

Air Cooled Heat Pump

EUROSCROLL 140-360 Air EVO HP



137-340 kW



Air cooled



Scroll



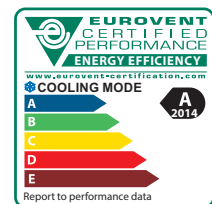
145-361 kW



Plate



410A



Technical feature

- 9 sizes
- Cooling capacity from 136,7 to 340,5 kW
- Heating capacity from 144,9 to 361,4 kW
- Fans versions:
 - STD (Standard)
 - EC (Inverter Fans)
 - HT (High Temperature)
 - HPF (High Pressure Fans)
- Acoustic versions:
 - - (Basic Low Noise)
 - L (Low Noise)
 - S (Super Low Noise)
- "Polar" version:
 - Heat Pump for extreme conditions
- Two refrigerant circuits
- 4 Scroll compressors
- Electronic expansion valve

Accessories and options

- Automatic circuit breaker
- BMS interface
- Coils treatments
- Compressors acoustic box (standard)
- Compressors jackets (standard as Super Low Noise)
- Desuperheater
- Fan speed control (standard as Super Low Noise version)
- Hydrokit with 1 or 2 pumps with or without buffer tank (350lt 140-170, 500lt 200-360)
- Mechanical gauges
- Overload protection for compressors
- Power factor corrector capacitors
- Sequence phases control (standard)
- Softstarter
- Unit protection grilles
- Water differential pressure switch (standard)
- Water filter
- Water flow switch



Operating limit (to be confirmed following selection software issue)

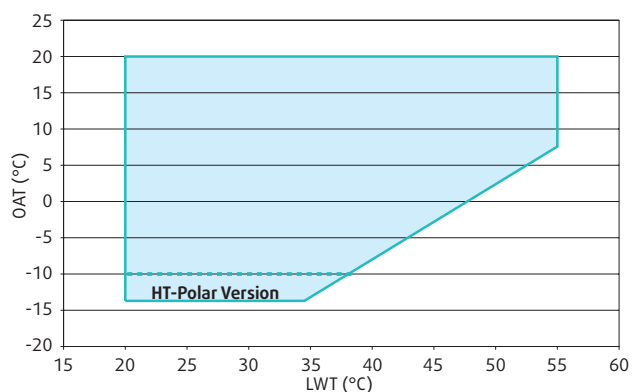
EUROSCROLL 140-360 Air EVO HP				140		170		200		230	
				Min	Max	Min	Max	Min	Max	Min	Max
Chilled liquid	Temperatura uscita liquido	Water	°C	+5 to +18							
		Water with glycol*	°C	-10 to +5							
		Temperature spread	K	3 to 7							
	Maximum operating pressure		bar	6							
Warmed Liquid	Liquid outlet temperature	Acqua	°C	+20 to +55							
		ΔT	°K	3 to 7							
		Maximum operating pressure		bar	6						
Ambient air	Air entering temp. Heating	- / L / S / EC	°C	-10 to +20							
		Versione Polar	°C	-13 to +20							
		HT	°C	-13 to +20							
Ambient air	Air entering temp. Cooling	- / L / S	°C	+5 to +48 / +0 to +46 / -14 to +44							
		EC-HT	°C	-18 to +50							
	External static pressure	Standard fans		Pa	0						
High pressure fans			Pa	<120							
Recommended system chilled water volume ¹				l	420	510	600	690			
Minimum capacity step				%	25	25	21	19			
Power supply voltage ²				V	400 V / 3 Ø / 50 Hz (nominal)						

EUROSCROLL 140-360 Air EVO HP				260		280		300		330		360	
				Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Chilled liquid	Temperatura uscita liquido	Water	°C	+5 to +18									
		Water with glycol*	°C	-10 to +5									
		Temperature spread	K	3 to 7									
	Maximum operating pressure		bar	6									
Warmed Liquid	Liquid outlet temperature	Acqua	°C	+20 to +55									
		ΔT	°K	3 to 7									
		Maximum operating pressure		bar	6								
Ambient air	Air entering temp. Heating	- / L / S / EC	°C	-10 to +20									
		Versione Polar	°C	-13 to +20									
		HT	°C	-13 to +20									
Ambient air	Air entering temp. Cooling	- / L / S	°C	+5 to +48 / +0 to +46 / -14 to +44									
		EC-HT	°C	-18 to +50									
	External static pressure	Standard fans		Pa	0								
High pressure fans			Pa	<120									
Recommended system chilled water volume ¹				l	780	840	900	990	1080				
Minimum capacity step				%	17	16	24	23	25				
Power supply voltage ²				V	400 V / 3 Ø / 50 Hz (nominal)								

* For Liquid outlet temperature <0 °C provide Brine Version (on request for HP).

