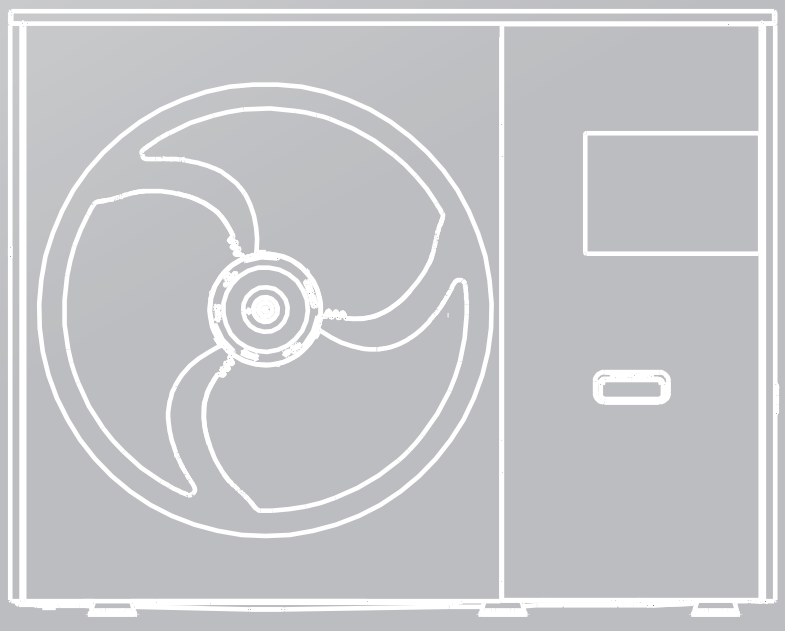
TECHNICAL DATA MANUAL

ATW Heat Pump



IMPORTANT NOTE:

Thank you very much for purchasing our product,
Before using your unit , please read this manual carefully and keep it for future reference.

Product fiche 1

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
Indoor unit sound power (*)		[dB(A)]	/	/
Outdoor unit sound power (*)		[dB(A)]	64.0	64.0
Capacity of the back-up heater integrated in the unit	Psup back-up heater	[kW]	0	0
off peak operation function integrated in Heat pump		Y/N	No	No
Space heating	Energy efficiency class 35 °C (Low temp. app.)	-	A+++	A+++
Space heating	Energy efficiency class 55 °C(Medium temp. app.)	-	A++	A++
Average climate (Design temperature= –10°C)				
Space heating 35 °C	Prated(declared heating capacity) @–10 °C	[kW]	18	22
	Seasonal space heating efficiency(ηs)	[%]	187.0	181.1
	Annual energy consumption	[kWh]	7 723	9 804
Space heating 55 °C	Prated(declared heating capacity) @–10 °C	[kW]	18	22
	Seasonal space heating efficiency(ηs)	[%]	148.0	146.9
	Annual energy consumption	[kWh]	9 884	11 997
Part load conditions space heating average climate low temperature application				
(A) condition (-7 °C)	Pdh(declared heating capacity)	[kW]	16.69	19.19
	COPd (declared COP)	-	2.99	2.58
	Cdh(degradation coefficient)	-	0.9	0.9
(B) condition (2 °C)	Pdh(declared heating capacity)	[kW]	10.32	12.64
	COPd (declared COP)	-	4.44	4.36
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh(declared heating capacity)	[kW]	6.27	7.68
	COPd (declared COP)	-	6.94	6.95
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh(declared heating capacity)	[kW]	3.94	3.92
	COPd (declared COP)	-	8.94	9.02
	Cdh(degradation coefficient)	-	0.9	0.9

