6	59,0	67,4
T _i = +2 °C	P _{dh}	kW	11,8	14,9	19,8	24,8	29,7	35,4	41,3
T _i = +7 °C	P _{dh}	kW	7,4	9,5	12,7	15,9	19,1	22,3	25,5
T _i = +12 °C	P _{dh}	kW	7,1	7,2	7,2	7,5	14,4	14,4	14,4
T _i = bivalent temperature	P _{dh}	kW	18,4	27,6	36,8	46,0	55,2	64,4	73,5
T _i = operation limit temperature	P _{dh}	kW	18,4	27,6	36,8	46,0	55,2	64,4	73,5
For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C)	P _{dh}	kW	-	-	-	-	-	-	-
Bivalent temperature	T _{bi}	°C	-10	-10	-10	-10	-10	-10	-10
Cycling interval capacity for heating	P _{cy}	kW	-	-	-	-	-	-	-
Degradation co-efficient (**)	C _{dh}	-	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Seasonal space heating energy efficiency	η _s	%	127	127	128	129	127	128	121
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _i									
T _i = -7 °C	CO _{PD}	-	1,73	1,73	1,73	1,73	1,73	1,73	1,73
T _i = +2 °C	CO _{PD}	-	3,18	3,19	3,19	3,19	3,19	3,19	3,19
T _i = +7 °C	CO _{PD}	-	4,57	4,59	4,59	4,59	4,59	4,59	4,59
T _i = +12 °C	CO _{PD}	-	5,62	5,96	6,02	6,86	5,86	5,95	6,01
T _i = bivalent temperature	CO _{PD}	-	1,80	1,80	1,80	1,80	1,80	1,80	1,80
T _i = operation limit temperature	CO _{PD}	-	1,80	1,80	1,80	1,80	1,80	1,80	1,80
For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C)	CO _{PD}	-	-	-	-	-	-	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	°C	-10	-10	-10	-10	-10	-10	-10
Cycling interval efficiency	CO _{PCyc}	-	-	-	-	-	-	-	-
Heating water operating limit temperature	WTOL	°C	58	58	58	58	58	58	58
Power consumption in modes other than active mode									
Off mode	P _{OFF}	kW	0,034	0,057	0,066	0,075	0,083	0,092	0,101
Thermostat-off mode	P _{TO}	kW	0,043	0,065	0,086	0,109	0,130	0,152	0,174
Standby mode	P _{SB}	kW	0,042	0,063	0,084	0,105	0,126	0,147	0,168
Crankcase heater mode	P _{CK}	kW	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Supplementary heater									
Rated heat output (*)	P _{sup}	kW	-	-	-	-	-	-	-
Type of energy input	-	-	-	-	-	-	-	-	-
Other items									
Capacity control	fixed/variable	variable	variable	variable	variable	variable	variable	variable	variable
Sound power level, indoors/ outdoors	L _{WA}	dB(A)	44 / 67	46 / 69	47 / 70	48 / 71	49 / 72	50 / 73	50 / 73
Emissions of nitrogen oxides	NO _x	mg/kWh	-	-	-	-	-	-	-
For air-to-water heat pumps: Rated air flow rate, outdoors	-	m ³ /h	-	-	-	-	-	-	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	m ³ /h	9000	13500	18000	22500	27000	31500	36000
For heat pump combination heater:									
Declared load profile	-	-	-	-	-	-	-	-	-
Daily electricity consumption	Q _{elec}	kWh	-	-	-	-	-	-	-
Water heating energy efficiency	η _{wh}	%	-	-	-	-	-	-	-
Daily fuel consumption	Q _{fuel}	kWh	-	-	-	-	-	-	-
Contact details		Waterkotte GmbH, Gewerkestr. 15, 44628 Herne, Germany							

 (*) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating P_{design}, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating sup(T_j).

 (**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0,9.

Any specific precautions that shall be taken when the heater is assembled, installed or maintained: see installation manual

Information relevant for disassembly, recycling and/or disposal at end-of-life: see installation manual

Alle beim Zusammenbau, der Installation oder Wartung des Raumheizgerätes zu treffenden besonderen Vorkehrungen: siehe Installationsanleitung

Sachdienliche Angaben für das Zerlegen, die Wiederverwendung und/oder die Entsorgung nach der endgültigen Außerbetriebstellung: siehe Installationsanleitung

Les éventuelles précautions particulières qui doivent être prises lors du montage, de l'installation ou de l'entretien du dispositif de chauffage des locaux: voir manuel d'installation

Informations utiles pour le démontage, le recyclage et/ou l'élimination à la fin du cycle de vie de l'appareil: voir manuel d'installation

