ecoAIR+

High efficiency monobloc air to water for new homes or retrofits



ecoAIR+ PRO



ecoAIR+ 1-7 PRO



ecoAIR+ 1-9 PRO



ecoAIR+ 3-12 PRO



ecoAIR+ 3-18 PRO



ecoAIR+ 6-24 PRO

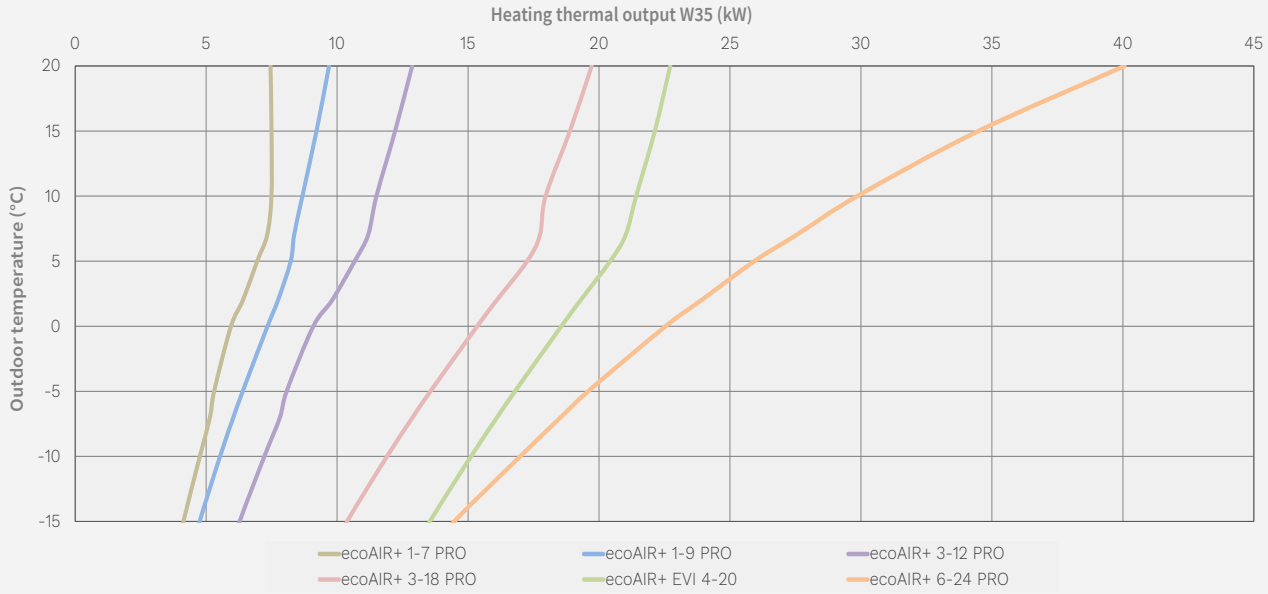
ecoAIR+ EVI



ecoAIR+ EVI 4-20

New building	Retrofit
Single house	Multiple dwelling
Single-phase - 230 Vac	Three-phase - 400 Vac

