## Information requirements (heat pump space heaters and heat pump combination heaters)

				and heat pump combination heate	ers)		
Model(s): AQ OUT HY 54, AQ OUT	HY 45, A0	Q OUT H	Y 40, AQ	UABOX 16	ı		
Air-to-water heat pump	Y			Low-temperature heat pump	Y		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for				Medium-temperature application			
Parameters declared for				Warmer climate condition			
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	11,0	kW	Seasonal space heating energy efficiency	ης	146,00	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = −7 °C	Pdh	10,07	kW	Tj = −7 °C	COPd	2,2	-
Degradation coefficient (**)	Cdh	x,xx	_				
Tj = 2 ℃	Pdh	6,5	kW	Tj = 2 ℃	COPd	3,4	-
Degradation coefficient (**)	Cdh	x,xx	_				
Tj = 7 ℃	Pdh	4,2	kW	Tj = 7 °C	COPd	5,8	-
Degradation coefficient (**)	Cdh	x,xx	_				
$Tj = 12^{\circ}C$	Pdh	2,3	kW	Tj = 12℃	COPd	6,8	-
Degradation coefficient (**)	Cdh	x,xx	_				
Tj = bivalent temperature	Pdh	10,1	kW	Tj = bivalent temperature	COPd	2,2	-
Tj = operation limit temperature	Pdh	11,1	kW	Tj = operation limit temperature	COPd	2,2	-
For air-to-water heat pumps: $T_1 = -15^{\circ}C$ (if $TOL < -20^{\circ}C$ )	Pdh	x,x	kW	For air-to-water heat pumps: $T_i = -15^{\circ}C$ (if $TOL < -20^{\circ}C$ )	COPd	x,xx or x,x	-
Bivalent temperature	Tbiv	-7,0	$^{\circ}$	For air-to-water heat pumps: Operation limit temperature	TOL	-10,0	$^{\circ}$
Cycling interval capacity for heating	Pcych	х,х	kW	Cycling interval efficiency	COPcyc or PERcyc	x,xx or x,x	-
				Heating water operating limit temperature	WTOL	35,0	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0,030	kW	Rated heat output (*)	Psup	3,0	kW
Thermostat-off mode	$P_{TO}$	0,010	kW				
Standby mode	$P_{SB}$	0,030	kW	Type of energy input			
Crankcase heater mode	$P_{CK}$	0,040	kW				
Other items							
Capacity control	fixed/variable			For air-to-water heat pumps: Rated air flow rate, outdoors	_	6000- 6600	m 3 /h
Sound power level, indoors/outdoors	$L_{WA}$	70,0	dB	For water- or brine-to-water heat			
Annual energy consumption	Q <sub>HE</sub>	6100,0	kWh	pumps: Rated brine or water flow rate, outdoor heat exchanger	_	х	m 3 /h
For heat pump combination heater:				1		1	
Declared load profile		x		Water heating energy efficiency	ηwh	x	%
Daily electricity consumption	Qelec	x,xxx	kWh	Daily fuel consumption	Qfuel	x,xxx	kWh
Annual electricity consumption	AEC	х	kWh	Annual fuel consumption	AFC	х	GJ
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<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ . (\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.