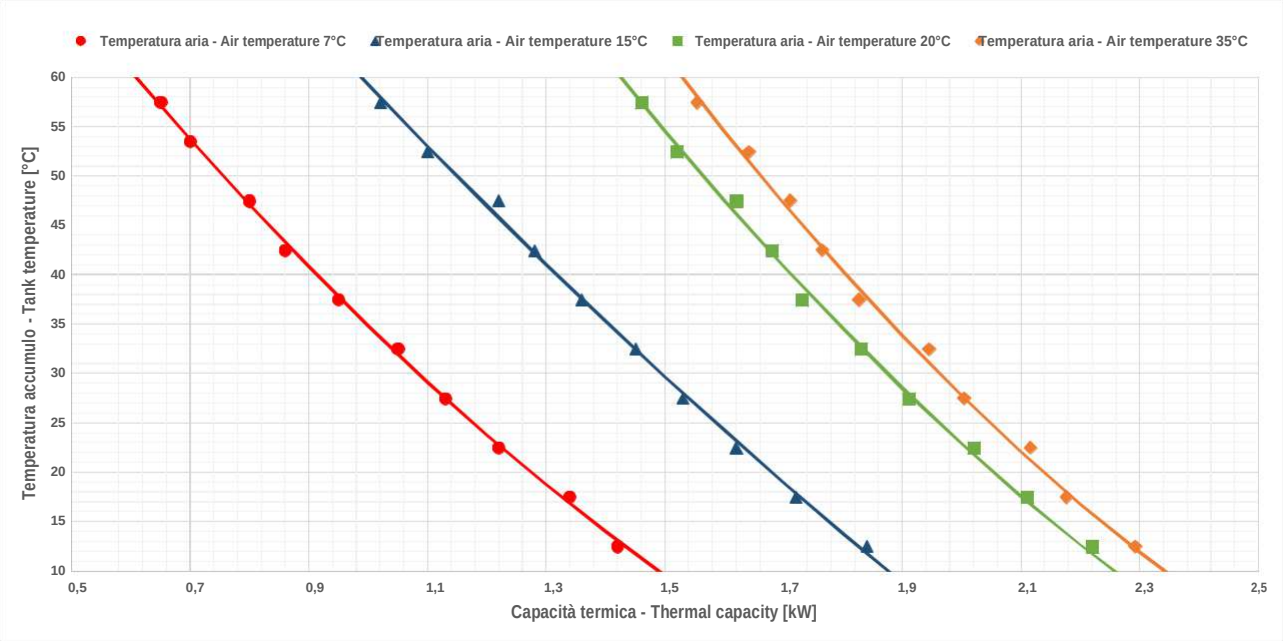
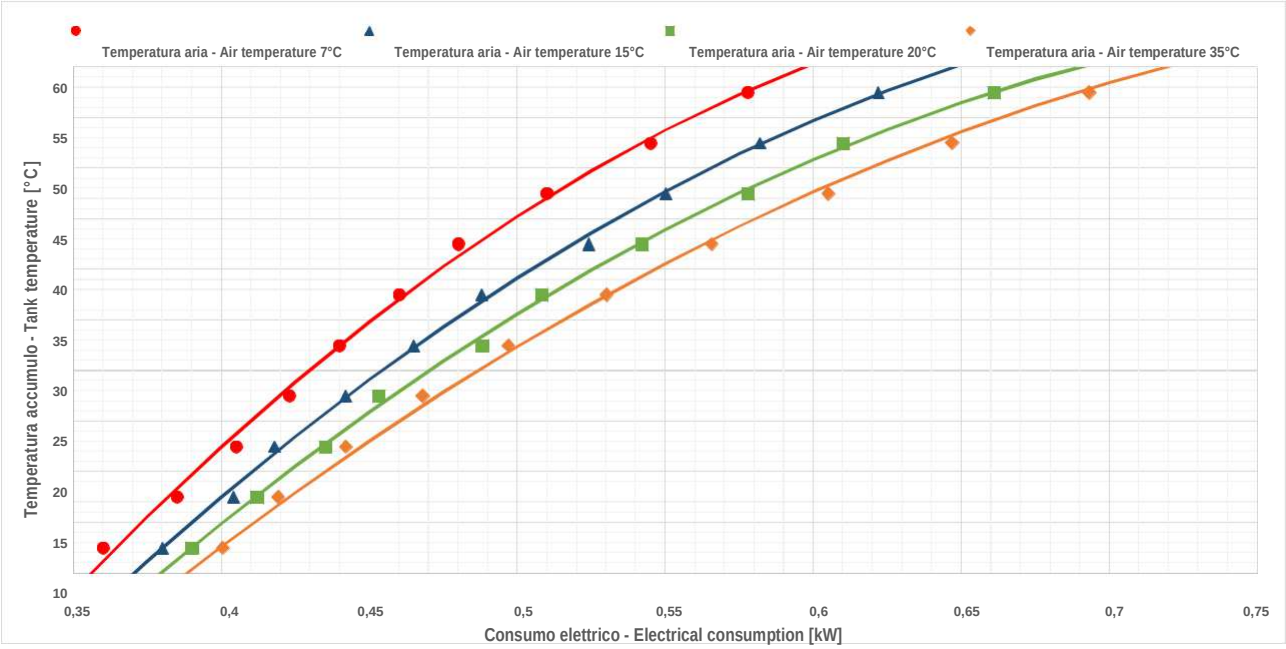
