



TM

En

CHILLER INVERTER R-32

Serie
CFAD

Edition
ROO

Models
CFAD KIAWP 70 PS
CFAD KIAWP 80 PS
CFAD KIAWP 90 PS
CFAD KIAWP 100 PS

Product fiche 1

Heat pump space heater	unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
Indoor unit sound power (*)	[dB(A)]	/	/	/	/
Outdoor unit sound power (*)	[dB(A)]	71	73	75	77
Capacity of the back-up heater integrated in the unit	[kW]	0	0	0	0
Heat pump	Y/N	No	No	No	No
Space heating	Energy efficiency class 35°C (Low temp. app.)	A+++	A+++	A+++	A++
Space heating	Energy efficiency class 55°C (Medium temp. app.)	A++	A++	A+	A+
Average climate (Design temperature= -10°C)					
Space heating 35°C	Prated(declared heating capacity) @-10°C [kW]	18	22	25	29
	Seasonal space heating efficiency(ηs) [%]	181	178	177	165
	Annual energy consumption [kWh]	8,086	10,180	11,489	14,165
Space heating 55°C	Prated(declared heating capacity) @-10°C [kW]	18	22	26	30
	Seasonal space heating efficiency(ηs) [%]	125	126	123	123
	Annual energy consumption [kWh]	11,375	14,390	17,204	19,316
Part load conditions space heating average climate low temperature application					
(A) condition (-7°C)	Pdh(declared heating capacity) [kW]	15.91	19.73	22.15	21.95
	COPd (declared COP)	2.85	2.74	2.56	2.53
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh(declared heating capacity) [kW]	9.67	12.04	13.78	16.22
	COPd (declared COP)	4.57	4.40	4.41	4.12
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh(declared heating capacity) [kW]	6.57	8.02	9.38	10.69
	COPd (declared COP)	5.95	6.24	6.43	6.21
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh(declared heating capacity) [kW]	3.77	3.81	4.11	4.59
	COPd (declared COP)	6.97	7.0	7.08	7.14
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90

Product fiche 2

Heat pump space heater		unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	18.14	20.34	20.36	20.43
	COPd (declared COP)	-	2.49	2.35	2.34	2.34
	WTOL (Heating water Operation Limit)	[°C]	60	60	60	60
(F) Tbivalent temperature	Tbiv	[°C]	-7	-7	-7	-5
	Pdh (declared heating capacity)	[kW]	15.91	19.73	22.15	23.57
	COPd (declared COP)	-	2.85	2.74	2.56	2.70
	Psup (@T design:-10°C)	[kW]	0.00	1.97	4.68	8.75
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	15.64	19.84	20.65	20.12
	COPd (declared COP)	-	1.72	1.74	1.69	1.63
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	9.62	11.91	14.28	16.50
(B) condition (2°C)	COPd (declared COP)	-	3.30	3.30	3.11	3.09
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	6.40	7.99	9.30	10.51
	COPd (declared COP)	-	4.41	4.62	4.72	4.73
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	3.60	3.62	3.90	4.65
	COPd (declared COP)	-	5.09	5.20	5.41	5.85
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Tol (temperature operating limit)	[°C]	-10	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	15.03	13.83	13.87	13.83
	COPd (declared COP)	-	1.17	1.08	1.08	1.07
	WTOL (Heating water Operation Limit)	[°C]	60	60	60	60
(E) Tol(temperature operating limit)	Tbiv	[°C]	-7	-7	-6	-5
	Pdh (declared heating capacity)	[kW]	15.64	19.84	22.13	23.98
	COPd (declared COP)	-	1.72	1.74	1.88	2.02
	Psup (@T design:-10°C)	[kW]	2.64	8.6	12.28	15.86

