



Progettato e fabbricato da Area nell'UE

## Inverter unità di condensazione Area iCOOL 21D MHP



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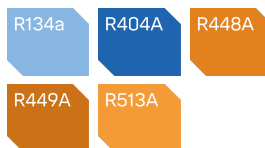
Designed and manufactured in the EU

### Scheda tecnica

<b>Alimentazione elettrica</b>	380/415 V-50 Hz-3 ph
<b>Capacità a -10/32 °C R449A</b>	18,71 kW
<b>Peso</b>	311 kg
<b>Larghezza</b>	475 mm
<b>Lunghezza</b>	1521 mm
<b>Altezza</b>	1493 mm
<b>Livello sonoro</b>	44 dB
<b>Connessione d'aspirazione</b>	1 1/8"
<b>Collegamento del liquido</b>	5/8"
<b>Modello di compressore adatto</b>	C-SBS180H00B, C- SBN453H8G
<b>Tipo di olio</b>	FV68S
<b>Portata Aria</b>	11150 m3/h
<b>MCC</b>	27 A
<b>Contenitore liquido</b>	15 dm3
<b>Numero x Diametro Ventola</b>	2x630 mm
<b>Tecnologia</b>	Inverter
<b>Refrigerantee</b>	R134a, R404A, R448A, R449A, R513A
<b>Certificati</b>	CE, REACH, RoHS, TUV



### Refrigerante



### Downloads

- ↓ T icool 17d 21d mhp
- ↓ Technical Brochure iCOOL IT

### Equivalente

Bitzer Ecostar LHV7E/4DE-7.F3Y

# iCOOL Condensing Units

## *Technical Brochure*





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## 1. General Information

- Refrigeration iCOOL condensing units are designed for automatic operation in refrigerated storage rooms, refrigeration cabinets, liquid coolers and other equipment the operating parameters of which meet the requirements of unit's characteristics.
- Condensing units are designed to be used with HFC refrigerants. Refrigerants allowed for specific units are listed in table below. Filling or refilling these units with any other refrigerant type can cause damage. The units must not operate in conditions exceeding their working parameters. Doing otherwise can cause damage to the unit and will void the warranty.

*Table of permitted refrigerants:*

	iCOOL 4.5 MHP	iCOOL 7 MHP	iCOOL 10 MHP	iCOOL 12 MHP	iCOOL 15 MHP	iCOOL 17D MHP	iCOOL 21D MHP	iCOOL 26D MHP	iCOOL 29D MHP	iCOOL 3 MP	iCOOL 10 MP	iCOOL 17D MP
R404A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R448A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R449A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
R134a	✓	✓	✓	✓	✓	✓	✓	✓	✓			
R513A	✓	✓	✓	✓	✓	✓	✓	✓	✓			

## 2. Type code description

iCOOL	17D	MHP
<ul style="list-style-type: none"> <li>• condensing unit in housing equipped with an inverter compressor</li> </ul>	<ul style="list-style-type: none"> <li>• 17-approximated cooling capacity, kW</li> <li>• D-Dual compressor</li> </ul>	<ul style="list-style-type: none"> <li>• MP - medium temperature</li> <li>• MHP - high temperature</li> </ul>

### 3. Units specification

#### 3.1. Components

- Panasonic or Avic hermetic inverter compressor or tandem of Panasonic compressors (inverter + fixed speed) with crankcase heater
- Air-cooled condenser
- EC fans with speed regulator
- Suction accumulator on suction line
- Shut-off valve on suction line
- Insulation on suction pipeline
- Oil separator and check valve for each compressor
- Liquid receiver with shut-off valve on the outlet
- Safety valve
- Liquid line: filter drier, sight glass with moisture indicator, shut-off valve
- Service valves
- MHP/LP pressure switch with auto reset – compressor protection
- LP pressure switch – safety mode of operation (optional),
- Inverter – control of compressor's performance,
- Soundproof housing
- Suction pressure sensor
- Fully equipped electrical board
- Condenser protective grid
- Optional monitoring

## 4. Technical data

Condensing Unit Type				iCOOL 4.5 MHP	iCOOL 7 MHP	iCOOL 10 MHP	iCOOL 12 MHP	iCOOL 15 MHP	iCOOL 17D MHP	iCOOL 21D MHP	iCOOL 26D MHP	iCOOL 29D MHP	iCOOL 3 MP	iCOOL 10 MP	iCOOL 17D MP	
Dimensions	Length	A	[mm]	1106	1140	1289	1420	1322	1521	1521	1528	1528	1106	1322	1528	
	Height	B	[mm]	560	760	963	963	1493	1493	1493	1488	1488	560	1493	1488	
	Width	C	[mm]	466	439	439	439	475	475	475	879	879	466	475	879	
Weight gross			[kg]	118	135	176	196	256	310	311	400	430	125	286	460	
Condenser	N° x f		[mm]	1x450	1x630	1x630	1x710	2x630	2x630	2x630	2x630	2x630	1x450	2x630	2x630	
	Air flow		[m³/h]	3850	5496	6150	6920	11150	11150	11150	12600	12600	3850	11150	12600	
	Fan supply		[V/ph/Hz]	200-240/1/50	200-240/1/50	200-277/1/50	200-277/1/50	200-277/1/50	200-277/1/50	200-277/1/50	200-240/1/50	200-277/1/50	200-277/1/50	200-277/1/50	200-277/1/50	
	Fan power consumption		[W]	170	230	230	230	2x230	2x230	2x230	2x230	2x230	170	2x230	2x230	
	Rated current		[A]	1,4	1,2	1,2	1,2	2x1,2	2x1,2	2x1,2	2x1,2	2x1,2	1,4	2x1,2	2x1,2	
Compressor	Model			C-7RVN113LOA	C-7RVN153LOA	C-SBS180H00B	C-SBS180H00B	C-SBVN373LOB	C-SBS180H00B/ C-SBN303H8G	C-SBS180H00B/ C-SBN453H8G	C-SBVN373LOB/ C-SBN453H8G	C-SBVN373LOB/ C-SCN603H8T	C-7RVN153LOA	C-SCVN603LOJ	C-SCVN603LOJ / C-SCN603L8H	
	Displacement			[m³/h]	2,5-7,5	1,7-10,4	5,8-17,4	5,8-19,2	7,7-24,6	5,8-17,4 / 11,6	5,8-17,4 / 17,4	7,7-24,6 / 17,4	7,7-24,6 / 23,6	1,7-10,4	10,0-37,6	10-37,6 / 23,8
	Frequency			[Hz]	30-180	30-180	30-90	30-100	20-80	30-90 / 50	30-90 / 50	20-80/50	20-80 / 50	30-180	20-75	20-75 / 50
	Current	MCC		[A]	12	12	16	17,5	17,5	16/11,1	27/13,8	16/13,8	17,5/13,8	12	24,6	24,6/17,3
		LRA		[A]	-	-	-	-	-	- / 48	6,3	- / 66	- / 66	-	-	- / 80
	Oil type				FV68S	FV68S	FV68S	FV68S	FV68S	FV68S	FV68S	FV68S	FV68S	FV68S	FV32S	FV32S
	Oil compressor charge			[dm³]	0,7	0,7	2	2	2	2/1,7	2,0/ 1,7	1,3	2,0/ 2,8	0,7	2,5	2,5/2,5
Heater			[W]	40	40	70	70	90	2x70	2x70	40	2x90	40	2x90	2x90	
Volume @10 m			[dBa]	38	39	39,3	40	44	44	44	44	44	38	44	44	
Connections	Suction		[mm]	16	18	22	22	28	28	28	35	35	18	28	35	
	Liquid		[mm]	10	10	12	12	16	16	16	22	22	10	16	22	
	Liquid receiver		[dm³]	3,9	7,1	10	10	15	15	15	15	15	3,9	15	15	
CU Power supply	Voltage		[V/ph/Hz]	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	
	Recommended minimum cross section of power supply cable				5x1,5mm²	5x2,5mm²	5x4mm²	5x4mm²	5x4mm²	5x6mm²	5x6mm²	5x10mm²	5x10mm²	5x2,5mm²	5x4mm²	5x10mm²
	Recommended minimum protection				B16	C16/B25	C25/B32	C32	C40	C40	C40	C50	C50	C16/B25	C32	C50

## 5. Capacity tables

R404A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 4.5 MHP	min	27	685	377	824	396	981	418	1 155	442	1 346	471	-	-
		32	672	398	812	421	969	446	1 141	475	1 329	508	-	-
		38	661	426	799	452	952	482	1 119	515	1 298	554	-	-
		43	648	451	782	480	929	513	1 088	550	1 257	593	-	-
	max	27	4 107	2 259	4 944	2 377	5 886	2 506	6 931	2 653	8 075	2 824	-	-
		32	4 034	2 389	4 873	2 525	5 812	2 675	6 848	2 847	7 973	3 048	-	-
		38	3 965	2 557	4 791	2 714	5 709	2 890	6 712	3 091	7 789	3 324	-	-
iCOOL 7 MHP	min	27	1 042	524	1 225	549	1 429	574	1 654	599	1 901	624	-	-
		32	973	612	1 160	634	1 367	656	1 595	679	1 845	701	-	-
		38	947	649	1 134	670	1 343	691	1 573	713	1 824	734	-	-
		43	929	677	1 117	697	1 326	718	1 556	739	1 808	760	-	-
	max	27	6 071	3 106	7 472	3 396	8 160	3 682	9 279	4 006	10 461	4 327	-	-
		32	5 898	3 391	7 215	3 662	7 901	3 935	8 964	4 248	10 077	4 565	-	-
		38	5 748	3 659	6 957	3 926	7 625	4 202	8 605	4 521	9 621	4 852	-	-
iCOOL 10 MHP	min	27	2 527	2 833	3 216	2 701	4 080	2 604	5 146	2 505	6 439	2 495	7 978	2 495
		32	2 347	2 971	2 964	2 871	3 739	2 793	4 702	2 701	5 880	2 680	7 294	2 680
		38	2 142	3 151	2 681	3 094	3 357	3 045	4 204	2 970	5 250	2 938	6 519	2 938
		43	-	-	2 461	3 296	3 062	3 276	3 819	3 221	4 759	3 184	5 912	3 184
	max	27	9 471	5 393	11 226	5 547	13 275	5 682	15 659	5 810	18 404	5 943	21 528	6 094
		32	8 608	5 879	10 226	6 038	12 122	6 184	14 340	6 328	16 910	6 480	19 851	6 657
		38	7 627	6 548	9 091	6 716	10 812	6 875	12 835	7 036	15 195	7 212	17 911	7 416
iCOOL 12 MHP	min	27	2 544	2 910	3 244	2 774	4 122	2 672	5 210	2 604	6 532	2 566	8 112	2 553
		32	2 364	3 048	2 989	2 943	3 777	2 860	4 759	2 800	5 964	2 760	7 415	2 735
		38	2 259	3 135	2 844	3 051	3 581	2 982	4 502	2 928	5 639	2 888	7 014	2 857
		43	-	-	2 482	3 365	3 095	3 339	3 866	3 309	4 828	3 274	6 009	3 232
	max	27	11 221	5 866	13 384	5 994	15 938	6 089	18 941	6 158	22 438	6 211	26 467	6 258
		32	10 204	6 364	12 195	6 497	14 554	6 601	17 344	6 685	20 613	6 756	24 401	6 827
		38	9 056	7 055	10 852	7 195	12 990	7 310	15 532	7 410	18 533	7 505	22 034	7 604
iCOOL 15 MHP	min	27	5 662	3 357	6 887	3 392	8 358	3 432	10 117	3 481	12 194	3 538	14 617	3 606
		32	4 999	3 675	6 086	3 710	7 404	3 751	8 994	3 799	10 895	3 857	13 138	3 927
		38	4 276	4 132	5 219	4 165	6 367	4 204	7 770	4 250	9 471	4 307	11 509	4 376
		43	3 736	4 578	4 574	4 608	5 598	4 643	6 858	4 686	8 404	4 740	10 283	4 806
	max	27	15 011	6 347	17 618	6 650	20 589	6 976	23 962	7 326	27 766	7 701	32 027	8 100
		32	13 440	6 911	15 777	7 204	18 458	7 519	21 531	7 857	25 038	8 218	29 019	8 604
		38	11 699	7 683	13 756	7 960	16 123	8 255	18 863	8 571	22 037	8 910	25 700	9 274
43	10 374	8 412	12 237	8 670	14 377	8 943	16 869	9 236	19 789	9 552	23 213	9 893		