¹ Table shows minimum water / brine volume of system (about 3 lt/kW).

² Voltage 400V +/- 10%.

Heating mode (Cooling mode see page 35)


Technical feature

EUROSCROLL 140-360 Air Evo HP		140	170	200	230	260	280	300	330	360
Nominal cooling capacity ¹	kW	136,7	154,5	181,3	213,6	243,7	261,1	287,8	307,4	340,5
Input power ¹	kW	45,1	54,6	61,9	73,2	83,8	90,7	98,5	103,5	117,0
EER ¹		3,03	2,83	2,93	2,92	2,91	2,88	2,92	2,97	2,91
Energy efficiency class		B	C	B	B	B	C	B	B	B
ESEER		3,52	3,47	3,60	3,71	3,71	3,65	3,60	3,64	3,65
EER*		3,08	2,86	2,97	2,96	2,95	2,91	2,96	3,02	2,95
ESEER*		3,62	3,57	3,71	3,83	3,83	3,78	3,71	3,71	3,76
EER**		2,86	2,69	2,73	2,75	2,73	2,71	2,75	2,78	2,74
ESEER**		3,38	3,30	3,46	3,56	3,60	3,51	3,46	3,57	3,51
Nominal heating capacity ²	kW	144,9	165,7	200,1	229,0	262,3	279,6	305,6	327,2	361,4
Input power ²	kW	44,9	51,6	62,1	70,9	81,7	87,4	94,9	101,9	112,6
COP ²		3,23	3,21	3,22	3,23	3,21	3,20	3,22	3,21	3,21
Energy efficiency class		A	A	A	A	A	A	A	A	A
COP ⁺		3,28	3,25	3,28	3,27	3,26	3,25	3,27	3,26	3,26
COP**		3,05	3,05	3,01	3,03	3,01	3,02	3,02	2,99	3,02
Nominal heating capacity ³	kW	148,6	170,0	207,0	233,8	268,4	285,6	311,0	333,9	367,9
Input power ³	kW	37,2	43,6	52,7	58,7	67,8	72,3	77,8	83,7	92,7
COP ³		4,00	3,90	3,93	3,98	3,96	3,95	4,00	3,99	3,97
Total capacity steps	%	25-50-75-100	25-50-75-100	21-43-71-100	19-38-69-100	17-39-67-100	16-37-68-100	24-48-71-100	23-50-73-100	25-50-75-100
Refrigerant										
Type		HFC 410A								
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Compressor										
Qty		4	4	4	4	4	4	4	4	4
Type		Scroll								
Evaporator										
Qty		1	1	1	2	2	2	1	1	1
Type		Plate								
Water flow cooling	m ³ /h	23,6	26,7	31,3	36,9	42,1	45,1	49,6	53,0	58,8
Water pressure drop cooling	kPa	25	31	34	30	30	35	26	30	37
Water flow heating ²	m ³ /h	24,8	28,4	34,3	39,3	45,0	47,9	52,4	56,1	62,0
Water pressure drop heating ²	kPa	27	36	41	34	34	39	29	33	41
Water flow heating ³	m ³ /h	25,5	29,1	35,5	40,1	46,0	48,9	53,3	57,3	63,1
Water pressure drop heating ³	kPa	29	37	44	36	36	41	30	35	42
Water volume	l	11,4	11,4	13	21,1	23,4	23,4	32,4	32,4	32,4
Antifreeze Heater	W	130	130	130	130+130	130+130	130+130	130	130	130
Air cooled condenser										
Qty		2	2	5	5	6	6	7	8	8
Total coil face area per coil	m ²	4,6	4,6	2,4	2,4	2,4	2,4	2,4	2,4	2,4
Fan										
Qty		3	3	5	5	6	6	7	8	8
Nominal speed	rpm	900	900	900	900	900	900	900	900	900
Total airflow	m ³ /h	68.400	68.400	112.500	112.500	135.000	135.000	157.500	180.000	180.000
Total input power	kW	5,1	5,1	8,5	8,5	10,2	10,2	11,9	13,6	13,6
Total input power*	kW	4,5	4,5	7,5	7,5	9,0	9,0	10,5	12,0	12,0
Total input power**	kW	7,8	7,8	13,0	13,0	15,6	15,6	18,2	20,8	20,8
External static pressure	Pa	0 or 120 Pa**								
Water Connections (Evaporator)										
Type		Male GAS Threaded								
Inlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Outlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Water Connections (Desuperheater)										
Type		Male GAS Threaded								
Inlet diameter/Outlet diameter	inch	1"1"								
Weight										
Shipping	kg	1.294	1.337	1.843	1.967	2.188	2.198	2.767	2.860	2.870
Operating	kg	1.312	1.355	1.858	1.993	2.216	2.226	2.806	2.899	2.909
Additional weight										
EC-HPF versions	kg	30	30	50	50	60	60	70	80	80
With desuperheater	kg	8,5	8,5	17	17	19	19	23	23	23
With one pump	kg	45	45	45	55	55	55	65	65	65
With two pumps	kg	95	95	95	115	115	115	140	140	140
Dimensions										
Length	mm	4.000	4.000	3.500	3.500	3.500	3.500	4.550	4.550	4.550
Width	mm	1.100	1.100	2.150	2.150	2.150	2.150	2.150	2.150	2.150
Height	mm	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
Acoustical data										
Sound power level ⁴	dB(A)	90	90	92	92	93	93	94	95	95
Sound pressure level 10 m ⁵	dB(A)	47	47	50	50	51	51	53	54	54