Product fiche 3

Heat pump space heater		unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
Colder climate (Design temperature = -22°C)						
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	18	21	26	29
	Seasonal space heating efficiency (ηs)	[%]	146	146	143	138
	Annual energy consumption	[kWh]	11,740	14,179	17,421	20,390
Space heating 55°C	Prated (declared heating capacity) @ -22°C	[kW]	18	22	26	30
	Seasonal space heating efficiency (ηs)	[%]	97	102	101	100
	Annual energy consumption	[kWh]	18,156	21,067	24,967	29,238
Part load conditions space heating colder climate low temperature application						
condition (-15°C)	Pdh (declared heating capacity)	[kW]	14.49	17.46	18.95	18.61
	COPd (declared COP)	-	2.42	2.36	2.27	2.24
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	11.21	13.30	15.91	18.49
	COPd (declared COP)	-	3.09	3.12	3.10	3.07
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.64	8.25	10.10	11.88
	COPd (declared COP)	-	4.50	4.42	4.45	4.42
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.77	5.45	6.30	7.53
	COPd (declared COP)	-	5.85	5.87	6.06	6.15
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.95	3.98	4.03	4.11
	COPd (declared COP)	-	7.18	7.19	7.13	6.87
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	13.14	13.27	13.07	13.17
	COPd (declared COP)	-	1.67	1.69	1.67	1.67
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	37	37	37	37
	Tbiv	[°C]	-15	-15	-12	-10
	Pdh (declared heating capacity)	[kW]	14.49	17.46	18.97	19.93
Supplementary capacity at P_design	COPd (declared COP)	-	2.42	2.36	2.36	2.44
	Psup (@Tdesign:-22°C)	[kW]	4.62	8.13	12.68	15.96

Product fiche 4

Heat pump space heater		unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
Part load conditions space heating colder climate medium temperature application						
condition (-15°C)	Pdh (declared heating capacity)	[kW]	13.56	13.78	13.37	13.06
	COPd (declared COP)	-	1.21	1.24	1.20	1.18
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	11.12	13.53	15.90	18.40
	COPd (declared COP)	-	1.98	2.07	2.10	2.10
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.65	8.61	10.17	11.23
	COPd (declared COP)	-	3.44	3.70	3.58	3.51
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.66	5.21	6.52	7.42
	COPd (declared COP)	-	4.35	4.49	4.99	5.18
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.74	3.74	3.63	3.64
	COPd (declared COP)	-	5.68	5.76	5.68	5.73
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol(temperature operating limit)	Tol (temperature operating limit)	[°C]	-15	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	13.56	13.78	13.37	13.06
	COPd (declared COP)	-	1.21	1.24	1.20	1.18
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	50	50	50	50
	Tbiv	[°C]	-7	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	11.12	13.53	15.90	18.40
Supplementary capacity at P_design	COPd (declared COP)	-	1.98	2.07	2.10	2.10
Warmer climate (Design temperature =2°C)	P_sup (@Tdesign:-22°C)	[kW]	18.38	22.36	26.27	30.41
Space heating 35°C						
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	18	22	26	30
	Seasonal space heating efficiency (ηs)	[%]	226	234	231	213
	Annual energy consumption	[kWh]	4,116	4,945	5,959	7,540
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]	18	22	26	30
	Seasonal space heating efficiency (ηs)	[%]	157	161	168	163
	Annual energy consumption	[kWh]	6,041	7,180	8,218	9,580

