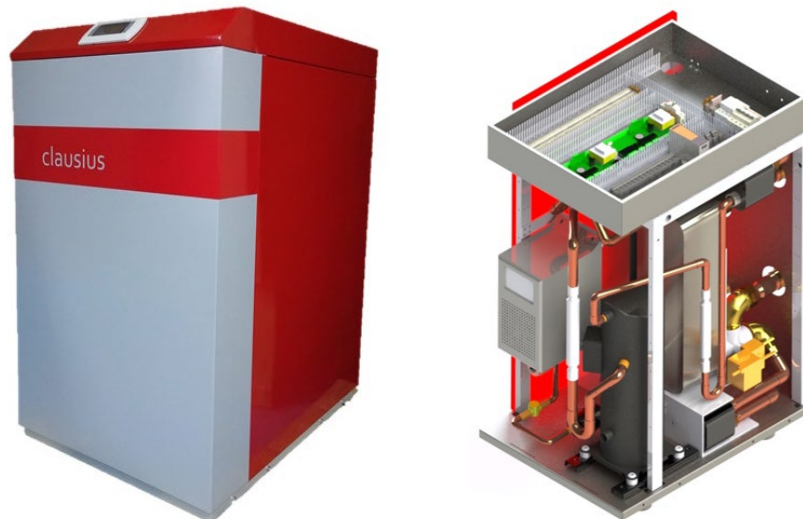


# clausius

## STRONG 12-75



Ground source heat pump, for heating, cooling and D.H.W.

Geothermal heat pump unit, for heating, cooling and D.H.W., power range from 12 to 75 kW, COP 4,81 according to EN14511, EER 6,5 according to EN14511, three phases electrical power supply, active cooling integrated, R410A refrigerant, electronic expansion valve, energy meters integrated, COP, EER and SPFs, built in pressure sensors in both brine circuit and heating circuit, market leading noise reduction, control with double microcontroller, inverter system Copeland of high power and last generation, swimming pool control, control of 5 mixing groups and 6 climate zones, external passive cooling control, control of DHW production in 2 independent tanks, possibility of cascading up to 9 units, customised configuration, built-in passive cooling, built-in desuperheater for high temperature DHW production and tested one by one on the test bench.

Universida deVigo



FABRICAMOS CON LOS MEJORES COMPONENTES DEL MERCADO



### MODELS

H	Heating
HC	Heating & active cooling
H PC	Heating & passive cooling
HC PC	Heating, active & passive cooling
H DS	Heating & desuperheater
HC DS	Heating, active cooling & desuperheater
H PC DS	Heating, passive cooling & desuperheater
HC PC DS	Heating, active cooling, passive cooling & desuperheater