¹ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

² Data refers to 45°C leaving warm water temperature and 7°C ambient coil air temperature with 87% R.H., according EN14511 standard.

³ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

⁴ Sound levels are at fully loaded conditions. Sound power level values refers to ISO 3744 standard.

⁵ Sound pressure levels refer to ISO 3744 standard, parallelepiped shape.

* High Efficiency Units (EC) with inverter fans. ** HPF Units with high static pressure fans.

Technical feature

EUROSCROLL 140-360 Air Evo HP L (STD-EC)		140	170	200	230	260	280	300	330	360
Nominal cooling capacity ¹	kW	132,9	149,3	176,9	207,2	236,9	253,3	279,4	299,1	330,1
Input power ¹	kW	45,2	55,3	61,2	73,7	83,7	91,4	99,1	103,1	117,5
EER ¹		2,94	2,70	2,89	2,81	2,83	2,77	2,82	2,90	2,81
Energy efficiency class		B	C	C	C	C	C	C	C	C
ESEER		3,59	3,55	3,67	3,78	3,76	3,72	3,67	3,67	3,72
EER*		2,98	2,73	2,93	2,85	2,87	2,81	2,86	2,94	2,84
Energy efficiency class*		B	C	B	C	C	C	C	B	C
ESEER*		3,69	3,66	3,78	3,91	3,89	3,85	3,78	3,75	3,83
Nominal heating capacity ²	kW	141,0	162,1	193,7	223,7	255,6	272,3	299,4	320,8	353,9
Input power ²	kW	43,5	50,3	60,0	69,0	79,4	84,8	92,7	99,6	109,9
COP ²		3,24	3,22	3,23	3,24	3,22	3,21	3,23	3,22	3,22
Energy efficiency class		A	A	A	A	A	A	A	A	A
Nominal heating capacity ³	kW	144,2	165,8	199,8	227,8	260,8	277,3	303,8	326,4	359,2
Input power ³	kW	35,8	42,2	50,5	56,5	65,2	69,8	75,2	81,0	89,8
COP ³		4,03	3,93	3,96	4,03	4,00	3,97	4,04	4,03	4,00
COP*		3,32	3,30	3,32	3,32	3,31	3,29	3,31	3,31	3,30
Total capacity steps	%	25-50- 75-100	25-50- 75-100	21-43- 71-100	19-38- 69-100	17-39- 67-100	16-37- 68-100	24-48- 71-100	23-50- 73-100	25-50- 75-100
Refrigerant										
Type		HFC 410A								
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Compressor										
Qty		4	4	4	4	4	4	4	4	4
Type		Scroll								
Evaporator										
Qty		1	1	1	2	2	2	1	1	1
Type		Plate								
Water flow cooling	m ³ /h	22,9	25,8	30,5	35,7	40,9	43,7	48,2	51,6	57,0
Water pressure drop cooling	kPa	23	29	33	28	28	33	25	28	34
Water flow heating ²	m ³ /h	24,2	27,8	33,2	38,4	43,8	46,7	51,4	55,0	60,7
Water pressure drop heating ²	kPa	26	34	39	33	33	37	28	32	39
