



## Product fiche 1

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
Indoor unit sound power (*)		[dB(A)]	/	/	/
Outdoor unit sound power (*)		[dB(A)]	86.7	84.4	80
Capacity of the back-up heater integrated in the unit	Psup back-up heater	[kW]	0	0	0
off peak operation function integrated in Heat pump	Y/N		No	No	No
Space heating	Energy efficiency class 35 °C (Low temp. app.)	-	A+++	A+++	A+++
Space heating	Energy efficiency class 55 °C(Medium temp. app.)	-	A+++	A+++	A++
Average climate (Design temperature= -10°C)					
Space heating 35 °C	Prated(declared heating capacity) @-10 °C	[kW]	50	60	65
	Seasonal space heating efficiency(ηs)	[%]	185	181	177
	Annual energy consumption	[kWh]	21 978	26 948	29 842
Space heating 55 °C	Prated(declared heating capacity) @-10 °C	[kW]	50	60	65
	Seasonal space heating efficiency(ηs)	[%]	153	151	147.4
	Annual energy consumption	[kWh]	26 324	32 176	35 694
Part load conditions space heating average climate low temperature application					
(A) condition (-7 °C)	Pdh(declared heating capacity)	[kW]	45.18	52.46	57.34
	COPd (declared COP)	-	2.8	2.61	2.48
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(B) condition (2 °C)	Pdh(declared heating capacity)	[kW]	28.40	32.53	34.71
	COPd (declared COP)	-	4.49	4.39	4.31
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh(declared heating capacity)	[kW]	17.57	21.65	21.65
	COPd (declared COP)	-	6.58	6.59	6.99
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh(declared heating capacity)	[kW]	7.83	9.79	9.79
	COPd (declared COP)	-	7.59	8.66	8.66
	Cdh(degradation coefficient)	-	0.9	0.9	0.9

## Product fiche 2

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	50.39	59.61	59.61
	COPd (declared COP)	-	2.52	2.36	2.36
	WTOL (Heating water Operation Limit)	[°C]	85	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	45.18	52.46	57.34
	COPd (declared COP)	-	2.80	2.61	2.48
Supplementary capacity at P_design	Psup (@Tdesignh:-10°C)	[kW]	0	0.39	5.39
Part load conditions space heating average climate medium temperature application					
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	44.14	51.15	57.95
	COPd (declared COP)	-	2.40	2.21	2.13
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	28.61	32.14	35.42
	COPd (declared COP)	-	3.86	3.73	3.61
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	17.21	21.58	21.58
	COPd (declared COP)	-	5.21	5.36	5.36
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	12.09	11.86	11.86
	COPd (declared COP)	-	6.24	6.89	6.89
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	51.33	59.95	64.46
	COPd (declared COP)	-	2.12	2.01	1.95
	WTOL (Heating water Operation Limit)	[°C]	85	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	44.14	51.15	57.95
	COPd (declared COP)	-	2.4	2.21	2.13
Supplementary capacity at P_design	Psup (@Tdesignh:-10°C)	[kW]	0	0	0

### Product fiche 3

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
Colder climate (Design temperature = -22 °C)					
Space heating 35 °C	Prated (declared heating capacity) @ -22 °C	[kW]	50	60	64
	Seasonal space heating efficiency ( $\eta_s$ )	[%]	154.9	144.5	144.3
	Annual energy consumption	[kWh]	31 231	40 105	42 832
Space heating 55 °C	Prated (declared heating capacity) @ -22 °C	[kW]	50	60	64
	Seasonal space heating efficiency ( $\eta_s$ )	[%]	137.7	128.5	128.2
	Annual energy consumption	[kWh]	35 048	44 978	48 107
Part load conditions space heating colder climate low temperature application					
condition (-15 °C)	Pdh (declared heating capacity)	[kW]	42.15	52.33	52.33
	COPd (declared COP)	-	2.34	2.10	2.10
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	30.10	39.69	18.56
	COPd (declared COP)	-	3.45	3.01	3.01
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	17.98	22.96	22.96
	COPd (declared COP)	-	4.53	4.45	4.45
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	12.04	14.53	14.53
	COPd (declared COP)	-	6.36	6.46	6.46
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	7.83	7.72	7.72
	COPd (declared COP)	-	7.32	7.45	7.43
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	43.90	43.90	43.90
	COPd (declared COP)	-	1.79	1.79	1.79
	WTOL (Heating water Operation Limit)	[°C]	85	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	42.15	52.33	52.33
	COPd (declared COP)	-	2.34	2.10	2.10
Supplementary capacity at P <sub>design</sub>	Psup (@Tdesignh:-22°C)	[kW]	6.10	16.10	20.10