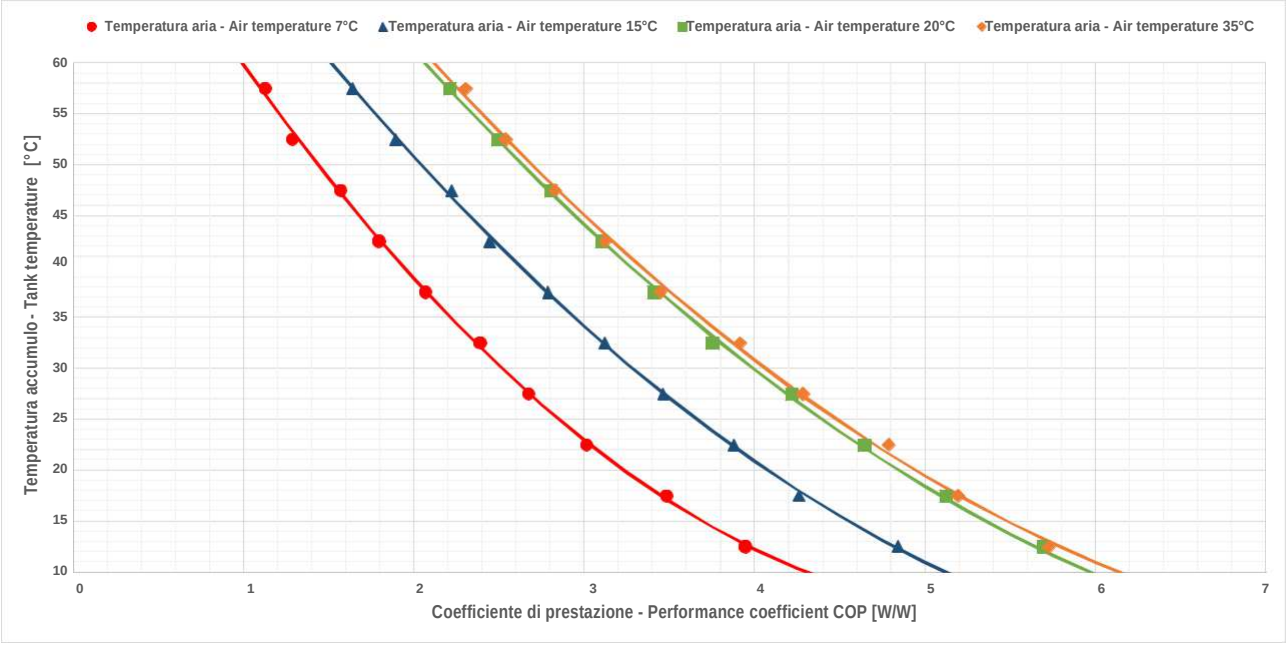
1 CURVE PRESTAZIONALI NEW ENERGY - PERFORMANCE CURVES NEW ENERGY