Equipment selection



Indoor units ecoAIR+

CM Lite / CM / HK / HK-Compact

SPECIFICATIONS INDOOR UNITS ecoAIR+			CM Lite	CM	HK						HK-COMPACT	
					EH			EH-S			EH	EH-S
					7	12	20	7	12	20		
APPLICATION	Place of installation	-			Indoor							
	DHW	-	▪	▪			▪				▪	
	Heating and Pool heating	-	▪	▪			▪				▪	
	Cooling	-	▪	▪			▪				▪	
PERFORMANCE	Electrical box and control	-	-	▪	▪	▪	▪	▪	▪	▪	▪	▪
	Filling kit and filter	-	-	-	▪	▪	▪	▪	▪	▪	▪	▪
	DHW diverting three-way valve	-	-	-	▪	▪	▪	▪	▪	▪	▪	▪
	Support electrical heater	-	-	-	▪	▪	▪	▪	▪	▪	▪	▪
	Separation heat exchanger	-	-	-	-	-	-	▪	▪	▪	-	▪
	Secondary circuit circulation pump	-	-	-	-	-	-	▪	▪	▪	-	▪
	DHW INOX tank	-	-	-	-	-	-	-	-	-	▪	▪
	Primary circuit expansion vessel	-	-	-	-	-	-	-	-	-	▪	▪
	Secondary circuit expansion vessel	-	-	-	-	-	-	-	-	-	-	▪
OPERATION LIMITS	Production circuit pressure	bar	-	-	0,5 - 3,0						0,5 - 3,0	
	DHW tank capacity	l	-	-	-	-	-	-	-	-	165	
	DHW tank maximum pressure	bar	-	-	-	-	-	-	-	-	8,5	
	DHW tank maximum temperature	ºC	-	-	-	-	-	-	-	-	80	
CONTROL ELECTRICAL DATA	(1) 1/N/PE 230 V / 50-60 Hz	-	-	▪			▪				▪	
	Recommended external protection	-	-	C16A			C16A				C16A	
	Transformer primary circuit fuse	A	-	0,5			0,5				0,5	
	Transformer secondary circuit fuse	A	-	2,5			2,5				2,5	
INTEGRATED SUPPORT ELECTRICAL HEATER ELECTRICAL DATA	(1) Single-phase connection: 1/N/PE 230 V / 50-60 Hz	-	-	-			▪				▪	
	Number of elements	-	-	-	1	3	3	1	3	3	3	3
	Recommended external protection 1/2/3	-	-	-	C16A	C10A/C16A/C20A	C10A/C16A/C20A	C16A	C10A/C16A/C20A	C10A/C16A/C20A	C10A/C16A/C20A	
	Maximum consumption power 1/2/3	kW	-	-	2,0	1,3/2,7/4,0	2,0/4,0/6,0	2,0	1,3/2,7/4,0	2,0/4,0/6,0	1,3/2,7/4,0	
	Maximum consumption current 1/2/3	A	-	-	10,0	6,3/12,6/18,9	8,8/17,6/26,4	10,0	6,3/12,6/18,9	8,8/17,6/26,4	6,3/12,6/18,9	
	(1) Three-phase connection: 3/PE 400 V / 50-60 Hz	A	-	-	-	▪	▪	-	▪	▪	▪	▪
	Recommended external protection	-	-	-	-	C10A	C16A	-	C10A	C16A	C10A	C10A
	Maximum consumption power	kW	-	-	-	4	6	-	4	6	4	4
	Maximum consumption current	A	-	-	-	6,3	8,8	-	6,3	8,8	6,3	6,3
	Correction of cos Ø	-	-	-	0,96 / 1							
DIMENSIONS & WEIGHT	Height x width x depth	mm	156x81x42	600x400x158	713x525x304		718x580x335	713x525x304		718x580x335	1773x600x679	
	Empty weight (without packaging)	kg	0,4	15	37	40	40	43	47	47	130	145

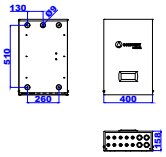
1. The admissible voltage range for proper of the heat pump is ±10%.

