

TECHNICAL DATA MANUAL **HYUNDAI**

M-thermal Mono
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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
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
Psup back-up heater off peak operation function integrated in 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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
(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) Tbiivalent 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
(F) Tbiivalent temperature	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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
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) ToI(temperature operating limit)	ToI (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
	Psup (@Tdesign:-22°C)	[kW]	18.38	22.36	26.27	30.41
Warmer climate (Design temperature =2°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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
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
(C) condition (7°C)	COPd (declared COP)	-	5.16	5.20	5.02	4.75
	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
	COPd (declared COP)	-	3.53	3.31	3.0	2.94
(E) To(temperature operating limit)	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
(C) condition (7°C)	COPd (declared COP)	-	3.49	3.50	3.47	3.37
	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
	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	HYHC-V18W/D2RN8	HYHC-V22W/D2RN8	HYHC-V26W/D2RN8	HYHC-V30W/D2RN8
(F) TbiValent temperature	Tbiv	[°C]	7	7	7	7
	Pdh (declared heating capacity)	[kW]	11.62	14.15	16.86	19.11
	COPd (declared COP)	-	3.49	3.50	3.47	3.37
Supplementary capacity at P _{design}		[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
	Heat pump combination heater	Y/N	No	No	No	No
Air to water unit	Rated airflow (outdoor)	[m³/h]	10650	10650	11200	11200
Brine/water to water unit	Rated water/brine flow (outdoor H/E)	[m³/h]	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.018	0.018	0.018	0.018
	Pto (Power consumption Thermostat off mode)	[kW]	0.096	0.096	0.096	0.096
	Psb (Power consumption Standby mode)	[kW]	0.018	0.018	0.018	0.018
	PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000
	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):	HYHC-V18W/D2RN8			
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	Pcych	-	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	
For heat pump combination heater:				
Declared load profile	-			
Daily electricity consumption	Qelec	-	kWh	
Annual electricity consumption	AEC	-	kWh	
Contact details				
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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.				

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

Technical parameters									
Model(s):		HYHC-V18W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	18.4	kW	Seasonal space heating energy efficiency		ηs	97	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	11.1	kW	Tj = -7 °C		COPd	1.98	-
Tj = 2 °C		Pdh	6.7	kW	Tj = 2 °C		COPd	3.44	-
Tj = 7 °C		Pdh	4.7	kW	Tj = 7 °C		COPd	4.35	-
Tj = 12 °C		Pdh	3.7	kW	Tj = 12 °C		COPd	5.68	-
Tj = bivalent temperature		Pdh	11.1	kW	Tj = bivalent temperature		COPd	1.98	-
Tj = operating limit		Pdh	13.6	kW	Tj = operating limit		COPd	1.21	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	13.6	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	1.21	-
Bivalent temperature		Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-15	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	50	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	18.4	kW
Standby mode		Psb	0.018	kW	Type of energy input		-		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	10650	m³/h
Sound power level, indoors/outdoors		LWA	-71	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	18156	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea							
(*) 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):		HYHC-V18W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	18.1	kW	Seasonal space heating energy efficiency		ηs	157	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	-	kW	Tj = -7 °C		COPd	-	-
Tj = 2 °C		Pdh	18.4	kW	Tj = 2 °C		COPd	2.12	-
Tj = 7 °C		Pdh	11.6	kW	Tj = 7 °C		COPd	3.49	-
Tj = 12 °C		Pdh	5.4	kW	Tj = 12 °C		COPd	5.09	-
Tj = bivalent temperature		Pdh	11.6	kW	Tj = bivalent temperature		COPd	3.49	-
Tj = operating limit		Pdh	18.4	kW	Tj = operating limit		COPd	2.12	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	-	-
Bivalent temperature		Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	2	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	0.0	kW
Standby mode		Psb	0.018	kW	Type of energy input		-		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	10650	m³/h
Sound power level, indoors/outdoors		LWA	-71	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	6041	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	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):	HYHC-V22W/D2RN8			
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	Pcych	-	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	
For heat pump combination heater:				
Declared load profile	-			
Daily electricity consumption	Qelec	-	kWh	
Annual electricity consumption	AEC	-	kWh	
Contact details				
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Seasonal space heating energy efficiency				
ηs	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	m³/h		
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger				
-	-	m³/h		