R404A		Capacity (subcooling: 3 K, superheat: 10 K)													
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10		
		T <sub>s</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	
iCOOL 17D MHP	min	27	2 581	3 034	3 302	2 889	4 212	2 778	5 347	2 701	6 735	2 655	8 407	2 637	
		32	2 399	3 170	3 043	3 055	3 860	2 963	4 884	2 893	6 147	2 843	7 680	2 811	
		38	2 190	3 346	2 754	3 273	3 467	3 208	4 366	3 151	5 487	3 102	6 860	3 057	
		43	2 025	3 505	2 529	3 471	3 163	3 433	3 967	3 391	4 975	3 346	6 220	3 294	
	max	27	16 177	8 553	19 170	8 791	22 641	9 029	26 652	9 281	31 245	9 562	36 442	9 891	
		32	14 687	9 367	17 446	9 615	20 648	9 866	24 363	10 135	28 641	10 440	33 508	10 797	
		38	12 981	10 494	15 486	10 752	18 385	11 018	21 759	11 306	25 664	11 635	30 135	12 021	
		43	11 625	11 564	13 940	11 832	16 605	12 108	19 704	12 410	23 301	12 755	27 434	13 161	
iCOOL 21D MHP	min	27	2 581	3 034	3 302	2 889	4 212	2 778	5 347	2 701	6 735	2 655	8 407	2 637	
		32	2 399	3 170	3 043	3 055	3 860	2 963	4 884	2 893	6 147	2 843	7 680	2 811	
		38	2 190	3 346	2 754	3 273	3 467	3 208	4 366	3 151	5 487	3 102	6 860	3 057	
		43	2 025	3 505	2 529	3 471	3 163	3 433	3 967	3 391	4 975	3 346	6 220	3 294	
	max	27	19 052	10 485	22 353	10 786	26 151	11 107	30 509	11 468	35 466	11 885	41 043	12 382	
		32	17 122	11 532	20 167	11 843	23 684	12 180	27 743	12 561	32 388	13 006	37 643	13 535	
		38	14 947	12 992	17 704	13 312	20 896	13 662	24 600	14 062	28 868	14 532	33 723	15 093	
		43	13 252	14 390	15 784	14 714	18 714	15 071	22 124	15 481	26 067	15 966	30 567	16 544	
iCOOL 26D MHP	min	27	5 830	3 209	7 120	3 234	8 681	3 262	10 558	3 295	12 791	3 334	15 410	3 381	
		32	5 146	3 517	6 289	3 541	7 683	3 569	9 375	3 602	11 410	3 642	13 825	3 689	
		38	4 403	3 962	5 390	3 984	6 601	4 010	8 088	4 041	9 901	4 078	12 084	4 124	
		43	-	-	4 724	4 415	5 799	4 437	7 130	4 465	8 771	4 499	10 775	4 542	
	Max	27	25 056	10 841	29 317	11 253	34 174	11 714	39 695	12 231	45 934	12 809	52 931	13 451	
		32	22 394	11 928	26 262	12 331	30 696	12 782	35 780	13 289	41 582	13 856	48 159	14 489	
		38	19 434	13 438	22 884	13 820	26 852	14 248	31 442	14 731	36 743	15 276	42 836	15 888	
		43	17 170	14 879	20 321	15 237	23 942	15 637	28 153	16 092	33 063	16 608	38 776	17 195	
iCOOL 29D MHP	min	27	5 830	3 209	7 120	3 234	8 681	3 262	10 558	3 295	12 791	3 334	15 410	3 381	
		32	5 146	3 517	6 289	3 541	7 683	3 569	9 375	3 602	11 410	3 642	13 825	3 689	
		38	4 403	3 962	5 390	3 984	6 601	4 010	8 088	4 041	9 901	4 078	12 084	4 124	
		43	-	-	4 724	4 415	5 799	4 437	7 130	4 465	8 771	4 499	10 775	4 542	
	max	27	27 594	12 716	32 251	13 216	37 527	13 778	43 508	14 415	50 258	15 138	57 829	15 959	
		32	24 776	13 827	29 040	14 334	33 887	14 901	39 419	15 542	45 719	16 271	52 855	17 102	
		38	21 621	15 336	25 471	15 848	29 847	16 416	34 875	17 059	40 658	17 790	47 291	18 627	
		43	19 187	16 748	22 743	17 263	26 770	17 831	31 411	18 471	36 791	19 201	43 032	20 041	

R404A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-40		-35		-30		-25		-20		-15	
		T <sub>sa</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 3 MP	min	27	450	389	532	415	635	442	760	469	906	497	1 075	526
		32	366	488	452	512	559	536	688	560	838	584	1 010	609
		38	314	559	401	581	511	603	642	625	795	648	969	671
		43	296	593	384	615	493	637	624	659	777	681	951	703
	max	27	2 457	2 195	2 996	2 455	3 644	2 730	4 390	3 019	5 223	3 319	6 127	3 630
		32	2 353	2 549	2 916	2 773	3 574	3 016	4 317	3 276	5 130	3 554	5 997	3 853
		38	2 282	2 823	2 859	3 029	3 513	3 258	4 232	3 510	5 001	3 790	5 802	4 101
43	2 206	2 975	2 783	3 183	3 419	3 419	4 103	3 685	4 819	3 985	-	-		

R404A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-33		-30		-25		-20		-15		-10	
		T <sub>sa</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 10 MP	min	27	2 189	3 136	2 541	3 231	3 275	3 347	4 243	5 499	5 510	3 281	7 102	3 026
		32	1 926	3 414	2 249	3 455	2 929	3 495	3 834	5 021	5 031	3 331	6 550	3 053
		38	1 639	3 880	1 928	3 856	2 543	3 804	3 375	4 481	4 490	3 523	5 922	3 217
		43	1 422	4 382	1 684	4 302	2 248	4 175	3 020	4 060	4 068	3 795	5 429	3 468
	max	27	8 200	8 304	9 309	8 678	11 548	9 347	14 240	10 065	17 331	10 823	20 759	11 610
		32	7 690	8 993	8 771	9 363	10 919	10 018	13 466	10 712	16 365	11 436	19 562	12 178
		38	7 104	9 928	8 154	10 286	10 195	10 909	12 571	11 561	15 245	12 230	18 172	12 907
43	6 634	10 800	7 658	11 140	9 611	11 726	11 850	12 330	14 343	12 942	17 053	13 553		
iCOOL 17D MP	min	27	2 192	3 133	2 545	3 229	3 281	3 346	4 251	3 375	5 510	3 281	7 117	3 026
		32	1 930	3 410	2 253	3 451	2 934	3 492	3 841	3 464	5 031	3 329	6 563	3 051
		38	1 642	3 874	1 932	3 850	2 548	3 799	3 381	3 701	4 490	3 518	5 934	3 212
		43	-	-	1 688	4 295	2 252	4 168	3 026	4 012	4 068	3 789	5 440	3 461
	max	27	13 941	13 362	15 733	13 923	19 285	14 916	23 546	15 981	28 501	17 117	34 127	18 320
		32	12 941	14 489	14 661	15 061	18 041	16 067	22 070	17 137	26 744	18 271	32 049	19 464
		38	11 794	16 014	13 431	16 593	16 611	17 603	20 370	18 669	24 716	19 789	29 650	20 960
43	10 875	17 432	12 445	18 012	15 466	19 017	19 009	20 069	-	-	-	-		

R448A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 4.5 MHP	min	27	658	362	791	380	942	401	1 109	424	1 292	452	-	-
		32	645	382	780	404	930	428	1 095	456	1 276	488	-	-
		38	635	409	767	434	914	463	1 074	494	1 246	532	-	-
		43	622	433	751	461	892	492	1 044	528	1 207	569	-	-
	max	27	4 212	2 251	4 927	2 349	5 766	2 456	6 746	2 576	7 878	2 712	-	-
		32	4 089	2 355	4 802	2 472	5 617	2 596	6 559	2 734	7 635	2 888	-	-
		38	3 955	2 489	4 651	2 627	5 425	2 773	6 297	2 930	7 277	3 101	-	-
iCOOL 7 MHP	min	27	1 011	508	1 188	533	1 386	557	1 604	581	1 844	605	-	-
		32	944	594	1 125	615	1 326	636	1 547	659	1 790	680	-	-
		38	919	630	1 100	650	1 303	670	1 526	692	1 769	712	-	-
		43	901	657	1 083	676	1 286	696	1 509	717	1 754	737	-	-
	max	27	6 226	3 095	7 447	3 357	7 993	3 609	9 031	3 890	10 205	4 156	-	-
		32	5 979	3 343	7 109	3 585	7 636	3 819	8 586	4 080	9 650	4 325	-	-
		38	5 734	3 562	6 754	3 800	7 245	4 032	8 073	4 286	8 989	4 526	-	-
iCOOL 10 MHP	min	27	2 401	2 691	3 056	2 566	3 876	2 474	4 889	2 380	6 117	2 370	7 580	2 370
		32	2 230	2 823	2 816	2 727	3 552	2 654	4 467	2 566	5 586	2 546	6 930	2 546
		38	2 035	2 994	2 547	2 939	3 189	2 893	3 994	2 821	4 988	2 791	6 193	2 791
		43	-	-	2 338	3 131	2 909	3 112	3 628	3 060	4 522	3 025	5 616	3 025
	max	27	9 282	5 285	11 001	5 436	13 010	5 568	15 346	5 694	18 036	5 824	21 097	5 972
		32	8 436	5 761	10 021	5 917	11 880	6 060	14 053	6 201	16 572	6 350	19 454	6 524
		38	7 474	6 417	8 909	6 582	10 596	6 738	12 578	6 895	14 891	7 068	17 553	7 268
iCOOL 12 MHP	min	27	2 521	2 826	3 208	2 694	4 070	2 597	5 133	2 499	6 423	2 489	7 959	2 489
		32	2 341	2 964	2 957	2 864	3 729	2 786	4 690	2 695	5 865	2 673	7 276	2 673
		38	2 136	3 143	2 674	3 086	3 349	3 038	4 194	2 962	5 237	2 931	6 503	2 931
		43	-	-	2 454	3 288	3 055	3 267	3 809	3 213	4 748	3 176	5 897	3 176
	max	27	11 508	5 845	13 339	5 925	15 612	5 968	18 435	5 980	21 890	5 965	26 048	5 927
		32	10 343	6 274	12 016	6 360	14 067	6 406	16 613	6 420	19 739	6 400	23 514	6 358
		38	9 033	6 867	10 536	6 965	12 343	7 014	14 572	7 025	17 316	7 001	20 635	6 946
iCOOL 15 MHP	min	27	4 928	2 571	6 160	2 577	7 536	2 571	9 039	2 556	10 660	2 530	12 387	2 501
		32	4 539	2 917	5 687	2 913	6 990	2 904	8 432	2 890	9 999	2 873	11 683	2 855
		38	-	-	5 147	3 395	6 364	3 379	7 731	3 367	9 238	3 358	10 872	3 355
		43	-	-	4 720	3 864	5 863	3 841	7 171	3 829	8 628	3 826	10 225	3 835
	max	27	14 002	6 329	17 131	6 655	20 296	6 974	23 415	7 279	26 455	7 565	29 421	7 829
		32	12 743	6 925	15 600	7 237	18 603	7 552	21 648	7 862	24 685	8 164	27 702	8 455
		38	11 351	7 760	13 874	8 048	16 677	8 351	19 632	8 668	22 675	8 992	25 771	9 320
43	10 295	8 557	12 537	8 821	15 163	9 115	18 047	9 434	21 100	9 774	24 280	10 131		

R448A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 17D MHP	min	27	2 452	2 882	3 137	2 744	4 002	2 639	5 079	2 566	6 399	2 522	7 986	2 505
		32	2 279	3 011	2 891	2 902	3 667	2 814	4 639	2 748	5 840	2 701	7 296	2 671
		38	2 081	3 179	2 616	3 109	3 293	3 048	4 148	2 994	5 213	2 947	6 517	2 904
		43	1 924	3 330	2 402	3 297	3 005	3 261	3 769	3 222	4 726	3 178	5 909	3 129
	max	27	15 259	8 450	18 770	8 787	22 588	9 120	26 634	9 454	30 845	9 804	35 188	10 185
		32	13 935	9 299	17 266	9 642	20 949	9 994	24 893	10 364	29 036	10 768	33 335	11 218
		38	12 435	10 513	15 537	10 859	19 049	11 232	22 867	11 647	26 927	12 116	31 176	12 658
		43	11 262	11 696	14 168	12 041	17 521	12 433	21 231	12 883	25 213	13 407	29 423	14 027
iCOOL 21D MHP	min	27	2 452	2 882	3 137	2 744	4 002	2 639	5 079	2 566	6 399	2 522	7 986	2 505
		32	2 279	3 011	2 891	2 902	3 667	2 814	4 639	2 748	5 840	2 701	7 296	2 671
		38	2 081	3 179	2 616	3 109	3 293	3 048	4 148	2 994	5 213	2 947	6 517	2 904
		43	1 924	3 330	2 402	3 297	3 005	3 261	3 769	3 222	4 726	3 178	5 909	3 129
	max	27	17 613	10 388	21 636	10 886	25 960	11 400	30 473	11 942	35 095	12 522	39 789	13 158
		32	16 037	11 460	19 875	11 969	24 071	12 512	28 498	13 101	33 071	13 751	37 742	14 475
		38	14 250	13 002	17 846	13 519	21 873	14 090	26 186	14 737	30 695	15 470	35 336	16 312
		43	-	-	16 234	15 032	20 096	15 629	24 305	16 319	28 747	17 121	-	-
iCOOL 26D MHP	min	27	4 928	2 571	6 160	2 577	7 536	2 571	9 039	2 556	10 660	2 530	12 387	2 501
		32	4 539	2 917	5 687	2 913	6 990	2 904	8 432	2 890	9 999	2 873	11 683	2 855
		38	-	-	5 147	3 395	6 364	3 379	7 731	3 367	9 238	3 358	10 872	3 355
		43	-	-	4 720	3 864	5 863	3 841	7 171	3 829	8 628	3 826	10 225	3 835
	max	27	25 141	10 968	29 416	9 915	55 960	10 398	65 202	10 993	73 925	11 719	81 957	12 623
		32	22 727	12 185	26 351	12 475	31 337	13 041	36 763	13 685	42 624	14 427	48 933	15 297
		38	20 018	13 882	23 224	14 118	27 782	14 681	32 826	15 339	38 370	16 125	44 452	17 060
		43	17 213	15 286	20 931	15 741	25 198	16 297	30 009	16 975	35 387	17 803	41 404	18 823
iCOOL 29D MHP	min	27	5 022	2 409	6 300	2 404	7 736	2 385	9 316	2 354	11 030	2 309	12 869	2 255
		32	4 628	2 745	5 817	2 731	7 174	2 707	8 685	2 676	10 338	2 637	12 123	2 593
		38	4 186	3 226	5 266	3 198	6 529	3 167	7 959	3 136	9 542	3 104	11 268	3 073
		43	-	-	4 831	3 652	6 015	3 615	7 379	3 582	8 906	3 555	10 586	3 535
	max	27	27 687	12 865	32 360	11 644	61 450	12 230	71 465	12 956	80 884	13 850	89 541	14 977
		32	25 144	14 125	29 138	14 502	34 594	15 203	40 501	16 005	46 864	16 942	53 704	18 056
		38	22 270	15 843	25 850	16 189	30 881	16 915	36 410	17 763	42 459	18 778	49 075	20 001
		43	19 235	17 206	23 426	17 834	28 174	16 297	33 481	19 484	39 377	20 583	45 949	21 938