Dimensions and hydraulic connections

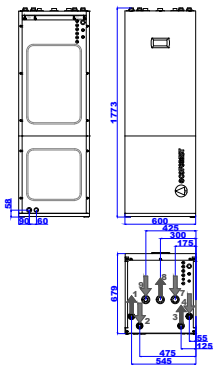
CM Lite



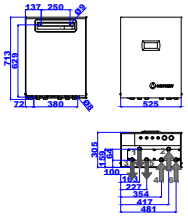
CM



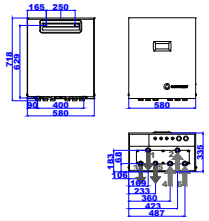
HK-Compact 12



HK 7 / 12

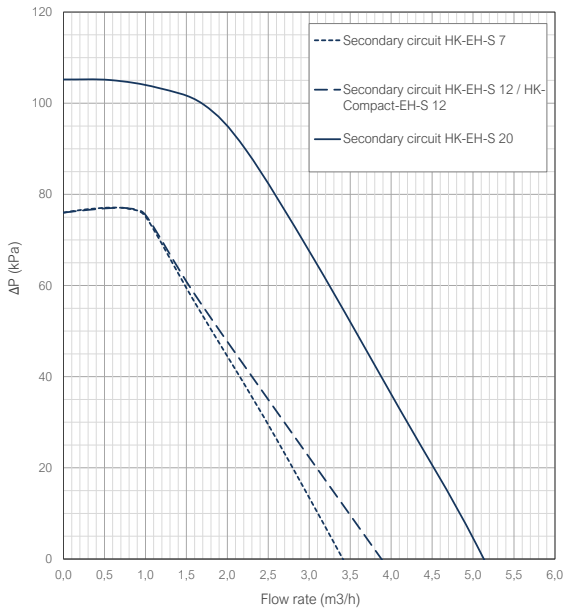


HK 20



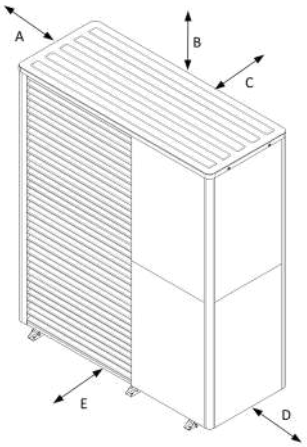
1. Outlet towards outdoor unit
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
2. Inlet towards outdoor unit
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
3. Heating/Cooling outlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
4. Heating/Cooling inlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
5. DHW system outlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
6. DHW system inlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
7. CW inlet
   1" H
8. DCW outlet
   1" H
9. DHW recirculation inlet
   ¾" M

Available pressure drop



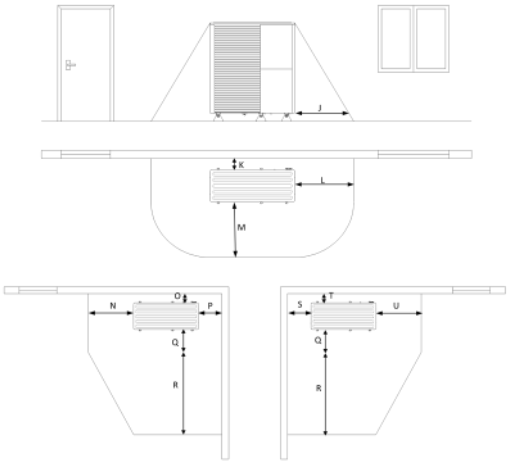
Outdoor units ecoAIR+
Minimum distances

Stand-alone service distances



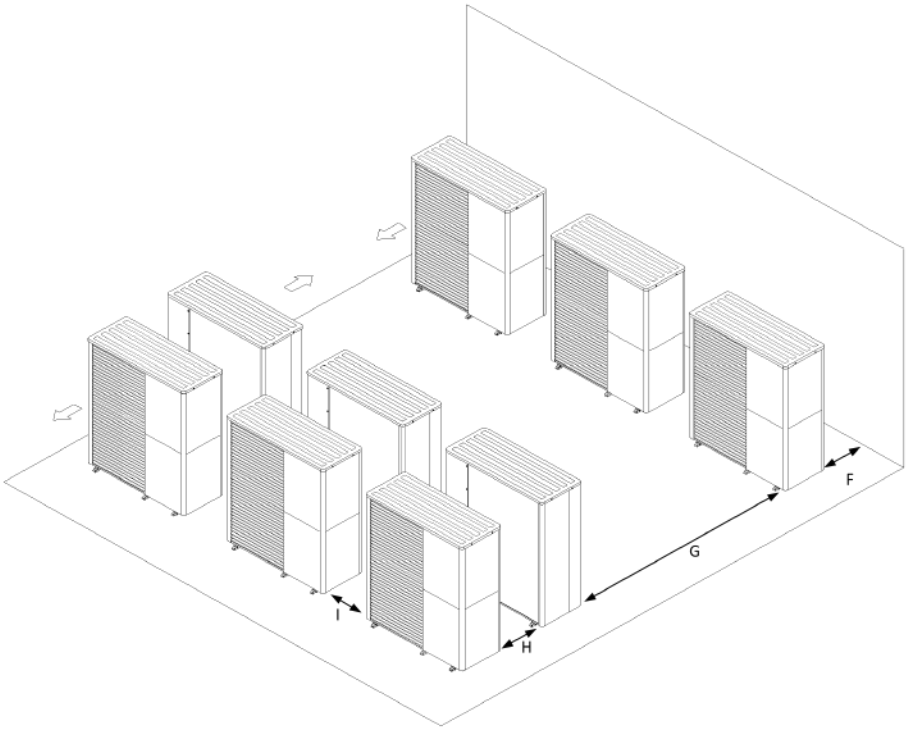
Heat pump model	A	B	C	D	E
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	200 mm	500 mm	200 mm	300 mm	1200 mm
ecoAIR+ 3-18 PRO ecoAIR+ EVI 4-20 ecoAIR+ 6-24 PRO	600 mm	800 mm	400 mm	600 mm	1500 mm

