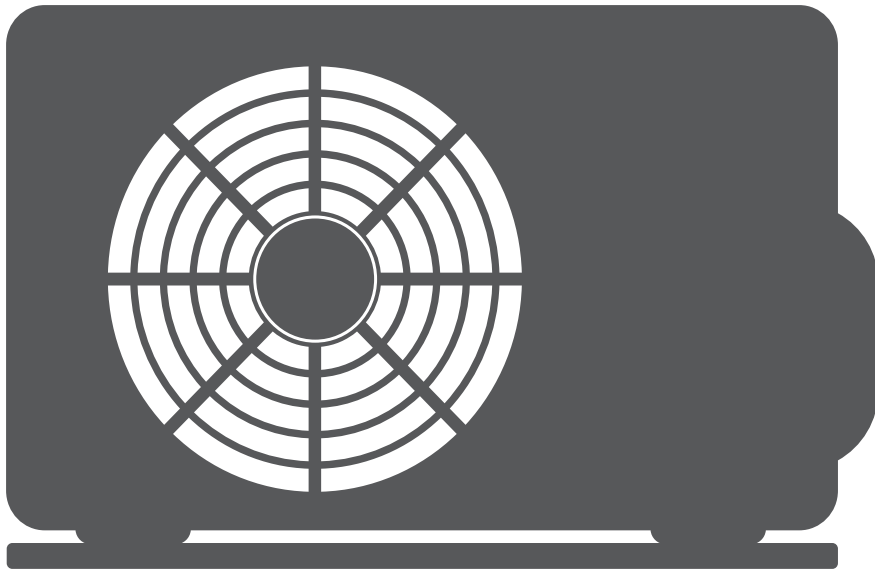


HYUNDAI

AIR CONDITIONING SYSTEMS

AIR-TO-WATER HEAT PUMP - MONOBLOCK

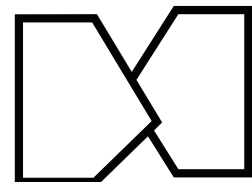
• PRODUCT FICHE



MODELS:

HY/S-100B/EN8BP-3
HY/S-120B/EN8BP-3
HY/S-140B/EN8BP-3
HY/S-160B/EN8BP-3

ENGLISH



For low-temperature application										
Model	Energy efficiency class	Unit sound power dB	Average climate			Colder climate			Warmer climate	
			Rated heat output kW	Seasonal Space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal Space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal Space heating energy efficiency %
HY/S-100B/EN8BP-3	A+++	59	9.8	211	3795	7.9	154	4972	10.2	273
HY/S-120B/EN8BP-3	A+++	60	11.3	188	4872	10.1	151	6452	12.2	257
HY/S-140B/EN8BP-3	A+++	63	13.2	184	5821	12.0	152	7658	13.9	263
HY/S-160B/EN8BP-3	A+++	67	14.9	192	6326	13.7	156	8488	15.6	265
For medium-temperature application										
Model	Energy efficiency class	Unit sound power dB	Average climate			Colder climate			Warmer climate	
			Rated heat output kW	Seasonal Space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal Space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal Space heating energy efficiency %
HY/S-100B/EN8BP-3	A++	60	7.6	141	4357	6.5	110	5687	8.7	181
HY/S-120B/EN8BP-3	A++	64	11.0	141	6319	9.7	111	8416	12.2	166
HY/S-140B/EN8BP-3	A++	65	12.4	142	7054	10.3	113	8760	13.8	172
HY/S-160B/EN8BP-3	A++	68	12.8	143	7238	11.0	114	9273	14.4	173

Product fiche 1

Heat pump space heater

Unit sound power (*)		Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3
Average climate low temperature application		[dB]	59	60	63	67
Average climate medium temperature application		[dB]	60	64	65	68
Capacity of the back-up heater integrated in the unit		[kW]	9	9	9	9
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++
	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]	9.8	11.3	13.2	14.9
	Seasonal space heating efficiency (η)	[%]	211	188	184	192
	Annual energy consumption	[kWh]	3795	4872	5821	6326
Space heating 55°C	Prated (declared heating capacity) @-10°C	[kW]	7.6	11.0	12.4	12.8
	Seasonal space heating efficiency (η)	[%]	141	141	142	143
	Annual energy consumption	[kWh]	4357	6319	7054	7238
Part load conditions space heating average climate low temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	8.67	9.96	11.63	13.19
	COPd (declared COP)	-	3.08	2.64	2.63	2.59
	Cdh(degradation coefficient)	-	0.99	1.00	1.00	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.42	5.99	6.97	8.11
	COPd (declared COP)	-	5.09	4.40	4.40	4.68
	Cdh(degradation coefficient)	-	0.97	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.22	4.19	6.62	5.86
	COPd (declared COP)	-	7.78	7.69	7.22	7.07
	Cdh(degradation coefficient)	-	0.95	0.97	0.98	0.98
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.39	5.02	7.23	6.40
	COPd (declared COP)	-	12.14	11.68	10.64	10.63
	Cdh(degradation coefficient)	-	0.92	0.96	0.97	0.97