(*) 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):		HYHC-V22W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	22.4	kW	Seasonal space heating energy efficiency		ηs	102	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	13.5	kW	Tj = -7 °C		COPd	2.07	-
Tj = 2 °C		Pdh	8.6	kW	Tj = 2 °C		COPd	3.70	-
Tj = 7 °C		Pdh	5.2	kW	Tj = 7 °C		COPd	4.49	-
Tj = 12 °C		Pdh	3.7	kW	Tj = 12 °C		COPd	5.76	-
Tj = bivalent temperature		Pdh	13.5	kW	Tj = bivalent temperature		COPd	2.07	-
Tj = operating limit		Pdh	13.8	kW	Tj = operating limit		COPd	1.24	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	13.8	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	1.24	-
Bivalent temperature		Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-15	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	50	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	22.4	kW
Standby mode		Psb	0.018	kW	Type of energy input		-		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	10650	m³/h
Sound power level, indoors/outdoors		LWA	-73	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	21067	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	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):		HYHC-V22W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	22.0	kW	Seasonal space heating energy efficiency		ηs	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	-	kW	Tj = -7 °C		COPd	-	-
Tj = 2 °C		Pdh	22.1	kW	Tj = 2 °C		COPd	2.12	-
Tj = 7 °C		Pdh	14.1	kW	Tj = 7 °C		COPd	3.50	-
Tj = 12 °C		Pdh	6.4	kW	Tj = 12 °C		COPd	5.34	-
Tj = bivalent temperature		Pdh	14.1	kW	Tj = bivalent temperature		COPd	3.50	-
Tj = operating limit		Pdh	22.1	kW	Tj = operating limit		COPd	2.12	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	-	-
Bivalent temperature		Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	2	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	0.0	kW
Standby mode		Psb	0.018	kW	Type of energy input		-		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	10650	m³/h
Sound power level, indoors/outdoors		LWA	-73	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	7180	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	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):		HYHC-V26W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	26.1	kW	Seasonal space heating energy efficiency		ηs	123	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	20.6	kW	Tj = -7 °C		COPd	1.69	-
Tj = 2 °C		Pdh	14.3	kW	Tj = 2 °C		COPd	3.11	-
Tj = 7 °C		Pdh	9.3	kW	Tj = 7 °C		COPd	4.72	-
Tj = 12 °C		Pdh	3.9	kW	Tj = 12 °C		COPd	5.41	-
Tj = bivalent temperature		Pdh	22.1	kW	Tj = bivalent temperature		COPd	1.88	-
Tj = operating limit		Pdh	13.8	kW	Tj = operating limit		COPd	1.08	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	-	-
Bivalent temperature		Tbiv	-6	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	12.3	kW
Standby mode		Psb	0.018	kW	Type of energy input		Electrical		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	11200	m³/h
Sound power level, indoors/outdoors		LWA	-75	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	17204	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	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):		HYHC-V26W/D2RN8								
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	Item			Symbol	Value	Unit
Rated heat output (*)		Prated	26.3	kW	Seasonal space heating energy efficiency			ηs	101	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj					
Tj = -7 °C		Pdh	15.9	kW	Tj = -7 °C		COPd	2.10	-	
Tj = 2 °C		Pdh	10.2	kW	Tj = 2 °C		COPd	3.58	-	
Tj = 7 °C		Pdh	6.5	kW	Tj = 7 °C		COPd	4.99	-	
Tj = 12 °C		Pdh	3.6	kW	Tj = 12 °C		COPd	5.68	-	
Tj = bivalent temperature		Pdh	15.9	kW	Tj = bivalent temperature		COPd	2.10	-	
Tj = operating limit		Pdh	13.4	kW	Tj = operating limit		COPd	1.20	-	
For air-to-water heat pumps: Tj = -15 °C		Pdh	13.4	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	1.20	-	
Bivalent temperature		Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-15	°C	
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-	
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	50	°C	