R448A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-40		-35		-30		-25		-20		-15	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 3 MP	min	27	429	370	507	395	605	421	724	447	863	474	1 023	501
		32	349	465	430	487	532	510	655	533	798	557	962	580
		38	299	533	382	553	486	574	611	596	757	617	923	639
		43	282	565	365	585	470	606	595	627	740	648	906	670
	max	27	2 340	2 090	2 853	2 338	3 470	2 600	4 181	2 875	4 975	3 161	5 835	3 457
		32	2 241	2 427	2 777	2 641	3 404	2 872	4 111	3 120	4 886	3 385	5 712	3 670
		38	2 174	2 689	2 723	2 885	3 346	3 102	4 030	3 343	4 763	3 609	5 526	3 905
		43	2 101	2 834	2 650	3 032	3 257	3 256	3 908	3 509	4 589	3 795	-	-

R448A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-33		-30		-25		-20		-15		-10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 10 MP	min	27	2 080	2 979	2 414	3 069	3 111	3 180	4 031	3 207	5 224	3 117	6 747	2 875
		32	1 830	3 243	2 137	3 282	2 783	3 320	3 642	3 294	4 770	3 164	6 223	2 900
		38	1 557	3 686	1 832	3 663	2 416	3 614	3 206	3 521	4 257	3 347	5 626	3 056
		43	1 351	4 163	1 600	4 087	2 136	3 966	2 869	3 818	3 857	3 605	5 158	3 295
	max	27	7 790	7 889	8 844	8 244	10 971	8 880	13 528	9 562	16 464	10 282	19 721	11 030
		32	7 306	8 543	8 332	8 895	10 373	9 517	12 793	10 176	15 547	10 864	18 584	11 569
		38	6 749	9 432	7 746	9 772	9 685	10 364	11 942	10 983	14 483	11 619	17 263	12 262
		43	6 302	10 260	7 275	10 583	9 130	11 140	11 258	11 714	13 626	12 295	16 200	12 875
iCOOL 17D MP	min	27	2 082	2 976	2 418	3 068	3 117	3 179	4 038	3 206	5 235	3 117	6 761	2 875
		32	1 834	3 240	2 140	3 278	2 787	3 317	3 649	3 291	4 779	3 163	6 235	2 898
		38	1 560	3 680	1 835	3 658	2 421	3 609	3 212	3 516	4 266	3 342	5 637	3 051
		43	-	-	1 604	4 080	2 139	3 960	2 875	3 811	3 865	3 600	5 168	3 288
	max	27	13 244	12 694	14 946	13 227	18 321	14 171	22 368	15 182	27 076	16 261	32 421	17 404
		32	12 294	13 764	13 928	14 308	17 139	15 263	20 966	16 280	25 406	17 358	30 447	18 491
		38	11 204	15 213	12 759	15 763	15 780	16 723	19 352	17 736	23 480	18 800	28 167	19 912
		43	10 331	16 561	11 823	17 112	14 692	18 066	18 058	19 066	-	-	-	-

R449A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>ev</sub> , °C	Q <sub>w</sub> , W	Pe, W	Q <sub>w</sub> , W	Pe, W	Q <sub>w</sub> , W	Pe, W	Q <sub>w</sub> , W	Pe, W	Q <sub>w</sub> , W	Pe, W	Q <sub>w</sub> , W	Pe, W
iCOOL 4.5 MHP	min	27	651	358	783	376	932	397	1 097	420	1 279	447	-	-
		32	638	378	771	400	921	424	1 084	451	1 263	483	-	-
		38	628	405	759	429	904	458	1 063	489	1 233	526	-	-
		43	616	428	743	456	883	487	1 034	523	1 194	563	-	-
	max	27	4 065	2 234	4 693	2 299	5 698	2 454	6 829	2 638	8 080	2 864	-	-
		32	3 871	2 320	4 666	2 474	5 670	2 650	6 799	2 861	8 042	3 122	-	-
		38	3 790	2 510	4 652	2 687	5 645	2 891	6 754	3 136	7 968	3 434	-	-
iCOOL 7 MHP	min	27	1 016	527	1 229	556	1 458	586	1 699	617	1 948	651	-	-
		32	960	621	1 176	648	1 414	677	1 665	707	1 927	741	-	-
		38	931	695	1 150	721	1 395	749	1 658	780	1 934	815	-	-
		43	923	726	1 146	762	1 396	791	1 668	824	1 957	862	-	-
	max	27	6 454	3 223	7 323	3 451	8 579	3 787	9 835	4 143	11 061	4 524	-	-
		32	6 030	3 451	7 216	3 754	8 453	4 082	9 690	4 440	10 895	4 839	-	-
		38	6 004	3 770	7 143	4 069	8 344	4 407	9 549	4 789	10 719	5 226	-	-
iCOOL 10 MHP	min	27	2 408	2 625	3 008	2 573	3 750	2 526	4 663	2 486	5 772	2 454	7 094	2 432
		32	2 223	2 846	2 777	2 790	3 455	2 739	4 291	2 695	5 311	2 659	6 536	2 632
		38	2 004	3 137	2 513	3 077	3 125	3 022	3 876	2 973	4 797	2 932	5 912	2 901
		43	-	-	2 304	3 340	2 870	3 282	3 559	3 229	4 404	3 185	5 431	3 150
	max	27	8 811	5 168	10 656	5 366	12 850	5 564	15 429	5 778	18 416	6 028	21 823	6 337
		32	8 088	5 708	9 791	5 915	11 826	6 126	14 237	6 360	17 056	6 637	20 302	6 982
		38	7 268	6 428	8 827	6 648	10 691	6 878	12 916	7 139	15 545	7 451	18 606	7 843
iCOOL 12 MHP	min	27	2 533	2 840	3 224	2 708	4 090	2 610	5 159	2 511	6 455	2 501	7 998	2 501
		32	2 353	2 979	2 971	2 878	3 748	2 800	4 714	2 708	5 894	2 686	7 312	2 686
		38	2 147	3 159	2 687	3 102	3 366	3 053	4 215	2 977	5 263	2 945	6 536	2 945
		43	-	-	2 467	3 304	3 070	3 284	3 828	3 229	4 771	3 192	5 926	3 192
	max	27	10 611	5 848	12 797	6 090	15 390	6 342	18 434	6 621	21 960	6 954	25 986	7 373
		32	9 831	6 465	11 868	6 722	14 297	6 992	17 171	7 297	20 533	7 667	24 413	8 134
		38	8 963	7 289	10 856	7 565	13 113	7 860	15 808	8 203	18 998	8 622	-	-
iCOOL 15 MHP	min	27	4 691	2 457	5 825	2 466	7 176	2 470	8 764	2 473	10 604	2 475	12 703	2 482
		32	4 313	2 804	5 354	2 806	6 603	2 807	8 082	2 810	9 808	2 816	11 794	2 829
		38	3 889	3 286	4 830	3 279	5 966	3 275	7 323	3 276	8 922	3 285	10 778	3 305
		43	-	-	4 426	3 729	5 478	3 719	6 742	3 718	8 242	3 728	9 997	3 753
	max	27	13 328	6 048	16 199	6 368	19 327	6 700	22 701	7 044	26 317	7 401	30 171	7 771
		32	12 107	6 658	14 687	6 971	17 572	7 299	20 749	7 643	24 214	8 002	27 965	8 379
		38	10 761	7 474	13 019	7 774	15 635	8 094	18 596	8 435	21 900	8 797	25 548	9 181
43	9 741	8 226	11 756	8 513	14 168	8 825	16 968	9 162	20 156	9 524	23 739	9 914		

R449A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>air</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 17D MHP	min	27	2 468	2 799	3 093	2 740	3 874	2 686	4 845	2 636	6 035	2 592	7 466	2 556
		32	2 282	3 013	2 858	2 950	3 570	2 892	4 456	2 837	5 548	2 789	6 870	2 748
		38	2 063	3 295	2 589	3 229	3 231	3 166	4 025	3 107	5 007	3 054	6 206	3 007
		43	1 884	3 552	2 378	3 484	2 968	3 417	3 695	3 355	4 593	3 298	5 697	3 248
	max	27	14 525	8 075	17 749	8 408	21 510	8 761	25 822	9 148	30 684	9 591	36 085	10 109
		32	13 240	8 940	16 255	9 288	19 788	9 660	23 860	10 076	28 482	10 554	33 652	11 117
		38	11 788	10 126	14 580	10 489	17 859	10 886	21 660	11 334	26 006	11 854	30 907	12 470
iCOOL 21D MHP	min	27	2 468	2 799	3 093	2 740	3 874	2 686	4 845	2 636	6 035	2 592	7 466	2 556
		32	2 282	3 013	2 858	2 950	3 570	2 892	4 456	2 837	5 548	2 789	6 870	2 748
		38	2 063	3 295	2 589	3 229	3 231	3 166	4 025	3 107	5 007	3 054	6 206	3 007
		43	1 884	3 552	2 378	3 484	2 968	3 417	3 695	3 355	4 593	3 298	5 697	3 248
	max	27	16 765	9 927	20 459	10 416	24 721	10 952	29 544	11 556	34 912	12 250	40 803	13 060
		32	15 237	11 018	18 712	11 529	22 737	12 094	27 315	12 736	32 440	13 477	38 100	14 345
		38	13 509	12 523	16 747	13 058	20 507	13 656	24 804	14 340	29 646	15 135	35 031	16 069
iCOOL 26D MHP	min	27	4 781	2 303	5 958	2 301	7 367	2 292	9 033	2 278	10 973	2 259	13 197	2 239
		32	4 398	2 640	5 477	2 631	6 777	2 617	8 325	2 602	10 141	2 585	12 239	2 570
		38	3 969	3 108	4 942	3 089	6 122	3 070	7 539	3 052	9 216	3 037	11 171	3 028
		43	-	-	4 530	3 525	5 621	3 500	6 938	3 479	8 508	3 465	10 351	3 460
	max	27	21 812	10 136	26 674	10 673	32 070	11 251	37 957	11 870	44 301	12 533	51 070	13 238
		32	19 759	11 244	24 241	11 782	29 301	12 366	34 899	12 996	41 003	13 674	47 584	14 399
		38	17 475	12 772	21 531	13 300	26 213	13 881	31 484	14 516	37 319	15 206	43 698	15 951
iCOOL 29D MHP	min	27	4 781	2 303	5 958	2 301	7 367	2 292	9 033	2 278	10 973	2 259	13 197	2 239
		32	4 398	2 640	5 477	2 631	6 777	2 617	8 325	2 602	10 141	2 585	12 239	2 570
		38	3 969	3 108	4 942	3 089	6 122	3 070	7 539	3 052	9 216	3 037	11 171	3 028
		43	-	-	4 530	3 525	5 621	3 500	6 938	3 479	8 508	3 465	10 351	3 460
	max	27	27 315	12 574	30 613	12 785	36 326	13 492	42 869	14 336	50 291	15 355	58 621	16 595
		32	23 279	13 425	27 805	14 042	33 060	14 761	39 136	15 621	46 114	16 665	54 056	17 937
		38	20 603	15 055	24 731	15 688	29 513	16 423	35 095	17 309	41 595	18 380	49 126	19 700
43	19 104	16 834	22 435	17 188	26 907	17 947	32 142	18 852	38 303	19 955	45 554	21 317		

R449A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-40		-35		-30		-25		-20		-15	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 3 MP	min	27	437	378	517	403	617	429	738	456	881	483	1 044	511
		32	356	474	439	497	543	520	668	544	814	568	981	592
		38	305	543	390	565	496	586	623	608	772	629	942	651
		43	287	576	373	597	479	618	606	640	755	661	924	683
	max	27	2 387	2 132	2 911	2 385	3 540	2 652	4 265	2 933	5 074	3 224	5 952	3 526
		32	2 286	2 476	2 833	2 694	3 472	2 930	4 194	3 182	4 984	3 452	5 826	3 743
		38	2 217	2 743	2 778	2 943	3 413	3 165	4 111	3 410	4 858	3 682	5 637	3 984
		43	2 143	2 890	2 703	3 092	3 322	3 321	3 986	3 579	4 681	3 871	-	-