Product fiche 5

Heat pump space heater		unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
Part load conditions space heating warmer climate low temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	17.84	21.81	25.50	26.29
	COPd (declared COP)	-	3.53	3.31	3.0	2.94
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	11.36	14.08	16.77	19.57
	COPd (declared COP)	-	5.16	5.20	5.02	4.75
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	5.45	6.44	7.65	8.90
	COPd (declared COP)	-	7.01	7.50	7.78	7.53
(D) condition (12°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	[°C]	2	2	2	2
	Pdh (declared heating capacity)	[kW]	17.84	21.81	25.50	26.29
(E) ToI(temperature operating limit)	COPd (declared COP)	-	3.53	3.31	3.0	2.94
	WTOL (Heating water Operation Limit)	[°C]	60	60	60	60
	Tbiv	[°C]	7	7	7	7
	Pdh (declared heating capacity)	[kW]	11.36	14.08	16.77	19.57
	COPd (declared COP)	-	5.16	5.20	5.02	4.75
Supplementary capacity at P_design	Psup (@Tdesign:2°C)	[kW]	0.00	0.09	0.58	4.15
Part load conditions space heating warmer climate medium temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	18.44	22.12	26.50	26.41
	COPd (declared COP)	-	2.12	2.12	1.99	1.99
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	11.62	14.15	16.86	19.11
	COPd (declared COP)	-	3.49	3.50	3.47	3.37
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	5.35	6.38	7.58	8.92
	COPd (declared COP)	-	5.09	5.34	5.94	6.09
(D) condition (12°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	[°C]	2	2	2	2
	Pdh (declared heating capacity)	[kW]	18.44	22.12	26.50	26.41
(E) ToI(temperature operating limit)	COPd (declared COP)	-	2.12	2.12	1.99	1.99
	WTOL (Heating water Operation Limit)	[°C]	60	60	60	60

Product fiche 6

Heat pump space heater		unit	CFAD KIAWP 70 PS	CFAD KIAWP 80 PS	CFAD KIAWP 90 PS	CFAD KIAWP 100 PS
(F) T _{biv} ivalent temperature	T _{biv}	[°C]	7	7	7	7
	P _{dh} (declared heating capacity)	[kW]	11.62	14.15	16.86	19.11
Supplementary capacity at P _{design}	COP _d (declared COP)	-	3.49	3.50	3.47	3.37
	P _{sup} (@T _{design} :2°C)	[kW]	0.00	0.00	0.00	3.32
Ecodesign technical data						
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No
	Equipped with a supplementary heater	Y/N	No	No	No	Yes
Air to water unit	Heat pump combination heater	Y/N	No	No	No	No
	Rated airflow (outdoor)	[m ³ /h]	10650	10650	11200	11200
Brine/water to water unit	Rated water/brine flow (outdoor H/E)	[m ³ /h]	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter
Other	P _{off} (Power consumption Off mode)	[kW]	0.018	0.018	0.018	0.018
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.096	0.096	0.096	0.096
	P _{sb} (Power consumption Standby mode)	[kW]	0.018	0.018	0.018	0.018
	P _{ck} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/
	Q _{fuel} (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):	CFAD KIAWP 70 PS
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	17.7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	15.6	kW
Tj = 2 °C	Pdh	9.6	kW
Tj = 7 °C	Pdh	6.4	kW
Tj = 12 °C	Pdh	3.6	kW
Tj = bivalent temperature	Pdh	15.6	kW
Tj = operating limit	Pdh	15.0	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-71	dB
Annual energy consumption	QHE	11375	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	125	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	1.72	-
Tj = 2 °C	COPd	3.30	-
Tj = 7 °C	COPd	4.41	-
Tj = 12 °C	COPd	5.09	-
Tj = bivalent temperature	COPd	1.72	-
Tj = operating limit	COPd	1.17	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	2.6	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	10650	m³/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater:							
Declared load profile	-						
Daily electricity consumption	Qelec	-	kWh	Water heating energy efficiency	ηwh	-	%
Annual electricity consumption	AEC	-	kWh	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.

Technical parameters

Model(s):	CFAD KIAWP 70 PS		
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.			
Heating parameters			
Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18.4	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	6.7	kW
Tj = 7 °C	Pdh	4.7	kW
Tj = 12 °C	Pdh	3.7	kW
Tj = bivalent temperature	Pdh	11.1	kW
Tj = operating limit	Pdh	13.6	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	13.6	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW
Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-71	dB
Annual energy consumption	QHE	18156	kWh
For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating parameters			
Water heating energy efficiency	η_{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.			

