





## **General Characteristics**

Model number (on compressor nameplate)		VTZ038AGNR1A
Code number for Singlepack*	umber for Singlepack*	
Drawing number	wing number	
Suction and discharge connections		Rotolock
Suction connection		1-1/4 " Rotolock
Discharge connection		1 " Rotolock
Suction connection with supplied sleeve		5/8 " ODF
Discharge connection with supplied sleeve		1/2 " ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Cylinders	•	I
Swept volume	38.12 c	m3/rev
Net weight	21	kg
Oil charge	0.95 litre, P	OE - 160PZ
Maximum system test pressure Low Side / High side	25 bar(g) ,	/ 30 bar(g)
Maximum differential test pressure	30 bar	
Maximum number of starts per hour	1	2
Refrigerant charge limit	2.5	kg
Approved refrigerants	R404A, R507A	, R134a, R407C

# D=224 mm

H3=- mm

#### **Electrical Characteristics**

Electrical characteristics	
Nominal voltage	Frequency converter CD302 required with supply voltage 380-480V/3/50-60Hz
Voltage range	342-528 V supply to frequency converter
Winding resistance (between phases) +/- 7% at 25℃	3.37 Ω
Rated Load Amps (RLA)	7.35 A
Maximum Must Trip current (MMT)	9.2 A
Locked Rotor Amps (LRA)	30.5 A
Motor protection	Motor protection by frequency converter

#### **Recommended Installation torques**

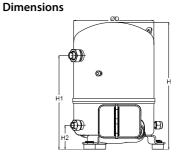
Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	15 Nm

#### Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only) Initial oil charge Installation instructions

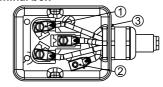
Approvals: CE certified, UL certified when connected to frequency converter, -

 ${}^*$ Singlepack: Compressor in cardboard box



H=356 mm H1=263 mm H2=67 mm

#### **Terminal box**



IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M4
- Hole Ø 33 mm (1.30")



#### Datasheet, accessories and spare parts

Gasket for oil sight glass (black chloroprene)

Terminal box incl cover

T block connector 52 x 57 mm

Terminal box cover

## Inverter reciprocating compressors VTZ038-G

Rotolock accessories, suction side	Code no.	
Solder sleeve, P09 (1-1/4" Rotolock, 5/8" ODF)	8153011	
Angle adapter, C09 (1-1/4" Rotolock, 5/8" ODF)	8168009	
Rotolock valve, V09 (1-1/4" Rotolock, 5/8" ODF)	8168033	Gaskets, sleeves and nuts
Gasket, 1-1/4"	8156131	
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007	(  ))
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007	
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	
Gasket, 1"	8156130	1 2 3
Rotolock accessories, sets	Code no.	1: Gasket
Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2")	7703012	2: Solder sleeve
Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2")	7703005	3: Rotolock nut
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	
Oil / lubricants	Code no.	
POE lubricant, 160PZ, 1 litre can	7754019	
POE lubricant, 160PZ, 2.5 litre can	120Z0573	
Crankcase heaters	Code no.	Mounting kit
PTC heater 27W,CE mark, UL	120Z0459	
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106	1
Belt type crankcase heater, 54 W, 400 V, UL	7773013	2
Miscellaneous accessories	Code no.	
Acoustic hood for 1 cylinder compressor	120Z0471	4
Oil equalisation nut	8153127	
Spare parts	Code no.	6
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001	
Oil sight glass with gaskets (black & white)	8156019	

2: Lock washer (3x)

3: Flat washer (3x)

4: Sleeve (3x)

1: Bolt (3x)

8156145

120Z0146

120Z0149

8173230



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		•				•			•
Cooling capacity	y in W								,
35	836	1 114	1 462	1 897	2 434	3 091	3 884	-	-
40	751	1 016	1 346	1 759	2 270	2 896	3 654	-	-
45	665	915	1 227	1 616	2 100	2 694	3 415	-	-
50	580	814	1 106	1 471	1 926	2 487	3 170	-	-
55	498	716	986	1 325	1 750	2 276	2 920	-	-
60	-	-	869	1 181	1 574	2 065	2 668	1	-
65	-	-	-	1 040	1 401	1 854	2 416	1	-
70	-	-	-	-	-	1 647	2 166	1	-
Power input in W	v								
35	514	583	641	687	720	739	743	-	_
40	520	598	665	722	767	800	818		_
45	522	607	683	750	807	851	883	-	_
50	523	614	698	774	840	896	940	-	-
55	523	621	711	774	870	936	940	-	-
				1					
60	-	-	726	817	900	975	1 040	-	-
65	-	-	-	842	932	1 015	1 090	-	-
70	-	-	-	-	-	1 059	1 142	-	-
Current concur	ntion in A								
35	0.97	1.22	1.38	1.46	1.50	1.54	1.59	_	_
				1	†	<u> </u>		-	
40	0.96	1.24	1.41	1.52	1.59	1.66	1.74		-
45	0.95	1.25	1.45	1.58	1.67	1.76	1.86	-	-
50	0.96	1.27	1.48	1.63	1.74	1.84	1.97	-	-
55	0.99	1.30	1.53	1.68	1.80	1.91	2.05	-	-
60	-	-	1.58	1.74	1.86	1.98	2.12	-	-
65	-	-	-	1.80	1.93	2.04	2.18	-	-
70	-	-	-	-	-	2.11	2.24	-	-
Mass flow in kg/	h								
35	20	27	34	43	54	68	84	_	_
40	19	25	33	42	53	67	82	-	_
45	18	24	32	41	52	65	81	-	_
50	17	23	30	39	50	63	79	-	_
55	15	21	29	38	48	61	77	-	_
60	-	-	27	36	46	59	75	-	_
65		-	-	34	44	57	72	-	_
70	-	-	_	-	-	55	70		_
70					1		7.0		
Coefficient of pe	•	<b>D.P.)</b>	2.28	2.76	3.38	4.10	5.23		
35	1.63	+			1	4.18	1	-	-
40	1.44	1.70	2.02	2.44	2.96	3.62	4.47	-	-
45	1.27	1.51	1.79	2.15	2.60	3.17	3.87	-	-
50	1.11	1.33	1.58	1.90	2.29	2.78	3.37	-	-
55	0.95	1.15	1.39	1.67	2.01	2.43	2.95	-	-
60	-	-	1.20	1.45	1.75	2.12	2.56	-	-
65	-	-	-	1.24	1.50	1.83	2.22	-	-
70	-	-	-	-	-	1.56	1.90	-	-
						_			
ominai perform	nance at to = 5	-C, tC = 50 °C		_	г	Pressure switch	settings		

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Cooling capacity	1 926	W	
Power input	840	W	
Current consumption	1.74	Α	
Mass flow	50	kg/h	
C.O.P.	2.29		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, ARI rating conditions

# R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
				•					
Cooling capacity	y in W	1	1			1	1		
35	905	1 204	1 578	2 044	2 620	3 322	4 168	-	-
40	818	1 104	1 461	1 905	2 455	3 127	3 939	-	-
45	729	1 001	1 339	1 760	2 283	2 924	3 700	-	-
50	640	897	1 215	1 612	2 107	2 715	3 454	-	-
55	555	794	1 091	1 463	1 928	2 502	3 203	-	-
60	-	-	970	1 316	1 749	2 288	2 950	-	-
65	-	-	-	1 171	1 572	2 075	2 697	-	-
70	-	-	-	-	-	1 866	2 446	1	-
Power input in V				1					
35	514	583	641	687	720	739	743	-	-
40	520	598	665	722	767	800	818	-	-
45	522	607	683	750	807	851	883	-	-
50	523	614	698	774	840	896	940	-	-
55	524	621	711	795	870	936	991	-	-
60	-	-	726	817	900	975	1 040	-	-
65	-	-	-	842	932	1 015	1 090	1	-
70	-	-	-	-	-	1 059	1 142	-	-
Current consum	ption in A								
35	0.97	1.22	1.38	1.46	1.50	1.54	1.59	-	-
40	0.96	1.24	1.41	1.52	1.59	1.66	1.74	-	-
45	0.95	1.25	1.45	1.58	1.67	1.76	1.86	-	-
50	0.96	1.27	1.48	1.63	1.74	1.84	1.97	-	-
55	0.99	1.30	1.53	1.68	1.80	1.91	2.05	-	-
60	-	-	1.58	1.74	1.86	1.98	2.12	-	_
65	-	-	-	1.80	1.93	2.04	2.18	-	-
70	-	_	-	-	-	2.11	2.24	-	_
		1	I	ı	I				.1
Mass flow in kg/	h								
35	20	26	34	43	54	67	83	-	-
40	19	25	33	42	53	66	82	-	_
45	18	24	31	41	51	65	80	-	_
50	17	23	30	39	50	63	79	-	_
55	15	21	28	37	48	61	77	-	_
60	-	-	27	36	46	59	74	-	_
65		<del>-</del>	-	34	44	57	72	-	-
70	-	-		-	-	54	69	-	-
70		1 -		-		54	09	-	
Coefficient of pe	erformance (C.C	D.P.)							
35	1.76	2.07	2.46	2.98	3.64	4.50	5.61	-	-
40	1.57	1.85	2.20	2.64	3.20	3.91	4.81	-	-
45	1.39	1.65	1.96	2.35	2.83	3.44	4.19	-	-
50	1.22	1.46	1.74	2.08	2.51	3.03	3.68	-	-
	1.06	1.28	1.53	1.84	2.22	2.67	3.23	-	-
55		+	1		1.94	2.35	2.84	-	_
55 60		-	1.34	1,61			2.04		
55 60 65	-	-	1.34	1.61 1.39	1.69	2.04	2.47		_

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

	,		
Cooling capacity	2 189	W	
Power input	896	W	
Current consumption	1.84	Α	
Mass flow	54	kg/h	
C.O.P.	2.44		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, EN 12900 rating conditions

# R134a

Cond. temp. in	ond. temp. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacit	ty in W								
35	982	1 308	1 717	2 227	2 859	3 631	4 563	-	_
40	882	1 193	1 581	2 066	2 666	3 402	4 293	-	_
								-	_
45	781	1 075	1 441	1 898	2 466	3 164	4 012		
50	681	956	1 299	1 727	2 261	2 920	3 723	-	-
55	584	840	1 157	1 556	2 054	2 672	3 430	-	-
60	-	-	1 019	1 386	1 847	2 423	3 133	-	-
65	-	-	-	1 220	1 643	2 176	2 836	-	-
70	-	-	-	-	-	1 932	2 542	-	-
Power input in	w								
35	601	679	745	799	840	866	877	-	-
40	610	699	776	842	894	933	957	-	-
45	613	712	800	876	940	991	1 028	-	-
50	611	720	818	905	981	1 044	1 093	-	_
55	607	725	833	931	1 018	1 092	1 154	_	_
60	-	-	848	957	1 054	1 140	1 213	_	_
65	_	-	-	983	1 091	1 188	1 272	-	_
70	-	-	_	-	-	1 239	1 335	_	_
7.0		ı	1	I	l	1 200	1 000		.1
Current consun	nption in A								
35	1.05	1.32	1.49	1.58	1.62	1.66	1.72	-	-
40	1.04	1.33	1.53	1.65	1.72	1.79	1.88	-	-
45	1.03	1.35	1.56	1.71	1.81	1.90	2.01	-	-
50	1.04	1.37	1.60	1.76	1.88	1.99	2.12	-	-
55	1.06	1.41	1.65	1.82	1.94	2.07	2.21	-	-
60	-	-	1.70	1.88	2.01	2.14	2.29	-	-
65	-	-	-	1.95	2.08	2.20	2.36	-	-
70	-	-	-	-	-	2.27	2.42	-	-
		•	•	1	•	u .	•		
Mass flow in kg		1	1	T	ı	1			Т
35	24	31	40	51	64	80	98	-	-
40	23	30	39	49	62	78	97	-	-
45	21	28	37	48	61	76	95	-	-
50	20	27	35	46	59	74	93	-	-
55	18	25	34	44	57	72	90	-	-
60	-	-	32	42	54	70	88	-	-
65	-	-	-	40	52	67	85	-	-
70	-	-	-	-	-	64	82	-	-
Coefficient of p	erformance (C.C	D.P.)							
35	1.63	1.93	2.30	2.79	3.40	4.19	5.20	-	-
40	1.45	1.71	2.04	2.45	2.98	3.65	4.49	-	-
45	1.27	1.51	1.80	2.17	2.62	3.19	3.90	-	-
+5	4.44	1.33	1.59	1.91	2.31	2.80	3.41	-	-
	1.11		1		2.02	2.45	2.97	-	-
50	1.11 0.96	1.16	1.39	1.67	2.02				
50 55		1.16		+				-	_
50	0.96	1.16	1.39 1.20	1.67 1.45 1.24	1.75 1.51	2.13	2.58		1

rionina poriorinano arto o o, to	•••		
Cooling capacity	2 261	W	
Power input	981	W	
Current consumption	1.88	Α	
Mass flow	59	kg/h	
C.O.P.	2.31		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Į.				_
	With accoustic hood	0	dB(A)	
	Sound power level	0	dB(A)	

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		•	•	•	•				•
Cooling capacity		T		T		1	1		ı
35	1 064	1 415	1 853	2 401	3 077	3 902	4 897	-	-
40	961	1 297	1 715	2 237	2 883	3 673	4 627	-	-
45	856	1 175	1 572	2 067	2 681	3 434	4 346	-	-
50	751	1 053	1 426	1 893	2 474	3 188	4 057	-	-
55	650	932	1 281	1 718	2 263	2 938	3 762	-	-
60	-	-	1 139	1 544	2 052	2 685	3 463	-	-
65	-	-	-	1 374	1 845	2 435	3 165	-	-
70	-	-	-	-	-	2 188	2 870	-	-
Power input in V	v								
35	601	679	745	799	840	866	877	-	-
40	610	699	776	842	894	933	957	-	-
45	613	712	800	876	940	991	1 028	-	-
50	611	720	818	905	981	1 044	1 093	-	_
55	607	725	833	931	1 018	1 092	1 154	-	_
60	-	-	848	957	1 054	1 140	1 213	-	_
65	-	_	-	983	1 091	1 188	1 272	-	_
70	_	_	_	-	-	1 239	1 335	-	_
		I.	l	I.	1	. 200	. 000		<u>l</u>
Current consum	ption in A								
35	1.05	1.32	1.49	1.58	1.62	1.66	1.72	ı	-
40	1.04	1.33	1.53	1.65	1.72	1.79	1.88	1	-
45	1.03	1.35	1.56	1.71	1.81	1.90	2.01	-	-
50	1.04	1.37	1.60	1.76	1.88	1.99	2.12	-	-
55	1.06	1.41	1.65	1.82	1.94	2.07	2.21	-	-
60	-	-	1.70	1.88	2.01	2.14	2.29	-	-
65	-	-	-	1.95	2.08	2.20	2.36	-	-
70	-	-	-	-	-	2.27	2.42	-	-
Mass flow in kg/		T	Т	T	Т	Т	1		1
35	24	31	40	51	63	79	98	-	-
40	22	30	39	49	62	78	96	-	-
45	21	28	37	48	60	76	95	-	-
50	19	27	35	46	59	74	92	-	-
55	18	25	33	44	56	72	90	-	-
60	-	-	31	42	54	69	87	-	-
65	-	-	-	39	52	67	84	-	-
70	-	-	-	-	-	64	81	-	-
Coefficient of pe	erformance (C.C	D.P.)							
35	1.77	2.08	2.49	3.00	3.66	4.51	5.59	-	-
40	1.57	1.85	2.21	2.66	3.22	3.94	4.84	-	-
45	1.40	1.65	1.97	2.36	2.85	3.46	4.23	-	-
50	1.23	1.46	1.74	2.09	2.52	3.05	3.71	-	-
55	1.07	1.29	1.54	1.84	2.22	2.69	3.26	-	-
60	-	-	1.34	1.61	1.95	2.36	2.86	-	-
65	-	-	-	1.40	1.69	2.05	2.49	-	-
70	-	-	-	-	-	1.77	2.15	-	_
		•	•	•	•	•			
		2 °C, tc = 54.4 °C				Pressure switch			

recimies personnance at to 7:2 0; t	0 04.4 0		
Cooling capacity	2 570	W	
Power input	1 047	W	
Current consumption	1.99	Α	
Mass flow	63	kg/h	
C.O.P.	2.45		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, EN 12900 rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
		•			•	•	•		-
Cooling capacity	y in W								
35	1 127	1 500	1 969	2 554	3 279	4 165	5 234	-	-
40	1 012	1 368	1 813	2 369	3 058	3 902	4 924	-	-
45	895	1 232	1 652	2 177	2 828	3 629	4 602	-	-
50	780	1 096	1 489	1 980	2 593	3 349	4 270	-	-
55	670	963	1 327	1 783	2 355	3 064	3 933	-	-
60	-	-	1 168	1 589	2 118	2 778	3 592	-	-
65	-	-	-	1 399	1 884	2 494	3 251	1	1
70	-	-	-	-	-	2 214	2 913	1	-
Power input in W	v								
35	686	773	848	910	957	990	1 007	_	_
40	699	798	885	959	1 019	1 063	1 093		
45	702	814	914	1 000	1 072	1 129	1 171		
50	698	823	935	1 034	1 119	1 189	1 244	_	
55	688	827	952	1 065	1 163	1 246	1 313	-	
60	-	-	967	1 003	1 204	1 301	1 382	-	
65	-	-	-	1 122	1 247	1 357	1 452	-	
70	<u> </u>	-	-	-	- 1 247	1 417	1 525	-	-
70	-					1 417	1 020	<u> </u>	
Current consum	ntion in A								
35	1.15	1.44	1.62	1.72	1.77	1.81	1.87	_	_
40		1.46	1	1.80		<u> </u>	1		
	1.13	1.46	1.67	1.86	1.88 1.97	1.95 2.07	2.05 2.20	-	
45		+	1.71			1		-	
50	1.13	1.50	1.75	1.92	2.05	2.17	2.32		-
55	1.16	1.54	1.80	1.98	2.12	2.26	2.42	-	-
60	-	-	1.86	2.05	2.19	2.33	2.50	-	-
65	-	-	-	2.12	2.27	2.41	2.57	-	-
70	-	-	-	-	-	2.48	2.64	-	-
Mass flow in kg/	h								
35	27	36	46	58	73	91	113	-	_
40	26	34	44	57	72	90	111	-	_
45	24	33	43	55	70	88	109	-	
50	22	31	41	53	68	85	107		_
55	21	29	39	50	65	83	107		
60	-	-	36	48	62	80	104	-	
65	-	-	-	45	60	77	97	-	-
70		-		-	-	73	94	-	
10					<u> </u>	1 13	J-1		
Coefficient of pe		1	0.00	1 001	0.10	1 404	F.60		
35	1.64	1.94	2.32	2.81	3.43	4.21	5.20	-	-
40	1.45	1.71	2.05	2.47	3.00	3.67	4.51	-	-
45	1.28	1.51	1.81	2.18	2.64	3.21	3.93	-	-
50	1.12	1.33	1.59	1.91	2.32	2.82	3.43	-	-
55	0.97	1.16	1.39	1.68	2.03	2.46	2.99	-	-
60	-	-	1.21	1.45	1.76	2.14	2.60	-	-
65	-	-	-	1.25	1.51	1.84	2.24	-	-
70	-	-	-	-	-	1.56	1.91	-	-
		°C to = 50 °C				Drocours	o atting a		
Nominal perform	nance at to = 5	C, tC = 50 °C		_	г	Pressure switch	settings		

	•• •	
Cooling capacity	2 593	W
Power input	1 119	W
Current consumption	2.05	Α
Mass flow	68	kg/h
C.O.P.	2.32	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, ARI rating conditions

# R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
•									
Cooling capacity	y in W	1	1	,		1			
35	1 220	1 622	2 125	2 753	3 529	4 476	5 617	-	-
40	1 102	1 487	1 967	2 566	3 306	4 213	5 308	-	-
45	981	1 348	1 803	2 371	3 075	3 938	4 985	-	-
50	861	1 207	1 636	2 171	2 836	3 656	4 653	-	-
55	745	1 069	1 469	1 969	2 595	3 368	4 314	-	-
60	-	-	1 305	1 770	2 353	3 079	3 971	-	-
65	-	-	-	1 575	2 114	2 791	3 628	-	-
70	-	-	-	-	-	2 508	3 290	-	-
Power input in V		1		T		1	1		
35	686	773	848	910	957	990	1 007	-	-
40	699	798	885	959	1 019	1 063	1 093	-	-
45	702	814	914	1 000	1 072	1 129	1 171	-	-
50	698	823	935	1 034	1 119	1 189	1 244	-	-
55	688	827	952	1 065	1 163	1 246	1 313	-	-
60	-	-	967	1 093	1 204	1 301	1 382	-	-
65	-	-	-	1 122	1 247	1 357	1 452	-	-
70	-	-	-	-	-	1 417	1 525	-	-
Current consum	ption in A								
35	1.15	1.44	1.62	1.72	1.77	1.81	1.87	-	-
40	1.13	1.46	1.67	1.80	1.88	1.95	2.05	-	-
45	1.12	1.47	1.71	1.86	1.97	2.07	2.20	-	-
50	1.13	1.50	1.75	1.92	2.05	2.17	2.32	-	-
55	1.16	1.54	1.80	1.98	2.12	2.26	2.42	-	-
60	-	-	1.86	2.05	2.19	2.33	2.50	-	_
65	-	-	-	2.12	2.27	2.41	2.57	-	-
70	-	-	-	-	-	2.48	2.64	-	-
		L	L				1		
Mass flow in kg/l	h								
35	27	36	46	58	73	91	112	_	-
40	26	34	44	56	71	89	111	-	-
45	24	32	42	55	69	87	108	-	_
50	22	31	40	53	67	85	106	_	-
55	20	29	38	50	65	82	103	-	_
60	-	-	36	48	62	79	100	-	_
65		-	-	45	59	76	97	<u> </u>	_
70		-	_	-	-	73	93	<u>-</u>	_
70	_		_		_	7.5	55		
Coefficient of pe	erformance (C.C	D.P.)							
35	1.78	2.10	2.51	3.03	3.69	4.52	5.58	-	-
40	1.58	1.86	2.22	2.68	3.25	3.96	4.86	-	-
45	1.40	1.66	1.97	2.37	2.87	3.49	4.26	-	-
50	1.23	1.47	1.75	2.10	2.53	3.07	3.74	-	-
	1.08	1.29	1.54	1.85	2.23	2.70	3.28	-	-
55			1.35	1.62	1.95	2.37	2.87	-	_
-	-	-	[,33						
55 60 65	-	-	-	1.40	1.70	2.06	2.50	-	-

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

	• •		
Cooling capacity	2 947	W	
Power input	1 195	W	
Current consumption	2.17	Α	
Mass flow	72	kg/h	
C.O.P.	2.47		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Į.				_
	With accoustic hood	0	dB(A)	
	Sound power level	0	dB(A)	