R449A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-33		-30		-25		-20		-15		-10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 10 MP	min	27	2 017	2 890	2 342	2 977	3 018	3 084	3 910	3 111	5 067	3 023	6 544	2 788
		32	1 775	3 146	2 072	3 184	2 699	3 221	3 533	3 195	4 627	3 070	6 036	2 813
		38	1 510	3 575	1 777	3 553	2 343	3 505	3 110	3 415	4 129	3 246	5 457	2 964
		43	1 310	4 038	1 552	3 964	2 072	3 847	2 783	3 704	3 741	3 497	5 003	3 196
	max	27	7 556	7 652	8 578	7 997	10 641	8 613	13 122	9 275	15 971	9 973	19 129	10 699
		32	7 086	8 287	8 082	8 628	10 062	9 232	12 409	9 871	15 080	10 538	18 026	11 222
		38	6 546	9 149	7 514	9 479	9 395	10 053	11 584	10 653	14 048	11 270	16 745	11 894
		43	6 113	9 952	7 057	10 266	8 857	10 806	10 920	11 362	13 217	11 926	15 714	12 489
iCOOL 17D MP	min	27	2 093	2 991	2 430	3 083	3 133	3 195	4 059	3 222	5 261	3 133	6 795	2 889
		32	1 843	3 256	2 151	3 295	2 801	3 334	3 667	3 307	4 803	3 178	6 266	2 913
		38	1 568	3 699	1 845	3 676	2 433	3 627	3 228	3 534	4 287	3 359	5 665	3 067
		43	-	-	1 612	4 101	2 150	3 979	2 889	3 830	3 884	3 618	5 194	3 304
	max	27	12 223	13 071	13 772	13 658	16 804	14 703	20 381	15 830	24 470	17 033	29 032	18 307
		32	11 322	14 198	12 809	14 797	15 694	15 855	19 075	16 987	22 929	18 187	27 232	19 448
		38	10 279	15 721	11 697	16 329	14 409	17 393	17 561	18 519	21 144	19 703	25 152	20 936
		43	9 436	17 138	10 794	17 748	13 369	18 807	16 338	19 918	-	-	-	-



R134a		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>s</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 4.5 MHP	min	27	-	-	500	321	595	343	695	366	806	388	932	409
		32	-	-	480	399	570	423	665	450	769	478	890	504
		38	-	-	456	450	539	480	627	515	726	551	840	587
		43	-	-	436	470	514	508	597	550	691	596	800	643
	max	27	-	-	3 954	1 057	4 645	1 092	5 355	1 141	6 125	1 191	6 996	1 226
		32	-	-	3 789	1 128	4 436	1 153	5 106	1 192	5 841	1 231	6 680	1 256
		38	-	-	3 581	1 151	4 181	1 176	4 810	1 215	5 507	1 254	6 312	1 280
iCOOL 7 MHP	min	27	-	-	861	407	1 031	410	1 210	417	1 407	426	1 634	434
		32	-	-	831	483	990	486	1 159	493	1 347	502	1 564	508
		38	-	-	782	543	929	547	1 087	556	1 264	564	1 471	570
		43	-	-	735	577	873	584	1 021	593	1 190	602	1 389	607
	max	27	-	-	5 260	2 054	6 238	2 151	7 253	2 274	8 358	2 407	9 606	2 529
		32	-	-	5 196	2 410	6 124	2 498	7 095	2 611	8 160	2 733	9 371	2 844
		38	-	-	5 099	2 764	5 975	2 860	6 900	2 982	7 923	3 111	9 093	3 230
iCOOL 10 MHP	min	27	1 758	2 662	2 216	2 649	2 793	2 628	3 524	2 600	4 440	2 566	5 574	2 526
		32	1 636	2 810	2 066	2 791	2 607	2 767	3 296	2 738	4 163	2 706	5 240	2 672
		38	-	-	1 895	2 978	2 397	2 950	3 037	2 921	3 847	2 892	4 859	2 863
		43	-	-	-	-	2 231	3 116	2 834	3 087	3 598	3 061	4 558	3 037
	max	27	5 295	2 950	6 508	3 062	7 985	3 159	9 782	3 249	11 942	3 340	14 502	3 439
		32	5 006	3 219	6 157	3 336	7 551	3 442	9 246	3 543	11 290	3 649	13 721	3 767
		38	4 663	3 589	5 747	3 715	7 049	3 832	8 629	3 949	10 539	4 073	12 817	4 216
iCOOL 12 MHP	min	27	1 758	2 662	2 216	2 649	2 793	2 628	3 524	2 600	4 440	2 566	5 574	2 526
		32	1 636	2 810	2 066	2 791	2 607	2 767	3 296	2 738	4 163	2 706	5 240	2 672
		38	-	-	1 895	2 978	2 397	2 950	3 037	2 921	3 847	2 892	4 859	2 863
		43	-	-	-	-	2 231	3 116	2 834	3 087	3 598	3 061	4 558	3 037
	max	27	5 824	3 245	7 159	3 368	8 784	3 475	10 760	3 574	13 136	3 674	15 952	3 783
		32	5 506	3 541	6 772	3 670	8 306	3 786	10 171	3 897	12 419	4 014	15 093	4 144
		38	5 129	3 948	6 321	4 087	7 754	4 215	9 492	4 344	11 593	4 480	14 099	4 638
iCOOL 15 MHP	min	27	3 095	2 567	3 715	2 710	4 461	2 829	5 377	2 918	6 500	2 974	7 855	2 999
		32	2 721	3 012	3 322	2 938	4 026	3 034	4 895	3 114	5 964	3 175	7 264	3 220
		38	2 399	3 294	2 957	3 334	3 653	3 373	4 360	3 388	5 366	3 448	6 603	3 511
		43	2 152	3 402	2 675	3 600	3 323	3 648	3 952	3 650	4 914	3 703	6 104	3 776
	max	27	9 212	3 432	11 082	3 638	13 299	3 836	14 979	4 027	19 019	4 216	22 627	4 407
		32	8 563	3 710	10 298	3 910	12 355	4 105	13 729	4 297	17 702	4 490	21 119	4 690
		38	7 980	3 824	7 893	6 387	11 318	4 474	12 723	4 665	16 254	4 861	19 464	5 069
43	-	-	7 264	6 812	10 550	4 820	14 542	5 009	15 190	5 207	18 263	5 422		

R134a		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>air</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 17D MHP	min	27	1 877	3 086	2 368	3 070	2 990	3 045	3 780	3 011	4 775	2 968	6 009	2 916
		32	1 747	3 239	2 209	3 217	2 792	3 188	3 535	3 153	4 475	3 112	5 647	3 066
		38	1 598	3 438	2 027	3 409	2 568	3 377	3 258	3 341	4 136	3 303	5 235	3 262
		43	-	-	-	-	2 391	3 548	3 041	3 512	3 868	3 477	4 910	3 441
	max	27	9 635	4 798	11 658	4 978	14 090	5 131	17 018	5 269	20 512	5 402	24 633	5 547
		32	9 011	5 229	10 932	5 414	13 239	5 579	16 017	5 734	19 342	5 891	23 275	6 067
		38	8 300	5 829	10 106	6 022	12 267	6 201	14 870	6 378	17 995	6 566	21 704	6 780
		43	-	-	9 456	6 601	11 499	6 794	13 961	6 990	16 921	7 204	20 446	7 450
iCOOL 21D MHP	min	27	1 877	3 086	2 368	3 070	2 990	3 045	3 780	3 011	4 775	2 968	6 009	2 916
		32	1 747	3 239	2 209	3 217	2 792	3 188	3 535	3 153	4 475	3 112	5 647	3 066
		38	1 598	3 438	2 027	3 409	2 568	3 377	3 258	3 341	4 136	3 303	5 235	3 262
		43	-	-	-	-	2 391	3 548	3 041	3 512	3 868	3 477	4 910	3 441
	max	27	11 692	5 670	14 061	5 901	16 892	6 107	19 072	6 304	24 293	6 507	28 997	6 737
		32	10 909	6 190	13 163	6 428	15 853	6 650	17 690	6 870	22 899	7 106	27 395	7 378
		38	-	-	12 144	7 164	14 668	7 405	16 593	7 654	21 292	7 928	25 540	8 250
		43	-	-	11 344	7 866	13 733	8 123	19 072	8 396	20 009	8 704	24 049	9 068
iCOOL 26D MHP	min	27	3 187	2 454	3 840	2 584	4 633	2 689	5 612	2 762	6 818	2 803	8 281	2 812
		32	2 801	2 882	3 433	2 804	4 178	2 887	5 102	2 952	6 246	2 998	7 643	3 025
		38	2 471	3 159	3 054	3 189	3 787	3 218	4 539	3 222	5 610	3 264	6 933	3 309
		43	2 015	3 305	2 762	3 449	3 442	3 486	4 109	3 477	5 129	3 515	6 396	3 569
	max	27	15 761	7 110	18 441	6 156	22 074	6 441	24 814	6 723	31 464	7 012	37 396	7 318
		32	14 617	7 724	17 142	6 693	20 547	6 978	22 815	7 268	29 399	7 570	35 048	7 898
		38	11 151	12 780	13 131	11 089	18 850	7 722	21 207	8 018	27 101	8 334	32 442	8 684
		43	-	-	-	-	17 569	8 428	24 269	8 727	25 379	9 053	30 507	9 424
iCOOL 29D MHP	min	27	5 830	3 209	7 120	3 234	8 681	3 262	10 558	3 295	12 791	3 334	15 410	3 381
		32	5 146	3 517	6 289	3 541	7 683	3 569	9 375	3 602	11 410	3 642	13 825	3 689
		38	4 403	3 962	5 390	3 984	6 601	4 010	8 088	4 041	9 901	4 078	12 084	4 124
		43	4 035	4 152	4 724	4 415	5 799	4 437	7 130	4 465	8 771	4 499	10 775	4 542
	max	27	17 357	8 340	20 286	7 230	24 240	7 576	27 197	7 924	34 425	8 287	40 856	8 683
		32	16 172	8 954	18 955	7 780	22 683	8 135	25 135	8 500	32 324	8 890	38 466	9 322
		38	12 406	14 585	14 615	12 716	20 952	8 897	23 523	9 285	29 988	9 706	35 816	10 181
		43	-	-	-	-	19 644	9 610	27 078	10 017	28 241	10 467	33 856	10 984

R513A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	T <sub>e</sub> , °C	-15		-10		-5		0		5		10	
		T <sub>a</sub> , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 10 MHP	min	27	2 031	1 052	2 518	1 062	3 107	1 062	3 828	1 054	4 708	1 038	5 772	1 016
		32	1 864	1 132	2 314	1 139	2 858	1 137	3 526	1 129	4 348	1 113	5 348	1 093
		38	1 672	1 269	2 082	1 271	2 576	1 267	3 185	1 256	3 940	1 241	4 867	1 222
		43	1 519	1 417	1 900	1 416	2 356	1 408	2 919	1 396	3 621	1 380	4 490	1 361
	max	27	5 616	3 264	7 062	3 353	8 821	3 450	10 871	3 554	13 191	3 664	15 760	3 779
		32	5 236	3 523	6 560	3 624	8 195	3 731	10 124	3 846	12 327	3 966	14 784	4 091
		38	4 798	3 889	5 983	4 003	7 477	4 124	9 266	4 251	11 333	4 383	13 662	4 519
		43	4 447	4 241	5 524	4 367	6 907	4 498	8 584	4 635	10 543	4 777	12 769	4 923
iCOOL 12 MHP	min	27	2 381	1 387	3 143	1 393	4 039	1 394	5 084	1 390	6 293	1 381	7 676	1 368
		32	2 260	1 493	2 942	1 500	3 755	1 502	4 718	1 499	5 845	1 492	7 149	1 482
		38	2 119	1 663	2 711	1 669	3 432	1 672	4 301	1 670	5 335	1 665	6 548	1 658
		43	2 005	1 839	2 528	1 846	3 177	1 848	3 973	1 847	4 933	1 844	6 074	1 839
	max	27	6 178	3 590	7 768	3 688	9 703	3 795	11 958	3 909	14 510	4 030	17 336	4 157
		32	5 760	3 875	7 216	3 986	9 015	4 104	11 136	4 231	13 560	4 363	16 262	4 500
		38	5 278	4 278	6 581	4 403	8 225	4 536	10 193	4 676	12 466	4 821	15 028	4 971
		43	4 892	4 665	6 076	4 804	7 598	4 948	9 442	5 099	11 597	5 255	14 046	5 415
iCOOL 15 MHP	min	27	3 283	2 840	4 031	2 968	4 928	3 090	5 976	3 192	7 180	3 262	8 677	3 290
		32	2 846	3 296	3 539	3 192	4 369	3 289	5 360	3 380	6 512	3 451	7 931	3 500
		38	2 468	3 569	3 078	3 592	3 875	3 630	4 682	3 647	5 770	3 710	7 100	3 778
		43	2 195	3 648	2 729	3 861	3 454	3 906	4 169	3 906	5 213	3 955	6 476	4 033
	max	27	9 770	3 797	12 025	3 984	14 691	4 189	16 647	4 405	21 008	4 625	24 994	4 835
		32	8 956	4 060	10 972	4 248	13 409	4 450	15 033	4 664	19 328	4 880	23 059	5 097
		38	8 211	4 144	8 217	6 882	12 005	4 815	13 662	5 022	17 479	5 231	20 930	5 455
		43	-	-	7 410	7 306	10 964	5 161	15 341	5 361	16 115	5 561	19 375	5 790
iCOOL 17D MHP	min	27	2 064	1 280	2 565	1 288	3 175	1 287	3 925	1 277	4 847	1 257	5 966	1 230
		32	1 894	1 355	2 357	1 360	2 919	1 356	3 614	1 343	4 472	1 324	5 523	1 297
		38	1 700	1 485	2 121	1 485	2 631	1 477	3 263	1 463	4 050	1 442	5 021	1 415
		43	-	-	1 936	1 624	2 406	1 612	2 990	1 595	3 721	1 572	4 629	1 545
	max	27	9 123	5 121	11 536	5 224	14 478	5 224	17 914	5 508	21 807	5 685	26 119	5 879
		32	8 552	5 520	10 743	5 645	13 464	5 645	16 685	5 966	20 373	6 158	24 495	6 367
		38	7 890	6 091	9 830	6 240	12 300	6 240	15 274	6 603	18 726	6 814	22 627	7 039
		43	7 357	6 644	9 103	6 814	11 375	6 814	14 153	7 212	17 416	7 437	21 141	7 675
iCOOL 21D MHP	min	27	2 064	1 280	2 565	1 288	3 175	1 287	3 925	1 277	4 847	1 257	5 966	1 230
		32	1 894	1 355	2 357	1 360	2 919	1 356	3 614	1 343	4 472	1 324	5 523	1 297
		38	1 700	1 485	2 121	1 485	2 631	1 477	3 263	1 463	4 050	1 442	5 021	1 415
		43	-	-	1 936	1 624	2 406	1 612	2 990	1 595	3 721	1 572	4 629	1 545
	max	27	10 765	6 104	13 550	6 243	16 941	6 425	20 889	6 649	25 348	6 910	30 274	7 203
		32	10 098	6 593	12 622	6 762	15 756	6 970	19 457	7 219	23 685	7 502	28 399	7 816
		38	9 323	7 294	11 551	7 495	14 392	7 735	17 810	8 011	21 770	8 320	26 239	8 659
		43	8 697	7 974	10 696	8 203	13 306	8 467	16 498	8 765	20 244	9 096	24 517	9 455

