

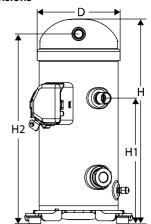
#### Datasheet, technical data

# Danfoss scroll compressor, VZH052CG

#### **General Characteristics**

Model number (on compressor nameplate)	VZH052CGANB	
Code number for Singlepack*	120G0149	
Code number for Industrial pack**	120G0143	
Drawing number	8590007	
Suction and discharge connections	Brazed	
Suction connection	7/8 " ODF	
Discharge connection	3/4 " ODF	
Oil sight glass	None	
Oil equalisation connection	None	
Oil drain connection	1/4" flare	
LP gauge port	None	
IPR valve	None	
Swept volume 52.1 cm3/rev		
Net weight	35 kg	
Oil charge	1.57 litre, PVE - FVC32D	
Maximum number of starts per hour	tarts per hour 12	
Refrigerant charge limit 5.4 kg		
Approved refrigerants	R410A	

#### **Dimensions**



#### **Electrical Characteristics**

Nominal voltage	Supply voltage 380-480V/3/50-60Hz			
Voltage range	342-528 V supply to frequency converter			
Winding resistance (between phases) +/- 7% at 25℃	0.177 Ω			
Rated Load Amps (RLA)	22.6 A			
Motor protection	Motor protection by frequency converter			

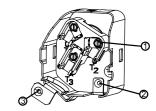
H1=280 mm H2=422 mm H3=- mm

D=184 mm H=455 mm

#### **Recommended Installation torques**

Oil sight glass	52.5 Nm	
Power connections / Earth connection	3 Nm / 2 Nm	
Mounting bolts	11 Nm	

# **Terminal box**



# 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

Power connections
 Earth connection

3: EMC braket with shielded cable



#### Datasheet, accessories and spare parts

Oil / lubricants

# Danfoss scroll compressor, VZH052CG

8168030
8156131

 Rotolock accessories, discharge side
 Code no.

 Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)
 8153008

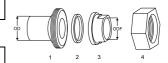
 Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)
 8168029

 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" Rotolock, 7/8" ODF), (1-1/4" Rotolock, 3/4" ODF)	120Z0128
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

# Solder sleeve adapter set



1: Rotolock ada	pter (Suc & Dis)
1. HOLOIOCK dad	ptci (Suc a Dis)

2: Gasket (Suc & Dis)

Code no.

- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

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,	120Z0622
2 grounding screws	
Terminal box cover	120Z5018



# Danfoss scroll compressor. VZH052CG

# Performance data at 17 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
cooling capacity	in W	1	T	1	1	1	1		1
10	-	2 898	3 535	4 215	4 941	5 721	-	-	-
20	-	2 544	3 261	4 014	4 806	5 645	6 535	-	-
30	-	1 912	2 696	3 510	4 356	5 242	6 172	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
ower input in W		_	T	1	1	1			1
10	-	488	454	428	409	398	-	-	-
20	-	702	661	623	588	557	530	-	-
30	-	944	909	872	834	796	757	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	_	-	-	_	-	-
<u>'</u>			1.0		•				ı
Current consump	otion in A								
10	-	0.73	0.55	0.34	0.07	-0.27	_	-	-
20	-	1.58	1.52	1.44	1.33	1.17	0.93	-	_
30	-	2.05	2.05	2.05	2.04	2.00	1.90	-	_
40	-	-	-	-	-	-	-	-	_
45	-	_	_	_	_	_	-	-	_
50		-	-	_	-	-	-	-	_
60		-	-	-	-	_	-	_	_
65	<u> </u>	<del>-</del>	-	_	-	-	-	-	_
03		-		-	-	-	-	-	_
Mass flow in kg/h	1								
10	-	50	60	71	83	96	_	_	_
20	-	47	59	72	86	100	115	-	-
		1				+	+		
30	-	39	54	69	85	101	118	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of per	formanco (C (	) P )							
10	-	5.94	7.78	9.85	12.08	14.37	-	-	-
		3.63	4.94	6.44			+		
30	-				8.17	10.14	12.33	-	-
	-	2.03	2.97	4.02	5.22	6.59	8.15	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	•	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 17 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity	in W								
10	-	3 069	3 742	4 458	5 224	6 045	-	-	-
20	-	2 715	3 478	4 277	5 118	6 007	6 949	-	-
30	-	2 060	2 903	3 775	4 682	5 630	6 623	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
ower input in W	/	1	Ţ		ı	1	1	1	
10	-	488	454	428	409	398	-	-	-
20	-	702	661	623	588	557	530	-	-
30	-	944	909	872	834	796	757	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
urrent consum	-	1			I		1	1	1
10	-	0.73	0.55	0.34	0.07	-0.27	-	-	-
20	-	1.58	1.52	1.44	1.33	1.17	0.93	-	-
30	-	2.05	2.05	2.05	2.04	2.00	1.90	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
lass flow in kg/l							1	1	1
10	-	50	60	71	82	95	-	-	-
20	-	47	59	72	85	99	114	-	-
30	-	39	54	69	84	100	117	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
andfiniant of									
oefficient of pe	•	1	0.00	10.10	10.77	15.40	1	1	1
10	-	6.29	8.23	10.42	12.77	15.18	-	-	-
20	-	3.87	5.26	6.87	8.70	10.78	13.11	-	-
	-	2.18	3.20	4.33	5.61	7.07	8.75	-	-
30				-	-	-	-	-	-
30 40	-	-	-						
30 40 45	-	-	-	-	-	-	-	-	-
30 40 45 50	- - -	-	-	-	-	-	-	-	-
30 40 45	-	-	-	-			<u> </u>		

pooaoo at to	,	
Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

#### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 20 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in		_	Т		ting temperature	1	<u>,                                      </u>		1
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
ooling capacity	in W		Т		T	1	Т		ı
10	-	3 531	4 295	5 117	6 003	6 960	-	-	-
20	-	3 103	3 948	4 843	5 797	6 815	7 904	-	-
30	-	2 379	3 287	4 239	5 243	6 305	7 431	•	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
ower input in W									
10	-	592	552	505	448	379	-	-	-
20	-	823	787	747	700	641	568	-	-
30	-	1 085	1 057	1 026	989	942	884	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
		- I	1	1	l	1			I
urrent consump	otion in A								
10	-	1.05	0.87	0.65	0.35	-0.04	_	-	_
20	-	1.83	1.78	1.70	1.58	1.38	1.09	-	_
30	-	2.33	2.33	2.34	2.32	2.26	2.13	-	_
40	_	-	-	-	-	-	-	-	_
45		_	_	_	_	_	_		_
50		-	-	-	_	-	-	-	_
60		<del>                                     </del>	-	_	-	-	-	-	_
65	<u> </u>	<del>-</del>	_	_	-	<u> </u>	-	-	_
03	-	-	-	-	-	-	-	-	-
loog flow in ka/h									
lass flow in kg/h		64	70	0.7	101	110			
10	-	61	73	87	101	116	-	-	-
20	-	57	72	87	103	121	139	-	-
30	-	48	66	84	102	122	142	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
50				-	-	-	-	•	-
50 60	-	-	-	-					
50		-	-	-	-	-	-	-	-
50 60 65	-	-		-	-	-	-	-	-
50 60 65 coefficient of per	-	- D.P.)	-	-	-	-	-	-	-
50 60 65 <b>oefficient of per</b>	-	- D.P.) 5.96	7.79	10.14	13.39	18.36	-	-	-
50 60 65 oefficient of per 10 20	- - formance (C.0	- D.P.)	-	-	- 13.39 8.28	10.63	- 13.92	- - -	
50 60 65 oefficient of per 10 20 30	- - formance (C.0	- D.P.) 5.96	7.79	10.14 6.48 4.13	13.39		+		
50 60 65 oefficient of per 10 20	- - formance (C.0 - -	- D.P.) 5.96 3.77	7.79 5.01	- 10.14 6.48	- 13.39 8.28	10.63	13.92	-	-
50 60 65 oefficient of per 10 20 30	- - formance (C.0 - -	5.96 3.77 2.19	7.79 5.01 3.11	10.14 6.48 4.13	13.39 8.28 5.30	10.63 6.69	13.92 8.41	-	-
50 60 65 oefficient of per 10 20 30 40	- - formance (C.0 - - -	5.96 3.77 2.19	7.79 5.01 3.11	10.14 6.48 4.13	13.39 8.28 5.30	10.63 6.69	13.92 8.41 -		
50 60 65 oefficient of per 10 20 30 40 45	- - formance (C.0 - - - -	5.96 3.77 2.19	7.79 5.01 3.11	10.14 6.48 4.13	13.39 8.28 5.30	10.63 6.69 - -	13.92 8.41 -	- - -	- - -

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900



# Danfoss scroll compressor. VZH052CG

# Performance data at 20 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
2 - a linen - ann a itu	: \A/								
Cooling capacity		2.740	4.540	F 440	0.040	7.054			
10	-	3 740	4 546	5 413	6 346	7 354	- 0.404	-	-
20	-	3 312	4 210	5 161	6 172	7 251	8 404	-	-
30	-	2 564	3 539	4 560	5 635	6 771	7 974	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
10	-	592	552	505	448	379	_	-	-
20	-	823	787	747	700	641	568	-	-
30	-	1 085	1 057	1 026	989	942	884	-	_
40	-	-	-	-	-	-	-	-	_
45		-	-	-	_	-	-	-	_
50		-	-	-	-	_	-	_	_
60		-	-	-	-	-	-	-	_
65	-	-	-	-	-	-	-	-	-
03		<u> </u>	1	1	1	<u> </u>		<u> </u>	
Current consump	otion in A								
10	-	1.05	0.87	0.65	0.35	-0.04	-	-	-
20	-	1.83	1.78	1.70	1.58	1.38	1.09	-	-
30	-	2.33	2.33	2.34	2.32	2.26	2.13	-	-
40	-	-	_	-	-	-	_	-	-
45	-	_	_	-	-	-	_	-	_
50	-	-	-	-	-	-	-	-	-
60	-	_	_	_	_	-	-	-	-
65	-	_	_	-	_	-	-	-	-
00		<u> </u>		I	<u> </u>	I	1		ı
Mass flow in kg/h	1								
10	-	61	73	86	100	115	-	-	-
20	-	57	72	87	103	120	138	-	-
30	-	48	65	83	102	121	141	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	_	-	-	-	-
65	-	-	-	-	-	-	-	-	-
•		<b>-1</b>	1	· ·	•	<b>u</b>	· ·		•
Coefficient of per			0.04	10.72	14.16	10.40			1
10	-	6.32	8.24	+	14.16	19.40	-	-	-
20	-	4.02	5.35	6.90	8.82	11.31	14.80	-	-
30	-	2.36	3.35	4.45	5.70	7.18	9.02	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-

#### Nominal performance at to = 7.2 °C, tc = 54.4 °C

pooaoo at to	,	
Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 25 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in	in Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity	y in W								
10	-	4 483	5 441	6 480	7 610	8 839	-	-	-
20	-	3 947	4 984	6 097	7 294	8 585	9 978	-	-
30	-	3 090	4 183	5 345	6 586	7 914	9 338	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W	v								
10	-	754	703	627	517	365	-	-	-
20	-	1 012	984	941	875	777	638	-	-
30	-	1 307	1 288	1 265	1 229	1 171	1 083	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Current consum	ption in A								
10	-	1.51	1.35	1.11	0.77	0.31	-	-	-
20	-	2.22	2.17	2.10	1.95	1.71	1.34	-	-
30	-	2.77	2.77	2.77	2.74	2.66	2.48	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
							_		
Mass flow in kg/	h								
10	-	77	93	109	127	147	-	-	-
20	-	73	91	110	130	152	175	-	-
30	-	63	84	106	129	153	179	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of pe	erformance (C.0	O.P.)							
10	-	5.95	7.74	10.33	14.71	24.19	-	-	-
20	-	3.90	5.06	6.48	8.34	11.05	15.63	-	-
30	-	2.36	3.25	4.23	5.36	6.76	8.62	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
	-	-	-	_	-	-	-	_	-
50		1	1	+	1	1	+		
50 60	-	-	-	-	-	-	-	-	-
50 60 65	-	-	-	-	-	-	-	-	-

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

#### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K



# Danfoss scroll compressor. VZH052CG

# Performance data at 25 Hz, ARI rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity	in W								
10	-	4 749	5 759	6 855	8 045	9 338	_	-	_
20		4 212		6 497	7 767	9 134	10 609	-	_
			5 315						
30	-	3 330	4 504	5 750	7 079	8 499	10 021	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
10	-	754	703	627	517	365	-	-	-
20	-	1 012	984	941	875	777	638	-	-
30	-	1 307	1 288	1 265	1 229	1 171	1 083	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	_
50	-	-	-	-	-	-	-	-	_
60	-	-	-	-	-	_	_	-	_
65	_	-	_	-	_	_	-	-	_
		1	ı	1	1	1	1		1
Current consump	otion in A								
10	-	1.51	1.35	1.11	0.77	0.31	-	-	-
20	-	2.22	2.17	2.10	1.95	1.71	1.34	-	-
30	-	2.77	2.77	2.77	2.74	2.66	2.48	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	_	-	_	-	-	_	_	•	-
Mass flam in Isu/le		1	•	1	•	<u>'</u>	•		
Mass flow in kg/h		77	00	100	100	146			
10	-	77	92	109	126	146	-	-	-
20	-	73	91	109	129	151	174	-	-
30	-	62	83	105	128	152	178	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of per	formance (C.0	O.P.)				_			
10	-	6.30	8.19	10.93	15.55	25.56	-	-	-
20	-	4.16	5.40	6.90	8.88	11.76	16.62	-	-
30	-	2.55	3.50	4.55	5.76	7.26	9.25	-	-
40	-	-	-	-	-	-	-	1	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
60				1	1		1		

#### Nominal performance at to = 7.2 °C, tc = 54.4 °C

pooaoo at to	,	
Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 30 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity	v in W								
10	3 399	5 428	6 579	7 838	9 213	10 718	_	-	_
20	2 586	4 788	6 017	7 347	8 788	10 7 10	12 051	<u> </u>	
30	-	3 805	5 081	6 452	7 929	9 523	11 244	<u> </u>	-
40	-	2 546	3 838	5 218	6 699	8 290	10 002	-	-
						1			
45	-	-	3 122	4 495	5 964	7 541	9 235	-	-
50	-	-	-	3 712	5 160	6 713	8 380	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in V	v								
10	965	920	860	757	598	370	-	-	-
20	1 231	1 209	1 187	1 141	1 057	923	724	-	-
30	-	1 538	1 528	1 511	1 475	1 407	1 293	-	-
40	-	1 982	1 956	1 942	1 927	1 898	1 841	-	-
45	-	-	2 227	2 204	2 189	2 169	2 130	-	-
50	-	-	-	2 509	2 487	2 470	2 443	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	_
		1	1	•		1			
urrent consum	-	4.05	4.00	4.55	1.10	0.04			T
10	2.11	1.95	1.80	1.55	1.18	0.64	-	-	-
20	2.66	2.60	2.57	2.49	2.32	2.04	1.61	-	-
30	-	3.21	3.22	3.21	3.18	3.06	2.84	-	-
40	-	4.04	4.00	3.99	3.99	3.96	3.87	-	-
45	-	-	4.52	4.48	4.47	4.45	4.39	-	-
50	-	-	-	5.08	5.03	5.00	4.95	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
lass flow in kg/	'h								
10	60	94	112	132	154	178	-	-	-
20	49	89	110	133	157	183	212	-	-
30	-	77	102	127	155	184	216	-	-
40	-	58	85	115	145	178	213	-	-
45	-	-	74	105	138	172	209	-	-
50	-	-	-	93	127	164	202	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of pe	erformance (C.C	D.P.)							
10	3.52	5.90	7.65	10.35	15.40	28.96	-	-	-
20	2.10	3.96	5.07	6.44	8.31	11.22	16.64	-	-
30	-	2.47	3.33	4.27	5.37	6.77	8.70	_	-
40	-	1.28	1.96	2.69	3.48	4.37	5.43	-	-
45	-	-	1.40	2.04	2.72	3.48	4.33	-	-
50	-	-	-	1.48	2.07	2.72	3.43	-	-
00	-	-	-	-	-	-	-	-	_
60			-					-	1 -

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	6 713	W	
Power input	2 470	W	
Current consumption	5.00	Α	
Mass flow	164	kg/h	
C.O.P.	2.72		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 30 Hz, ARI rating conditions

