

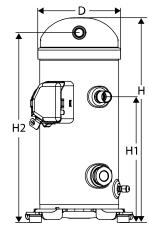
Datasheet, technical data

Danfoss scroll compressor, VZH052CH

General Characteristics

Model number (on compressor nameplate)	VZH052CHANB		
Code number for Singlepack*	120G0147		
Code number for Industrial pack**	120G0141		
Drawing number	8590007		
Suction and discharge connections	Brazed		
Suction connection	7/8 " ODF		
Discharge connection	3/4 " ODF		
Oil sight glass	None		
Oil equalization connection	None		
Oil drain connection	1/4" flare		
LP gauge port	None		
IPR valve	None		
Swept volume	3.18 in3/rev		
Displacement @ Nominal speed	397.4 m3/h @ 3600 rpm		
Net weight	77 lbs		
Oil charge	53 oz, PVE - FVC32D		
Maximum number of starts per hour	12		
Refrigerant charge limit	12 lbs		
Approved refrigerants	R410A		

Dimensions



Electrical Characteristics

Nominal voltage	Supply voltage 525-600V/3/50-60Hz
Voltage range	473-660 V supply to frequency converter
Winding resistance (between phases) +/- 7% at 77°F	0.177 Ω
Rated Load Amps (RLA)	22.6 A
Motor protection	Motor protection by frequency converter

D=7.2 inch, H=17.9 inch, H1=11 inch, H2=16.6 inch, H3=- inch

Terminal box

Recommended Installation torques

Oil sight glass	39 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs
Mounting bolts	8 ft.lbs

Parts shipped with compressor

Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals: CE certified, UL certified (file SA6873), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)



IP22

- 1: Power connections
- 2: Earth connection
- 3: EMC braket with shielded cable

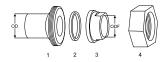


Datasheet, accessories and spare parts

Danfoss scroll compressor, VZH052CH

Rotolock accessories, suction side	Code no.
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131
Rotolock accessories, discharge side	Code no.
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131
Rotolock accessories, sets	Code no.
Solder sleeve adapter set (1-1/4"~7/8"), (1-1/4"~3/4")	120Z0128
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009
Oil / lubricants	Code no.
Crankcase heaters	Code no.
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 460 V, UL	120Z5012
Belt type crankcase heater, 70 W, 575 V, UL	120Z5013
Miscellaneous accessories	Code no.
Acoustic hood	120Z5084
Spare parts	Code no.
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers, 2 grounding screws	120Z0622
Terminal box cover	120Z5018

Solder sleeve adapter set



- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)



Danfoss scroll compressor. VZH052CH

Performance data at 17 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ating temperature i	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	y in Btu/h	1	T		1	1	1		ı
45	-	-	-	-	-	-	-	-	-
60	-	-	-	9 940	12 693	17 150	23 841	-	-
70	-	-	-	9 069	12 005	16 702	23 655	-	-
90	-	-	-	6 410	9 675	14 804	22 215	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
ower input in V	Α/								
45	-	-	_	_	_	_	_	_	_
60		-	_	636	591	533	476	<u>-</u>	_
70	-	-	-	766	719	653	576	<u> </u>	_
90		-	_	1 054	1 017	956	864	<u>-</u>	_
100		-	_	-	-	-	-		_
110	-	-	_	-	-	-	-	-	-
130	-	-	_	-	_	-	_	-	_
130	<u> </u>	<u> </u>	<u> </u>	<u> </u>				<u> </u>	
urrent consum	nption in A								
45	-	-	-	-	_	-	-	-	-
60	-	_	_	0.60	0.52	0.38	0.10	-	_
70	-	_	_	0.84	0.79	0.72	0.54	-	-
90	-	_	_	1.10	1.11	1.12	1.10	_	_
100	-	-	-	-	-	-	-	-	_
110	-	-	_	-	-	_	_	-	_
130	-	-	-	_	_	_	-	-	-
			I	1			1		·
lass flow in lbs	s/h								
45	-	-	-	-	-	-	-	-	-
60	-	-	-	107	135	179	246	-	-
70	-	-	-	102	133	181	252	-	-
90	-	-	-	79	118	176	259	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
l .		•	•	•	•	•			•
nergy Efficiend	cy Ratio (E.E.R	.)							
45	-	-	-	-	-	-	-	-	-
60	-	-	-	15.63	21.48	32.15	50.06	-	-
00	-	-	-	11.85	16.70	25.56	41.06	-	-
70		1	_	6.08	9.51	15.49	25.70	-	-
-	-	-	-						
70	-	-	-	-	-	-	-	-	-
70 90			1	+	-	-	-	-	-

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
E.E.R.	-				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 20 Hz, ARI rating conditions

R410A

Cond. temp.	. Evaporating temperature in °F (to)								
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
cooling capacity		ı			ı	1			
45 60	<u>-</u>	-	-	12 097	- 15 368	20 733	-	-	-
70	-	-	-		14 525		28 921 28 591	<u> </u>	
90	-	-	-	11 073		20 133	1	-	-
	-	-	-	8 052	11 817	17 835	26 730	<u> </u>	-
100									
110	-	-	-	-	-	-	-	-	-
130	<u>-</u>	-	-	-	-	-	-	-	-
ower input in W	1								
45	-	-	-	-	-	-	-	-	-
60	-	-	-	752	708	626	459	-	-
70	-	-	-	891	850	776	627	-	-
90	-	-	-	1 205	1 174	1 120	1 008	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
45	ption in A -	-	_	-	-	-	_	-	-
60	-	-	_	0.85	0.78	0.61	0.22		_
70	-	-	-	1.08	1.05	0.96	0.70	-	-
90	_	_	_	1.40	1.40	1.41	1.35	-	_
100	-	-	-	-	-	-	-	-	_
110	-	_	_	-	_	-	-	-	_
130	_	-	-	-	-	-	_	-	_
100			ı		l	II.			
lass flow in lbs	/h	1	1	•	1	T	1		1
45	-	-	-	-	-	-	-	-	-
60	-	-	-	131	164	217	298	-	-
70	-	-	-	124	161	219	305	-	-
90	-	-	-	99	144	212	312	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
Energy Efficienc	v Ratio (E.F.R.))							
45	-	-	_	-	-	-	-	-	_
60	-	-	-	16.08	21.70	33.14	62.98	-	-
70	-	-	-	12.43	17.08	25.93	45.59	-	_
90		-	_	6.68	10.06	15.92	26.52		_
100	-	_	_	-	-	-	-		_
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
100	-								

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
E.E.R.	-				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 25 Hz, ARI rating conditions

R410A

Cond. temp. in °F (tc)	25	4.5	_		ting temperature		50	00	
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacit	y in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	-	-	15 349	19 403	26 151	36 625	-	-
70	-	-	-	14 100	18 333	25 321	36 067	-	-
90	-	-	-	10 557	15 072	22 431	33 571	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
ower input in \	N								
45	-	-	-	-	-	-	-	-	-
60	-	-	-	934	890	772	450	-	-
70	-	-	-	1 086	1 055	969	716	-	-
90	-	-	-	1 440	1 419	1 375	1 233	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
urrent consun	nption in A		1	T		1			1
45	-	-	-	-	-	-	-	-	-
60	-	-	-	1.22	1.16	0.97	0.42	-	-
70	-	-	-	1.45	1.42	1.32	0.95	-	-
90	-	-	-	1.85	1.85	1.85	1.72	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
lass flow in lbs	s/h								
45	-	-	-	-	-	-	-	-	-
60	-	-	-	166	207	274	377	-	-
70	-	-	-	158	203	275	385	-	-
90	-	-	-	130	183	267	392	-	-
100	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-
nergy Efficien	cy Ratio (E.E.R.	.)							
45	-	-	-	-	-	-	-	-	-
60	-	-	-	16.44	21.79	33.88	81.32	-	-
70	-	-	-	12.98	17.38	26.14	50.35	-	-
90	-	-	-	7.33	10.62	16.31	27.23	-	-
100	-	-	_	-	-	-	-	-	_
		+	+		-				
110	-	-	-	-	-	_	_	-	-

