

Information requirements for comfort chillers							
Model(s)	MC-SU30/RN1L						
Outdoor side heat exchanger	Air to water						
Indoor side heat exchanger	Water to air						
Type	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prate _{dc}	27.6	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	160	%
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°C	P _{dc}	27.6	kW	T _j = + 35°C	EER _d	2.52	--
T _j = + 30°C	P _{dc}	22.0	kW	T _j = + 30°C	EER _d	3.64	--
T _j = + 25°C	P _{dc}	13.2	kW	T _j = + 25°C	EER _d	5.05	--
T _j = + 20°C	P _{dc}	8.1	kW	T _j = + 20°C	EER _d	6.40	--
Degradation co-efficient for chillers (*)	C _{dc}	0.9	--				
Power consumption in modes other than 'active mode'							
Off mode	P _{OFF}	0.08	kW	Crankcase heater mode	P _{CK}	0.08	kW
Thermostat-off mode	P _{TO}	0.21	kW	Standby mode	P _{SB}	0.08	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	12500	m ³ /h
Sound power level, indoors / outdoors	L _{WA}	-78	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	GD Midea Heating & Ventilating Equipment Co., Ltd. Penglai industry Road, Beijiao, Shunde, Foshan, Guangdong, 528311 P.R. China.						
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0.9. (**) From 26 September 2018.							



Information requirements for heat pump space heaters and heat pump combination heaters							
Model(s):	MC-SU30/RN1L						
Air-to-water heat pump:							[yes]
Water-to-water heat pump:							[yes/no]
Brine-to-water heat pump:							[yes/no]
Low-temperature heat pump:							[yes/no]
For low-temperature heat pumps, parameters shall be declared for low-temperature application. Otherwise, parameters shall be declared for medium-temperature application.							
Parameters shall be declared for average climate conditions.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output ⁽³⁾ at T _{designh} = -10 (-11)°C	Prated = P _{designh}	21	kW	Seasonal space heating energy efficiency	η_s	157	%
Seasonal coefficient of performance	SCOP	4.01	-	Active mode coef. of performance	SCOP _{on}	x.xx	-
				Net seasonal coef. of performance	SCOP _{net}		-
T _j = - 7°C	P _{dh}	19.2	kW	T _j = - 7°C	COP _d	2.59	-
T _j = + 2°C	P _{dh}	10.9	kW	T _j = + 2°C	COP _d	3.84	-
T _j = + 7°C	P _{dh}	7.2	kW	T _j = + 7°C	COP _d	5.21	-
T _j = + 12°C	P _{dh}	8.7	kW	T _j = + 12°C	COP _d	7.10	-
T _j = bivalent temperature	P _{dh}	22.2	kW	T _j = bivalent temperature	COP _d	2.34	-
T _j = operation limit temperature	P _{dh}	22.2	kW	T _j = operation limit temperature	COP _d	2.34	-
For air-to-water heat pumps: T _j = - 15°C (if TOL < - 20°C)	P _{dh}	x,x	kW	For air-to-water heat pumps: T _j = - 15°C (if TOL < - 20°C)	COP _d	x,xx	-
Bivalent temperature (maximum +2°C)	T _{biv}	-10	°C	For air-to-water HP: Operation limit temperature (maximum -7°C)	TOL	-10	°C
Cycling interval capacity for heating at T _j = -7°C	P _{cyh}	x,x	kW	Heating water operating limit temperature	WTOL	x	°C
Degradation coefficient ⁽⁴⁾ at T _j = -7°C	C _{dh}	x,xx	-	Cycling interval efficiency at T _j = +7°C	COP _{cyh}	x,xx	-
Cycling interval capacity for heating at T _j = +2°C	P _{cyh}	x,x	kW				
Degradation coefficient ⁽⁴⁾ at T _j = +2°C	C _{dh}	x,xx	-	Cycling interval efficiency at T _j = +12°C	COP _{cyh}	x,xx	-
Cycling interval capacity for heating at T _j = +7°C	P _{cyh}	x,x	kW	Cycling interval efficiency at T _j = +7°C	COP _{cyh}	x,xx	-
Degradation coefficient ⁽⁴⁾ at T _j = +7°C	C _{dh}	x,xx	-	Cycling interval efficiency at T _j = +12°C	COP _{cyh}	x,xx	-
Cycling interval capacity for heating at T _j = +12°C	P _{cyh}	x,x	kW				
Degradation coefficient ⁽⁴⁾ at T _j = +12°C	C _{dh}	x,xx	-				
Power consumption in modes other than active mode				Supplementary heater (to be declared even if not provided in the unit)			
Off mode	P _{OFF}	0.08	kW	Rated heat output (3)	P _{sup} = sup(T _j)	x,x	kW
Thermostat-off mode	P _{TO}	0.21	kW	Type of energy input			
Standby mode	P _{SB}	0.08	kW				
Crankcase heater mode	P _{CK}	0.08	kW				
Other items				Outdoor heat exchanger			
Capacity control	fixed/variable	variable		For air-to-water HP: Rated air flow rate	Q _{airsource}	12500	m ³ /h
Sound power level, indoors	L _{WA}	x	dB(A)	For water-to-water: Rated water flow rate	Q _{watersource}	x	m ³ /h
Sound power level, outdoors	L _{WA}	78	dB(A)	For brine-to-water: Rated brine flow rate	Q _{brinesource}	x	m ³ /h
Contact details	Name and address of the manufacturer or its authorised representative.						
(1) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated 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). (2) If C _{dh} is not determined by measurement then the default degradation coefficient is C _{dh} = 0.9.							