Water flow heating ³	m ³ /h	24,7	28,4	34,2	39,0	44,7	47,5	52,1	56,0	61,6
Water pressure drop heating ³	kPa	27	36	41	34	34	39	29	33	40
Water volume	l	11,4	11,4	13	21,1	23,4	23,4	32,4	32,4	32,4
Antifreeze heater	W	130	130	130	130+130	130+130	130+130	130	130	130
Air cooled condenser										
Qty		2	2	5	5	6	6	7	8	8
Total coil face area per coil	m ²	4,6	4,6	2,4	2,4	2,4	2,4	2,4	2,4	2,4
Fan										
Qty		3	3	5	5	6	6	7	8	8
Nominal speed	rpm	700	700	700	700	700	700	700	700	700
Total airflow	m ³ /h	55.000	55.000	92.500	92.500	111.000	111.000	129.500	148.000	148.000
Total input power	kW	3,6	3,6	6,0	6,0	7,2	7,2	8,4	9,6	9,6
Water Connections (Evaporator)										
Type		Male GAS Threaded								
Inlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Outlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Water Connections (Desuperheater)										
Type		Male GAS Threaded								
Inlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Outlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Weight										
Shipping	kg	1.294	1.337	1.843	1.967	2.188	2.198	2.767	2.860	2.870
Operating	kg	1.312	1.355	1.858	1.993	2.216	2.226	2.806	2.899	2.909
Additional weight										
EC version	kg	30	30	50	50	60	60	70	80	80
With desuperheater	kg	8,5	8,5	17	17	19	19	23	23	23
With one pump	kg	45	45	45	55	55	55	65	65	65
With two pumps	kg	95	95	95	115	115	115	140	140	140
Dimensions										
Length	mm	4.000	4.000	3.500	3.500	3.500	3.500	4.550	4.550	4.550
Width	mm	1.100	1.100	2.150	2.150	2.150	2.150	2.150	2.150	2.150
Height	mm	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
Acoustical data										
Sound power level ⁴	dB(A)	85	85	87	87	88	88	89	90	90
Sound pressure level 10 m ⁵	dB(A)	58	58	60	60	61	61	62	63	63

¹ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

² Data refers to 45°C leaving warm water temperature and 7°C ambient coil air temperature with 87% R.H., according EN14511 standard.

³ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

⁴ Sound levels are at fully loaded conditions. Sound power level values refers to ISO 3744 standard.

⁵ Sound pressure levels refer to ISO 3744 standard, parallelepiped shape.

* High Efficiency Units (EC) with inverter fans.