ecoAIR+ PRO safety distances



Heat pump model	J	K	L	M	N	O	P	Q	R	S	T	U
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	1000 mm	200 mm	1000 mm	1000 mm	1000 mm	200 mm	300 mm	500 mm	1800 mm	200 mm	200 mm	1000 mm
ecoAIR+ 3-18 PRO ecoAIR+ 6-24 PRO	1000 mm	400 mm	1000 mm	1000 mm	1000 mm	600 mm	600 mm	500 mm	1800 mm	600 mm	600 mm	1000 mm

Cascade service distances

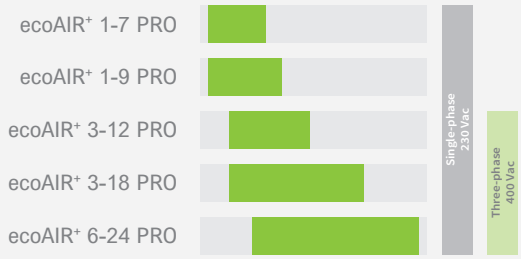


Heat pump model	F	G	H	I
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	300 mm	2000 mm	600 mm	400 mm
ecoAIR+ 3-18 PRO ecoAIR+ EVI 4-20 ecoAIR+ 6-24 PRO	500 mm	2500 mm	700 mm	800 mm

ecoAIR+ PRO



Models



Monobloc heat pump



Outdoor unit — Indoor unit

ecoAIR+ PRO | **CM Lite** | **CM** | **HK** | **HK-Compact**

Services



DHW | Heating | Cooling | Pool

Compatible production systems

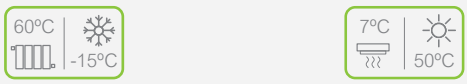


Heat./Cool. floor | Fancoils | Radiators

Management of shunt groups



Performance



DHW & Heating | Cooling

Cascade

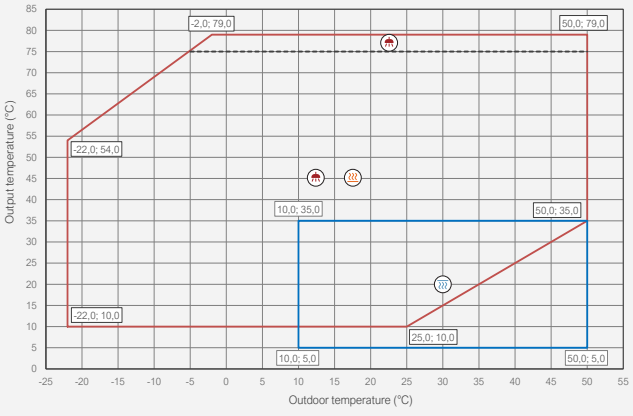


Characteristics

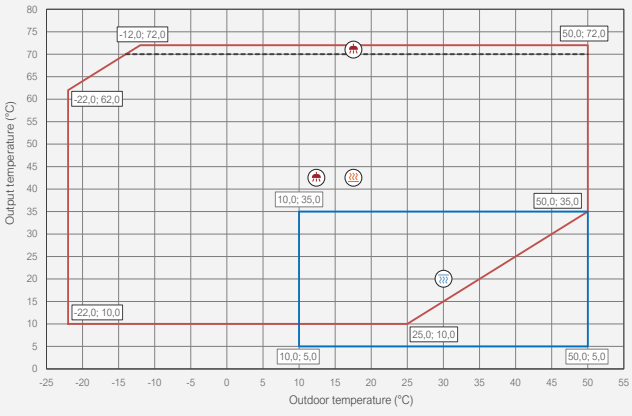
- Modulating thermal output control across a wide range (17%–100%), fan speed control (20%–100%), and modulating flow control in the production circuit (20%–100%).
- Natural refrigerant R290: GWP 3.
- Inverter technology.
- Compact design incorporating the production circulator in the outdoor unit.
- Hydraulic connection between the outdoor and indoor modules.
- High Temperature Recovery (HTR) system for domestic hot water (DHW) production up to 70 °C without auxiliary support, and simultaneous DHW and heating/cooling production in ecoAIR+ 6–24 PRO model.
- Integrated control of one flow temperature, one buffer tank (for heating and cooling), and one DHW tank with the CM Lite indoor unit.
- Integrated control of up to three different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation with CM, HK, and HK-Compact indoor units.
- Integrated cascade control of up to six heat pumps with CM indoor unit.
- Integrated control of simultaneous heating/cooling emission systems, depending on the system layout.
- Integrated control of external On/Off or modulating auxiliary backup systems (electric heaters, boilers, etc.).
- Reversible models with integrated active cooling production.
- Indoor unit selection based on project requirements.
- Models available in single-phase and three-phase versions.
- Integrated photovoltaic hybridisation.
- Integrated energy metering for electrical consumption, thermal output (heating/cooling), and instantaneous and seasonal performance monthly and annual.