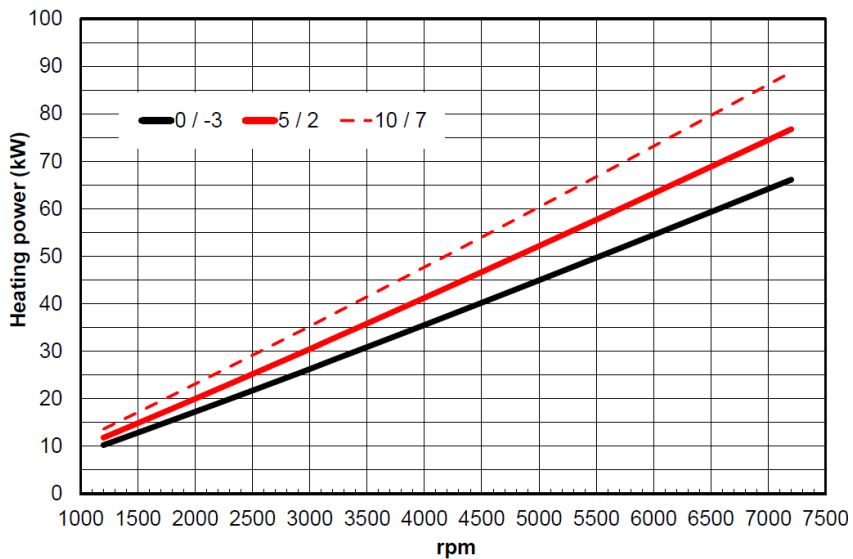
### TECHNICAL SPECIFICATIONS

		H 12-75	H 12-75 PC	H 12-75 DS	H 12-75 PC DS	HC 12-75	HC 12-75 PC	HC 12-75 DS	HC 12-75 PC DS
Applications	Heating and DHW	•	•	•	•	•	•	•	•
	Active cooling				•	•	•	•	•
Optional applications	Passive cooling		•		•		•		•
	High temperature DHW with desuperheater			•	•			•	•
External components control	Circulation pumps control	•	•	•	•	•	•	•	•
	DHW control	•	•	•	•	•	•	•	•
	External passive cooling control	•		•		•		•	
	Swimming pool control	•	•	•	•	•	•	•	•
	Mixing groups control	•	•	•	•	•	•	•	•
	Electric heaters control	•	•	•	•	•	•	•	•
Power	Heating (kW)	12-75	12-75	12-75	12-75	12-75	12-75	12-75	12-75
	Active cooling (kW)					14-78	14-78	14-78	14-78
	Passive cooling (kW)		20		20		20		20
Electrical supply		3 ph - 400 V							
Performance	COP <sup>(1)</sup>	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	EER					6.7	6.7	6.7	6.7
Refrigerant	Type	R410A							
	Load (kg)	3.8	3.8	4	4	3.8	3.8	4	4
Dimensions	Height x Width x Depth (mm)	1140 x 600 x 800							
Connections	Brine and heating	2"							
	High temperature DHW			1 1/4"	1 1/4"			1 1/4"	1 1/4"
Weight	(kg)	252	270	261	279	267	284	275	293
Sound level	(dB)	52B							

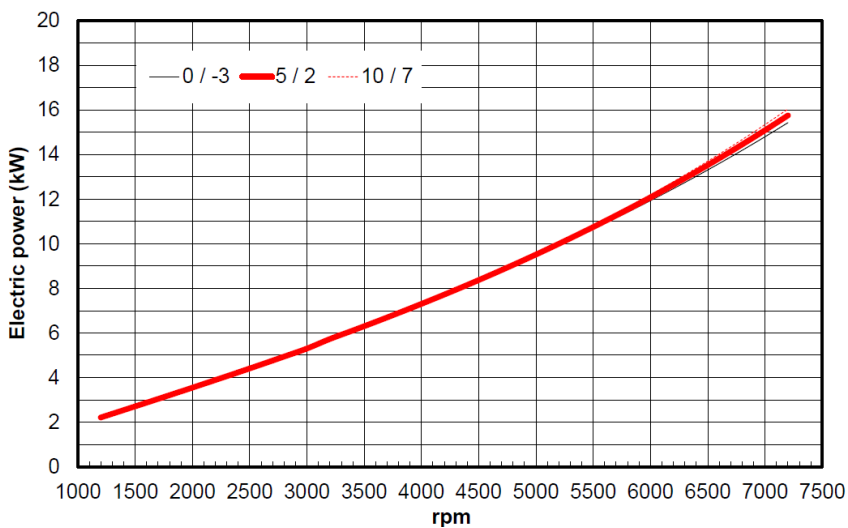
<sup>1)</sup> According to EN14511 under conditions 0/ -3 °C and 30/35 °C, certification pending.

## CHARACTERISTIC CURVES 30/35 °C

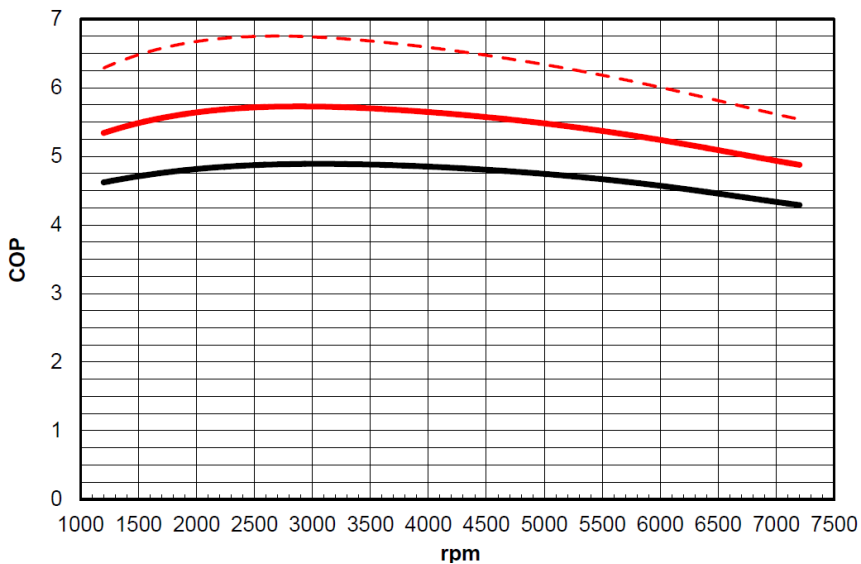
HEATING POWER. Heating, 30/35 °C. Brine 0/-3, 5/2 y 10/7.