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
E.E.R.	-				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 30 Hz, ARI rating conditions

R410A

Cond. temp.	Evaporating temperature in °F (to)								
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
cooling capacity		T	T		T	1			1
45	-	-	-	-	-	-	-	-	-
60	-	10 065	14 148	18 580	23 417	31 553	44 334	-	-
70	-	8 217	12 499	17 118	22 127	30 497	43 542	-	-
90	-	-	8 189	13 082	18 340	27 031	40 409	-	-
100	-	-	-	10 578	15 911	24 689	38 137	-	-
110	-	-	-	-	13 171	21 988	35 440	-	-
130	-	-	-	-	-	-	-	-	-
ower input in W	ı								
45	-	-	-	-	-	-	-	-	-
60	-	1 149	1 138	1 121	1 078	926	462	-	-
70	-	1 317	1 300	1 289	1 266	1 168	820	-	-
90	-	-	1 712	1 685	1 672	1 638	1 467	-	-
100	-	-	-	1 940	1 917	1 893	1 781	-	-
110	-	-	-	_	2 209	2 180	2 108	-	-
130	-	-	-	-	-	-	-	-	-
urrent consum 45	ption in A	_	_	_	_	_	_	-	I _
60	_	1.66	1.62	1.59	1.53	1.32	0.63	_	_
70		1.87	1.83	1.82	1.80	1.69	1.20	-	_
90		-	2.33	2.30	2.30	2.29	2.10		_
100	<u>-</u>	-	-	2.61	2.59	2.60	2.49	-	_
110	-	-	-	2.01	2.96	2.00	2.49	-	-
130	<u>-</u>	-	-	-	2.90	2.94	2.00	-	-
130	-	-	-	<u>-</u>	-	-	-	-	-
lass flow in lbs/	'h								•
45	-	-	-	-	-	-	-	-	-
60	-	111	155	201	250	331	457	-	-
70	-	95	143	192	245	332	465	-	-
90	-	-	103	161	223	322	472		-
100	-	-	-	137	204	310	469	-	-
110	-	-	-	-	178	292	460		-
130	-	-	-	-	-	-	-	-	-
inergy Efficienc	v Ratio /E E B	1							
45		., _	_	_	-	-	_	_	_
60	-	8.76	12.43	16.58	21.72	34.07	96.00	-	_
70	_	6.24	9.62	13.28	17.48	26.12	53.08	-	_
90		-	4.78	7.76	10.97	16.50	27.55	-	-
100	-	-	-	5.45	8.30	13.04	21.41	-	
110	-	-	_	-	5.96	10.08	16.81	-	-
130	-	-	-	-	5.96	-	-	-	-
130		-		-	-		-	-	

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
E.E.R.	-				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 35 Hz, ARI rating conditions

R410A

Cond. temp.	Evaporating temperature in °F (to)								
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
Cooling capacity	in Rtu/h								
45	-	-	-	_	-	_	_	-	-
60	-	12 012	16 679	21 790	27 410	36 940	52 049	-	_
70	-	9 979	14 838	20 125	25 909	35 660	51 015	-	_
90	-	-	10 102	15 627	21 621	31 635	47 247	-	_
100	-	_	_	12 870	18 910	28 967	44 589	-	_
110	-	_	-	_	15 872	25 914	41 467	-	_
130	-	-	_	_	-	-	-	-	-
Power input in W	ı		•	1	•	1	-		
45	_	_	_	_	-	_	-	-	_
60	-	1 318	1 321	1 313	1 271	1 088	494	-	-
70	_	1 504	1 497	1 498	1 482	1 373	939	-	_
90	-	-	1 962	1 938	1 933	1 907	1 710	-	-
100	-	-	-	2 227	2 207	2 191	2 070	-	-
110	-	-	-	-	2 535	2 509	2 436	-	-
130	-	_	-	_	-	-	-	-	_
Current consum	ption in A	1							
45	-	-	-	-	-	-	-	-	-
60	-	1.98	1.97	1.96	1.90	1.66	0.84	-	-
70	-	2.21	2.19	2.19	2.18	2.05	1.47	-	-
90	-	-	2.79	2.75	2.75	2.74	2.49	-	-
100	-	-	-	3.13	3.10	3.09	2.94	-	-
110	-	-	-	-	3.53	3.49	3.39	-	-
130	-	-	-	-	-	-	-	-	-
Mass flow in lbs/	'h								
45	-	-	-	-	-	-	-	-	-
60	-	133	183	236	293	387	536	-	-
70	-	115	169	226	287	388	545	-	-
90	-	-	127	193	263	377	552	-	-
100	-	-	-	167	242	363	548	-	-
110	-	-	-	-	214	344	538	-	-
130	-	-	-	-	-	-	-	-	-
Energy Efficienc	y Ratio (E.E.R.	.)							
45	-	-	-	-	-	-	-	-	-
60	-	9.11	12.63	16.59	21.57	33.94	105.46	-	-
70	-	6.63	9.91	13.43	17.48	25.97	54.34	-	-
90	-	-	5.15	8.06	11.18	16.59	27.63	-	-
100	-	-	-	5.78	8.57	13.22	21.54	-	-
110	-	-	-	-	6.26	10.33	17.02	-	-
130	_	_	-	_	-	-	-	-	-

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
FER	_				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 40 Hz, ARI rating conditions

R410A

Cond. temp.		1	T		ting temperature			1	1
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	in Rtu/h								
45	-	-	_	_	_	-	_	_	_
60	_	13 948	19 194	24 979	31 381	42 312	59 771	-	-
70	_	11 745	17 172	23 124	29 678	40 810	58 486	68 714	-
90	-	6 391	12 044	18 192	24 915	36 244	54 082	64 348	75 614
100	-	-	9 020	15 199	21 937	33 263	51 046	61 262	72 465
110	-	-	-	11 910	18 619	29 872	47 509	57 630	68 724
130	-	-	-	-	-	22 028	39 099	48 894	59 632
Power input in W	ı								
45	<u>-</u>	-	_	_	_	-	_	_	_
60	-	1 496	1 510	1 512	1 469	1 259	546	-	-
70	-	1 700	1 703	1 715	1 705	1 586	1 072	596	-
90	-	2 296	2 221	2 200	2 202	2 184	1 962	1 699	1 295
100	-	-	2 588	2 524	2 505	2 497	2 367	2 183	1 880
110	-	-	-	2 929	2 871	2 846	2 772	2 650	2 431
130	-	-	-	-	-	3 736	3 666	3 612	3 507
Current consum	ption in A	T	T	T	T		1	T	ı
45	-	-	-	-	-	-	-	-	-
60	-	2.30	2.31	2.32	2.27	2.00	1.06	-	-
70	-	2.56	2.55	2.56	2.55	2.41	1.73	1.10	-
90	-	3.37	3.25	3.20	3.20	3.18	2.88	2.52	1.96
100	-	-	3.76	3.65	3.61	3.59	3.40	3.14	2.71
110	-	-	-	4.21	4.11	4.05	3.91	3.73	3.40
130	-	-	-	-	-	5.21	5.03	4.92	4.72
Mass flow in lbs/	h						T		
45	-	-	-	-	-	-	-	-	-
60	-	154	210	270	335	444	616	-	-
70	-	136	196	260	329	445	626	730	-
90	-	81	151	224	303	432	632	746	872
100	-	-	119	197	280	417	627	747	877
110	-	-	-	163	251	396	617	741	877
130	-	-	-	-	-	331	574	710	857
nergy Efficienc	y Ratio (E.E.R	.)							
45	-	-	-	-	-	-	-	-	-
60	-	9.33	12.71	16.53	21.36	33.62	109.56	-	-
70	-	6.91	10.08	13.49	17.41	25.74	54.55	115.25	-
90	-	2.78	5.42	8.27	11.31	16.59	27.56	37.87	58.41
100	-	-	3.48	6.02	8.76	13.32	21.57	28.06	38.54
110	-	-	-	4.07	6.49	10.50	17.14	21.75	28.27