## Product fiche 4

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
Part load conditions space heating colder climate medium temperature application					
condition (-15 °C)	Pdh (declared heating capacity)	[kW]	40.33	50.64	50.64
	COPd (declared COP)	-	2.18	2.04	2.04
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	30.33	39.97	39.97
	COPd (declared COP)	-	2.85	2.74	2.74
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	19.73	24.38	24.38
	COPd (declared COP)	-	4.20	3.89	3.80
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	12.35	14.90	14.90
	COPd (declared COP)	-	5.69	5.48	5.45
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	12.13	12.15	12.15
	COPd (declared COP)	-	6.32	6.39	6.39
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	50.54	50.54	50.54
	COPd (declared COP)	-	1.60	1.60	1.60
	WTOL (Heating water Operation Limit)	[°C]	85	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	40.33	50.64	50.64
	COPd (declared COP)	-	2.18	2.04	2.04
Supplementary capacity at P_design	Psup (@Tdesignh:-22°C)	[kW]	0	9.46	13.46
Warmer climate (Design temperature =2°C)					
Space heating 35 °C	Prated (declared heating capacity) @ 2°C	[kW]	50	60	65
	Seasonal space heating efficiency ( $\eta_s$ )	[%]	247.7	248.7	243.2
	Annual energy consumption	[kWh]	10 659	12 741	14 110
Space heating 55 °C	Prated (declared heating capacity) @ 2°C	[kW]	50	60	65
	Seasonal space heating efficiency ( $\eta_s$ )	[%]	189.3	187.2	187.2
	Annual energy consumption	[kWh]	13 898	16 860	18 264

## Product fiche 5

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
Part load conditions space heating warmer climate low temperature application					
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	50.17	59.13	63.03
	COPd (declared COP)	-	3.42	3.05	2.89
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	32.41	38.39	41.36
	COPd (declared COP)	-	5.81	5.67	5.50
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	14.02	18.37	18.37
	COPd (declared COP)	-	8.05	8.47	8.47
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	50.17	59.13	63.03
	COPd (declared COP)	-	3.42	3.05	2.89
	WTOL (Heating water Operation Limit)	[°C]	85	85	85
(F) Tbivalent temperature	Tbiv	[°C]	7	7	7
	Pdh (declared heating capacity)	[kW]	32.41	38.39	41.36
	COPd (declared COP)	-	5.81	5.67	5.50
Supplementary capacity at P_design	Psup (@Tdesign:2 °C)	[kW]	0	0.87	1.97
Part load conditions space heating warmer climate medium temperature application					
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	48.86	57.59	63.70
	COPd (declared COP)	-	2.60	2.39	2.38
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	31.46	37.72	41.07
	COPd (declared COP)	-	4.30	4.20	4.13
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	14.04	17.74	17.74
	COPd (declared COP)	-	6.36	6.44	6.44
	Cdh(degradation coefficient)	-	0.9	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	48.86	57.59	63.70
	COPd (declared COP)	-	2.60	2.39	2.38
	WTOL (Heating water Operation Limit)	[°C]	85	85	85

## Product fiche 6

Heat pump space heater		unit	MHS-SVC50-RN7TL-B	MHS-SVC60-RN7TL-B	MHS-SVC70-RN7TL-B
(F) Tbivalent temperature	Tbiv	[°C]	7	7	7
	Pdh (declared heating capacity)	[kW]	31.46	37.72	41.07
	COPd (declared COP)	-	4.30	4.20	4.13
Supplementary capacity at P_design	Psup (@Tdesignh:2 °C)	[kW]	0	0.24	1.94
Ecodesign technical data					
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No
	Low-temperature heat pump	Y/N	No	No	No
	Equipped with a supplementary heater	Y/N	No	No	No
	Heat pump combination heater	Y/N	No	No	No
Air to water unit	Rated airflow (outdoor)	[m³/h]	28 670	28 670	28 670
Brine/water to water unit	Rated water/brine flow (outdoor H/E)	[m³/h]	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.135	0.135	0.135
	Pto (Power consumption Thermostat off mode)	[kW]	0.620	0.620	0.620
	Psb (Power consumption Standby mode)	[kW]	0.135	0.135	0.135
	PCK (Power crankcase heater model)	[kW]	0	0	0
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/
Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.					
Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.					