Operational chart

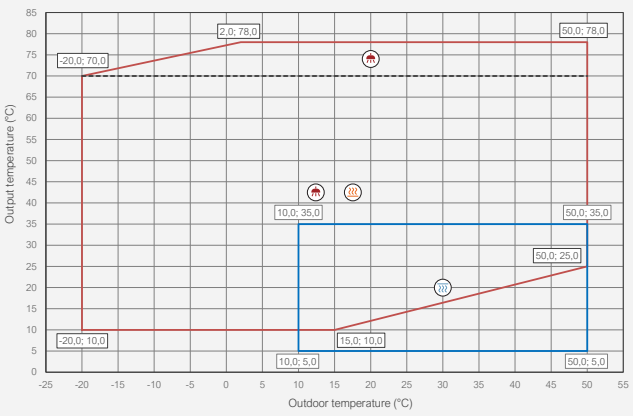
ecoAIR+ 1-7 PRO



ecoAIR+ 1-9 PRO I ecoAIR+ 3-12 PRO I ecoAIR+ 3-18 PRO



ecoAIR+ 6-24 PRO



ecoAIR+ 6-24 PRO

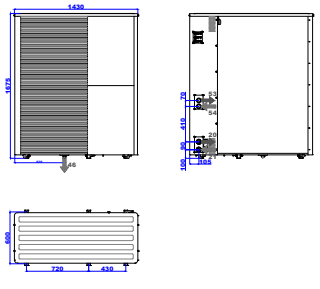
Air to water heat pumps with Inverter technology and natural R290 refrigerant

ESPECIFICACIONES ecoAIR+ PRO			ecoAIR+ 6-24 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	22 - 100
	(2) Heating power output / COP A7W35	kW / -	6,5 - 27,4 / 5,1
	(2) Heating power output / COP A7W55	kW / -	6,5 - 25,9 (230Vac: 25,0) / 3,2
	(2) Cooling power output / EER A35W7	kW / -	4,7 - 20,5 / 3,6
	(5) Max. DHW outlet temperature without / with support	°C	78 / 80
	(6) Noise power level (LWA)	dB (A)	66,9
	Energy label / ηs without control (with control) / SCOP W35 average clim	-	A+++ / 179% (183%) / 4,55
	Energy label / ηs without control (with control) / SCOP W55 average clim.	-	A++ / 130% (134%) / 3,33
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 25,5
	Production circuit pressure range	bar	0,5 - 6,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	1,75
	Compressor oil type / load	kg	RFL68 EP / 1,18
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m³/h	4,7 / 3,4
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	250,0
	Nominal air flow rate	m³/h	10150
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C50A
	(2) Maximum consumption A7W35	kW / A	7,0 / 31,0
	(2) Maximum consumption A7W55	kW / A	8,9 / 39,0
	(7) Minimum / Maximum starting current	A	9,0 / 34,0
	Correction of cos Ø	-	0,95 / 1
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C25A
	(2) Maximum consumption A7W35	kW / A	6,8 / 9,9
	(2) Maximum consumption A7W55	kW / A	9,1 / 13,2
	(7) Minimum / Maximum starting current	A	3,0 / 12,0
	Correction of cos Ø	-	0,80 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	1675x1430x640
	Empty weight (without packaging)	kg	266

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
6. In compliance with EN 12102.
7. Starting current depends on the working conditions of the hydraulic circuits.
8. The admissible voltage range for proper operation of the heat pump is ±10%.
9. Maximum consumption can vary significantly according to working conditions, or if the compressor´s operation range is restricted. Consult the technical service manual for more information.
10. Certification in process.