Technical parameters

Model(s):	CFAD KIAWP 70 PS
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	18.1	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	18.4	kW
Tj = 7 °C	Pdh	11.6	kW
Tj = 12 °C	Pdh	5.4	kW
Tj = bivalent temperature	Pdh	11.6	kW
Tj = operating limit	Pdh	18.4	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-71	dB
Annual energy consumption	QHE	6041	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	157	%
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	2.12	-
Tj = 7 °C	COPd	3.49	-
Tj = 12 °C	COPd	5.09	-
Tj = bivalent temperature	COPd	3.49	-
Tj = operating limit	COPd	2.12	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	0.0	kW
Type of energy input	-		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	10650	m³/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater:							
Declared load profile	-						
Daily electricity consumption	Qelec	-	kWh	Water heating energy efficiency	ηwh	-	%
Annual electricity consumption	AEC	-	kWh	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.

Technical parameters

Model(s):	CFAD KIAWP 80 PS
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	22.4	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	19.8	kW
Tj = 2 °C	Pdh	11.9	kW
Tj = 7 °C	Pdh	8.0	kW
Tj = 12 °C	Pdh	3.6	kW
Tj = bivalent temperature	Pdh	19.8	kW
Tj = operating limit	Pdh	13.8	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW
Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-73	dB
Annual energy consumption	QHE	14390	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	126	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	1.74	-
Tj = 2 °C	COPd	3.30	-
Tj = 7 °C	COPd	4.62	-
Tj = 12 °C	COPd	5.20	-
Tj = bivalent temperature	COPd	1.74	-
Tj = operating limit	COPd	1.08	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	8.6	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	10650	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 _{elec}	-	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):	CFAD KIAWP 80 PS
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	22.4	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	13.5	kW
Tj = 2 °C	Pdh	8.6	kW
Tj = 7 °C	Pdh	5.2	kW
Tj = 12 °C	Pdh	3.7	kW
Tj = bivalent temperature	Pdh	13.5	kW
Tj = operating limit	Pdh	13.8	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	13.8	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW
Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-73	dB
Annual energy consumption	QHE	21067	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	102	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.07	-
Tj = 2 °C	COPd	3.70	-
Tj = 7 °C	COPd	4.49	-
Tj = 12 °C	COPd	5.76	-
Tj = bivalent temperature	COPd	2.07	-
Tj = operating limit	COPd	1.24	-
For air-to-water heat pumps: Tj = -15 °C	COPd	1.24	-
For air-to-water heat pumps: Operation limit temperature	TOL	-15	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	50	°C
Supplementary heater			
Rated heat output (**)	Psup	22.4	kW
Type of energy input	-		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	10650	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 _{elec}	-	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):	CFAD KIAWP 80 PS		
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.			
Table 1: Heating Capacity and Efficiency			
Item	Symbol	Value	Unit
Rated heat output (*)	Prated	22.0	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	22.1	kW
Tj = 7 °C	Pdh	14.1	kW
Tj = 12 °C	Pdh	6.4	kW
Tj = bivalent temperature	Pdh	14.1	kW
Tj = operating limit	Pdh	22.1	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW
Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-73	dB
Annual energy consumption	QHE	7180	kWh
Table 2: Efficiency and Supplementary Heater			
Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	161	%
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	2.12	-
Tj = 7 °C	COPd	3.50	-
Tj = 12 °C	COPd	5.34	-
Tj = bivalent temperature	COPd	3.50	-
Tj = operating limit	COPd	2.12	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	0.0	kW
Type of energy input	-		
For air-to-water heat pumps: Rated air flow rate, outdoors	-	10650	m³/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Table 3: Heat Pump Combination Heater			
For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	ηwh	-	%
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.			