R513A		Capacity (subcooling: 3 K, superheat: 10 K)												
Model	Range	$T_e$ , °C	-15		-10		-5		0		5		10	
		$T_a$ , °C	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W	Q, W	Pe, W
iCOOL 26D MHP	min	27	3 380	2 715	4 167	2 830	5 118	2 937	6 237	3 021	7 531	3 075	9 147	3 085
		32	2 930	3 154	3 658	3 046	4 534	3 129	5 586	3 204	6 820	3 258	8 345	3 288
		38	2 543	3 423	3 179	3 436	4 017	3 463	4 874	3 468	6 033	3 512	7 455	3 561
		43	-	-	2 818	3 699	3 577	3 732	4 335	3 721	5 441	3 754	6 785	3 812
	max	27	16 716	7 867	20 011	6 741	24 385	7 034	27 576	7 354	34 755	7 692	41 307	8 028
		32	15 289	8 453	18 264	7 271	22 299	7 564	24 982	7 890	32 099	8 228	38 267	8 584
		38	11 474	13 848	13 670	11 949	19 995	8 310	22 773	8 631	29 143	8 968	34 886	9 345
		43	10 397	14 775	12 306	12 839	18 259	9 024	25 602	9 340	26 924	9 668	32 364	10 064
iCOOL 29D MHP	min	27	6 183	3 551	7 726	3 541	9 590	3 562	11 733	3 604	14 129	3 657	17 022	3 709
		32	5 382	3 849	6 701	3 847	8 338	3 869	10 265	3 910	12 458	3 958	15 095	4 009
		38	4 530	4 293	5 611	4 293	7 002	4 316	8 685	4 350	10 647	4 388	12 994	4 438
		43	4 157	4 468	4 819	4 735	6 027	4 751	7 522	4 778	9 305	4 805	11 431	4 851
	max	27	18 409	9 227	22 013	7 917	26 778	8 274	30 225	8 668	38 026	9 091	45 129	9 525
		32	16 915	9 799	20 196	8 451	24 617	8 818	27 522	9 227	35 293	9 662	41 999	10 132
		38	12 765	10 245	15 215	9 053	22 224	9 575	25 260	9 995	32 248	10 444	38 514	10 956
		43	11 619	11 004	14 242	9 264	20 416	10 290	28 566	10 721	29 960	11 178	35 917	11 730

$T_e$  – evaporating temperature, °C

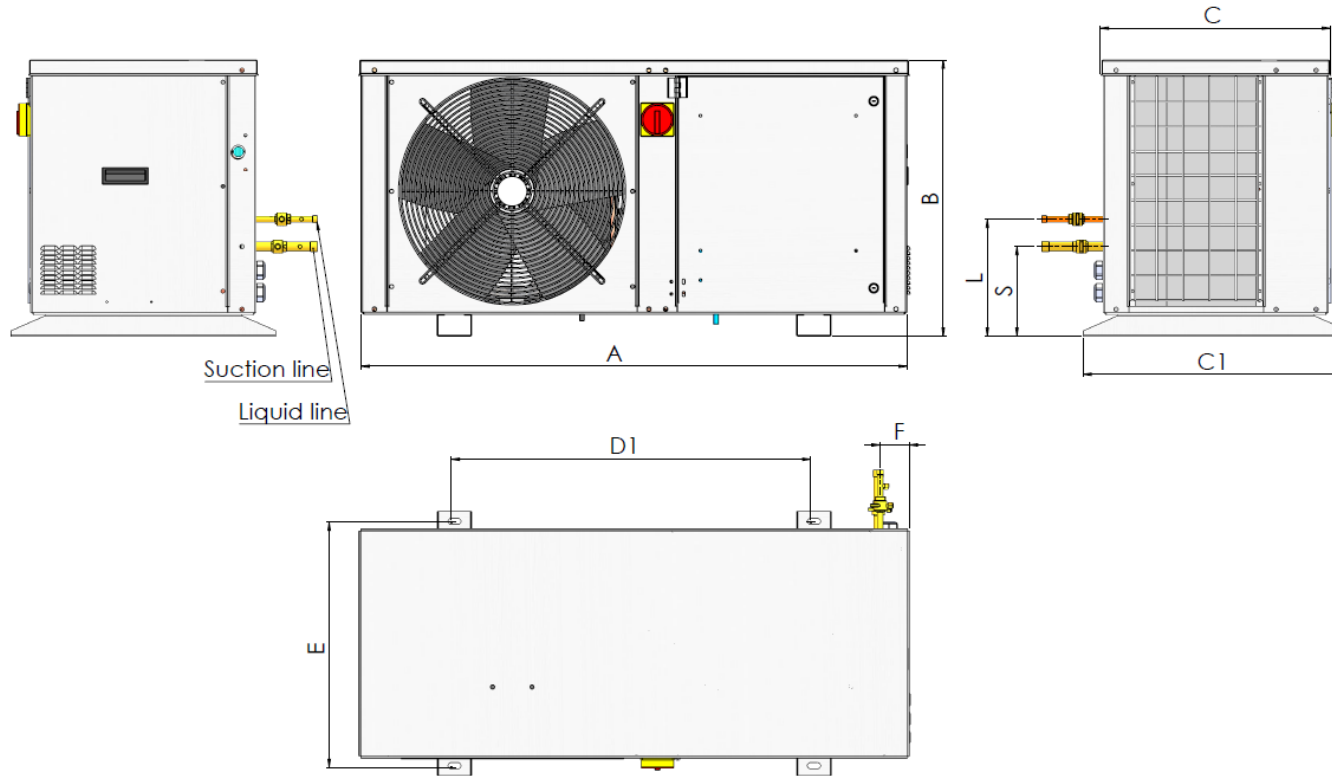
$T_a$  – ambient temperature, °C

(\*)

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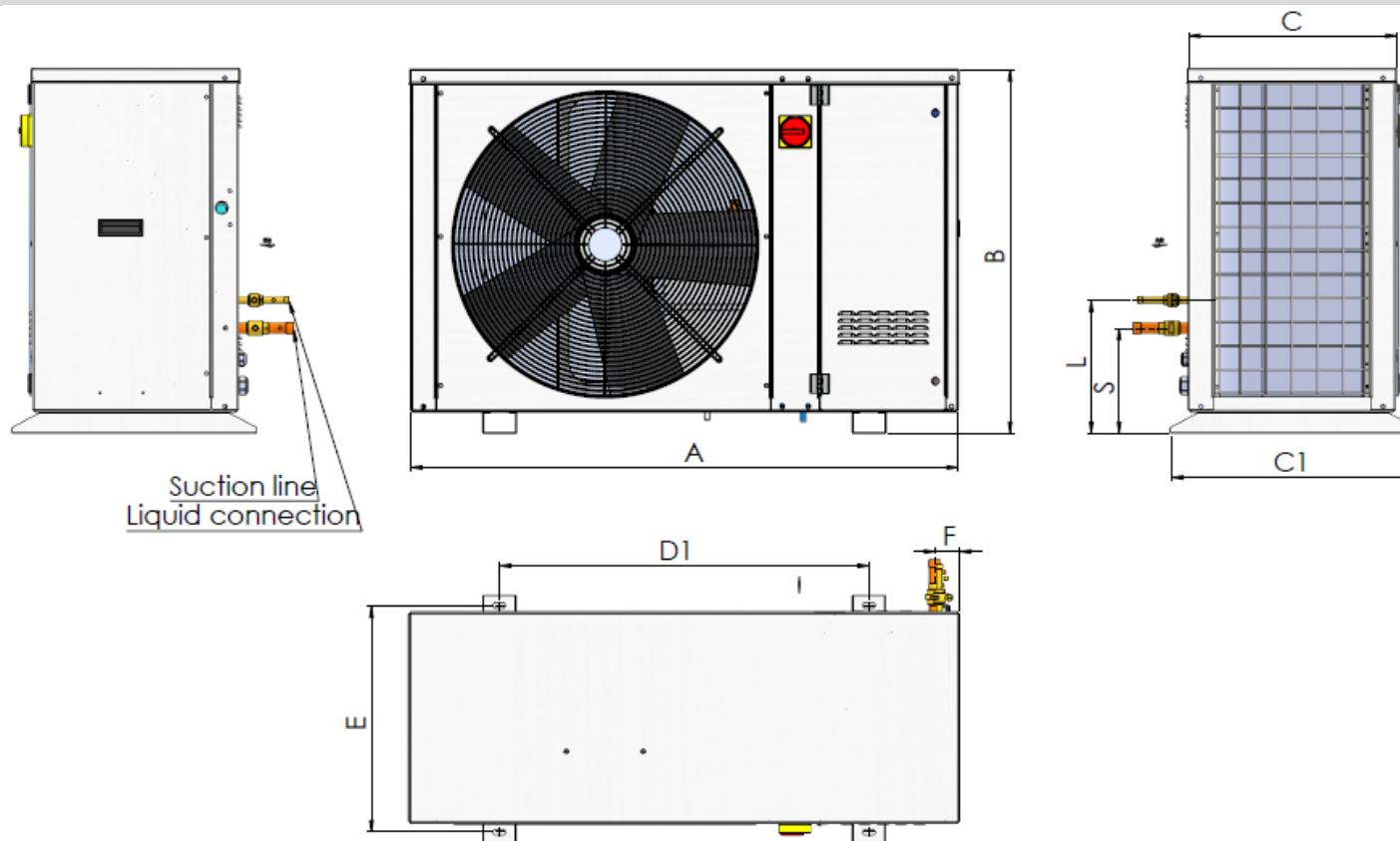
## 6. Units drawings