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity 34 531 Btu/h

Cooling capacity	34 531	Btu/h	Current consumption	5.08	Α
Power input	3 682	W	Mass flow	510	lbs/h
E.E.R.	9.38				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 45 Hz, ARI rating conditions

R410A

Cond. temp.	Evaporating temperature in °F (to)									
in °F (tc)	-25	-15	-5	5	15	30	50	60	70	
Cooling capacity	in Btu/h									
45	-	-	-	-	-	-	-	-	-	
60	-	15 874	21 691	28 148	35 332	47 668	67 499	-	-	
70	-	13 515	19 502	26 112	33 434	45 947	65 956	77 586	-	
90	-	7 839	14 013	20 777	28 221	40 857	60 917	72 525	85 304	
100	-	-	10 801	17 566	24 994	37 576	57 509	69 029	81 704	
110	-	-	-	14 050	21 412	33 864	53 567	64 949	77 469	
130	-	-	-	-	-	25 322	44 260	55 211	67 268	
Power input in W	ı									
45	-	-	-	-	-	-	-	-	-	
60	-	1 681	1 707	1 716	1 673	1 437	618	-	-	
70	-	1 905	1 917	1 938	1 934	1 805	1 220	673	-	
90	-	2 569	2 489	2 471	2 480	2 468	2 224	1 925	1 464	
100	-	-	2 899	2 829	2 812	2 811	2 672	2 466	2 123	
110	-	-	-	3 278	3 215	3 192	3 117	2 982	2 736	
130	-	-	-	-	-	4 165	4 088	4 031	3 914	
Current consum	ntion in A									
45	-	-	_	_	_	-	_	_	_	
60	-	2.62	2.66	2.67	2.62	2.33	1.29	-	-	
70	-	2.90	2.91	2.93	2.93	2.77	2.01	1.30	-	
90	-	3.83	3.70	3.66	3.65	3.62	3.27	2.87	2.24	
100	-	-	4.28	4.16	4.11	4.08	3.85	3.56	3.08	
110	-	-	-	4.79	4.67	4.59	4.43	4.21	3.85	
130	-	-	-	-	-	5.87	5.66	5.53	5.31	
Mass flow in Ibs/	'h									
45	<u></u>	_	_	_	_	_	_	_	_	
60	-	176	238	305	377	500	695	-	-	
70	-	156	223	294	371	501	706	825	-	
90	-	100	176	256	343	487	712	841	984	
100	-	-	142	228	319	471	707	842	989	
110	-	-	-	192	289	449	695	835	989	
130	-	-	-	-	-	381	650	802	967	
Enougy Efficient	v Botio /F F P	`								
Energy Efficienc 45	y Ratio (E.E.R.	.)	_	_	_	_	_	_	l <u>.</u>	
60	-	9.44	12.71	16.41	21.12	33.18	109.24	-	-	
70		7.09	10.17	13.47	17.29	25.46	54.07	115.27	-	
90	-	3.05	5.63	8.41	11.38	16.55	27.39	37.67	58.29	
-		3.05	1	1	1		21.52			
100	-		3.73	6.21	8.89	13.37	+	27.99	38.49	
110	-	-	-	4.29	6.66	10.61	17.19	21.78	28.32	
130	-	-	-	-	-	6.08	10.83	13.70	17.19	

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	39 172	Btu/h	Current consumption	5.71	Α
Power input	4 105	W	Mass flow	578	lbs/h
E.E.R.	9.54				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 50 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
11	. In Death								
ooling capacity	/ In Btu/n	1 -	_	_	-	_	_	-	Ι .
60		17 788	24 172	31 295	39 261	53 010	75 232	-	-
70		15 289	21 829	29 091	37 177	51 071	73 423	86 467	
90	-	9 325	16 011	23 382	31 540	45 474	67 750	80 700	94 994
100		9 323	12 627	19 969	28 079	41 907	63 977	76 797	90 941
110		-	-	16 245	24 251	37 889	59 641	72 275	86 214
130		 		-	24 231	28 683	49 465	61 558	74 921
100						20 000	40 400	01000	14 321
ower input in V	٧	1				1			
45	-	-	-	-	-	-	-	-	-
60	-	1 875	1 910	1 925	1 882	1 623	710	-	-
70	-	2 120	2 139	2 169	2 169	2 030	1 382	773	-
90	-	2 850	2 766	2 751	2 766	2 759	2 494	2 165	1 652
100	-	-	3 216	3 142	3 128	3 133	2 986	2 760	2 381
110	-	-	-	3 634	3 567	3 547	3 471	3 324	3 053
130	-	-	-	-	-	4 602	4 520	4 459	4 333
urrent consum	ption in A								1
45	-	-	-	-	-	-	-	-	-
60	-	2.94	2.99	3.02	2.97	2.65	1.52	-	-
70	-	3.25	3.27	3.31	3.30	3.12	2.30	1.53	-
90	-	4.28	4.15	4.11	4.10	4.06	3.67	3.23	2.56
100	-	-	4.80	4.67	4.62	4.57	4.31	3.98	3.47
110	-	-	-	5.36	5.23	5.14	4.94	4.71	4.32
130	-	-	-	-	-	6.53	6.28	6.13	5.90
lass flow in lbs	/h								
45	-	-	-	-	-	-	-	-	-
60	-	197	265	339	419	556	775	-	-
70	-	177	249	327	413	557	786	919	-
90	-	119	201	288	383	542	792	936	1 096
100	-	-	166	259	359	525	786	936	1 101
110	-	-	-	222	327	502	774	930	1 100
130	-	-	-	-	-	431	726	894	1 076
nergy Efficiend	v Ratio (E.E.R	.)							
45	-	-	-	-	-	-	-	-	-
60	-	9.49	12.65	16.25	20.86	32.67	105.89	-	-
70	-	7.21	10.20	13.41	17.14	25.16	53.11	111.86	-
90	-	3.27	5.79	8.50	11.40	16.48	27.16	37.28	57.50
100	-	-	3.93	6.36	8.98	13.38	21.42	27.82	38.20
110	-	-	-	4.47	6.80	10.68	17.18	21.74	28.24
		1	1						