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
'									
Cooling capacit	y in W								
35	1 269	1 690	2 218	2 878	3 694	4 693	5 898	-	-
40	1 140	1 541	2 042	2 669	3 445	4 396	5 548	-	-
45	1 009	1 388	1 861	2 452	3 186	4 088	5 184	-	-
50	879	1 235	1 677	2 231	2 921	3 772	4 810	-	-
55	754	1 085	1 494	2 009	2 653	3 451	4 430	-	-
60	-	-	1 316	1 789	2 385	3 129	4 046	-	-
65	-	-	-	1 575	2 121	2 809	3 662	-	-
70	-	-	-	-	-	2 493	3 281	-	-
		1	· ·			1			I
Power input in V	N								
35	769	866	949	1 018	1 072	1 110	1 133	-	-
40	785	896	992	1 074	1 141	1 192	1 226	-	-
45	788	914	1 025	1 121	1 201	1 265	1 312	-	-
50	783	924	1 050	1 160	1 255	1 332	1 392	-	-
55	769	927	1 069	1 195	1 304	1 396	1 471	-	-
60	-	-	1 084	1 226	1 351	1 459	1 548	-	_
65	-	-	-	1 258	1 399	1 523	1 628	-	_
70	<u> </u>	-	_	-	-	1 590	1 711	_	_
70		<u> </u>	<u> </u>		<u> </u>	1 390	1711		1
Current consum	nation in A								
35	1.26	1.59	1.79	1.89	1.95	1.99	2.06	_	
40	1.24	1.60				+	2.26	-	_
			1.83	1.98	2.07	2.15			-
45	1.24	1.62	1.88	2.05	2.17	2.28	2.42	-	
50	1.25	1.65	1.92	2.11	2.26	2.39	2.55	-	-
55	1.28	1.69	1.98	2.18	2.33	2.48	2.66	-	-
60	-	-	2.04	2.25	2.41	2.56	2.75	-	-
65	-	-	-	2.34	2.49	2.64	2.83	-	-
70	-	-	-	-	-	2.73	2.91	-	-
Mass flow in kg/		T	T	1	1		1	ı	1
35	31	40	52	66	82	103	127	-	-
40	29	39	50	64	81	101	125	-	-
45	27	37	48	62	79	99	123	-	-
50	25	35	46	59	76	96	120	-	-
55	23	32	43	57	73	93	117	-	-
60	-	-	41	54	70	90	113	-	-
65	-	-	-	51	67	86	110	-	-
70	-	-	-	-	-	83	106	-	-
						<u> </u>		<u> </u>	
Coefficient of pe	erformance (C.C	D.P.)							
35	1.65	1.95	2.34	2.83	3.45	4.23	5.21	-	-
	1.45	1.72	2.06	2.48	3.02	3.69	4.53	-	-
40			1.82	2.19	2.65	3.23	3.95	-	-
	1.28	1.52							_
40 45	1.28	1	1	1.92	2.33	2.83	3.45	_	
40 45 50	1.28 1.12	1.34	1.60	1.92 1.68	2.33	2.83	3.45 3.01	-	-
40 45 50 55	1.28 1.12 0.98	1.34 1.17	1.60 1.40	1.68	2.03	2.47	3.01	-	-
40 45 50	1.28 1.12	1.34	1.60						

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

	•• •	
Cooling capacity	2 921	W
Power input	1 255	W
Current consumption	2.26	Α
Mass flow	76	kg/h
C.O.P.	2.33	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, ARI rating conditions

# R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
•									
Cooling capacity	y in W	T		T	•	_	_		1
35	1 375	1 828	2 395	3 102	3 976	5 043	6 330	-	-
40	1 241	1 675	2 216	2 890	3 725	4 746	5 980	-	-
45	1 105	1 518	2 031	2 670	3 463	4 437	5 616	-	-
50	970	1 360	1 842	2 445	3 195	4 118	5 241	-	-
55	840	1 204	1 654	2 218	2 922	3 794	4 859	-	-
60	-	-	1 470	1 993	2 650	3 467	4 472	-	-
65	-	-	-	1 774	2 381	3 143	4 086	-	-
70	-	-	-	-	-	2 825	3 705	-	-
Power input in V	V	1	T	1	,	1	,		1
35	769	866	949	1 018	1 072	1 110	1 133	-	-
40	785	896	992	1 074	1 141	1 192	1 226	-	-
45	788	914	1 025	1 121	1 201	1 265	1 312	-	-
50	783	924	1 050	1 160	1 255	1 332	1 392	-	-
55	769	927	1 069	1 195	1 304	1 396	1 471	-	-
60	-	-	1 084	1 226	1 351	1 459	1 548	-	-
65	-	-	-	1 258	1 399	1 523	1 628	-	-
70	-	-	-	-	-	1 590	1 711	-	-
Current consum	ption in A								
35	1.26	1.59	1.79	1.89	1.95	1.99	2.06	-	-
40	1.24	1.60	1.83	1.98	2.07	2.15	2.26	-	-
45	1.24	1.62	1.88	2.05	2.17	2.28	2.42	-	-
50	1.25	1.65	1.92	2.11	2.26	2.39	2.55	-	-
55	1.28	1.69	1.98	2.18	2.33	2.48	2.66	-	-
60	-	-	2.04	2.25	2.41	2.56	2.75	-	-
65	_	_	-	2.34	2.49	2.64	2.83	-	-
70	-	_	-	-	-	2.73	2.91	-	-
		1	ı	1	1		2.0 .		
Mass flow in kg/	h								
35	31	40	51	65	82	102	126	_	_
40	29	38	50	64	80	100	125	-	_
45	27	36	48	61	78	98	122	-	_
50	25	34	46	59	76	96	119		_
55	23	32	43	57	73	93	116	<u>-</u>	_
60	-	-	43	54	70	89	113	<u> </u>	-
65				51	67	86	109		
70	-	-	-	- 51	- 07	82	109	-	-
70	<u>-</u>	_		_		02	105	<u> </u>	-
Coefficient of pe	erformance (C.C	D.P.)							
35	1.79	2.11	2.52	3.05	3.71	4.54	5.59	-	-
40	1.58	1.87	2.23	2.69	3.26	3.98	4.88	-	-
45	1.40	1.66	1.98	2.38	2.88	3.51	4.28	-	_
50	1.24	1.47	1.76	2.11	2.55	3.09	3.76	-	_
55	1.09	1.30	1.55	1.86	2.24	2.72	3.30	<u> </u>	-
60	-	-	1.36	1.63	1.96	2.72	2.89	-	-
65	-	-	1.30			2.38	2.89	<u>-</u>	
70				1.41	1.70	1.78			-
7.0	-	-	-	-	-	1.78	2.16	-	-

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

reciminal portermance at to 7.2 e, to	U-1		
Cooling capacity	3 319	W	
Power input	1 340	W	
Current consumption	2.39	Α	
Mass flow	81	kg/h	
C.O.P.	2.48		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		•		•	•	•			-
Cooling capacity	/ in W	<b>T</b>	•		•	1			
35	1 410	1 878	2 465	3 198	4 105	5 215	6 554	-	-
40	1 266	1 712	2 269	2 965	3 827	4 885	6 164	-	-
45	1 121	1 542	2 067	2 724	3 539	4 542	5 759	-	-
50	977	1 372	1 863	2 478	3 245	4 190	5 344	-	-
55	838	1 205	1 660	2 231	2 947	3 834	4 921	-	-
60	-	-	1 462	1 987	2 650	3 476	4 494	-	-
65	-	-	-	1 750	2 357	3 120	4 068	-	-
70	-	-	-	-	-	2 770	3 645	-	-
Zaurar innut in M	v								
Power input in V		057	4.040	4.404	4.405	4.000	4.055		
35	851	957	1 048	1 124	1 185	1 228	1 255	-	-
40	869	991	1 097	1 187	1 261	1 318	1 356	-	-
45	873	1 012	1 134	1 239	1 328	1 398	1 450	-	-
50	866	1 022	1 161	1 283	1 387	1 473	1 539	-	-
55	850	1 024	1 182	1 321	1 442	1 544	1 625	-	-
60	-	-	1 198	1 356	1 495	1 614	1 712	-	-
65	-	-	-	1 390	1 548	1 685	1 801	-	-
70	-	-	-	-	-	1 760	1 894	-	-
Current consum		1		T	_	1			
35	1.39	1.75	1.97	2.09	2.15	2.20	2.28	-	-
40	1.37	1.77	2.03	2.18	2.29	2.37	2.49	-	-
45	1.37	1.79	2.08	2.26	2.40	2.52	2.67	-	-
50	1.38	1.82	2.13	2.34	2.49	2.64	2.81	-	-
55	1.41	1.87	2.19	2.41	2.58	2.74	2.93	-	-
60	-	-	2.26	2.49	2.66	2.83	3.04	-	-
65	-	-	-	2.58	2.75	2.92	3.13	-	-
70	-	-	-	-	-	3.02	3.21	-	-
Mass flow in kg/	h								
35	34	45	57	73	92	114	141	-	-
40	32	43	56	71	90	112	139	-	-
45	30	41	53	69	87	110	136	-	-
50	28	38	51	66	84	107	133	-	-
55	26	36	48	63	81	103	130	-	-
60	-	-	45	60	78	100	126	-	-
65	-	-	-	57	75	96	122	-	-
70	-	-	-	-	-	92	117	-	-
•		•	•	•	•				
Coefficient of pe	•	· ·	2.25	2 94	2 47	4.25	5.22		
35	1.66	1.96	2.35	2.84	3.47	4.25	5.22	-	-
40	1.46	1.73	2.07	2.50	3.04	3.71	4.55	-	-
45	1.28	1.52	1.82	2.20	2.67	3.25	3.97	-	-
50	1.13	1.34	1.60	1.93	2.34	2.85	3.47	-	-
55	0.99	1.18	1.40	1.69	2.04	2.48	3.03	-	-
60	-	-	1.22	1.47	1.77	2.15	2.63	-	-
65	-	-	-	1.26	1.52	1.85	2.26	-	-
70	-	-	-	-	-	1.57	1.92	-	-
laminal		°C to = 50 °C				Drocours	aattinga		
Iominal perform	iance at to = 5	υ, τc = 50 °C		_	г	Pressure switch	settings		

-,			
Cooling capacity	3 245	W	
Power input	1 387	W	
Current consumption	2.49	Α	
Mass flow	84	kg/h	
C.O.P.	2.34		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, ARI rating conditions

# R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
•		•		•		•			
Cooling capacit		1	T	1	T	1			1
35	1 527	2 031	2 661	3 447	4 418	5 604	7 034	-	-
40	1 379	1 861	2 462	3 211	4 139	5 273	6 645	-	-
45	1 228	1 686	2 256	2 966	3 848	4 929	6 239	-	-
50	1 078	1 510	2 046	2 716	3 549	4 574	5 822	-	-
55	933	1 337	1 838	2 464	3 246	4 214	5 397	-	-
60	-	-	1 633	2 214	2 944	3 852	4 968	-	-
65	-	-	-	1 971	2 645	3 492	4 539	-	-
70	1	-	-	-	-	3 138	4 115	-	-
Zauvar innut in N	A.								
Power input in V		057	1.049	1 124	1 105	1 229	1 255		
35	851	957	1 048	1 124	1 185	1 228	1 255	-	-
40	869	991	1 097	1 187	1 261	1 318	1 356	-	-
45	873	1 012	1 134	1 239	1 328	1 398	1 450	-	-
50	866	1 022	1 161	1 283	1 387	1 473	1 539	-	-
55	850	1 024	1 182	1 321	1 442	1 544	1 625	-	-
60	-	-	1 198	1 356	1 495	1 614	1 712	-	-
65	-	-	-	1 390	1 548	1 685	1 801	-	-
70	-	-	-	-	-	1 760	1 894	-	-
Current consum	•	1 4 77	107	T 0.00	0.45	T 2.22			
35	1.39	1.75	1.97	2.09	2.15	2.20	2.28	-	-
40	1.37	1.77	2.03	2.18	2.29	2.37	2.49	-	-
45	1.37	1.79	2.08	2.26	2.40	2.52	2.67	-	-
50	1.38	1.82	2.13	2.34	2.49	2.64	2.81	-	-
55	1.41	1.87	2.19	2.41	2.58	2.74	2.93	-	-
60	-	-	2.26	2.49	2.66	2.83	3.04	-	-
65	-	-	-	2.58	2.75	2.92	3.13	-	-
70	-	-	-	-	-	3.02	3.21	-	-
Anna flannin land	n_								
Mass flow in kg/		45	57	70	04	144	110		
35	34	45	57	73	91	114	140	-	-
40	32	43	55	71	89	112	138	-	-
45	30	41	53	68	87	109	136	-	-
50	28	38	51	66	84	106	133	-	-
55	26	36	48	63	81	103	129	-	-
60	-	-	45	60	78	99	125	-	-
65	-	-	-	57	74	95	121	-	-
70	-	-	-	-	-	91	117	-	-
Coefficient of pe	erformance (C.C	D.P.)							
35	1.79	2.12	2.54	3.07	3.73	4.56	5.61	-	-
40	1.59	1.88	2.24	2.70	3.28	4.00	4.90	-	-
45	1.41	1.67	1.99	2.39	2.90	3.53	4.30	-	-
50	1.24	1.48	1.76	2.12	2.56	3.11	3.78	-	-
	1.10	1.31	1.55	1.86	2.25	2.73	3.32	-	-
55			1		1.97	2.39	2.90	-	
		-	1.36	1,63			2.90		-
55 60 65	-	-	1.36	1.63 1.42	1.71	2.07	2.52	-	-

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

reciminal portermance at to 7.2 e, to	U-1		
Cooling capacity	3 687	W	
Power input	1 482	W	
Current consumption	2.64	Α	
Mass flow	90	kg/h	
C.O.P.	2.49		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, EN 12900 rating conditions

R134a

	Cond. temp. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
		•	•			•			
ooling capacity	in W	_			1		_	T	
35	1 546	2 061	2 707	3 514	4 512	5 730	7 199	-	-
40	1 389	1 879	2 491	3 257	4 206	5 367	6 770	-	-
45	1 230	1 692	2 270	2 992	3 889	4 990	6 326	-	-
50	1 074	1 506	2 046	2 722	3 565	4 604	5 870	-	-
55	924	1 324	1 823	2 451	3 238	4 213	5 406	-	-
60	-	-	1 606	2 183	2 911	3 819	4 938	-	-
65	-	-	-	1 922	2 589	3 428	4 469	-	-
70	-	-	-	-	-	3 043	4 005	-	-
ower input in W								I	
35	930	1 051	1 153	1 236	1 298	1 339	1 358	-	-
40	948	1 085	1 204	1 304	1 386	1 447	1 486	-	-
45	952	1 104	1 240	1 357	1 457	1 537	1 597	-	-
50	948	1 115	1 266	1 400	1 517	1 616	1 696	-	-
55	941	1 122	1 287	1 438	1 572	1 689	1 788	-	-
60	-	-	1 311	1 476	1 627	1 761	1 879	-	-
65	-	-	-	1 521	1 687	1 838	1 973	-	-
70	-	-	-	-	-	1 925	2 078	-	-
urrent consum	otion in A	1	1	т	T	Т		ı	
35	1.54	1.94	2.19	2.32	2.39	2.44	2.52	-	-
40	1.52	1.96	2.25	2.42	2.53	2.63	2.76	-	-
45	1.51	1.98	2.30	2.51	2.66	2.79	2.96	-	-
50	1.53	2.02	2.36	2.59	2.76	2.92	3.12	-	-
55	1.57	2.07	2.42	2.67	2.86	3.04	3.25	-	-
60	-	-	2.50	2.76	2.95	3.14	3.36	-	-
65	-	-	-	2.86	3.05	3.24	3.46	-	-
70	-	-	-	-	-	3.34	3.56	-	-
	1								
/lass flow in kg/l									
lass flow in kg/l 35	38	49	63	80	101	126	155	-	-
		49 47	63 61	80 78	101 99	126 123	155 153	-	-
35	38								
35 40	38 35	47	61	78	99	123	153	-	-
35 40 45	38 35 33	47 45	61 59	78 75	99 96	123 120	153 150	-	-
35 40 45 50	38 35 33 31	47 45 42	61 59 56	78 75 73	99 96 93	123 120 117	153 150 146		
35 40 45 50 55	38 35 33 31 28	47 45 42 39	61 59 56 53	78 75 73 69	99 96 93 89	123 120 117 114	153 150 146 143		- - -
35 40 45 50 55 60	38 35 33 31 28	47 45 42 39	61 59 56 53 50	78 75 73 69 66	99 96 93 89 86	123 120 117 114 110	153 150 146 143 138		
35 40 45 50 55 60 65	38 35 33 31 28	47 45 42 39 -	61 59 56 53 50	78 75 73 69 66 62	99 96 93 89 86 82	123 120 117 114 110 105	153 150 146 143 138 134	- - - -	
35 40 45 50 55 60 65 70	38 35 33 31 28 - - -	47 45 42 39 - - -	61 59 56 53 50 -	78 75 73 69 66 62	99 96 93 89 86 82	123 120 117 114 110 105	153 150 146 143 138 134 129	- - - -	
35 40 45 50 55 60 65 70 coefficient of pe	38 35 33 31 28 -	47 45 42 39 - - - - - 0.P.)	61 59 56 53 50 - -	78 75 73 69 66 62 -	99 96 93 89 86 82	123 120 117 114 110 105 101	153 150 146 143 138 134 129	- - - -	
35 40 45 50 55 60 65 70 coefficient of pe	38 35 33 31 28 - - - - - formance (C.C 1.66 1.47	47 45 42 39 - - - - - D.P.) 1.96 1.73	61 59 56 53 50 -	78 75 73 69 66 62 -	99 96 93 89 86 82 -	123 120 117 114 110 105 101 4.28 3.71	153 150 146 143 138 134 129 5.30 4.56		-
35 40 45 50 55 60 65 70 Coefficient of pe	38 35 33 31 28 - - - - - - - - - - - - - - - -	47 45 42 39 - - - - - 0.P.)	61 59 56 53 50 - -	78 75 73 69 66 62 -	99 96 93 89 86 82 -	123 120 117 114 110 105 101	153 150 146 143 138 134 129		-
35 40 45 50 55 60 65 70 <b>Coefficient of pe</b> 35 40	38 35 33 31 28 - - - - - formance (C.C 1.66 1.47	47 45 42 39 - - - - - D.P.) 1.96 1.73	61 59 56 53 50 - - 2.35 2.07	78 75 73 69 66 62 -	99 96 93 89 86 82 -	123 120 117 114 110 105 101 4.28 3.71	153 150 146 143 138 134 129 5.30 4.56		-
35 40 45 50 55 60 65 70 <b>Coefficient of pe</b> 35 40 45	38 35 33 31 28 - - - - rformance (C.C 1.66 1.47 1.29	47 45 42 39 - - - - D.P.) 1.96 1.73 1.53	61 59 56 53 50 - - 2.35 2.07 1.83	78 75 73 69 66 62 - 2.84 2.50 2.20	99 96 93 89 86 82 - 3.48 3.04 2.67	123 120 117 114 110 105 101 4.28 3.71 3.25	153 150 146 143 138 134 129 5.30 4.56 3.96		-
35 40 45 50 55 60 65 70 <b>Soefficient of pe</b> 35 40 45	38 35 33 31 28 - - - - rformance (C.C 1.66 1.47 1.29 1.13	47 45 42 39 - - - - D.P.) 1.96 1.73 1.53 1.35	61 59 56 53 50 - - - 2.35 2.07 1.83 1.62	78 75 73 69 66 62 - 2.84 2.50 2.20 1.94	99 96 93 89 86 82 - 3.48 3.04 2.67 2.35	123 120 117 114 110 105 101 4.28 3.71 3.25 2.85	153 150 146 143 138 134 129 5.30 4.56 3.96 3.46	- - - - - -	-
35 40 45 50 55 60 65 70  coefficient of pe 35 40 45 50 55	38 35 33 31 28 - - - - - - - - - - - - - - - - - -	47 45 42 39 - - - - D.P.) 1.96 1.73 1.53 1.35 1.18	61 59 56 53 50 - - 2.35 2.07 1.83 1.62 1.42	78 75 73 69 66 62 - 2.84 2.50 2.20 1.94 1.70	99 96 93 89 86 82 - 3.48 3.04 2.67 2.35 2.06	123 120 117 114 110 105 101 4.28 3.71 3.25 2.85 2.49	153 150 146 143 138 134 129 5.30 4.56 3.96 3.46 3.02		-
35 40 45 50 55 60 65 70  coefficient of pe 35 40 45 50 55 60	38 35 33 31 28 - - - - - - - - - - - - - - - - - -	47 45 42 39 - - - - D.P.) 1.96 1.73 1.53 1.35 1.18	61 59 56 53 50 - - 2.35 2.07 1.83 1.62 1.42 1.23	78 75 73 69 66 62 - 2.84 2.50 2.20 1.94 1.70 1.48	99 96 93 89 86 82 - 3.48 3.04 2.67 2.35 2.06 1.79	123 120 117 114 110 105 101 4.28 3.71 3.25 2.85 2.49 2.17	153 150 146 143 138 134 129 5.30 4.56 3.96 3.46 3.02 2.63	- - - - - - - - -	-

Cooling capacity	3 565	W	
Power input	1 517	W	
Current consumption	2.76	Α	
Mass flow	93	kg/h	
C.O.P.	2.35		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(q)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, ARI rating conditions