Product fiche 2

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10
	Pdh (declared heating capacity)	[kW]	18.17	19.54
	COPd (declared COP)	-	2.51	2.50
	WTOL (Heating water Operation Limit)	[°C]	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-7	-7
	Pdh (declared heating capacity)	[kW]	16.69	19.19
	COPd (declared COP)	-	2.99	2.58
Supplementary capacity at P_design	Psup (@Tdesignh:–10°C)	[kW]	0	2.46
Part load conditions space heating average climate medium temperature application				
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	15.73	19.13
	COPd (declared COP)	-	2.38	2.30
	Cdh(degradation coefficient)	-	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	10.13	11.95
	COPd (declared COP)	-	3.59	3.58
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	6.54	7.73
	COPd (declared COP)	-	5.21	5.39
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	6.55	6.56
	COPd (declared COP)	-	6.69	6.84
	Cdh(degradation coefficient)	-	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10
	Pdh (declared heating capacity)	[kW]	19.67	19.67
	COPd (declared COP)	-	2.09	2.09
	WTOL (Heating water Operation Limit)	[°C]	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-7	-7
	Pdh (declared heating capacity)	[kW]	15.73	19.13
	COPd (declared COP)	-	2.38	2.30
Supplementary capacity at P_design	Psup (@Tdesignh:–10°C)	[kW]	0	2.33

Product fiche 3

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
Colder climate (Design temperature = –22 °C)				
Space heating 35 °C	Prated (declared heating capacity) @ –22 °C	[kW]	18	22
	Seasonal space heating efficiency (ηs)	[%]	163.6	159.2
	Annual energy consumption	[kWh]	10 656	13 372
Space heating 55 °C	Prated (declared heating capacity) @ –22 °C	[kW]	18	22
	Seasonal space heating efficiency (ηs)	[%]	123.9	123.3
	Annual energy consumption	[kWh]	13 991	17 181
Part load conditions space heating colder climate low temperature application				
condition (-15 °C)	Pdh (declared heating capacity)	[kW]	17.55	17.55
	COPd (declared COP)	-	2.33	2.33
	Cdh(degradation coefficient)	-	0.9	0.9
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	11.06	13.84
	COPd (declared COP)	-	3.24	3.16
	Cdh(degradation coefficient)	-	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	7.10	8.30
	COPd (declared COP)	-	5.24	5.02
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	4.16	5.51
	COPd (declared COP)	-	6.93	7.41
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	3.85	3.86
	COPd (declared COP)	-	7.47	7.56
	Cdh(degradation coefficient)	-	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22
	Pdh (declared heating capacity)	[kW]	16.51	16.51
	COPd (declared COP)	-	2.26	2.26
	WTOL (Heating water Operation Limit)	[°C]	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-15	-15
	Pdh (declared heating capacity)	[kW]	17.55	17.55
	COPd (declared COP)	-	2.33	2.33
Supplementary capacity at P_design	Psup (@Tdesignh:–22°C)	[kW]	1.49	5.49

Product fiche 4

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
Part load conditions space heating colder climate medium temperature application				
condition (-15 °C)	Pdh (declared heating capacity)	[kW]	18.49	18.49
	COPd (declared COP)	-	2.06	2.06
	Cdh(degradation coefficient)	-	0.9	0.9
(A) condition (-7 °C)	Pdh (declared heating capacity)	[kW]	11.01	13.59
	COPd (declared COP)	-	2.66	2.59
	Cdh(degradation coefficient)	-	0.9	0.9
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	6.74	8.15
	COPd (declared COP)	-	3.57	3.59
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	5.56	5.56
	COPd (declared COP)	-	5.47	5.64
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	5.64	5.64
	COPd (declared COP)	-	6.85	6.93
	Cdh(degradation coefficient)	-	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22
	Pdh (declared heating capacity)	[kW]	15.51	15.51
	COPd (declared COP)	-	1.69	1.69
	WTOL (Heating water Operation Limit)	[°C]	85	85
(F) Tbivalent temperature	Tbiv	[°C]	-15	-15
	Pdh (declared heating capacity)	[kW]	18.49	18.49
	COPd (declared COP)	-	2.06	2.06
Supplementary capacity at P_design	Psup (@Tdesignh:–22°C)	[kW]	2.49	6.49
Warmer climate (Design temperature =2°C)				
Space heating 35 °C	Prated (declared heating capacity) @ 2°C	[kW]	18	22
	Seasonal space heating efficiency (ηs)	[%]	250.8	248.1
	Annual energy consumption	[kWh]	3 790	4 682
Space heating 55 °C	Prated (declared heating capacity) @ 2°C	[kW]	18	22
	Seasonal space heating efficiency (ηs)	[%]	184.3	181.4
	Annual energy consumption	[kWh]	5 134	6 377