### 6.1. iCOOL 4.5 MHP, 3 MP



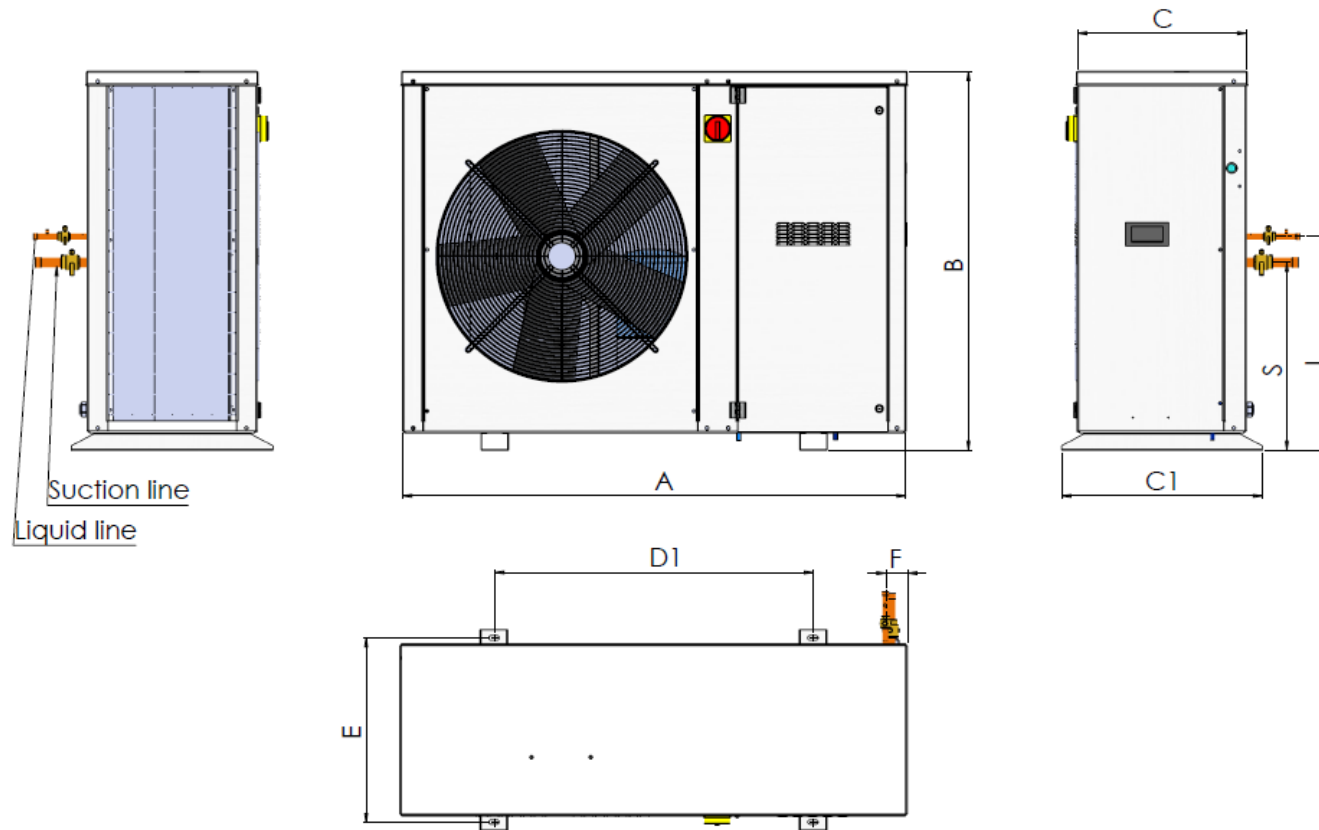
A	1106	mm	E	496	mm
B	560	mm	F	50	mm
C	466	mm	S	150	mm
C1	536	mm	L	240	mm
D1	728	mm			

6.2. iCOOL 7 MHP



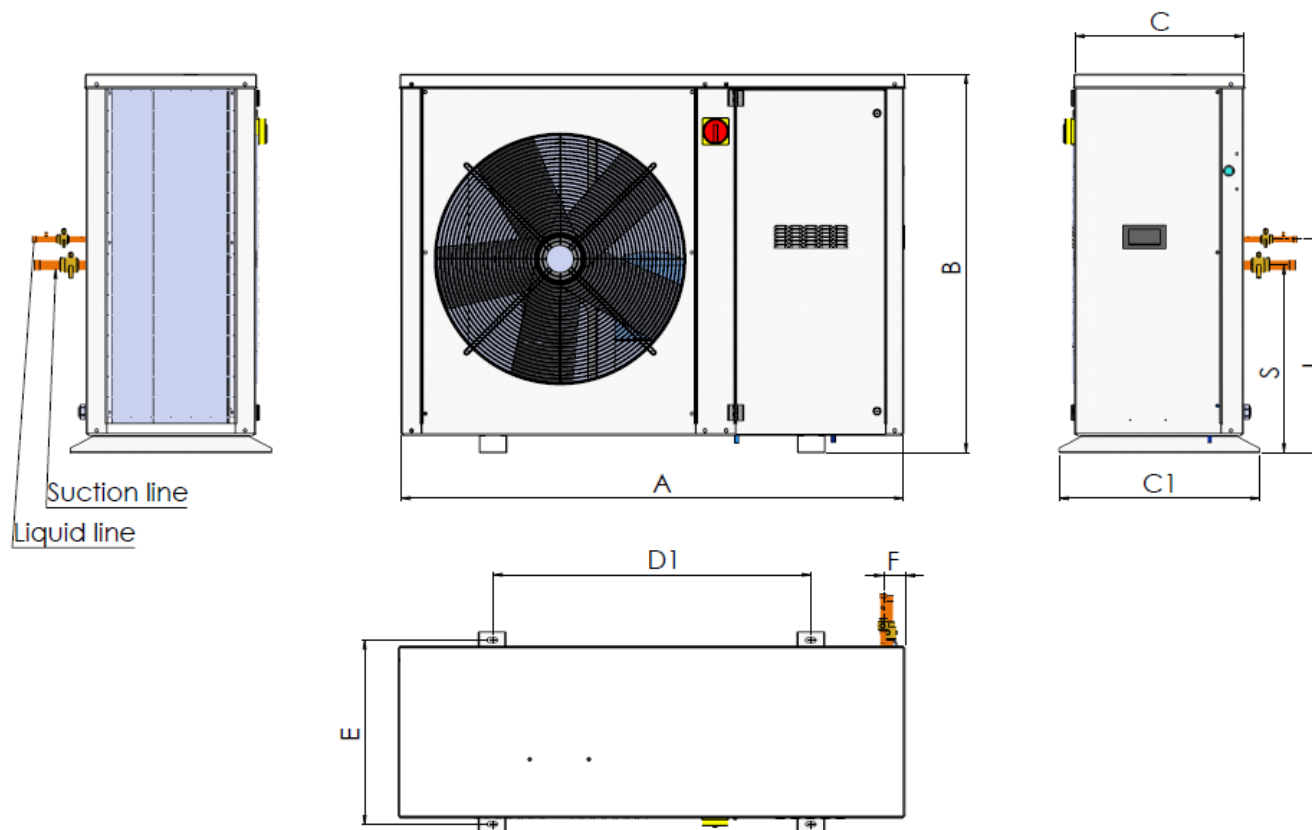
A	1140	mm	E	470	mm
B	760	mm	F	50	mm
C	430	mm	S	217	mm
C1	510	mm	L	277	mm
D1	770	mm			

6.3. iCOOL 10 MHP



A	1289	mm	E	470	mm
B	963	mm	F	57	mm
C	439	mm	S	478	mm
C1	510	mm	L	539	mm
D1	810	mm			

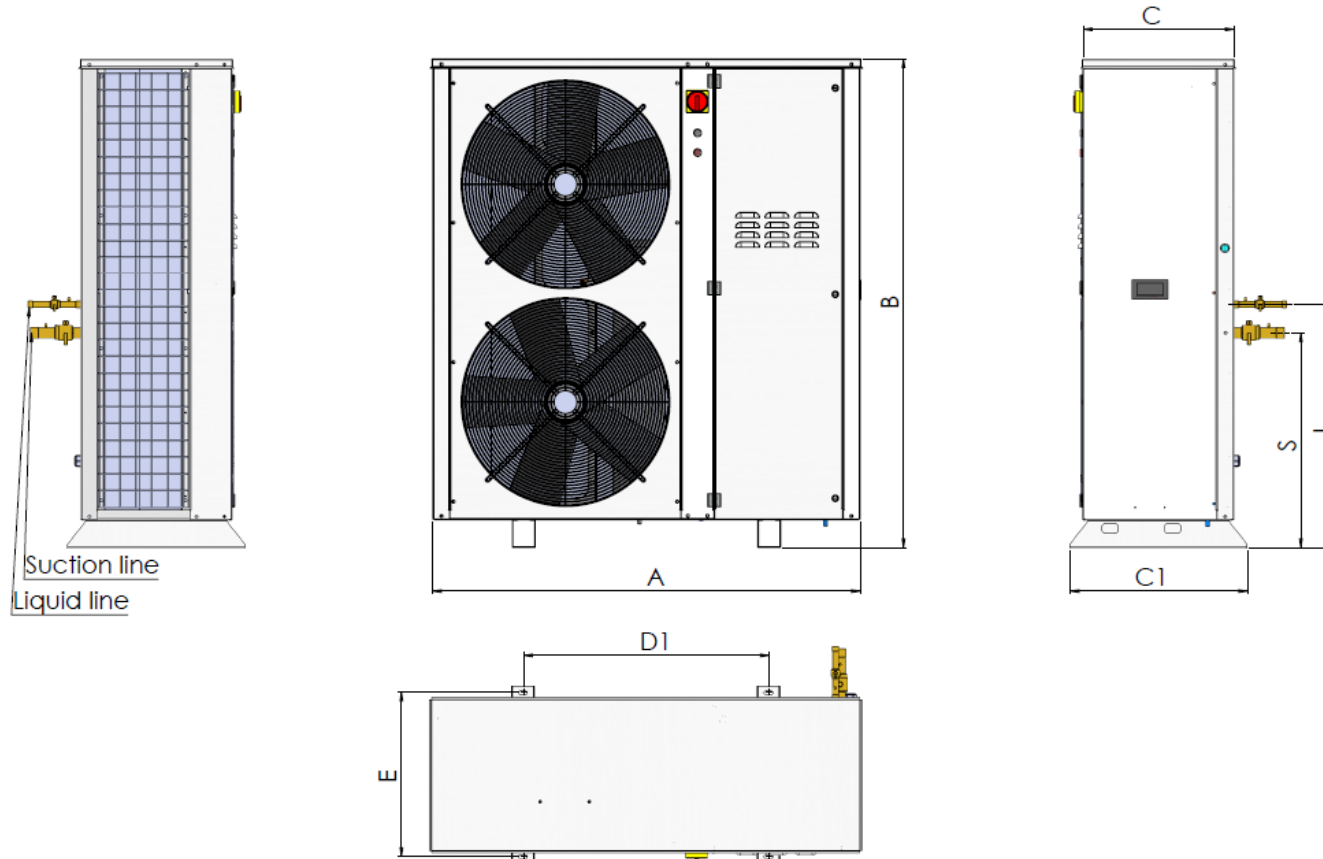
6.4. iCOOL 12 MHP



A	1420	mm	E	470	mm
B	963	mm	F	50	mm
C	434	mm	S	478	mm
C1	510	mm	L	545	mm
D1	950	mm			