# **R410A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
O 11 11-									
Cooling capaci		F 740	0.004	0.004	0.740	44.224	1		
10	3 605	5 749	6 964	8 291	9 740	11 324	-	-	-
20	2 765	5 109	6 416	7 828	9 357	11 015	12 814	-	-
30	-	4 100	5 471	6 941	8 522	10 227	12 066	-	-
40	-	2 781	4 188	5 688	7 294	9 017	10 869	-	-
45	-	-	3 438	4 943	6 550	8 272	10 121	-	-
50	-	-	-	4 128	5 731	7 445	9 282	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in	w								
10	965	920	860	757	598	370	-	-	-
20	1 231	1 209	1 187	1 141	1 057	923	724	-	-
30	-	1 538	1 528	1 511	1 475	1 407	1 293	-	-
40	-	1 982	1 956	1 942	1 927	1 898	1 841		-
45	-	-	2 227	2 204	2 189	2 169	2 130	-	-
50	-	-	-	2 509	2 487	2 470	2 443	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
		1					•		•
urrent consur		T		I		1	1		1
10	2.11	1.95	1.80	1.55	1.18	0.64	-	-	-
20	2.66	2.60	2.57	2.49	2.32	2.04	1.61	-	-
30	-	3.21	3.22	3.21	3.18	3.06	2.84	-	-
40	-	4.04	4.00	3.99	3.99	3.96	3.87	-	-
45	-	-	4.52	4.48	4.47	4.45	4.39	-	-
50	-	-	-	5.08	5.03	5.00	4.95	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Mass flow in kg	/h								
10	59	93	112	131	153	176	-	-	_
20	49	88	109	132	156	182	210	-	-
30	-	77	101	127	154	183	214	-	_
40	-	57	85	114	145	177	211	-	_
45	-	_	73	104	137	171	207	-	-
50	-	_	-	92	126	162	201	-	-
60	-	-	-	-	-	-	-	-	_
65	-	-	_	-	_	_	_	-	_
			ı	l		l			1
	aufarmanaa /C C	).P.)				1	1		
	`	6.25	0.40	10.05					-
10	3.74	6.25	8.10	10.95	16.28	30.60	17.70	-	Ĭ .
10 20	3.74 2.25	4.23	5.40	6.86	8.85	11.94	17.70	-	-
20 30	3.74 2.25	4.23 2.67	5.40 3.58	6.86 4.59	8.85 5.78	11.94 7.27	17.70 9.33	-	-
10 20 30 40	3.74 2.25 -	4.23 2.67 1.40	5.40 3.58 2.14	6.86 4.59 2.93	8.85 5.78 3.79	11.94 7.27 4.75	17.70 9.33 5.90		
10 20 30 40 45	3.74 2.25 - -	4.23 2.67 1.40	5.40 3.58 2.14 1.54	6.86 4.59 2.93 2.24	8.85 5.78 3.79 2.99	11.94 7.27 4.75 3.81	17.70 9.33 5.90 4.75		
10 20 30 40 45 50	3.74 2.25 - - - -	4.23 2.67 1.40 -	5.40 3.58 2.14 1.54	6.86 4.59 2.93 2.24 1.65	8.85 5.78 3.79 2.99 2.30	11.94 7.27 4.75 3.81 3.01	17.70 9.33 5.90 4.75 3.80	- - - -	
10 20 30 40 45	3.74 2.25 - -	4.23 2.67 1.40	5.40 3.58 2.14 1.54	6.86 4.59 2.93 2.24	8.85 5.78 3.79 2.99	11.94 7.27 4.75 3.81	17.70 9.33 5.90 4.75		

Cooling capacity	-	W	
Power input	-	W	
Current consumption	-	Α	
Mass flow	-	kg/h	
C.O.P.	-		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

# Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 35 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity		1							1
10	4 015	6 365	7 711	9 190	10 814	12 598	-	-	-
20	3 109	5 625	7 045	8 592	10 278	12 118	14 124	-	-
30	-	4 523	5 981	7 560	9 272	11 131	13 150	-	-
40	-	3 133	4 591	6 164	7 864	9 703	11 696	-	-
45	-	-	3 798	5 352	7 030	8 845	10 810	-	-
50	-	-	-	4 477	6 123	7 901	9 826	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W	v								
10	1 123	1 092	1 022	895	691	393	-	-	_
20	1 413	1 412	1 396	1 347	1 247	1 079	825		_
30	-	1 777	1 775	1 765	1 729	1 651	1 512	<u>-</u>	_
40	<u> </u>	2 283	2 255	2 244	2 233	2 205	2 141	<u> </u>	_
45	-	-	2 564	2 537	2 524	2 505	2 465	-	-
50		-	-	2 882	2 856	2 838	2 810		_
60		-	-	-	-	2 030	2 810	-	-
65		-	-	-	-	-	-	-	-
υυ	-	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
Current consum	ption in A								
10	2.49	2.38	2.23	1.98	1.57	0.96	-	-	-
20	3.01	2.99	2.97	2.88	2.70	2.38	1.88	-	_
30	-	3.66	3.66	3.66	3.61	3.47	3.21	-	-
40	_	4.62	4.56	4.54	4.53	4.48	4.36	-	_
45	_	-	5.15	5.09	5.06	5.02	4.94	-	_
50	-	_	-	5.74	5.67	5.62	5.55	-	-
60	-	-	_	-	-	-	-	-	_
65	-	-	_	_	-	-	-	-	_
00		I	ı		ı	1			
Mass flow in kg/	h								
10	71	110	132	155	181	209	-	-	-
20	59	104	129	155	184	215	249	-	-
30	_	92	120	149	181	215	252	-	_
40	_	71	102	135	171	208	249	-	_
45	_	-	90	125	162	202	244	-	_
50	-	-	-	112	151	192	237	-	_
60	_	-	-	-	-	-	-	<u>-</u>	_
65		_	_	-	_	<del>                                     </del>	_	<u>-</u>	_
00		I	1		1				l
Coefficient of pe	•	1	_			1			I
10	3.57	5.83	7.54	10.27	15.66	32.05	-	-	-
20	2.20	3.98	5.05	6.38	8.24	11.23	17.11	-	-
30	-	2.55	3.37	4.28	5.36	6.74	8.70	-	-
40	-	1.37	2.04	2.75	3.52	4.40	5.46	-	-
45	-	-	1.48	2.11	2.79	3.53	4.39	-	-
50	-	-	-	1.55	2.14	2.78	3.50	-	-
	· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-	-	-	-
60	-								
	-	-	-	-	-	-	-	-	-

Cooling capacity	7 901	W
Power input	2 838	W
Current consumption	5.62	Α
Mass flow	192	kg/h
C.O.P.	2.78	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

#### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 35 Hz, ARI rating conditions

# **R410A**

Coling capacity in W	Cond. temp. in				Evapora	ting temperature	in °C (to)			
10	°C (tc)	-25	-15	-10	-5	0	5	10	20	25
10						<u> </u>				
20			1 0744	1 0.400	1 0.704	1 44 400	10.011			
30			+							
40										
46										
50	-						1			
60		-	-	4 182					-	-
Convertinguit in W	-	-	-	-			8 763		-	-
Nower input in W				1			-			
10	65	-	-	-	-	-	-	-	-	-
10	Power input in W	ı								
20			1 092	1 022	895	691	393	_	-	_
30								825	-	-
40	-	-					1	1 512	-	_
45				1			1			-
So										-
60	-	-	_				1		-	-
66         -				t				1		
urrent consumption in A           10         2.49         2.38         2.23         1.98         1.57         0.96         -         -         -           20         3.01         2.99         2.97         2.88         2.70         2.38         1.88         -         -           30         -         3.66         3.66         3.61         3.47         3.21         -         -           40         -         4.62         4.56         4.54         4.53         4.48         4.36         -         -           45         -         -         5.15         5.09         5.06         5.02         4.94         -         -           50         -         -         -         5.74         5.67         5.62         5.55         -         -           60         -<			_					1		
10			L	ı	1	ı	II.			
20	urrent consum	ption in A								
30	10	2.49	2.38	2.23	1.98	1.57	0.96	-	-	-
40	20	3.01	2.99	2.97	2.88	2.70	2.38	1.88	-	-
45	30	-	3.66	3.66	3.66	3.61	3.47	3.21	-	-
So	40	-	4.62	4.56	4.54	4.53	4.48	4.36	-	-
So	45	_	_	5.15	5.09	5.06	5.02	4.94	-	-
60		-	-						-	-
10	60	-	-	-	-	-	-	-	-	-
10		-	-	-	-	-	-	-	-	-
10         70         109         131         154         179         207         -         <	1				•		•			
20         59         104         128         154         183         213         247         -         -           30         -         91         119         148         180         214         250         -         -           40         -         70         102         135         170         207         247         -         -           45         -         -         89         124         161         200         242         -         -           50         -         -         -         111         150         191         235         -         -           60         -         -         -         -         -         -         -         -           65         -         -         -         -         -         -         -         -         -           65         -	Mass flow in kg/l	n								
30	10	70	109	131	154	179	207	-	-	-
40         -         70         102         135         170         207         247         -         <	20	59	104	128	154	183	213	247	-	-
45         -         -         89         124         161         200         242         -         -           50         -         -         -         111         150         191         235         -         -           60         -         -         -         -         -         -         -         -           65         -         -         -         -         -         -         -         -           65         -         -         -         -         -         -         -         -           65         -         -         -         -         -         -         -         -           65         - <td>30</td> <td>-</td> <td>91</td> <td>119</td> <td>148</td> <td>180</td> <td>214</td> <td>250</td> <td>-</td> <td>-</td>	30	-	91	119	148	180	214	250	-	-
50         -         -         -         111         150         191         235         -	40	-	70	102	135	170	207	247	-	-
60	45	-	-	89	124	161	200	242	-	-
60	50	-	-	-	111	150	191	235	-	-
65         -		-	-	-			-		-	-
oefficient of performance (C.O.P.)           10         3.79         6.18         7.98         10.87         16.55         33.86         - <td< td=""><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></td<>		-	-	-	-	-	-	-	-	-
10         3.79         6.18         7.98         10.87         16.55         33.86         -										
20     2.35     4.25     5.38     6.80     8.78     11.95     18.20     -     -       30     -     2.74     3.63     4.61     5.76     7.24     9.33     -     -       40     -     1.50     2.22     2.99     3.83     4.79     5.94     -     -       45     -     -     1.63     2.32     3.06     3.87     4.81     -     -       50     -     -     -     1.73     2.38     3.09     3.87     -     -       60     -     -     -     -     -     -     -     -			1					<u> </u>		
30     -     2.74     3.63     4.61     5.76     7.24     9.33     -     -       40     -     1.50     2.22     2.99     3.83     4.79     5.94     -     -       45     -     -     1.63     2.32     3.06     3.87     4.81     -     -       50     -     -     -     1.73     2.38     3.09     3.87     -     -       60     -     -     -     -     -     -     -     -	-						+	1		-
40     -     1.50     2.22     2.99     3.83     4.79     5.94     -     -       45     -     -     1.63     2.32     3.06     3.87     4.81     -     -       50     -     -     -     1.73     2.38     3.09     3.87     -     -       60     -     -     -     -     -     -     -     -										-
45     -     -     1.63     2.32     3.06     3.87     4.81     -     -       50     -     -     -     1.73     2.38     3.09     3.87     -     -       60     -     -     -     -     -     -     -	-	-							-	-
50     -     -     -     1.73     2.38     3.09     3.87     -     -       60     -     -     -     -     -     -     -		-	1.50						-	-
60	45	-	-	1.63			3.87	+	-	-
		-	-	-	1.73	2.38	3.09	3.87	-	-
65		-	-	-	-	-	-	-	-	-
	65	-	-	-	-	-	-	-	-	-

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

# Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 40 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling conceit	n. in M								
200ling capacit	4 624	7 294	8 835	10 536	12 412	14 479	_	<u> </u>	_
20		6 459	8 070	1		13 881	1	-	-
	3 632			9 833	11 765	1	16 197		-
30	2 343	5 245	6 884	8 668	10 614	12 738	15 054	20 328	
40	-	3 731	5 354	7 117	9 034	11 121	13 393	18 555	21 476
45	-	2 888	4 487	6 221	8 106	10 157	12 390	17 460	20 327
50	-	-	3 565	5 258	7 099	9 101	11 281	16 231	19 032
60	-	-	-	-	4 878	6 733	8 756	13 361	15 971
65	-	-	-	-	-	5 419	7 322	11 665	-
Power input in \	W								
10	1 289	1 268	1 190	1 040	795	435	_	-	-
20	1 604	1 622	1 611	1 559	1 444	1 246	942	-	-
30	2 070	2 025	2 030	2 025	1 990	1 902	1 741	1 113	-
40	-	2 593	2 563	2 555	2 548	2 520	2 450	2 100	1 778
45	-	2 975	2 908	2 880	2 868	2 851	2 808	2 559	2 310
50	-	-	3 326	3 264	3 234	3 216	3 187	3 013	2 826
60	-	-	-	-	4 166	4 105	4 066	3 967	3 865
65	-	-	_	_	-	4 659	4 596	4 496	_
			1	L	l	1			
urrent consum	nption in A								
10	2.85	2.79	2.65	2.38	1.94	1.28	-	-	-
20	3.37	3.38	3.36	3.28	3.07	2.72	2.16	-	-
30	4.24	4.11	4.12	4.11	4.05	3.89	3.59	2.41	-
40	-	5.20	5.12	5.09	5.06	5.00	4.86	4.16	3.53
45	-	5.93	5.77	5.69	5.65	5.59	5.49	4.96	4.46
50	-	-	6.56	6.41	6.32	6.25	6.16	5.75	5.34
60	-	-	-	-	8.01	7.83	7.69	7.36	7.08
65	-	-	-	-	-	8.81	8.61	8.23	-
		<u>, I                                   </u>		I				l	
lass flow in kg				T	T	1		1	1
10	81	126	151	178	207	240	-	-	-
20	69	120	148	178	211	246	285	-	-
30	49	106	138	171	207	247	289	385	-
40	-	84	119	156	196	239	285	389	447
45	-	69	106	145	187	232	280	388	448
50	-	-	90	131	175	222	272	384	446
60	-	-	-	-	142	193	247	368	435
65	-	-	-	-	-	174	230	355	-
Coefficient of pe	erformance (C.C	D.P.)							
10	3.59	5.75	7.42	10.14	15.62	33.32	-	-	-
20	2.26	3.98	5.01	6.31	8.15	11.15	17.20	-	-
30	1.13	2.59	3.39	4.28	5.33	6.70	8.65	18.26	-
40	-	1.44	2.09	2.79	3.55	4.41	5.47	8.83	12.08
45	-	0.97	1.54	2.16	2.83	3.56	4.41	6.82	8.80
50	-	-	1.07	1.61	2.19	2.83	3.54	5.39	6.73
60	-	-	-	-	1.17	1.64	2.15	3.37	4.13
	_	_	_	_	1	1.04	2.10	0.07	7.10

#### Nominal performance at to = 5 °C, tc = 50 °C

	-,		
Cooling capacity	9 101	W	
Power input	3 216	W	
Current consumption	6.25	Α	
Mass flow	222	kg/h	
C.O.P.	2.83		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 40 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Caaling canacity	· in M								
Cooling capacity	4 905	7 725	9 352	11 146	13 122	15 298	_	_	_
20	3 882	6 893	8 605	10 477	12 527	14 770	17 223	-	_
30	2 531	5 653	7 411	9 324	11 408	13 679	16 154	21 782	_
40	2 001	4 076	5 843	7 758	9 837	12 097	14 554	20 130	23 280
45		3 184	4 940	6 841	8 903	11 143	13 578	19 098	22 216
50		-	3 970	5 848	7 883	10 094	12 495	17 940	21 016
60		-	-	-	5 619	7 741	10 048	15 284	18 247
65	<u> </u>	_	_		-	6 455	8 700	13 804	-
00					l	0 400	0.100	10 004	I
Power input in W				1	T	T	T	1	T
10	1 289	1 268	1 190	1 040	795	435	-	-	-
20	1 604	1 622	1 611	1 559	1 444	1 246	942	-	-
30	2 070	2 025	2 030	2 025	1 990	1 902	1 741	1 113	-
40	-	2 593	2 563	2 555	2 548	2 520	2 450	2 100	1 778
45	-	2 975	2 908	2 880	2 868	2 851	2 808	2 559	2 310
50	-	-	3 326	3 264	3 234	3 216	3 187	3 013	2 826
60	-	-	-	-	4 166	4 105	4 066	3 967	3 865
65	-	-	-	-	-	4 659	4 596	4 496	-
Current consum	ption in A								
10	2.85	2.79	2.65	2.38	1.94	1.28	_	_	-
20	3.37	3.38	3.36	3.28	3.07	2.72	2.16	-	-
30	4.24	4.11	4.12	4.11	4.05	3.89	3.59	2.41	-
40	-	5.20	5.12	5.09	5.06	5.00	4.86	4.16	3.53
45	-	5.93	5.77	5.69	5.65	5.59	5.49	4.96	4.46
50	-	-	6.56	6.41	6.32	6.25	6.16	5.75	5.34
60	-	-	-	-	8.01	7.83	7.69	7.36	7.08
65	-	-	-	-	-	8.81	8.61	8.23	-
Mass flow in kg/l								ı	1
10	81	125	150	177	206	238	-	-	-
20	69	119	147	177	209	244	283	-	-
30	49	106	137	170	206	245	287	382	- 444
40	-	84	118	155	195	237	283	386	444
45	-	69	105	144	186	230	278	384	444
50	-	-	89	130	174	220	270	381	443
60	-	-	-	-	141	192	245	365	431
65	•	-	-	-	-	172	229	353	-
Coefficient of pe	rformance (C.C	D.P.)							
10	3.81	6.09	7.86	10.72	16.51	35.21	-	-	-
20	2.42	4.25	5.34	6.72	8.67	11.86	18.29	-	-
30	1.22	2.79	3.65	4.60	5.73	7.19	9.28	19.57	-
40	-	1.57	2.28	3.04	3.86	4.80	5.94	9.58	13.09
45	-	1.07	1.70	2.38	3.10	3.91	4.84	7.46	9.62
50	-	-	1.19	1.79	2.44	3.14	3.92	5.95	7.44
60	-	-	-	-	1.35	1.89	2.47	3.85	4.72
65	_	-	_	-	_	1.39	1.89	3.07	-