# R134a

Cond. temp. in	temp. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling	v in W								
Cooling capacity		1 0.000	0.000	0.707	4.050	0.450	7 700		Ι
35	1 674	2 228	2 922	3 787	4 856	6 158	7 726	-	-
40	1 512	2 042	2 703	3 528	4 548	5 794	7 298	-	-
45	1 348	1 850	2 477	3 259	4 228	5 416	6 854	-	-
50	1 185	1 658	2 247	2 983	3 899	5 026	6 396	-	-
55	1 028	1 469	2 018	2 706	3 567	4 630	5 929	-	-
60	-	-	1 794	2 432	3 234	4 232	5 458	-	-
65	-	-	-	2 165	2 906	3 836	4 988	-	-
70	-	-	-	-	-	3 447	4 522	-	-
Power input in V	v								
35	930	1 051	1 153	1 236	1 298	1 339	1 358	-	-
40	948	1 085	1 204	1 304	1 386	1 447	1 486	-	-
45	952	1 104	1 240	1 357	1 457	1 537	1 597	-	-
50	948	1 115	1 266	1 400	1 517	1 616	1 696	-	-
55	941	1 122	1 287	1 438	1 572	1 689	1 788	-	-
60	-	-	1 311	1 476	1 627	1 761	1 879	-	-
65	-	-	-	1 521	1 687	1 838	1 973	-	-
70	-	-	-	-	-	1 925	2 078	-	-
		l	I.	l	l .				I.
Current consum	ption in A								
35	1.54	1.94	2.19	2.32	2.39	2.44	2.52	-	-
40	1.52	1.96	2.25	2.42	2.53	2.63	2.76	-	-
45	1.51	1.98	2.30	2.51	2.66	2.79	2.96	-	-
50	1.53	2.02	2.36	2.59	2.76	2.92	3.12	-	-
55	1.57	2.07	2.42	2.67	2.86	3.04	3.25	-	-
60	-	-	2.50	2.76	2.95	3.14	3.36	-	-
65	-	-	-	2.86	3.05	3.24	3.46	-	-
70	-	-	-	-	-	3.34	3.56	-	-
Į.		l		l	l .				
Mass flow in kg/		T	Т	T	T	T	1		Т
35	37	49	63	80	100	125	154	-	-
40	35	47	61	78	98	123	152	-	-
45	33	44	58	75	95	120	149	-	-
50	31	42	56	72	92	117	146	-	-
55	28	39	53	69	89	113	142	-	-
60	-	-	50	66	85	109	138	-	-
65	-	-	-	62	81	105	133	-	-
70	-	-	-	-	-	100	128	-	-
Coefficient of pe	erformance (C.O	.P.)			1	T.			
35	1.80	2.12	2.53	3.06	3.74	4.60	5.69	-	-
40	1.60	1.88	2.25	2.70	3.28	4.01	4.91	-	-
45	1.42	1.68	2.00	2.40	2.90	3.52	4.29	-	-
50	1.25	1.49	1.78	2.13	2.57	3.11	3.77	-	-
55	1.09	1.31	1.57	1.88	2.27	2.74	3.32	1	-
60	-	-	1.37	1.65	1.99	2.40	2.91	-	-
65	-	-	-	1.42	1.72	2.09	2.53	-	-
70	-	-	-	-	-	1.79	2.18	-	-
						_			
Nominal perforn	nance at to = 7.2	2 °C, tc = 54.4 °C			_	Pressure switch	settings		

Cooling capacity	4 051	W	
Power input	1 618	W	
Current consumption	2.92	Α	
Mass flow	99	kg/h	
C.O.P.	2.50		

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
<u>'</u>		•	•	•	•	•			
Cooling capacity	y in W		•		•	_			ı
35	1 686	2 246	2 949	3 827	4 914	6 241	7 843	-	-
40	1 514	2 047	2 714	3 547	4 579	5 844	7 374	-	-
45	1 340	1 844	2 472	3 258	4 233	5 433	6 888	-	-
50	1 169	1 641	2 228	2 963	3 880	5 012	6 390	-	-
55	1 004	1 442	1 985	2 669	3 524	4 585	5 884	-	-
60	-	-	1 749	2 378	3 169	4 157	5 374	-	-
65	-	-	-	2 094	2 820	3 732	4 865	-	-
70	-	-	-	-	-	3 315	4 361	-	-
Dannan immort im V	v								
Power input in V		1 122	1 241	1 221	1 402	1 455	1 407		
35	1 008	1 133	1 241	1 331	1 402	1 455	1 487	-	-
40	1 032	1 175	1 300	1 407	1 494	1 562	1 608	-	-
45	1 037	1 200	1 344	1 469	1 574	1 658	1 720	-	-
50	1 028	1 212	1 376	1 521	1 644	1 746	1 825	-	-
55	1 007	1 214	1 400	1 565	1 709	1 830	1 927	-	-
60	-	-	1 418	1 606	1 771	1 912	2 030	-	-
65	-	-	-	1 646	1 834	1 997	2 136	-	-
70	-	-	-	-	-	2 088	2 250	-	-
Current consum	•	T	1	T	T				ı
35	1.71	2.16	2.42	2.57	2.65	2.71	2.80	-	-
40	1.69	2.18	2.49	2.68	2.81	2.92	3.07	-	-
45	1.68	2.20	2.55	2.78	2.94	3.09	3.28	1	-
50	1.69	2.24	2.61	2.87	3.06	3.24	3.46	-	-
55	1.74	2.30	2.69	2.96	3.17	3.37	3.61	-	-
60	-	-	2.78	3.06	3.27	3.48	3.73	-	-
65	-	-	-	3.17	3.39	3.59	3.84	-	-
70	-	-	-	-	-	3.71	3.95	-	-
Mass flow in kg/	h								
35	41	54	69	87	110	137	169	-	-
40	39	51	66	85	107	134	166	-	-
45	36	49	64	82	104	131	163	-	-
50	34	46	61	79	101	128	159	-	-
55	31	43	58	76	97	124	155	-	-
60	-	-	54	72	93	119	151	-	-
65	-	-	-	68	89	115	146	-	-
70	-	-	-	-	-	110	140	-	-
Coefficient of pe	•		2.00	0.00	2.50	4.00	F 07		
35	1.67	1.98	2.38	2.88	3.50	4.29	5.27	-	-
40	1.47	1.74	2.09	2.52	3.06	3.74	4.58	-	-
45	1.29	1.54	1.84	2.22	2.69	3.28	4.00	-	-
50	1.14	1.35	1.62	1.95	2.36	2.87	3.50	-	-
55	1.00	1.19	1.42	1.71	2.06	2.51	3.05	-	-
60	-	-	1.23	1.48	1.79	2.17	2.65	-	-
65	-	-	-	1.27	1.54	1.87	2.28	-	-
70	-	-	-	-	-	1.59	1.94	-	-
						_			
Nominal perforn	nance at to = 5°	℃, tc = 50 °C			F	Pressure switch			

tronnia porto manos at to c, to	•• •	
Cooling capacity	3 880	W
Power input	1 644	W
Current consumption	3.06	Α
Mass flow	101	kg/h
C.O.P.	2.36	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, ARI rating conditions

# R134a

Cond. temp. in	p. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	v in W								
35	1 826	2 429	3 183	4 125	5 288	6 707	8 418	_	_
40	1 649	2 225	2 944	3 842	4 952	6 309	7 949	_	_
45	1 468	2 016	2 697	3 548	4 602	5 896	7 462	-	-
50	1 290	1 806	2 447	3 248	4 244	5 471	6 963	-	-
								-	-
55 60	1 118	1 600	2 198 1 954	2 947 2 649	3 882 3 521	5 040 4 607	6 454 5 941	-	-
							1	-	
65 70	<u>-</u>	-	-	2 358	3 165	4 177	5 429 4 924	-	-
70	-	-	-	-	-	3 755	4 924	-	_
Power input in V	N								
35	1 008	1 133	1 241	1 331	1 402	1 455	1 487	-	-
40	1 032	1 175	1 300	1 407	1 494	1 562	1 608	-	-
45	1 037	1 200	1 344	1 469	1 574	1 658	1 720	-	-
50	1 028	1 212	1 376	1 521	1 644	1 746	1 825	-	-
55	1 007	1 214	1 400	1 565	1 709	1 830	1 927	-	-
60	-	-	1 418	1 606	1 771	1 912	2 030	-	-
65	-	-	-	1 646	1 834	1 997	2 136	-	-
70	-	-	-	-	-	2 088	2 250	-	-
"		•	I.	•	l	1	•	•	•
Current consum	ption in A								
35	1.71	2.16	2.42	2.57	2.65	2.71	2.80	-	-
40	1.69	2.18	2.49	2.68	2.81	2.92	3.07	-	-
45	1.68	2.20	2.55	2.78	2.94	3.09	3.28	-	-
50	1.69	2.24	2.61	2.87	3.06	3.24	3.46	-	-
55	1.74	2.30	2.69	2.96	3.17	3.37	3.61	-	-
60	-	-	2.78	3.06	3.27	3.48	3.73	-	-
65	-	-	-	3.17	3.39	3.59	3.84	-	-
70	-	-	-	-	-	3.71	3.95	-	-
Mass flow in kg	/h								
35	41	53	68	87	109	136	168	_	_
40	38	51	66	84	107	133	166	-	_
45	36	48	63	82	104	130	162	_	_
50	33	46	61	79	100	127	159	_	_
55	31	43	57	75	97	123	154	-	_
60	-	-	54	72	93	119	150	_	_
65		-	-	68	89	114	145	-	_
70	-	_	_	-	-	109	140	_	_
'		ı				100	1410	l	
Coefficient of pe	erformance (C.O		1	1	1		•	1	
35	1.81	2.14	2.57	3.10	3.77	4.61	5.66	-	-
40	1.60	1.89	2.26	2.73	3.31	4.04	4.94	-	-
45	1.42	1.68	2.01	2.41	2.92	3.56	4.34	-	-
50	1.26	1.49	1.78	2.14	2.58	3.13	3.81	-	-
55	1.11	1.32	1.57	1.88	2.27	2.75	3.35	-	-
60	-	-	1.38	1.65	1.99	2.41	2.93	-	-
65	-	-	-	1.43	1.73	2.09	2.54	-	-
70	-	-	-	-	-	1.80	2.19	-	-
						_			
Nominal perforn	nance at to = 7.2	2 °C, tc = 54.4 °C				Pressure switch	settings		

-,			
Cooling capacity	4 409	W	
Power input	1 756	W	
Current consumption	3.24	Α	
Mass flow	108	kg/h	
C.O.P.	2.51		

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
<u>'</u>		•	•	•	•	•			
Cooling capacity	y in W		•		•	1	,		ı
35	1 821	2 427	3 187	4 136	5 311	6 746	8 477	-	-
40	1 635	2 211	2 932	3 833	4 949	6 315	7 968	-	-
45	1 448	1 992	2 671	3 520	4 574	5 870	7 442	-	-
50	1 263	1 772	2 407	3 202	4 192	5 415	6 903	-	-
55	1 086	1 558	2 145	2 883	3 808	4 954	6 357	-	-
60	-	-	1 890	2 569	3 425	4 492	5 806	1	-
65	-	-	-	2 264	3 047	4 033	5 257	1	-
70	-	-	-	-	-	3 583	4 713	1	-
Power input in V	v								
35	1 084	1 218	1 334	1 431	1 508	1 563	1 597	_	_
40	1 110	1 264	1 399	1 514	1 608	1 680	1 730	-	-
45	1 116	1 291	1 446	1 580	1 693	1 784	1 851		_
50	1 106	1 303	1 440	1 635	1 768	1 879	1 965	-	-
55	1 085	1 303	1 504	1 682	1 837	1 968	2 074	-	-
				+		1			
60 65	-	-	1 524	1 725 1 769	1 903	2 056	2 185 2 299	-	-
70	-	-	-	-	1 971	2 148 2 247	2 422	-	-
70	-	-	-	-	-	2 241	2 422	-	-
Current consum	ntion in A								
35	1.90	2.39	2.69	2.85	2.94	3.00	3.11	_	
40		2.39	ł	2.98		3.24		-	_
45	1.87 1.86	2.41	2.76 2.83	3.08	3.12 3.27	3.43	3.40 3.64	-	-
		+		+		1		-	
50	1.88	2.48	2.90	3.18	3.39	3.59	3.84		-
55	1.93	2.55	2.98	3.28	3.51	3.73	4.00	-	-
60	-	-	3.08	3.39	3.63	3.86	4.14	-	-
65	-	-	-	3.52	3.75	3.98	4.26	-	-
70	-	-	-	-	-	4.11	4.38	-	-
Mass flow in kg/	h								
35	44	58	74	94	119	148	183	-	_
40	42	55	72	92	116	145	180	-	_
45	39	53	69	89	113	142	176	-	_
50	36	50	66	85	109	138	172	-	_
55	33	46	62	82	105	134	168	-	_
60	-	-	59	78	101	129	163	-	_
65	<u>-</u>	-	- 59	74	96	129	157	-	-
70		-	_	-	-	119	157	-	
70			<u> </u>			119	132	<u> </u>	
Coefficient of pe	•	<b>D.P.)</b>	2.39	2.89	3.52	4.24	5.31		
35	1.68	+		+		4.31		-	-
40 45	1.47	1.75	2.10	2.53	3.08	3.76	4.60	-	
45	1.30	1.54	1.85		2.70	3.29	4.02	-	-
50	1.14	1.36	1.63	1.96	2.37	2.88	3.51	-	-
55	1.00	1.19	1.43	1.71	2.07	2.52	3.06	-	-
60	-	-	1.24	1.49	1.80	2.18	2.66	-	-
65	-	-	-	1.28	1.55	1.88	2.29	-	-
70	-	-	-	-	-	1.59	1.95	-	-
ominal perforn	nance at to = 5 °	C, tc = 50 °C		_	г	Pressure switch			

	•• •	
Cooling capacity	4 192	W
Power input	1 768	W
Current consumption	3.39	Α
Mass flow	109	kg/h
C.O.P.	2.37	

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, ARI rating conditions

# R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacit	y in W					_			
35	1 972	2 624	3 440	4 458	5 716	7 250	9 097	-	-
40	1 781	2 404	3 181	4 151	5 351	6 818	8 589	-	-
45	1 586	2 178	2 914	3 833	4 973	6 370	8 062	-	-
50	1 394	1 951	2 644	3 509	4 586	5 911	7 522	-	-
55	1 209	1 729	2 375	3 184	4 195	5 445	6 972	-	-
60	-	-	2 112	2 862	3 805	4 978	6 419	-	-
65	-	-	-	2 549	3 421	4 514	5 867	-	-
70	-	-	-	-	-	4 059	5 321	-	-
		•	-	•		•			
Power input in \	W								
35	1 084	1 218	1 334	1 431	1 508	1 563	1 597	-	-
40	1 110	1 264	1 399	1 514	1 608	1 680	1 730	-	-
45	1 116	1 291	1 446	1 580	1 693	1 784	1 851	-	-
50	1 106	1 303	1 480	1 635	1 768	1 879	1 965	-	-
55	1 085	1 305	1 504	1 682	1 837	1 968	2 074	-	-
60	-	-	1 524	1 725	1 903	2 056	2 185	-	-
65	-	-	-	1 769	1 971	2 148	2 299	-	-
70	-	-	-	-	-	2 247	2 422	-	-
		1	1	1		1			
Current consum	nption in A								
35	1.90	2.39	2.69	2.85	2.94	3.00	3.11	-	-
40	1.87	2.41	2.76	2.98	3.12	3.24	3.40	-	_
45	1.86	2.44	2.83	3.08	3.27	3.43	3.64	-	_
50	1.88	2.48	2.90	3.18	3.39	3.59	3.84	-	_
55	1.93	2.55	2.98	3.28	3.51	3.73	4.00	_	_
60	-	-	3.08	3.39	3.63	3.86	4.14		_
65	-	_	-	3.52	3.75	3.98	4.26	_	_
70	-	-	-	-	-	4.11	4.38	<u> </u>	-
70						4.11	4.50	<u> </u>	
Mass flow in kg/	/h								
35	44	58	74	94	110	147	182	_	_
40	42	55	71	91	118 115	147	179	-	-
45	39	52	69	88	112	141	175	-	-
50	36	49	65	85	109	137	171	-	-
55	33	46	62	81	105	133	167	-	-
60	-	-	58	77	100	128	162	-	-
65	-	-	-	73	96	123	156	-	-
70	-	-	-	-	-	118	151	-	-
Danklinion to C		<b>.</b>							
•	erformance (C.C	<del>, '</del>	0.50	0.40	0.70	101	570		
35	1.82	2.15	2.58	3.12	3.79	4.64	5.70	-	-
40	1.60	1.90	2.27	2.74	3.33	4.06	4.96	-	-
45	1.42	1.69	2.02	2.43	2.94	3.57	4.35	-	-
50	1.26	1.50	1.79	2.15	2.59	3.15	3.83	-	-
55	1.11	1.33	1.58	1.89	2.28	2.77	3.36	-	-
60	-	-	1.39	1.66	2.00	2.42	2.94	-	-
65	-	-	-	1.44	1.74	2.10	2.55	-	-
70									

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

	• •		
Cooling capacity	4 764	W	
Power input	1 888	W	
Current consumption	3.59	Α	
Mass flow	117	kg/h	
C.O.P.	2.52		

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, EN 12900 rating conditions

# R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Saallan	. : 18/								
cooling capacity		2.005	2.422	4.440	F 704	7.044	0.400		
35	1 954	2 605	3 422	4 442	5 704	7 244	9 102	-	-
40	1 755	2 374	3 148	4 115	5 313	6 780	8 554	-	-
45	1 554	2 138	2 867	3 778	4 911	6 301	7 988	-	-
50	1 357	1 903	2 584	3 437	4 501	5 812	7 410	-	-
55	1 167	1 673	2 303	3 096	4 088	5 318	6 823	-	-
60	-	-	2 030	2 759	3 677	4 822	6 233	-	-
65	-	-	-	2 431	3 273	4 331	5 644	-	-
70	-	-	-	-	-	3 848	5 061	-	-
Power input in W	v								
35	1 158	1 302	1 426	1 529	1 611	1 669	1 703	-	_
40	1 187	1 351	1 495	1 618	1 719	1 796	1 849		_
45	1 193	1 379	1 545	1 689	1 810	1 908	1 981		_
50	1 183	1 392	1 580	1 746	1 890	2 009	2 102	-	_
55	1 161	1 394	1 606	1 796	1 962	2 103	2 219	-	
60	-	-	1 627	1 842	2 032	2 103	2 336	-	-
65	<u>-</u>	-	-	1 889	2 105	2 197	2 459	-	-
70		-	+	1		2 402	2 459		
70	-	-	-	-	-	2 402	2 592	-	-
urrent consum	ption in A								
35	2.10	2.65	2.98	3.16	3.25	3.33	3.45	-	_
40	2.08	2.67	3.06	3.30	3.45	3.59	3.77	-	_
45	2.06	2.70	3.13	3.42	3.62	3.80	4.03	-	_
50	2.08	2.75	3.21	3.53	3.76	3.98	4.25	_	_
55	2.13	2.82	3.30	3.64	3.89	4.14	4.43		_
60	-	-	3.41	3.76	4.02	4.28	4.58	-	_
65	<u> </u>	-	-	3.90	4.16	4.41	4.72	_	_
70	<u>-</u>	-	-	5.90	-	4.56	4.85	_	_
70		_		_		4.50	4.03		
Mass flow in kg/	h								
35	47	62	80	101	127	159	196	i	-
40	45	59	77	98	124	156	193	-	-
45	42	56	74	95	121	152	189	-	-
50	39	53	71	92	117	148	185	-	-
55	36	50	67	88	113	143	180	-	-
60	-	-	63	83	108	138	175	-	-
65	-	-	-	79	104	133	169	-	-
70	-	-	-	-	-	128	163	-	-
Soofficions of	erformance (C.O								
35	1.69	2.00	2.40	2.91	3.54	4.34	5.34	-	_
40		1.76					4.63		
	1.48		2.11	2.54	3.09	3.77		-	
45	1.30	1.55	1.86	2.24	2.71	3.30	4.03	-	-
50	1.15	1.37	1.64	1.97	2.38	2.89	3.52	-	-
55	1.01	1.20	1.43	1.72	2.08	2.53	3.07	-	-
60	-	-	1.25	1.50	1.81	2.19	2.67	-	-
65	-	-	-	1.29	1.55	1.89	2.30	-	-
70	-	-	-	-	-	1.60	1.95	-	-

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

-,		
Cooling capacity	4 501	W
Power input	1 890	W
Current consumption	3.76	Α
Mass flow	117	kg/h
C.O.P.	2.38	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Į.				_
	With accoustic hood	0	dB(A)	
	Sound power level	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
		•	•		•				
Cooling capacity		1	1	T	_	1	1		Т
35	2 117	2 817	3 694	4 788	6 138	7 785	9 768	-	-
40	1 911	2 580	3 415	4 457	5 745	7 320	9 221	-	-
45	1 703	2 338	3 128	4 115	5 338	6 838	8 654	-	-
50	1 497	2 095	2 838	3 767	4 923	6 345	8 074	-	-
55	1 299	1 857	2 550	3 418	4 503	5 845	7 484	-	-
60	-	-	2 268	3 073	4 085	5 344	6 891	-	-
65	-	-	-	2 738	3 673	4 847	6 299	-	-
70	-	-	-	-	-	4 359	5 714	-	-
Power input in V	v								
35	1 158	1 302	1 426	1 529	1 611	1 669	1 703	-	_
40	1 187	1 351	1 495	1 618	1 719	1 796	1 849	-	-
45	1 193	1 379	1 545	1 689	1 810	1 908	1 981	_	-
50	1 183	1 392	1 580	1 746	1 890	2 009	2 102	-	_
55	1 161	1 394	1 606	1 796	1 962	2 103	2 219	-	_
60	-	-	1 627	1 842	2 032	2 197	2 336	-	_
65	-	-	-	1 889	2 105	2 295	2 459	-	_
70	_	_	_	-	-	2 402	2 592	-	-
		L	l	L	1				l
Current consum	ption in A								
35	2.10	2.65	2.98	3.16	3.25	3.33	3.45	-	-
40	2.08	2.67	3.06	3.30	3.45	3.59	3.77	-	-
45	2.06	2.70	3.13	3.42	3.62	3.80	4.03	-	-
50	2.08	2.75	3.21	3.53	3.76	3.98	4.25	-	-
55	2.13	2.82	3.30	3.64	3.89	4.14	4.43	-	-
60	-	-	3.41	3.76	4.02	4.28	4.58	-	-
65	-	-	-	3.90	4.16	4.41	4.72	-	-
70	-	-	-	-	-	4.56	4.85	-	-
					-				
Mass flow in kg/	'h								
35	47	62	79	101	127	158	195	-	-
40	45	59	77	98	124	155	192	-	-
45	42	56	74	95	120	151	188	-	-
50	39	53	70	91	117	147	184	-	-
55	36	50	67	87	112	143	179	-	-
60	-	-	63	83	108	138	174	-	-
65	-	-	-	79	103	132	168	-	-
70	-	-	-	-	-	127	162	-	-
Coefficient of pe	rformance (C.C	).P.)							
35	1.83	2.16	2.59	3.13	3.81	4.66	5.73	-	_
40	1.61	1.91	2.28	2.75	3.34	4.07	4.99	-	_
45	1.43	1.69	2.03	2.44	2.95	3.58	4.37	-	-
50	1.27	1.51	1.80	2.16	2.61	3.16	3.84	-	_
55	1.12	1.33	1.59	1.90	2.30	2.78	3.37	-	-
60	-	-	1.39	1.67	2.01	2.43	2.95	-	_
65	-	-	-	1.45	1.75	2.43	2.56	-	_
70		-	-	-	-	1.81	2.30	-	-
		1	1	1	ı	1		<u> </u>	<u>l</u>
Nominal perforn	nance at to = 7.	2 °C, tc = 54.4 °C				Pressure switch	settings		