ELECTRIC POWER (400 V 3/N/PE). Heating 30/35 °C. Brine 0/-3, 5/2 y 10/7.

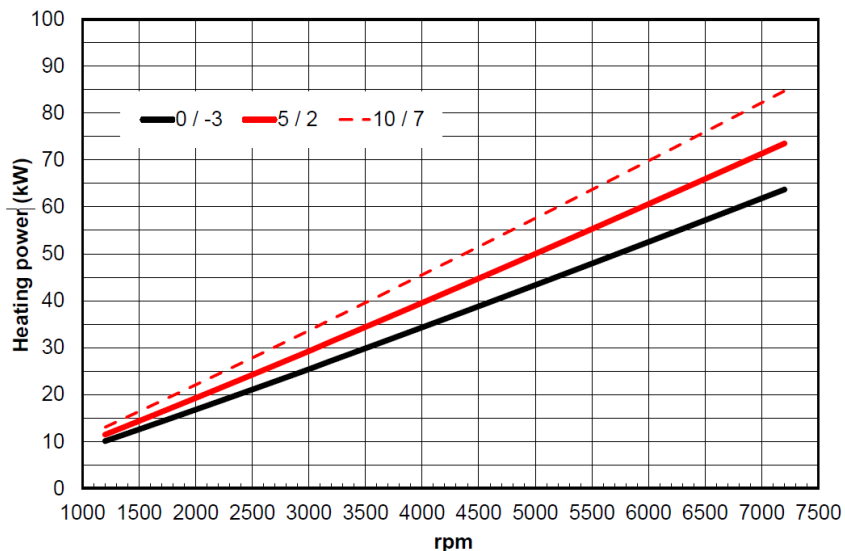


COP. Heating, 30/35 °C. Brine 0/-3, 5/2 y 10/7.