Le curve prestazionali sotto riportate sono indicative e possono essere soggette a variazione.
I dati sono ricavati da test interni di laboratorio su un reintegro uniforme della temperatura del serbatoio.
Il COP è calcolato come rapporto tra capacità termica e consumo elettrico rilevati nel corrispettivo intervallo di temperatura (senza riferimento ad alcuna norma armonizzata specifica).

The performance curves reported here below are only for indication purpose and they could be subjected to modification.
The data are obtained from internal laboratory tests on a uniform fill of the tank temperature. The COP is calculated as the ratio of thermal capacity and electrical consumption that are detected in the temperature range (without referring at any specific harmonized standard).




Temperatura aria - Air temperature 7°C
Temperatura aria - Air temperature 15°C
Temperatura aria - Air temperature 20°C
Temperatura aria - Air temperature 35°C
Temperatura accumulo - Tank temperature [°C]
60
55
50
45
40
35
30
25
20
15
10
0,35
0,4
0,45
0,5
0,55
0,6
0,65
0,7
0,75
Consumo elettrico - Electrical consumption [kW]


Temperatura aria - Air temperature 7°C
Temperatura aria - Air temperature 15°C
Temperatura aria - Air temperature 20°C
Temperatura aria - Air temperature 35°C
Temperatura accumulo - Tank temperature [°C]
60
55
50
45
40
35
30
25
20
15
10
0
1
2
3
4
5
6
7
Coefficiente di prestazione - Performance coefficient COP [W/W]

2 TEMPI DI REINTEGRO - TIMES OF FILLING

I tempi di reintegro sotto riportati sono indicativi e possono essere soggetti a variazione.
I dati sono ricavati da test interni di laboratorio su un reintegro uniforme della temperatura del serbatoio secondo la norma EN16147.

The times of filling below listed are indicative and could be subject to variations.
The data are obtained from internal laboratory tests on a uniform fill of the tank temperature following EN 16147.

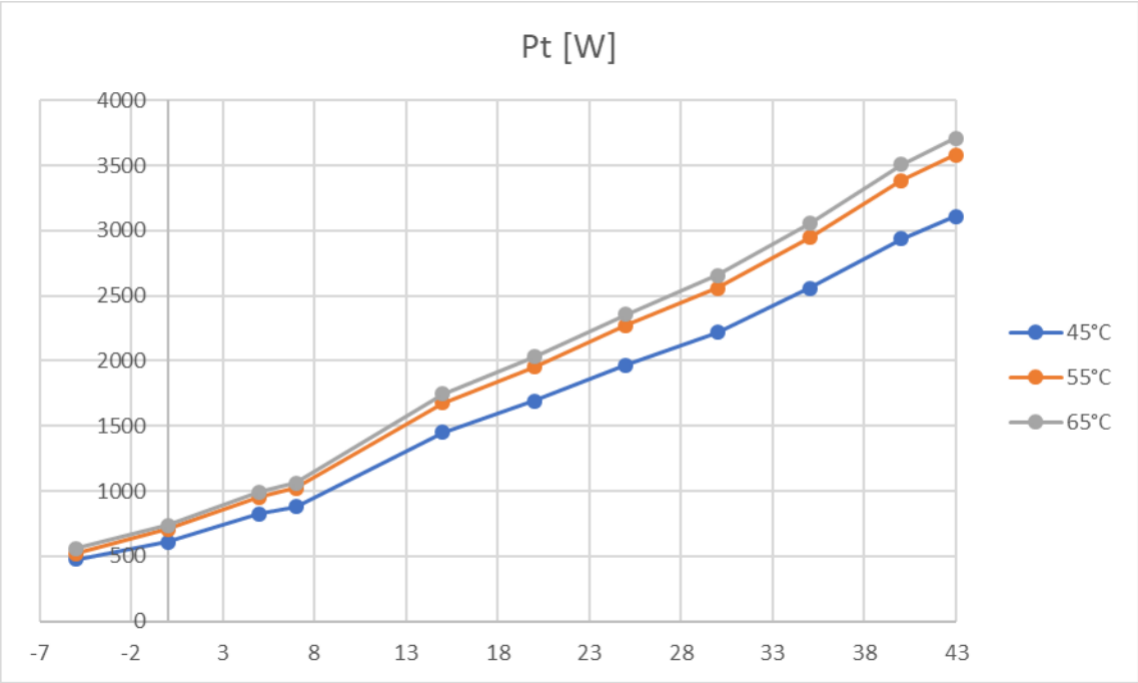
		ACL 200 WH		ACL 300 WH	
		-	con resistenza attivata with e-heater	-	con resistenza attivata with e-heater
		Acqua / Water 10 -> 55 °C EN16147			
Aria / Air 20°C	[h:min]	5:38	3:03	6:57	3:46
Aria / Air 15°C	[h:min]	6:23	3:27	7:38	4:08
Aria / Air 7°C	[h:min]	7:48	3:41	9:53	4:41
		Acqua / Water 10 -> 60 °C EN16147			
Aria / Air 20°C	[h:min]	6:26	3:26	7:59	4:15
Aria / Air 15°C	[h:min]	7:21	3:55	8:50	4:42
Aria / Air 7°C	[h:min]	9:00	4:12	11:23	5:19