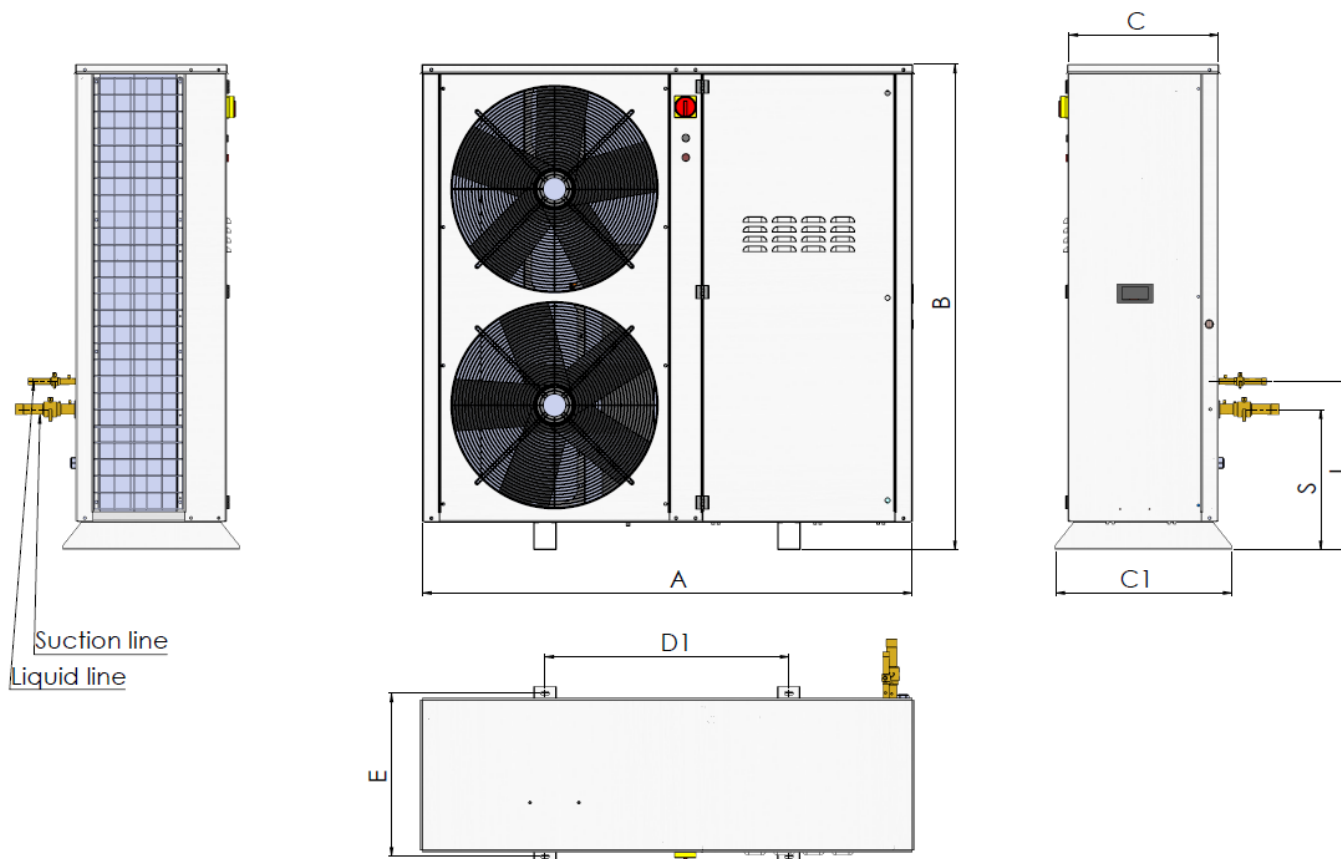


6.5. iCOOL 10 MP, 15 MHP



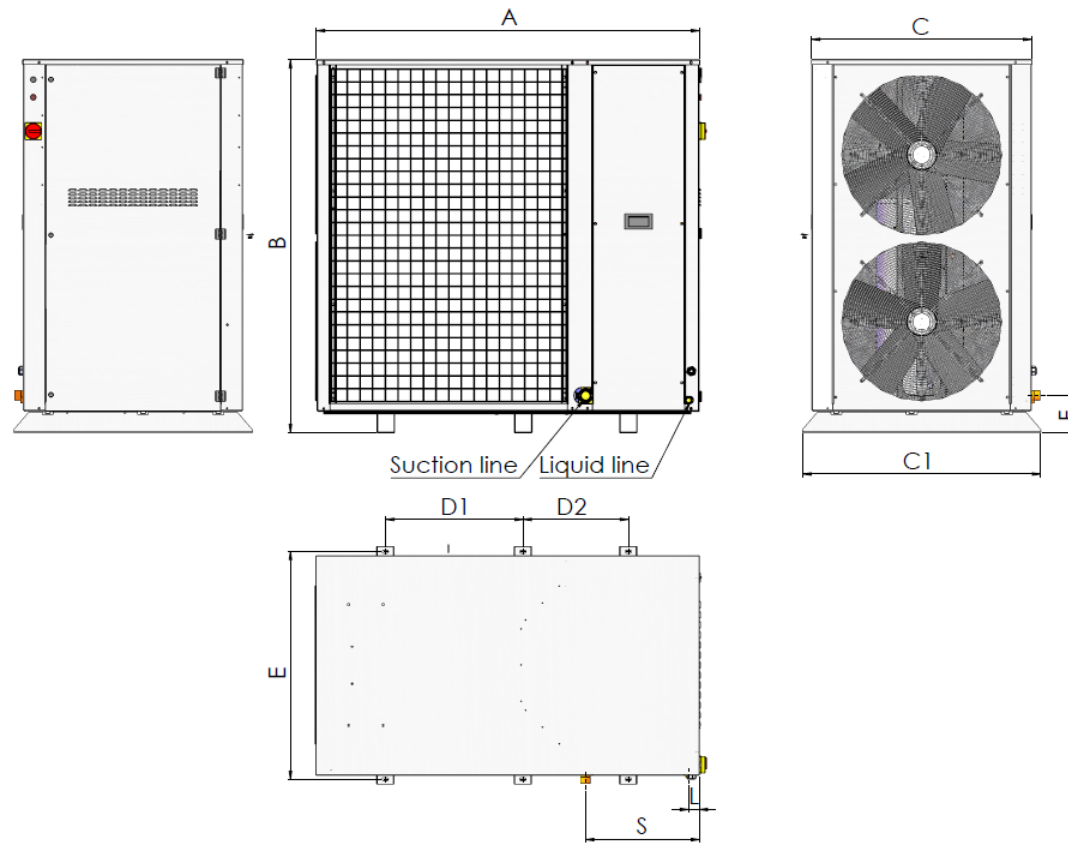
A	1322	mm	E	501	mm
B	1493	mm	F	78	mm
C	475	mm	S	658	mm
C1	541	mm	L	742	mm
D1	751	mm			

6.6. iCOOL 17D MHP, 21D MHP,



A	1521	mm	E	501	mm
B	1493	mm	F	69	mm
C	475	mm	S	519	mm
C1	541	mm	L	430	mm
D1	751	mm			

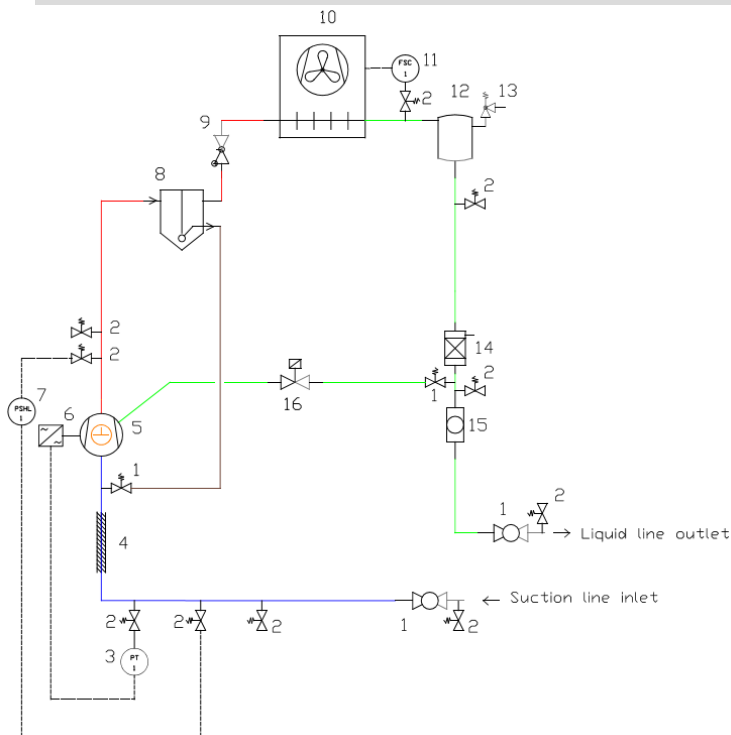
6.7. iCOOL 17D MP, 26D MHP, 29D MHP



A	1528	mm	E	910	mm
B	1488	mm	F	148	mm
C	879	mm	S	455	mm
C1	950	mm	L	44	mm
D1	549	mm	D2	420	mm

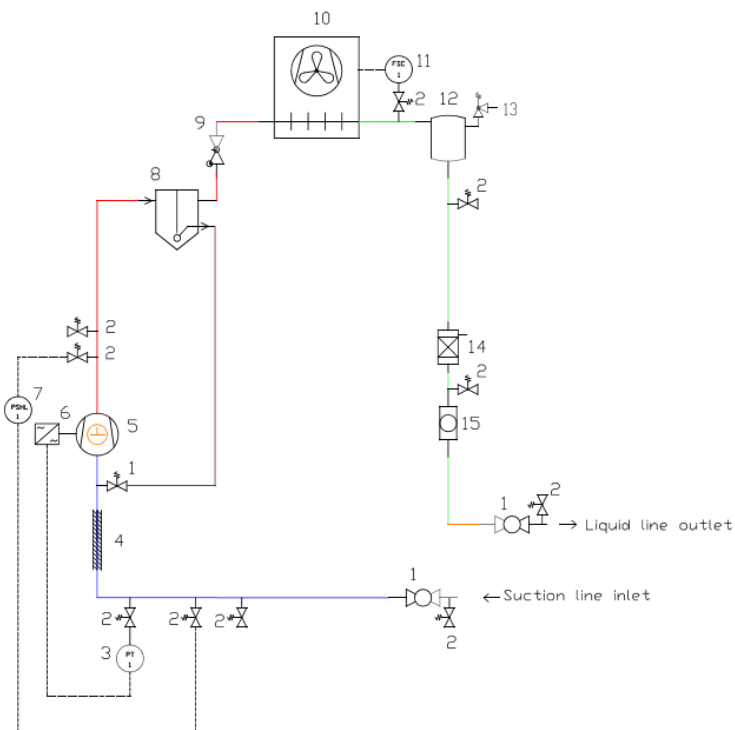
## 7. Schematic diagrams

### 7.1. iCOOL 3 MP



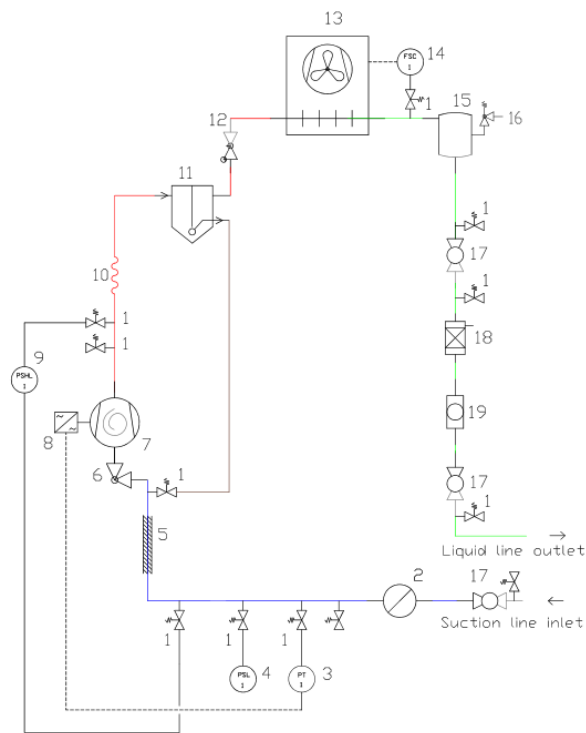
1	Ball valve
2	Schreader valve
3	LP pressure transducer
4	Insulation
5	Compressor
6	Inverter
7	LP/HP pressure switch
8	Oil separator
9	Check valve
10	Condenser with fan
11	Fan speed controller
12	Liquid receiver
13	Safety valve
14	Filter drier
15	Sight glass
16	Solenoid valve

### 7.2. iCOOL 4.5 / 7 MHP



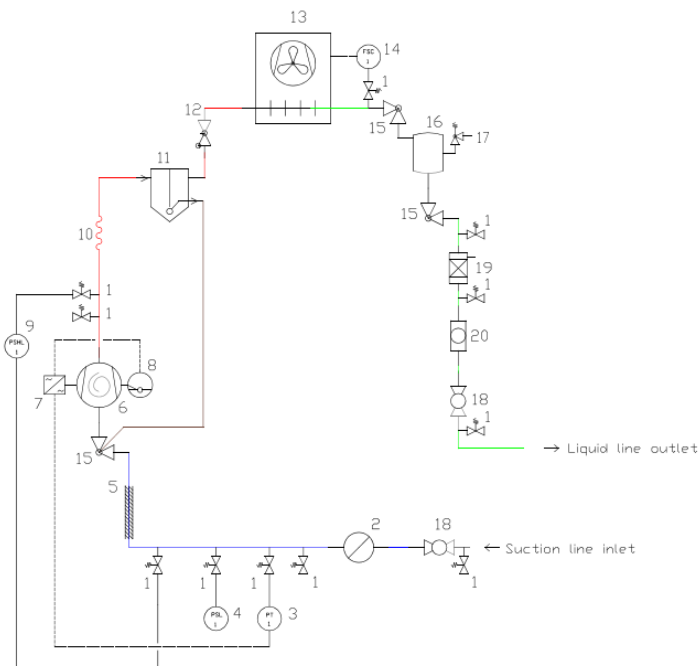
1	Ball valve
2	Schreader valve
3	LP pressure transducer
4	Insulation
5	Compressor
6	Inverter
7	LP/HP pressure switch
8	Oil separator
9	Check valve
10	Condenser with fan
11	Fan speed controller
12	Liquid receiver
13	Safety valve
14	Filter drier
15	Sight glass

7.3. iCOOL 10 MHP



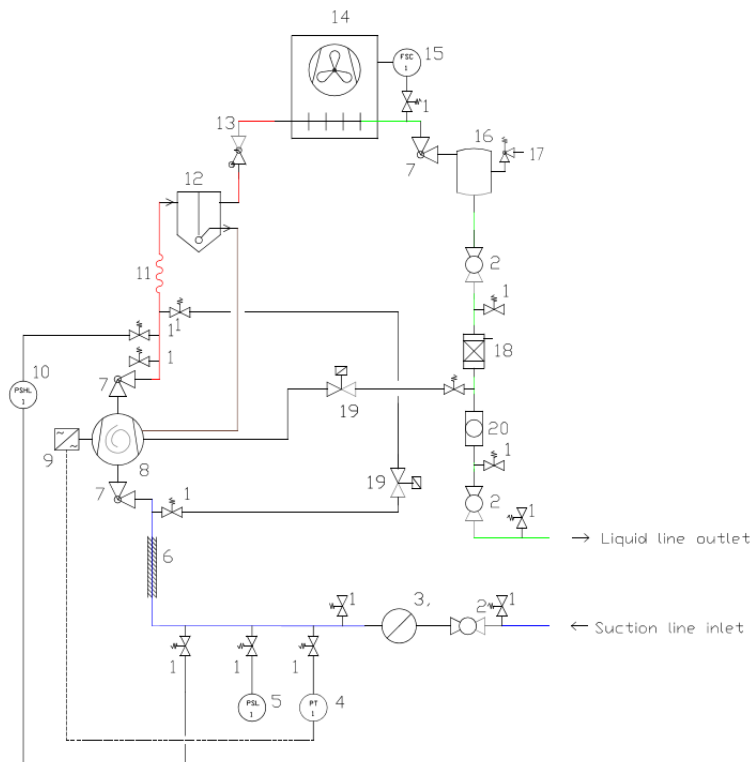
1	Schraeder valve
2	Suction separator
3	LP pressure transducer
4	Pressure switch LP
5	Suction insulation
6	Rotalock valve
7	Compressor
8	Inverter
9	Dual pressure switch LP/HP
10	Oil separator
11	Check valve
12	Condenser with fan
13	Fan speed controller
14	Liquid receiver
15	Safety valve
16	Ball valve
17	Filter drier
18	Sight glass