Product fiche 2

Heat pump space heater

		Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	7.68	9.77	12.26	13.39
	COPd (declared COP)	-	2.69	2.52	2.39	2.38
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00
	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	8.67	9.96	11.63	13.19
Supplementary capacity at P_design	COPd (declared COP)	-	3.08	2.64	2.63	2.59
	Psup (@Tdesignh: -10°C)	[kW]	2.12	1.53	0.94	1.51
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	6.74	9.73	10.94	11.33
	COPd (declared COP)	-	1.97	2.05	2.01	2.00
	Cdh(degradation coefficient)	-	0.99	1.00	1.00	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.54	6.35	7.40	7.32
	COPd (declared COP)	-	3.45	3.30	3.45	3.49
	Cdh(degradation coefficient)	-	0.98	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.56	4.38	5.76	5.02
	COPd (declared COP)	-	5.40	5.30	5.18	5.17
	Cdh(degradation coefficient)	-	0.97	0.98	0.98	0.98
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.19	4.88	6.63	6.17
	COPd (declared COP)	-	8.63	8.61	7.97	8.19
	Cdh(degradation coefficient)	-	0.94	0.97	0.98	0.98
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	6.24	9.84	10.76	11.58
	COPd (declared COP)	-	1.72	1.91	1.79	1.80
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00
	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	6.74	9.73	10.94	11.33
Supplementary capacity at P_design	COPd (declared COP)	-	1.97	2.05	2.01	2.00
	Psup (@Tdesignh: -10°C)	[kW]	1.38	1.16	1.60	1.23

Product fiche 3

Heat pump space heater

Supplementary capacity at Pdesign	Pspu (@T designh: -10°C)	Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3
Colder climate (Design temperature = -22°C)						
Space heating 35°C	Prated (declared heating capacity) @-22°C	[kW]	7.9	10.1	12.0	13.7
	Seasonal space heating efficiency (η)	[%]	154	151	152	156
	Annual energy consumption	[kWh]	4972	6452	7658	8488
Space heating 55°C	Prated(declared heating capacity)@-22°C	[kW]	6.5	9.7	10.3	11.0
	Seasonal space heating efficiency (η)	[%]	110	111	113	114
	Annual energy consumption	[kWh]	5687	8416	8760	9273
Part load conditions space heating colder climate low temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)@-22°C	[kW]	5.93	6.81	7.95	9.02
	COPd (declared COP)	-	3.55	3.32	3.29	3.39
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)@-22°C	[kW]	3.70	4.10	4.77	5.54
	COPd (declared COP)	-	4.68	4.46	4.53	4.74
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)@-22°C	[kW]	2.89	2.87	4.52	4.01
	COPd (declared COP)	-	6.71	6.04	6.16	6.57
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)@-22°C	[kW]	2.70	2.81	3.84	4.37
	COPd (declared COP)	-	7.33	6.32	6.71	6.65
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00
	Pdh (declared heating capacity)@-22°C	[kW]	4.55	6.62	7.49	8.86
	COPd (declared COP)	-	1.88	1.85	1.82	1.81
(F) Tbiivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00
	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)@-22°C	[kW]	6.34	8.24	9.79	11.26
Supplementary capacity at P_design	COPd (declared COP)	-	2.37	2.47	2.44	2.35
	Pspu (@T designh: -22°C)	[kW]	3.35	3.48	4.51	4.84

Product fiche 4							
Heat pump space heater							
Part load conditions space heating colder climate medium temperature application		Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3	
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	4.61	6.65	7.48	7.75	
	COPd (declared COP)	-	2.49	2.42	2.49	2.53	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	
	Pdh (declared heating capacity)	[kW]	3.11	4.34	5.06	5.01	
(B) condition (2°C)	COPd (declared COP)	-	3.44	3.40	3.49	3.44	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	
	Pdh (declared heating capacity)	[kW]	3.12	3.13	3.94	3.53	
	COPd (declared COP)	-	4.34	4.23	4.33	4.46	
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	
	Pdh (declared heating capacity)	[kW]	2.86	2.93	3.53	3.66	
	COPd (declared COP)	-	5.22	5.01	5.10	5.19	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Tol (temperature operating limit)		-22.0	-22.0	-22.00	-22.00	
	Pdh (declared heating capacity)	[kW]	2.55	3.87	4.25	4.85	
	COPd (declared COP)	-	1.05	1.03	1.02	1.08	
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	
(F) TbiValent temperature	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00	
	Pdh (declared heating capacity)	[kW]	5.37	7.91	8.41	8.97	
	COPd (declared COP)	-	1.86	1.77	1.72	1.79	
	Psup (@Tdesignh: -22°C)	[kW]	3.95	5.83	6.05	6.15	
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	10.2	12.2	13.9	15.6	
	Seasonalspaceheating efficiency(η)	[%]	273	257	263	265	
	Annual energy consumption	[kWh]	1973	2507	2790	3112	
	Prated (declared heating capacity) @ 2°C	[kW]	8.7	12.2	13.8	14.4	
Space heating 55°C	Seasonalspaceheating efficiency(η)	[%]	181	166	172	173	
	Annual energy consumption	[kWh]	2525	3845	4208	4367	

Product fiche 5

Heat pump space heater

Part load conditions space heating warmer climate low temperature application

	Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3
(B) condition (2°C)	Pdh(declared heating capacity)	[kW]	9.82	11.56	13.46
	COPd (declared COP)	-	3.86	3.62	3.48
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
C) condition (7°C)	Pdh(declared heating capacity)	[kW]	6.38	7.84	8.94
	COPd (declared COP)	-	6.29	5.92	5.96
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(D) condition (12°C)	Pdh(declared heating capacity)	[kW]	2.65	3.49	3.97
	COPd (declared COP)	-	8.87	8.30	8.35
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00
	Pdh(declared heating capacity)	[kW]	9.82	11.56	13.46
	COPd (declared COP)	-	3.86	3.62	3.48
	WTOL (Heating water Operation Limit)	[°C]	65.00	65.00	65.00
	Tblv	[°C]	7.00	7.00	7.00
(F) Tivalent temperature	Pdh(declared heating capacity)	[kW]	6.38	7.84	8.94
	COPd (declared COP)	-	6.29	5.92	5.96
	Psup (@Tdesignh: 2°C)	[kW]	0.38	0.64	0.44
Supplementary capacity at P_design					