Technical parameters								
Model(s):	MHS-SVC50-RN7TL-B							
Air-to-water heat pump:	YES							
Water-to-water heat pump:	NO							
Brine-to-water heat pump:	NO							
Low-temperature heat pump:	NO							
Equipped with a supplementary heater:	NO							
Heat pump combination heater:	NO							
Declared climate condition:	AVERAGE							
Parameters are declared for medium-temperature application.								
Item	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	50	kW					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7 °C	P <sub>d</sub>	44.1	kW					
T <sub>j</sub> = 2 °C	P <sub>d</sub>	28.6	kW					
T <sub>j</sub> = 7 °C	P <sub>d</sub>	17.2	kW					
T <sub>j</sub> = 12 °C	P <sub>d</sub>	12.1	kW					
T <sub>j</sub> = bivalent temperature	P <sub>d</sub>	44.1	kW					
T <sub>j</sub> = operating limit	P <sub>d</sub>	51.3	kW					
For air-to-water heat pumps: T <sub>j</sub> = -15 °C	P <sub>d</sub>	-	kW					
Bivalent temperature	T <sub>biv</sub>	-7	°C					
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--					
Power consumption in modes other than active mode								
Off mode	P <sub>off</sub>	0.135	kW					
Standby mode	P <sub>sb</sub>	0.135	kW					
Thermostat-off mode	P <sub>to</sub>	0.620	kW					
Crankcase heater mode	P <sub>ck</sub>	0.000	kW					
Other items								
Capacity control	variable							
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/80.0	dB					
Annual energy consumption	Q <sub>HE</sub>	26 324	kWh					
For heat pump combination heater:								
Declared load profile	-							
Daily electricity consumption	Q <sub>elec</sub>	-	kWh					
Annual electricity consumption	AEC	-	kWh					
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)							
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).								
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.								

Technical parameters								
Model(s):	MHS-SVC50-RN7TL-B							
Air-to-water heat pump:	YES							
Water-to-water heat pump:	NO							
Brine-to-water heat pump:	NO							
Low-temperature heat pump:	NO							
Equipped with a supplementary heater:	NO							
Heat pump combination heater:	NO							
Declared climate condition:	COLDER							
Parameters are declared for medium-temperature application.								
Item	Symbol	Value	Unit					
Rated heat output (*)	P <sub>rated</sub>	50	kW					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7 °C	P <sub>d</sub>	30.3	kW					
T <sub>j</sub> = 2 °C	P <sub>d</sub>	19.7	kW					
T <sub>j</sub> = 7 °C	P <sub>d</sub>	12.3	kW					
T <sub>j</sub> = 12 °C	P <sub>d</sub>	12.1	kW					
T <sub>j</sub> = bivalent temperature	P <sub>d</sub>	40.3	kW					
T <sub>j</sub> = operating limit	P <sub>d</sub>	50.5	kW					
For air-to-water heat pumps: T <sub>j</sub> = -15 °C	P <sub>d</sub>	40.3	kW					
Bivalent temperature	T <sub>biv</sub>	-15	°C					
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--					
Power consumption in modes other than active mode								
Off mode	P <sub>off</sub>	0.135	kW					
Standby mode	P <sub>sb</sub>	0.135	kW					
Thermostat-off mode	P <sub>to</sub>	0.620	kW					
Crankcase heater mode	P <sub>ck</sub>	0.000	kW					
Supplementary heater								
Rated heat output (**)	P <sub>sup</sub>	0	kW					
Type of energy input	-							
Other items								
Capacity control	variable							
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/80.0	dB					
Annual energy consumption	Q <sub>HE</sub>	19 078	kWh					
For heat pump combination heater:								
Declared load profile	-		Water heating energy efficiency	η <sub>wh</sub>				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	η <sub>wh</sub>				
Annual electricity consumption	AEC	-	kWh	η <sub>wh</sub>				
Daily fuel consumption	Q <sub>fuel</sub>	-	kWh	η <sub>wh</sub>				
Annual fuel consumption	AFC	-	GJ	η <sub>wh</sub>				
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)							
(*) 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(Tj).								
(**) If Cd <sub>h</sub> is not determined by measurement then the default degradation coefficient is Cd <sub>h</sub> = 0.9.								