Technical feature

EUROSCROLL 140-360 Air Evo HP S (STD-EC)		140	170	200	230	260	280	300	330	360
Nominal cooling capacity ¹	kW	125,9	140,3	168,5	194,7	224,0	238,5	263,3	283,5	310,5
Input power ¹	kW	47,2	57,7	63,4	77,6	88,2	96,6	104,5	108,2	124,2
EER ¹		2,67	2,43	2,66	2,51	2,54	2,47	2,52	2,62	2,50
Energy efficiency class		D	D	D	D	D	D	D	D	D
ESEER		3,66	3,64	3,75	3,85	3,82	3,80	3,75	3,71	3,80
EER*		2,71	2,45	2,70	2,54	2,58	2,50	2,55	2,66	2,53
Energy efficiency class*		C	D	C	D	D	D	D	D	D
ESEER*		3,77	3,75	3,86	3,99	3,95	3,93	3,86	3,79	3,91
Nominal heating capacity ²	kW	138,5	159,5	189,8	219,8	250,8	267,1	294,7	315,0	348,9
Input power ²	kW	42,4	48,9	58,0	67,2	77,2	82,4	90,4	96,9	107,4
COP ²		3,27	3,26	3,27	3,27	3,25	3,24	3,26	3,25	3,25
Energy efficiency class		A	A	A	A	A	A	A	A	A
Nominal heating capacity ³	kW	141,3	162,7	195,3	223,3	255,3	271,3	298,3	319,7	353,2
Input power ³	kW	34,9	41,1	49,1	55,1	63,5	67,8	73,5	78,9	87,6
COP ³		4,05	3,96	3,98	4,05	4,02	4,00	4,06	4,05	4,03
Total capacity steps	%	25-50-75-100	25-50-75-100	21-43-71-100	19-38-69-100	17-39-67-100	16-37-68-100	24-48-71-100	23-50-73-100	25-50-75-100
Refrigerant										
Type		HFC 410A								
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Compressor										
Qty		4	4	4	4	4	4	4	4	4
Type		Scroll								
Evaporator										
Qty		1	1	1	2	2	2	1	1	1
Type		Plate								
Water flow cooling	m ³ /h	21,7	24,2	29,1	33,6	38,6	41,1	45,4	48,9	53,6
Water pressure drop cooling	kPa	21	26	30	25	25	29	22	25	30,3
Water flow heating ²	m ³ /h	23,8	27,3	32,5	37,7	43,0	45,8	50,6	54,0	59,8
Water pressure drop heating ²	kPa	25	33	37	32	32	36	27	31	38
Water flow heating ³	m ³ /h	24,2	27,9	33,5	38,3	43,8	46,5	51,2	54,8	60,5
Water pressure drop heating ³	kPa	26	34	39	33	33	37	28	32	39
Water volume	l	11,4	11,4	13	21,1	23,4	23,4	32,4	32,4	32,4
Antifreeze heater	W	130	130	130	130+130	130+130	130+130	130	130	130
Air cooled condenser										
Qty		2	2	5	5	6	6	7	8	8
Total coil face area per coil	m ²	4,6	4,6	2,4	2,4	2,4	2,4	2,4	2,4	2,4
Fan										
Qty		3	3	5	5	6	6	7	8	8
Nominal speed	rpm	550	550	550	550	550	550	550	550	550
Total airflow	m ³ /h	44.000	44.000	72.500	72.500	87.000	87.000	101.500	116.000	116.000
Total input power	kW	2,7	2,7	4,5	4,5	5,4	5,4	6,3	7,2	7,2
Water Connections (Evaporator)										
Type		Male GAS Threaded								
Inlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Outlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Water Connections (Desuperheater)										
Type		Male GAS Threaded								
Inlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Outlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Weight										
Shipping	kg	1.299	1.342	1.848	1.972	2.193	2.203	2.772	2.865	2.875
Operating	kg	1.317	1.360	1.863	1.998	2.221	2.231	2.811	2.904	2.914
Additional weight										
EC version	kg	30	30	50	50	60	60	70	80	80
With desuperheater	kg	8,5	8,5	17	17	19	19	23	23	23
With one pump	kg	45	45	45	55	55	55	65	65	65
With two pumps	kg	95	95	95	115	115	115	140	140	140
Dimensions										
Length	mm	4.000	4.000	3.500	3.500	3.500	3.500	4.550	4.550	4.550
Width	mm	1.100	1.100	2.150	2.150	2.150	2.150	2.150	2.150	2.150
Height	mm	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
Acoustical data										
Sound power level ⁴	dB(A)	79	79	82	82	83	83	85	86	86
Sound pressure level 10 m ⁵	dB(A)	53	53	55	55	56	56	57	58	58

¹ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

² Data refers to 45°C leaving warm water temperature and 7°C ambient coil air temperature with 87% R.H., according EN14511 standard.

³ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature, according EN14511 standard.

⁴ Sound levels are at fully loaded conditions. Sound power level values refers to ISO 3744 standard.

⁵ Sound pressure levels refer to ISO 3744 standard, parallelepiped shape. * High Efficiency Units (EC) with inverter fans.