Nominal performance at to = 45 °F, tc = 130 °F

Tromman porrorman.		.,	•		
Cooling capacity	43 863	Btu/h	Current consumption	6.34	Α
Power input	4 538	W	Mass flow	648	lbs/h
E.E.R.	9.66				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 55 Hz, ARI rating conditions

R410A

Cond. temp.	Evaporating temperature in °F (to)									
in °F (tc)	-25	-15	-5	5	15	30	50	60	70	
ooling capacity	in Btu/h									
45	-	-	-	-	-	-	-	-	-	
60	-	19 693	26 635	34 422	43 169	58 336	82 972	-	-	
70	-	17 067	24 151	32 060	40 907	56 183	80 889	95 357	-	
90	-	10 847	18 036	26 007	34 872	50 095	74 581	88 874	104 685	
100	-	-	14 498	22 409	31 193	46 255	70 450	84 566	100 177	
110	-	-	-	18 494	27 137	41 946	65 730	79 608	94 961	
130	-	-	-	-	-	32 112	54 713	67 935	82 589	
Power input in W	ı									
45	_	_	-	-	_	_	_	-	_	
60	-	2 077	2 120	2 141	2 097	1 816	823	-	-	
70	-	2 343	2 370	2 406	2 410	2 263	1 560	896	-	
90	-	3 137	3 051	3 039	3 059	3 057	2 774	2 417	1 860	
100	-	-	3 540	3 464	3 452	3 463	3 309	3 065	2 654	
110	-	-	-	3 998	3 927	3 910	3 833	3 675	3 383	
130	-	-	-	-	-	5 048	4 962	4 898	4 763	
Current consum	ntion in A									
45	-	_	-	_	_	_	_	-	_	
60	-	3.26	3.33	3.36	3.31	2.97	1.76	-	_	
70	-	3.60	3.64	3.68	3.68	3.48	2.59	1.77	-	
90	-	4.72	4.60	4.56	4.56	4.50	4.07	3.60	2.89	
100	-	-	5.30	5.18	5.12	5.06	4.77	4.42	3.88	
110	-	-	-	5.93	5.79	5.68	5.46	5.20	4.79	
130	-	-	-	-	-	7.17	6.90	6.74	6.50	
Mass flow in lbs/	'h									
45		_	-	_	_	_	_	_	_	
60	_	218	292	373	461	612	855	-	_	
70	-	197	276	361	454	613	866	1 014	_	
90	-	138	226	320	424	597	872	1 031	1 207	
100	-	-	191	290	398	580	866	1 031	1 213	
110	_	-	-	253	366	556	853	1 024	1 212	
130	-	_	-	-	-	483	803	986	1 186	
		1	<u>I</u>		ı	1	1	<u>I</u>		
Energy Efficienc			<u> </u>		1			<u> </u>		
45	-	-	-	-	-	-	-	-	-	
60	-	9.48	12.56	16.08	20.59	32.12	100.77	-	-	
70	-	7.28	10.19	13.32	16.97	24.83	51.87	106.43	-	
90	-	3.46	5.91	8.56	11.40	16.38	26.89	36.77	56.27	
100	-	-	4.10	6.47	9.04	13.36	21.29	27.59	37.75	
110	-	-	-	4.63	6.91	10.73	17.15	21.66	28.07	
130	-	-	-	_	-	6.36	11.03	13.87	17.34	

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	48 604	Btu/h	Current consumption	6.97	Α
Power input	4 981	W	Mass flow	718	lbs/h
E.E.R.	9.76				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 60 Hz, ARI rating conditions

R410A

Cond. temp.			_	1	ting temperature	1	1	T	
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	21 586	29 080	37 529	47 057	63 647	90 719	-	-
70	-	18 849	26 470	35 020	44 624	61 281	88 354	104 256	-
90	-	12 407	20 090	28 652	38 217	54 721	81 411	97 047	114 377
100	-	-	16 415	24 887	34 336	50 620	76 929	92 336	109 412
110	-	-	-	20 798	30 069	46 037	71 835	86 950	103 708
130	-	-	-	-	-	35 609	60 006	74 343	90 274
ower input in W	ı								
45	-	-	-	-	-	-	-	-	-
60	-	2 288	2 338	2 362	2 316	2 018	957	-	-
70	-	2 576	2 609	2 651	2 657	2 502	1 751	1 042	-
90	-	3 432	3 345	3 337	3 361	3 363	3 063	2 682	2 088
100	-	-	3 871	3 794	3 785	3 800	3 639	3 380	2 942
110	-	-	-	4 368	4 296	4 283	4 204	4 037	3 726
130	-	-	-	-	-	5 501	5 414	5 347	5 204
urrent consum	ption in A	1	1		T	1	T	1	1
45	-	-	-	-	-	-	-	-	-
60	-	3.57	3.66	3.70	3.65	3.28	2.00	-	-
70	-	3.95	4.00	4.05	4.05	3.83	2.89	2.03	-
90	-	5.16	5.05	5.02	5.01	4.94	4.48	3.99	3.25
100	-	-	5.80	5.68	5.62	5.54	5.23	4.86	4.30
110	-	-	-	6.48	6.33	6.21	5.97	5.70	5.28
130	-	-	-	-	-	7.81	7.52	7.35	7.11
lass flow in lbs	'h								
45	-	-	-	-	-	-	-	-	-
60	-	239	319	406	503	668	935	-	-
70	-	218	302	394	496	668	946	1 109	-
90	-	158	252	353	464	652	952	1 126	1 319
100	-	-	216	322	439	635	946	1 126	1 325
110	-	-	-	284	406	610	932	1 118	1 323
130	-	-	-	-	-	535	881	1 079	1 297
nergy Efficienc	y Ratio (E.E.R	l.)							
45	-	-	-	-	-	-	-	-	-
60	-	9.43	12.44	15.89	20.31	31.54	94.84	-	-
70	-	7.32	10.15	13.21	16.79	24.49	50.45	100.05	-
90	-	3.62	6.01	8.59	11.37	16.27	26.58	36.18	54.78
100	-	-	4.24	6.56	9.07	13.32	21.14	27.32	37.19
110	-	-	-	4.76	7.00	10.75	17.09	21.54	27.83
110									