Part load conditions space heating warmer climate medium temperature application

(B) condition (2°C)	Pdh(declared heating capacity)	[kW]	8.19	11.48	13.10
	COPd (declared COP)	-	2.42	2.20	2.15
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(C) condition (7°C)	Pdh(declared heating capacity)	[kW]	6.01	7.84	8.87
	COPd (declared COP)	-	3.99	3.75	3.85
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(D) condition (12°C)	Pdh(declared heating capacity)	[kW]	2.45	3.49	3.94
	COPd (declared COP)	-	5.77	5.45	5.70
	Cdh(degradation coefficient)	-	0.90	0.90	0.90

Product fiche 6

Heat pump space heater

		Model	HY/S-100B/EN8BP-3	HY/S-120B/EN8BP-3	HY/S-140B/EN8BP-3	HY/S-160B/EN8BP-3
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00
	Pdh (declared heating capacity)	[kW]	8.19	11.48	13.10	14.11
	COPd (declared COP)	-	2.42	2.20	2.15	2.58
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65.00	65.00	65.00	65.00
	Tblv	[°C]	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	6.01	7.84	8.87	9.26
Supplementary capacity at P_design	COPd (declared COP)	-	3.99	3.75	3.85	3.65
	Psup (@Tdesignh: 2°C)	[kW]	0.51	0.72	0.70	0.29
	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes
Product description	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	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	No	No	No	No
Air to water unit	Rated airflow	[m3/h]	4050	4050	4650	4650
	Rated water/brine flow (outdoor H/E)		/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter
Other	P(Power consumption Off mode)	[kW]	0.011	0.012	0.012	0.012
	P(Power consumption Thermostat off mode)	[kW]	0.028	0.018	0.018	0.018
	P(Power consumption Standby mode)	[kW]	0.011	0.012	0.012	0.012
	P(Power crankcase heater model)	[kW]	0.028	0.013	0.013	0.013
	Q(Daily electricity consumption)	[kWh]	/	/	/	/
	Q(Daily fuel consumption)	[kWh]	/	/	/	/