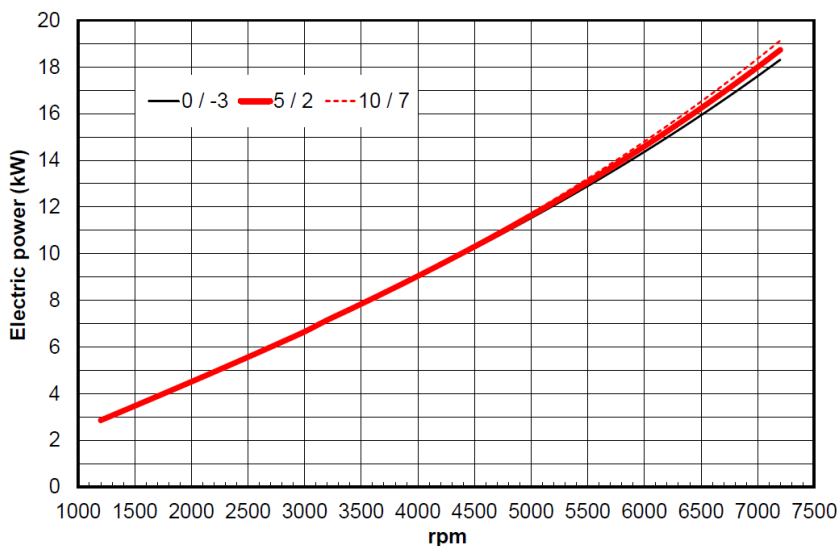


## CHARACTERISTIC CURVES 40/45 °C

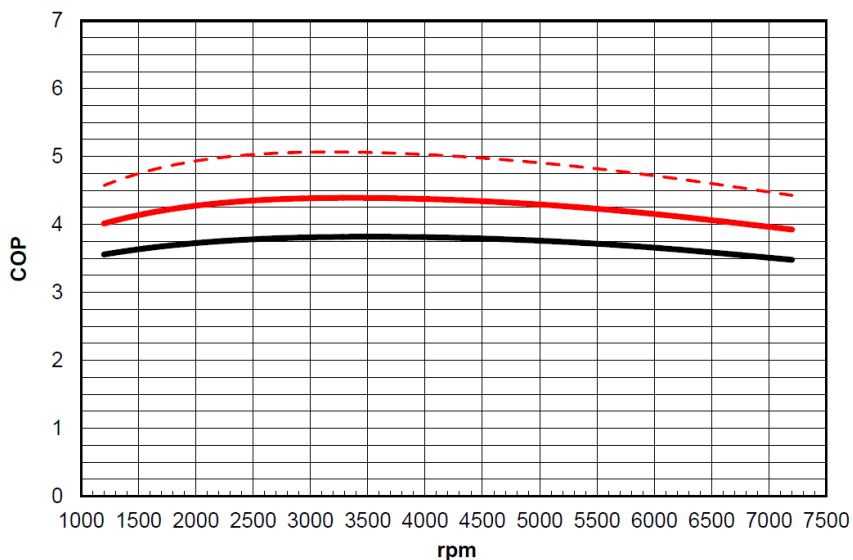
HEATING POWER. Heating, 40/45 °C. Brine 0/-3, 5/2 y 10/7.



ELECTRIC POWER (400 V 3/N/PE). Heating 40/45 °C. Brine 0/-3, 5/2 y 10/7.

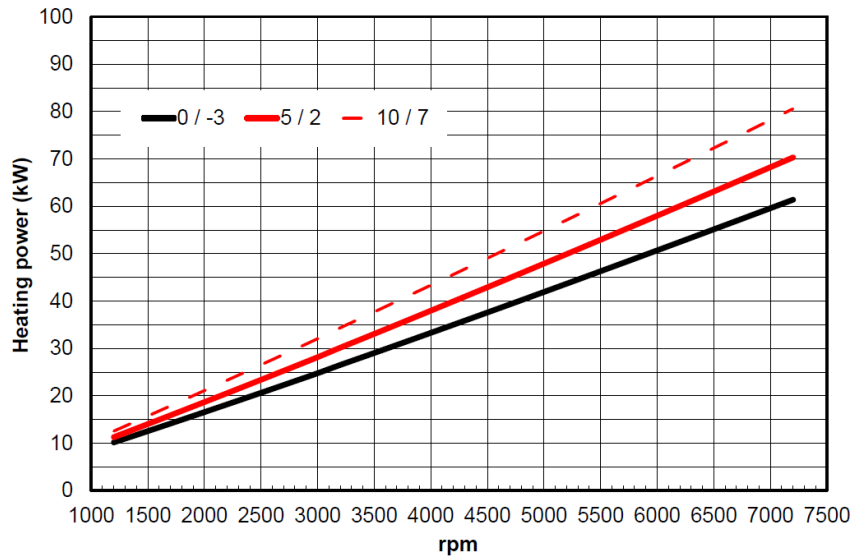


COP. Heating, 40/45 °C. Brine 0/-3, 5/2 y 10/7.