Dimensions and hydraulic connections

ecoAIR+ PRO

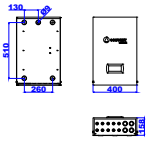


20. Heating/Cooling outlet 1 ½" M
21. Heating/Cooling inlet 1 ½" M
46. Drain ¾" M
53. HTR outlet 1" M
54. HTR inlet 1" M

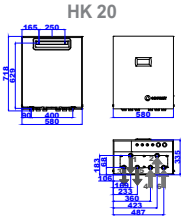
CM Lite



CM

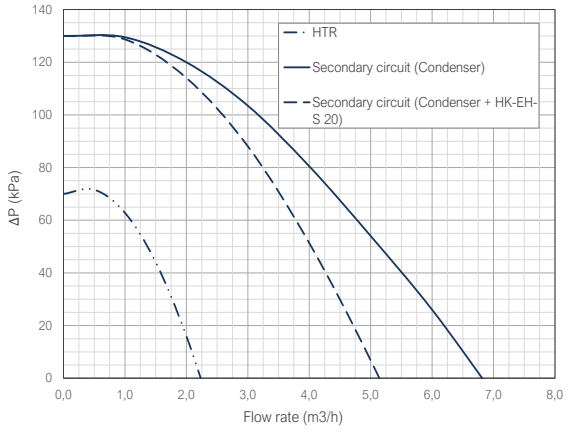


HK 20

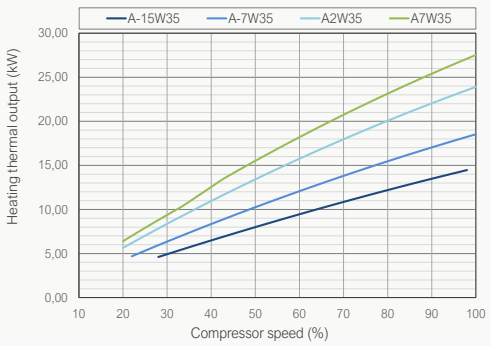


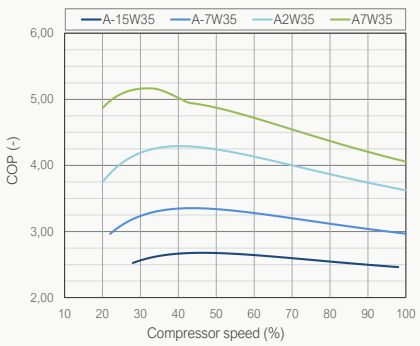
1. Outlet towards outdoor unit 1 ¼" M
2. Inlet towards outdoor unit 1 ¼" M
3. Heating/Cooling outlet 1 ¼" M
4. Heating/Cooling inlet 1 ¼" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M