Cooling capacity	5 114	W	
Power input	2 017	W	
Current consumption	3.98	Α	
Mass flow	126	kg/h	
C.O.P.	2.53		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
O a a llana a a a a									
Cooling capacity		0.704	0.054	1744	0.000	7.707	0.700		I
35	2 086	2 781	3 654	4 744	6 092	7 737	9 720	-	-
40	1 873	2 533	3 360	4 394	5 674	7 240	9 133	-	-
45	1 659	2 282	3 060	4 034	5 243	6 728	8 528	-	-
50	1 449	2 031	2 758	3 669	4 805	6 205	7 910	-	-
55	1 248	1 787	2 459	3 305	4 364	5 677	7 284	-	-
60	-	-	2 168	2 946	3 926	5 149	6 654	-	-
65	-	-	-	2 597	3 495	4 625	6 027	-	-
70	-	-	-	-	-	4 111	5 405	-	-
Power input in W	v								
35	1 231	1 383	1 515	1 625	1 711	1 772	1 806	-	-
40	1 261	1 436	1 589	1 720	1 828	1 910	1 966	-	-
45	1 269	1 465	1 641	1 795	1 925	2 030	2 107	-	-
50	1 259	1 478	1 678	1 855	2 008	2 136	2 237	-	-
55	1 237	1 481	1 705	1 906	2 083	2 236	2 361	-	-
60	-	-	1 728	1 954	2 157	2 335	2 485	-	-
65	-	-	_	2 006	2 235	2 438	2 615	-	-
70	-	-	-	-	-	2 553	2 757	-	-
•		•	•	•		•	•		•
Current consum	ption in A								
35	2.32	2.93	3.29	3.49	3.60	3.68	3.82	-	-
40	2.29	2.96	3.38	3.65	3.82	3.97	4.17	-	-
45	2.28	2.99	3.46	3.78	4.00	4.20	4.46	-	-
50	2.30	3.04	3.55	3.90	4.16	4.40	4.70	-	-
55	2.36	3.12	3.65	4.02	4.30	4.57	4.90	-	-
60	-	-	3.77	4.15	4.45	4.73	5.07	-	-
65	-	-	-	4.31	4.60	4.88	5.22	-	-
70	-	-	-	-	-	5.04	5.37	-	-
			•		•				
Mass flow in kg/	h	_				•			
35	51	66	85	108	136	170	209	-	-
40	48	63	82	105	133	166	206	-	-
45	45	60	79	102	129	162	202	-	-
50	42	57	75	98	125	158	197	-	-
55	38	53	71	94	121	153	192	-	-
60	-	-	67	89	116	148	186	-	-
65	-	-	-	84	111	142	180	-	-
70	-	-	-	-	-	136	174	-	-
Coefficient of pe	erformance (C.C	D.P.)							
35	1.70	2.01	2.41	2.92	3.56	4.37	5.38	-	-
40	1.48	1.76	2.11	2.55	3.10	3.79	4.65	-	-
45	1.31	1.56	1.86	2.25	2.72	3.31	4.05	-	-
50	1.15	1.37	1.64	1.98	2.39	2.90	3.54	-	-
55	1.01	1.21	1.44	1.73	2.09	2.54	3.08	-	-
60	-	-	1.25	1.51	1.82	2.21	2.68	-	-
65	-	-	-	1.29	1.56	1.90	2.30	-	-
70	-	-	-	-	-	1.61	1.96	-	-
•		•	•	•	•	•	•		•
Nominal perform	nance at to = 5	°C, tc = 50 °C				Pressure switch	settings		

tronnia porto manos at to c, to		
Cooling capacity	4 805	W
Power input	2 008	W
Current consumption	4.16	Α
Mass flow	125	kg/h
C.O.P.	2.39	

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, ARI rating conditions

# R134a

Cond. temp. in	nd. temp. in Evaporating temperature in °C (to)								
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling conself:	ı in W								
cooling capacity		3 007	2.045	E 114	6 556	0.215	10 421	1	_
35	2 259		3 945	5 114	6 556	8 315	10 431	-	
40	2 040	2 754	3 646	4 759	6 135	7 816	9 845	-	-
45	1 818	2 495	3 339	4 393	5 700	7 301	9 239	-	-
50	1 599	2 236	3 030	4 022	5 256	6 774	8 618	-	-
55	1 389	1 983	2 722	3 650	4 808	6 240	7 989	-	-
60	-	-	2 422	3 282	4 362	5 706	7 356	-	-
65	-	-	-	2 924	3 923	5 176	6 726	-	-
70	-	-	-	-	-	4 657	6 103	-	-
ower input in V	v								
35	1 231	1 383	1 515	1 625	1 711	1 772	1 806	-	-
40	1 261	1 436	1 589	1 720	1 828	1 910	1 966	-	-
45	1 269	1 465	1 641	1 795	1 925	2 030	2 107	-	-
50	1 259	1 478	1 678	1 855	2 008	2 136	2 237	-	-
55	1 237	1 481	1 705	1 906	2 083	2 236	2 361	-	-
60	-	-	1 728	1 954	2 157	2 335	2 485	-	-
65	-	-	-	2 006	2 235	2 438	2 615	-	-
70	-	-	-	-	-	2 553	2 757	_	-
			•	•			1		·L
urrent consum	ption in A								
35	2.32	2.93	3.29	3.49	3.60	3.68	3.82	-	-
40	2.29	2.96	3.38	3.65	3.82	3.97	4.17	-	-
45	2.28	2.99	3.46	3.78	4.00	4.20	4.46	-	-
50	2.30	3.04	3.55	3.90	4.16	4.40	4.70	-	-
55	2.36	3.12	3.65	4.02	4.30	4.57	4.90	-	-
60	-	-	3.77	4.15	4.45	4.73	5.07	-	-
65	-	-	-	4.31	4.60	4.88	5.22	-	-
70	-	-	-	-	-	5.04	5.37	-	-
Mass flow in kg/		I		T	I	T		I	1
35	50	66	85	108	135	169	208	-	-
40	48	63	82	105	132	165	205	-	-
45	45	60	79	101	129	162	201	-	-
50	41	57	75	97	124	157	196	-	-
55	38	53	71	93	120	152	191	-	-
60	-	-	67	89	115	147	185	-	-
65	-	-	-	84	110	141	179	-	-
70	-	-	-	-	-	136	173	-	-
oefficient of pe	erformance (C.O	.P.)							
35	1.84	2.17	2.60	3.15	3.83	4.69	5.78	-	-
40	1.62	1.92	2.29	2.77	3.36	4.09	5.01	-	-
45	1.43	1.70	2.03	2.45	2.96	3.60	4.38	-	-
50	1.27	1.51	1.81	2.17	2.62	3.17	3.85	_	-
55	1.12	1.34	1.60	1.91	2.31	2.79	3.38	-	-
60	-	-	1.40	1.68	2.02	2.44	2.96	-	-
65	-	-	-	1.46	1.76	2.12	2.57	-	-
		-	-	-	-	1.82	2.21	-	1

reciminal performance at to 7:2 0, to	U-1		
Cooling capacity	5 460	W	
Power input	2 144	W	
Current consumption	4.40	Α	
Mass flow	134	kg/h	
C.O.P.	2.55		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, EN 12900 rating conditions

# R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling conscit-	ı in W								
cooling capacity		2.055	2 002	E 042	6.476	9 224	10.330		
35	2 216	2 955	3 883	5 043	6 476	8 224	10 330	-	-
40	1 989	2 691	3 570	4 669	6 029	7 694	9 704	-	-
45	1 763	2 424	3 251	4 286	5 571	7 148	9 060	-	-
50	1 540	2 158	2 930	3 899	5 105	6 593	8 403	-	-
55	1 328	1 899	2 613	3 512	4 638	6 032	7 738	-	-
60	-	-	2 305	3 131	4 173	5 472	7 070	-	-
65	-	-	-	2 761	3 716	4 916	6 404	-	-
70	-	-	-	-	-	4 370	5 746	-	-
Power input in W	V								
35	1 301	1 463	1 603	1 719	1 809	1 871	1 904	-	_
40	1 334	1 518	1 681	1 820	1 935	2 021	2 079	-	-
45	1 342	1 549	1 735	1 898	2 037	2 149	2 232	-	_
50	1 332	1 563	1 773	1 960	2 124	2 261	2 370	-	-
55	1 312	1 566	1 801	2 013	2 202	2 365	2 501	-	-
60	-	-	1 826	2 064	2 279	2 468	2 631	-	-
65	-	-	-	2 120	2 361	2 578	2 768	-	-
70	-	-	-	-	-	2 701	2 919	-	-
		I.		•	l	•	1		
urrent consum	ption in A								
35	2.56	3.23	3.63	3.85	3.97	4.06	4.21	-	-
40	2.53	3.26	3.73	4.02	4.21	4.38	4.60	-	-
45	2.52	3.30	3.82	4.17	4.41	4.64	4.92	-	-
50	2.54	3.36	3.92	4.30	4.59	4.86	5.18	-	-
55	2.60	3.44	4.03	4.44	4.75	5.05	5.40	-	-
60	-	-	4.17	4.58	4.91	5.22	5.59	-	_
65	-	-	-	4.76	5.08	5.39	5.76	-	-
70	-	-	-	-	-	5.57	5.92	-	-
•		•		•		•	•		•
lass flow in kg/	h								
35	54	70	91	115	145	180	223	-	-
40	51	67	87	112	141	177	219	-	-
45	48	64	84	108	137	173	215	-	-
50	44	60	80	104	133	168	210	i	-
55	41	57	76	99	128	163	204	-	-
60	-	-	72	95	123	157	198	-	-
65	-	-	-	90	118	151	192	-	-
70	-	-	-	-	-	145	185	-	-
Coefficient of pe	rformanas (C.O	D)							
35	1.70	2.02	2.42	2.93	3.58	4.39	5.43	-	_
40	1.49	1.77	2.42	2.56	3.12	3.81	4.67	-	_
45	1.49	1.77	1.87	2.26	2.73	3.33	4.06	-	-
				1.99		2.92	3.54		
50	1.16	1.38	1.65		2.40			-	-
55	1.01	1.21	1.45	1.74	2.11	2.55	3.09	-	-
60	-	-	1.26	1.52	1.83	2.22	2.69	-	-
65	-	-	-	1.30	1.57	1.91	2.31	-	-
70	-	-	-	-	-	1.62	1.97	-	-

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

	-,		
Cooling capacity	5 105	W	
Power input	2 124	W	
Current consumption	4.59	Α	
Mass flow	133	kg/h	
C.O.P.	2.40		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, ARI rating conditions

# R134a

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	y in W	T		T	•	1			
35	2 400	3 195	4 192	5 435	6 969	8 838	11 086	-	-
40	2 166	2 925	3 874	5 057	6 520	8 306	10 460	-	-
45	1 932	2 650	3 548	4 668	6 056	7 757	9 815	-	-
50	1 700	2 376	3 219	4 273	5 584	7 197	9 156	-	-
55	1 478	2 108	2 893	3 878	5 109	6 630	8 487	-	-
60	-	-	2 575	3 488	4 636	6 063	7 816	-	-
65	-	-	-	3 109	4 171	5 502	7 147	-	-
70	-	-	-	-	-	4 951	6 488	-	-
Power input in V		1	T	1	Т	_	1		
35	1 301	1 463	1 603	1 719	1 809	1 871	1 904	-	-
40	1 334	1 518	1 681	1 820	1 935	2 021	2 079	-	-
45	1 342	1 549	1 735	1 898	2 037	2 149	2 232	-	-
50	1 332	1 563	1 773	1 960	2 124	2 261	2 370	-	-
55	1 312	1 566	1 801	2 013	2 202	2 365	2 501	-	-
60	-	-	1 826	2 064	2 279	2 468	2 631	-	-
65	-	-	-	2 120	2 361	2 578	2 768	-	-
70	-	-	-	-	-	2 701	2 919	-	-
Current consum	ption in A								
35	2.56	3.23	3.63	3.85	3.97	4.06	4.21	-	-
40	2.53	3.26	3.73	4.02	4.21	4.38	4.60	-	-
45	2.52	3.30	3.82	4.17	4.41	4.64	4.92	-	-
50	2.54	3.36	3.92	4.30	4.59	4.86	5.18	-	-
55	2.60	3.44	4.03	4.44	4.75	5.05	5.40	-	-
60	-	-	4.17	4.58	4.91	5.22	5.59	-	-
65	-	-	-	4.76	5.08	5.39	5.76	-	-
70	-	_	-	-	-	5.57	5.92	-	-
		ı	I	ı	1				1
Mass flow in kg/	h								
35	53	70	90	114	144	179	221	-	-
40	51	67	87	111	140	176	218	-	_
45	47	64	83	107	137	172	213	-	-
50	44	60	80	103	132	167	209	_	_
55	41	56	76	99	127	162	203	-	_
60	-	-	71	94	122	156	197	-	_
65	-	-	-	89	117	150	191	-	-
70		-		- 09	-	144	184	-	
10	-	<u> </u>		<u> </u>	<u> </u>	144	104	-	
Coefficient of pe	erformance (C.C	D.P.)							
35	1.84	2.18	2.62	3.16	3.85	4.72	5.82	-	-
40	1.62	1.93	2.30	2.78	3.37	4.11	5.03	-	-
45	1.44	1.71	2.04	2.46	2.97	3.61	4.40	-	-
50	1.28	1.52	1.82	2.18	2.63	3.18	3.86	-	-
55	1.13	1.35	1.61	1.93	2.32	2.80	3.39	-	-
	-	-	1.41	1.69	2.03	2.46	2.97	-	-
60						=:	1		1
60 65		-	_	1.47	1.77	2.13	2.58	-	-

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

reciminal portermance at to 7:2 0, to	U-1		
Cooling capacity	5 802	W	
Power input	2 266	W	
Current consumption	4.86	Α	
Mass flow	142	kg/h	
C.O.P.	2.56		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

With accoustic hood	0	dB(A)
Sound power level	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, EN 12900 rating conditions

# R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	/ in W								
35	2 343	3 127	4 110	5 338	6 855	8 705	10 932	-	-
40	2 104	2 847	3 778	4 941	6 381	8 142	10 267	-	-
45	1 865	2 564	3 439	4 535	5 895	7 563	9 585	-	-
50	1 631	2 284	3 100	4 125	5 402	6 975	8 889	-	-
55	1 407	2 010	2 765	3 716	4 907	6 382	8 186	-	-
60	-	-	2 440	3 314	4 416	5 790	7 481	-	-
65	=	-	-	2 923	3 933	5 203	6 778	-	-
70	=	-	-	-	-	4 627	6 082	-	-
•		•		•	•	•		•	•
Power input in W	V								
35	1 370	1 541	1 689	1 811	1 905	1 968	1 998	-	-
40	1 405	1 599	1 771	1 918	2 039	2 130	2 190	-	-
45	1 413	1 631	1 827	2 000	2 147	2 266	2 354	-	_
50	1 404	1 644	1 865	2 063	2 237	2 383	2 501	_	_
55	1 386	1 649	1 893	2 117	2 317	2 492	2 638	_	_
60	-	-	1 922	2 170	2 397	2 599	2 774	_	_
65		-	-	2 231	2 484	2 714	2 918	-	_
70	_	-	_	-	-	2 845	3 078	_	_
70		_	_			2 043	3 07 0		
Current consum	ntion in A								
35	2.82	3.55	4.00	4.24	4.37	4.48	4.64	_	_
40	2.79	3.59	4.11	4.43	4.64	4.82	5.07	_	_
45	2.77	3.63	4.21	4.59	4.86	5.11	5.42	-	_
50	2.80	3.70	4.31	4.74	5.05	5.35	5.71		_
55	2.87	3.79	4.43	4.88	5.23	5.55	5.95	-	-
60	-	-	4.59	5.05	5.40	5.75	6.16	-	-
65	-	-	-	5.24	5.59	5.93	6.34	-	-
70	-	-	-	-	-	6.13	6.52	-	-
Mass flow in kg/		1	1	1	1	1		1	Т
35	57	74	96	122	153	191	236	-	-
40	54	71	92	118	149	187	232	-	-
45	50	68	89	114	145	183	227	-	-
50	47	64	85	110	141	178	222	-	-
55	43	60	80	105	136	172	216	-	-
60	-	-	76	100	130	166	210	-	-
65	•	-	-	95	124	160	203	-	-
70	-	-	-	-	-	154	196	-	
Coefficient of pe	rformance (C.C	D.P.)		1	•	•		•	
35	1.71	2.03	2.43	2.95	3.60	4.42	5.47	-	-
40	1.50	1.78	2.13	2.58	3.13	3.82	4.69	-	-
45	1.32	1.57	1.88	2.27	2.75	3.34	4.07	-	-
50	1.16	1.39	1.66	2.00	2.42	2.93	3.55	-	-
55	1.01	1.22	1.46	1.76	2.12	2.56	3.10	-	-
60	-	-	1.27	1.53	1.84	2.23	2.70	-	-
	_	-	-	1.31	1.58	1.92	2.32	-	-
65							•		
65 70	-	-	-	-	-	1.63	1.98	-	-

Cooling capacity	5 402	W
Power input	2 237	W
Current consumption	5.05	Α
Mass flow	141	kg/h
C.O.P.	2.42	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling canacity	ı in W								
Cooling capacity 35	2 538	3 381	4 437	5 753	7 377	9 355	11 732	_	_
40	2 291	3 094	4 099	5 352	6 900	8 790	11 068	-	_
45	2 043	2 804	3 753	4 939		8 208	10 384		_
					6 408			-	
50	1 800	2 514	3 405	4 521	5 908	7 614	9 686		-
55	1 566	2 231	3 061	4 104	5 406	7 015	8 979	-	-
60	-		2 726	3 692	4 906	6 416	8 270	-	-
65	-	-	-	3 292	4 415	5 823	7 564	-	-
70	-	-	-	-	-	5 242	6 868	-	-
Power input in V	v								
35	1 370	1 541	1 689	1 811	1 905	1 968	1 998	-	-
40	1 405	1 599	1 771	1 918	2 039	2 130	2 190	-	-
45	1 413	1 631	1 827	2 000	2 147	2 266	2 354	-	-
50	1 404	1 644	1 865	2 063	2 237	2 383	2 501	-	-
55	1 386	1 649	1 893	2 117	2 317	2 492	2 638	-	-
60	-	-	1 922	2 170	2 397	2 599	2 774	-	-
65	-	-	-	2 231	2 484	2 714	2 918	-	-
70	-	-	-	-	-	2 845	3 078	-	-
•		•		•		•	•		•
Current consum	ption in A								
35	2.82	3.55	4.00	4.24	4.37	4.48	4.64	-	-
40	2.79	3.59	4.11	4.43	4.64	4.82	5.07	-	-
45	2.77	3.63	4.21	4.59	4.86	5.11	5.42	-	-
50	2.80	3.70	4.31	4.74	5.05	5.35	5.71	-	-
55	2.87	3.79	4.43	4.88	5.23	5.55	5.95	-	-
60	-	-	4.59	5.05	5.40	5.75	6.16	-	-
65	-	-	_	5.24	5.59	5.93	6.34	-	-
70	-	-	-	-	-	6.13	6.52	-	-
				•		•	•		
Mass flow in kg/	h								
35	57	74	95	121	152	190	234	-	-
40	53	71	92	118	149	186	230	1	-
45	50	67	88	114	145	182	226	-	-
50	47	64	84	109	140	177	221	1	-
55	43	60	80	105	135	171	215	-	-
60	-	-	75	100	129	165	208	-	-
65	-	-	-	95	124	159	202	-	-
70	-	-	-	-	-	153	195	-	-
Coefficient of	ufaumanas 10 1								
Coefficient of pe	•	2.19	2.62	2 10	2.07	4.75	5.97	-	_
35	1.85		2.63	3.18	3.87	4.75	5.87		
40	1.63	1.94	2.31	2.79	3.38	4.13	5.05	-	-
45	1.45	1.72	2.05	2.47	2.99	3.62	4.41	-	-
50	1.28	1.53	1.83	2.19	2.64	3.19	3.87	-	-
55	1.13	1.35	1.62	1.94	2.33	2.82	3.40	-	-
60	-	-	1.42	1.70	2.05	2.47	2.98	-	-
65	-	-	-	1.48	1.78	2.15	2.59	-	-
70	-	-	-	-	-	1.84	2.23	-	-
Naminal		2 00 40 = 54 4 00				Dressure soult-1-	o o ttima o		
Nominal perform	nance at to $= 7$ .	2 °C, tc = 54.4 °C				Pressure switch	settings		

Cooling capacity	6 139	W	
Power input	2 386	W	
Current consumption	5.35	Α	
Mass flow	151	kg/h	
C.O.P.	2.57		

to: Evaporating temperature at dew point

Maximum HP switch setting	22.6	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.5	bar(g)

#### Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
ooling capacity		1	1		1		T	T T	
20	1 092	1 432	1 848	2 351	2 949	3 652	-	-	-
30	840	1 129	1 483	1 911	2 423	3 028	3 735	4 553	-
35	723	987	1 310	1 701	2 171	2 726	3 378	4 135	-
40	611	850	1 143	1 498	1 924	2 432	3 029	3 726	-
45	504	720	982	1 301	1 685	2 144	2 687	3 323	-
50	403	595	827	1 110	1 452	1 863	2 352	2 928	-
55	-	475	678	925	1 225	1 588	2 024	2 540	-
60	-	-	535	746	1 005	1 321	1 702	2 159	-
ower input in V	v								
20	611	666	710	742	763	770	_	_	_
30	637	718	710	847	894	928	950	959	
35	643	738	823	896	958	1 008	1 045	1 069	_
40	642	753	853	943	1 021	1 086	1 140	1 180	
45	634	762	879	985	1 021	1 163	1 233	1 291	
50			899					1 400	
55	619	764 758	911	1 023 1 054	1 135 1 186	1 236 1 306	1 325 1 413	1 508	-
60	<u> </u>	-	916	1 054	1 230	1 370	1 413	1 614	<u> </u>
UU	-		910	10/9	1 230	13/0	1 490	1014	
urrent consum	ption in A								
20	1.17	1.20	1.29	1.43	1.59	1.75	_	_	-
30	1.13	1.16	1.26	1.40	1.55	1.70	1.82	1.89	_
35	1.13	1.18	1.28	1.42	1.58	1.73	1.85	1.92	-
40	1.14	1.20	1.31	1.47	1.64	1.79	1.92	1.99	_
45	1.14	1.22	1.35	1.52	1.70	1.87	2.01	2.09	_
50	1.13	1.23	1.38	1.57	1.77	1.96	2.11	2.21	_
55	-	1.21	1.40	1.61	1.83	2.04	2.22	2.33	_
60	-	-	1.38	1.63	1.88	2.11	2.31	2.45	_
00			1.00	1.00	1.00	2.11	2.01	2.10	
lass flow in kg/	h								
20	30	39	49	61	75	91	-	-	-
30	26	35	44	56	69	84	102	122	-
35	24	33	42	53	66	81	98	118	-
40	22	30	40	50	63	77	94	113	-
45	20	28	37	47	60	74	90	109	-
50	18	26	34	45	56	70	86	104	_
55	-	23	32	42	53	67	82	100	-
60	-	-	29	38	50	63	78	95	-
		<u> </u>	·						
oefficient of pe	•	1	1		1		4	<del>                                     </del>	
20	1.79	2.15	2.60	3.17	3.87	4.74	-	-	-
30	1.32	1.57	1.88	2.26	2.71	3.26	3.93	4.75	-
35	1.12	1.34	1.59	1.90	2.27	2.71	3.23	3.87	-
40	0.95	1.13	1.34	1.59	1.89	2.24	2.66	3.16	-
45	0.79	0.94	1.12	1.32	1.56	1.84	2.18	2.58	-
50	0.65	0.78	0.92	1.09	1.28	1.51	1.78	2.09	-
55	-	0.63	0.74	0.88	1.03	1.22	1.43	1.68	-
60	-	-	0.58	0.69	0.82	0.96	1.14	1.34	-
						_			
ominal perform	nance at to = -1	0 °C, tc = 45 °C	10/		-	Pressure switch		27.7	h = =(=)

Current consumption Mass flow

Cooling capacity

Power input

C.O.P.