Power consumption in modes other than active mode					Supplementary heater					
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	26.3	kW	
Standby mode		Psb	0.018	kW	Type of energy input		-			
Thermostat-off mode		Pto	0.096	kW						
Crankcase heater mode		Pck	0.000	kW						
Other items										
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	11200	m³/h	
Sound power level, indoors/outdoors		LWA	-75	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h	
Annual energy consumption		QHE	24967	kWh						
For heat pump combination heater:										
Declared load profile		-			Water heating energy efficiency		ηlwh	-	%	
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh	
Annual electricity consumption		AEC	-	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):	HYHC-V26W/D2RN8			
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	Pcych	-	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	
For heat pump combination heater:				
Declared load profile	-			
Daily electricity consumption	Qelec	-	kWh	
Annual electricity consumption	AEC	-	kWh	
Water heating energy efficiency				
		ηlwh	-	%
Daily fuel consumption				
		Qfuel	-	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):		HYHC-V30W/D2RN8							
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	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	29.7	kW	Seasonal space heating energy efficiency		ηs	123	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj				
Tj = -7 °C		Pdh	20.1	kW	Tj = -7 °C		COPd	1.63	-
Tj = 2 °C		Pdh	16.5	kW	Tj = 2 °C		COPd	3.09	-
Tj = 7 °C		Pdh	10.5	kW	Tj = 7 °C		COPd	4.73	-
Tj = 12 °C		Pdh	4.7	kW	Tj = 12 °C		COPd	5.85	-
Tj = bivalent temperature		Pdh	24.0	kW	Tj = bivalent temperature		COPd	2.02	-
Tj = operating limit		Pdh	13.8	kW	Tj = operating limit		COPd	1.07	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	-	-
Bivalent temperature		Tbiv	-5	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	15.9	kW
Standby mode		Psb	0.018	kW	Type of energy input		Electrical Heating		
Thermostat-off mode		Pto	0.096	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	11200	m³/h
Sound power level, indoors/outdoors		LWA	-77	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	19316	kWh					
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
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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):		HYHC-V30W/D2RN8								
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	Item			Symbol	Value	Unit
Rated heat output (*)		Prated	30.4	kW	Seasonal space heating energy efficiency			ηs	100	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj					
Tj = -7 °C		Pdh	18.4	kW	Tj = -7 °C		COPd	2.10	-	
Tj = 2 °C		Pdh	11.2	kW	Tj = 2 °C		COPd	3.51	-	
Tj = 7 °C		Pdh	7.4	kW	Tj = 7 °C		COPd	5.18	-	
Tj = 12 °C		Pdh	3.6	kW	Tj = 12 °C		COPd	5.73	-	
Tj = bivalent temperature		Pdh	18.4	kW	Tj = bivalent temperature		COPd	2.10	-	
Tj = operating limit		Pdh	13.1	kW	Tj = operating limit		COPd	1.18	-	
For air-to-water heat pumps: Tj = -15 °C		Pdh	13.1	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	1.18	-	
Bivalent temperature		Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-15	°C	
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-	
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	50	°C	
Power consumption in modes other than active mode					Supplementary heater					
Off mode		Poff	0.018	kW	Rated heat output (**)		Psup	30.4	kW	
Standby mode		Psb	0.018	kW	Type of energy input		Electrical Heating			
Thermostat-off mode		Pto	0.096	kW						
Crankcase heater mode		Pck	0.000	kW						
Other items										
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	11200	m³/h	
Sound power level, indoors/outdoors		LWA	-77	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h	
Annual energy consumption		QHE	29238	kWh						
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	
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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):	HYHC-V30W/D2RN8
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	Pcyh	-	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