Technical parameters										
Model(s):		HY/S-100B/EN8BP-3								
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/YES								
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	7.6	kW	Seasonal space heating energy efficiency	η s	141	%			
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	6.7	kW	Tj = -7°C	COPd	1.97	-			
Tj = 2°C	Pdh	4.5	kW	Tj = 2°C	COPd	3.45	-			
Tj = 7°C	Pdh	4.6	kW	Tj = 7°C	COPd	5.40	-			
Tj = 12°C	Pdh	4.2	kW	Tj = 12°C	COPd	8.63	-			
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.97	-			
Tj = operating limit	Pdh	6.2	kW	Tj = operating limit	COPd	1.72	-			
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	-10	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.99	--	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.011	kW	Rated heat output (**)	Psup	1.4	kW			
Standby mode	Psb	0.011	kW							
Thermostat-off mode	Pto	0.028	kW	Type of energy input						
Crankcase heater mode	Pck	0.028	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4050	m³/h			
Sound power level, indoors/outdoors	LWA	-/60	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	4357	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energyefficiency	ηwh	-	%			
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details										
(*) 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):		HY/S-100B/EN8BP-3								
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/YES								
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	6.5	kW	Seasonal space heating energy efficiency	η_s	110	%			
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	4.6	kW	Tj = -7°C	COPd	2.49	-			
Tj = 2°C	Pdh	3.1	kW	Tj = 2°C	COPd	3.44	-			
Tj = 7°C	Pdh	3.1	kW	Tj = 7°C	COPd	4.34	-			
Tj = 12°C	Pdh	2.9	kW	Tj = 12°C	COPd	5.22	-			
Tj = bivalent temperature	Pdh	5.4	kW	Tj = bivalent temperature	COPd	1.86	-			
Tj = operating limit	Pdh	2.6	kW	Tj = operating limit	COPd	1.05	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-			
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.90	--	Heating water operating limit temperature	WTOL	51	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.011	kW	Rated heat output (**)	Psup	4.0	kW			
Standby mode	Psb	0.011	kW							
Thermostat-off mode	Pto	0.028	kW	Type of energy input						
Crankcase heater mode	Pck	0.028	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4050	m³/h			
Sound power level, indoors/outdoors	LWA	-/60	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	5687	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energyefficiency	η_{wh}	-	%			
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details										
(*) 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):				HY/S-100B/EN8BP-3					
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/YES					
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	8.7	kW	Seasonal space heating energy efficiency		η_s	181	%
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	8.2	kW	Tj = 2°C		COPd	2.42	-
Tj = 7°C		Pdh	6.0	kW	Tj = 7°C		COPd	3.99	-
Tj = 12°C		Pdh	2.5	kW	Tj = 12°C		COPd	5.77	-
Tj = bivalent temperature		Pdh	6.0	kW	Tj = bivalent temperature		COPd	3.99	-
Tj = operating limit		Pdh	8.2	kW	Tj = operating limit		COPd	2.42	-
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	0.90	--	Heating water operating limit temperature		WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater					
Off mode		Poff	0.011	kW	Rated heat output (**)		Psup	0.5	kW
Standby mode		Psb	0.011	kW					
Thermostat-off mode		Pto	0.028	kW	Type of energy input		Electrical		
Crankcase heater mode		Pck	0.028	kW					
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		-	4050	m³/h	
Sound power level, indoors/outdoors		LWA	-/60	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	2525	kWh					
For heat pump combination heater:									
Declared load profile		-		Water heating energyefficiency		η_{wh}	-	%	
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details									
(*) 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):				HY/S-120B/EN8BP-3			
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/YES			
Heat pump combination heater:				NO			
Declared climate condition:				AVERAGE			
Parameters are declared for medium-temperature application.							
Item				Symbol	Value	Unit	
Rated heat output (*)				Prated	11.0	kW	
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	9.7	kW	
Tj = 2°C				Pdh	6.4	kW	
Tj = 7°C				Pdh	4.4	kW	
Tj = 12°C				Pdh	4.9	kW	
Tj = bivalent temperature				Pdh	9.7	kW	
Tj = operating limit				Pdh	9.8	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	0.99	--	
Power consumption in modes other than active mode				Supplementary heater			
Off mode				Poff	0.012	kW	
Standby mode				Psb	0.012	kW	
Thermostat-off mode				Pto	0.018	kW	
Crankcase heater mode				Pck	0.013	kW	
Other items							
Capacity control				variable			
Sound power level, indoors/outdoors				LWA	-/64	dB	
Annual energy consumption				QHE	6319	kWh	
For heat pump combination heater:							
Declared load profile				-		Water heating energyefficiency	
Daily electricity consumption				Qelec	-	ηwh	%
Annual electricity consumption				AEC	-	Qfuel	kWh
						AFC	GJ
Contact details							
(*) 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):		HY/S-120B/EN8BP-3								
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/YES								
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	9.7	kW	Seasonal space heating energy efficiency	η s	111	%			
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	6.7	kW	Tj = -7°C	COPd	2.42	-			
Tj = 2°C	Pdh	4.3	kW	Tj = 2°C	COPd	3.40	-			
Tj = 7°C	Pdh	3.1	kW	Tj = 7°C	COPd	4.23	-			
Tj = 12°C	Pdh	2.9	kW	Tj = 12°C	COPd	5.01	-			
Tj = bivalent temperature	Pdh	7.9	kW	Tj = bivalent temperature	COPd	1.77	-			
Tj = operating limit	Pdh	3.9	kW	Tj = operating limit	COPd	1.03	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-			
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.90	--	Heating water operating limit temperature	WTOL	51	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.012	kW	Rated heat output (**)	Psup	5.8	kW			
Standby mode	Psb	0.012	kW							
Thermostat-off mode	Pto	0.018	kW	Type of energy input						
Crankcase heater mode	Pck	0.013	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4050	m³/h			
Sound power level, indoors/outdoors	LWA	-/64	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	8416	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energyefficiency	ηwh	-	%			
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details										
(*) 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):		HY/S-120B/EN8BP-3								
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/YES								
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	12.2	kW	Seasonal space heating energy efficiency	η s	166	%			
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	11.5	kW	Tj = 2°C	COPd	2.20	-			
Tj = 7°C	Pdh	7.8	kW	Tj = 7°C	COPd	3.75	-			
Tj = 12°C	Pdh	3.5	kW	Tj = 12°C	COPd	5.45	-			
Tj = bivalent temperature	Pdh	7.8	kW	Tj = bivalent temperature	COPd	3.75	-			
Tj = operating limit	Pdh	11.5	kW	Tj = operating limit	COPd	2.20	-			
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	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.90	--	Heating water operating limit temperature	WTOL	65	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.012	kW	Rated heat output (**)	Psup	0.7	kW			
Standby mode	Psb	0.012	kW							
Thermostat-off mode	Pto	0.018	kW	Type of energy input						
Crankcase heater mode	Pck	0.013	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4050	m³/h			
Sound power level, indoors/outdoors	LWA	-64	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	3845	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energyefficiency	ηwh	-	%			
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details										
(*) 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):		HY/S-140B/EN8BP-3							
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/YES							
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	12.4	kW	Seasonal space heating energy efficiency		η s	142	%
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	10.9	kW	Tj = -7°C		COPd	2.01	-
Tj = 2°C		Pdh	7.4	kW	Tj = 2°C		COPd	3.45	-
Tj = 7°C		Pdh	5.8	kW	Tj = 7°C		COPd	5.18	-
Tj = 12°C		Pdh	6.6	kW	Tj = 12°C		COPd	7.97	-
Tj = bivalent temperature		Pdh	10.9	kW	Tj = bivalent temperature		COPd	2.01	-
Tj = operating limit		Pdh	10.8	kW	Tj = operating limit		COPd	1.79	-
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	-10	°C
Cycling interval capacity for heating		Pcyc	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.99	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.012	kW	Rated heat output (**)		Psup	1.6	kW
Standby mode		Psb	0.012	kW					
Thermostat-off mode		Pto	0.018	kW	Type of energy input				
Crankcase heater mode		Pck	0.013	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	4650	m³/h
Sound power level, indoors/outdoors		LWA	-/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	7054	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energyefficiency		ηwh	-	%