Cooling capacity	10 113	W
Power input	3 565	W
Current consumption	6.85	Α
Mass flow	231	kg/h
C.O.P.	2.84	

to: Evaporating temperature at dew point

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

# Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 45 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
N 11	. ! \								
cooling capacity		9.245	0.053	11 070	14.009	16 262	1	1	
10	5 227	8 215	9 953	11 878	14 008	16 362	- 40.070	-	-
20	4 155	7 289	9 090	11 070	13 248	15 642	18 270	-	-
30	2 781	5 971	7 788	9 777	11 957	14 344	16 958	22 935	- 04.004
40	-	4 341	6 128	8 078	10 211	12 543	15 093	20 916	24 224
45	-	3 438	5 190	7 102	9 192	11 477	13 975	19 680	22 922
50	-	-	4 195	6 055	8 088	10 312	12 744	18 301	21 461
60	-	-	-	-	5 659	7 705	9 949	15 091	18 024
65	-	-	-	-	-	6 258	8 361	13 198	-
Power input in V	v								
10	1 460	1 448	1 363	1 192	911	494	-	-	-
20	1 804	1 838	1 832	1 777	1 648	1 422	1 074	-	-
30	2 321	2 281	2 293	2 293	2 257	2 161	1 979	1 262	-
40	-	2 910	2 879	2 874	2 871	2 843	2 768	2 374	2 007
45	-	3 336	3 261	3 231	3 220	3 205	3 160	2 882	2 601
50	-	-	3 725	3 654	3 621	3 602	3 572	3 381	3 171
60	-	-	-	-	4 643	4 572	4 527	4 417	4 303
65	-	-	-	-	-	5 178	5 102	4 988	-
					•				
Current consum	ption in A		_	_					
10	3.20	3.19	3.05	2.77	2.29	1.58	-	-	-
20	3.73	3.77	3.76	3.67	3.45	3.06	2.45	-	-
30	4.69	4.58	4.58	4.57	4.49	4.31	3.98	2.70	-
40	-	5.77	5.68	5.64	5.60	5.53	5.36	4.60	3.91
45	-	6.57	6.39	6.30	6.24	6.17	6.05	5.47	4.92
50	-	-	7.25	7.07	6.96	6.87	6.76	6.31	5.87
60	-	-	-	-	8.74	8.53	8.37	8.01	7.71
65	-	-	-	-	-	9.54	9.31	8.91	-
Mara - 61 to 1									
Mass flow in kg/		140	170	1 000	004	1 074	1	1	1
10	92	142	170	200	234	271	-	-	-
20	79	135	167	200	237	277	322	-	-
30	58	121	156	193	234	278	326	435	-
40	-	98	136	177	222	269	321	438	505
45	-	82	122	166	212	262	315	437	505
50	-	-	106	151	199	251	307	433	503
60	-	-	-	-	165	221	281	416	491
65	-	-	-	-	-	201	263	402	-
Coefficient of pe	rformance (C.C	D.P.)							
10	3.58	5.67	7.30	9.96	15.38	33.10	-	-	-
20	2.30	3.97	4.96	6.23	8.04	11.00	17.01	-	-
30	1.20	2.62	3.40	4.26	5.30	6.64	8.57	18.17	-
40	-	1.49	2.13	2.81	3.56	4.41	5.45	8.81	12.07
45	-	1.03	1.59	2.20	2.85	3.58	4.42	6.83	8.81
50	-	-	1.13	1.66	2.23	2.86	3.57	5.41	6.77
60	-	-	-	-	1.22	1.69	2.20	3.42	4.19
65	-	_	-	_	-	1.21	1.64	2.65	_

# Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	10 312	W
Power input	3 602	W
Current consumption	6.87	Α
Mass flow	251	kg/h
C.O.P.	2.86	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 45 Hz, ARI rating conditions

# **R410A**

Cooling capacity in W	Cond. temp. in				Evapora	ating temperature	in °C (to)			
10	°C (tc)	-25	-15	-10	-5	0	5	10	20	25
10										
20			0.704	10.505	10.504	14.000	17.000		1	
30	1							<u> </u>	+	
40						1				
45										
So	1					+				26 259
Food										25 052
Power input in W		-	-	4 673	6 734					23 698
Power input in W  10					-	1			1	20 592
10	65	-	-	-	-	-	7 454	9 935	15 618	-
10	Power input in V	v								
20			1 448	1 363	1 192	911	494	_	_	_
30								1 074	_	_
40 - 2910 2879 2874 2871 2843 2768 2374 200 45 - 3336 3261 3231 3220 3205 3160 2882 260 50 3725 3654 3621 3620 3572 3381 317 60 5178 5102 4988 -  Current consumption in A  10 3.20 3.19 3.05 2.77 2.29 1.58	-					1		<u> </u>	1 262	_
45										2 007
Solution   Solution				1						2 601
60 4 643						+				3 171
Current consumption in A  10 3.20 3.19 3.05 2.77 2.29 1.58		-		İ						4 303
Current consumption in A  10 3.20 3.19 3.05 2.77 2.29 1.58  20 3.73 3.77 3.76 3.67 3.45 3.06 2.45  30 4.69 4.58 4.58 4.57 4.49 4.31 3.98 2.70 -  40 - 5.77 5.68 5.64 5.60 5.53 5.36 4.60 3.99  45 - 6.57 6.39 6.30 6.24 6.17 6.05 5.47 4.99  45 - 7.25 7.07 6.96 6.87 6.76 6.31 5.86  60 8.74 8.53 8.37 8.01 7.77  65 8.74 8.53 8.37 8.01 7.77  65 9.54 9.31 8.91  Mass flow in kg/h  10 91 141 169 199 232 269  20 79 134 165 199 236 276 319  30 58 120 155 192 232 276 323 431  40 - 97 135 176 220 268 319 435 500  45 - 82 122 164 210 260 313 433 501  50 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 199 261 399  Coefficient of performance (C.O.P.)  10 3.80 6.01 7.73 10.54 16.26 34.98	1	_				+				<b>†</b>
10 3.20 3.19 3.05 2.77 2.29 1.58			I.	1	1	I	1			
20 3.73 3.77 3.76 3.67 3.45 3.06 2.45	Current consum	ption in A								
30	10	3.20	3.19	3.05	2.77	2.29	1.58	-	-	-
40	20	3.73	3.77	3.76	3.67	3.45	3.06	2.45	-	-
45 - 6.57 6.39 6.30 6.24 6.17 6.05 5.47 4.95 50 - 7.25 7.07 6.96 6.87 6.76 6.31 5.87 60 - 7.25 7.07 6.96 6.87 6.76 6.31 5.87 60 - 7.25 7.25 7.07 6.96 6.87 6.76 6.31 5.87 60 7.77 65 7.25 7.07 6.96 6.87 8.74 8.53 8.37 8.01 7.77 65 7.25 7.25 7.25 7.25 7.25 7.25 8.74 8.53 8.37 8.01 7.77 65 7.25 7.25 7.25 7.25 7.25 7.25 7.25 7.2	30	4.69	4.58	4.58	4.57	4.49	4.31	3.98	2.70	-
50         -         -         7.25         7.07         6.96         6.87         6.76         6.31         5.81           60         -         -         -         -         8.74         8.53         8.37         8.01         7.77           65         -         -         -         -         9.54         9.31         8.91         -           Mass flow in kg/h           10         91         141         169         199         232         269         -         -         -         -           20         79         134         165         199         236         276         319         -         -         -           30         58         120         155         192         232         276         323         431         -           40         -         97         135         176         220         268         319         435         500           45         -         82         122         164         210         260         313         433         501           50         -         -         105         150         198         249         30	40	-	5.77	5.68	5.64	5.60	5.53	5.36	4.60	3.91
60	45	-	6.57	6.39	6.30	6.24	6.17	6.05	5.47	4.92
Mass flow in kg/h         10         91         141         169         199         232         269         -	50	-	-	7.25	7.07	6.96	6.87	6.76	6.31	5.87
Mass flow in kg/h  10 91 141 169 199 232 269  20 79 134 165 199 236 276 319  30 58 120 155 192 232 276 323 431 -  40 - 97 135 176 220 268 319 435 500  45 - 82 122 164 210 260 313 433 501  50 105 150 198 249 305 429 499  60 105 150 198 249 305 429 499  60 1 - 164 219 279 412 486  65 1 - 199 261 399 -  Coefficient of performance (C.O.P.)  10 3.80 6.01 7.73 10.54 16.26 34.98  20 2.46 4.23 5.29 6.64 8.56 11.70 18.09  20 2.46 4.23 5.29 6.64 8.56 11.70 18.09  40 - 1.63 2.32 3.66 4.59 5.69 7.13 9.19 19.47 -  40 - 1.63 2.32 3.06 3.87 4.80 5.93 9.56 13.0  45 - 1.14 1.75 2.42 3.13 3.93 4.85 7.47 9.66  50 1.25 1.84 2.48 3.17 3.95 5.98 7.45  60 1.25 1.84 2.48 3.17 3.95 5.98 7.45	60	-	-	-	-	8.74	8.53	8.37	8.01	7.71
10         91         141         169         199         232         269         -         <	65	-	-	-	-	-	9.54	9.31	8.91	-
10         91         141         169         199         232         269         -         <										
20         79         134         165         199         236         276         319         -	Mass flow in kg/	h								
30         58         120         155         192         232         276         323         431         -           40         -         97         135         176         220         268         319         435         500           45         -         82         122         164         210         260         313         433         501           50         -         -         105         150         198         249         305         429         495           60         -         -         -         -         164         219         279         412         486           65         -         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         -         -         -         -         -           20         2.46         4.23         5.29         6.64         8.56         11.70         18.09         -         -           30         1.29         2.82         3.66         4.59	10	91	141	169	199	232	269	-	-	-
40         -         97         135         176         220         268         319         435         500           45         -         82         122         164         210         260         313         433         501           50         -         -         105         150         198         249         305         429         495           60         -         -         -         -         164         219         279         412         486           65         -         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         -         -         -         -           20         2.46         4.23         5.29         6.64         8.56         11.70         18.09         -         -           30         1.29         2.82         3.66         4.59         5.69         7.13         9.19         19.47         -           40         -         1.63         2.32         3.06         3.87 </td <td>20</td> <td>79</td> <td>134</td> <td>165</td> <td>199</td> <td>236</td> <td>276</td> <td>319</td> <td>-</td> <td>-</td>	20	79	134	165	199	236	276	319	-	-
45         -         82         122         164         210         260         313         433         501           50         -         -         105         150         198         249         305         429         496           60         -         -         -         -         164         219         279         412         486           65         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         -	30	58	120	155	192	232	276	323	431	-
50         -         -         105         150         198         249         305         429         499           60         -         -         -         -         164         219         279         412         486           65         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         - </td <td>40</td> <td>-</td> <td>97</td> <td>135</td> <td>176</td> <td>220</td> <td>268</td> <td>319</td> <td>435</td> <td>500</td>	40	-	97	135	176	220	268	319	435	500
60         -         -         -         -         164         219         279         412         486           65         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         - <td< td=""><td>45</td><td>-</td><td>82</td><td>122</td><td>164</td><td>210</td><td>260</td><td>313</td><td>433</td><td>501</td></td<>	45	-	82	122	164	210	260	313	433	501
65         -         -         -         -         199         261         399         -           Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         -	50	-	-	105	150	198	249	305	429	499
Coefficient of performance (C.O.P.)           10         3.80         6.01         7.73         10.54         16.26         34.98         - <t< td=""><td>60</td><td>-</td><td>-</td><td>-</td><td>-</td><td>164</td><td>219</td><td>279</td><td>412</td><td>486</td></t<>	60	-	-	-	-	164	219	279	412	486
10         3.80         6.01         7.73         10.54         16.26         34.98         -	65	-	-	-	-	-	199	261	399	-
10         3.80         6.01         7.73         10.54         16.26         34.98         -										
20         2.46         4.23         5.29         6.64         8.56         11.70         18.09         -         -           30         1.29         2.82         3.66         4.59         5.69         7.13         9.19         19.47         -           40         -         1.63         2.32         3.06         3.87         4.80         5.93         9.56         13.0           45         -         1.14         1.75         2.42         3.13         3.93         4.85         7.47         9.63           50         -         -         1.25         1.84         2.48         3.17         3.95         5.98         7.44           60         -         -         -         1.40         1.94         2.52         3.91         4.79	· · · · · · · · · · · · · · · · · · ·	,	<del>, '</del>	7 70	10.54	16.06	24.00			
30         1.29         2.82         3.66         4.59         5.69         7.13         9.19         19.47         -           40         -         1.63         2.32         3.06         3.87         4.80         5.93         9.56         13.0           45         -         1.14         1.75         2.42         3.13         3.93         4.85         7.47         9.63           50         -         -         1.25         1.84         2.48         3.17         3.95         5.98         7.47           60         -         -         -         1.40         1.94         2.52         3.91         4.79						+		1		
40     -     1.63     2.32     3.06     3.87     4.80     5.93     9.56     13.0       45     -     1.14     1.75     2.42     3.13     3.93     4.85     7.47     9.63       50     -     -     1.25     1.84     2.48     3.17     3.95     5.98     7.47       60     -     -     -     1.40     1.94     2.52     3.91     4.79										
45     -     1.14     1.75     2.42     3.13     3.93     4.85     7.47     9.63       50     -     -     1.25     1.84     2.48     3.17     3.95     5.98     7.47       60     -     -     -     -     1.40     1.94     2.52     3.91     4.76					+	+				
50     -     -     1.25     1.84     2.48     3.17     3.95     5.98     7.47       60     -     -     -     -     1.40     1.94     2.52     3.91     4.79										13.09
60 1.40 1.94 2.52 3.91 4.79	1					+				9.63
										7.47
65   -   -   -   -   1.44   1.95   3.13   -	-		+				+			4.79
	65	-	-	-	-	-	1.44	1.95	3.13	-
Nominal performance at to = 7.2 °C, tc = 54.4 °C  Pressure switch settings	Clineih.		44.47			Г	Massinas IID assi	tala a attinan	40.7	h = =/==)

to: Evaporating	temperature	at dew point

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

11 473

3 983

7.50

262

2.88

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K



# Danfoss scroll compressor. VZH052CG

# Performance data at 50 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
!!	. ! \								
ooling capacity	5 823	9 128	11 063	13 213	15 600	18 244	_	1	
							1	-	-
20	4 677	8 117	10 106	12 303	14 728	17 401	20 343	-	-
30	3 226	6 700	8 694	10 887	13 299	15 950	18 860	25 543	- 20.070
40		4 963	6 910	9 047	11 393	13 969	16 794	23 276	26 972
45	-	4 004	5 907	7 994	10 287	12 804	15 565	21 902	25 517
50	-	-	4 844	6 868	9 091	11 533	14 215	20 374	23 890
60	-	-	-	-	6 462	8 696	11 157	16 830	20 081
65	-	-	-	-	-	7 118	9 418	14 743	-
Power input in V	V								
10	1 638	1 634	1 541	1 352	1 038	572	-	-	-
20	2 012	2 062	2 059	2 001	1 860	1 609	1 221	-	-
30	2 581	2 546	2 564	2 568	2 532	2 427	2 227	1 431	-
40	-	3 235	3 205	3 202	3 202	3 174	3 094	2 661	2 254
45	-	3 703	3 622	3 591	3 582	3 568	3 520	3 218	2 907
50	-	-	4 130	4 052	4 017	3 999	3 968	3 761	3 530
60	-	-	-	-	5 128	5 048	4 999	4 880	4 755
65	-	-	-	-	-	5 704	5 619	5 492	-
_									
10		3.56	2.42	2.42	2.62	1.87	I	_	<u> </u>
	3.54		3.43	3.13	2.63	+	0.70	-	-
20 30	4.09 5.14	4.17 5.04	4.16 5.05	4.06 5.03	3.82 4.94	3.41 4.74	2.76 4.39	1	-
	5.14	+						3.01	
40		6.34	6.24	6.20	6.15	6.05	5.87	5.05	4.33
45	-	7.20	7.01	6.90	6.83	6.75	6.61	5.99	5.41
50	-	-	7.92	7.72	7.60	7.50	7.37	6.89	6.43
60	-	-	-	-	9.46	9.24	9.06	8.67	8.37
65	-	-	-	-	-	10.27	10.03	9.60	-
Mass flow in kg/	h								
10	102	157	189	223	260	302	-	-	-
20	89	151	185	223	264	309	358	-	-
30	68	136	174	215	260	309	362	484	-
40	-	112	154	199	247	300	357	488	562
45	-	96	139	186	237	292	351	486	562
50	-	-	122	171	224	281	342	481	560
60	-	-	-	-	188	249	315	463	547
65	-	-	-	-	-	228	297	449	-
Coefficient of pe	rformance (C (	) P )							
10	3.55	5.59	7.18	9.77	15.03	31.88	_	_	_
20	2.32	3.94	4.91	6.15	7.92	10.81	16.66	_	-
30	1.25	2.63	3.39	4.24	5.25	6.57	8.47	17.85	-
40	-	1.53	2.16	2.82	3.56	4.40	5.43	8.75	11.97
45	_	1.08	1.63	2.23	2.87	3.59	4.42	6.81	8.78
50	_	-	1.17	1.69	2.26	2.88	3.58	5.42	6.77
60	<u> </u>	-	-	-	1.26	1.72	2.23	3.45	4.22
65	•	-	-	-	-	1.72	1.68	2.68	- 4.22

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	11 533	W
Power input	3 999	W
Current consumption	7.50	Α
Mass flow	281	kg/h
C.O.P.	2.88	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

# Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 50 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
S P									
Cooling capacity		9 668	44.740	42.077	40,400	40.070	T	I	
10	6 176		11 710	13 977	16 492	19 276	- 04 004	-	-
20	4 999	8 662	10 777	13 109	15 682	18 515	21 631	- 07.070	-
30	3 483	7 220	9 361	11 711	14 293	17 128	20 238	27 370	
40	-	5 423	7 541	9 861	12 405	15 194	18 251	25 251	29 237
45 50	-	4 415	6 504	8 791	11 298	14 046	17 058	23 956	27 887
		-	5 395	7 637	10 096	12 791	15 746	22 519	26 381
60 65	-	-	-	-	7 443	9 997 8 479	12 803 11 191	19 254 17 445	22 942
05	-	-	-	-	_	0 479	11 191	17 445	-
Power input in V	v								
10	1 638	1 634	1 541	1 352	1 038	572	-	-	-
20	2 012	2 062	2 059	2 001	1 860	1 609	1 221	-	-
30	2 581	2 546	2 564	2 568	2 532	2 427	2 227	1 431	-
40	-	3 235	3 205	3 202	3 202	3 174	3 094	2 661	2 254
45	-	3 703	3 622	3 591	3 582	3 568	3 520	3 218	2 907
50	-	-	4 130	4 052	4 017	3 999	3 968	3 761	3 530
60	-	-	-	-	5 128	5 048	4 999	4 880	4 755
65	-	-	-	-	-	5 704	5 619	5 492	-
urrent consum	•	3.56	3.43	3.13	2.63	1.87	_	_	
	3.54								
20	4.09	4.17	4.16	4.06	3.82	3.41	2.76	- 2.04	-
30	5.14	5.04	5.05	5.03	4.94	4.74	4.39	3.01	- 4.00
40	-	6.34	6.24	6.20	6.15	6.05	5.87	5.05	4.33
45	-	7.20	7.01	6.90	6.83	6.75	6.61	5.99	5.41
50	-	-	7.92	7.72	7.60	7.50	7.37	6.89	6.43
60	-	-	-	-	9.46	9.24	9.06	8.67	8.37
65	-	-	-	-	-	10.27	10.03	9.60	-
Mass flow in kg/	h								
10	102	157	187	221	258	299	-	-	-
20	88	150	184	221	262	307	356	-	-
30	67	135	173	214	258	307	360	480	-
40	-	111	153	197	246	298	355	484	557
45	-	95	138	185	235	290	349	482	558
50	-	-	121	170	222	279	340	478	555
60	-	-	-	-	187	247	313	460	542
65	-	-	-	-	-	227	294	446	-
Coefficient of pe	orformanco (C (	ופו							
10	3.77	5.92	7.60	10.34	15.89	33.68	-	-	-
20	2.48	4.20	5.23	6.55	8.43	11.50	17.71	-	-
30	1.35	2.84	3.65	4.56	5.65	7.06	9.09	19.13	-
40	-	1.68	2.35	3.08	3.87	4.79	5.90	9.49	12.97
45	-	1.19	1.80	2.45	3.15	3.94	4.85	7.45	9.59
50	-	-	1.31	1.88	2.51	3.20	3.97	5.99	7.47
60	-	-	-	-	1.45	1.98	2.56	3.95	4.82
65	-	_	-	-	-	1.49	1.99	3.18	-
			1	1	1	<u> </u>			
lominal perforn	nance at to = 7.	2 °C, tc = 54.4 °C		<u> </u>		Pressure switch			
Saalina aanaaiku	·	40.040	10/	1		Massinas um LID assi		40.7	h = =(=)

Cooling capacity	12 846	W
Power input	4 411	W
Current consumption	8.16	Α
Mass flow	294	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

# Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 55 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	w in W								
10	6 412	10 033	12 166	14 544	17 190	20 128	<u> </u>	_	_
		1		+		1			-
20	5 199	8 941	11 119	13 532	16 204	19 158	22 416	-	-
30	3 678	7 433	9 602	11 997	14 640	17 554	20 762	28 151	- 20.740
40	-	5 597	7 703	10 023	12 581	15 399	18 499	25 636	29 718
45	-	4 586	6 638	8 899	11 391	14 138	17 161	24 124	28 110
50	-	-	5 511	7 696	10 107	12 766	15 695	22 449	26 319
60	-	-	-	-	7 285	9 705	12 380 10 495	18 578	22 142
65	-	-	-	-	-	8 000	10 495	16 298	-
Power input in \	W								
10	1 823	1 824	1 725	1 519	1 177	669	-	-	-
20	2 230	2 292	2 292	2 231	2 079	1 807	1 384	-	-
30	2 850	2 820	2 843	2 850	2 813	2 702	2 485	1 619	-
40	-	3 569	3 539	3 539	3 541	3 514	3 428	2 960	2 518
45	-	4 077	3 991	3 960	3 953	3 939	3 890	3 564	3 228
50	-	-	4 541	4 458	4 423	4 404	4 373	4 151	3 902
60	-	-	-	-	5 619	5 533	5 480	5 354	5 220
65	-	-	-	-	-	6 237	6 145	6 009	-
Current consum	nption in A								
10	3.87	3.93	3.79	3.48	2.95	2.16	-	-	-
20	4.47	4.57	4.56	4.45	4.20	3.76	3.07	-	-
30	5.60	5.51	5.52	5.49	5.40	5.18	4.80	3.36	-
40	-	6.91	6.81	6.75	6.69	6.58	6.39	5.53	4.78
45	-	7.82	7.63	7.51	7.42	7.33	7.17	6.52	5.93
50	-	-	8.59	8.38	8.24	8.12	7.99	7.48	7.01
60	-	_	-	_	10.19	9.95	9.76	9.36	9.05
65	-	_	_	_	-	11.02	10.76	10.32	-
Mass flow in kg	/h								•
10	113	173	207	245	287	333	_	-	-
20	99	166	204	245	290	340	395	-	-
30	77	151	192	237	286	340	399	534	-
40	-	126	171	220	273	331	394	537	619
45	-	110	157	207	262	322	387	535	619
50	-	-	139	192	249	311	378	530	617
60	-	-	-	-	212	278	350	511	603
65	_	_	-	_	-	257	331	497	-
	erformance (C.C	).P.)		1	ı				I
10	3.52	5.50	7.05	9.57	14.60	30.10	-	-	-
20	2.33	3.90	4.85	6.07	7.79	10.60	16.19	-	-
30	1.29	2.64	3.38	4.21	5.20	6.50	8.35	17.38	-
40	-	1.57	2.18	2.83	3.55	4.38	5.40	8.66	11.80
45	-	1.12	1.66	2.25	2.88	3.59	4.41	6.77	8.71
50	-	-	1.21	1.73	2.29	2.90	3.59	5.41	6.75
			-	-	1.30	1.75	2.26	3.47	4.24
60	-	-							

#### Nominal performance at to = 5 °C, tc = 50 °C

	•••	
Cooling capacity	12 766	W
Power input	4 404	W
Current consumption	8.12	Α
Mass flow	311	kg/h
C.O.P.	2.90	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 55 Hz, ARI rating conditions

# **R410A**

Colling capacity in W	Cond. temp. in				Evapora	ating temperature	in °C (to)			
10	°C (tc)	-25	-15	-10	-5	0	5	10	20	25
10										
20									1	
3972   8 010						+		1		
40				1		1				-
45										
50		-				+				
Common   C		-								
Power Input in W	-	-	-	6 138	8 559	1				
Power input in W		-	-	-	-	8 392			1	25 297
10	65	-	-	-	-	-	9 529	12 470	19 286	-
10	Power input in V	v								
20			1 824	1 725	1 519	1 177	669	-	_	_
30								1	_	_
40									1 619	_
45										
50										
60						+				
Courrent consumption in A				1					1	
Current consumption in A  10 3.87 3.93 3.79 3.48 2.95 2.16  20 4.47 4.57 4.56 4.45 4.20 3.76 3.07  30 5.60 5.51 5.52 5.49 5.40 5.18 4.80 3.36 -  40 - 6.91 6.81 6.75 6.69 6.58 6.39 5.53 4.78  45 - 7.82 7.63 7.51 7.42 7.33 7.17 6.52 5.93  50 8.59 8.38 8.24 8.12 7.99 7.48 7.01  60 10.19 9.95 9.76 9.36 9.05  65 10.19 9.95 9.76 9.36 9.05  65 11.02 10.76 10.32 -  Mass flow in kg/h  10 112 172 206 243 285 330  20 98 165 202 243 288 338 392  30 77 150 191 236 284 338 392  30 77 150 191 236 284 338 396 530 -  40 - 125 170 219 271 328 391 533 614  45 - 109 156 206 261 320 384 531 614  50 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 138 190 247 308 375 526 612  60 211 276 347 507 597  65 138 190 247 308 375 526 612  60 211 276 347 507 597  65 138 190 247 308 375 526 612  60 211 276 347 507 597  65 138 190 247 308 375 526 612  60 211 276 347 507 597  65 211 276 347 507 597  65 211 276 347 507 597  65		_			_	+				
10	00		ı	I.	1		0 201	0 140	0 000	1
10	Current consum	ption in A								
20		•	3.93	3.79	3.48	2.95	2.16	_	-	-
30	+			1			+	3.07	_	_
40				•					3.36	_
45						+				4.78
So										
Mass flow in kg/h		-								
Mass flow in kg/h  10		_			1					
Mass flow in kg/h  10						1				
10         112         172         206         243         285         330         -				L	I.	ı	1			l
10         112         172         206         243         285         330         -	Mass flow in kg/	h								
20         98         165         202         243         288         338         392         -         -           30         77         150         191         236         284         338         396         530         -           40         -         125         170         219         271         328         391         533         614           45         -         109         156         206         261         320         384         531         614           50         -         -         138         190         247         308         375         526         612           60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         -         255         328         493         -           20         249         4.16         5.17         6.46         8.30         11.28         17.22         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -			172	206	243	285	330	_	_	_
30         77         150         191         236         284         338         396         530         -           40         -         125         170         219         271         328         391         533         614           45         -         109         156         206         261         320         384         531         614           50         -         -         138         190         247         308         375         526         612           60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         -         255         328         493         -           20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79								392	_	_
40         -         125         170         219         271         328         391         533         614           45         -         109         156         206         261         320         384         531         614           50         -         -         138         190         247         308         375         526         612           60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         255         328         493         -           10         3.73         5.83         7.46         10.13         15.44         31.80         -         -         -         -         -           20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.3						+				_
45         -         109         156         206         261         320         384         531         614           50         -         -         138         190         247         308         375         526         612           60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         255         328         493         -           65         -         -         -         -         255         328         493         -           10         3.73         5.83         7.46         10.13         15.44         31.80         -         -         -         -         -           20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79									1	
50         -         -         138         190         247         308         375         526         612           60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         255         328         493         -           10         3.73         5.83         7.46         10.13         15.44         31.80         -         -         -         -         -           20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79           45         -         1.24         1.83         2.47         3.17         3.94         4.83         7.40         9.52           50         -         -         -         -         1.49         2.02         2.59		-	+		+		+			
60         -         -         -         -         211         276         347         507         597           65         -         -         -         -         255         328         493         -           Coefficient of performance (C.O.P.)           10         3.73         5.83         7.46         10.13         15.44         31.80         - <td< td=""><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		-								
65         -         -         -         -         255         328         493         -           Coefficient of performance (C.O.P.)           10         3.73         5.83         7.46         10.13         15.44         31.80         -         -         -         -           20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79           45         -         1.24         1.83         2.47         3.17         3.94         4.83         7.40         9.52           50         -         -         1.35         1.92         2.54         3.21         3.98         5.98         7.45           60         -         -         -         -         1.49         2.02         2.59         3.97         4.85										
Coefficient of performance (C.O.P.)           10         3.73         5.83         7.46         10.13         15.44         31.80         - <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td>1</td><td></td></t<>							1		1	
10         3.73         5.83         7.46         10.13         15.44         31.80         -	00		1	1	I		200	020	400	
20         2.49         4.16         5.17         6.46         8.30         11.28         17.22         -         -           30         1.39         2.84         3.64         4.53         5.59         6.98         8.96         18.63         -           40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79           45         -         1.24         1.83         2.47         3.17         3.94         4.83         7.40         9.52           50         -         -         1.35         1.92         2.54         3.21         3.98         5.98         7.45           60         -         -         -         1.49         2.02         2.59         3.97         4.85	· · · · · · · · · · · · · · · · · · ·		<del>,                                    </del>	T	10.5	45	1 0/	T	1	1
30     1.39     2.84     3.64     4.53     5.59     6.98     8.96     18.63     -       40     -     1.71     2.38     3.09     3.87     4.77     5.86     9.39     12.79       45     -     1.24     1.83     2.47     3.17     3.94     4.83     7.40     9.52       50     -     -     1.35     1.92     2.54     3.21     3.98     5.98     7.45       60     -     -     -     1.49     2.02     2.59     3.97     4.85						+				
40         -         1.71         2.38         3.09         3.87         4.77         5.86         9.39         12.79           45         -         1.24         1.83         2.47         3.17         3.94         4.83         7.40         9.52           50         -         -         1.35         1.92         2.54         3.21         3.98         5.98         7.45           60         -         -         -         1.49         2.02         2.59         3.97         4.85										
45     -     1.24     1.83     2.47     3.17     3.94     4.83     7.40     9.52       50     -     -     1.35     1.92     2.54     3.21     3.98     5.98     7.45       60     -     -     -     -     1.49     2.02     2.59     3.97     4.85	1		+		+	+	+			
50     -     -     1.35     1.92     2.54     3.21     3.98     5.98     7.45       60     -     -     -     -     1.49     2.02     2.59     3.97     4.85										
60 1.49 2.02 2.59 3.97 4.85		-	1.24			+				
		-	-	1.35	1.92	2.54				
65 1.53 2.03 3.21 -		-	-	-	-	1.49	+			4.85
	65	-	-	-	-	-	1.53	2.03	3.21	
	Nominal perform	nance at to = 7.	2 °C, tc = 54.4 °C	- \\\		г	Pressure switch		42.7	h = u(=)

4	4!	4	 - 4	4	

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

14 235

4 849

8.82

325

2.94

W

W

kg/h

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

to: Evaporating temperature at dew point tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 60 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in	n Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity		40.004	40.000	45.000	40.777	00.040			
10	6 994	10 931	13 262	15 868	18 777	22 013	-	-	-
20	5 721	9 761	12 127	14 757	17 676	20 912	24 488	-	-
30	4 139	8 169	10 513	13 108	15 982	19 158	22 663	30 760	-
40	-	6 243	8 505	11 008	13 775	16 833	20 205	27 996	32 464
45	-	5 184	7 382	9 815	12 505	15 479	18 761	26 348	30 702
50	-	-	6 195	8 540	11 137	14 010	17 183	24 528	28 749
60	-	-	-	-	8 130	10 733	13 619	20 333	24 208
65	-	-	-	-	-	8 903	11 589	17 865	-
Power input in V	v								
10	2 014	2 019	1 914	1 694	1 328	783	_	_	-
20	2 457	2 529	2 530	2 467	2 305	2 015	1 563	-	-
30	3 127	3 102	3 129	3 140	3 102	2 984	2 753	1 828	-
40	-	3 911	3 881	3 885	3 889	3 861	3 771	3 273	2 801
45	-	4 456	4 368	4 338	4 332	4 320	4 269	3 923	3 564
50	-	-	4 958	4 872	4 837	4 819	4 787	4 553	4 287
60	-	-	-	-	6 117	6 027	5 972	5 839	5 698
65	-	_	-	-	-	6 778	6 681	6 538	-
		I .	I.	I.	I.				
Current consum	ption in A								
10	4.18	4.27	4.13	3.80	3.25	2.43	-	-	-
20	4.84	4.97	4.96	4.85	4.58	4.11	3.40	-	-
30	6.06	5.99	6.00	5.96	5.85	5.62	5.22	3.74	-
40	-	7.48	7.37	7.31	7.24	7.12	6.91	6.02	5.27
45	-	8.44	8.24	8.11	8.01	7.91	7.74	7.07	6.47
50	-	-	9.24	9.02	8.87	8.75	8.60	8.08	7.61
60	-	-	-	-	10.91	10.66	10.46	10.05	9.76
65	-	-	-	-	-	11.77	11.50	11.06	_
L			•			•	1	1	
Mass flow in kg/	h								
10	123	188	226	267	313	364	-	-	-
20	109	181	222	267	317	371	431	-	-
30	87	166	210	259	313	371	435	583	
40	-	141	189	242	299	361	430	587	676
45	-	124	174	229	288	353	423	585	676
50	-	-	156	213	274	341	414	579	674
60	-	-	-	-	236	308	385	560	659
65	-	-	-	-	-	286	365	545	-
Coefficient of pe	orformance (C.C	) P )							
10	3.47	5.41	6.93	9.37	14.14	28.10	_	_	_
20	2.33	3.86	4.79	5.98	7.67	10.38	15.67	_	-
30	1.32	2.63	3.36	4.17	5.15	6.42	8.23	16.83	-
40	-	1.60	2.19	2.83	3.54	4.36	5.36	8.55	11.59
45	-	1.16	1.69	2.03	2.89	3.58	4.40	6.72	8.61
40		-	1.09	1.75	2.30	2.91	3.59	5.39	6.71
50		1 -	1.20	1.70	2.30	2.91		5.58	
50 60	_	-	_	_	1.33	1.78	2.28	3.48	4.25

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	14 010	W	
Power input	4 819	W	
Current consumption	8.75	Α	
Mass flow	341	kg/h	
C.O.P.	2.91		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

# Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 60 Hz, ARI rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit		14.570	11.000	10.700	10.050	1 00 057		1	1
10	7 419	11 578	14 038	16 786	19 850	23 257	-	-	-
20	6 115	10 417	12 931	15 724	18 821	22 250	26 038	-	-
30	4 470	8 804	11 319	14 101	17 177	20 574	24 319	32 960	-
40	-	6 821	9 281	11 998	14 999	18 310	21 957	30 371	35 191
45	-	5 716	8 129	10 793	13 735	16 982	20 560	28 820	33 554
50	-	-	6 900	9 498	12 368	15 537	19 033	27 111	31 746
60	-	-	-	-	9 365	12 339	15 628	23 260	27 657
65	-	-	-	-	-	10 605	13 771	21 139	-
Power input in \	v								
10	2 014	2 019	1 914	1 694	1 328	783	_	_	_
20	2 457	2 529	2 530	2 467	2 305	2 015	1 563	_	_
30	3 127	3 102	3 129	3 140	3 102	2 984	2 753	1 828	_
40	-	3 911	3 881	3 885	3 889	3 861	3 771	3 273	2 801
45	<u> </u>	4 456	4 368	4 338	4 332	4 320	4 269	3 923	3 564
50		-	4 958	4 872	4 837	4 819	4 787	4 553	4 287
60		-	-		6 117	6 027	5 972	5 839	5 698
65		-	_	-	-	6 778	6 681	6 538	-
00		1	ı	1	1	0110	0 001	0 000	
Current consum	nption in A								
10	4.18	4.27	4.13	3.80	3.25	2.43	_	_	_
20	4.84	4.97	4.96	4.85	4.58	4.11	3.40	-	-
30	6.06	5.99	6.00	5.96	5.85	5.62	5.22	3.74	-
40	-	7.48	7.37	7.31	7.24	7.12	6.91	6.02	5.27
45	-	8.44	8.24	8.11	8.01	7.91	7.74	7.07	6.47
50	-	_	9.24	9.02	8.87	8.75	8.60	8.08	7.61
60	-	_	-	_	10.91	10.66	10.46	10.05	9.76
65	-	_	-	-	-	11.77	11.50	11.06	-
		1	I	1		1			
Mass flow in kg	/h								
10	122	187	225	266	311	361	_	-	-
20	108	180	221	266	315	369	428	-	-
30	86	165	209	258	310	369	432	579	-
40	-	140	188	240	297	359	427	582	671
45	-	123	173	227	286	350	420	580	671
50	-	-	155	211	272	338	411	575	668
60	-	-	-	-	235	305	382	555	653
65	-	-	-	-	-	284	362	540	-
		•		1	•		•	•	•
Coefficient of po		T '	7.00	0.04	44.05	00.00			1
10	3.68	5.73	7.33	9.91	14.95	29.68	-	-	-
20	2.49	4.12	5.11	6.37	8.16	11.04	16.66	-	-
30	1.43	2.84	3.62	4.49	5.54	6.90	8.83	18.03	-
40	-	1.74	2.39	3.09	3.86	4.74	5.82	9.28	12.56
45	-	1.28	1.86	2.49	3.17	3.93	4.82	7.35	9.41
50	-	-	1.39	1.95	2.56	3.22	3.98	5.95	7.40
	-	-	-	-	1.53	2.05	2.62	3.98	4.85
60 65	-	-	-	_	_	1.56	2.06	3.23	_

to: Evaporating temperature at dew point

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

15 638

5 296

9.48

357

2.95

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900



# Danfoss scroll compressor. VZH052CG

# Performance data at 65 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in		1		1	ating temperature	1		_	1
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
cooling capacity		Т	T	1	1	1	T	T	1
10	7 570	11 821	14 351	17 188	20 361	23 898	-	-	-
20	6 243	10 578	13 131	15 977	19 145	22 664	26 560	-	-
30	4 607	8 909	11 425	14 220	17 323	20 761	24 563	33 370	-
40	-	6 901	9 318	12 000	14 975	18 271	21 915	30 356	35 208
45	-	5 798	8 141	10 743	13 629	16 828	20 367	28 573	33 294
50	-	-	6 898	9 401	12 180	15 264	18 679	26 609	31 178
60	-	-	-	-	8 996	11 779	14 873	22 097	26 277
65	-	-	-	-	-	9 829	12 703	19 442	-
Power input in W	1								
10	2 211	2 219	2 109	1 877	1 491	917	-	-	-
20	2 692	2 773	2 775	2 709	2 539	2 232	1 756	-	-
30	3 412	3 393	3 424	3 436	3 397	3 273	3 030	2 056	-
40	-	4 260	4 233	4 239	4 245	4 217	4 122	3 598	3 102
45	-	4 842	4 753	4 724	4 720	4 709	4 656	4 293	3 916
50	-	-	5 381	5 295	5 260	5 243	5 211	4 966	4 686
60	-	_	-	-	6 622	6 530	6 474	6 337	6 188
65	-	_	-	-	-	7 327	7 227	7 079	-
00		I	I	l		. 02.			
Current consumi	otion in A								
10	4.49	4.60	4.45	4.11	3.54	2.69	_	_	
20	5.22	5.38	5.37	5.24	4.95	4.46	3.74	_	_
30	6.51	6.48	6.48	6.44	6.32	6.07	5.65	4.15	_
40	-	8.04	7.94	7.86	7.78	7.65	7.43	6.54	5.79
		9.05			8.60	8.49	8.32		
45 50	-	9.03	9.89	8.71 9.67	9.51	9.37	9.22	7.64 8.70	7.05 8.24
						1	1		
60	-	-	-	-	11.64	11.38	11.17	10.77	10.49
65	-	-	-	-	-	12.53	12.26	11.82	-
Mass flow in kg/l				1	1	1	1	1	1
10	133	204	244	289	339	395	-	-	-
20	119	196	241	289	343	402	468	-	-
30	96	181	229	281	339	402	472	633	-
40	-	155	207	263	325	392	466	636	733
45	-	139	192	250	314	383	459	634	733
50	-	-	174	234	300	371	450	629	730
60	-	-	-	-	262	338	420	608	715
65	-	-	-	-	-	315	400	593	-
Coefficient of pe	rformance (C.C	).P.)							
10	3.42	5.33	6.81	9.16	13.66	26.07	-	-	-
20	2.32	3.82	4.73	5.90	7.54	10.15	15.12	-	-
30	1.35	2.63	3.34	4.14	5.10	6.34	8.11	16.23	-
40	-	1.62	2.20	2.83	3.53	4.33	5.32	8.44	11.35
45	_	1.20	1.71	2.27	2.89	3.57	4.37	6.66	8.50
50	-	-	1.28	1.78	2.32	2.91	3.58	5.36	6.65
60		-	-	-	1.36	1.80	2.30	3.49	4.25
		_		<b>_</b>	1.00	1.00	2.00	0.70	7.20
65	-	_	-	-	-	1.34	1.76	2.75	-

Cooling capacity	15 264	W
Power input	5 243	W
Current consumption	9.37	Α
Mass flow	371	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 65 Hz, ARI rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
• " "									
Cooling capacity		40.500	45.400	40.400	04.505	05.040		1	l
10	8 029	12 520	15 190	18 182	21 525	25 249	-	-	-
20	6 673	11 289	14 002	17 024	20 385	24 115	28 242	-	-
30	4 975	9 602	12 301	15 297	18 618	22 296	26 358	35 757	-
40	-	7 539	10 168	13 080	16 305	19 874	23 815	32 931	38 166
45	-	6 393	8 964	11 813	14 969	18 462	22 320	31 253	36 386
50	-	-	7 683	10 455	13 527	16 929	20 691	29 411	34 429
60	-	-	-	-	10 363	13 542	17 067	25 278	30 021
65	-	-	-	-	-	11 707	15 094	23 006	-
Power input in V	v								
10	2 211	2 219	2 109	1 877	1 491	917	-	_	_
20	2 692	2 773	2 775	2 709	2 539	2 232	1 756	_	_
30	3 412	3 393	3 424	3 436	3 397	3 273	3 030	2 056	-
40	-	4 260	4 233	4 239	4 245	4 217	4 122	3 598	3 102
45	-	4 842	4 753	4 724	4 720	4 709	4 656	4 293	3 916
50		-	5 381	5 295	5 260	5 243	5 211	4 966	4 686
60		-	-	-	6 622	6 530	6 474	6 337	6 188
65	-	-	-	-	-	7 327	7 227	7 079	-
03		<u> </u>				1 321	1 221	7 079	-
Current consum	ption in A								
10	4.49	4.60	4.45	4.11	3.54	2.69	-	-	-
20	5.22	5.38	5.37	5.24	4.95	4.46	3.74	-	_
30	6.51	6.48	6.48	6.44	6.32	6.07	5.65	4.15	_
40	-	8.04	7.94	7.86	7.78	7.65	7.43	6.54	5.79
45	-	9.05	8.84	8.71	8.60	8.49	8.32	7.64	7.05
50	-	-	9.89	9.67	9.51	9.37	9.22	8.70	8.24
60	-	_	_	_	11.64	11.38	11.17	10.77	10.49
65	-	_	_	_	-	12.53	12.26	11.82	-
		1	1	L	l				
Mass flow in kg/	h								
10	132	203	243	288	337	392	-	-	-
20	118	195	239	288	341	400	465	-	-
30	96	180	227	279	337	399	469	628	-
40	-	154	206	262	323	390	463	631	727
45	-	138	191	249	312	381	456	629	727
50	-	-	173	233	298	369	446	624	724
60	-	-	-	-	260	335	417	603	709
65	-	-	_	_	-	313	397	588	-
•		1		1	1	-	-		
Coefficient of pe		T .			1	07.77		1	I
10	3.63	5.64	7.20	9.69	14.44	27.55	-	-	-
20	2.48	4.07	5.05	6.29	8.03	10.80	16.08	-	-
30	1.46	2.83	3.59	4.45	5.48	6.81	8.70	17.39	-
40	-	1.77	2.40	3.09	3.84	4.71	5.78	9.15	12.30
45	-	1.32	1.89	2.50	3.17	3.92	4.79	7.28	9.29
50	-	-	1.43	1.97	2.57	3.23	3.97	5.92	7.35
60	-	-	-	-	1.56	2.07	2.64	3.99	4.85
65	-	-	-	-	-	1.60	2.09	3.25	-
						_			
Nominal perform	nance at to = 7.	2 °C, tc = 54.4 °C	- \\		Г	Pressure switch		40.7	h = =(=)

to: Evaporating	temperature	at dew point

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

17 055

5 754

10.14

390

2.96

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K



# Danfoss scroll compressor. VZH052CG

# Performance data at 70 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	8 139	12 702	15 432	18 502	21 942	25 785	_	_	_
20	6 764	11 392	14 131	17 194	20 611	24 413	28 632	_	_
30	5 083	9 653	12 339	15 333	18 664	22 364	26 463	35 980	-
40	3 183	7 570	10 140	13 000	16 181	19 713	23 626	32 715	37 952
45	-	6 428	8 914	11 682	14 763	18 185	21 978	30 798	35 884
50		5 233	7 619	10 277	13 237	16 530	20 184	28 694	33 608
60		-	4 863	7 232	9 883	12 844	16 143	23 868	28 351
65	-	-	-	-	-	-	-	-	-
00									
Power input in \	N								
10	2 415	2 424	2 308	2 067	1 665	1 068	-	-	-
20	2 936	3 023	3 026	2 957	2 780	2 461	1 965	-	-
30	3 705	3 693	3 726	3 740	3 700	3 570	3 318	2 305	-
40	4 906	4 618	4 593	4 602	4 609	4 581	4 482	3 937	3 421
45	ı	5 234	5 147	5 119	5 117	5 107	5 052	4 674	4 282
50	-	5 982	5 811	5 725	5 692	5 677	5 644	5 390	5 099
60	-	-	7 563	7 296	7 134	7 042	6 987	6 846	6 692
65	1	-	-	-	-	-	-	-	-
Current consum	•		1		Γ			1	T
10	4.79	4.91	4.76	4.40	3.81	2.94	-	-	-
20	5.61	5.79	5.77	5.63	5.33	4.82	4.08	-	-
30	6.97	6.97	6.97	6.92	6.78	6.52	6.10	4.60	-
40	9.04	8.60	8.50	8.42	8.33	8.19	7.96	7.08	6.35
45	-	9.65	9.45	9.31	9.20	9.07	8.89	8.22	7.65
50	-	10.86	10.53	10.31	10.14	10.00	9.84	9.33	8.89
60	-	-	13.22	12.72	12.36	12.09	11.89	11.50	11.24
65	-	-	-	-	-	-	-	-	-
Mass flow in kg	/h								
10	143	219	263	312	366	426	-	-	-
20	129	212	259	311	369	434	505	-	-
30	106	196	247	303	365	433	508	682	-
40	74	170	225	285	351	423	503	686	790
45	-	154	210	272	340	414	496	683	790
50	-	134	192	256	326	402	486	678	787
60	-	-	146	214	287	368	456	657	771
65	-	-		-	-	-	-	-	-
Coefficient of pe	erformance (C.C	D.P.)			T	1	1		T
10	3.37	5.24	6.69	8.95	13.18	24.14	-	-	-
20	2.30	3.77	4.67	5.82	7.42	9.92	14.57	-	-
30	1.37	2.61	3.31	4.10	5.04	6.26	7.98	15.61	-
40	0.65	1.64	2.21	2.83	3.51	4.30	5.27	8.31	11.09
45	-	1.23	1.73	2.28	2.88	3.56	4.35	6.59	8.38
50		0.87	1.31	1.79	2.33	2.91	3.58	5.32	6.59
60	-	-	0.64	0.99	1.39	1.82	2.31	3.49	4.24
		_	-	-	_	-	_	_	_

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	16 530	W
Power input	5 677	W
Current consumption	10.00	Α
Mass flow	402	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 70 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	w in W								
10	8 633	13 454	16 335	19 572	23 197	27 243	_	_	_
20			15 068			1	1	-	-
	7 230	12 158		18 320	21 945	25 976	30 445		-
30	5 489	10 403	13 285	16 493	20 060	24 017	28 397	38 554	- 44 440
40	3 487	8 271	11 065	14 170	17 618	21 443	25 674	35 491	41 140
45	-	7 087	9 815	12 847	16 214	19 950	24 085	33 687	39 218
50	-	5 839	8 486	11 429	14 700	18 333	22 357	31 715	37 112
60	-	-	5 627	8 349	11 384	14 765	18 524	27 305	32 391
65	-	-	-	-	-	-	-	-	-
Power input in \	W								
10	2 415	2 424	2 308	2 067	1 665	1 068	_	-	-
20	2 936	3 023	3 026	2 957	2 780	2 461	1 965	-	-
30	3 705	3 693	3 726	3 740	3 700	3 570	3 318	2 305	-
40	4 906	4 618	4 593	4 602	4 609	4 581	4 482	3 937	3 421
45	-	5 234	5 147	5 119	5 117	5 107	5 052	4 674	4 282
50	_	5 982	5 811	5 725	5 692	5 677	5 644	5 390	5 099
60	-	-	7 563	7 296	7 134	7 042	6 987	6 846	6 692
65	-	-	-	-	-	-	-	-	-
00	-			_	_	_	_	_	_
urrent consun	nption in A								
10	4.79	4.91	4.76	4.40	3.81	2.94	-	-	-
20	5.61	5.79	5.77	5.63	5.33	4.82	4.08	-	-
30	6.97	6.97	6.97	6.92	6.78	6.52	6.10	4.60	-
40	9.04	8.60	8.50	8.42	8.33	8.19	7.96	7.08	6.35
45	-	9.65	9.45	9.31	9.20	9.07	8.89	8.22	7.65
50	-	10.86	10.53	10.31	10.14	10.00	9.84	9.33	8.89
60	-	_	13.22	12.72	12.36	12.09	11.89	11.50	11.24
65	-	_	-	-	-	-	_	-	-
						1			I .
Mass flow in kg		T			T			1	1
10	142	218	261	310	363	423		-	-
20	128	210	257	309	367	431	501	-	-
30	106	195	245	301	363	430	505	677	-
40	74	169	224	283	349	420	499	680	784
45	-	153	209	270	338	411	492	678	784
50	-	133	191	254	324	399	482	672	781
60	-	-	145	212	286	366	453	652	765
65	-	-	-	-	-	-	-	-	-
coefficient of p	erformance (C.C	D.P.)							
10	3.58	5.55	7.08	9.47	13.93	25.51	-	-	-
20	2.46	4.02	4.98	6.20	7.90	10.56	15.49	-	-
30	1.48	2.82	3.57	4.41	5.42	6.73	8.56	16.73	-
40	0.71	1.79	2.41	3.08	3.82	4.68	5.73	9.01	12.03
45	-	1.35	1.91	2.51	3.17	3.91	4.77	7.21	9.16
50	-	0.98	1.46	2.00	2.58	3.23	3.96	5.88	7.28
60	-	-	0.74	1.14	1.60	2.10	2.65	3.99	4.84
	-	_	_	-	_	-	_	-	_

# Nominal performance at to = 7.2 °C, tc = 54.4 °C

	,		
Cooling capacity		18 488	W
Power input		6 221	W
Current consumption		10.80	Α
Mass flow		423	kg/h
C.O.P.		2.97	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 75 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
0 11 14	!		•						
Cooling capacity		40.570	40.507	40.040	00.504	07.670		1	
10	8 701	13 576	16 507	19 810	23 521	27 672	-	-	-
20	7 285	12 203	15 127	18 406	22 073	26 161	30 704	-	-
30	5 566	10 401	13 255	16 446	20 005	23 965	28 361	38 591	-
40	3 629	8 251	10 972	14 008	17 393	21 159	25 340	35 075	40 694
45	-	7 073	9 701	12 634	15 906	19 548	23 594	33 025	38 474
50	-	5 841	8 357	11 169	14 308	17 807	21 697	30 781	36 038
60	-	-	5 492	7 990	10 791	13 927	17 428	25 648	30 429
65	-	-	-	-	-	-	-	-	-
Power input in V	N								
10	2 625	2 633	2 513	2 264	1 851	1 238	-	-	-
20	3 189	3 280	3 283	3 211	3 028	2 699	2 190	-	-
30	4 007	4 001	4 037	4 051	4 009	3 875	3 614	2 573	-
40	5 266	4 984	4 962	4 973	4 982	4 953	4 851	4 289	3 758
45	-	5 632	5 548	5 523	5 523	5 513	5 457	5 067	4 664
50	-	6 415	6 246	6 164	6 134	6 119	6 087	5 824	5 525
60	-	-	8 077	7 812	7 652	7 563	7 509	7 367	7 208
65	_	-	-	-	-	-	-	-	-
		1	1	ı	L	L.	L	1	1
Current consum	ption in A								
10	5.07	5.21	5.04	4.67	4.06	3.18	-	-	-
20	6.00	6.20	6.18	6.02	5.70	5.19	4.44	-	-
30	7.43	7.46	7.46	7.40	7.25	6.98	6.55	5.07	-
40	9.55	9.17	9.07	8.99	8.89	8.74	8.50	7.63	6.94
45	_	10.24	10.04	9.91	9.79	9.65	9.47	8.82	8.28
50	-	11.48	11.17	10.94	10.77	10.62	10.46	9.97	9.57
60	-	-	13.93	13.44	13.08	12.82	12.61	12.25	12.02
65	-	-	-	-	-	-	_	-	_
			ı	1		1			
Mass flow in kg/	/h								
10	153	234	281	334	392	457	-	-	-
20	139	227	277	333	396	465	541	-	-
30	116	211	265	325	391	464	545	732	-
40	84	186	244	307	377	454	539	735	847
45	-	169	229	294	366	445	532	732	847
50	-	149	211	278	352	433	522	727	844
60	-	-	165	236	314	399	492	706	828
65	-	-	-	-	-	-	-	-	
Coefficient of pe	erformance (C.C								
10	3.31	5.16	6.57	8.75	12.71	22.36	_	_	_
20	2.28	3.72	4.61	5.73	7.29	9.69	14.02	_	-
30	1.39	2.60	3.28	4.06	4.99	6.18	7.85	15.00	-
40	0.69	1.66	2.21	2.82	3.49	4.27	5.22	8.18	10.83
	- 0.09							1	
45		1.26	1.75	2.29	2.88	3.55	4.32	6.52	8.25
E0.	-	0.91	1.34	1.81	2.33	2.91	3.56	5.28	6.52
50 60	-	_	0.68	1.02	1.41	1.84	2.32	3.48	4.22