Technical parameters								
Model(s):	MHS-SVC50-RN7TL-B							
Air-to-water heat pump:	YES							
Water-to-water heat pump:	NO							
Brine-to-water heat pump:	NO							
Low-temperature heat pump:	NO							
Equipped with a supplementary heater:	NO							
Heat pump combination heater:	NO							
Declared climate condition:	WARMER							
Parameters are declared for medium-temperature application.								
Item	Symbol	Value	Unit					
Rated heat output (*)	Prated	50	kW					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj								
Tj = -7 °C	Pdh	-	kW					
Tj = 2 °C	Pdh	48.9	kW					
Tj = 7 °C	Pdh	31.5	kW					
Tj = 12 °C	Pdh	14.0	kW					
Tj = bivalent temperature	Pdh	31.5	kW					
Tj = operating limit	Pdh	48.9	kW					
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW					
Bivalent temperature	Tbiv	7	°C					
Cycling interval capacity for heating	Pcyc	-	kW					
Degradation co-efficient (**)	Cdh	0.9	--					
Power consumption in modes other than active mode								
Off mode	Poff	0.135	kW					
Standby mode	Psb	0.135	kW					
Thermostat-off mode	Pto	0.620	kW					
Crankcase heater mode	Pck	0.000	kW					
Other items								
Capacity control	variable							
Sound power level, indoors/outdoors	LWA	-/80.0	dB					
Annual energy consumption	QHE	13 898	kWh					
For heat pump combination heater:								
Declared load profile	-							
Daily electricity consumption	Qelec	-	kWh					
Annual electricity consumption	AEC	-	kWh					
Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily fuel consumption	Qfuel	-	kWh					
Annual fuel consumption	AFC	-	GJ					
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)							
(*) 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(Tj).								
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.								

# Information requirements for comfort chillers

Model(s):		MHS-SVC50-RN7TL-B											
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 <sub>rated,c</sub>	50	kW	Seasonal space cooling energy efficiency	η <sub>s,c</sub>	191.0	%						
Declared cooling capacity for part load at given outdoor temperature T <sub>j</sub>				Declared energy efficiency ratio for part load at given outdoor temperature T <sub>j</sub>									
T <sub>j</sub> =+35 °C	P <sub>dc</sub>	50.2	kW	T <sub>j</sub> =+35 °C	EER <sub>d</sub>	3.31	-						
T <sub>j</sub> =+30 °C	P <sub>dc</sub>	37.4	kW	T <sub>j</sub> =+30 °C	EER <sub>d</sub>	4.24	-						
T <sub>j</sub> =+25 °C	P <sub>dc</sub>	23.6	kW	T <sub>j</sub> =+25 °C	EER <sub>d</sub>	5.72	-						
T <sub>j</sub> =+20 °C	P <sub>dc</sub>	10.7	kW	T <sub>j</sub> =+20 °C	EER <sub>d</sub>	6.77	-						
Degradation co-efficient for chillers (*)	C <sub>dc</sub>	0.9	-										
Power consumption in modes other than "active mode"													
Off mode	P <sub>OFF</sub>	0.135	kW	Crankcase heater mode	P <sub>CK</sub>	0.000	kW						
Thermosat-off mode	P <sub>TO</sub>	0.405	kW	Standby mode	P <sub>SB</sub>	0.135	kW						
Other items													
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	28 670	m <sup>3</sup> /h						
Sound power level, indoors / outdoors	L <sub>WA</sub>	-/80.1	dB	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m <sup>3</sup> /h						
Emissions of nitrogen oxides (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV										
GWP of the refrigerant	-	3	kg CO <sub>2</sub> eq (100years)										
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 <sub>dc</sub> is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.													
(**) From 26 September 2018.													

# Information requirements for comfort chillers

Model(s):		MHS-SVC50-RN7TL-B											
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 <sub>rated,c</sub>	50	kW	Seasonal space cooling energy efficiency	η <sub>s,c</sub>	269.0	%						
Declared cooling capacity for part load at given outdoor temperature T <sub>j</sub>				Declared energy efficiency ratio for part load at given outdoor temperature T <sub>j</sub>									
T <sub>j</sub> =+35 °C	P <sub>dc</sub>	50.0	kW	T <sub>j</sub> =+35 °C	EER <sub>d</sub>	4.78	-						
T <sub>j</sub> =+30 °C	P <sub>dc</sub>	37.5	kW	T <sub>j</sub> =+30 °C	EER <sub>d</sub>	6.26	-						
T <sub>j</sub> =+25 °C	P <sub>dc</sub>	23.0	kW	T <sub>j</sub> =+25 °C	EER <sub>d</sub>	7.99	-						
T <sub>j</sub> =+20 °C	P <sub>dc</sub>	10.3	kW	T <sub>j</sub> =+20 °C	EER <sub>d</sub>	10.23	-						
Degradation co-efficient for chillers (*)	C <sub>dc</sub>	0.9	-										
Power consumption in modes other than "active mode"													
Off mode	P <sub>OFF</sub>	0.135	kW	Crankcase heater mode	P <sub>CK</sub>	0.000	kW						
Thermosat-off mode	P <sub>TO</sub>	0.405	kW	Standby mode	P <sub>SB</sub>	0.135	kW						
Other items													
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	28 670	m <sup>3</sup> /h						
Sound power level, indoors / outdoors	L <sub>WA</sub>	-/80.1	dB	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m <sup>3</sup> /h						
Emissions of nitrogen oxides (if applicable)	NO <sub>x</sub> (**)	-	mg/kWh input GCV										
GWP of the refrigerant	-	3	kg CO <sub>2</sub> eq (100years)										
Standard rating conditions used		Medium temperature application											
Contact details		GD Midea Heating & Ventilating Equipment Co., Ltd. Penglai industry Road, Beijiao, Shunde, Foshan, Guangdong, 528311 P.R. China											
(*) If C <sub>dc</sub> is not determined by measurement then the default degradation coefficient of chillers shall be 0.9.													
(**) From 26 September 2018.													