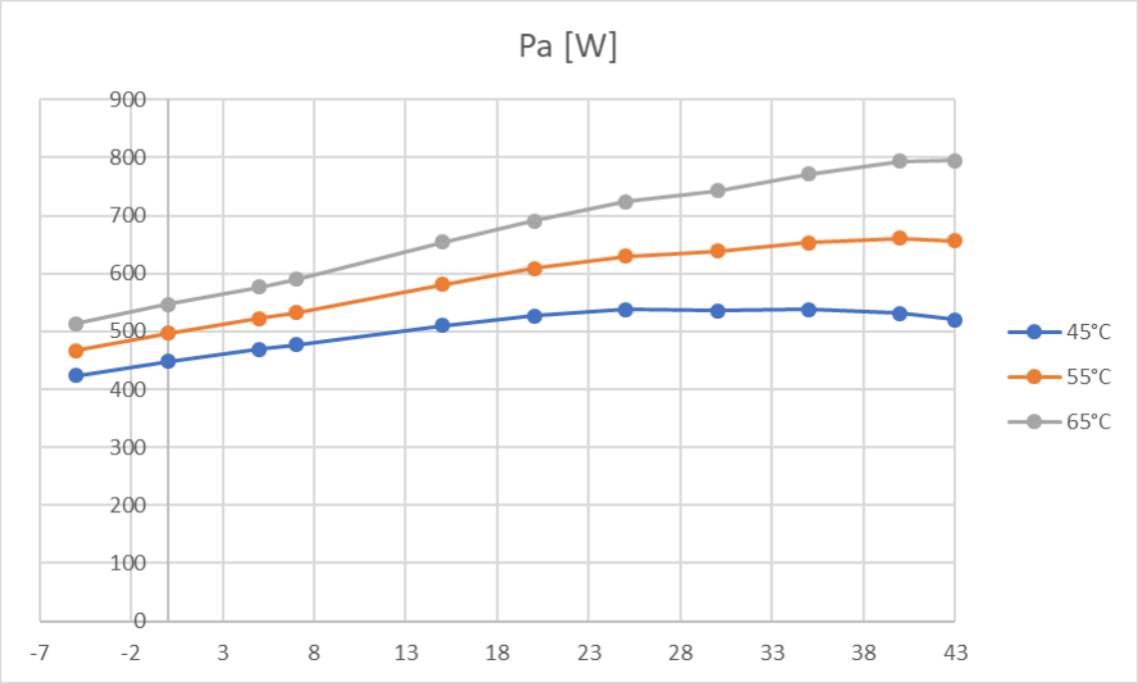
3 POTENZA TERMICA/COP – HEATING CAPACITY AND COEFFICIENT OF PERFORMANCE

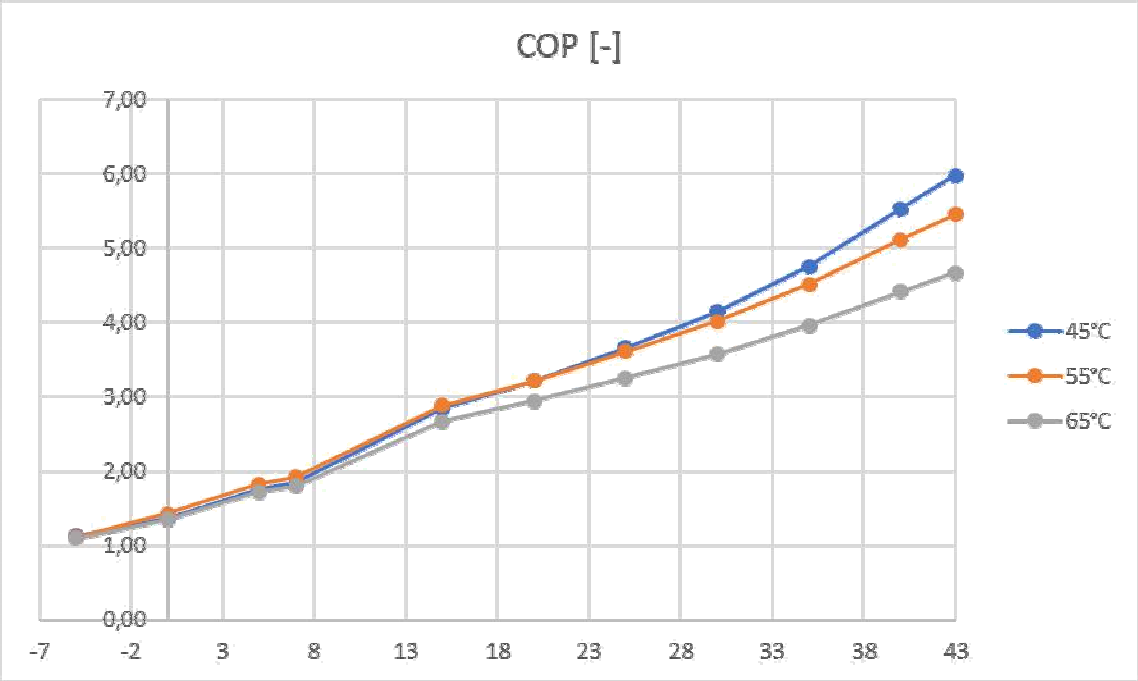
Viene qui rappresentata la potenza termica trasferita all'acqua instantaneamente dalla pompa di calore all'accumulo al variare della temperatura esterna.
La temperatura dell'aria è riferita al valore a bulbo secco mentre quella a bulbo umido segue la relazione presente nella EN 14511-4:2018.
Le curve rappresentano differenti temperature dell'acqua in uscita (45/55/65°C) e un'unica temperatura di ingresso (15°C)