7.4. iCOOL 12 MHP



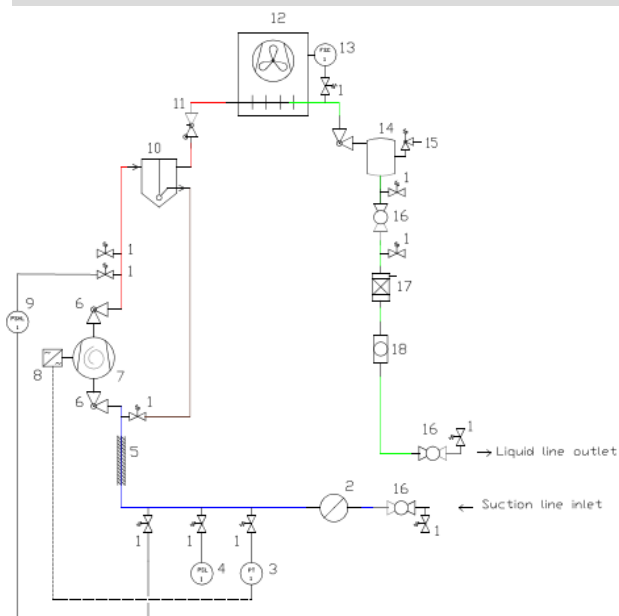
1	Schraeder valve
2	Suction separator
3	LP pressure transducer
4	Pressure switch LP
5	Suction insulation
6	Compressor
7	Inverter
8	Oil level sensor
9	Dual pressure switch LP/HP
10	Vibration absorber
11	Oil separator
12	Check valve
13	Condenser with fan
14	Fan speed controller
15	Rotalock valve
16	Liquid receiver
17	Safety valve
18	Ball valve
19	Filter drier
20	Sight glass

## 7.5. iCOOL 10 MP



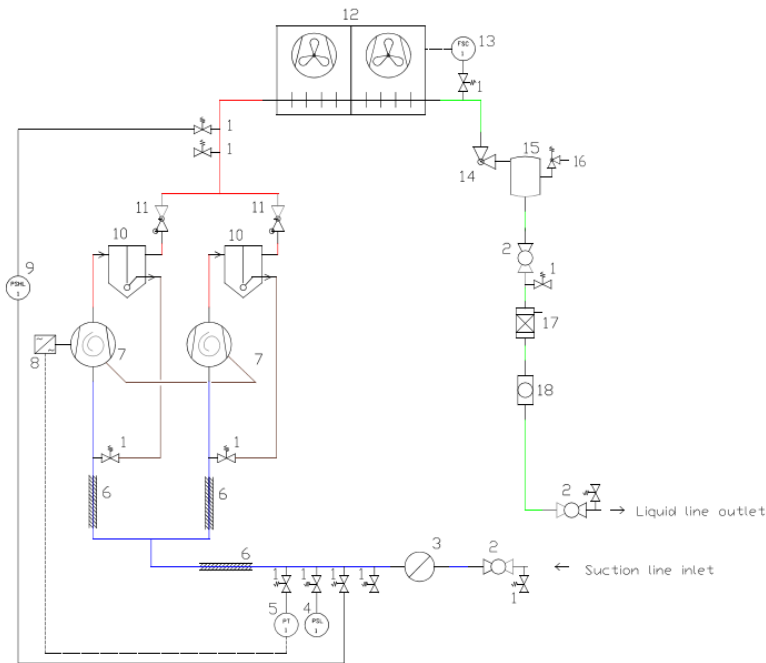
1	Schraeder valve
2	Ball valve
3	Suction separator
4	Suction pressure transducer
5	Pressure switch LP
6	Suction insulation
7	Rotalock valve
8	Compressor
9	Inverter
10	Dual pressure switch LP/HP
11	Vibration absorber
12	Oil separator
13	Check valve
14	Condenser with fan
15	Fan speed controller
16	Liquid receiver
17	Safety valve
18	Filter drier
19	Solenoid valve NC
20	Sight glass

## 7.6. iCOOL 15D MHP



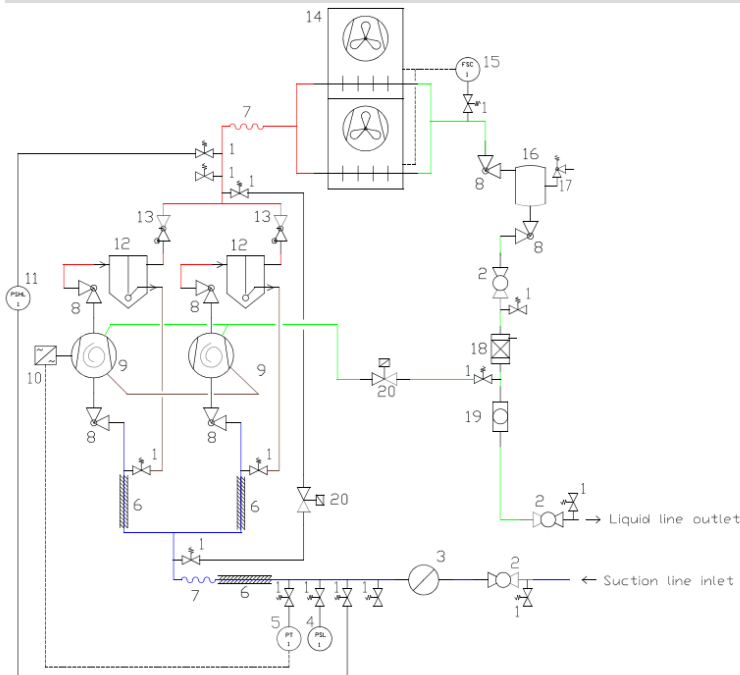
1	Schraeder valve
2	Suction separator
3	Suction pressure transducer
4	Pressure switch LP
5	Suction insulation
6	Suction insulation
7	Compressor
8	Inverter
9	Dual pressure switch LP/HP
10	Oil separator
11	Check valve
12	Condenser with fan
13	Fan speed controller
14	Liquid receiver
15	Safety valve
16	Ball valve
17	Filter drier
18	Sight glass

7.7. iCOOL 17D MHP, 21D MHP



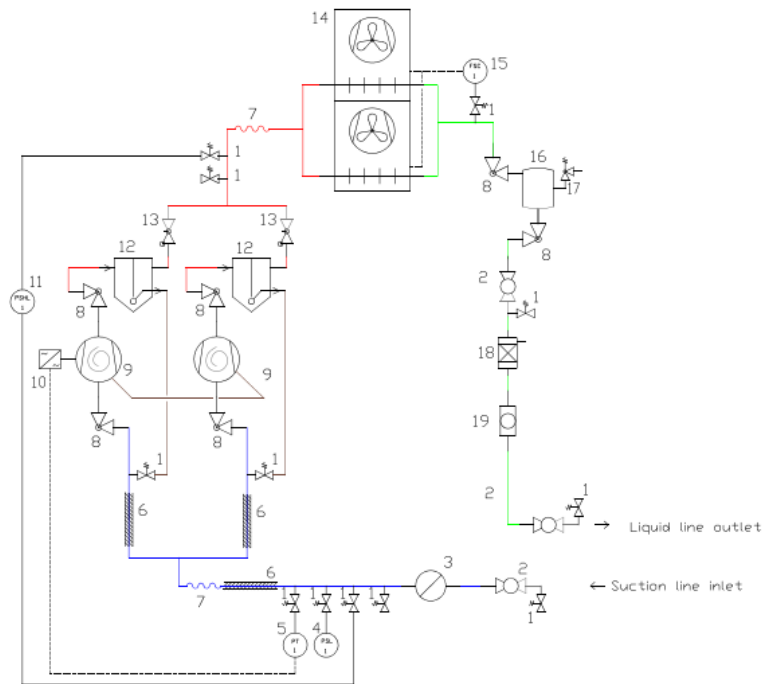
- |    |                             |
|----|-----------------------------|
| 1  | Schraeder valve             |
| 2  | Ball valve                  |
| 3  | Suction separator           |
| 4  | Pressure switch LP          |
| 5  | Suction pressure transducer |
| 6  | Suction insulation          |
| 7  | Compressor                  |
| 8  | Inverter                    |
| 9  | Dual pressure switch LP/HP  |
| 10 | Oil separator               |
| 11 | Check valve                 |
| 12 | Condenser with fan          |
| 13 | Fan speed controller        |
| 14 | Rotalock valve              |
| 15 | Liquid receiver             |
| 16 | Safety valve                |
| 17 | Filter drier                |
| 18 | Sight glass                 |

7.8. iCOOL 17D MP



- |    |                             |
|----|-----------------------------|
| 1  | Schraeder valve             |
| 2  | Ball valve                  |
| 3  | Suction separator           |
| 4  | Pressure switch LP          |
| 5  | Suction pressure transducer |
| 6  | Suction insulation          |
| 7  | Vibration absorber          |
| 8  | Rotalock valve              |
| 9  | Compressor                  |
| 10 | Inverter                    |
| 11 | Dual pressure switch LP/HP  |
| 12 | Oil separator               |
| 13 | Check valve                 |
| 14 | Condenser with fan          |
| 15 | Fan speed controller        |
| 16 | Liquid receiver             |
| 17 | Safety valve                |
| 18 | Filter drier                |
| 19 | Sight glass                 |
| 20 | Solenoid valve              |

## 7.9. iCOOL 26D MHP, 29D MHP



1	Schraeder valve
2	Ball valve
3	Suction separator
4	Pressure switch LP
5	Suction pressure transducer
6	Suction insulation
7	Vibration absorber
8	Rotalock valve
9	Compressor
10	Inverter
11	Dual pressure switch LP/HP
12	Oil separator
13	Check valve
14	Condenser with fan
15	Fan speed controller
16	Liquid receiver
17	Safety valve
18	Filter drier
19	Sight glass

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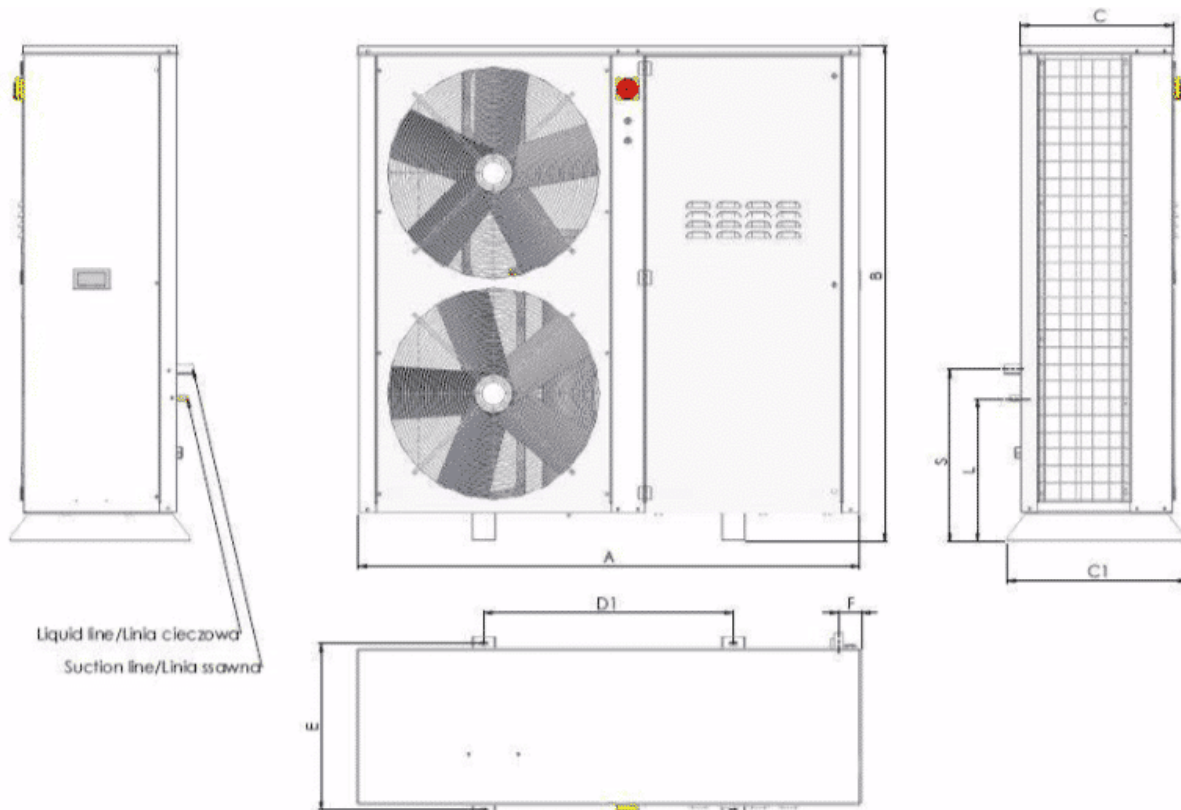
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 [www.areacooling.dk](http://www.areacooling.dk)



Liquid line/Linia cieczowa  
Suction line/Linia ssawna

A	1521	mm	E	501	mm
B	1493	mm	F	69	mm
C	475	mm	S	519	mm
C1	541	mm	L	430	mm
D1	751	mm			