Daily electricity consumption		Qclec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details									
(*) 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):		HY/S-140B/EN8BP-3							
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/YES							
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	10.3	kW	Seasonal space heating energy efficiency		η s	113	%
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	7.5	kW	Tj = -7 °C		COPd	2.49	-
Tj = 2 °C		Pdh	5.1	kW	Tj = 2 °C		COPd	3.49	-
Tj = 7 °C		Pdh	3.9	kW	Tj = 7 °C		COPd	4.33	-
Tj = 12 °C		Pdh	3.5	kW	Tj = 12 °C		COPd	5.10	-
Tj = bivalent temperature		Pdh	8.4	kW	Tj = bivalent temperature		COPd	1.72	-
Tj = operating limit		Pdh	4.3	kW	Tj = operating limit		COPd	1.02	-
For air-to-water heat pumps: Tj = -15 °C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C		COPd	-	-
Bivalent temperature		Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-22	°C
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.90	--	Heating water operating limit temperature		WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater					
Off mode		Poff	0.012	kW	Rated heat output (**)		Psup	6.1	kW
Standby mode		Psb	0.012	kW	Type of energy input Electrical				
Thermostat-off mode		Pto	0.018	kW					
Crankcase heater mode		Pck	0.013	kW					
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		-	4650	m³/h	
Sound power level, indoors/outdoors		LWA	-/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	8760	kWh					
For heat pump combination heater:									
Declared load profile		-		Water heating energyefficiency		ηwh	-	%	
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details									
(*) 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):		HY/S-140B/EN8BP-3							
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/YES							
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	13.8	kW	Seasonal space heating energy efficiency		η_s	172	%
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	13.1	kW	Tj = 2°C		COPd	2.15	-
Tj = 7°C		Pdh	8.9	kW	Tj = 7°C		COPd	3.85	-
Tj = 12°C		Pdh	3.9	kW	Tj = 12°C		COPd	5.70	-
Tj = bivalent temperature		Pdh	8.9	kW	Tj = bivalent temperature		COPd	3.85	-
Tj = operating limit		Pdh	13.1	kW	Tj = operating limit		COPd	2.15	-
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		Pcyc	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.90	--	Heating water operating limit temperature		WTOL	65	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.012	kW	Rated heat output (**)		Psup	0.7	kW
Standby mode		Psb	0.012	kW					
Thermostat-off mode		Pto	0.018	kW					
Crankcase heater mode		Pck	0.013	kW					
					Type of energy input		Electrical		
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	4650	m³/h
Sound power level, indoors/outdoors		LWA	-/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	4208	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energyefficiency		η_{wh}	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details									
(*) 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):		HY/S-160B/EN8BP-3					
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/YES					
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	12.8	kW	Seasonal space heating energy efficiency	η_s	143	%
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	11.3	kW	Tj = -7°C	COPd	2.00	-
Tj = 2°C	Pdh	7.3	kW	Tj = 2°C	COPd	3.49	-
Tj = 7°C	Pdh	5.0	kW	Tj = 7°C	COPd	5.17	-
Tj = 12°C	Pdh	6.2	kW	Tj = 12°C	COPd	8.19	-
Tj = bivalent temperature	Pdh	11.3	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operating limit	Pdh	11.6	kW	Tj = operating limit	COPd	1.80	-
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	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.99	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.012	kW	Rated heat output (**)	Psup	1.2	kW
Standby mode	Psb	0.012	kW				
Thermostat-off mode	Pto	0.018	kW	Type of energy input	Electrical		
Crankcase heater mode	Pck	0.013	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m³/h
Sound power level, indoors/outdoors	LWA	-/68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	7238	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energyefficiency	η_{wh}	-	%
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details							
(*) 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):		HY/S-160B/EN8BP-3							
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/YES							
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	11.0	kW	Seasonal space heating energy efficiency		η s	114	%
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℃		Pdh	7.8	kW	Tj = -7℃		COPd	2.53	-
Tj = 2℃		Pdh	5.0	kW	Tj = 2℃		COPd	3.44	-
Tj = 7℃		Pdh	3.5	kW	Tj = 7℃		COPd	4.46	-
Tj = 12℃		Pdh	3.7	kW	Tj = 12℃		COPd	5.19	-
Tj = bivalent temperature		Pdh	9.0	kW	Tj = bivalent temperature		COPd	1.79	-
Tj = operating limit		Pdh	4.9	kW	Tj = operating limit		COPd	1.08	-
For air-to-water heat pumps: Tj = -15℃		Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃		COPd	-	-
Bivalent temperature		Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-22	°C
Cycling interval capacity for heating		Pcyc	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.90	--	Heating water operating limit temperature		WTOL	51	°C
Power consumption in modes other than active mode					Supplementary heater				
Off mode		Poff	0.012	kW	Rated heat output (**)		Psup	6.2	kW
Standby mode		Psb	0.012	kW					
Thermostat-off mode		Pto	0.018	kW	Type of energy input		Electrical		
Crankcase heater mode		Pck	0.013	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	4650	m³/h
Sound power level, indoors/outdoors		LWA	-/68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger		-	-	m³/h
Annual energy consumption		QHE	9273	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energyefficiency		ηwh	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details									
(*) 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):		HY/S-160B/EN8BP-3									
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/YES									
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	14.4	kW	Seasonal space heating energy efficiency		η s	173	%		
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℃		Pdh	-	kW	Tj = -7℃		COPd	-	-		
Tj = 2℃		Pdh	14.1	kW	Tj = 2℃		COPd	2.58	-		
Tj = 7℃		Pdh	9.3	kW	Tj = 7℃		COPd	3.65	-		
Tj = 12℃		Pdh	4.1	kW	Tj = 12℃		COPd	5.88	-		
Tj = bivalent temperature		Pdh	9.3	kW	Tj = bivalent temperature		COPd	3.65	-		
Tj = operating limit		Pdh	14.1	kW	Tj = operating limit		COPd	2.58	-		
For air-to-water heat pumps: Tj = -15℃		Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃		COPd	-	-		
Bivalent temperature		Tbiv	7	℃	For air-to-water heat pumps: Operation limit temperature		TOL	2	℃		
Cycling interval capacity for heating		Pcych	-	kW	Cycling interval efficiency		COPcyc	-	-		
Degradation co-efficient (**)		Cdh	0.90	--	Heating water operating limit temperature		WTOL	65	℃		
Power consumption in modes other than active mode					Supplementary heater						
Off mode		Poff	0.012	kW	Rated heat output (**)		Psup	0.3	kW		
Standby mode		Psb	0.012	kW							
Thermostat-off mode		Pto	0.018	kW							
Crankcase heater mode		Pck	0.013	kW							
								Type of energy input		Electrical	
Other items					For air-to-water heat pumps: Rated air flow rate, outdoors				-	4650	m³/h
Capacity control		variable			For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger				-	-	m³/h
Sound power level, indoors/outdoors		LWA	-/68	dB							
Annual energy consumption		QHE	4367	kWh							
For heat pump combination heater:											
Declared load profile		-			Water heating energyefficiency		ηwh	-	%		
Daily electricity consumption		Qclec	-	kWh	Daily fuel consumption		Qfuel	-	kWh		
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ		
Contact details											
(*) 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									
Model(s):				HY/S-100B/EN8BP-3					
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}	9.9	kW		Seasonal space cooling energy efficiency	η _{s,c}	228.8	%
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℃		P _{dc}	9.90	kW		T _j =+35℃	EERd	3.04	-
T _j =+30℃		P _{dc}	7.62	kW		T _j =+30℃	EERd	4.42	-
T _j =+25℃		P _{dc}	4.91	kW		T _j =+25℃	EERd	6.51	-
T _j =+20℃		P _{dc}	3.63	kW		T _j =+20℃	EERd	10.04	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-					
Power consumption in modes other than "active mode"									
Off mode		P _{OFF}	0.011	kW		Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.028	kW		Standby mode	P _{SB}	0.011	kW
Other items									
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	4050	m³/h
Soundpowerlevel, indoors /outdoors		L _{WA}	-/60	dB		For water / brine-to-water chillers:Ratedbrineor water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides(ifapplicable)		NO _x	-	mg/kWh input GCV					
GWP of the refrigerant		-	675	kg CO2 eq (100years)					
Standard rating conditions used			Low temperature application						
Contact details									
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.									