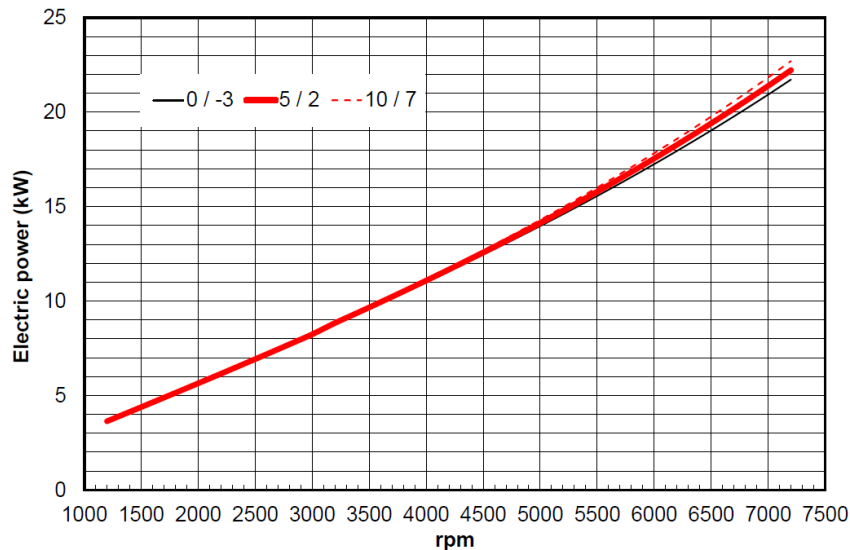


## CHARACTERISTIC CURVES 50/55 °C

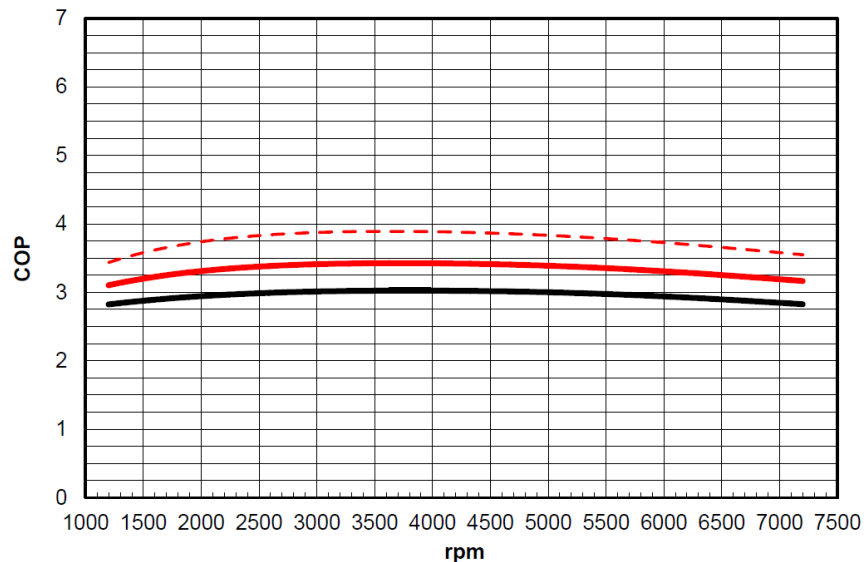
HEATING POWER. Heating, 50/55 °C. Brine 0/-3, 5/2 y 10/7.



ELECTRIC POWER (400 V 3/N/PE). Heating 50/55 °C. Brine 0/-3, 5/2 y 10/7.



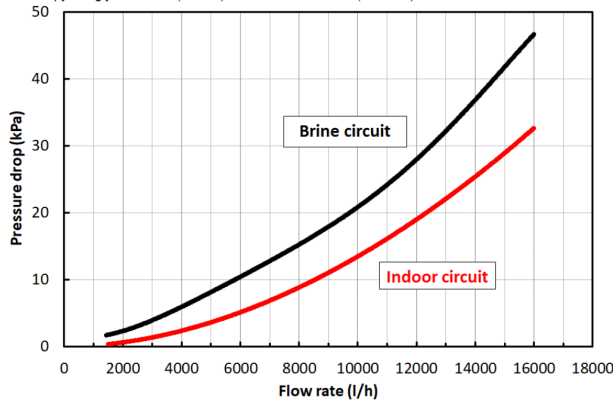
COP. Heating, 50/55 °C. Brine 0/-3, 5/2 y 10/7.