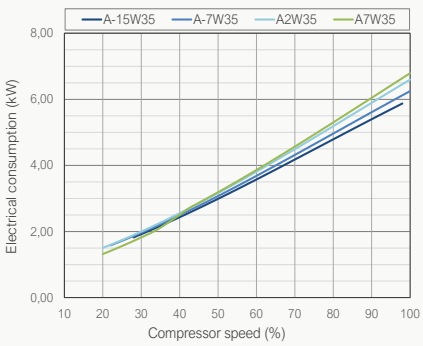
Available pressure drop



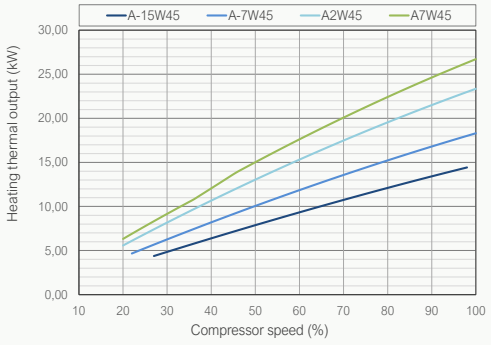
Heating W35

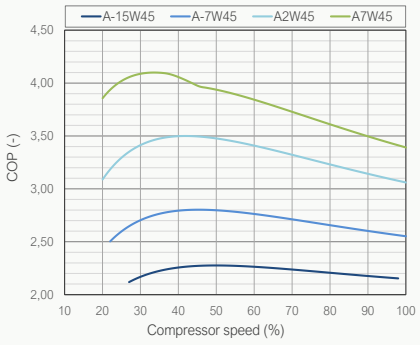


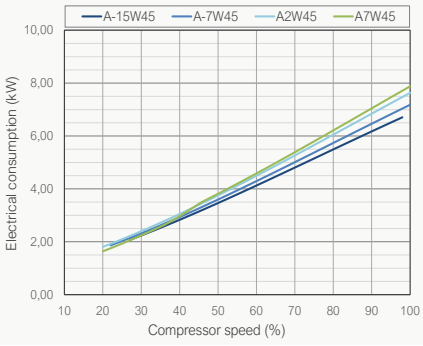




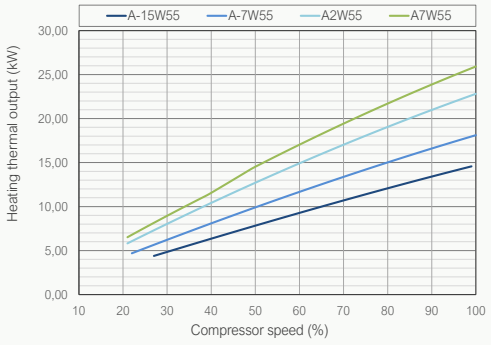
Heating W45

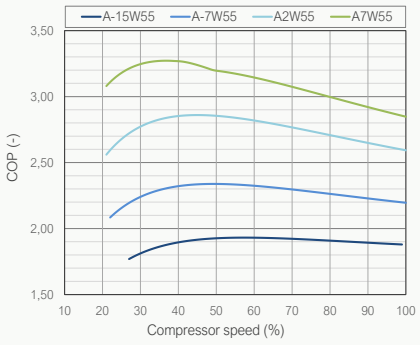


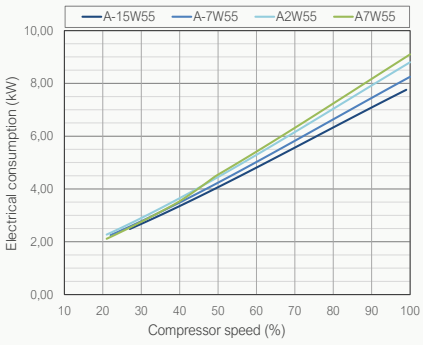




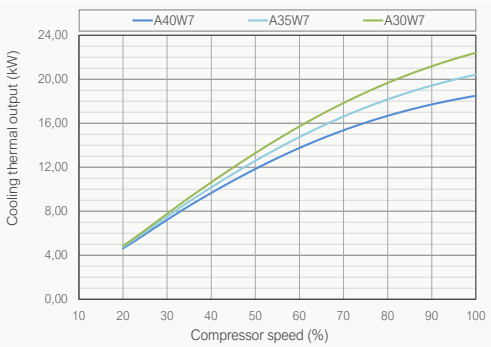
Heating W55

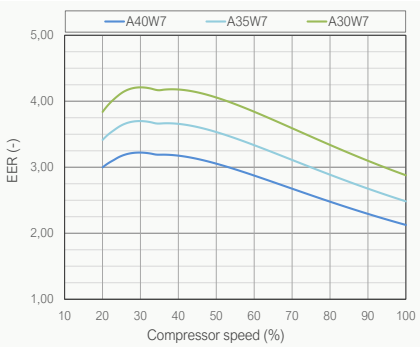


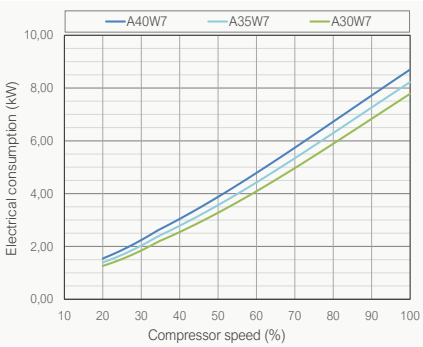




Cooling W7







Thermal power - Outdoor temperature