Technical parameters

Model(s):	CFAD KIAWP 90 PS
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	26.1	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	20.6	kW
Tj = 2 °C	Pdh	14.3	kW
Tj = 7 °C	Pdh	9.3	kW
Tj = 12 °C	Pdh	3.9	kW
Tj = bivalent temperature	Pdh	22.1	kW
Tj = operating limit	Pdh	13.8	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	-6	°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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-75	dB
Annual energy consumption	QHE	17204	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	123	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	1.69	-
Tj = 2 °C	COPd	3.11	-
Tj = 7 °C	COPd	4.72	-
Tj = 12 °C	COPd	5.41	-
Tj = bivalent temperature	COPd	1.88	-
Tj = operating limit	COPd	1.08	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	12.3	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	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	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	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):	CFAD KIAWP 90 PS
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	26.3	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	15.9	kW
Tj = 2 °C	Pdh	10.2	kW
Tj = 7 °C	Pdh	6.5	kW
Tj = 12 °C	Pdh	3.6	kW
Tj = bivalent temperature	Pdh	15.9	kW
Tj = operating limit	Pdh	13.4	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	13.4	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	P _{cyh}	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	P _{off}	0.018	kW
Standby mode	P _{sb}	0.018	kW
Thermostat-off mode	P _{to}	0.096	kW
Crankcase heater mode	P _{ck}	0.000	kW
Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	-75	dB
Annual energy consumption	Q _{HE}	24967	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	101	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COP _d	2.10	-
Tj = 2 °C	COP _d	3.58	-
Tj = 7 °C	COP _d	4.99	-
Tj = 12 °C	COP _d	5.68	-
Tj = bivalent temperature	COP _d	2.10	-
Tj = operating limit	COP _d	1.20	-
For air-to-water heat pumps: Tj = -15 °C	COP _d	1.20	-
For air-to-water heat pumps: Operation limit temperature	TOL	-15	°C
Cycling interval efficiency	COP _{cyh}	-	-
Heating water operating limit temperature	W _{TOL}	50	°C
Supplementary heater			
Rated heat output (**)	P _{sup}	26.3	kW
Type of energy input	-		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	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 _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η _{wh}	-	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) 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):	CFAD KIAWP 90 PS
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	26.2	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	26.5	kW
Tj = 7 °C	Pdh	16.9	kW
Tj = 12 °C	Pdh	7.6	kW
Tj = bivalent temperature	Pdh	16.9	kW
Tj = operating limit	Pdh	26.5	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-75	dB
Annual energy consumption	QHE	8218	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	168	%
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	1.99	-
Tj = 7 °C	COPd	3.47	-
Tj = 12 °C	COPd	5.94	-
Tj = bivalent temperature	COPd	3.47	-
Tj = operating limit	COPd	1.99	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	0.0	kW
Type of energy input	-		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	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	Qclec	-	kWh	Water heating energy efficiency	ηwh	-	%
Annual electricity consumption	AEC	-	kWh	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.

Technical parameters

Model(s):	CFAD KIAWP 100 PS
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	29.7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	20.1	kW
Tj = 2 °C	Pdh	16.5	kW
Tj = 7 °C	Pdh	10.5	kW
Tj = 12 °C	Pdh	4.7	kW
Tj = bivalent temperature	Pdh	24.0	kW
Tj = operating limit	Pdh	13.8	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	-5	°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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-77	dB
Annual energy consumption	QHE	19316	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	123	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	1.63	-
Tj = 2 °C	COPd	3.09	-
Tj = 7 °C	COPd	4.73	-
Tj = 12 °C	COPd	5.85	-
Tj = bivalent temperature	COPd	2.02	-
Tj = operating limit	COPd	1.07	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	15.9	kW
Type of energy input	Electrical Heating		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	m³/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	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):	CFAD KIAWP 100 PS
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	30.4	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	18.4	kW
Tj = 2 °C	Pdh	11.2	kW
Tj = 7 °C	Pdh	7.4	kW
Tj = 12 °C	Pdh	3.6	kW
Tj = bivalent temperature	Pdh	18.4	kW
Tj = operating limit	Pdh	13.1	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	13.1	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	P _{cyh}	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	P _{off}	0.018	kW
Standby mode	P _{sb}	0.018	kW
Thermostat-off mode	P _{to}	0.096	kW
Crankcase heater mode	P _{ck}	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	-77	dB
Annual energy consumption	Q _{HE}	29238	kWh