### HYDRAULIC PARAMETERS

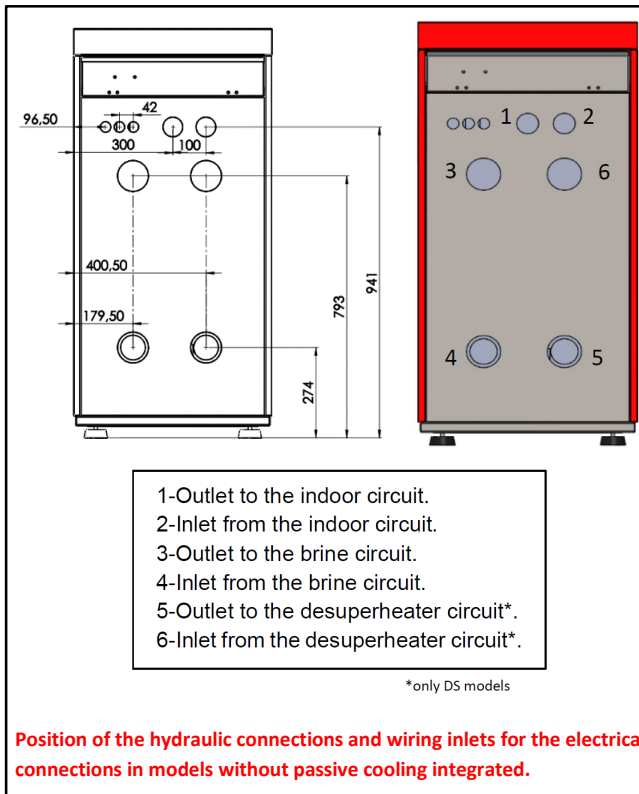
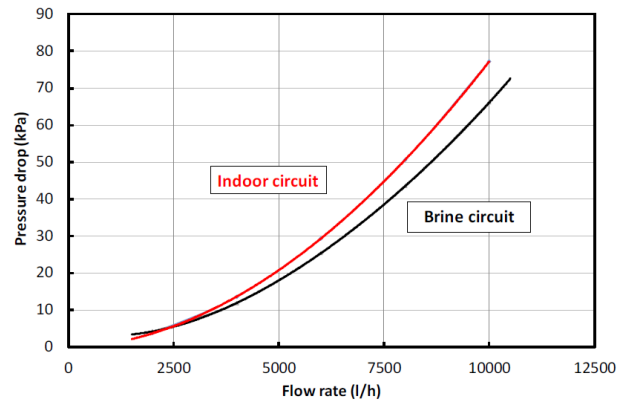
#### Internal pressure drop

Brine circuit: Propylene glycol 30% wt (0/-3 °C) – Indoor circuit: Water (30/35 °C)

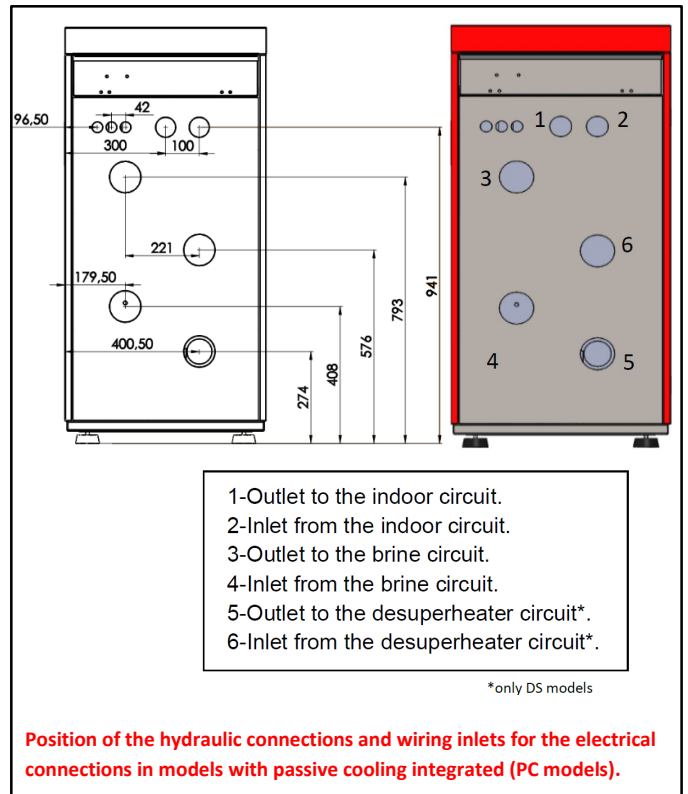


#### Internal pressure drop passive cooling

Brine circuit: Propylene glycol 30% wt (15/18 °C) – Indoor circuit: Water (21/18 °C)



Position of the hydraulic connections and wiring inlets for the electrical connections in models without passive cooling integrated.



Position of the hydraulic connections and wiring inlets for the electrical connections in models with passive cooling integrated (PC models).