Product fiche 5

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
Part load conditions space heating warmer climate low temperature application				
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	17.86	21.66
	COPd (declared COP)	-	3.40	2.85
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	11.78	14.21
	COPd (declared COP)	-	5.39	5.29
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	5.54	6.84
	COPd (declared COP)	-	8.63	8.86
	Cdh(degradation coefficient)	-	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2
	Pdh (declared heating capacity)	[kW]	17.86	21.66
	COPd (declared COP)	-	3.40	2.85
	WTOL (Heating water Operation Limit)	[°C]	85	85
(F) Tbivalent temperature	Tbiv	[°C]	7	7
	Pdh (declared heating capacity)	[kW]	11.78	14.21
	COPd (declared COP)	-	5.39	5.29
Supplementary capacity at P_design	Psup (@Tdesignh:2 °C)	[kW]	0.14	0.34
Part load conditions space heating warmer climate medium temperature application				
(B) condition (2 °C)	Pdh (declared heating capacity)	[kW]	18.52	21.64
	COPd (declared COP)	-	2.43	2.35
	Cdh(degradation coefficient)	-	0.9	0.9
(C) condition (7 °C)	Pdh (declared heating capacity)	[kW]	11.86	14.30
	COPd (declared COP)	-	4.02	3.97
	Cdh(degradation coefficient)	-	0.9	0.9
(D) condition (12 °C)	Pdh (declared heating capacity)	[kW]	7.08	7.03
	COPd (declared COP)	-	6.44	6.19
	Cdh(degradation coefficient)	-	0.9	0.9
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2
	Pdh (declared heating capacity)	[kW]	18.52	21.64
	COPd (declared COP)	-	2.43	2.35
	WTOL (Heating water Operation Limit)	[°C]	85	85

Product fiche 6

Heat pump space heater		unit	MHC-V18WD2RN7	MHC-V22WD2RN7
(F) Tbivalent temperature	Tbiv	[°C]	7	7
	Pdh (declared heating capacity)	[kW]	11.86	14.30
	COPd (declared COP)	-	4.02	3.97
Supplementary capacity at P_design	Psup (@Tdesignh:2 °C)	[kW]	0	0.36
Ecodesign technical data				
Product description	Air-to-water heat pump	Y/N	Yes	Yes
	Water-to-water heat pump	Y/N	No	No
	Brine-to-water heat pump	Y/N	No	No
	Low-temperature heat pump	Y/N	No	No
	Equipped with a supplementary heater	Y/N	No	No
	Heat pump combination heater	Y/N	No	No
Air to water unit	Rated airflow (outdoor)	[m^3/h]	7 200	7 200
Brine/water to water unit	Rated water/brine flow (outdoor H/E)	[m^3/h]	/	/
Other	Capacity control	-	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.013	0.013
	Pto (Power consumption Thermostat off mode)	[kW]	0.132	0.132
	Psb (Power consumption Standby mode)	[kW]	0.013	0.013
	PCK (Power crankcase heater model)	[kW]	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):	MHC-V18WD2RN7
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 low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	16.7	kW
Tj = 2 °C	Pdh	10.3	kW
Tj = 7 °C	Pdh	6.3	kW
Tj = 12 °C	Pdh	3.9	kW
Tj = bivalent temperature	Pdh	16.7	kW
Tj = operating limit	Pdh	18.2	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	187.0	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.99	-
Tj = 2 °C	COPd	4.44	-
Tj = 7 °C	COPd	6.94	-
Tj = 12 °C	COPd	8.94	-
Tj = bivalent temperature	COPd	2.99	-
Tj = operating limit	COPd	2.51	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	7 723	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V18WD2RN7
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 low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	11.1	kW
Tj = 2 °C	Pdh	7.1	kW
Tj = 7 °C	Pdh	4.2	kW
Tj = 12 °C	Pdh	3.9	kW
Tj = bivalent temperature	Pdh	17.6	kW
Tj = operating limit	Pdh	16.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	17.6	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	163.6	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	3.24	-
Tj = 2 °C	COPd	5.24	-
Tj = 7 °C	COPd	6.93	-
Tj = 12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.33	-
Tj = operating limit	COPd	2.26	-
For air-to-water heat pumps: Tj = -15 °C	COPd	2.33	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	1.49	kW
Type of energy input		-	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	10 656	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V18WD2RN7
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 low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	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	17.9	kW
Tj = 7 °C	Pdh	11.8	kW
Tj = 12 °C	Pdh	5.5	kW
Tj = bivalent temperature	Pdh	11.8	kW
Tj = operating limit	Pdh	17.9	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	250.8	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	3.40	-
Tj = 7 °C	COPd	5.39	-
Tj = 12	COPd	8.63	-
Tj = bivalent temperature	COPd	5.39	-
Tj = operating limit	COPd	3.40	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0.14	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	3 790	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V18WD2RN7
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 (*)	Prated	18	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	15.7	kW
Tj = 2 °C	Pdh	10.1	kW
Tj = 7 °C	Pdh	6.5	kW
Tj = 12 °C	Pdh	6.6	kW
Tj = bivalent temperature	Pdh	15.7	kW
Tj = operating limit	Pdh	19.7	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	148.0	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.38	-
Tj = 2 °C	COPd	3.59	-
Tj = 7 °C	COPd	5.21	-
Tj = 12 °C	COPd	6.69	-
Tj = bivalent temperature	COPd	2.38	-
Tj = operating limit	COPd	2.09	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	9 884	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q_{clec}	-	kWh
Annual electricity consumption	AEC	-	kWh

Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Q_{fuel}	-	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.

Technical parameters

Model(s):	MHC-V18WD2RN7
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 (*)	Prated	18	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	11.0	kW
Tj = 2 °C	Pdh	6.7	kW
Tj = 7 °C	Pdh	5.6	kW
Tj = 12 °C	Pdh	5.6	kW
Tj = bivalent temperature	Pdh	18.5	kW
Tj = operating limit	Pdh	15.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	18.5	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	123.9	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.66	-
Tj = 2 °C	COPd	3.57	-
Tj = 7 °C	COPd	5.47	-
Tj = 12 °C	COPd	6.85	-
Tj = bivalent temperature	COPd	2.06	-
Tj = operating limit	COPd	1.69	-
For air-to-water heat pumps: Tj = -15 °C	COPd	2.06	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	2.49	kW
Type of energy input		-	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	13 991	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

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	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.

Technical parameters

Model(s):	MHC-V18WD2RN7
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	18	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	18.5	kW
Tj = 7 °C	Pdh	11.9	kW
Tj = 12 °C	Pdh	7.1	kW
Tj = bivalent temperature	Pdh	11.9	kW
Tj = operating limit	Pdh	18.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	184.3	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.43	-
Tj = 7 °C	COPd	4.02	-
Tj = 12 °C	COPd	6.43	-
Tj = bivalent temperature	COPd	4.02	-
Tj = operating limit	COPd	2.43	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	5 134	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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 low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	22	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	19.2	kW
Tj = 2 °C	Pdh	12.6	kW
Tj = 7 °C	Pdh	7.7	kW
Tj = 12 °C	Pdh	3.9	kW
Tj = bivalent temperature	Pdh	19.2	kW
Tj = operating limit	Pdh	19.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	181.1	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.58	-
Tj = 2 °C	COPd	4.36	-
Tj = 7 °C	COPd	6.95	-
Tj = 12 °C	COPd	9.02	-
Tj = bivalent temperature	COPd	2.58	-
Tj = operating limit	COPd	2.50	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	2.46	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	9 804	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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 low-temperature application.	