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	100	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COP _d	2.10	-
Tj = 2 °C	COP _d	3.51	-
Tj = 7 °C	COP _d	5.18	-
Tj = 12 °C	COP _d	5.73	-
Tj = bivalent temperature	COP _d	2.10	-
Tj = operating limit	COP _d	1.18	-
For air-to-water heat pumps: Tj = -15 °C	COP _d	1.18	-
For air-to-water heat pumps: Operation limit temperature	TOL	-15	°C
Cycling interval efficiency	COP _{cyh}	-	-
Heating water operating limit temperature	W _{TOL}	50	°C
Supplementary heater			
Rated heat output (**)	P _{sup}	30.4	kW
Type of energy input	Electrical Heating		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

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):	CFAD KIAWP 100 PS
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	29.7	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	26.4	kW
Tj = 7 °C	Pdh	19.1	kW
Tj = 12 °C	Pdh	8.9	kW
Tj = bivalent temperature	Pdh	19.1	kW
Tj = operating limit	Pdh	26.4	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	0.018	kW
Standby mode	Psb	0.018	kW
Thermostat-off mode	Pto	0.096	kW
Crankcase heater mode	Pck	0.000	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-77	dB
Annual energy consumption	QHE	9580	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	163	%
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	1.99	-
Tj = 7 °C	COPd	3.37	-
Tj = 12 °C	COPd	6.09	-
Tj = bivalent temperature	COPd	3.37	-
Tj = operating limit	COPd	1.99	-
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	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	3.3	kW
Type of energy input	Electrical Heating		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	11200	m³/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater:							
Declared load profile	-						
Daily electricity consumption	Qelec	-	kWh	Water heating energy efficiency	ηwh	-	%
Annual electricity consumption	AEC	-	kWh	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):	CFAD KIAWP 70 PS						
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	$P_{rated,c}$	16.6	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	185	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	16.6	kW	$T_j=+35^\circ\text{C}$	EER_d	3.06	-
$T_j=+30^\circ\text{C}$	P_{dc}	11.9	kW	$T_j=+30^\circ\text{C}$	EER_d	4.13	-
$T_j=+25^\circ\text{C}$	P_{dc}	7.6	kW	$T_j=+25^\circ\text{C}$	EER_d	5.59	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.5	kW	$T_j=+20^\circ\text{C}$	EER_d	5.55	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	8100	m ³ /h
Sound power level, indoors / outdoors	LWA	-71	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	-	675	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):	CFAD KIAWP 70 PS						
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	$P_{rated,c}$	18.4	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	216	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	18.4	kW	$T_j=+35^\circ\text{C}$	EER_d	4.44	-
$T_j=+30^\circ\text{C}$	P_{dc}	13.3	kW	$T_j=+30^\circ\text{C}$	EER_d	5.26	-
$T_j=+25^\circ\text{C}$	P_{dc}	8.5	kW	$T_j=+25^\circ\text{C}$	EER_d	6.68	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.3	kW	$T_j=+20^\circ\text{C}$	EER_d	5.15	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	8100	m ³ /h
Sound power level, indoors / outdoors	LWA	-71	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	-	675	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):	CFAD KIAWP 80 PS						
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	$P_{rated,c}$	20.6	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	185	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	20.6	kW	$T_j=+35^\circ\text{C}$	EER_d	2.89	-
$T_j=+30^\circ\text{C}$	P_{dc}	14.9	kW	$T_j=+30^\circ\text{C}$	EER_d	3.95	-
$T_j=+25^\circ\text{C}$	P_{dc}	9.3	kW	$T_j=+25^\circ\text{C}$	EER_d	5.37	-
$T_j=+20^\circ\text{C}$	P_{dc}	4.3	kW	$T_j=+20^\circ\text{C}$	EER_d	6.19	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	8950	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-/73	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	-	675	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):	CFAD KIAWP 80 PS						