In the table below we show the instant power transfer to the water tank from the heat pump with a variable outside temperature.
The air temperature refers to the dry bulb value while the wet bulb temperature follows the standard EN 14511-4:2018.
The curves represent different outgoing water temperatures (45/55/65°C) and a single inlet temperature (15°C)

Taria - Tbs [°C]		-5	0	5	7	15	20	25	30	35	40	43
Tin = 15°C -	Pt [W]	478	610	823	882	1450	1692	1967	2218	2557	2938	3108
-> Tout	Pa [W]	424	449	470	477	511	527	537	536	538	531	520
45°C	COP [-]	1,13	1,36	1,75	1,85	2,84	3,21	3,66	4,14	4,76	5,53	5,97
Tin = 15°C -	Pt [W]	520	708	954	1021	1677	1955	2271	2559	2948	3384	3580
-> Tout	Pa [W]	468	497	522	533	582	608	630	639	653	661	657
55°C	COP [-]	1,11	1,42	1,83	1,92	2,88	3,21	3,61	4,01	4,51	5,12	5,45
Tin = 15°C -	Pt [W]	562	739	995	1064	1745	2032	2359	2656	3057	3507	3708
-> Tout	Pa [W]	513	547	577	590	654	691	724	743	771	794	795
65°C	COP [-]	1,09	1,35	1,72	1,80	2,67	2,94	3,26	3,57	3,96	4,42	4,66


Pt [W]
4000
3500
3000
2500
2000
1500
1000
500
0
-7
-2
3
8
13
18
23
28
33
38
43
45°C
55°C
65°C


Pa [W]
900
800
700
600
500
400
300
200
100
0
-7
-2
3
8
13
18
23
28
33
38
43
45°C
55°C
65°C



4 DATI PER UNI-TS 11300-4 – DATA FOR UNI-TS 11300-4

Dati secondo UNI/TS 11300-4 per potenza e COP a pieno carico

Data for UNI/TS 11300-4 for power and COP at full load.

	Potenza termica / Heating capacity $\Phi_{H,HP\ out}$ [kW]	COP
Temperatura sorgente fredda Temperature of cold source	T mandata / Outlet temperature 55°C	T mandata / Outlet temperature 55°C
+7°C	1,38	2,59
+15°C	1,81	3,11
+20°C	2,11	3,47
+35°C	3,18	4,87

Rev	Date	Edited by	Approved by	Notes
06	10-2020	A.R.	A.R.	Aggiunti dati per UNI-TS 11300-4 / Added data for UNI-TS 11300-4
05	03-2020	A.R.	A.R.	Aggiunta la tabella di resa e performance a differenti temperature del serbatoio e dell'aria e ad un'unica temperatura di ingresso acqua
04	01-2020	AL.B.	A.R.	Allineamento dati TUV Alignment with TUV data
03	12-2017	A.B.	P.F.	Aggiornamento tempi di reintegro e inserimento dati con resistenza Update of times of filling and added data with resistance
02	10-2016	A.B.	P.F.	Aggiunte curve prestazionali per aria esterna 35°C – Added performance curves at 35°C
01	06-2016	G.M.	P.F.	Aggiornamento tempi di reintegro - Update of times of filling
00	03-2014	D.P.	P.F.	Prima emissione – First release