Technical feature

EUROSCROLL 140-360 Air Evo HP HT		140	170	200	230	260	280	300	330	360
Nominal cooling capacity ¹	kW	137,9	156,0	182,5	215,5	245,8	263,4	290,3	309,8	343,4
Input power ³	kW	39,0	48,4	52,3	63,2	71,9	78,6	84,9	88,0	101,0
EER		2,92	2,75	2,77	2,80	2,78	2,77	2,80	2,82	2,79
Energy efficiency class		B	C	C	C	C	C	C	C	C
ESEER		3,45	3,38	3,53	3,63	3,65	3,58	3,53	3,60	3,58
Nominal heating capacity ²	kW	147,0	168,5	202,8	232,3	266,0	283,7	309,8	331,5	366,5
Input power ³	kW	39,2	46,0	52,8	61,8	70,7	76,1	82,3	87,1	97,8
COP		3,11	3,12	3,07	3,10	3,07	3,08	3,08	3,06	3,08
Energy efficiency class		B	B	B	B	B	B	B	B	B
Total capacity steps	%	25-50-75-100	25-50-75-100	21-43-71-100	19-38-69-100	17-39-67-100	16-37-68-100	24-48-71-100	23-50-73-100	25-50-75-100
Refrigerant										
Type		HFC 410A								
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Compressor										
Qty		4	4	4	4	4	4	4	4	4
Type		Scroll								
Evaporator										
Qty		1	1	1	2	2	2	1	1	1
Type		Plate								
Water flow cooling	m ³ /h	23,8	26,9	31,5	37,2	42,4	45,5	50,1	53,4	59,3
Water pressure drop cooling	kPa	25	32	35	31	31	35	26	30	37
Water flow heating ²	m ³ /h	25,2	28,9	34,7	39,8	45,6	48,6	53,1	56,8	62,8
Water pressure drop heating ²	kPa	28	37	42	35	35	40	30	34	42
Water flow heating ⁶	m ³ /h	25,9	29,7	36,0	40,8	46,8	49,8	54,2	58,1	64,1
Water pressure drop heating ⁶	kPa	30	39	45	37	37	42	31	36	43
Water volume	l	11,4	11,4	13	21,1	23,4	23,4	32,4	32,4	32,4
Antifreeze Heater	W	130	130	130	130+130	130+130	130+130	130	130	130
Air cooled condenser										
Qty		5	5	5	6	6	6	7	8	8
Total coil face area per coil	m ²	12	12	12	14,4	14,4	14,4	16,8	19,2	19,2
Fan										
Qty		3	3	5	5	6	6	7	8	8
Nominal speed	rpm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Total airflow	m ³ /h	80.500	80.500	132.500	132.500	159.000	159.000	185.500	212.000	212.000
Total input power*	kW	7,8	7,8	13,0	13,0	15,6	15,6	18,2	20,8	20,8
Water Connections (Evaporator)										
Type		Male GAS Threaded								
Inlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Outlet diameter	inch	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Water Connections (Desuperheater)										
Type		Male GAS Threaded								
Inlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Outlet diameter	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Weight										
Shipping	kg	1.324	1.367	1.893	2.017	2.248	2.258	2.837	2.940	2.950
Operating	kg	1.342	1.385	1.908	2.043	2.276	2.286	2.876	2.979	2.989
Additional weight										
Desuperheater versions	kg	8,5	8,5	17	17	19	19	23	23	23
With one pump	kg	45	45	45	55	55	55	65	65	65
With two pumps	kg	95	95	95	115	115	115	140	140	140
Dimensions										
Length	mm	4.000	4.000	3.500	3.500	3.500	3.500	4.550	4.550	4.550
Width	mm	1.100	1.100	2.150	2.150	2.150	2.150	2.150	2.150	2.150
Height	mm	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
Acoustical data										
Sound power level ⁴	dB(A)	92	92	94	94	96	96	97	98	98
Sound pressure level 10 m ⁵	dB(A)	60	60	62	62	64	64	65	66	66

¹ Data refers to 7°C leaving chilled water temperature and 35°C condenser air temperature.

² Data refers to 45°C leaving warm water temperature and 7°C ambient coil air temperature with 87% R.H., according EN14511 standard.

³ Input power (only compressors).

⁴ Sound levels are at fully loaded conditions. Sound power level values refers to ISO 3744 standard.

⁵ Sound pressure levels refer to ISO 3744 standard, parallelepiped shape.

* High Efficiency Units (EC) with inverter fans.