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	17 807	W	
Power input	6 119	W	
Current consumption	10.62	Α	
Mass flow	433	kg/h	
C.O.P.	2.91		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 75 Hz, ARI rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	9 229	14 380	17 472	20 956	24 866	29 237	-	-	_
20	7 788	13 023	16 130	19 612	23 502	27 836	32 648	-	-
									-
30	6 011	11 209	14 272	17 691	21 501	25 737	30 434	41 352	
40	3 975	9 015	11 973	15 269	18 938	23 016	27 537	38 051	44 113
45	-	7 799	10 681	13 893	17 470	21 446	25 856	36 123	42 048
50	-	6 517	9 309	12 421	15 889	19 748	24 034	34 022	39 795
60	-	-	6 355	9 224	12 430	16 010	19 999	29 341	34 765
65	-	-	-	-	-	-	-	-	-
Power input in \	N								
10	2 625	2 633	2 513	2 264	1 851	1 238	-	-	-
20	3 189	3 280	3 283	3 211	3 028	2 699	2 190	-	-
30	4 007	4 001	4 037	4 051	4 009	3 875	3 614	2 573	-
40	5 266	4 984	4 962	4 973	4 982	4 953	4 851	4 289	3 758
45	-	5 632	5 548	5 523	5 523	5 513	5 457	5 067	4 664
50	-	6 415	6 246	6 164	6 134	6 119	6 087	5 824	5 525
60	-	-	8 077	7 812	7 652	7 563	7 509	7 367	7 208
65	-	_	_	-	-	-	-	-	_
		1			l .	.1		l .	l
urrent consum	•	T		1	ı	1	1	ı	ı
10	5.07	5.21	5.04	4.67	4.06	3.18	-	-	-
20	6.00	6.20	6.18	6.02	5.70	5.19	4.44	-	-
30	7.43	7.46	7.46	7.40	7.25	6.98	6.55	5.07	-
40	9.55	9.17	9.07	8.99	8.89	8.74	8.50	7.63	6.94
45	-	10.24	10.04	9.91	9.79	9.65	9.47	8.82	8.28
50	-	11.48	11.17	10.94	10.77	10.62	10.46	9.97	9.57
60	-	-	13.93	13.44	13.08	12.82	12.61	12.25	12.02
65	-	-	-	-	-	-	-	-	-
Mass flow in kg	/h								
10	152	233	279	331	389	454	_	-	_
20	138	225	276	331	393	461	537	-	-
30	116	210	264	323	389	461	541	726	_
40	84	185	242	305	375	451	535	729	840
45	-	168	227	292	364	442	528	727	840
50		148	209	276	350	430	518	721	837
	-								
60 65	-	-	164	235	312	396	489	700	821
00	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	
•	erformance (C.C			T -	I	1	T	I	I
10	3.52	5.46	6.95	9.25	13.43	23.62	-	-	-
20	2.44	3.97	4.91	6.11	7.76	10.31	14.91	-	-
30	1.50	2.80	3.54	4.37	5.36	6.64	8.42	16.07	-
40	0.75	1.81	2.41	3.07	3.80	4.65	5.68	8.87	11.74
45	-	1.38	1.93	2.52	3.16	3.89	4.74	7.13	9.02
50	-	1.02	1.49	2.02	2.59	3.23	3.95	5.84	7.20
60	-	-	0.79	1.18	1.62	2.12	2.66	3.98	4.82
65	-	-	-	-	-	-	-	_	_

# Nominal performance at to = 7.2 °C, tc = 54.4 °C

	,			
Cooling capacity		19 935	W	
Power input		6 697	W	
Current consumption		11.47	Α	
Mass flow		456	kg/h	
C.O.P.		2.98		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 80 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	9 256	14 443	17 574	21 114	25 097	29 561	_	_	_
20	7 806	13 010	16 119	19 614	23 531	27 906	32 776	_	
30	6 057	11 152	14 174	17 559	21 345	25 566	30 259	41 203	_
40	4 090	8 945	11 813	15 024	18 611	22 610	27 057	37 434	43 436
45	-	7 735	10 501	13 597	17 058	20 919	25 215	35 252	41 063
50		6 469	9 114	12 077	15 392	19 094	23 218	32 871	38 468
60	-	-	6 147	8 771	11 720	15 028	18 728	27 436	32 511
65	-	-		-	-	-	-	-	-
03					<u>-</u>			<u> </u>	
Power input in \	w								
10	2 841	2 847	2 724	2 469	2 049	1 426	-	-	-
20	3 451	3 544	3 546	3 471	3 283	2 948	2 430	-	-
30	4 318	4 319	4 355	4 369	4 325	4 187	3 921	2 861	-
40	5 629	5 358	5 340	5 353	5 363	5 332	5 228	4 653	4 113
45	-	6 036	5 957	5 936	5 938	5 928	5 871	5 472	5 060
50	-	6 851	6 688	6 611	6 584	6 572	6 539	6 270	5 964
60	-	-	8 589	8 331	8 177	8 093	8 042	7 900	7 738
65	-	-	-	-	-	-	-	-	-
10	•	5.49	5.31	4.92	4.30	2.41	_	_	_
	5.35 6.39					3.41			
20 30	7.89	6.61 7.96	6.58 7.96	6.41	6.08 7.73	5.55	4.81 7.01	- 5.50	-
		9.72		7.89		7.45		5.58	7.50
40	10.04		9.63	9.55	9.44	9.28	9.04	8.21	7.56
45	-	10.82	10.64	10.50	10.38	10.24	10.05	9.43	8.94
50	-	12.09	11.79	11.57	11.40	11.25	11.09	10.62	10.26
60	-	-	14.63	14.16	13.80	13.54	13.34	13.01	12.82
65	-	-	-	-	-	-	-	-	-
Mass flow in kg	/h								
10	162	249	299	355	418	488	-	-	-
20	149	242	296	355	422	496	578	-	-
30	127	226	284	347	418	495	581	782	-
40	95	201	262	330	404	485	576	784	904
45	-	185	248	317	393	476	569	782	904
50	-	165	230	301	379	464	559	776	901
60	-	-	185	259	341	431	529	755	885
65	-	-	-	-	-	-	-	-	-
Coefficient of p	erformance (C.C	D.P.)							
10	3.26	5.07	6.45	8.55	12.25	20.73	-	-	-
20	2.26	3.67	4.55	5.65	7.17	9.47	13.49	-	-
30	1.40	2.58	3.25	4.02	4.94	6.11	7.72	14.40	-
40	0.73	1.67	2.21	2.81	3.47	4.24	5.18	8.04	10.56
45	-	1.28	1.76	2.29	2.87	3.53	4.29	6.44	8.11
50	-	0.94	1.36	1.83	2.34	2.91	3.55	5.24	6.45
	-	_	0.72	1.05	1.43	1.86	2.33	3.47	4.20
60									

#### Nominal performance at to = 5 °C, tc = 50 °C

	•• •	
Cooling capacity	19 094	W
Power input	6 572	W
Current consumption	11.25	Α
Mass flow	464	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 80 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit		45.000	40.000	22.224	20, 524	24.000	T		
10	9 818	15 298	18 602	22 334	26 531	31 232	-	-	-
20	8 345	13 884	17 188	20 899	25 054	29 692	34 851	-	-
30	6 541	12 018	15 261	18 889	22 941	27 456	32 470	44 150	47.005
40	4 481	9 772	12 891	16 376	20 264	24 593	29 402	40 610	47 085
45	-	8 529	11 563	14 953	18 735	22 950	27 633	38 559	44 877
50	-	7 217	10 151	13 431	17 093	21 176	25 719	36 332	42 478
60	-	-	7 113	10 126	13 501	17 277	21 491	31 387	37 144
65	-	-	-	-	-	<u> </u>	-	-	
Power input in \	v								
10	2 841	2 847	2 724	2 469	2 049	1 426	-	-	-
20	3 451	3 544	3 546	3 471	3 283	2 948	2 430	-	-
30	4 318	4 319	4 355	4 369	4 325	4 187	3 921	2 861	-
40	5 629	5 358	5 340	5 353	5 363	5 332	5 228	4 653	4 113
45	-	6 036	5 957	5 936	5 938	5 928	5 871	5 472	5 060
50	-	6 851	6 688	6 611	6 584	6 572	6 539	6 270	5 964
60	-	-	8 589	8 331	8 177	8 093	8 042	7 900	7 738
65	-	-	-	-	-	-	-	-	-
•		•	•	•	•	•	•	•	
Current consum	ption in A								
10	5.35	5.49	5.31	4.92	4.30	3.41	-	-	-
20	6.39	6.61	6.58	6.41	6.08	5.55	4.81	-	-
30	7.89	7.96	7.96	7.89	7.73	7.45	7.01	5.58	-
40	10.04	9.72	9.63	9.55	9.44	9.28	9.04	8.21	7.56
45	-	10.82	10.64	10.50	10.38	10.24	10.05	9.43	8.94
50	-	12.09	11.79	11.57	11.40	11.25	11.09	10.62	10.26
60	-	-	14.63	14.16	13.80	13.54	13.34	13.01	12.82
65	-	-	-	-	-	-	-	-	•
Mass flow in kg	'h								
10	162	247	297	353	415	485	-	-	-
20	148	240	294	353	419	492	574	-	-
30	126	225	282	345	415	492	577	775	-
40	95	200	261	327	401	482	572	778	897
45	-	184	246	315	390	473	565	776	897
50	-	164	228	299	376	461	555	770	893
60	-	-	183	257	339	428	525	749	877
65	-	-	-	-	-	-	-	-	-
Coefficient of pe	erformance (C.C 3.46	5.37	6.83	9.04	12.95	21.90	_	_	-
20	2.42	3.92	4.85	6.02	7.63	10.07	14.34		
30	1.52	2.78	3.50	4.32	5.30	6.56	8.28	15.43	-
40		1.82		3.06	3.78	1	5.62		11.45
	0.80		2.41	2.52		4.61	4.71	8.73	11.45
45		1.41	1.94	+	3.15	3.87		7.05	8.87
50 60	-	1.05	1.52	2.03	2.60	3.22	3.93	5.79	7.12
OU	-	-	0.83	1.22	1.65	2.13	2.67	3.97	4.80
65	-	-	-	-		-		_	-

to: Evaporating	temperature	at dew point

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

21 397

7 184

12.13

489

2.98

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 85 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capaci	ty in W								
10	9 805	15 301	18 635	22 411	26 670	31 450	-	-	-
20	8 327	13 814	17 107	20 818	24 986	29 649	34 847	-	-
30	6 556	11 907	15 094	18 674	22 685	27 166	32 156	43 816	-
40	4 567	9 649	12 665	16 047	19 834	24 064	28 776	39 794	46 177
45	-	8 413	11 316	14 573	18 221	22 298	26 842	37 481	43 651
50	-	7 117	9 889	13 000	16 489	20 393	24 748	34 964	40 898
60	-	-	6 827	9 576	12 671	16 148	20 044	29 233	34 597
65	-	-	-	-	-	-	-	-	-
Power input in	w								
10	3 064	3 066	2 940	2 682	2 258	1 632	-	-	-
20	3 722	3 815	3 815	3 737	3 546	3 207	2 685	-	-
30	4 636	4 644	4 682	4 695	4 648	4 507	4 237	3 169	-
40	5 994	5 740	5 727	5 742	5 752	5 720	5 613	5 031	4 486
45	-	6 446	6 374	6 358	6 362	6 353	6 294	5 888	5 472
50	-	7 290	7 137	7 066	7 043	7 033	7 000	6 727	6 417
60	-	-	9 098	8 854	8 710	8 632	8 585	8 444	8 281
65	-	-	-	-	-	-	-	-	-
Current consur	nption in A								
10	5.61	5.75	5.55	5.15	4.52	3.63	-	-	-
20	6.79	7.03	6.99	6.80	6.46	5.92	5.19	-	-
30	8.35	8.47	8.46	8.39	8.21	7.92	7.49	6.12	-
40	10.52	10.28	10.20	10.11	10.00	9.83	9.59	8.81	8.22
45	_	11.39	11.23	11.10	10.97	10.82	10.64	10.06	9.63
50	-	12.68	12.41	12.20	12.03	11.88	11.72	11.29	10.99
60	-	-	15.31	14.86	14.52	14.27	14.08	13.79	13.65
65	-	-	-	-	-	-	-	_	-
	l .	I	I	II.			1		
Mass flow in kg	ı/h								
10	172	264	317	377	444	519	-	_	-
20	159	257	314	377	448	527	614	_	-
30	137	242	302	369	444	526	618	831	_
40	106	217	281	352	430	517	612	834	961
45	-	201	267	339	419	508	605	831	961
50	-	182	249	324	406	496	596	826	958
60	-	-	205	283	368	463	566	805	941
65	-	-	-	_	_	-	_	_	-
		1	1	1		1	1		
Coefficient of p	erformance (C.C	).P.)							
10	3.20	4.99	6.34	8.36	11.81	19.27	-	_	-
20	2.24	3.62	4.48	5.57	7.05	9.24	12.98	-	-
30	1.41	2.56	3.22	3.98	4.88	6.03	7.59	13.83	-
40	0.76	1.68	2.21	2.79	3.45	4.21	5.13	7.91	10.29
45	-	1.31	1.78	2.29	2.86	3.51	4.26	6.37	7.98
50	_	0.98	1.39	1.84	2.34	2.90	3.54	5.20	6.37
	_	-	0.75	1.08	1.45	1.87	2.33	3.46	4.18
60									

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	20 393	W
Power input	7 033	W
Current consumption	11.88	Α
Mass flow	496	kg/h
C.O.P.	2.90	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 85 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ating temperature	in °C (to)	1		
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	ty in W								
10	10 400	16 207	19 725	23 707	28 194	33 228	-	-	-
20	8 901	14 742	18 242	22 182	26 603	31 547	37 054	-	-
30	7 080	12 832	16 251	20 088	24 382	29 174	34 506	46 950	-
40	5 003	10 543	13 820	17 491	21 596	26 175	31 270	43 170	50 056
45	-	9 276	12 460	16 025	20 012	24 462	29 415	40 997	47 706
50	-	7 940	11 014	14 458	18 312	22 617	27 413	38 645	45 162
60	-	-	7 900	11 054	14 596	18 564	23 001	33 441	39 527
65	-	-	-	-	-	-	-	-	-
Power input in	w								
10	3 064	3 066	2 940	2 682	2 258	1 632	-	-	-
20	3 722	3 815	3 815	3 737	3 546	3 207	2 685	-	-
30	4 636	4 644	4 682	4 695	4 648	4 507	4 237	3 169	-
40	5 994	5 740	5 727	5 742	5 752	5 720	5 613	5 031	4 486
45	-	6 446	6 374	6 358	6 362	6 353	6 294	5 888	5 472
50	-	7 290	7 137	7 066	7 043	7 033	7 000	6 727	6 417
60	-	-	9 098	8 854	8 710	8 632	8 585	8 444	8 281
65	-	-	-	-	-	-	-	-	-
		-							
Current consun	nption in A								
10	5.61	5.75	5.55	5.15	4.52	3.63	-	-	-
20	6.79	7.03	6.99	6.80	6.46	5.92	5.19	-	-
30	8.35	8.47	8.46	8.39	8.21	7.92	7.49	6.12	-
40	10.52	10.28	10.20	10.11	10.00	9.83	9.59	8.81	8.22
45	-	11.39	11.23	11.10	10.97	10.82	10.64	10.06	9.63
50	-	12.68	12.41	12.20	12.03	11.88	11.72	11.29	10.99
60	-	-	15.31	14.86	14.52	14.27	14.08	13.79	13.65
65	-	_	-	-	-	-	-	-	-
	I .	1	1	I.	I.	1	I .		
Mass flow in kg	ı/h								
10	171	262	315	375	441	516	-	_	_
20	158	255	312	375	445	523	610	-	_
30	136	240	300	367	441	523	614	824	_
40	106	216	280	350	427	513	608	827	953
45	-	200	265	337	417	504	601	825	953
50	-	181	248	322	403	493	591	819	950
60	-	-	204	281	366	460	562	798	933
65	-	_	-		-	-	-	-	-
	I	ı	1	1	1	1	ı	1	I.
Coefficient of p	erformance (C.C	).P.)							
10	3.39	5.29	6.71	8.84	12.49	20.35	-	_	-
20	2.39	3.86	4.78	5.94	7.50	9.84	13.80	_	_
30	1.53	2.76	3.47	4.28	5.25	6.47	8.14	14.82	_
40	0.83	1.84	2.41	3.05	3.75	4.58	5.57	8.58	11.16
45	-	1.44	1.95	2.52	3.15	3.85	4.67	6.96	8.72
	-	1.09	1.54	2.05	2.60	3.22	3.92	5.74	7.04
	1 -	1.08	1.04	2.00	2.00	J.ZZ			
50 60	-	_	0.87	1.25	1.68	2.15	2.68	3.96	4.77