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	$P_{rated,c}$	22.8	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	224	%
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			
$T_j=+35^{\circ}\text{C}$	P_{dc}	22.8	kW	$T_j=+35^{\circ}\text{C}$	EER_d	4.25	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	16.3	kW	$T_j=+30^{\circ}\text{C}$	EER_d	5.16	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	10.2	kW	$T_j=+25^{\circ}\text{C}$	EER_d	6.45	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	4.6	kW	$T_j=+20^{\circ}\text{C}$	EER_d	6.38	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	8950	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/73	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	-	675	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):	CFAD KIAWP 90 PS						
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	$P_{rated,c}$	25.5	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	183	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	25.5	kW	$T_j=+35^\circ\text{C}$	EER_d	2.63	-
$T_j=+30^\circ\text{C}$	P_{dc}	18.5	kW	$T_j=+30^\circ\text{C}$	EER_d	3.79	-
$T_j=+25^\circ\text{C}$	P_{dc}	11.8	kW	$T_j=+25^\circ\text{C}$	EER_d	5.19	-
$T_j=+20^\circ\text{C}$	P_{dc}	5.6	kW	$T_j=+20^\circ\text{C}$	EER_d	6.84	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	9750	m^3/h
Sound power level, indoors / outdoors	LWA	-/75	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	-	675	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):	CFAD KIAWP 90 PS						
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	$P_{rated,c}$	26.8	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	226	%
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			
$T_j=+35^{\circ}\text{C}$	P_{dc}	26.8	kW	$T_j=+35^{\circ}\text{C}$	EER_d	4.04	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	19.4	kW	$T_j=+30^{\circ}\text{C}$	EER_d	5.21	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	12.1	kW	$T_j=+25^{\circ}\text{C}$	EER_d	6.23	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	5.9	kW	$T_j=+20^{\circ}\text{C}$	EER_d	6.94	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	9750	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/75	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	-	675	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):	CFAD KIAWP 100 PS						
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	$P_{rated,c}$	29.5	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	177	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	29.5	kW	$T_j=+35^\circ\text{C}$	EER_d	2.29	-
$T_j=+30^\circ\text{C}$	P_{dc}	21.2	kW	$T_j=+30^\circ\text{C}$	EER_d	3.62	-
$T_j=+25^\circ\text{C}$	P_{dc}	13.5	kW	$T_j=+25^\circ\text{C}$	EER_d	5.06	-
$T_j=+20^\circ\text{C}$	P_{dc}	6.0	kW	$T_j=+20^\circ\text{C}$	EER_d	6.75	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	10650	m ³ /h
Sound power level, indoors / outdoors	LWA	-177	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	-	675	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):	CFAD KIAWP 100 PS						
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	$P_{rated,c}$	30.8	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	225	%
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			
$T_j=+35^\circ\text{C}$	P_{dc}	30.8	kW	$T_j=+35^\circ\text{C}$	EER_d	3.79	-
$T_j=+30^\circ\text{C}$	P_{dc}	22.1	kW	$T_j=+30^\circ\text{C}$	EER_d	5.06	-
$T_j=+25^\circ\text{C}$	P_{dc}	13.9	kW	$T_j=+25^\circ\text{C}$	EER_d	6.33	-
$T_j=+20^\circ\text{C}$	P_{dc}	6.3	kW	$T_j=+20^\circ\text{C}$	EER_d	7.01	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.017	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.084	kW	Standby mode	P_{SB}	0.017	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	10650	m ³ /h
Sound power level, indoors / outdoors	LWA	-177	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	-	675	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.							

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