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	53 395	Btu/h	Current consumption	7.59	Α
Power input	5 434	W	Mass flow	788	lbs/h
E.E.R.	9.83				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	79	dB(A)
With accoustic hood	70	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 65 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	/ in Btu/h	_				1		I	_
45	<u> </u>	+	- 04 500	-	-	-	-	-	
60		23 469	31 509	40 614	50 923	68 943	98 471	-	-
70 90	-	20 635	28 785 22 172	37 970	48 328	66 367	95 816	113 164	124 071
100	-	14 004	1	31 316 27 401	41 574	59 350	88 240	105 218	
	-		18 378		37 508	55 003	83 413	100 107	118 645
110	-	-	-	23 157	33 047	50 160	77 956	94 299	112 455
130	-	-	-	-	-	39 173	65 342	80 782	97 976
ower input in V	,								
45	-	-	-	_	-	-	_	-	_
60	-	2 507	2 562	2 589	2 542	2 228	1 110	-	-
70	-	2 817	2 856	2 902	2 910	2 748	1 958	1 211	-
90	-	3 734	3 648	3 643	3 672	3 675	3 361	2 960	2 335
100	-	-	4 209	4 133	4 127	4 146	3 979	3 706	3 245
110	-	-	-	4 745	4 674	4 664	4 583	4 408	4 081
130	-	_	_	_	-	5 963	5 876	5 807	5 657
urrent consum			T	1			T	T	1
45	-	-	-	-	-	-	-	-	-
60	-	3.88	3.99	4.04	3.98	3.59	2.26	-	-
70	-	4.29	4.37	4.43	4.42	4.18	3.20	2.32	-
90	-	5.59	5.50	5.47	5.46	5.38	4.89	4.38	3.64
100	-	-	6.29	6.17	6.11	6.03	5.69	5.31	4.75
110	-	-	-	7.02	6.87	6.74	6.48	6.21	5.78
130	-	-	-	-	-	8.44	8.13	7.96	7.72
lass flow in lbs	/h								
45	-	-	_	_	-	-	_	_	_
60	-	260	345	440	544	723	1 014	-	-
70	-	238	329	428	537	724	1 026	1 204	-
90	-	178	278	386	505	708	1 032	1 221	1 431
100	-	-	242	355	479	690	1 025	1 221	1 437
110	-	-	-	317	446	664	1 011	1 213	1 435
130	-	-	-	-	-	589	959	1 172	1 407
L.		•	•	•		•	•	•	•
nergy Efficienc	y Ratio (E.E.R	.)							
45	-	-	-	-	-	-	-	-	-
60	-	9.36	12.30	15.69	20.04	30.94	88.71	-	-
70	-	7.32	10.08	13.08	16.61	24.15	48.95	93.43	-
90	-	3.75	6.08	8.60	11.32	16.15	26.26	35.54	53.13
100	-	-	4.37	6.63	9.09	13.27	20.97	27.01	36.56
110	-	-	-	4.88	7.07	10.76	17.01	21.39	27.55
130	_	_	_	_	-	6.57	11.12	13.91	17.32

Nominal performance at to = 45 °F, tc = 130 °F

monna pononna		, , , , , , , , , , ,	<u> </u>		
Cooling capacity	58 237	Btu/h	Current consumption	8.20	Α
Power input	5 896	W	Mass flow	860	lbs/h
E.E.R.	9.88				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 70 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	/ in Btu/h	_	_	_	_	_		ı	l
45	<u> </u>					+	-	-	-
60		25 341	33 920	43 679	54 767	74 224	106 229		-
70	-	22 425	31 096	40 910	52 019	71 440	103 277	122 080	_
90	-	15 637	24 282	34 001	44 944	63 984	95 067	113 388	133 765
100	-	11 857	20 386	29 953	40 709	59 404	89 902	107 879	127 876
110	-	-	16 224	25 570	36 071	54 316	84 092	101 655	121 204
130	-	-	-	15 987	25 769	42 804	70 722	87 250	105 694
ower input in V	ı								
45	-	-	-	-	-	-	-	-	-
60	-	2 734	2 793	2 822	2 772	2 446	1 284	-	-
70	-	3 068	3 111	3 161	3 170	3 000	2 179	1 403	-
90	-	4 043	3 959	3 958	3 990	3 995	3 668	3 251	2 602
100	-	4 748	4 554	4 480	4 478	4 500	4 326	4 043	3 564
110	-	-	5 306	5 129	5 060	5 053	4 971	4 790	4 450
130	-	-	-	6 932	6 638	6 433	6 348	6 277	6 122
urrent consum	ption in A	T	T	1			T	Γ	,
45	-	-	-	-	-	-	-	-	-
60	-	4.19	4.32	4.37	4.30	3.89	2.51	-	-
70	-	4.64	4.74	4.80	4.79	4.53	3.51	2.62	-
90	-	6.02	5.95	5.93	5.92	5.82	5.31	4.79	4.05
100	-	6.98	6.78	6.67	6.61	6.51	6.15	5.77	5.21
110	-	-	7.79	7.55	7.41	7.27	6.99	6.71	6.29
130	-	-	-	9.86	9.44	9.05	8.73	8.57	8.33
lass flow in lbs	/h								
45	-	_	_	_	-	-	_	-	_
60	-	280	372	473	585	779	1 095	-	_
70	-	259	355	461	578	779	1 106	1 299	-
90	-	199	304	419	546	763	1 112	1 316	1 543
100	-	159	268	388	520	745	1 105	1 315	1 548
110	-	-	225	350	486	719	1 091	1 307	1 546
130	-	-	-	248	395	644	1 038	1 266	1 518
		•	•	•		•	•	•	•
nergy Efficienc	y Ratio (E.E.R	.)	1	1		1	Т	1	1
45	-	-	-	-	-	-	-	-	-
60	-	9.27	12.15	15.48	19.76	30.35	82.74	-	-
70	-	7.31	10.00	12.94	16.41	23.81	47.40	86.99	-
90	-	3.87	6.13	8.59	11.26	16.02	25.92	34.88	51.41
100	-	2.50	4.48	6.69	9.09	13.20	20.78	26.68	35.88
110	-	-	3.06	4.99	7.13	10.75	16.92	21.22	27.24
130	-	_	-	2.31	3.88	6.65	11.14	13.90	17.26

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	63 128	Btu/h	Current consumption	8.81	Α
Power input	6 368	W	Mass flow	932	lbs/h
E.E.R.	9.91				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 75 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in F (to)	•		
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	/ in Btu/h	_	_	_	_	_	1	ı	
45	<u> </u>	+				+	-	-	-
60		27 202	36 315	46 723	58 591	79 489	113 994		-
70	-	24 219	33 403	43 841	55 697	76 501	110 735	131 006	_
90	-	17 308	26 421	36 706	48 327	68 623	101 892	121 557	143 461
100	-	13 468	22 439	32 541	43 939	63 822	96 397	115 652	137 106
110	-	-	18 190	28 039	39 141	58 505	90 244	109 020	129 952
130	-	-	-	18 195	28 496	46 503	76 145	93 750	113 428
ower input in V	V								
45	-	-	-	-	-	-	-	-	-
60	-	2 969	3 030	3 060	3 008	2 671	1 478	-	-
70	-	3 329	3 374	3 426	3 435	3 259	2 414	1 619	-
90	-	4 359	4 280	4 282	4 317	4 322	3 984	3 555	2 889
100	-	5 096	4 906	4 836	4 837	4 862	4 683	4 390	3 898
110	-	-	5 693	5 520	5 454	5 452	5 368	5 181	4 831
130	-	-	-	7 403	7 111	6 912	6 830	6 757	6 598
urrent consum	ption in A		ı	ı		1		1	1
45	-	-	-	-	-	-	-	-	-
60	-	4.50	4.64	4.69	4.62	4.18	2.78	-	-
70	-	5.00	5.11	5.18	5.16	4.88	3.84	2.94	-
90	-	6.43	6.39	6.39	6.37	6.26	5.73	5.21	4.48
100	-	7.42	7.25	7.16	7.10	6.99	6.61	6.24	5.69
110	-	-	8.29	8.08	7.94	7.79	7.49	7.22	6.82
130	-	-	-	10.45	10.05	9.66	9.34	9.17	8.95
lass flow in lbs	/h								
45	-	-	_	_	-	_	-	-	_
60	-	301	398	506	626	834	1 175	-	-
70	-	280	381	494	619	835	1 186	1 394	-
90	-	220	331	452	587	818	1 192	1 411	1 655
100	-	181	295	421	561	800	1 185	1 410	1 660
110	-	-	253	383	528	775	1 171	1 402	1 658
130	-	-	-	283	437	699	1 118	1 361	1 629
		•				•	•	•	
nergy Efficienc	y Ratio (E.E.R	.)	1	1			1	T	T
45	-	-	-	-	-	-	-	-	-
60	-	9.16	11.98	15.27	19.48	29.76	77.13	-	-
70	-	7.28	9.90	12.80	16.21	23.47	45.87	80.93	-
90	-	3.97	6.17	8.57	11.20	15.88	25.58	34.19	49.67
100	-	2.64	4.57	6.73	9.08	13.13	20.59	26.34	35.18
110	-	-	3.19	5.08	7.18	10.73	16.81	21.04	26.90
130	-	_	-	2.46	4.01	6.73	11.15	13.87	17.19