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	22	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	13.8	kW
Tj = 2 °C	Pdh	8.3	kW
Tj = 7 °C	Pdh	5.5	kW
Tj = 12 °C	Pdh	3.9	kW
Tj = bivalent temperature	Pdh	17.6	kW
Tj = operating limit	Pdh	16.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	17.6	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	159.2	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	3.16	-
Tj = 2 °C	COPd	5.02	-
Tj = 7 °C	COPd	7.41	-
Tj = 12 °C	COPd	7.56	-
Tj = bivalent temperature	COPd	2.33	-
Tj = operating limit	COPd	2.26	-
For air-to-water heat pumps: Tj = -15 °C	COPd	2.33	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	5.49	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	13 372	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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 low-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	22	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	21.7	kW
Tj = 7 °C	Pdh	14.2	kW
Tj = 12 °C	Pdh	6.8	kW
Tj = bivalent temperature	Pdh	14.2	kW
Tj = operating limit	Pdh	21.7	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	248.1	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.85	-
Tj = 7 °C	COPd	5.29	-
Tj = 12 °C	COPd	8.86	-
Tj = bivalent temperature	COPd	5.29	-
Tj = operating limit	COPd	2.85	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0.34	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	4 614	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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 (*)	Prated	22	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	19.1	kW
Tj = 2 °C	Pdh	12.0	kW
Tj = 7 °C	Pdh	7.7	kW
Tj = 12 °C	Pdh	6.6	kW
Tj = bivalent temperature	Pdh	19.1	kW
Tj = operating limit	Pdh	19.7	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	146.9	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.30	-
Tj = 2 °C	COPd	3.58	-
Tj = 7 °C	COPd	5.39	-
Tj = 12 °C	COPd	6.84	-
Tj = bivalent temperature	COPd	2.30	-
Tj = operating limit	COPd	2.09	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	2.33	kW
Type of energy input		-	

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	11 997	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q_{clec}	-	kWh
Annual electricity consumption	AEC	-	kWh

Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Q_{fuel}	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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 (*)	Prated	22	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	13.6	kW
Tj = 2 °C	Pdh	8.2	kW
Tj = 7 °C	Pdh	5.6	kW
Tj = 12 °C	Pdh	5.6	kW
Tj = bivalent temperature	Pdh	18.5	kW
Tj = operating limit	Pdh	15.5	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	18.5	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.013	kW
Standby mode	P_{sb}	0.013	kW
Thermostat-off mode	P_{to}	0.132	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	123.3	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.59	-
Tj = 2 °C	COPd	3.59	-
Tj = 7 °C	COPd	5.64	-
Tj = 12	COPd	6.93	-
Tj = bivalent temperature	COPd	2.06	-
Tj = operating limit	COPd	1.69	-
For air-to-water heat pumps: Tj = -15 °C	COPd	2.06	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	6.49	kW
Type of energy input	-		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	17 181	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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.