Information requirements									
Model(s):				HY/S-100B/EN8BP-3					
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}	10.0	kW		Seasonal space cooling energy efficiency	η _{s,c}	360.1	%
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℃		P _{dc}	10.01	kW		T _j =+35℃	EERd	4.80	-
T _j =+30℃		P _{dc}	7.48	kW		T _j =+30℃	EERd	6.98	-
T _j =+25℃		P _{dc}	4.61	kW		T _j =+25℃	EERd	10.68	-
T _j =+20℃		P _{dc}	3.91	kW		T _j =+20℃	EERd	15.51	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-					
Power consumption in modes other than "active mode"									
Off mode		P _{OFF}	0.011	kW		Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.028	kW		Standby mode	P _{SB}	0.011	kW
Other items									
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	4050	m³/h
Soundpowerlevel, indoors /outdoors		L _{WA}	-/60	dB		For water / brine-to-water chillers:Ratedbrin eor water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides(ifapplicable)		NOx	-	mg/kWh input GCV					
GWP of the refrigerant		-	675	kg CO2 eq (100years)					
Standard rating conditions used			Medium temperature application						
Contact details									
(*) If Cdc is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.									

Information requirements									
Model(s):				HY/S-120B/EN8BP-3					
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}	11.5	kW		Seasonal space cooling energy efficiency	η _{s,c}	219.0	%
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℃		P _{dc}	11.46	kW		T _j =+35℃	EERd	2.84	-
T _j =+30℃		P _{dc}	8.89	kW		T _j =+30℃	EERd	4.13	-
T _j =+25℃		P _{dc}	5.80	kW		T _j =+25℃	EERd	6.38	-
T _j =+20℃		P _{dc}	4.67	kW		T _j =+20℃	EERd	9.40	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-					
Power consumption in modes other than "active mode"									
Off mode		P _{OFF}	0.012	kW		Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.018	kW		Standby mode	P _{SB}	0.012	kW
Other items									
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	4050	m³/h
Sound power level, indoors /outdoors		L _{WA}	-/64	dB					
Emissions of nitrogen oxides(ifapplicable)		NO _x	-	mg/kWh input GCV		For water / brine-to-water chillers:Ratedbrin eor water flow rate, outdoor side heat exchanger	-	-	m³/h
GWP of the refrigerant		-	675	kg CO2 eq (100years)					
Standard rating conditions used			Low temperature application						
Contact details									
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.									

