



Product Fiche

HP290

		Outdoor	HP290 Monobloc 4.5 kW	HP290 Monobloc 6 kW	HP290 Monobloc 8 kW	HP290 Monobloc 10 kW	HP290 Monobloc 12 kW	HP290 Monobloc 14 kW
Outdoor unit sound power (*)	Average climate low temperature application	dB	56	58	61	65	65	69
	Average climate medium temperature application	dB	56	58	61	65	65	69
Capacity of the back-up heater integrated in the unit	Psup back-up heater (optional)	[kW]	0/3	0/3	0/3/6/9	0/3/6/9	0/3/6/9	0/3/6/9
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++	A+++
Space heating	Energy efficiency class 55°C (Medium temp. app.)	-	A++	A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)								
Space heating 35°C	Prated (declared heating capacity) @ -10°C	[kW]	5	6.4	9.2	12.1	13.7	14.7
	Seasonal space heating efficiency (ηs)	[%]	199.8	192.6	199.9	183.7	182.2	180.5
	Annual energy consumption	[kWh]	2,034	2,700	3,744	5,352	6,110	6,617
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	4.9	5.9	7.8	12	13	14.4
	Seasonal space heating efficiency (ηs)	[%]	148.6	149.7	149.8	141.8	141.4	139.9
	Annual energy consumption	[kWh]	2,668	3,191	4,215	6,843	7,438	8,349
Part load conditions space heating average climate low temperature application								
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	4.45	5.75	8.11	10.75	12.08	13.04
	COPd (declared COP)	-	3.39	3.1	2.84	2.78	2.66	2.54
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	2.75	3.71	5.1	6.73	7.55	8
	COPd (declared COP)	-	5.04	4.73	4.96	4.55	4.45	4.4
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.72	2.72	3.96	5.23	5.25	5.26
	COPd (declared COP)	-	6.72	6.92	7.47	6.89	7.06	7.12
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.14	3.15	4.48	5.34	5.23	5.28
	COPd (declared COP)	-	8.52	8.65	9.56	7.41	7.46	7.56
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	5	5.5	8.5	10.77	11.62	12.81
	COPd (declared COP)	-	2.92	2.87	2.52	2.61	2.53	2.37
	WTOL (Heating water Operation Limit)	[°C]	75	75	75	75	75	75
	Tblv	[°C]	-7	-7	-7	-7	-7	-7
(F) Tbialent temperature	Pdh (declared heating capacity)	[kW]	4.45	5.75	8.11	10.75	12.08	13.04
	COPd (declared COP)	-	3.39	3.1	2.84	2.78	2.66	2.54
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0	0.9	0.66	1.33	2.08	1.89
Part load conditions space heating average climate medium temperature application								
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	4.36	5.36	6.88	10.58	11.47	12.78
	COPd (declared COP)	-	2.6	2.41	2.31	2.23	2.15	2.05
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	2.65	3.12	4.23	6.59	7.29	7.96
	COPd (declared COP)	-	3.75	3.73	3.8	3.52	3.5	3.44
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.57	2.62	3.62	4.78	4.85	4.78
	COPd (declared COP)	-	4.97	5.21	5.21	4.99	5.1	5.13
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.04	3.03	4.31	5.59	5.6	5.72
	COPd (declared COP)	-	6.55	6.78	6.86	6.41	6.46	6.58
	Cdh(degradation coefficient)	-	0.9	0.9	0.9	0.9	0.9	0.9
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	4.36	5.1	7.42	10.15	10.97	12.54
	COPd (declared COP)	-	2.08	2.15	1.99	2.05	2.02	1.94
	WTOL (Heating water Operation Limit)	[°C]	75	75	75	75	75	75
	Tblv	[°C]	-7	-7	-7	-7	-7	-7
(F) Tbialent temperature	Pdh (declared heating capacity)	[kW]	4.36	5.36	6.88	10.58	11.47	12.78
	COPd (declared COP)	-	2.6	2.41	2.31	2.23	2.15	2.05

Supplementary capacity at P _{design}	P _{sup} (@T _{designh} : -10°C)	[kW]	0.57	0.75	0.35	1.95	2.03	1.86
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	No	No	No	No	No	No
Air to water unit	Heat pump combination heater	Y/N	No	No	No	No	No	No
	Rated airflow (outdoor)	[m3/h]	2770	2770	4030	4450	4450	5040
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.009	0.009	0.009	0.009	0.009	0.009
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.014	0.014	0.014	0.014	0.014	0.014
	P _{sb} (Power consumption Standby mode)	[kW]	0.009	0.009	0.009	0.009	0.009	0.009
	P _{CK} (Power crankcase heater model)	[kW]	0	0	0	0	0	0
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/	/	/
EN16147- Domestic Hot Water Production								
EN16147- Domestic Hot Water Production	Declared Load profile	-	L	L	L	L	XL	XL
	Energy class (product & package)	-	A+	A+	A+	A+	A+	A+
	Water Heating Efficiency (n _{wh})	%	122.3	122.3	126.3	126.3	127.1	127.1
	COP	-	2.946	2.946	3.022	3.022	3.076	3.076
	Reference Hot Water Temp	°C	49.8	49.8	49.3	49.3	49.16	49.16
	Standby Heat Loss	kW	0.026	0.026	0.03	0.03	0.036	0.036
	Volume of DHW Storage	Litre	180	180	180	180	250	250
	Maximum volume of mixed water at 40°C (V40)	Litre	219	219	217	217	305	305