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	68 070	Btu/h	Current consumption	9.41	Α
Power input	6 849	W	Mass flow	1 005	lbs/h
E.E.R.	9.94				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 80 Hz, ARI rating conditions

R410A

Cond. temp.	Evaporating temperature in °F (to)									
in °F (tc)	-25	-15	-5	5	15	30	50	60	70	
ooling capacity	/ in Btu/h									
45	-	-	-	-	-	-	-	-	-	
60	-	29 052	38 692	49 746	62 394	84 740	121 765	-	-	
70	-	26 017	35 706	46 762	59 362	81 548	118 192	139 941	-	
90	-	19 015	28 587	39 430	51 722	73 265	108 716	129 724	153 157	
100	-	15 133	24 538	35 167	47 197	68 257	102 897	123 427	146 334	
110	-	-	20 219	30 562	42 258	62 727	96 411	116 392	138 702	
130	-	-	-	20 492	31 305	50 270	81 613	100 279	121 179	
Power input in W	ı									
45	_	-	-	-	_	-	-	-	_	
60	-	3 213	3 275	3 304	3 250	2 905	1 692	-	-	
70	-	3 598	3 646	3 699	3 707	3 525	2 665	1 857	-	
90	-	4 683	4 608	4 614	4 651	4 656	4 309	3 872	3 195	
100	-	5 449	5 266	5 201	5 205	5 232	5 047	4 749	4 247	
110	-	-	6 084	5 917	5 857	5 859	5 773	5 581	5 224	
130	-	-	_	7 872	7 588	7 398	7 322	7 248	7 085	
•										
45	ption in A	_	T -	T -		_	_			
-	-	+			-			-	-	
60	-	4.80	4.96	5.01	4.93	4.46	3.05	- 2.00	-	
70	-	5.35	5.48	5.55	5.52	5.22	4.17	3.29	-	
90	-	6.84	6.84	6.84	6.83	6.70	6.15	5.65	4.94	
100	-	7.85	7.72	7.64	7.59	7.47	7.08	6.71	6.18	
110	-	-	8.78	8.59	8.46	8.30	8.00	7.74	7.35	
130	-	-	-	11.02	10.64	10.26	9.93	9.78	9.58	
Mass flow in Ibs	/h									
45	-	-	-	-	-	-	-	-	-	
60	-	321	424	538	667	889	1 255	-	-	
70	-	301	408	527	659	890	1 266	1 489	-	
90	-	242	358	486	628	874	1 272	1 506	1 767	
100	-	203	323	455	603	856	1 265	1 505	1 772	
110	-	-	281	418	570	831	1 250	1 496	1 769	
130	-	-	-	318	480	756	1 198	1 455	1 740	
Energy Efficienc	y Ratio (E.E.R	.)								
45	-	-	-	-	-	-	-	-	-	
60	-	9.04	11.81	15.06	19.20	29.17	71.95	-	-	
70	-	7.23	9.79	12.64	16.02	23.13	44.36	75.35	-	
90	-	4.06	6.20	8.55	11.12	15.74	25.23	33.50	47.94	
	-	2.78	4.66	6.76	9.07	13.05	20.39	25.99	34.46	
100		1	i e		7.04	40.74	40.70	00.05	00.55	
100 110	-	-	3.32	5.16	7.21	10.71	16.70	20.85	26.55	

Nominal performance at to = 45 °F, tc = 130 °F

	Cooling capacity	73 062	Btu/h	Current consumption	10.01	Α
	Power input	7 340	W	Mass flow	1 079	lbs/h
L	E.E.R.	9.95				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 85 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
cooling capacity	in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	30 892	41 052	52 749	66 175	89 975	129 542	-	-
70	-	27 819	38 005	49 673	63 015	86 583	125 648	148 884	-
90	-	20 760	30 781	42 175	55 130	77 912	115 539	137 890	162 855
100	-	16 851	26 683	37 830	50 484	72 710	109 402	131 202	155 560
110	-	-	22 310	33 140	45 421	66 982	102 595	123 772	147 452
130	-	-	-	22 878	34 195	54 104	87 124	106 839	128 946
Power input in W	ı								
45	-	-	-	-	_	-	-	-	_
60	-	3 465	3 527	3 554	3 497	3 146	1 927	-	-
70	-	3 876	3 926	3 978	3 984	3 798	2 929	2 119	-
90	-	5 014	4 946	4 956	4 994	4 997	4 643	4 202	3 520
100	-	5 805	5 632	5 574	5 582	5 610	5 420	5 118	4 611
110	-	-	6 479	6 322	6 268	6 275	6 187	5 992	5 630
130	-	-	-	8 338	8 069	7 893	7 823	7 750	7 584
Current consum	ption in A								
45	-	-	-	-	-	-	-	-	-
60	-	5.10	5.28	5.33	5.23	4.74	3.33	-	-
70	-	5.70	5.86	5.93	5.89	5.57	4.51	3.65	-
90	-	7.25	7.28	7.30	7.28	7.14	6.58	6.09	5.43
100	-	8.26	8.18	8.13	8.08	7.95	7.55	7.19	6.70
110	-	-	9.25	9.09	8.97	8.81	8.51	8.25	7.90
130	-	-	-	11.57	11.21	10.85	10.53	10.38	10.22
Mass flow in Ibs	'h								
45	-	-	-	_	-	-	-	-	-
60	-	342	450	571	707	944	1 335	-	-
70	-	322	434	559	700	945	1 346	1 584	-
90	-	264	385	519	670	929	1 352	1 601	1 879
100	-	226	351	490	645	912	1 345	1 600	1 883
110	-	-	310	453	612	887	1 331	1 591	1 881
130	-	-	-	355	524	814	1 279	1 550	1 852
Energy Efficienc	v Ratio (E E P	1							
45	Y Natio (E.E.N	-	_	-	_	_	-	_	_
60		8.92	11.64	14.84	18.93	28.60	67.23	-	_
	_	7.18	9.68	12.49	15.82	22.80	42.89	70.27	-
		4.14	6.22	8.51	11.04	15.59	24.88	32.81	46.26
70	_			0.01	11.04	10.00	27.00	02.01	70.20
70 90	-	1	4 74	6.79	9.04	12 96	20.18	25 64	33 74
70	-	2.90	4.74 3.44	6.79 5.24	9.04 7.25	12.96 10.67	20.18 16.58	25.64 20.66	33.74 26.19

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	78 104	Btu/h	Current consumption	10.60	Α
Power input	7 841	W	Mass flow	1 153	lbs/h
E.E.R.	9.96				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 90 Hz, ARI rating conditions