Information requirements										
Model(s):				HY/S-120B/EN8BP-3						
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}	12.0	kW		Seasonal space cooling energy efficiency		η _{s,c}	328.6	%
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℃		P _{dc}	11.96	kW		T _j =+35℃		EERd	4.55	-
T _j =+30℃		P _{dc}	8.77	kW		T _j =+30℃		EERd	6.43	-
T _j =+25℃		P _{dc}	5.64	kW		T _j =+25℃		EERd	10.27	-
T _j =+20℃		P _{dc}	2.51	kW		T _j =+20℃		EERd	14.61	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-						
Power consumption in modes other than "active mode"										
Off mode		P _{OFF}	0.012	kW		Crankcase heater mode		P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.018	kW		Standby mode		P _{SB}	0.012	kW
Other items										
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured		-	4050	m ³ /h
Sound power level, indoors /outdoors		L _{WA}	-/64	dB		For water / brine-to-water chillers:Ratedbrin eor water flow rate, outdoor side heat exchanger		-	-	m ³ /h
Emissions of nitrogen oxides(ifapplicable)		NOx	-	mg/kWh input GCV						
GWP of the refrigerant		-	675	kg CO2 eq (100years)						
Standard rating conditions used			Medium temperature application							
Contact details										
(*) If Cdc is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.										

Information requirements									
Model(s):				HY/S-140B/EN8BP-3					
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}	13.7	kW		Seasonal space cooling energy efficiency	η _{s,c}	214.4	%
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℃		P _{dc}	13.71	kW		T _j =+35℃	EERd	2.29	-
T _j =+30℃		P _{dc}	10.84	kW		T _j =+30℃	EERd	4.35	-
T _j =+25℃		P _{dc}	7.02	kW		T _j =+25℃	EERd	6.03	-
T _j =+20℃		P _{dc}	6.02	kW		T _j =+20℃	EERd	8.99	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-					
Power consumption in modes other than "active mode"									
Off mode		P _{OFF}	0.012	kW		Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.018	kW		Standby mode	P _{SB}	0.012	kW
Other items									
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m³/h
Sound power level, indoors /outdoors		L _{WA}	-/65	dB					
Emissions of nitrogen oxides(ifapplicable)		NO _x	-	mg/kWh input GCV		For water / brine-to-water chillers:Ratedbrineor water flow rate, outdoor side heat exchanger	-	-	m³/h
GWP of the refrigerant		-	675	kg CO2 eq (100years)					
Standard rating conditions used			Low temperature application						
Contact details									
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.									

Information requirements							
Model(s):				HY/S-140B/EN8BP-3			
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	$P_{rated,c}$	13.9	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	330.2	%
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}	13.89	kW	$T_j=+35^{\circ}\text{C}$	EERd	4.15	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	10.41	kW	$T_j=+30^{\circ}\text{C}$	EERd	6.04	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	7.06	kW	$T_j=+25^{\circ}\text{C}$	EERd	10.18	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	7.87	kW	$T_j=+20^{\circ}\text{C}$	EERd	13.72	-
Degradationco-efficient for chillers(*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.012	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.018	kW	Standby mode	P_{SB}	0.012	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m^3/h
Sound power level, indoors /outdoors	L_{WA}	-/65	dB	For water / brine-to-water chillers:Ratedbrineor water flow rate, outdoor side heat exchanger	-	-	m^3/h
Emissions of nitrogen oxides(ifapplicable)	NO_x	-	mg/kWh input GCV				
GWP of the refrigerant	-	675	kg CO2 eq (100years)				
Standard rating conditions used		Medium temperature application					
Contact details							
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.							

Information requirements										
Model(s):				HY/S-160B/EN8BP-3						
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}	16.1	kW		Seasonal space cooling energy efficiency		η _{s,c}	212.2	%
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℃		P _{dc}	16.10	kW		T _j =+35℃		EERd	2.70	-
T _j =+30℃		P _{dc}	13.62	kW		T _j =+30℃		EERd	3.96	-
T _j =+25℃		P _{dc}	8.03	kW		T _j =+25℃		EERd	6.12	-
T _j =+20℃		P _{dc}	6.20	kW		T _j =+20℃		EERd	9.22	-
Degradationco-efficient for chillers(*)		C _{dc}	0.9	-						
Power consumption in modes other than "active mode"										
Off mode		P _{OFF}	0.012	kW		Crankcase heater mode		P _{CK}	0.000	kW
Thermosat-off mode		P _{TO}	0.018	kW		Standby mode		P _{SB}	0.012	kW
Other items										
Capacity control		variable				For air-to-water comfort chillers: air flow rate, outdoor measured		-	4650	m³/h
Sound power level, indoors /outdoors		L _{WA}	-/68	dB		For water / brine-to-water chillers:Ratedbrin eor water flow rate, outdoor side heat exchanger		-	-	m³/h
Emissions of nitrogen oxides(ifapplicable)		NOx	-	mg/kWh input GCV						
GWP of the refrigerant		-	675	kg CO2 eq (100years)						
Standard rating conditions used			Low temperature application							
Contact details										
(*) If Cdc is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.										