#### Nominal performance at to = 7.2 °C, tc = 54.4 °C

pooa	,	• •		
Cooling capacity		22 873	W	
Power input		7 680	W	
Current consumption		12.80	Α	
Mass flow		523	kg/h	
C.O.P.		2.98		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 90 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	10 347	16 151	19 688	23 703	28 240	33 340	_	_	_
20	8 848	14 615	18 091	22 018	26 437	31 390	36 919	_	_
30	7 063	12 665	16 016	19 789	24 025		34 052	46 429	-
40	5 060	10 366	13 526	17 078	21 064	28 766 25 523	30 497	40 429	48 916
45	-	9 106	12 144	15 560	19 392	23 683	28 473	39 710	46 238
50	-	7 785	10 681	13 940	17 600	21 702	26 286	37 059	43 328
	-								
60 65	-	-	7 532	10 404	13 642	17 286	21 375	31 037	36 688
65	-	-	-	-	-	-	-	-	-
Power input in \	W								
10	3 294	3 289	3 161	2 902	2 479	1 857	-	-	-
20	4 002	4 093	4 090	4 009	3 816	3 476	2 956	-	-
30	4 963	4 979	5 016	5 027	4 978	4 835	4 563	3 497	-
40	6 362	6 130	6 122	6 140	6 149	6 117	6 007	5 422	4 877
45	-	6 863	6 800	6 788	6 795	6 785	6 725	6 316	5 899
50	-	7 731	7 591	7 529	7 512	7 504	7 471	7 195	6 884
60	-	-	9 606	9 379	9 249	9 180	9 138	9 001	8 836
65	-	_	-	-	-	-	-	-	-
		L	1	1	l	1	1	I	
urrent consum	nption in A								
10	5.86	6.00	5.78	5.36	4.72	3.84	-	-	-
20	7.19	7.45	7.40	7.19	6.83	6.30	5.58	-	-
30	8.82	8.98	8.98	8.88	8.70	8.40	7.97	6.69	-
40	10.98	10.84	10.77	10.68	10.56	10.38	10.15	9.43	8.91
45	-	11.96	11.82	11.69	11.56	11.41	11.23	10.71	10.34
50	-	13.26	13.02	12.82	12.66	12.50	12.35	11.98	11.73
60	-	_	15.97	15.56	15.24	15.00	14.82	14.58	14.50
65	-	-	-	-	-	-	-	-	-
	n-	1	•	•	•	•	•	•	
Mass flow in kg		070	005	200	470	550		I	I
10	182	278	335	399	470	550	-	-	-
20	168	271	332	399	474	558	651	-	-
30	148	257	321	391	470	557	654	881	-
40	118	233	300	375	457	548	649	883	1 018
45	-	218	286	362	446	539	642	881	1 018
50	-	199	269	347	433	528	633	875	1 014
60	-	-	226	307	397	495	604	855	998
65	-	-	-	-	-	-	-	-	-
coefficient of pe	erformance (C.C	D.P.)		T	T			1	
10	3.14	4.91	6.23	8.17	11.39	17.95	-	-	-
20	2.21	3.57	4.42	5.49	6.93	9.03	12.49	-	-
30	1.42	2.54	3.19	3.94	4.83	5.95	7.46	13.28	-
40	0.80	1.69	2.21	2.78	3.43	4.17	5.08	7.77	10.03
45	ı	1.33	1.79	2.29	2.85	3.49	4.23	6.29	7.84
50	-	1.01	1.41	1.85	2.34	2.89	3.52	5.15	6.29
60	-	-	0.78	1.11	1.48	1.88	2.34	3.45	4.15
	-	_	_	-	-	_	_	_	_

#### Nominal performance at to = 5 °C, tc = 50 °C

rionina poriorinarios arto o o, to	•• •	
Cooling capacity	21 702	W
Power input	7 504	W
Current consumption	12.50	Α
Mass flow	528	kg/h
C.O.P.	2.89	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 90 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity		17.100	00.040	05.074	00.054	05.004		1	1
10	10 975	17 108	20 840	25 074	29 854	35 224	-	-	-
20	9 458	15 596	19 291	23 460	28 148	33 399	39 256	-	-
30	7 627	13 649	17 244	21 287	25 822	30 892	36 540	49 750	-
40	5 543	11 326	14 760	18 615	22 934	27 762	33 141	45 729	53 026
45	-	10 041	13 372	17 110	21 299	25 982	31 203	43 435	50 533
50	-	8 685	11 897	15 503	19 546	24 069	29 117	40 961	47 845
60	-	-	8 715	12 010	15 715	19 873	24 528	35 506	41 915
65	-	-	-	-	-	-	-	-	-
Power input in V	v								
10	3 294	3 289	3 161	2 902	2 479	1 857	_	_	_
20	4 002	4 093	4 090	4 009	3 816	3 476	2 956	_	_
30	4 963	4 979	5 016	5 027	4 978	4 835	4 563	3 497	_
40	6 362	6 130	6 122	6 140	6 149	6 117	6 007	5 422	4 877
	0 302					•			
45		6 863	6 800	6 788	6 795	6 785	6 725	6 316	5 899
50	-	7 731	7 591	7 529	7 512	7 504	7 471	7 195	6 884
60	-	-	9 606	9 379	9 249	9 180	9 138	9 001	8 836
65	-	-	-	-	-	-	-	-	-
Current consum	ntion in A								
10	5.86	6.00	5.78	5.36	4.72	3.84	_		
20	7.19	7.45	7.40	7.19	6.83	6.30	5.58	_	_
30	8.82	8.98	8.98	8.88	8.70	8.40	7.97	6.69	_
		+		+	1				
40	10.98	10.84	10.77	10.68	10.56	10.38	10.15	9.43	8.91
45	-	11.96	11.82	11.69	11.56	11.41	11.23	10.71	10.34
50	<u> </u>	13.26	13.02	12.82	12.66	12.50	12.35	11.98	11.73
60	-	-	15.97	15.56	15.24	15.00	14.82	14.58	14.50
65	-	-	-	-	-	-	-	-	-
Mass flow in kg/	h								
10	181	277	333	396	467	547	_	-	-
20	167	270	330	396	471	554	646	-	-
30	147	255	319	389	467	554	650	874	-
40	117	232	299	372	454	544	644	876	1 010
45	-	216	285	360	443	536	638	874	1 009
50		198	268	345	430	524	628	868	1 006
60	_	-	225	305	394	492	600	848	990
65	_	-	-	-	-	-	-	-	-
		1	1	1	1	1	1	1	1
Coefficient of pe	•	1	1		1	1	1	1	T
10	3.33	5.20	6.59	8.64	12.04	18.97	-	-	-
20	2.36	3.81	4.72	5.85	7.38	9.61	13.28	-	-
30	1.54	2.74	3.44	4.23	5.19	6.39	8.01	14.23	-
40	0.87	1.85	2.41	3.03	3.73	4.54	5.52	8.43	10.87
45	-	1.46	1.97	2.52	3.13	3.83	4.64	6.88	8.57
50	-	1.12	1.57	2.06	2.60	3.21	3.90	5.69	6.95
60	-	-	0.91	1.28	1.70	2.16	2.68	3.94	4.74
		-	_			_			

#### Nominal performance at to = 7.2 °C, tc = 54.4 °C

	• •	
Cooling capacity	24 364	W
Power input	8 186	W
Current consumption	13.47	Α
Mass flow	557	kg/h
C.O.P.	2.98	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900



# Danfoss scroll compressor. VZH052CG

# Performance data at 95 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	10 882	16 994	20 734	24 990	29 807	35 231	_	_	_
20	9 368	15 412	19 071	23 213	27 884	33 128	38 990	_	
30	7 577	13 427	16 941	20 905	25 365	30 364	35 947	49 042	_
40	5 569	11 095	14 397	18 117	22 299	26 985	32 221	44 512	51 655
	-	+							
45 50		9 816	12 987	16 558	20 574	25 077	30 110	41 940	48 824
	-	8 472	11 492	14 896	18 725	23 023	27 833	39 158	45 758
60	-	-	8 262	11 255	14 635 -	18 443	22 721	32 850	38 782
65	-	-	-	-	-	-	-	-	-
Power input in \	v								
10	3 530	3 518	3 387	3 129	2 711	2 100	-	-	-
20	4 290	4 377	4 371	4 287	4 093	3 756	3 242	-	-
30	5 299	5 322	5 358	5 367	5 315	5 170	4 899	3 844	-
40	6 733	6 529	6 526	6 546	6 555	6 521	6 410	5 825	5 286
45	-	7 286	7 233	7 228	7 237	7 227	7 166	6 756	6 341
50	-	8 175	8 052	8 001	7 989	7 984	7 952	7 675	7 364
60	-	-	10 112	9 909	9 795	9 737	9 702	9 569	9 405
65	-	_	_	-	-	-	-	-	_
		-I		· ·	l .		· ·	l .	
Current consum	ption in A								
10	6.10	6.23	5.99	5.56	4.91	4.04	-	-	-
20	7.60	7.88	7.80	7.58	7.21	6.68	5.98	-	-
30	9.28	9.50	9.49	9.39	9.18	8.88	8.47	7.29	-
40	11.42	11.39	11.34	11.25	11.12	10.94	10.71	10.07	9.64
45	-	12.52	12.41	12.28	12.15	12.00	11.82	11.37	11.09
50	-	13.82	13.62	13.44	13.28	13.13	12.98	12.67	12.50
60	-	-	16.62	16.25	15.96	15.74	15.57	15.39	15.37
65	-	-	-	-	-	-	-	-	-
				l	<u> </u>		l	<u> </u>	l
Mass flow in kg	'h								
10	191	293	353	421	497	582	-	-	-
20	178	286	350	421	500	589	687	-	-
30	158	272	339	413	496	588	691	930	-
40	130	250	320	397	484	579	686	933	1 075
45	-	235	306	386	474	571	679	930	1 075
50	-	217	290	371	461	560	670	925	1 071
60	-	-	248	332	426	529	642	905	1 055
65	-	-	-	-	-	-	-	-	-
Coefficient of n	erformance (C.C	) P )							
10	3.08	4.83	6.12	7.99	10.99	16.77	-	-	-
20	2.18	3.52	4.36	5.41	6.81	8.82	12.02	-	
30	1.43	2.52	3.16	3.90	4.77	5.87	7.34		-
								12.76	
40	0.83	1.70	2.21	2.77	3.40	4.14	5.03	7.64	9.77
45	-	1.35	1.80	2.29	2.84	3.47	4.20	6.21	7.70
50	-	1.04	1.43	1.86	2.34	2.88	3.50	5.10	6.21
60	-	-	0.82	1.14	1.49	1.89	2.34	3.43	4.12
65	-	-	-	-	-	-	_	-	-

#### Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	23 023	W
Power input	7 984	W
Current consumption	13.13	Α
Mass flow	560	kg/h
C.O.P.	2.88	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 95 Hz, ARI rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling canacity	ı in W								
Cooling capacity	11 543	18 000	21 947	26 435	31 511	37 222	_	_	l _
20	10 014	16 447	20 336	24 734	29 690	35 249	41 458	-	_
30	8 183	14 471	18 240	22 488	27 262	32 608	38 574	52 550	_
40	6 100	12 122	15 711	19 748	24 279	29 353	35 014	48 289	55 995
45	0 100	10 824	14 300	18 209	22 597	27 510	32 997	45 875	53 360
50		9 452	12 800	16 565	20 794	25 534	30 830	43 281	50 529
60		-	9 560	12 993	16 858	21 203	26 073	37 579	44 309
65	-		9 300	-	-	-	-	-	- 44 309
00	<u> </u>		<u>-</u>	<u>-</u>	<u>-</u>			<u>-</u>	<u> </u>
Power input in W	V			_	1			_	
10	3 530	3 518	3 387	3 129	2 711	2 100	-	-	-
20	4 290	4 377	4 371	4 287	4 093	3 756	3 242	-	-
30	5 299	5 322	5 358	5 367	5 315	5 170	4 899	3 844	-
40	6 733	6 529	6 526	6 546	6 555	6 521	6 410	5 825	5 286
45	-	7 286	7 233	7 228	7 237	7 227	7 166	6 756	6 341
50	-	8 175	8 052	8 001	7 989	7 984	7 952	7 675	7 364
60	-	-	10 112	9 909	9 795	9 737	9 702	9 569	9 405
65	-	-	-	-	-	-	-	-	-
Current concum	ntion in A								
10	6.10	6.23	5.99	5.56	4.91	4.04	_	_	l _
20	7.60	7.88	7.80	7.58	7.21	6.68	5.98		
30	9.28	9.50	9.49	9.39	9.18	8.88	8.47	7.29	-
40	11.42	11.39	11.34	11.25	11.12	10.94	10.71	10.07	9.64
45	-	12.52	12.41	12.28	12.15	12.00	11.82	11.37	11.09
50 60		13.82	13.62	13.44	13.28	13.13	12.98	12.67	12.50
65	-	-	16.62	16.25	15.96	15.74	15.57	15.39	15.37
00	-	-	-	-	-	-	-	-	_
Mass flow in kg/l	h								
10	190	291	351	418	493	578	-	-	-
20	177	285	348	418	497	585	682	-	-
30	158	271	337	411	493	584	686	923	-
40	129	248	318	395	480	575	681	925	1 066
45	-	233	304	383	470	567	674	923	1 066
50	-	215	288	368	458	556	665	917	1 062
60	-	-	246	330	423	525	637	897	1 046
65	-	-	-	-	-	-	-	-	-
Coefficient of pe	rformance (C.C	) P )							
10	3.27	5.12	6.48	8.45	11.62	17.72	_	_	_
20	2.33	3.76	4.65	5.77	7.25	9.38	12.79	_	_
30	1.54	2.72	3.40	4.19	5.13	6.31	7.87	13.67	-
40	0.91	1.86	2.41	3.02	3.70	4.50	5.46	8.29	10.59
45	-	1.49	1.98	2.52	3.12	3.81	4.60	6.79	8.42
		1.16	1.59	2.07	2.60	3.20	3.88	5.64	6.86
50	-	1.10	1.00						
50 60	-	-	0.95	1.31	1.72	2.18	2.69	3.93	4.71

# Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	25 870	W
Power input	8 701	W
Current consumption	14.14	Α
Mass flow	591	kg/h
C.O.P.	2.97	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 100 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit		47.000	24 772	20, 272	24 272	27.422	1	T	
10	11 411	17 829	21 773	26 272	31 372	37 123	-	-	-
20	9 888	16 206	20 047	24 405	29 328	34 864	41 061	-	-
30	8 099	14 193	17 867	22 022	26 704	31 962	37 842	51 657	-
40	6 093	11 835	15 278	19 164	23 540	28 452	33 947	46 871	54 393
45	-	10 542	13 843	17 569	21 765	26 477	31 751	44 172	51 410
50	-	9 179	12 321	15 867	19 863	24 355	29 388	41 259	48 189
60	-	-	9 017	12 130	15 649	19 618	24 083	34 671	40 881
65	-	-	-	-	-	-	-	-	-
Power input in \	N								
10	3 772	3 751	3 619	3 364	2 956	2 362	-	_	_
20	4 587	4 668	4 658	4 571	4 378	4 046	3 544	-	_
30	5 643	5 673	5 708	5 714	5 659	5 513	5 244	4 212	_
40	7 106	6 935	6 939	6 961	6 969	6 933	6 821	6 242	5 713
45	-	7 714	7 674	7 676	7 687	7 677	7 615	7 206	6 798
50	-	8 621	8 518	8 480	8 476	8 473	8 442	8 165	7 857
60	-	-	10 615	10 441	10 347	10 303	10 276	10 149	9 986
65	_	-	-	-	-	-	-	-	-
	1	1	1	ı	1	1	ı	1	
Current consun	nption in A								
10	6.34	6.44	6.19	5.73	5.08	4.23	-	-	-
20	8.01	8.30	8.21	7.97	7.59	7.06	6.39	-	-
30	9.74	10.03	10.01	9.89	9.68	9.37	8.97	7.92	-
40	11.84	11.94	11.90	11.82	11.68	11.50	11.27	10.72	10.40
45	-	13.07	12.99	12.88	12.74	12.59	12.42	12.05	11.86
50	-	14.36	14.21	14.06	13.90	13.76	13.62	13.38	13.30
60	-	-	17.25	16.94	16.68	16.47	16.33	16.22	16.27
65	-	-	-	-	-	-	-	-	-
				•			•		
Mass flow in kg	/h								
10	200	307	371	442	523	613	-	-	-
20	188	301	368	442	526	620	724	-	-
30	169	288	358	436	522	619	727	980	-
40	142	266	339	420	511	611	722	982	1 132
45	-	252	326	409	501	603	716	979	1 131
50	-	235	311	395	489	592	707	974	1 128
60	-	-	270	358	455	562	681	955	1 113
65	•	-	-	-	-	-	-	-	-
								_	
Coefficient of p	•		1 000	1	1 40.51	15-5	1	1	1
10	3.03	4.75	6.02	7.81	10.61	15.72	-	-	-
20	2.16	3.47	4.30	5.34	6.70	8.62	11.59	-	-
30	1.44	2.50	3.13	3.85	4.72	5.80	7.22	12.26	-
40	0.86	1.71	2.20	2.75	3.38	4.10	4.98	7.51	9.52
45	-	1.37	1.80	2.29	2.83	3.45	4.17	6.13	7.56
50	-	1.06	1.45	1.87	2.34	2.87	3.48	5.05	6.13
		-	0.85	1.16	1.51	1.90	2.34	3.42	4.09
60	-		0.00						