R410A

Cond. temp.					ting temperature	1	_	I .	1
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	y in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	32 722	43 394	55 731	69 936	95 195	137 325	-	-
70	-	29 625	40 300	52 574	66 654	91 605	133 101	157 836	-
90	-	22 542	33 004	44 939	58 551	82 563	122 360	146 055	172 553
100	-	18 624	28 872	40 530	53 800	77 180	115 913	138 979	164 785
110	-	-	24 465	35 772	48 630	71 270	108 793	131 160	156 202
130	-	-	-	25 353	37 168	58 005	92 679	113 430	136 729
ower input in V	v								
45	-	-	-	-	-	-	-	-	-
60	-	3 725	3 785	3 809	3 749	3 395	2 182	-	-
70	-	4 164	4 214	4 265	4 268	4 078	3 209	2 403	-
90	-	5 352	5 292	5 306	5 345	5 346	4 987	4 545	3 865
100	-	6 164	6 005	5 955	5 967	5 996	5 802	5 497	4 991
110	-	-	6 876	6 733	6 688	6 700	6 610	6 413	6 049
130	-	-	-	8 803	8 554	8 395	8 335	8 261	8 095
urrent consum	ption in A								
45	-	-	-	-	-	-	-	-	-
60	-	5.40	5.59	5.64	5.52	5.01	3.61	-	-
70	-	6.05	6.23	6.31	6.26	5.91	4.85	4.03	-
90	-	7.64	7.72	7.76	7.74	7.58	7.02	6.55	5.94
100	-	8.65	8.63	8.61	8.56	8.42	8.02	7.68	7.23
110	-	-	9.71	9.59	9.48	9.32	9.01	8.77	8.46
130	-	-	-	12.09	11.77	11.43	11.12	10.99	10.85
lass flow in lbs	/h								
45	-	-	-	-	-	-	_	-	-
60	-	362	476	603	747	999	1 415	-	-
70	-	343	460	592	741	1 000	1 426	1 680	-
90	-	287	413	554	711	984	1 431	1 696	1 990
100	-	250	380	525	687	968	1 425	1 694	1 995
110	-	-	340	489	656	944	1 411	1 686	1 992
130	-	-	-	394	570	872	1 360	1 646	1 963
nergy Efficiend	v Ratio (E.F.R	L)							
45	-	-	_	_	-	_	_	-	_
60	-	8.78	11.46	14.63	18.66	28.04	62.94	-	-
70	-	7.11	9.56	12.33	15.62	22.47	41.48	65.68	_
	-	4.21	6.24	8.47	10.95	15.44	24.54	32.13	44.64
90	_	3.02	4.81	6.81	9.02	12.87	19.98	25.28	33.02
90				0.0.	0.02		.0.00	_00	55.5E
90 100 110	-	_	3.56	5.31	7.27	10.64	16.46	20.45	25.82

Cooling capacity	83 196	Btu/h	Current consumption	11.19	Α
Power input	8 352	W	Mass flow	1 228	lbs/h
EED	0.06				

T 0 : Evaporating temperature at dew point

Nominal performance at to = 45 °F, tc = 130 °F

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	85	dB(A)
With accoustic hood	76	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 95 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ting temperature	in °F (to)			•
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
cooling capacity	in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	34 540	45 720	58 692	73 675	100 400	145 114	-	-
70	-	31 435	42 591	55 466	70 280	96 614	140 553	166 798	-
90	-	24 360	35 255	47 723	61 985	87 218	129 180	154 218	182 253
100	-	20 450	31 108	43 266	57 145	81 668	122 429	146 757	174 009
110	-	-	26 682	38 460	51 885	75 591	115 008	138 555	164 953
130	-	-	-	27 917	40 222	61 974	98 278	120 051	144 529
Power input in W	ı								
45	_	_	-	-	_	_	-	-	_
60	-	3 993	4 051	4 070	4 006	3 653	2 457	-	-
70	-	4 461	4 511	4 559	4 558	4 364	3 503	2 711	-
90	-	5 697	5 647	5 665	5 704	5 701	5 339	4 901	4 230
100	-	6 527	6 385	6 346	6 362	6 390	6 192	5 888	5 385
110	-	-	7 278	7 152	7 116	7 133	7 041	6 843	6 481
130	-	-	-	9 265	9 042	8 906	8 856	8 783	8 617
Current consum	ntion in A								
45	-	_	_	_	_	_	_	_	_
60	_	5.70	5.90	5.94	5.81	5.28	3.91	-	-
70	-	6.41	6.61	6.69	6.62	6.25	5.21	4.43	-
90	-	8.03	8.16	8.21	8.20	8.02	7.46	7.02	6.47
100	-	9.03	9.07	9.08	9.04	8.90	8.49	8.18	7.79
110	-	-	10.14	10.07	9.99	9.83	9.51	9.30	9.03
130	-	-	-	12.58	12.31	12.00	11.70	11.59	11.50
Mass flow in lbs/	'h								
45	-	_	<u> </u>	_	_	_	_	_	_
60		382	501	635	787	1 054	1 496	_	_
70		363	486	625	781	1 054	1 506	1 775	_
90	_	310	441	588	753	1 040	1 511	1 790	2 102
100	-	274	409	560	730	1 024	1 505	1 789	2 106
110	_	-	371	526	700	1 001	1 492	1 781	2 103
130	-	-	-	434	617	932	1 442	1 742	2 075
			1		1			ı	
Energy Efficienc			1	1	1		1	1	1
45	-	-	-	-	-		-	-	-
60	-	8.65	11.29	14.42	18.39	27.49	59.06	-	-
70	-	7.05	9.44	12.17	15.42	22.14	40.12	61.53	-
90	-	4.28	6.24	8.42	10.87	15.30	24.19	31.47	43.09
100	-	3.13	4.87	6.82	8.98	12.78	19.77	24.93	32.31
110	-	-	3.67	5.38	7.29	10.60	16.33	20.25	25.45
130	-	-	-	3.01	4.45	6.96	11.10	13.67	16.77

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capa	city 88 338	Btu/h	Current consumption	11.77	Α
Power input	8 872	W	Mass flow	1 304	lbs/h
E.E.R.	9.96				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 100 Hz, ARI rating conditions

