

Information requirements for comfort chillers							
Model(s):	KEM-60 DNS3 KH						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	55.0	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	168	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j = +35\text{ °C}$	P_{dc}	55.0	kW	$T_j = +35\text{ °C}$	EER_d	2.44	--
$T_j = +30\text{ °C}$	P_{dc}	43.35	kW	$T_j = +30\text{ °C}$	EER_d	3.62	--
$T_j = +25\text{ °C}$	P_{dc}	27.78	kW	$T_j = +25\text{ °C}$	EER_d	5.25	--
$T_j = +20\text{ °C}$	P_{dc}	14.81	kW	$T_j = +20\text{ °C}$	EER_d	6.51	--
Degradation co-efficient for chillers (*)	C_{dc}	0.9	--				
Power consumption in modes other than 'active mode'							
Off mode	P_{OFF}	0.075	kW	Crankcase heater mode	P_{CK}	0.075	kW
Thermostat-off mode	P_{TO}	0.6	kW	Standby mode	P_{SB}	0.075	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	--	24000	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-87	dB	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	--	--	m ³ /h
Emissions of nitrogen oxides (if applicable)	NO_x (**)	--	mg/kWh input GCV				
GWP of the refrigerant	--	2088	kg CO ₂ eq (100 years)				
Standard rating conditions used:	Low temperature application						
Contact details							
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9. (**) From 26 September 2018.							
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Information requirements for heat pump space heaters and heat pump combination heaters							
Model(s):	KEM-60 DNS3 KH						
Air-to-water heat pump:	YES						
Water-to-water heat pump:	NO						
Brine-to-water heat pump:	NO						
Low-temperature heat pump:	YES						
Equipped with a supplementary heater:	NO						
Heat pump combination heater:	NO						
Declared climate condition:	AVERAGE						
Parameters are declared for low-temperature application.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	P_{rated}	31	KW	Seasonal space heating energy efficiency	η_s	135	%
Declared capacity for heating for part load at outdoor temperature T_j				Declared coefficient of performance or primary energy ratio for part load at outdoor temperature T_j			
$T_j = -7\text{C}$	P_{dh}	26.1	KW	$T_j = -7\text{C}$	COP_d	2.59	-
$T_j = 2\text{C}$	P_{dh}	16.7	KW	$T_j = 2\text{C}$	COP_d	3.56	-
$T_j = 7\text{C}$	P_{dh}	11.8	KW	$T_j = 7\text{C}$	COP_d	3.87	-
$T_j = 12\text{C}$	P_{dh}	11.2	KW	$T_j = 12\text{C}$	COP_d	5.70	-
T_j =bivalent temperature	P_{dh}	31.0	KW	T_j =bivalent temperature	COP_d	2.32	-
T_j = operating limit	P_{dh}	31.0	KW	T_j = operating limit	COP_d	2.32	-
For air-to-water heat pumps: $T_j = -15\text{ °C}$	P_{dh}	-	KW	For air-to-water heat pumps: $T_j = -15\text{ °C}$	COP_d	-	-
Bivalent temperature	T_{biv}	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	C
Cycling interval capacity for heating	$P_{cy ch}$	-	KW	Cycling interval efficiency	$COP_{cy c}$	-	-
Degradation co-efficient (**)	C_{dh}	0.99	--	Heating water operating limit temperature	WTOL	35	C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	$P_{of f}$	0.075	kW	Rated heat output (**)	P_{sup}		
Standby mode	P_{sb}	0.075	kW				
Thermostat-off mode	P_{to}	0.600	kW	Type of energy input			
Crankcase heater mode	P_{ck}	0.075	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	24000	m ³ /h
Sound power level, outdoors	LWA	86	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	18998	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{elec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating $P_{designh}$, 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 $C_{dh} = 0.99$.							