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	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	COPcy	-	-
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

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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.

Information requirements for comfort chillers

Model(s):				HYHC-V18W/D2RN8				
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	η _{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°C	P _{dc}	16.6	kW		T _j =+35°C	EER _d	3.06	-
T _j =+30°C	P _{dc}	11.9	kW		T _j =+30°C	EER _d	4.13	-
T _j =+25°C	P _{dc}	7.6	kW		T _j =+25°C	EER _d	5.59	-
T _j =+20°C	P _{dc}	3.5	kW		T _j =+20°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	L _{WA}	-71	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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):				HYHC-V18W/D2RN8				
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	η _{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°C	P _{dc}	18.4	kW		T _j =+35°C	EER _d	4.44	-
T _j =+30°C	P _{dc}	13.3	kW		T _j =+30°C	EER _d	5.26	-
T _j =+25°C	P _{dc}	8.5	kW		T _j =+25°C	EER _d	6.68	-
T _j =+20°C	P _{dc}	3.3	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-71	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Medium temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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):				HYHC-V22W/D2RN8				
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	η _{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°C	P _{dc}	20.6	kW		T _j =+35°C	EER _d	2.89	-
T _j =+30°C	P _{dc}	14.9	kW		T _j =+30°C	EER _d	3.95	-
T _j =+25°C	P _{dc}	9.3	kW		T _j =+25°C	EER _d	5.37	-
T _j =+20°C	P _{dc}	4.3	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-/73	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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):				HYHC-V22W/D2RN8				
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	η _{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°C	P _{dc}	22.8	kW		T _j =+35°C	EER _d	4.25	-
T _j =+30°C	P _{dc}	16.3	kW		T _j =+30°C	EER _d	5.16	-
T _j =+25°C	P _{dc}	10.2	kW		T _j =+25°C	EER _d	6.45	-
T _j =+20°C	P _{dc}	4.6	kW		T _j =+20°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	m³/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	-	-	m³/h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Medium temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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):				HYHC-V26W/D2RN8				
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	η _{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°C	P _{dc}	25.5	kW		T _j =+35°C	EER _d	2.63	-
T _j =+30°C	P _{dc}	18.5	kW		T _j =+30°C	EER _d	3.79	-
T _j =+25°C	P _{dc}	11.8	kW		T _j =+25°C	EER _d	5.19	-
T _j =+20°C	P _{dc}	5.6	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-/75	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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):				HYHC-V26W/D2RN8				
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	η _{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°C	P _{dc}	26.8	kW		T _j =+35°C	EER _d	4.04	-
T _j =+30°C	P _{dc}	19.4	kW		T _j =+30°C	EER _d	5.21	-
T _j =+25°C	P _{dc}	12.1	kW		T _j =+25°C	EER _d	6.23	-
T _j =+20°C	P _{dc}	5.9	kW		T _j =+20°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	m³/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	-	-	m³/h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Medium temperature application						
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(*) 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):				HYHC-V30W/D2RN8				
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	η _{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°C	P _{dc}	29.5	kW		T _j =+35°C	EER _d	2.29	-
T _j =+30°C	P _{dc}	21.2	kW		T _j =+30°C	EER _d	3.62	-
T _j =+25°C	P _{dc}	13.5	kW		T _j =+25°C	EER _d	5.06	-
T _j =+20°C	P _{dc}	6.0	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-177	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
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(*) 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):				HYHC-V30W/D2RN8				
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	η _{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°C	P _{dc}	30.8	kW		T _j =+35°C	EER _d	3.79	-
T _j =+30°C	P _{dc}	22.1	kW		T _j =+30°C	EER _d	5.06	-
T _j =+25°C	P _{dc}	13.9	kW		T _j =+25°C	EER _d	6.33	-
T _j =+20°C	P _{dc}	6.3	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-177	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Medium temperature application						
Contact details		Imported/distributed by Black Sea Suppliers www.blackseasuppliers.ro Licensed by Hyundai Corporation Holdings, Korea						
(*) 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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