to: Evaporating temperature at dew point

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

24 355

8 473

13.76

592

2.87

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900



# Danfoss scroll compressor. VZH052CG

# Performance data at 100 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacity		40.004	22.047	07.704	22.405	20.224		T	1
10	12 103	18 884	23 047	27 791	33 165	39 221	-	-	-
20	10 570	17 295	21 376	26 004	31 227	37 096	43 660	-	-
30	8 746	15 296	19 237	23 689	28 701	34 324	40 607	55 352	-
40	6 675	12 930	16 672	20 889	25 631	30 948	36 890	50 848	58 963
45	-	11 624	15 243	19 320	23 905	29 047	34 796	48 316	56 185
50	-	10 241	13 723	17 646	22 058	27 010	32 552	45 604	53 213
60	-	-	10 434	14 003	18 026	22 554	27 636	39 663	46 706
65	-	-	-	-	-	-	-	-	-
Power input in V	v								
10	3 772	3 751	3 619	3 364	2 956	2 362	-	-	-
20	4 587	4 668	4 658	4 571	4 378	4 046	3 544	-	-
30	5 643	5 673	5 708	5 714	5 659	5 513	5 244	4 212	-
40	7 106	6 935	6 939	6 961	6 969	6 933	6 821	6 242	5 713
45	-	7 714	7 674	7 676	7 687	7 677	7 615	7 206	6 798
50	-	8 621	8 518	8 480	8 476	8 473	8 442	8 165	7 857
60	-	-	10 615	10 441	10 347	10 303	10 276	10 149	9 986
65	-	-	-	-	-	-	-	-	-
Current consum	ption in A								
10	6.34	6.44	6.19	5.73	5.08	4.23	-	-	-
20	8.01	8.30	8.21	7.97	7.59	7.06	6.39	-	-
30	9.74	10.03	10.01	9.89	9.68	9.37	8.97	7.92	-
40	11.84	11.94	11.90	11.82	11.68	11.50	11.27	10.72	10.40
45	-	13.07	12.99	12.88	12.74	12.59	12.42	12.05	11.86
50	-	14.36	14.21	14.06	13.90	13.76	13.62	13.38	13.30
60	-	-	17.25	16.94	16.68	16.47	16.33	16.22	16.27
65	-	-	-	-	-	-	-	-	-
	_								
Mass flow in kg/				1		1	T		
10	199	305	368	439	519	609		-	-
20	187	299	365	439	522	615	719	-	-
30	168	286	355	433	519	615	722	972	-
40	141	265	337	418	507	607	717	974	1 123
45	-	250	324	406	498	599	711	972	1 122
50	-	233	309	393	485	588	702	966	1 119
60	-	-	269	356	452	558	676	947	1 103
65	-	-	-	-	-	-	-	-	-
Coefficient of pe	erformance (C.C	D.P.)							
10	3.21	5.03	6.37	8.26	11.22	16.61	-	-	-
20	2.30	3.70	4.59	5.69	7.13	9.17	12.32	-	-
30	1.55	2.70	3.37	4.15	5.07	6.23	7.74	13.14	-
40	0.94	1.86	2.40	3.00	3.68	4.46	5.41	8.15	10.32
45	-	1.51	1.99	2.52	3.11	3.78	4.57	6.70	8.27
50	-	1.19	1.61	2.08	2.60	3.19	3.86	5.59	6.77
60	-	-	0.98	1.34	1.74	2.19	2.69	3.91	4.68
65	-	-	-	-	-	-	-	-	-
Nominal perforn	nance at to = 7.	2 °C, tc = 54.4 °C		_	F	Pressure switch			
Cooling cono-it.		27 200	) \A/	1		Massinassona LID assis	L . L	40.7	h/\

Cooling capacity	27 390	W
Power input	9 227	W
Current consumption	14.81	Α
Mass flow	626	kg/h
C.O.P.	2.97	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 105 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
• " "									
Cooling capacity		40.055	00.005	07.547	00.004	00.045			
10	11 933	18 655	22 805	27 547	32 934	39 015	-	-	-
20	10 408	16 997	21 019	25 592	30 769	36 598	43 131	-	-
30	-	14 962	18 795	23 139	28 044	33 559	39 735	-	-
40	-	12 587	16 169	20 219	24 787	29 923	35 676	-	-
45	-	-	14 714	18 591	22 966	27 885	33 398	-	-
50	-	-	-	16 854	21 014	25 697	30 951	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W	ı								
10	4 021	3 989	3 856	3 607	3 212	2 642	_	_	-
20	4 894	4 966	4 950	4 861	4 670	4 346	3 861	-	-
30	-	6 034	6 066	6 068	6 010	5 864	5 599	-	_
40	-	7 349	7 360	7 384	7 392	7 353	7 240	-	-
45	-	-	8 124	8 133	8 147	8 137	8 073	-	-
50	-	-	-	8 968	8 971	8 972	8 941	-	_
60		_	-	-	-	-	-	-	_
65		-	_	-	_	-	_	-	_
		1	1	ı	1	1	1		
Current consum	ntion in A								
10	6.56	6.64	6.36	5.88	5.23	4.41	_	_	_
20	8.43	8.73	8.62	8.36	7.96	7.44	6.81	-	_
30	-	10.56	10.54	10.41	10.18	9.86	9.49	-	_
40	-	12.49	12.47	12.39	12.24	12.06	11.84	-	_
45	-	-	13.56	13.47	13.33	13.18	13.02	-	_
50		-	-	14.67	14.53	14.38	14.26	-	_
60		-	_	-	-	-	-	-	_
65	-	-	-	-	_	-	-	-	_
55		ı	ı	1	1				
Mass flow in kg/l	h								
10	209	321	388	464	549	644	_	-	_
20	198	316	385	464	552	650	761	-	_
30	-	304	376	458	549	650	764	-	_
40		283	359	443	538	642	759	-	_
45		-	347	433	529	635	753	-	_
50	-	-	-	420	517	625	745	-	_
60		-	-	- 420	-	-	-	-	-
65		-	-	-	-	-	-	-	
05	-			<u> </u>	<u> </u>	<u> </u>			
Coefficient of pe	rformance (C.C	D.P.)							
10	2.97	4.68	5.91	7.64	10.25	14.77	-	-	-
20	2.13	3.42	4.25	5.26	6.59	8.42	11.17	-	-
30	-	2.48	3.10	3.81	4.67	5.72	7.10	-	-
	-	1.71	2.20	2.74	3.35	4.07	4.93	-	-
40	-	-	1.81	2.29	2.82	3.43	4.14	-	-
40 45				4.00	2.24	2.86	3.46	-	
	-	-	-	1.88	2.34	2.00	3.40	-	-
45		-	-	1.88	-	-	-	-	-

C.O.P.

Cooling capacity

Current consumption

Power input

Mass flow

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

25 697

8 972

14.38

625

2.86

W

W

kg/h

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900



# Danfoss scroll compressor. VZH052CG

# Performance data at 105 Hz, ARI rating conditions

# **R410A**

	. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
ooling capacity		40.700	04.400	00.440	04.047	44.004	1	I	1
10	12 657	19 760	24 139	29 140	34 817	41 221	-	-	-
20	11 126	18 138	22 412	27 269	32 761	38 941	45 862	-	-
30	-	16 125	20 237	24 891	30 141	36 039	42 639	-	-
40	-	13 752	17 644	22 038	26 989	32 548	38 769	-	-
45	-	-	16 201	20 444	25 223	30 591	36 601	-	-
50	-	-	-	18 744	23 337	28 499	34 284	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in V	v								
10	4 021	3 989	3 856	3 607	3 212	2 642	-	-	_
20	4 894	4 966	4 950	4 861	4 670	4 346	3 861	-	_
30	-	6 034	6 066	6 068	6 010	5 864	5 599	-	_
40	_	7 349	7 360	7 384	7 392	7 353	7 240	-	-
45	-	-	8 124	8 133	8 147	8 137	8 073	-	_
50		_	-	8 968	8 971	8 972	8 941	-	_
60	-	-	-	-	-	-	-	-	_
65	_	-	-	-	-	-	-	-	_
		I.	1	1	I	1			I.
Current consum	ption in A								
10	6.56	6.64	6.36	5.88	5.23	4.41	-	-	-
20	8.43	8.73	8.62	8.36	7.96	7.44	6.81	-	-
30	-	10.56	10.54	10.41	10.18	9.86	9.49	-	-
40	-	12.49	12.47	12.39	12.24	12.06	11.84	-	-
45	-	-	13.56	13.47	13.33	13.18	13.02	-	-
50	-	-	-	14.67	14.53	14.38	14.26	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
<u> </u>		•	1		l.	1	•		11
Mass flow in kg/	'h								
10	208	319	386	461	545	640	-	-	-
20	197	314	383	461	548	646	755	-	-
30	-	302	374	455	545	646	758	-	-
40	-	282	357	441	534	638	754	-	-
45	-	-	345	430	525	631	748	-	-
50	-	-	-	417	514	621	739	-	-
60	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
65			•						
Coefficient of pe	•	Τ΄.	1 000	0.00	40.04	45.00	1 1		1
Coefficient of pe	3.15	4.95	6.26	8.08	10.84	15.60	-	-	-
Coefficient of pe	3.15 2.27	4.95 3.65	4.53	5.61	7.02	8.96	11.88	-	-
Coefficient of pe 10 20 30	3.15 2.27	4.95 3.65 2.67	4.53 3.34	5.61 4.10	7.02 5.01	8.96 6.15	11.88 7.61	-	-
10 20 30 40	3.15 2.27 -	4.95 3.65 2.67 1.87	4.53 3.34 2.40	5.61 4.10 2.98	7.02 5.01 3.65	8.96 6.15 4.43	11.88 7.61 5.35		
20 30 40	3.15 2.27	4.95 3.65 2.67	4.53 3.34	5.61 4.10 2.98 2.51	7.02 5.01 3.65 3.10	8.96 6.15 4.43 3.76	11.88 7.61 5.35 4.53	-	-
20 30 40 45 50	3.15 2.27 -	4.95 3.65 2.67 1.87	4.53 3.34 2.40	5.61 4.10 2.98	7.02 5.01 3.65	8.96 6.15 4.43	11.88 7.61 5.35		
20 30 40 45	3.15 2.27 - - -	4.95 3.65 2.67 1.87	4.53 3.34 2.40 1.99	5.61 4.10 2.98 2.51	7.02 5.01 3.65 3.10	8.96 6.15 4.43 3.76	11.88 7.61 5.35 4.53	- - -	- - -

Cooling capacity	-	W	
Power input	-	W	
Current consumption	-	Α	
Mass flow	-	kg/h	
C.O.P.	-		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 110 Hz, EN 12900 rating conditions

# **R410A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-15	-10	-5	0	5	10	20	25
Cooling capacit	v in W								
10	12 448	19 475	23 830	28 818	34 493	40 909	_	-	_
20	10 928	17 784	21 986	26 775	32 205	38 330	45 202		_
30	-	15 735	19 726	24 257	29 383	35 155	41 628	-	-
40	-	13 351	17 069	21 281	26 040	31 398	37 407	-	-
45	-	-	15 598	19 626	24 176	29 300	35 051	-	-
50	-	-	-	17 857	22 180	27 051	32 522	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in V	v								
10	4 276	4 231	4 098	3 857	3 480	2 940	-	-	-
20	5 209	5 271	5 249	5 158	4 969	4 656	4 194	-	-
30	-	6 403	6 432	6 429	6 368	6 222	5 964	-	-
40	-	7 772	7 791	7 816	7 822	7 782	7 668	-	-
45	-	-	8 581	8 599	8 615	8 605	8 540	-	-
50	-	-	-	9 464	9 476	9 480	9 450	-	-
60	-	-	_	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
00			I	ı	I	I.	1		
urrent consum	ption in A								
10	6.77	6.82	6.51	6.02	5.37	4.58	-	-	-
20	8.85	9.17	9.04	8.75	8.34	7.83	7.24	-	-
30	-	11.10	11.07	10.92	10.68	10.37	10.01	-	-
40	-	13.04	13.04	12.96	12.81	12.62	12.42	-	-
45	-	-	14.14	14.05	13.92	13.77	13.62	-	-
50	-	-	-	15.27	15.14	15.01	14.90	-	-
60	-	_	_	-	-	-	-	-	-
65	-	_	_	-	-	-	-	-	-
Mass flow in kg	'h								•
10	218	335	405	485	575	675	-	-	-
20	208	330	403	485	578	681	797	-	-
30	-	319	395	480	575	681	800	-	-
40	-	301	379	467	565	674	796	-	-
45		-	368	457	556	667	790	-	_
50		-	-	445	546	658	783	-	-
60		-	-	-	-	-	-		-
65	-			-	-		-		_
•				_	-				
	erformance (C.C	1		T		10.5:	<u> </u>		I
10	2.91	4.60	5.81	7.47	9.91	13.91	-	-	-
20	2.10	3.37	4.19	5.19	6.48	8.23	10.78	-	-
30	-	2.46	3.07	3.77	4.61	5.65	6.98	-	-
40	-	1.72	2.19	2.72	3.33	4.03	4.88	-	-
45	-	-	1.82	2.28	2.81	3.41	4.10	-	-
50	-	-	-	1.89	2.34	2.85	3.44	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	_	-

tronima portormanos arto o o, to	•• •		
Cooling capacity	27 051	W	
Power input	9 480	W	
Current consumption	15.01	Α	
Mass flow	658	kg/h	
C.O.P.	2.85		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point



# Danfoss scroll compressor. VZH052CG

# Performance data at 110 Hz, ARI rating conditions

# **R410A**

Cond. temp. in				Evapora	iting temperature	in °C (to)				
°C (tc)	-25	-15	-10	-5	0	5	10	20	25	
Cooling capacity		T	T	T		T	1		ı	
10	13 203	20 628	25 224	30 484	36 465	43 221	-	-	-	
20	11 682	18 979	23 444	28 530	34 291	40 783	48 064	-	-	
30	-	16 958	21 238	26 094	31 580	37 753	44 670	-	-	
40	-	14 587	18 626	23 196	28 353	34 152	40 650	-	-	
45	-	-	17 175	21 582	26 553	32 144	38 412	-	-	
50	-	-	-	19 859	24 631	30 001	36 024	-	-	
60	-	-	-	-	-	-	-	-	-	
65	-	-	-	-	-	-	-	-	-	
Power input in V	v									
10	4 276	4 231	4 098	3 857	3 480	2 940	-	-	_	
20	5 209	5 271	5 249	5 158	4 969	4 656	4 194		_	
30	-	6 403	6 432	6 429	6 368	6 222	5 964	-	_	
40		7 772	7 791	7 816	7 822	7 782	7 668	<u> </u>	_	
45	-	-	8 581	8 599	8 615	8 605	8 540	-	_	
50		-	-	9 464	9 476	9 480	9 450	-	-	
60	-		-	9 404	9 476	9 480	9 450	-	-	
65	-	-	-	-	-	-	-	<u> </u>	-	
65	-	-	-	-	-	-	-	-	-	
Current consum	ption in A									
10	6.77	6.82	6.51	6.02	5.37	4.58	-	-	-	
20	8.85	9.17	9.04	8.75	8.34	7.83	7.24	-	-	
30	_	11.10	11.07	10.92	10.68	10.37	10.01	-	-	
40	-	13.04	13.04	12.96	12.81	12.62	12.42	-	-	
45	-	-	14.14	14.05	13.92	13.77	13.62	-	_	
50	-	_	-	15.27	15.14	15.01	14.90	-	_	
60	-	-	-	-	-	-	-	-	_	
65	-	_	-	_	-	-	_	-	_	
00		ı	I.	ı	l	I.	1		<u> </u>	
Mass flow in kg/	h									
10	217	333	403	482	571	671	-	-	-	
20	207	328	401	482	574	677	791	-	-	
30	-	317	392	477	571	677	794	-	-	
40	-	299	377	464	561	669	790	-	-	
45	-	-	365	454	553	663	785	-	-	
50	-	-	-	442	542	653	777	-	-	
60	-	-	-	-	-	-	-	-	-	
65	-	-	-	-	-	-	-	-	-	
Coefficient of pe	ufaumanaa (C.C	<b>.</b>								
oeπicient of pe	3.09	4.88	6.15	7.90	10.48	14.70	-	-	-	
	2.24		4.47	5.53	6.90	8.76				
30		3.60 2.65		4.06			11.46 7.49	-	-	
-	-		3.30	+	4.96	6.07		-	-	
40	-	1.88	2.39	2.97	3.62	4.39	5.30	-	-	
45	-	-	2.00	2.51	3.08	3.74	4.50	-	-	
50	-	-	-	2.10	2.60	3.16	3.81	-	-	
60	-	-	-	-	-	-	-	-	-	
65	-	-	-	-	-	-	-	-	-	

#### Nominal performance at to = 7.2 °C, tc = 54.4 °C

pooaoo at to	,	-	
Cooling capacity	-	W	
Power input	-	W	
Current consumption	-	Α	
Mass flow	-	kg/h	
C.O.P.	-		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

#### Pressure switch settings

Maximum HP switch setting	43.7	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.5	bar(g)

### Sound power data

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

Tolerance according EN12900

tc: Condensing temperature at dew point