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

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

1 685

1 080

1.70

1.56

60

W

W

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

	Sound	power	da	ta
ı	_			-

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

-30  W 1 196 935 813 696 584 611 637 643 642 634 -	-25  1 564 1 253 1 107 966 830 700 666 718 738 753	-20  2 015 1 642 1 465 1 293 1 128 969 816 - 710 788 823	-15  2 559 2 111 1 897 1 690 1 488 1 293 1 106 926	-10  3 204 2 671 2 414 2 164 1 921 1 685 1 456 1 238	-5 3 962 3 330 3 025 2 726 2 435 2 152 1 878 1 615	- 4 098 3 739 3 387 3 042 2 706 2 380 2 067	5  4 986 4 566 4 154 3 751 3 357 2 974 2 606	
1 196 935 813 696 584 - - - 611 637 643 642 634	1 253 1 107 966 830 700 - - - 666 718 738 753	1 642 1 465 1 293 1 128 969 816 - 710 788	2 111 1 897 1 690 1 488 1 293 1 106 926	2 671 2 414 2 164 1 921 1 685 1 456 1 238	3 330 3 025 2 726 2 435 2 152 1 878	4 098 3 739 3 387 3 042 2 706 2 380	4 986 4 566 4 154 3 751 3 357 2 974	- - - - -
1 196 935 813 696 584 - - - 611 637 643 642 634	1 253 1 107 966 830 700 - - - 666 718 738 753	1 642 1 465 1 293 1 128 969 816 - 710 788	2 111 1 897 1 690 1 488 1 293 1 106 926	2 671 2 414 2 164 1 921 1 685 1 456 1 238	3 330 3 025 2 726 2 435 2 152 1 878	4 098 3 739 3 387 3 042 2 706 2 380	4 986 4 566 4 154 3 751 3 357 2 974	- - - - -
935 813 696 584 - - - - 611 637 643 642 634	1 253 1 107 966 830 700 - - - 666 718 738 753	1 642 1 465 1 293 1 128 969 816 - 710 788	2 111 1 897 1 690 1 488 1 293 1 106 926	2 671 2 414 2 164 1 921 1 685 1 456 1 238	3 330 3 025 2 726 2 435 2 152 1 878	4 098 3 739 3 387 3 042 2 706 2 380	4 986 4 566 4 154 3 751 3 357 2 974	- - - - -
813 696 584 - - - - 611 637 643 642 634 -	1 107 966 830 700 - - 666 718 738 753	1 465 1 293 1 128 969 816 - 710 788	1 897 1 690 1 488 1 293 1 106 926	2 414 2 164 1 921 1 685 1 456 1 238	3 025 2 726 2 435 2 152 1 878	3 739 3 387 3 042 2 706 2 380	4 566 4 154 3 751 3 357 2 974	- - -
696 584 - - - 611 637 643 642 634	966 830 700 - - - 666 718 738 753	1 293 1 128 969 816 - 710 788	1 690 1 488 1 293 1 106 926	2 164 1 921 1 685 1 456 1 238	2 726 2 435 2 152 1 878	3 387 3 042 2 706 2 380	4 154 3 751 3 357 2 974	- - -
584 - - - 611 637 643 642 634 -	830 700 - - - 666 718 738 753	1 128 969 816 - 710 788	1 488 1 293 1 106 926	1 921 1 685 1 456 1 238	2 435 2 152 1 878	3 042 2 706 2 380	3 751 3 357 2 974	- - -
611 637 643 642 634	700 - - - 666 718 738 753	969 816 - 710 788	1 293 1 106 926	1 685 1 456 1 238	2 152 1 878	2 706 2 380	3 357 2 974	-
611 637 643 642 634	- - 666 718 738 753	710 788	1 106 926	1 456 1 238	1 878	2 380	2 974	-
611 637 643 642 634	- 666 718 738 753	- 710 788	926	1 238				
611 637 643 642 634	666 718 738 753	710 788			1015	2 007	2 606	<u> </u>
637 643 642 634	718 738 753	788	742	T				
637 643 642 634	718 738 753	788	742					
643 642 634 -	738 753			763	770	-	-	-
642 634 -	753	822	847	894	928	950	959	-
634		023	896	958	1 008	1 045	1 069	-
-		853	943	1 021	1 086	1 140	1 180	-
	762	879	985	1 080	1 163	1 233	1 291	-
	764	899	1 023	1 135	1 236	1 325	1 400	-
-	-	911	1 054	1 186	1 306	1 413	1 508	-
-	-	-	1 079	1 230	1 370	1 498	1 614	-
on in A								
	1.20	1.29	1.43	1.59	1.75	-	_	-
-						1.82	1.89	_
					•			_
-								_
								_
							1	_
								-
<u></u>								
30	39	40	61	75	gn			_
							1	
-					+		1	
					•			
								-
								-
I_		-	38	49	62	77	95	
· · ·	,	2.84	3,45	4.20	5.14	_	_	
-							1	-
								-
-							1	_
					•			
							1	
	30 26 24 22 20 -	30 39 26 35 24 32 22 30 20 28 - 25	1.17	1.17	1.17	1.17	1.17	1.17

#### Nominal performance at to = -10 °C, tc = 45 °C

	,		
Cooling capacity	1 921	W	
Power input	1 080	W	
Current consumption	1.70	Α	
Mass flow	59	kg/h	
C.O.P.	1.78		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
0 1!	: 14/								
Cooling capacity		1.610	2.002	2 669	2 252	4.160			
20	1 233	1 619	2 093	2 668	3 353	4 160	-	-	-
30	970	1 310	1 726	2 228	2 828	3 537	4 367	5 329	-
35	841	1 156	1 541	2 005	2 561	3 220	3 993	4 891	-
40	714	1 004	1 356	1 782	2 293	2 901	3 615	4 449	-
45	589	853	1 173	1 560	2 025	2 579	3 235	4 003	-
50	469	706	992	1 338	1 756	2 257	2 853	3 554	-
55	-	562	813	1 118	1 488	1 935	2 469	3 103	-
60	-	-	638	900	1 221	1 613	2 086	2 651	-
ower input in V	v								
20	697	761	813	852	878	888	_	-	-
30	725	815	894	961	1 015	1 055	1 079	1 086	-
35	734	839	933	1 016	1 087	1 143	1 184	1 208	-
40	737	858	969	1 069	1 156	1 230	1 289	1 331	-
45	732	870	998	1 116	1 222	1 315	1 393	1 455	-
50	716	873	1 020	1 157	1 282	1 394	1 493	1 576	-
55	-	863	1 031	1 188	1 334	1 467	1 587	1 692	-
60	-	-	1 029	1 207	1 375	1 531	1 674	1 802	-
		1		1					
urrent consum	ption in A								
20	1.19	1.24	1.34	1.47	1.61	1.74	_	-	-
30	1.26	1.33	1.44	1.57	1.72	1.85	1.95	2.00	-
35	1.28	1.36	1.48	1.63	1.78	1.92	2.03	2.09	-
40	1.29	1.38	1.51	1.68	1.84	2.00	2.12	2.19	-
45	1.28	1.39	1.54	1.72	1.91	2.08	2.21	2.30	-
50	1.25	1.38	1.56	1.76	1.97	2.16	2.32	2.42	_
55	-	1.37	1.57	1.80	2.03	2.24	2.42	2.55	_
60	-	-	1.57	1.82	2.08	2.33	2.53	2.69	-
l.		1	1	I		1	1		
Mass flow in kg/	'h								
20	34	44	56	69	85	104	_	-	-
30	31	40	52	65	81	98	119	143	-
35	28	38	49	63	78	96	116	139	_
40	26	36	47	60	75	92	112	135	-
45	24	33	44	57	72	89	109	131	
50	21	30	41	54	68	85	105	127	-
55	-	27	38	50	64	81	100	122	-
60	-	-	34	46	60	77	95	117	-
			•	-		L			
coefficient of pe	•	<b>2.13</b>	2.58	3.13	202	4.60			
	1.77				3.82	4.68	4.05	4.01	-
30	1.34	1.61	1.93	2.32	2.78	3.35	4.05	4.91	
35	1.14	1.38	1.65	1.97	2.36	2.82	3.37	4.05	-
40	0.97	1.17	1.40	1.67	1.98	2.36	2.81	3.34	-
45	0.81	0.98	1.17	1.40	1.66	1.96	2.32	2.75	-
50	0.66	0.81	0.97	1.16	1.37	1.62	1.91	2.26	-
	-	0.65	0.79	0.94	1.12	1.32	1.56	1.83	-
55 60		-	0.62	0.75	0.89	1.05	1.25	1.47	_

Cooling capacity Power input 1 222 W Current consumption 1.91 Mass flow 72 C.O.P. 1.66

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

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

Sound	power	data
	P	

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

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W

2 025

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Caalina aanaait	. : 14/								
Cooling capacity	1 350	1 769	2 283	2 904	3 643	4 513		1	
20							- 4 700	-	-
30	1 080	1 454	1 911	2 461	3 116	3 889	4 792	5 836	-
35	946	1 297	1 723	2 236	2 848	3 572	4 419	5 401	-
40	813	1 140	1 535	2 010	2 579	3 252	4 042	4 961	-
45	683	984	1 347	1 784	2 308	2 930	3 663	4 518	-
50	-	831	1 161	1 559	2 037	2 608	3 283	4 075	-
55	-	-	978	1 336	1 769	2 287	2 905	3 633	-
60	-	-	-	1 117	1 504	1 972	2 533	3 200	-
Power input in V	V								
20	697	761	813	852	878	888	-	-	-
30	725	815	894	961	1 015	1 055	1 079	1 086	-
35	734	839	933	1 016	1 087	1 143	1 184	1 208	-
40	737	858	969	1 069	1 156	1 230	1 289	1 331	-
45	732	870	998	1 116	1 222	1 315	1 393	1 455	-
50	-	873	1 020	1 157	1 282	1 394	1 493	1 576	-
55	_	-	1 031	1 188	1 334	1 467	1 587	1 692	-
60	-	-	-	1 207	1 375	1 531	1 674	1 802	-
Current consum	•	1.04	1.24	4.47	4.04	4.74		1 1	
20	1.19	1.24	1.34	1.47	1.61	1.74	- 4.05	-	-
30	1.26	1.33	1.44	1.57	1.72	1.85	1.95	2.00	-
35	1.28	1.36	1.48	1.63	1.78	1.92	2.03	2.09	-
40	1.29	1.38	1.51	1.68	1.84	2.00	2.12	2.19	-
45	1.28	1.39	1.54	1.72	1.91	2.08	2.21	2.30	-
50	-	1.38	1.56	1.76	1.97	2.16	2.32	2.42	-
55	-	-	1.57	1.80	2.03	2.24	2.42	2.55	-
60	-	-	-	1.82	2.08	2.33	2.53	2.69	-
Mass flow in kg/	h								
20	34	44	55	69	85	103	-	-	-
30	30	40	51	65	80	98	118	142	-
35	28	38	49	62	77	95	115	138	-
40	26	36	47	60	75	92	112	134	-
45	24	33	44	57	71	88	108	130	-
50	-	30	41	53	68	85	104	126	-
55	-	-	38	50	64	81	99	121	-
60	-	-	-	46	60	76	95	116	-
Coefficient of pe	erformance (C C	) P )							
20	1.94	2.33	2.81	3.41	4.15	5.08	_	-	_
30	1.49	1.78	2.14	2.56	3.07	3.69	4.44	5.37	-
35	1.49	1.76	1.85	2.20	2.62	3.13	3.73	4.47	
40	1.10	1.33	1.58	1.88	2.02	2.64	3.14	3.73	
45	0.93	1.13	1.35	1.60	1.89	2.04	2.63	3.73	
	-	0.95	1.14	1.35	1.59	1.87	2.20	2.59	
	-	0.50							
50 55	-	-	0.95	1.13	1.33	1.56	1.83	2.15	-

#### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 308	W	
Power input	1 222	W	
Current consumption	1.91	Α	
Mass flow	71	kg/h	
C.O.P.	1.89		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
O lim m m it									
Cooling capacit		1 799	2 332	2.077	2.740	4.660	_		_
	1 366	+		2 977	3 749	4 660	1	-	-
30	1 090	1 480	1 955	2 530	3 216	4 028	4 978	6 080	-
35	948	1 313	1 758	2 294	2 934	3 693	4 583	5 618	-
40	806	1 145	1 555	2 051	2 644	3 348	4 176	5 142	-
45	665	975	1 350	1 803	2 346	2 993	3 757	4 652	-
50	526	806	1 143	1 551	2 042	2 630	3 329	4 150	-
55	-	639	937	1 298	1 735	2 262	2 892	3 638	-
60	-	-	732	1 044	1 425	1 889	2 449	3 118	-
ower input in \	N								
20	787	861	923	970	1 002	1 015	-	-	-
30	816	917	1 008	1 086	1 149	1 195	1 222	1 229	-
35	827	944	1 051	1 146	1 226	1 291	1 337	1 363	-
40	831	965	1 090	1 203	1 302	1 386	1 453	1 500	-
45	826	978	1 122	1 254	1 374	1 478	1 566	1 636	-
50	808	979	1 143	1 296	1 437	1 564	1 674	1 767	-
55	-	966	1 150	1 326	1 489	1 639	1 774	1 891	-
60	-	-	1 141	1 339	1 527	1 701	1 861	2 004	-
•			•	•	•	1	•	•	•
urrent consum		T 400	1 40	4.50	4.00	1 4 70		1	1
20	1.24	1.32	1.43	1.56	1.68	1.79	-	-	-
30	1.39	1.49	1.62	1.76	1.90	2.03	2.11	2.15	-
35	1.42	1.54	1.68	1.83	1.99	2.12	2.23	2.28	-
40	1.43	1.56	1.71	1.89	2.06	2.21	2.33	2.40	-
45	1.41	1.56	1.74	1.93	2.12	2.30	2.43	2.52	-
50	1.37	1.54	1.75	1.96	2.18	2.38	2.54	2.65	-
55	-	1.52	1.75	1.99	2.24	2.46	2.65	2.79	-
60	-	-	1.74	2.02	2.30	2.55	2.77	2.94	-
lass flow in kg	/h								
20	38	49	62	77	95	116	-	-	-
30	34	46	59	74	92	112	136	163	-
35	32	43	56	72	89	110	133	160	-
40	30	41	54	69	86	107	130	156	-
45	27	38	51	66	83	103	126	152	-
50	24	35	47	62	79	99	122	148	-
55	-	31	44	58	75	95	117	143	-
60	-	-	39	54	70	90	112	137	-
coefficient of p	erformance (C.C	).P.)							
20	1.74	2.09	2.53	3.07	3.74	4.59	-	-	-
30	1.34	1.61	1.94	2.33	2.80	3.37	4.07	4.95	-
35	1.15	1.39	1.67	2.00	2.39	2.86	3.43	4.12	-
40	0.97	1.19	1.43	1.70	2.03	2.41	2.87	3.43	-
45	0.80	1.00	1.20	1.44	1.71	2.02	2.40	2.84	-
50	0.65	0.82	1.00	1.20	1.42	1.68	1.99	2.35	-
55	-	0.66	0.81	0.98	1.16	1.38	1.63	1.92	-
		+	1			1	+	ļ <u></u>	

#### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 346	W	
Power input	1 374	W	
Current consumption	2.12	Α	
Mass flow	83	kg/h	
C.O.P.	1.71		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

With accoustic hood	0	dB(A)
Sound power level	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacity		1 966	2.542	2 244	4.074	E 055	1		
20	1 496	1	2 543	3 241	4 074	5 055	- 5 400	-	-
30	1 213	1 643	2 165	2 795	3 545	4 430	5 463	6 659	-
35	1 066	1 473	1 965	2 557	3 263	4 097	5 072	6 204	-
40	918	1 300	1 760	2 313	2 972	3 753	4 669	5 733	-
45	770	1 125	1 551	2 062	2 674	3 400	4 254	5 251	-
50	-	950	1 339	1 808	2 370	3 039	3 830	4 758	-
55	-	-	1 127	1 551	2 062	2 674	3 402	4 260	-
60	-	-	-	1 295	1 755	2 309	2 974	3 763	-
ower input in W	!								
20	787	861	923	970	1 002	1 015	-	-	-
30	816	917	1 008	1 086	1 149	1 195	1 222	1 229	-
35	827	944	1 051	1 146	1 226	1 291	1 337	1 363	-
40	831	965	1 090	1 203	1 302	1 386	1 453	1 500	-
45	826	978	1 122	1 254	1 374	1 478	1 566	1 636	-
50	-	979	1 143	1 296	1 437	1 564	1 674	1 767	-
55	-	-	1 150	1 326	1 489	1 639	1 774	1 891	-
60	-	-	-	1 339	1 527	1 701	1 861	2 004	-
urrent consum	ation in A								
20	1.24	1.32	1.43	1.56	1.68	1.79	_	_	_
30	1.39	1.49	1.62	1.76	1.90	2.03	2.11	2.15	
35	1.42	1.49	1.68	1.83	1.99	2.03	2.11	2.28	
40	1.43	1.56	1.71	1.89	2.06	2.12	2.33	2.40	
45	1.43		1.74	1.93	2.00	2.21	2.43	2.52	
50	-	1.56		1.96	2.12	2.38		2.52	-
55	<u> </u>	1.54	1.75		2.10		2.54	1	
60	-	-	1.75	1.99 2.02	2.24	2.46 2.55	2.65 2.77	2.79 2.94	<u>-</u>
00	-	_	_	2.02	2.30	2.55	2.11	2.94	
lass flow in kg/l	1	_	_	1	1		1		
20	38	49	62	77	95	115	-	-	-
30	34	45	58	73	91	111	135	162	-
35	32	43	56	71	89	109	132	159	-
40	29	41	54	69	86	106	129	155	-
45	27	38	51	65	83	103	125	151	-
50	-	34	47	62	79	99	121	147	-
55	-	-	43	58	75	94	117	142	-
60	-	-	-	53	70	89	111	136	-
coefficient of pe	rformance (C.C	).P.)							
20	1.90	2.28	2.76	3.34	4.07	4.98	-	-	_
30	1.49	1.79	2.15	2.57	3.09	3.71	4.47	5.42	-
35	1.29	1.56	1.87	2.23	2.66	3.17	3.79	4.55	-
40	1.10	1.35	1.61	1.92	2.28	2.71	3.21	3.82	-
45	0.93	1.15	1.38	1.64	1.95	2.30	2.72	3.21	-
50	-	0.97	1.17	1.39	1.65	1.94	2.29	2.69	-
55	-	-	0.98	1.17	1.38	1.63	1.92	2.25	-
		1	-	0.97	1.15	1.36	1.60	1.88	-

#### Nominal performance at to = -10 °C, tc = 45 °C

	.,		
Cooling capacity	2 674	W	
Power input	1 374	W	
Current consumption	2.12	Α	
Mass flow	83	kg/h	
C.O.P.	1.95		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in	ond, temp. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling conset	ne in M	•	•	•		•	•	•	
Cooling capacit		1.070	2.502	2 200	4.420	F 450	1		
20	1 491	1 972	2 563	3 280	4 138	5 152	-	-	-
30	1 198	1 638	2 173	2 819	3 590	4 502	5 569	6 807	-
35	1 044	1 458	1 961	2 566	3 290	4 146	5 150	6 317	-
40	887	1 273	1 740	2 303	2 975	3 773	4 711	5 804	-
45	729	1 085	1 514	2 030	2 648	3 385	4 253	5 270	-
50	574	896	1 283	1 750	2 311	2 983	3 779	4 716	-
55	-	708	1 050	1 464	1 966	2 570	3 291	4 145	-
60	-	-	817	1 176	1 615	2 148	2 792	3 559	-
Power input in \	N								
20	880	967	1 040	1 096	1 134	1 151	-	-	-
30	909	1 025	1 130	1 220	1 293	1 347	1 379	1 387	-
35	920	1 053	1 176	1 284	1 377	1 452	1 505	1 536	-
40	923	1 075	1 217	1 345	1 459	1 556	1 632	1 685	-
45	916	1 087	1 249	1 399	1 535	1 654	1 755	1 833	-
50	892	1 084	1 268	1 441	1 600	1 744	1 870	1 974	_
55	-	1 064	1 271	1 467	1 652	1 821	1 973	2 105	-
60	-	-	1 252	1 474	1 685	1 881	2 061	2 222	-
urrent consun	nption in A								
20	1.31	1.42	1.55	1.68	1.80	1.89	-	-	-
30	1.53	1.66	1.81	1.96	2.10	2.22	2.30	2.33	-
35	1.57	1.71	1.88	2.05	2.21	2.34	2.44	2.49	-
40	1.57	1.73	1.92	2.10	2.28	2.44	2.56	2.63	-
45	1.54	1.73	1.93	2.14	2.35	2.53	2.67	2.77	-
50	1.49	1.70	1.93	2.17	2.40	2.61	2.78	2.91	_
55	-	1.66	1.92	2.19	2.45	2.69	2.90	3.06	-
60	-	-	1.92	2.22	2.52	2.79	3.03	3.22	-
			-	l .	-	-		-	
Mass flow in kg			1	1					
20	41	54	68	85	105	128	-	-	-
30	38	50	65	82	102	125	152	182	-
35	35	48	63	80	100	123	149	180	-
40	33	45	60	77	97	120	146	176	-
45	29	42	57	74	94	117	143	173	-
50	26	38	53	70	90	113	138	168	-
55	-	34	49	66	85	108	133	163	-
60	-	-	44	61	80	102	128	157	-
Coefficient of p	erformance (C.C	).P.)							
20	1.69	2.04	2.47	2.99	3.65	4.48	-		-
30	1.32	1.60	1.92	2.31	2.78	3.34	4.04	4.91	-
35	1.13	1.38	1.67	2.00	2.39	2.86	3.42	4.11	-
40	0.96	1.18	1.43	1.71	2.04	2.43	2.89	3.44	-
45	0.80	1.00	1.21	1.45	1.73	2.05	2.42	2.87	-
50	0.64	0.83	1.01	1.21	1.44	1.71	2.02	2.39	-
55	-	0.67	0.83	1.00	1.19	1.41	1.67	1.97	-
		+ · · · · · · · · · · · · · · · · · · ·			<u> </u>	+	ļ	+	

# Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 648	W
Power input	1 535	W
Current consumption	2.35	Α
Mass flow	94	kg/h
C.O.P.	1.73	

to: Evaporating temperature at dew point

Pressure switch settings

N	faximum HP switch setting	27.7	bar(g)
N	linimum LP switch setting	0.2	bar(g)
L	P pump down setting	0.9	bar(g)

#### Sound power data

With accoustic hood	0	dB(A)
Sound power level	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in	. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	v in W								
20	1 633	2 154	2 795	3 570	4 496	5 588	_	_	_
30	1 334	1 818	2 406	3 114	3 956	4 950	6 111	7 455	_
35	1 174	1 636	2 193	2 862	3 659	4 599	5 700	6 975	_
40	1 011	1 446	1 970	2 597	3 345	4 230	5 267	6 472	_
45	845	1 252	1 739	2 322	3 019	3 845	4 816	5 948	_
50	-	1 055	1 503	2 039	2 682	3 446	4 349	5 407	_
55	-	-	1 263	1 751	2 337	3 038	3 872	4 853	_
60	-	-	-	1 460	1 989	2 627	3 390	4 296	-
00				1 400	1 303	2 021	0 000	4 230	
Power input in \	W								
20	880	967	1 040	1 096	1 134	1 151	-	-	-
30	909	1 025	1 130	1 220	1 293	1 347	1 379	1 387	-
35	920	1 053	1 176	1 284	1 377	1 452	1 505	1 536	-
40	923	1 075	1 217	1 345	1 459	1 556	1 632	1 685	-
45	916	1 087	1 249	1 399	1 535	1 654	1 755	1 833	-
50	-	1 084	1 268	1 441	1 600	1 744	1 870	1 974	-
55	-	-	1 271	1 467	1 652	1 821	1 973	2 105	-
60	-	-	-	1 474	1 685	1 881	2 061	2 222	-
Current consum	nption in A								
20	1.31	1.42	1.55	1.68	1.80	1.89	-	-	-
30	1.53	1.66	1.81	1.96	2.10	2.22	2.30	2.33	-
35	1.57	1.71	1.88	2.05	2.21	2.34	2.44	2.49	-
40	1.57	1.73	1.92	2.10	2.28	2.44	2.56	2.63	-
45	1.54	1.73	1.93	2.14	2.35	2.53	2.67	2.77	-
50	=	1.70	1.93	2.17	2.40	2.61	2.78	2.91	-
55	=	-	1.92	2.19	2.45	2.69	2.90	3.06	-
60	-	-	-	2.22	2.52	2.79	3.03	3.22	-
Mass flow in kg	/h								
20	41	53	68	85	105	127	-	-	-
30	38	50	65	82	102	125	151	181	-
35	35	48	63	80	99	122	148	178	-
40	32	45	60	77	97	119	146	175	-
45	29	42	57	74	93	116	142	172	-
50	-	38	53	70	89	112	138	167	-
55	-	-	49	65	85	107	133	162	-
60	-	-	-	60	79	101	127	156	-
Coefficient of po	erformance (C.O	.P.)							
20	1.85	2.23	2.69	3.26	3.96	4.85	-	_	_
30	1.47	1.77	2.13	2.55	3.06	3.67	4.43	5.37	_
35	1.28	1.55	1.87	2.23	2.66	3.17	3.79	4.54	_
40	1.09	1.35	1.62	1.93	2.29	2.72	3.23	3.84	_
45	0.92	1.15	1.39	1.93	1.97	2.72	2.74	3.04	-
50	-	0.97	1.19	1.42	1.68	1.98	2.74	2.74	-
55	-	-	0.99	1.42	1.41	1.67	1.96	2.74	-
60	-	-	-	0.99	1.18	1.40	1.65	1.93	-
00	<u>-</u>			0.33	1.10	1.40	1.00	1.53	_

#### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 019	W	
Power input	1 535	W	
Current consumption	2.35	Α	
Mass flow	93	kg/h	
C.O.P.	1.97		

to: Evaporating temperature at dew point

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

Pressure switch settings

N	faximum HP switch setting	27.7	bar(g)
N	linimum LP switch setting	0.2	bar(g)
L	P pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in	p. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling come : '	ne in M								
Cooling capacit		0.407	0.707	2.570	4.500	F 62F	T	I	
20	1 608	2 137	2 787	3 576	4 520	5 635	-	-	-
30	1 296	1 784	2 378	3 094	3 948	4 958	6 139	7 509	-
35	1 128	1 591	2 151	2 824	3 628	4 579	5 693	6 988	-
40	957	1 390	1 912	2 539	3 289	4 177	5 221	6 436	-
45	784	1 183	1 664	2 241	2 933	3 755	4 724	5 856	-
50	613	975	1 410	1 933	2 563	3 314	4 205	5 251	-
55	-	767	1 152	1 618	2 182	2 859	3 668	4 623	-
60	-	-	894	1 298	1 792	2 392	3 114	3 976	-
Power input in \	w								
20	977	1 078	1 163	1 230	1 275	1 297	-	-	-
30	1 004	1 138	1 259	1 364	1 449	1 513	1 551	1 561	-
35	1 013	1 166	1 307	1 432	1 540	1 626	1 689	1 724	-
40	1 014	1 187	1 349	1 496	1 627	1 738	1 826	1 888	-
45	1 001	1 195	1 379	1 551	1 706	1 842	1 957	2 047	-
50	971	1 187	1 395	1 591	1 772	1 936	2 078	2 197	-
55	-	1 158	1 391	1 613	1 821	2 013	2 185	2 334	-
60	-	-	1 362	1 612	1 849	2 070	2 272	2 453	-
		•	•	•		1	•	•	
urrent consun	nption in A								
20	1.41	1.55	1.70	1.84	1.96	2.05	-	-	-
30	1.66	1.83	2.00	2.17	2.32	2.44	2.52	2.55	-
35	1.70	1.89	2.08	2.27	2.43	2.58	2.68	2.73	-
40	1.70	1.91	2.12	2.33	2.52	2.69	2.81	2.89	-
45	1.66	1.89	2.13	2.36	2.58	2.78	2.93	3.04	-
50	1.60	1.86	2.12	2.38	2.63	2.86	3.05	3.19	-
55	-	1.81	2.10	2.40	2.68	2.94	3.17	3.35	-
60	-	-	2.09	2.42	2.74	3.04	3.31	3.53	-
Mass flow in kg		1	1	T	T	T	1	T	
20	45	58	74	93	115	140	-	-	-
30	41	55	71	90	112	138	167	201	-
35	38	52	69	88	110	136	165	199	-
40	35	50	66	85	107	133	162	196	-
45	32	46	63	82	104	129	159	192	-
50	28	42	58	78	100	125	154	187	-
55	-	37	54	73	95	120	149	182	-
60	-	-	48	67	89	114	142	175	-
Coefficient of p	erformance (C.C	).P.)							
20	1.65	1.98	2.40	2.91	3.54	4.35	-	-	-
30	1.29	1.57	1.89	2.27	2.72	3.28	3.96	4.81	-
35	1.11	1.36	1.65	1.97	2.36	2.82	3.37	4.05	-
40	0.94	1.17	1.42	1.70	2.02	2.40	2.86	3.41	-
45	0.78	0.99	1.21	1.45	1.72	2.04	2.41	2.86	-
50	0.63	0.82	1.01	1.22	1.45	1.71	2.02	2.39	-
55	-	0.66	0.83	1.00	1.20	1.42	1.68	1.98	-
60	-	-	0.66	0.81	0.97	1.16	1.37	1.62	-

# Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	2 933	W	
Power input	1 706	W	
Current consumption	2.58	Α	
Mass flow	104	kg/h	
C.O.P.	1.72		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in	b. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	ty in W								
20	1 761	2 335	3 039	3 892	4 911	6 113	_	_	_
30	1 442	1 981	2 633	3 417	4 351	5 452	6 737	8 224	_
35	1 269	1 784	2 405	3 149	4 035	5 079	6 301	7 716	_
40	1 091	1 578	2 163	2 864	3 698	4 683	5 837	7 177	_
45	909	1 365	1 911	2 564	3 343	4 265	5 348	6 610	_
50	-	1 148	1 651	2 253	2 973	3 829	4 839	6 020	_
55			1 386	1 935		3 380	4 314		_
60	-	-	-	1 612	2 593 2 207	2 925	3 782	5 413 4 799	-
60	-	-	-	1012	2 207	2 925	3 702	4 799	-
Power input in	w								
20	977	1 078	1 163	1 230	1 275	1 297	-	-	-
30	1 004	1 138	1 259	1 364	1 449	1 513	1 551	1 561	-
35	1 013	1 166	1 307	1 432	1 540	1 626	1 689	1 724	-
40	1 014	1 187	1 349	1 496	1 627	1 738	1 826	1 888	-
45	1 001	1 195	1 379	1 551	1 706	1 842	1 957	2 047	-
50	-	1 187	1 395	1 591	1 772	1 936	2 078	2 197	-
55	-	-	1 391	1 613	1 821	2 013	2 185	2 334	-
60	-	-	-	1 612	1 849	2 070	2 272	2 453	-
Current consun	nntion in A								
20	1.41	1.55	1.70	1.84	1.96	2.05	_	_	_
30	1.66	1.83	2.00	2.17	2.32	2.44	2.52	2.55	_
35	1.70	1.89	2.08	2.17	2.43	2.58	2.68	2.73	_
40	1.70	1.91	2.12	2.33	2.52	2.69	2.81	2.89	_
45	1.66	1.89	2.12	2.36	2.58	2.78	2.93	3.04	_
50	-	1.86	2.13	2.38	2.63	2.86	3.05	3.19	_
55	-	-	2.12	2.40	2.68	2.94	3.17	3.35	_
60	-	-	2.10	2.40	2.74	3.04	3.17	3.53	-
00	_		_	2.42	2.14	3.04	3.31	3.33	
Mass flow in kg	ı/h								
20	44	58	74	93	114	139	-	-	-
30	41	55	71	90	112	137	166	199	-
35	38	52	69	88	110	135	164	197	-
40	35	49	66	85	107	132	161	194	-
45	31	46	62	81	103	129	158	191	-
50	-	42	58	77	99	124	153	186	-
55	-	-	53	72	94	119	148	180	-
60	-	-	-	67	88	113	141	174	-
Coefficient of n	erformance (C.C								
20	1.80	2.17	2.61	3.16	3.85	4.71	_	_	-
30	1.44	1.74	2.09	2.51	3.00	3.60	4.34	5.27	-
35	1.25	1.53	1.84	2.20	2.62	3.12	3.73	4.47	-
40	1.08	1.33	1.60	1.91	2.27	2.69	3.20	3.80	_
	0.91	1.14	1.39	1.65	1.96	2.31	2.73	3.23	-
45	5.5.			1.42	1.68	1.98	2.33	2.74	_
45 50	_	0.97	1.18						
45 50 55	-	0.97	1.18 1.00	1.42	1.42	1.68	1.97	2.32	_

#### Nominal performance at to = -10 °C, tc = 45 °C

	,	
Cooling capacity	3 343	W
Power input	1 706	W
Current consumption	2.58	Α
Mass flow	103	kg/h
C.O.P.	1.96	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP swite	ch setting	27.7	bar(g)
Minimum LP switch	n setting	0.2	bar(g)
LP pump down set	ting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

**R404A** 

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit		0.004	0.004	0.005	4.004	0.440		1	
20	1 717	2 294	3 004	3 865	4 894	6 110	-	-	-
30	1 382	1 919	2 570	3 355	4 291	5 396	6 688	8 186	-
35	1 202	1 711	2 326	3 066	3 949	4 991	6 212	7 630	-
40	1 016	1 493	2 068	2 759	3 583	4 559	5 705	7 038	-
45	829	1 270	1 800	2 437	3 198	4 103	5 168	6 412	-
50	643	1 043	1 524	2 102	2 797	3 625	4 606	5 756	-
55	-	817	1 243	1 759	2 382	3 130	4 021	5 074	-
60	-	-	962	1 410	1 956	2 619	3 417	4 367	-
Power input in V	v								
20	1 078	1 195	1 294	1 372	1 425	1 451	_	-	_
30	1 102	1 257	1 396	1 517	1 617	1 691	1 737	1 751	_
35	1 108	1 283	1 445	1 590	1 714	1 814	1 887	1 930	_
40	1 103	1 301	1 445	1 655	1 805	1 933	2 034	2 107	
45	1 083	1 304	1 514	1 709	1 886	2 042	2 174	2 277	
		1		+					<u> </u>
50 55	1 042	1 288	1 524	1 747	1 952	2 138	2 300 2 409	2 436	-
	<u>-</u>	1 249	1 512	1 763	1 998	2 215		2 579	-
60	-	-	1 472	1 752	2 019	2 268	2 496	2 700	-
Current consum	ption in A								
20	1.54	1.72	1.89	2.04	2.17	2.26	_	_	_
30	1.80	2.00	2.20	2.39	2.55	2.68	2.76	2.80	_
35	1.84	2.06	2.28	2.49	2.67	2.82	2.94	3.00	_
40	1.83	2.08	2.32	2.55	2.76	2.94	3.08	3.17	_
45	1.79	2.06	2.33	2.59	2.83	3.04	3.21	3.34	
50	1.79	2.00	2.31	2.60	2.88	3.13	3.34	3.50	
55	-	1.95	2.28	2.61	2.92	3.13	3.46	3.67	
60	-	-	2.25	2.62	2.92	3.30	3.60	3.85	
60			2.25	2.02	2.97	3.30	3.60	3.05	<u> </u>
Mass flow in kg	'h								
20	48	63	80	101	124	152	-	-	-
30	44	59	77	98	122	150	182	219	-
35	41	56	75	96	120	148	180	217	-
40	37	53	72	93	117	145	177	214	-
45	33	49	68	89	113	141	174	210	-
50	29	45	63	84	109	137	169	205	-
55	-	40	58	79	103	131	163	199	-
60	-	-	52	73	97	124	156	192	-
'			•	•	•	•	•		
20	erformance (C.C 1.59	1.92	2.32	2.82	3.43	4.21	_	<u> </u>	
		1		+			<u> </u>	- 4.69	-
30	1.25	1.53	1.84	2.21	2.65	3.19	3.85	4.68	-
35	1.08	1.33	1.61	1.93	2.30	2.75	3.29	3.95	-
40	0.92	1.15	1.39	1.67	1.98	2.36	2.80	3.34	-
45	0.77	0.97	1.19	1.43	1.70	2.01	2.38	2.82	-
50	0.62	0.81	1.00	1.20	1.43	1.70	2.00	2.36	-
55	-	0.65	0.82	1.00	1.19	1.41	1.67	1.97	-
60	-	-	0.65	0.80	0.97	1.16	1.37	1.62	-

#### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 198	W	
Power input	1 886	W	
Current consumption	2.83	Α	
Mass flow	113	kg/h	
C.O.P.	1.70		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

## **R404A**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Caalian aanaaite	. i. 10/								
Cooling capacity 20	1 880	2 507	3 276	4 207	5 318	6 628	_	-	_
30				3 706		5 934	7 339	<del> </del>	
	1 539	2 130	2 846		4 729			8 965	
35	1 352	1 919	2 601	3 419	4 391	5 537	6 875	8 425	-
40	1 158	1 696	2 341	3 112	4 029	5 111	6 378	7 848	-
45	960	1 465	2 068	2 788	3 646	4 660	5 851	7 238	-
50	-	1 229	1 785	2 450	3 245	4 188	5 300	6 600	-
55	-	-	1 496	2 103	2 831	3 700	4 730	5 941	-
60	-	-	-	1 750	2 409	3 203	4 150	5 272	-
Power input in V	v								
20	1 078	1 195	1 294	1 372	1 425	1 451	-	-	-
30	1 102	1 257	1 396	1 517	1 617	1 691	1 737	1 751	-
35	1 108	1 283	1 445	1 590	1 714	1 814	1 887	1 930	-
40	1 103	1 301	1 486	1 655	1 805	1 933	2 034	2 107	-
45	1 083	1 304	1 514	1 709	1 886	2 042	2 174	2 277	-
50	-	1 288	1 524	1 747	1 952	2 138	2 300	2 436	-
55	-	-	1 512	1 763	1 998	2 215	2 409	2 579	-
60	-	-	-	1 752	2 019	2 268	2 496	2 700	-
Current consum	•	4.70	1 400	1	0.47	0.00	1	1	
20	1.54	1.72	1.89	2.04	2.17	2.26	-	-	-
30	1.80	2.00	2.20	2.39	2.55	2.68	2.76	2.80	-
35	1.84	2.06	2.28	2.49	2.67	2.82	2.94	3.00	-
40	1.83	2.08	2.32	2.55	2.76	2.94	3.08	3.17	-
45	1.79	2.06	2.33	2.59	2.83	3.04	3.21	3.34	-
50	-	2.01	2.31	2.60	2.88	3.13	3.34	3.50	-
55	-	-	2.28	2.61	2.92	3.21	3.46	3.67	-
60	-	-	-	2.62	2.97	3.30	3.60	3.85	-
Mass flow in kg/	'h								
20	47	62	80	100	124	151	-	-	-
30	43	59	77	97	122	149	181	217	-
35	40	56	74	95	119	147	179	215	-
40	37	53	71	92	116	144	176	213	-
45	33	49	67	88	113	141	172	209	-
50	-	45	63	84	108	136	168	204	-
55	-	-	58	78	103	130	162	198	-
60	-	-	-	72	96	124	155	191	-
Coefficient of pe	orformance (C.C	) P )							
20	1.74	2.10	2.53	3.07	3.73	4.57	_	-	-
				2.44				1	
30 35	1.40	1.70 1.50	2.04 1.80	2.44	2.93	3.51	4.23 3.64	5.12	-
		+	1	1	2.56	3.05	1	4.37	-
40 45	1.05	1.30	1.58	1.88	2.23	2.64	3.13	3.72	-
45	0.89	1.12	1.37	1.63	1.93	2.28	2.69	3.18	-
50	-	0.95	1.17	1.40	1.66	1.96	2.30	2.71	-
55	-	-	0.99	1.19	1.42	1.67	1.96	2.30	-
60	-	-	-	1.00	1.19	1.41	1.66	1.95	-

### Nominal performance at to = -10 °C, tc = 45 °C

tronnia porto manos arto io o,			
Cooling capacity	3 646	W	
Power input	1 886	W	
Current consumption	2.83	Α	
Mass flow	113	kg/h	
C.O.P.	1.93		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, EN 12900 rating conditions, Superheat = 10 K

# **R404A**

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
S								1	
Cooling capacity		0.444	0.044	4.440	5 004	0.577	1		
20	1 818	2 444	3 214	4 146	5 261	6 577	-	-	-
30	1 458	2 042	2 750	3 603	4 618	5 817	7 217	8 838	-
35	1 264	1 819	2 489	3 293	4 252	5 383	6 708	8 244	-
40	1 064	1 585	2 211	2 963	3 860	4 920	6 163	7 609	-
45	863	1 344	1 922	2 616	3 445	4 429	5 586	6 937	-
50	664	1 101	1 625	2 256	3 013	3 915	4 981	6 231	-
55	-	858	1 323	1 886	2 566	3 381	4 351	5 496	-
60	-	-	1 021	1 511	2 107	2 831	3 700	4 734	-
ower input in V	v								
20	1 182	1 317	1 431	1 521	1 584	1 615	-	-	-
30	1 202	1 380	1 541	1 681	1 795	1 882	1 937	1 956	-
35	1 202	1 404	1 590	1 756	1 899	2 015	2 100	2 152	-
40	1 190	1 417	1 629	1 823	1 994	2 141	2 258	2 343	_
45	1 160	1 413	1 652	1 875	2 077	2 255	2 405	2 524	-
50	1 108	1 388	1 655	1 908	2 141	2 351	2 536	2 691	-
55	-	1 336	1 633	1 916	2 182	2 427	2 647	2 838	-
60	-	-	1 581	1 896	2 195	2 475	2 731	2 961	-
•		•	•	•	•	•	•		
urrent consum	ption in A								
20	1.69	1.91	2.11	2.29	2.43	2.53	-	-	-
30	1.94	2.18	2.41	2.62	2.80	2.94	3.03	3.08	-
35	1.97	2.24	2.49	2.72	2.92	3.09	3.21	3.29	-
40	1.96	2.25	2.53	2.78	3.01	3.21	3.37	3.48	-
45	1.91	2.22	2.53	2.82	3.08	3.32	3.51	3.66	-
50	1.82	2.17	2.51	2.83	3.13	3.41	3.64	3.83	-
55	-	2.09	2.47	2.83	3.17	3.49	3.77	4.01	-
60	-	-	2.41	2.82	3.21	3.57	3.91	4.20	-
lass flow in kg/				T	Т	T	Т		
20	50	67	86	108	134	164	-	-	-
30	46	63	82	105	132	162	197	236	-
35	43	60	80	103	129	160	195	234	-
40	39	57	76	100	126	157	192	231	-
45	35	52	72	95	122	153	188	227	-
50	30	47	67	91	117	148	183	222	-
55	-	42	62	85	111	142	176	216	-
60	-	-	55	78	104	135	169	208	-
Coefficient of pe	erformance (C.C	).P.)							
20	1.54	1.86	2.25	2.73	3.32	4.07	-	-	-
30	1.21	1.48	1.78	2.14	2.57	3.09	3.73	4.52	-
35	1.05	1.29	1.56	1.88	2.24	2.67	3.19	3.83	-
40	0.89	1.12	1.36	1.63	1.94	2.30	2.73	3.25	-
45	0.74	0.95	1.16	1.40	1.66	1.96	2.32	2.75	-
50	0.60	0.79	0.98	1.18	1.41	1.66	1.96	2.32	-
55	-	0.64	0.81	0.98	1.18	1.39	1.64	1.94	-
60	_	_	0.65	0.80	0.96	1.14	1.35	1.60	_

# Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 445	W	
Power input	2 077	W	
Current consumption	3.08	Α	
Mass flow	122	kg/h	
C.O.P.	1.66		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