R410A

Cond. temp.		1		1	ting temperature	1	_	_	
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	y in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	36 348	48 028	61 632	77 393	105 589	152 909	-	-
70	-	33 250	44 878	58 348	73 893	101 610	148 003	175 768	-
90	-	26 216	37 533	50 528	65 431	91 878	135 998	162 380	191 953
100	-	22 331	33 388	46 040	60 519	86 174	128 950	154 536	183 231
110	-	-	28 962	41 202	55 186	79 945	121 237	145 958	173 705
130	-	-	-	30 570	43 358	66 011	103 920	126 702	152 345
Power input in V	v								
45	-	-	-	-	-	-	-	-	-
60	-	4 270	4 323	4 337	4 269	3 918	2 753	-	-
70	-	4 767	4 816	4 859	4 853	4 656	3 812	3 042	-
90	-	6 049	6 011	6 033	6 072	6 064	5 701	5 270	4 614
100	-	6 894	6 772	6 744	6 765	6 792	6 590	6 289	5 795
110	-	-	7 682	7 577	7 553	7 575	7 481	7 283	6 925
130	-	-	-	9 726	9 533	9 425	9 388	9 316	9 150
urrent consum	ption in A								
45	-	-	-	-	-	-	-	-	-
60	-	6.00	6.21	6.24	6.09	5.54	4.20	-	-
70	-	6.76	6.99	7.06	6.99	6.59	5.57	4.85	-
90	-	8.41	8.59	8.67	8.66	8.46	7.90	7.50	7.03
100	-	9.39	9.51	9.55	9.53	9.37	8.96	8.68	8.36
110	-	-	10.56	10.54	10.48	10.32	10.01	9.82	9.62
130	-	-	-	13.05	12.84	12.56	12.28	12.20	12.15
lass flow in lbs	/h								
45	-	-	-	-	-	-	-	-	-
60	-	402	527	667	827	1 108	1 576	-	-
70	-	384	513	657	821	1 109	1 586	1 871	-
90	-	333	470	622	795	1 096	1 591	1 885	2 214
100	-	299	439	596	773	1 080	1 585	1 884	2 218
110	-	-	402	563	744	1 058	1 572	1 876	2 215
130	-	-	-	475	665	993	1 525	1 839	2 187
Energy Efficiend	y Ratio (E.E.R	₹.)							
45	-	-	-	-	-	-	-	-	-
60	-	8.51	11.11	14.21	18.13	26.95	55.55	-	-
70	-	6.98	9.32	12.01	15.23	21.82	38.83	57.79	-
90	-	4.33	6.24	8.37	10.78	15.15	23.85	30.81	41.60
	-	3.24	4.93	6.83	8.95	12.69	19.57	24.57	31.62
100		+	1			1	+	1	
100 110	-	-	3.77	5.44	7.31	10.55	16.21	20.04	25.08

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	93 530	Btu/h	Current consumption	12.34	Α
Power input	9 402	W	Mass flow	1 381	lbs/h
E.E.R.	9.95				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 105 Hz, ARI rating conditions

R410A

Cond. temp.				Evapora	ating temperature	in °F (to)			
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	38 145	50 319	64 552	81 090	110 764	160 711	-	-
70	-	35 068	47 162	61 221	77 494	106 594	155 451	-	-
90	-	-	39 840	53 352	68 891	96 541	142 815	-	-
100	-	-	-	48 851	63 922	90 696	135 477	-	-
110	-	-	-	-	58 534	84 331	127 483	-	-
130	-	-	-	-	-	-	-	-	-
Power input in W	ı								
45	_	-	-	_	-	-	_	-	_
60	-	4 555	4 602	4 610	4 538	4 191	3 069	-	-
70	-	5 082	5 129	5 167	5 155	4 956	4 135	_	-
90	-	-	6 383	6 410	6 447	6 434	6 072	-	-
100	-	-	-	7 151	7 177	7 202	6 997	-	-
110	-	-	-	-	7 998	8 026	7 930	-	-
130	-	-	-	-	-	-	-	-	-
2urrent consum 45	ption in A		T -	_	_	_			_
60	-	6.29	6.52	6.54	6.37	5.79	4.51	_	_
70	_	7.12	7.37	7.44	7.35	6.93	5.94	-	-
90	_	-	9.03	9.13	9.11	8.90	8.35	_	_
100	-	_	-	10.02	10.00	9.84	9.43	-	_
110	-	_	_	-	10.97	10.82	10.51	-	_
130	-	-	-	_	-	-	-	-	-
		1	•	•	•	1			
Mass flow in lbs/	'n -	_	1 -	_	1 -	_	_		_
-				1			1	<u> </u>	_
60 70		422 406	552 539	699 690	866 861	1 163 1 163	1 657 1 666	<u> </u>	_
90	-	400	498	657	837	1 151	1 671	<u> </u>	-
100			498	632	816	1 137	1 665		-
110	-	-	-	- 032	789	1 116	1 653	-	-
130	-	-	-	-	-	-	-	-	-
100	-	<u> </u>	1 -		<u> </u>	<u> </u>	<u> </u>	-	
Energy Efficienc			1		1	T			ı
45	-	-	-	-	-	-	-	-	-
60	-	8.37	10.93	14.00	17.87	26.43	52.37	-	-
70	-	6.90	9.20	11.85	15.03	21.51	37.59	-	-
90	-	-	6.24	8.32	10.69	15.01	23.52	-	-
100	-	-	-	6.83	8.91	12.59	19.36	-	-
110	-	-	-	-	7.32	10.51	16.08	-	-
130	-	-	-	-	-	-	-	-	-

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
FER	_				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VZH052CH

Performance data at 110 Hz, ARI rating conditions

R410A

Cond. temp.		1		1	ting temperature	T			1
in °F (tc)	-25	-15	-5	5	15	30	50	60	70
ooling capacity	in Btu/h								
45	-	-	-	-	-	-	-	-	-
60	-	39 932	52 593	67 451	84 766	115 923	168 519	-	-
70	-	36 890	49 441	64 084	81 081	111 565	162 898	-	-
90	-	-	42 175	56 196	72 362	101 209	149 631	-	-
100	-	-	-	51 699	67 353	95 237	142 009	-	-
110	-	-	-	-	61 928	88 751	133 744	-	-
130	-	-	-	-	-	-	-	-	-
ower input in W	ı								
45	-	-	-	-	-	-	-	-	-
60	-	4 849	4 888	4 888	4 811	4 472	3 405	-	-
70	-	5 406	5 450	5 481	5 463	5 262	4 473	-	-
90	-	-	6 765	6 796	6 831	6 811	6 452	-	-
100	-	-	-	7 567	7 597	7 620	7 412	-	-
110	-	-	-	-	8 452	8 485	8 387	-	-
130	-	-	-	-	-	-	-	-	-
urrent consum		T	1		T	T	T T		I
45	-	-	-	-	-	-	-	-	-
60	-	6.58	6.82	6.83	6.64	6.04	4.82	-	-
70	-	7.47	7.76	7.82	7.71	7.26	6.31	-	-
90	-	-	9.46	9.59	9.57	9.34	8.80	-	-
100	-	-	-	10.48	10.48	10.31	9.91	-	-
110	-	-	-	-	11.46	11.31	11.01	-	-
130	-	-	-	-	-	-	-	-	-
lass flow in lbs/	'h		T						
45	-	-	-	-	-	-	-	-	-
60	-	442	577	730	906	1 217	1 738	-	-
70	-	427	565	722	901	1 218	1 746	-	-
90	-	-	528	692	879	1 207	1 750	-	-
100	-	-	-	669	860	1 194	1 745	-	-
110	-	-	-	-	835	1 175	1 734	-	-
130	-	-	-	-	-	-	-	-	-
nergy Efficienc	y Ratio (E.E.R)							
45	-	-	-	-	-	-	-	-	-
60	-	8.24	10.76	13.80	17.62	25.92	49.50	-	-
70	-	6.82	9.07	11.69	14.84	21.20	36.41	-	-
90	-	-	6.23	8.27	10.59	14.86	23.19	-	-
100	-	-	-	6.83	8.87	12.50	19.16	-	-
110	-	-	-	-	7.33	10.46	15.95	-	-
	_	-	-	-	_	-	-	-	-

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	-	Btu/h	Current consumption	-	Α
Power input	-	W	Mass flow	-	lbs/h
E.E.R.	-				

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 $^{\circ}F$, Subcooling = 15 $^{\circ}F$

Tolerance according EN12900

Pressure switch settings

Maximum HP switch setting	634	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	22	psi(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