Technical parameters

Model(s):	MHC-V22WD2RN7
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	22	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	21.6	kW
Tj = 7 °C	Pdh	14.3	kW
Tj = 12 °C	Pdh	7.0	kW
Tj = bivalent temperature	Pdh	14.3	kW
Tj = operating limit	Pdh	21.6	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	T_{biv}	7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.135	kW
Standby mode	P_{sb}	0.135	kW
Thermostat-off mode	P_{to}	0.620	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	181.4	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.35	-
Tj = 7 °C	COPd	3.97	-
Tj = 12 °C	COPd	6.19	-
Tj = bivalent temperature	COPd	3.97	-
Tj = operating limit	COPd	2.35	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	85	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	0.36	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	-/64.0	dB
Annual energy consumption	Q_{HE}	6 377	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	7 200	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q_{clec}	-	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	-	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):	MHC-V18WD2RN7
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	$P_{rated,c}$	18	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	193.0	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35 ˚C	P_{dc}	18.4	kW	Tj=+35 ˚C	EER_d	2.88	-
Tj=+30 ˚C	P_{dc}	12.8	kW	Tj=+30 ˚C	EER_d	4.05	-
Tj=+25 ˚C	P_{dc}	8.8	kW	Tj=+25 ˚C	EER_d	6.34	-
Tj=+20 ˚C	P_{dc}	4.6	kW	Tj=+20 ˚C	EER_d	8.03	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.117	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.018	kW	Standby mode	P_{SB}	0.117	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	7 200	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/68.4	dB				
Emissions of nitrogen oxides (if applicable)	NO_x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	0.02	kg CO_2 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_{dc} 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):	MHC-V18WD2RN7
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	$P_{rated,c}$	18	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	261.0	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35 ˚C	P_{dc}	18.1	kW	Tj=+35 ˚C	EER_d	4.82	-
Tj=+30 ˚C	P_{dc}	12.8	kW	Tj=+30 ˚C	EER_d	6.72	-
Tj=+25 ˚C	P_{dc}	8.0	kW	Tj=+25 ˚C	EER_d	8.32	-
Tj=+20 ˚C	P_{dc}	4.4	kW	Tj=+20 ˚C	EER_d	9.64	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.117	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.018	kW	Standby mode	P_{SB}	0.117	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	7 200	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/68.4	dB				
Emissions of nitrogen oxides (if applicable)	NO_x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	0.02	kg $CO_{2\ eq}$ (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_{dc} 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):	MHC-V22WD2RN7
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	$P_{rated,c}$	22	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	189.8	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35 ˚C	P_{dc}	21.6	kW	Tj=+35 ˚C	EER_d	2.69	-
Tj=+30 ˚C	P_{dc}	16.5	kW	Tj=+30 ˚C	EER_d	3.85	-
Tj=+25 ˚C	P_{dc}	10.5	kW	Tj=+25 ˚C	EER_d	5.88	-
Tj=+20 ˚C	P_{dc}	4.6	kW	Tj=+20 ˚C	EER_d	8.03	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.117	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.018	kW	Standby mode	P_{SB}	0.117	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	7 200	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/71.7	dB				
Emissions of nitrogen oxides (if applicable)	NO_x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	0.02	kg CO_2 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_{dc} 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):	MHC-V22WD2RN7
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	$P_{rated,c}$	22	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	257.0	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35 ˚C	P_{dc}	21.7	kW	Tj=+35 ˚C	EER_d	4.21	-
Tj=+30 ˚C	P_{dc}	15.9	kW	Tj=+30 ˚C	EER_d	6.02	-
Tj=+25 ˚C	P_{dc}	10.1	kW	Tj=+25 ˚C	EER_d	8.19	-
Tj=+20 ˚C	P_{dc}	4.4	kW	Tj=+20 ˚C	EER_d	9.64	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.117	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.018	kW	Standby mode	P_{SB}	0.117	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	7 200	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/71.7	dB				
Emissions of nitrogen oxides (if applicable)	NO_x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	0.02	kg CO_2 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_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.
(**) From 26 September 2018.

Outdoor unit model name			MHC-V22WD2RN7	MHC-V18WD2RN7
Indoor unit model name				
Heating A7W35	Capacity	W	22000	18000
	Rated input	W	5115	3910
	COP		4.30	4.60
Heating A7W45	Capacity	W	22000	18000
	Rated input	W	6110	4730
	COP		3.60	3.80
Heating A7W55	Capacity	W	22000	18000
	Rated input	W	7100	5625
	COP		3.10	3.20
Heating A7W65	Capacity	W	22000	18000
	Rated input	W	8460	6430
	COP		2.60	2.80
Heating A2W35	Capacity	W	20000	18000
	Rated input	W	6270	5120
	COP		3.19	3.50
Heating A2W45	Capacity	W	20000	18000
	Rated input	W	7690	6100
	COP		2.60	2.95
Heating A2W55	Capacity	W	20000	18000
	Rated input	W	8160	7060
	COP		2.45	2.55
Heating A-7W35	Capacity	W	19500	18000
	Rated input	W	7650	6430
	COP		2.55	2.80
Heating A-7W45	Capacity	W	19500	18000
	Rated input	W	8865	7660
	COP		2.20	2.35
Heating A-7W55	Capacity	W	19500	18000
	Rated input	W	10260	8780
	COP		1.90	2.05
Cooling A35W18	Capacity	W	22000	18000
	Rated input	W	5240	3830
	EER		4.20	4.70
Cooling A35W7	Capacity	W	22000	18000
	Rated input	W	8150	6315
	EER		2.70	2.85

NOTE

NOTE

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