Information requirements								
Model(s):				HY/S-160B/EN8BP-3				
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}	16.2	kW		Seasonal space cooling energy efficiency	η _{s,c}	327.5	%
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℃	P _{dc}	16.20	kW		T _j =+35℃	EERd	4.11	-
T _j =+30℃	P _{dc}	12.66	kW		T _j =+30℃	EERd	6.38	-
T _j =+25℃	P _{dc}	8.40	kW		T _j =+25℃	EERd	9.66	-
T _j =+20℃	P _{dc}	7.80	kW		T _j =+20℃	EERd	13.23	-
Degradationco-efficient for chillers(*)	C _{dc}	0.9	-					
Power consumption in modes other than "active mode"								
Off mode	P _{OFF}	0.012	kW		Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode	P _{TO}	0.018	kW		Standby mode	P _{SB}	0.012	kW
Other items								
Capacity control	variable				For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m ³ /h
Sound power level, indoors /outdoors	L _{WA}	-/68	dB		For water / brine-to-water chillers:Ratedbrineor water flow rate, outdoor side heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides(ifapplicable)	NOx	-	mg/kWh input GCV					
GWP of the refrigerant	-	675	kg CO2 eq (100years)					
Standard rating conditions used		Medium temperature application						
Contact details								
(*) If Cdc is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.								

Condition (°C)	Model	Capacity (kW)	Power input (kW)	EER/COP
Ambient Temperature: 35/24 Water Temperature: 12/7	HY/S-100B/EN8BP-3	9.9	3.26	3.04
	HY/S-120B/EN8BP-3	11.5	4.04	2.84
	HY/S-140B/EN8BP-3	13.7	5.29	2.59
	HY/S-160B/EN8BP-3	16.0	5.93	2.70
Ambient Temperature: 35/24 Water Temperature: 23/18	HY/S-100B/EN8BP-3	10.0	2.08	4.80
	HY/S-120B/EN8BP-3	12.0	2.63	4.55
	HY/S-140B/EN8BP-3	13.9	3.35	4.15
	HY/S-160B/EN8BP-3	16.2	3.94	4.11
Ambient Temperature: 7/6 Water Temperature: 30/35	HY/S-100B/EN8BP-3	10.1	2.15	4.70
	HY/S-120B/EN8BP-3	12.1	2.64	4.57
	HY/S-140B/EN8BP-3	14.0	2.99	4.70
	HY/S-160B/EN8BP-3	15.8	3.53	4.48
Ambient Temperature: 2/1 Water Temperature: 30/35	HY/S-100B/EN8BP-3	8.1	2.15	3.77
	HY/S-120B/EN8BP-3	9.3	2.54	3.65
	HY/S-140B/EN8BP-3	11.5	3.34	3.44
	HY/S-160B/EN8BP-3	13.7	3.90	3.52
Ambient Temperature: -7/-8 Water Temperature: 30/35	HY/S-100B/EN8BP-3	8.2	2.79	2.94
	HY/S-120B/EN8BP-3	10.1	3.52	2.87
	HY/S-140B/EN8BP-3	12.2	4.62	2.63
	HY/S-160B/EN8BP-3	13.4	5.04	2.65
Ambient Temperature: 7/6 Water Temperature: 40/45	HY/S-100B/EN8BP-3	9.9	2.77	3.57
	HY/S-120B/EN8BP-3	12.1	3.36	3.59
	HY/S-140B/EN8BP-3	14.1	3.95	3.57
	HY/S-160B/EN8BP-3	16.0	4.64	3.46
Ambient Temperature: 2/1 Water Temperature: 40/45	HY/S-100B/EN8BP-3	7.9	2.58	3.05
	HY/S-120B/EN8BP-3	10.9	3.80	2.86
	HY/S-140B/EN8BP-3	11.9	4.30	2.77
	HY/S-160B/EN8BP-3	13.0	4.63	2.81
Ambient Temperature: -7/-8 Water Temperature: 40/45	HY/S-100B/EN8BP-3	7.2	3.09	2.33
	HY/S-120B/EN8BP-3	10.1	4.55	2.22
	HY/S-140B/EN8BP-3	11.9	5.44	2.18
	HY/S-160B/EN8BP-3	12.9	6.04	2.14
Ambient Temperature: 7/6 Water Temperature: 47/55	HY/S-100B/EN8BP-3	9.9	3.51	2.82
	HY/S-120B/EN8BP-3	12.2	4.15	2.94
	HY/S-140B/EN8BP-3	14.2	5.08	2.80
	HY/S-160B/EN8BP-3	16.2	5.76	2.82
Ambient Temperature: 2/1 Water Temperature: 47/55	HY/S-100B/EN8BP-3	8.1	3.29	2.46
	HY/S-120B/EN8BP-3	11.2	4.57	2.46
	HY/S-140B/EN8BP-3	12.8	5.44	2.35
	HY/S-160B/EN8BP-3	13.4	5.89	2.28
Ambient Temperature: -7/-8 Water Temperature: 47/55	HY/S-100B/EN8BP-3	6.8	3.43	1.98
	HY/S-120B/EN8BP-3	9.9	4.84	2.04
	HY/S-140B/EN8BP-3	11.1	5.48	2.03
	HY/S-160B/EN8BP-3	12.4	6.07	2.05

NOTE

NOTE

HYUNDAI

AIR CONDITIONING SYSTEMS

AIR-TO-WATER HEAT PUMP - MONOBLOCK

Please check the applicable models, F-GAS and manufacturer information from the "Owner's Manual - Product Fiche" in the packaging of the outdoor unit. (European Union products only).

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王梓豪

CPXXK-HYUNDAI-KS-3P-02

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注：经跟单确认，本文件实际内容参数以删除20kW参数的
802000205229为基准。

注意：本页不用印刷，仅对印刷颜色做要求。