## **R404A**

Cond. temp. in	Cond. temp. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	v in W								
20	1 990	2 671	3 505	4 513	5 716	7 134	_	_	_
30	1 623	2 267	3 046	3 980	5 090	6 396	7 919	9 680	_
35	1 422	2 040	2 783	3 672	4 728	5 972	7 423	9 103	_
40	1 213	1 800	2 503	3 342	4 340	5 515	6 890	8 485	-
45	1 000	1 551	2 208	2 993	3 927	5 031	6 325	7 830	-
50	-	1 296	1 904	2 630	3 496	4 523	5 732	7 144	_
55		-	1 593	2 255	3 050	3 997	5 118	6 435	_
60	-	-	-	1 875	2 595	3 461	4 493	5 714	-
00				1075	2 333	0 401	4 400	3714	
Power input in \	W								
20	1 182	1 317	1 431	1 521	1 584	1 615	-		-
30	1 202	1 380	1 541	1 681	1 795	1 882	1 937	1 956	-
35	1 202	1 404	1 590	1 756	1 899	2 015	2 100	2 152	-
40	1 190	1 417	1 629	1 823	1 994	2 141	2 258	2 343	-
45	1 160	1 413	1 652	1 875	2 077	2 255	2 405	2 524	-
50	-	1 388	1 655	1 908	2 141	2 351	2 536	2 691	_
55	-	-	1 633	1 916	2 182	2 427	2 647	2 838	-
60	-	-	-	1 896	2 195	2 475	2 731	2 961	-
Current consum		I	I	1	I	T	1	1	I
20	1.69	1.91	2.11	2.29	2.43	2.53	-	-	-
30	1.94	2.18	2.41	2.62	2.80	2.94	3.03	3.08	-
35	1.97	2.24	2.49	2.72	2.92	3.09	3.21	3.29	-
40	1.96	2.25	2.53	2.78	3.01	3.21	3.37	3.48	-
45	1.91	2.22	2.53	2.82	3.08	3.32	3.51	3.66	-
50	-	2.17	2.51	2.83	3.13	3.41	3.64	3.83	-
55	-	-	2.47	2.83	3.17	3.49	3.77	4.01	-
60	-	-	-	2.82	3.21	3.57	3.91	4.20	-
Mass flow in kg	/h								
20	50	66	85	107	133	163	-		-
30	46	62	82	105	131	161	195	235	-
35	43	60	79	102	129	159	193	233	-
40	39	56	76	99	125	156	190	230	-
45	35	52	72	95	121	152	186	226	-
50	-	47	67	90	116	147	181	221	-
55	-	-	61	84	111	141	175	215	-
60	-	-	-	77	104	134	168	207	-
Coefficient of m	erformance (C.O	D)							
20	1.68	2.03	2.45	2.97	3.61	4.42		_	_
	1.08						4.00		-
30 35	1.35	1.64 1.45	1.98	2.37 2.09	2.83	3.40	4.09	4.95	-
			1.75		2.49	2.96	3.53	4.23	
40	1.02	1.27	1.54	1.83	2.18	2.58	3.05	3.62	-
45	0.86	1.10	1.34	1.60	1.89	2.23	2.63	3.10	-
50	-	0.93	1.15	1.38	1.63	1.92	2.26	2.65	-
55	-	-	0.98	1.18	1.40	1.65	1.93	2.27	-
60	-	-	-	0.99	1.18	1.40	1.65	1.93	-

### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 927	W	
Power input	2 077	W	
Current consumption	3.08	Α	
Mass flow	121	kg/h	
C.O.P.	1.89		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

## Sound power data

With accoustic hood	0	dB(A)
Sound power level	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, EN 12900 rating conditions, Superheat = 10 K

## **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capaci	ty in W								
20	1 910	2 587	3 417	4 421	5 621	7 035	-	-	-
30	1 523	2 154	2 918	3 837	4 930	6 219	7 724	9 465	-
35	1 315	1 914	2 637	3 505	4 537	5 755	7 179	8 829	-
40	1 101	1 664	2 340	3 151	4 117	5 259	6 596	8 150	-
45	887	1 407	2 031	2 780	3 674	4 734	5 979	7 431	-
50	675	1 148	1 714	2 396	3 212	4 184	5 332	6 676	-
55	-	889	1 393	2 001	2 734	3 613	4 658	5 890	-
60	-	-	1 071	1 601	2 245	3 026	3 962	5 075	-
Power input in	w					_			
20	1 289	1 444	1 575	1 679	1 751	1 788	-	-	-
30	1 304	1 509	1 694	1 854	1 986	2 086	2 151	2 177	-
35	1 298	1 530	1 742	1 932	2 096	2 229	2 328	2 390	-
40	1 276	1 536	1 778	1 998	2 194	2 361	2 496	2 596	-
45	1 234	1 522	1 795	2 047	2 276	2 479	2 650	2 788	-
50	1 167	1 485	1 789	2 074	2 338	2 576	2 785	2 962	-
55	-	1 419	1 755	2 074	2 373	2 649	2 896	3 113	-
60	-	-	1 688	2 043	2 378	2 692	2 979	3 237	-
Current consur	nption in A								
20	1.87	2.13	2.37	2.57	2.74	2.86	-	-	-
30	2.07	2.36	2.62	2.86	3.06	3.22	3.33	3.39	-
35	2.10	2.41	2.69	2.95	3.18	3.37	3.51	3.60	-
40	2.09	2.42	2.73	3.02	3.28	3.50	3.68	3.81	-
45	2.03	2.39	2.73	3.05	3.35	3.61	3.83	4.00	-
50	1.93	2.33	2.71	3.07	3.40	3.71	3.97	4.19	-
55	-	2.23	2.65	3.05	3.44	3.79	4.10	4.38	-
60	-	-	2.56	3.02	3.45	3.86	4.23	4.56	-
Mass flow in kg	ı/h								
20	53	71	91	115	143	175	-	-	-
30	48	66	88	112	140	173	210	253	-
35	45	63	85	109	138	171	208	251	-
40	41	59	81	106	135	167	205	248	-
45	36	55	76	101	130	163	201	244	-
50	30	49	71	96	125	158	195	238	-
55	-	43	65	90	119	151	189	231	-
60	-	-	58	82	111	144	181	223	-
Coefficient of p	erformance (C.C	o.P.)							
20	1.48	1.79	2.17	2.63	3.21	3.93	-	-	-
30	1.17	1.43	1.72	2.07	2.48	2.98	3.59	4.35	-
35	1.01	1.25	1.51	1.81	2.17	2.58	3.08	3.69	-
40	0.86	1.08	1.32	1.58	1.88	2.23	2.64	3.14	-
45	0.72	0.92	1.13	1.36	1.61	1.91	2.26	2.67	-
50	0.58	0.77	0.96	1.16	1.37	1.62	1.91	2.25	-
55	-	0.63	0.79	0.96	1.15	1.36	1.61	1.89	-
	<b>.</b>	1	1	0.78	0.94	1.12	1.33	1 +	

### Nominal performance at to = -10 °C, tc = 45 °C

	-,	
Cooling capacity	3 674	W
Power input	2 276	W
Current consumption	3.35	Α
Mass flow	130	kg/h
C.O.P.	1.61	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Na - 11								1	
Cooling capacity		0.000	0.700	4.040	0.407	7.004			
20	2 092	2 826	3 726	4 813	6 107	7 631	-	-	-
30	1 696	2 391	3 231	4 238	5 434	6 839	8 477	10 367	-
35	1 479	2 147	2 949	3 908	5 046	6 384	7 945	9 749	-
40	1 256	1 889	2 648	3 554	4 629	5 895	7 374	9 088	-
45	1 028	1 623	2 333	3 181	4 188	5 377	6 769	8 387	-
50	-	1 352	2 008	2 792	3 727	4 834	6 135	7 654	-
55	-	-	1 676	2 393	3 250	4 272	5 479	6 896	-
60	-	-	-	1 987	2 765	3 699	4 812	6 126	-
Power input in V	v								
20	1 289	1 444	1 575	1 679	1 751	1 788	_	-	-
30	1 304	1 509	1 694	1 854	1 986	2 086	2 151	2 177	-
35	1 298	1 530	1 742	1 932	2 096	2 229	2 328	2 390	-
40	1 276	1 536	1 778	1 998	2 194	2 361	2 496	2 596	-
45	1 234	1 522	1 795	2 047	2 276	2 479	2 650	2 788	-
50	-	1 485	1 789	2 074	2 338	2 576	2 785	2 962	-
55	-	-	1 755	2 074	2 373	2 649	2 896	3 113	-
60	-	-	-	2 043	2 378	2 692	2 979	3 237	-
•		•	•	•	•	•	•		
Current consum	ption in A								
20	1.87	2.13	2.37	2.57	2.74	2.86	-	-	-
30	2.07	2.36	2.62	2.86	3.06	3.22	3.33	3.39	-
35	2.10	2.41	2.69	2.95	3.18	3.37	3.51	3.60	-
40	2.09	2.42	2.73	3.02	3.28	3.50	3.68	3.81	-
45	2.03	2.39	2.73	3.05	3.35	3.61	3.83	4.00	-
50	-	2.33	2.71	3.07	3.40	3.71	3.97	4.19	-
55	-	-	2.65	3.05	3.44	3.79	4.10	4.38	-
60	-	-	-	3.02	3.45	3.86	4.23	4.56	-
Mass flow in kg/				T	1	T			
20	53	70	91	114	142	174	-	-	-
30	48	66	87	111	140	172	209	251	-
35	44	63	84	109	137	170	207	249	-
40	40	59	80	105	134	166	204	246	-
45	36	54	76	101	129	162	200	242	-
50	-	49	71	96	124	157	194	237	-
55	-	-	64	89	118	150	188	230	-
60	-	-	-	82	110	143	180	222	-
Coefficient of pe	erformance (C.C	).P.)							
20	1.62	1.96	2.37	2.87	3.49	4.27	-	-	-
30	1.30	1.58	1.91	2.29	2.74	3.28	3.94	4.76	-
35	1.14	1.40	1.69	2.02	2.41	2.86	3.41	4.08	-
40	0.98	1.23	1.49	1.78	2.11	2.50	2.95	3.50	-
45	0.83	1.07	1.30	1.55	1.84	2.17	2.55	3.01	-
50	-	0.91	1.12	1.35	1.59	1.88	2.20	2.58	-
55	-	-	0.96	1.15	1.37	1.61	1.89	2.22	-
60	_	_	_	0.97	1.16	1.37	1.62	1.89	_

## Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 188	W	
Power input	2 276	W	
Current consumption	3.35	Α	
Mass flow	129	kg/h	
C.O.P.	1.84		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, EN 12900 rating conditions, Superheat = 10 K

## **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling conseil	w in W								
Cooling capacit		2 722	2 612	4.690	F 072	7.405			_
	1 995		3 612	4 689	5 973	7 485	-	-	-
30	1 578	2 254	3 073	4 057	5 227	6 605	8 211	10 068	-
35	1 355	1 997	2 772	3 701	4 805	6 107	7 627	9 386	-
40	1 128	1 730	2 455	3 323	4 356	5 576	7 004	8 660	-
45	901	1 458	2 127	2 928	3 884	5 016	6 346	7 894	-
50	678	1 184	1 791	2 520	3 393	4 432	5 657	7 090	-
55	-	912	1 451	2 103	2 887	3 827	4 942	6 255	-
60	-	-	1 113	1 680	2 370	3 205	4 205	5 392	-
Power input in \	W								
20	1 400	1 577	1 726	1 844	1 926	1 970	-	-	-
30	1 409	1 644	1 854	2 037	2 187	2 303	2 379	2 413	-
35	1 394	1 659	1 901	2 117	2 304	2 456	2 571	2 646	-
40	1 360	1 656	1 932	2 182	2 405	2 595	2 750	2 865	-
45	1 303	1 632	1 941	2 226	2 486	2 715	2 910	3 068	-
50	1 219	1 580	1 924	2 246	2 543	2 812	3 048	3 248	-
55	-	1 498	1 877	2 236	2 572	2 880	3 159	3 403	-
60	-	-	1 795	2 192	2 567	2 917	3 239	3 527	-
				1	I.	1	1		
urrent consum	•					T		1	
20	2.07	2.38	2.66	2.90	3.09	3.24	-	-	-
30	2.21	2.54	2.84	3.11	3.34	3.52	3.66	3.74	-
35	2.23	2.58	2.90	3.19	3.45	3.66	3.83	3.94	-
40	2.21	2.58	2.93	3.26	3.55	3.80	4.00	4.15	-
45	2.15	2.55	2.94	3.30	3.62	3.92	4.16	4.36	-
50	2.04	2.48	2.91	3.31	3.68	4.02	4.32	4.57	-
55	,	2.36	2.83	3.28	3.71	4.10	4.46	4.77	-
60	-	-	2.71	3.22	3.70	4.16	4.57	4.95	-
Mass flow in kg	/h								
20	55	74	96	122	152	186	-	-	-
30	50	69	92	119	149	184	224	269	-
35	46	66	89	116	146	181	221	267	-
40	41	62	85	112	142	178	218	263	-
45	36	57	80	107	138	173	213	259	-
50	30	51	74	101	132	167	207	253	-
55	-	44	68	94	125	160	200	246	-
60	-	-	60	87	117	152	192	237	-
Coefficient of n	erformance (C.C	) P )							
20	1.42	1.73	2.09	2.54	3.10	3.80	-	-	-
30	1.12	1.37	1.66	1.99	2.39	2.87	3.45	4.17	-
35	0.97	1.20	1.46	1.75	2.09	2.49	2.97	3.55	_
40	0.83	1.04	1.27	1.52	1.81	2.49	2.55	3.02	
45	0.69	0.89	1.10	1.32	1.56	1.85	2.33	2.57	-
50	0.56	0.89	0.93	1.12	1.33	1.58	1.86		-
			0.93	0.94	1.33	1.33		2.18 1.84	
55	-	0.61		+		1	1.56		-
60	-	-	0.62	0.77	0.92	1.10	1.30	1.53	-

#### Nominal performance at to = -10 °C, tc = 45 °C

rionniai poriornianeo arte	-,	
Cooling capacity	3 884	W
Power input	2 486	W
Current consumption	3.62	Α
Mass flow	138	kg/h
C.O.P.	1.56	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

## Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

## **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	w in W								
20	2 185	2 974	3 940	5 104	6 490	8 119	_	_	_
30	1 756	2 502	3 403	4 482	5 761	7 263	9 011	1	-
								11 027	-
35	1 524	2 240	3 100	4 127	5 344	6 774	8 440	10 364	-
40	1 286	1 965	2 778	3 748	4 898	6 251	7 830	9 657	-
45	1 044	1 682	2 443	3 350	4 428	5 698	7 185	8 910	-
50	-	1 394	2 098	2 937	3 937	5 120	6 510	8 129	-
55	-	-	1 747	2 514	3 432	4 524	5 813	7 324	-
60	-	-	-	2 086	2 919	3 918	5 107	6 508	-
Power input in \	W								
20	1 400	1 577	1 726	1 844	1 926	1 970	-	-	-
30	1 409	1 644	1 854	2 037	2 187	2 303	2 379	2 413	-
35	1 394	1 659	1 901	2 117	2 304	2 456	2 571	2 646	-
40	1 360	1 656	1 932	2 182	2 405	2 595	2 750	2 865	-
45	1 303	1 632	1 941	2 226	2 486	2 715	2 910	3 068	-
50	-	1 580	1 924	2 246	2 543	2 812	3 048	3 248	-
55	-	-	1 877	2 236	2 572	2 880	3 159	3 403	-
60	-	-	-	2 192	2 567	2 917	3 239	3 527	-
		•	•	•		•	•	•	
Current consum			1				1	1	
20	2.07	2.38	2.66	2.90	3.09	3.24	-	-	-
30	2.21	2.54	2.84	3.11	3.34	3.52	3.66	3.74	-
35	2.23	2.58	2.90	3.19	3.45	3.66	3.83	3.94	-
40	2.21	2.58	2.93	3.26	3.55	3.80	4.00	4.15	-
45	2.15	2.55	2.94	3.30	3.62	3.92	4.16	4.36	-
50	-	2.48	2.91	3.31	3.68	4.02	4.32	4.57	-
55	-	-	2.83	3.28	3.71	4.10	4.46	4.77	-
60	-	-	-	3.22	3.70	4.16	4.57	4.95	-
Mass flow in kg	/h								
20	55	74	96	121	151	185	-	-	-
30	49	69	92	118	148	183	222	267	-
35	46	66	88	115	145	180	220	265	-
40	41	61	84	111	142	177	216	262	-
45	36	56	80	106	137	172	212	257	-
50	-	51	74	101	131	166	206	251	-
55	-	-	67	94	124	159	199	244	-
60	-	-	-	86	117	151	191	236	ı
Coefficient of n	erformance (C.O	Ρ)							
20	1.56	1.89	2.28	2.77	3.37	4.12	-	-	_
30	1.25	1.52	1.84	2.20	2.63	3.15	3.79	4.57	
35	1.09	1.35	1.63	1.95	2.32	2.76	3.28	3.92	_
40	0.95	1.19	1.44	1.72	2.04	2.41	2.85	3.37	_
45	0.80	1.19	1.44	1.72	1.78	2.41	2.47	2.90	-
50	-	0.88	1.09	1.31	1.76	1.82	2.47	2.50	-
			0.93	1.12	1.33	1.82			
55	-	-				1	1.84	2.15	-
60	-	-	-	0.95	1.14	1.34	1.58	1.85	-

### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 428	W	
Power input	2 486	W	
Current consumption	3.62	Α	
Mass flow	137	kg/h	
C.O.P.	1.78		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, EN 12900 rating conditions, Superheat = 10 K

## **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling consell	by in W								
Cooling capacit		2.940	2 901	4.050	6 319	7.027			
	2 072	2 849	3 801	4 950	6 318	7 927	- 0.077	-	
30	1 621	2 342	3 216	4 264	5 509	6 972	8 677	10 646	-
35	1 384	2 068	2 893	3 882	5 056	6 438	8 051	9 915	-
40	1 143	1 784	2 556	3 479	4 577	5 872	7 385	9 140	-
45	905	1 497	2 208	3 060	4 076	5 277	6 686	8 325	-
50	672	1 209	1 855	2 630	3 557	4 659	5 957	7 475	-
55	-	926	1 499	2 191	3 024	4 021	5 203	6 592	-
60	-	-	1 146	1 749	2 482	3 367	4 427	5 683	-
Power input in \	w								
20	1 515	1 716	1 884	2 017	2 111	2 162	-	-	-
30	1 516	1 783	2 022	2 229	2 400	2 533	2 622	2 665	-
35	1 490	1 792	2 067	2 312	2 523	2 697	2 829	2 918	-
40	1 442	1 779	2 091	2 374	2 626	2 841	3 018	3 152	-
45	1 368	1 741	2 090	2 413	2 705	2 963	3 184	3 364	-
50	1 265	1 674	2 061	2 423	2 757	3 058	3 324	3 551	-
55	-	1 573	1 999	2 401	2 777	3 122	3 434	3 708	-
60	-	-	1 901	2 344	2 763	3 152	3 510	3 833	-
					•	•		•	
Current consum	nption in A								
20	2.30	2.66	2.98	3.26	3.50	3.68	-	-	-
30	2.35	2.72	3.06	3.37	3.63	3.85	4.01	4.12	-
35	2.36	2.75	3.11	3.44	3.73	3.97	4.17	4.31	-
40	2.33	2.75	3.14	3.50	3.83	4.11	4.34	4.53	-
45	2.27	2.72	3.14	3.54	3.91	4.24	4.52	4.75	-
50	2.14	2.64	3.11	3.55	3.97	4.35	4.69	4.98	-
55	-	2.49	3.02	3.52	3.99	4.43	4.83	5.18	-
60	-	-	2.86	3.42	3.96	4.47	4.94	5.36	-
Mass flow in kg				1		1		1	
20	57	78	101	129	161	197	-	-	-
30	51	72	96	125	157	194	236	285	-
35	47	68	93	121	154	191	234	282	-
40	42	64	88	117	150	187	230	278	-
45	36	58	83	112	144	182	225	273	-
50	30	52	77	106	138	176	218	267	-
55	-	45	70	98	131	168	211	259	-
60	-	-	62	90	123	160	202	250	-
Coefficient of p	erformance (C.C	D.P.)							
20	1.37	1.66	2.02	2.45	2.99	3.67	-	-	-
30	1.07	1.31	1.59	1.91	2.29	2.75	3.31	3.99	-
35	0.93	1.15	1.40	1.68	2.00	2.39	2.85	3.40	-
40	0.79	1.00	1.22	1.47	1.74	2.07	2.45	2.90	-
45	0.66	0.86	1.06	1.27	1.51	1.78	2.10	2.47	-
50	0.53	0.72	0.90	1.09	1.29	1.52	1.79	2.10	-
55	-	0.59	0.75	0.91	1.09	1.29	1.52	1.78	-
60	-	-	0.60	0.75	0.90	1.07	1.26	1.48	-

	a. pooaoo ao	 		
Coo	oling capacity	4 076	W	
Pow	ver input	2 705	W	
Cur	rent consumption	3.91	Α	
Mas	ss flow	144	kg/h	
C.O	.P.	1.51		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

## Sound power data

Į.				_
	With accoustic hood	0	dB(A)	
	Sound power level	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