Condition( °C )	Model(s):	Capacity /W	Power input /W	COP
Ambient Temperature: 7/6 Water temperature: 30/35	MHS-SVC50-RN7TL-B	50 000	10 635	4.70
	MHS-SVC60-RN7TL-B	60 000	13 950	4.30
	MHS-SVC70-RN7TL-B	70 000	17 500	4.00
Ambient Temperature: 7/6 Water temperature: 40/45	MHS-SVC50-RN7TL-B	50 000	13 155	3.80
	MHS-SVC60-RN7TL-B	60 000	17 045	3.52
	MHS-SVC70-RN7TL-B	70 000	20 895	3.35
Ambient Temperature: 7/6 Water temperature: 47/55	MHS-SVC50-RN7TL-B	50 000	15 150	3.30
	MHS-SVC60-RN7TL-B	60 000	19 605	3.06
	MHS-SVC70-RN7TL-B	70 000	23 725	2.95
Ambient Temperature: 7/6 Water temperature: 55/65	MHS-SVC50-RN7TL-B	50 000	17 855	2.80
	MHS-SVC60-RN7TL-B	60 000	22 220	2.70
	MHS-SVC70-RN7TL-B	70 000	27 450	2.55
Ambient Temperature: 2/1 Water temperature: 30/35	MHS-SVC50-RN7TL-B	43 000	11 375	3.78
	MHS-SVC60-RN7TL-B	51 000	14 655	3.48
	MHS-SVC70-RN7TL-B	60 000	19 045	3.15
Ambient Temperature: 2/1 Water temperature: 40/45	MHS-SVC50-RN7TL-B	40 500	12 850	3.15
	MHS-SVC60-RN7TL-B	50 000	16 665	3.00
	MHS-SVC70-RN7TL-B	59 500	21 400	2.78
Ambient Temperature: 2/1 Water temperature: 47/55	MHS-SVC50-RN7TL-B	40 000	14 545	2.75
	MHS-SVC60-RN7TL-B	49 500	18 675	2.65
	MHS-SVC70-RN7TL-B	58 500	23 875	2.45
Ambient Temperature: -7/-8 Water temperature: 30/35	MHS-SVC50-RN7TL-B	39 500	13 165	3.00
	MHS-SVC60-RN7TL-B	49 000	17 250	2.84
	MHS-SVC70-RN7TL-B	56 500	22 420	2.52
Ambient Temperature: -7/-8 Water temperature: 40/45	MHS-SVC50-RN7TL-B	39 000	14 770	2.64
	MHS-SVC60-RN7TL-B	47 500	18 700	2.54
	MHS-SVC70-RN7TL-B	54 800	23 220	2.36
Ambient Temperature: -7/-8 Water temperature: 47/55	MHS-SVC50-RN7TL-B	35 500	14 875	2.39
	MHS-SVC60-RN7TL-B	43 800	18 795	2.33
	MHS-SVC70-RN7TL-B	51 900	23 590	2.20
Ambient Temperature: 35/24 Water temperature: 23/18	MHS-SVC50-RN7TL-B	50 000	10 415	4.80
	MHS-SVC60-RN7TL-B	60 000	13 330	4.50
	MHS-SVC70-RN7TL-B	70 000	16 860	4.15
Ambient Temperature: 35/24 Water temperature: 12/7	MHS-SVC50-RN7TL-B	50 000	15 150	3.30
	MHS-SVC60-RN7TL-B	60 000	20 000	3.00
	MHS-SVC70-RN7TL-B	65 000	23 210	2.80