## **R404A**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Caalian aanaaite									
Cooling capacity	2 269	3 113	4 145	5 388	6 865	8 599			
20							- 0.500	-	-
30	1 805	2 600	3 561	4 710	6 071	7 667	9 523	11 660	-
35	1 557	2 319	3 235	4 328	5 623	7 142	8 909	10 948	-
40	1 303	2 027	2 892	3 924	5 146	6 583	8 257	10 192	-
45	1 049	1 727	2 537	3 502	4 646	5 995	7 570	9 397	-
50	-	1 424	2 172	3 065	4 127	5 383	6 855	8 570	-
55	-	-	1 804	2 620	3 595	4 754	6 120	7 719	-
60	-	-	-	2 171	3 057	4 117	5 377	6 860	-
Power input in V	v								
20	1 515	1 716	1 884	2 017	2 111	2 162	-	-	-
30	1 516	1 783	2 022	2 229	2 400	2 533	2 622	2 665	-
35	1 490	1 792	2 067	2 312	2 523	2 697	2 829	2 918	-
40	1 442	1 779	2 091	2 374	2 626	2 841	3 018	3 152	-
45	1 368	1 741	2 090	2 413	2 705	2 963	3 184	3 364	-
50	-	1 674	2 061	2 423	2 757	3 058	3 324	3 551	-
55	<u> </u>	-	1 999	2 401	2 777	3 122	3 434	3 708	-
60	-	-	-	2 344	2 763	3 152	3 510	3 833	-
20 Current consum		2.66	2.98	3.26	3 50	3.68	T	<u> </u>	
	2.30				3.50		- 4.04	4.40	-
30 35	2.35	2.72 2.75	3.06	3.37	3.63 3.73	3.85 3.97	4.01	4.12	-
			3.11	3.44			4.17	4.31	
40	2.33	2.75	3.14	3.50	3.83	4.11	4.34	4.53	
45	2.27	2.72	3.14	3.54	3.91	4.24	4.52	4.75	-
50	-	2.64	3.11	3.55	3.97	4.35	4.69	4.98	
55 60	-	-	3.02	3.52 3.42	3.99 3.96	4.43 4.47	4.83 4.94	5.18 5.36	-
00	<u>-</u>		_	3.42	3.90	7.77	4.54	3.30	
Mass flow in kg/	/h							<del>.</del>	
20	57	77	101	128	160	196	-	-	-
30	51	72	96	124	156	193	235	283	-
35	47	68	92	120	153	190	232	280	-
40	42	63	88	116	149	186	228	276	-
45	36	58	83	111	144	181	223	271	-
50	-	52	76	105	138	175	217	265	-
55	-	-	69	98	130	167	210	257	-
60	-	-	-	90	122	159	201	249	-
Coefficient of pe	erformance (C.C	) P )							
20	1.50	1.81	2.20	2.67	3.25	3.98	_	_	_
30	1.19	1.46	1.76	2.11	2.53	3.98	3.63	4.37	
35	1.19	1.46	1.76	1.87	2.53	2.65	3.03	3.75	<u> </u>
JJ	0.90	1.14	1.38	1.65	1.96	2.05	2.74	3.75	
		1.14		1.05	1.72	2.32	2.74	2.79	<u> </u>
40		0.00			1./4	2.02	2.30	4.19	-
40 45	0.77	0.99	1.21	+			2.06	2 //1	
40		0.99 0.85	1.21 1.05 0.90	1.27	1.50 1.29	1.76 1.52	2.06 1.78	2.41 2.08	-

### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 646	W	
Power input	2 705	W	
Current consumption	3.91	Α	
Mass flow	144	kg/h	
C.O.P.	1.72		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, EN 12900 rating conditions, Superheat = 10 K

## **R404A**

Cond. temp. in	emp. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	v in W								
20	2 141	2 969	3 983	5 204	6 655	8 360	_	_	_
30	1 654	2 419	3 346	4 457	5 775	7 322	9 123	11 199	
35	1 401	2 126	3 000	4 047	5 289	6 749	8 450	10 415	_
40	1 148	1 826	2 642	3 619	4 779	6 146	7 742	9 590	-
45	898	1 524	2 276	3 177	4 249	5 516	7 001	8 726	
50	656	1 224	1 906	2 725	3 703	4 865	6 233	7 828	-
55	-	930	1 536	2 267		4 196	5 440		-
60	-	- 930	1 170	1 807	3 146 2 581	3 514	4 629	6 901 5 949	-
60	-	-	1 170	1 607	2 50 1	3 5 1 4	4 629	5 949	-
Power input in	w								
20	1 633	1 860	2 049	2 198	2 304	2 362	-	-	
30	1 625	1 928	2 198	2 431	2 625	2 775	2 879	2 933	-
35	1 587	1 929	2 240	2 516	2 754	2 950	3 102	3 206	-
40	1 523	1 904	2 256	2 575	2 858	3 101	3 301	3 455	-
45	1 430	1 851	2 244	2 606	2 933	3 223	3 473	3 677	-
50	1 304	1 765	2 200	2 605	2 978	3 316	3 614	3 869	-
55	-	1 645	2 122	2 571	2 990	3 374	3 722	4 029	
60	-	-	2 006	2 500	2 964	3 397	3 794	4 152	-
		•	•	•	•	•	•	•	
20	nption in A 2.56	2.97	3.34	3.67	3.95	4.17	_	_	_
30	2.49	2.91	3.29	3.64	3.94	4.17	4.39	4.53	_
35	2.49	2.91	3.32	3.69	4.02	4.20	4.53		-
40	2.45	2.91	3.35	3.75	4.02	4.43	4.55	4.70 4.92	-
	2.43	2.88	3.35	3.80	4.11	4.43	4.71		-
45 50	2.36	2.79	3.31	3.81	4.21	4.70	5.08	5.16 5.41	-
55	-	2.62	3.20	3.76	4.28	4.77	5.22	5.62	-
60	-	-	3.00	3.62	4.22	4.79	5.31	5.80	-
Mass flow in kg	/h								
20	59	81	106	135	169	208	-	-	-
30	52	74	100	130	164	204	249	299	-
35	47	70	96	126	161	200	245	296	1
40	42	65	91	122	156	196	241	292	-
45	36	59	86	116	151	190	235	286	1
50	29	53	79	109	144	184	228	279	-
55	-	45	71	102	136	176	221	271	-
60	-	-	63	93	128	167	211	262	-
Coefficient of p	erformance (C.O	).P.)							
20	1.31	1.60	1.94	2.37	2.89	3.54	-	_	-
30	1.02	1.25	1.52	1.83	2.20	2.64	3.17	3.82	-
35	0.88	1.10	1.34	1.61	1.92	2.29	2.72	3.25	-
40	0.75	0.96	1.17	1.41	1.67	1.98	2.35	2.78	-
45	0.63	0.82	1.01	1.22	1.45	1.71	2.02	2.37	-
50	0.50	0.69	0.87	1.05	1.24	1.47	1.72	2.02	-
		1					•		
55	-	0.57	0.72	0.88	1.05	1.24	1.46	1.71	-

### Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	4 249	W	
Power input	2 933	W	
Current consumption	4.21	Α	
Mass flow	151	kg/h	
C.O.P.	1.45		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

# **R404A**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
)	. : \A/	•	•	•	•	•	•	· '	
Cooling capacity		2 244	4.242	5.004	7 000	0.000	1		
20	2 344	3 244	4 343	5 664	7 232	9 069	-	-	-
30	1 841	2 685	3 705	4 923	6 364	8 052	10 011	12 265	-
35	1 576	2 384	3 355	4 513	5 882	7 487	9 352	11 501	
40	1 308	2 074	2 990	4 082	5 374	6 890	8 655	10 693	-
45	1 041	1 758	2 614	3 635	4 844	6 266	7 927	9 849	-
50	-	1 441	2 232	3 176	4 297	5 621	7 172	8 975	-
55	-	-	1 848	2 710	3 739	4 961	6 400	8 081	-
60	-	-	-	2 244	3 179	4 296	5 622	7 181	-
Power input in V	v								
20	1 633	1 860	2 049	2 198	2 304	2 362	-	-	-
30	1 625	1 928	2 198	2 431	2 625	2 775	2 879	2 933	-
35	1 587	1 929	2 240	2 516	2 754	2 950	3 102	3 206	-
40	1 523	1 904	2 256	2 575	2 858	3 101	3 301	3 455	-
45	1 430	1 851	2 244	2 606	2 933	3 223	3 473	3 677	-
50	-	1 765	2 200	2 605	2 978	3 316	3 614	3 869	-
55	-	-	2 122	2 571	2 990	3 374	3 722	4 029	-
60	-	-	-	2 500	2 964	3 397	3 794	4 152	-
current consum	ption in A	1	1	1	,	1	1	, ,	
20	2.56	2.97	3.34	3.67	3.95	4.17	-	-	-
30	2.49	2.91	3.29	3.64	3.94	4.20	4.39	4.53	-
35	2.48	2.91	3.32	3.69	4.02	4.30	4.53	4.70	-
40	2.45	2.91	3.35	3.75	4.11	4.43	4.71	4.92	-
45	2.38	2.88	3.35	3.80	4.21	4.57	4.90	5.16	-
50	-	2.79	3.31	3.81	4.27	4.70	5.08	5.41	-
55	-	-	3.20	3.76	4.28	4.77	5.22	5.62	-
60	-	-	-	3.62	4.22	4.79	5.31	5.80	-
lace flow in kg	'h								
Mass flow in kg/	59	81	106	135	169	207	_	<u> </u>	
20 30	52	74	106 100	129	168 164	207	+	297	
		1	1			1	247	<del> </del>	
35 40	47	70 65	96 91	126 121	160 155	199 195	244 239	294 290	-
45	36	59	85	115	150	189	239	290	<u> </u>
50	-	52	79	109	143	182	234	277	-
55	-	- 52	79	109	136	175	219	269	-
60		-	-	93	127	166	219	260	
00				] 33	121	100		200	<u> </u>
Coefficient of pe	•	1		T	1		T	<del>, , , , , , , , , , , , , , , , , , , </del>	
20	1.44	1.74	2.12	2.58	3.14	3.84	-	-	-
30	1.13	1.39	1.69	2.02	2.42	2.90	3.48	4.18	-
35	0.99	1.24	1.50	1.79	2.14	2.54	3.01	3.59	-
40	0.86	1.09	1.33	1.59	1.88	2.22	2.62	3.09	-
45	0.73	0.95	1.17	1.39	1.65	1.94	2.28	2.68	-
50	-	0.82	1.01	1.22	1.44	1.70	1.98	2.32	-
55	-	-	0.87	1.05	1.25	1.47	1.72	2.01	-
60	-	-	-	0.90	1.07	1.26	1.48	1.73	-

## Nominal performance at to = -10 °C, tc = 45 °C

recinitial portormanos acto	0,			
Cooling capacity		4 844	W	
Power input		2 933	W	
Current consumption		4.21	Α	
Mass flow		150	kg/h	
C.O.P.		1.65		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, EN 12900 rating conditions, Superheat = 10 K

## **R404A**

ond. temp. in Evaporating temperature in °C (to)								
-30	-25	-20	-15	-10	-5	0	5	
v in W								
	3 093	4 157	E 451	6.096	9.796			_
					+			-
								-
								-
								-
		1				1		-
	1					1		-
-		1						-
-	-	1 186	1 855	2 667	3 644	4 811	6 190	-
N								
1 755	2 009	2 220	2 387	2 505	2 572	-	-	-
1 737	2 078	2 382	2 643	2 861	3 031	3 150	3 217	-
1 685	2 071		2 729	2 996		3 390	3 512	-
								-
		1						-
					+			-
-								-
								_
	1	2110	2 000	0 172	0 000	1 000	1 101	
ption in A								
2.85	3.31	3.74	4.12	4.45	4.72	-	-	-
2.63	3.10	3.53	3.92	4.27	4.56	4.80	4.97	-
2.60	3.08	3.53	3.95	4.32	4.64	4.91	5.12	
2.56	3.07			4.41		5.09		-
								-
								-
						ł		-
	1							-
		0	0.00		02	0	0.20	
/h			1	ı	1		,	
61	84	111	142	178	219	-	-	-
53	76	104	135	172	213	260	314	-
48	72	99	131	167	209	256	309	-
42	66	94	126	162	204	251	304	-
36	60	88	120	156	198	245	298	-
28	53	81	113	149	191	238	291	-
-	45	73	105	141	182	229	282	-
-	-	64	96	132	173	220	272	-
erformance (C.O	).P.)							
1.25	1.53	1.87	2.28	2.79	3.42	-	-	-
0.96	1.20	1.45	1.75	2.11	2.53	3.03	3.65	-
								-
								-
								-
0.39	0.79	0.83	1.00	1.19	1.41	1.66	1.94	
U. <del>+</del> 1	1		0.85	1.19	1.41	1.41	1.94	-
-	0.54	0.70						
	y in W  2 201 1 675 1 407 1 141 881 632  V  1 755 1 737 1 685 1 602 1 487 1 337	y in W  2 201	y in W  2 201	Section   Sect	30	yin W  2 201	yin W  2 201	yin W  2 201

#### Nominal performance at to = -10 °C, tc = 45 °C

		,			
(	Cooling capacity		4 404	W	
F	Power input		3 172	W	
(	Current consumption		4.51	Α	
1	Mass flow		156	kg/h	
(	C.O.P.		1.39		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

### Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, EN 12900 rating conditions, Suction temp. = 20 °C

## **R404A**

Cond. temp. in	temp. in Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	
Cooling capacit	v in W								
20	2 410	3 367	4 533	5 933	7 590	9 530	_	_	_
30	1 865	2 758	3 835	5 121	6 640	8 418	10 477	12 844	_
35	1 583	2 436	3 460	4 680	6 122	7 810	9 768	12 022	-
40	1 301	2 107	3 072	4 221	5 580	7 173	9 025	11 161	_
45	1 022	1 776	2 677	3 750	5 020	6 513	8 254	10 267	-
50	-	1 446	2 278	3 269	4 446	5 835	7 460	9 346	_
55		-	1 879	2 785	3 865	5 146	6 652	8 410	_
60	<u>-</u>	-	-	2 303	3 284	4 456	5 843	7 473	_
					0 20 .	1 .00	00.0		
Power input in \	N	T	1	T	ı	Т	T	T	1
20	1 755	2 009	2 220	2 387	2 505	2 572	-	-	-
30	1 737	2 078	2 382	2 643	2 861	3 031	3 150	3 217	-
35	1 685	2 071	2 420	2 729	2 996	3 217	3 390	3 512	-
40	1 602	2 032	2 427	2 784	3 100	3 373	3 599	3 776	-
45	1 487	1 960	2 401	2 806	3 172	3 496	3 775	4 007	-
50	-	1 855	2 341	2 793	3 209	3 584	3 917	4 204	-
55	-	-	2 245	2 745	3 210	3 636	4 022	4 364	-
60	-	-	-	2 658	3 172	3 650	4 090	4 487	-
Current consum	nption in A								
20	2.85	3.31	3.74	4.12	4.45	4.72	-	-	-
30	2.63	3.10	3.53	3.92	4.27	4.56	4.80	4.97	-
35	2.60	3.08	3.53	3.95	4.32	4.64	4.91	5.12	-
40	2.56	3.07	3.55	4.00	4.41	4.77	5.09	5.34	-
45	2.49	3.04	3.56	4.06	4.51	4.93	5.29	5.60	-
50	-	2.95	3.52	4.07	4.58	5.06	5.49	5.86	-
55	-	-	3.39	4.01	4.59	5.14	5.64	6.09	-
60	-	-	-	3.83	4.49	5.12	5.71	6.25	-
Mass flow in kg	/h								
20	61	84	110	141	177	217	_	_	_
30	52	76	103	135	171	212	259	311	-
35	47	71	99	130	166	208	254	307	-
40	42	66	93	125	161	203	249	302	-
45	35	60	87	119	155	196	243	296	-
50	-	52	80	112	148	189	236	289	_
55	<u>-</u>	-	72	104	140	181	228	280	_
60	-	-	-	95	131	172	218	271	-
					101	112	210	271	
	erformance (C.O	1	Т	T	Т		T	T	T
20	1.37	1.68	2.04	2.49	3.03	3.71	-	-	-
30	1.07	1.33	1.61	1.94	2.32	2.78	3.33	3.99	-
35	0.94	1.18	1.43	1.71	2.04	2.43	2.88	3.42	-
40	0.81	1.04	1.27	1.52	1.80	2.13	2.51	2.96	-
45	0.69	0.91	1.11	1.34	1.58	1.86	2.19	2.56	-
50	-	0.78	0.97	1.17	1.39	1.63	1.90	2.22	-
55	-	-	0.84	1.01	1.20	1.42	1.65	1.93	-
60	-	-	-	0.87	1.04	1.22	1.43	1.67	-

### Nominal performance at to = -10 °C, tc = 45 °C

Ī	Cooling capacity	5 020	W	
	Power input	3 172	W	
	Current consumption	4.51	Α	
	Mass flow	155	kg/h	
	C.O.P.	1.58		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	0.9	bar(g)

### Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
<u>,                                    </u>			· II.	1		1	U.	1	
ooling capacity			1	T	T	1	1	1	
20	1 779	2 031	2 614	3 315	4 145	-	-	-	-
30	1 461	1 686	2 203	2 823	3 559	4 423	5 429	-	-
40	1 146	1 342	1 794	2 335	2 977	3 733	4 617	5 640	-
45	-	1 174	1 593	2 093	2 689	3 391	4 213	5 169	-
50	-	-	1 394	1 855	2 403	3 052	3 813	4 701	-
55	-	-	1 199	1 620	2 122	2 717	3 417	4 237	-
60	-	-	-	1 390	1 845	2 386	3 026	3 777	-
65	-	-	-	-	1 573	2 060	2 639	3 323	-
ower input in V	v								
20	662	685	714	725	718	_	-	_	_
30	734	774	839	885	914	928	928	-	
40	763	823	928	1 013	1 081	1 134	1 173	1 201	<u>-</u>
45	-	833	959	1 065	1 155	1 229	1 289	1 337	
50		-	981	1 110	1 222	1 317	1 400	1 470	
55		_	995	1 148	1 282	1 401	1 506	1 599	
60		-	-	1 178	1 337	1 480	1 609	1 726	
65		-	_	-	1 385	1 553	1 707	1 849	_
00				<u> </u>	1 303	1 333	1707	1 049	
urrent consum	ption in A								
20	1.27	1.33	1.45	1.54	1.60	-	_	_	_
30	1.37	1.44	1.56	1.65	1.72	1.77	1.80	_	_
40	1.44	1.52	1.68	1.80	1.91	1.99	2.05	2.10	-
45	-	1.54	1.72	1.88	2.01	2.12	2.21	2.28	_
50	-	-	1.75	1.94	2.11	2.25	2.37	2.48	_
55	_	-	1.75	1.99	2.20	2.38	2.55	2.69	_
60	-	-	-	2.01	2.27	2.51	2.72	2.91	_
65	-	-	-	-	2.32	2.61	2.88	3.13	_
		I.	1	L	-		1		
lass flow in kg/	h								
20	34	39	49	61	75	-	-	-	-
30	30	35	45	57	70	86	104	-	-
40	26	31	40	51	65	80	97	117	-
45	-	28	38	49	61	76	93	113	-
50	-	-	35	46	58	72	89	108	-
55	-	-	32	42	55	69	85	103	-
60	-	-	-	39	51	64	80	98	-
65	-	-	-	-	47	60	75	93	-
•		•	•	•	•	•	•	· "	
coefficient of pe	•		1	Γ	1	1	T	<del>, , , , , , , , , , , , , , , , , , , </del>	
20	2.69	2.97	3.66	4.57	5.77	-	-	-	-
30	1.99	2.18	2.63	3.19	3.89	4.77	5.85	-	-
40	1.50	1.63	1.93	2.30	2.75	3.29	3.93	4.70	-
45	-	1.41	1.66	1.96	2.33	2.76	3.27	3.87	-
50	-	-	1.42	1.67	1.97	2.32	2.72	3.20	-
55	-	-	1.20	1.41	1.65	1.94	2.27	2.65	-
60	-	-	-	1.18	1.38	1.61	1.88	2.19	-
65	-	_	-	-	1.14	1.33	1.55	1.80	_

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

	•• •	
Cooling capacity	3 052	W
Power input	1 317	W
Current consumption	2.25	Α
Mass flow	72	kg/h
C.O.P.	2.32	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)



## Inverter reciprocating compressors VTZ038-G

## Performance data at 35 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
*		•		•			•		
cooling capacity		1	T	1	T	1	1		
20	1 892	2 159	2 776	3 517	4 394	-	-	-	-
30	1 567	1 806	2 357	3 018	3 801	4 719	5 786	-	-
40	1 241	1 453	1 939	2 520	3 209	4 019	4 965	6 059	-
45	-	1 278	1 732	2 273	2 915	3 672	4 557	5 583	-
50	-	-	1 527	2 029	2 624	3 327	4 151	5 110	-
55	-	-	-	1 787	2 336	2 986	3 749	4 641	-
60	-	-	-	1 549	2 052	2 648	3 352	4 177	-
65	-	-	-	-	1 772	2 316	2 960	3 719	-
Power input in W	V								
20	662	685	714	725	718	-	_	-	-
30	734	774	839	885	914	928	928	-	-
40	763	823	928	1 013	1 081	1 134	1 173	1 201	-
45	-	833	959	1 065	1 155	1 229	1 289	1 337	-
50	-	-	981	1 110	1 222	1 317	1 400	1 470	-
55	-	-	-	1 148	1 282	1 401	1 506	1 599	-
60	_	-	-	1 178	1 337	1 480	1 609	1 726	_
65	_	-	_	-	1 385	1 553	1 707	1 849	_
00			l	I	1 000	1 000	1707	1010	
urrent consum	ption in A								
20	1.27	1.33	1.45	1.54	1.60	-	_	-	-
30	1.37	1.44	1.56	1.65	1.72	1.77	1.80	-	_
40	1.44	1.52	1.68	1.80	1.91	1.99	2.05	2.10	-
45	-	1.54	1.72	1.88	2.01	2.12	2.21	2.28	-
50	_	-	1.75	1.94	2.11	2.25	2.37	2.48	_
55	_	_	-	1.99	2.20	2.38	2.55	2.69	_
60	_	_	-	2.01	2.27	2.51	2.72	2.91	-
65	-	_	-	-	2.32	2.61	2.88	3.13	-
		l	l	1					
/lass flow in kg/l	h								
20	34	38	49	61	75	-	_	-	-
30	30	35	45	56	70	86	104	-	-
40	26	30	40	51	64	79	97	116	-
45	-	28	37	48	61	76	93	112	-
50	-	-	35	45	58	72	89	107	-
55	-	-	-	42	54	68	84	103	-
60	_	-	-	39	50	64	80	98	_
65	_	-	_	-	47	60	75	92	_
- 55		1	1	1				, ,,	
oefficient of pe	•	1	1	1	1	1	1	<del>, , , , , , , , , , , , , , , , , , , </del>	
20	2.86	3.15	3.89	4.85	6.12	-	-	-	-
30	2.13	2.33	2.81	3.41	4.16	5.09	6.23	-	-
40	1.63	1.77	2.09	2.49	2.97	3.54	4.23	5.04	-
45	-	1.54	1.81	2.13	2.52	2.99	3.54	4.17	-
50	-	-	1.56	1.83	2.15	2.53	2.97	3.48	-
55	-	-	-	1.56	1.82	2.13	2.49	2.90	-
60	-	-	-	1.32	1.54	1.79	2.08	2.42	-
65	-	-	-	-	1.28	1.49	1.73	2.01	-
ominal perform	nance at to = 7.	2 °C, tc = 54.4 °C	10/		-	Pressure switch		20.4	h = =/=)

Cooling capacity	3 351	W	
Power input	1 438	W	
Current consumption	2.44	Α	
Mass flow	75	kg/h	
C.O.P.	2.33		

to: Evaporating temperature at dew point

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

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

Į.				_
	With accoustic hood	0	dB(A)	
	Sound power level	0	dB(A)	

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling canacity	in W								
Cooling capacity 20	1 964	2 253	2 928	3 747	4 726	_	_	-	_
30	1 630	1 885	2 479	3 197	4 055	5 069	6 255	-	
								†	
40	1 301	1 526	2 044	2 667	3 410	4 290	5 322	6 522	-
45	-	1 347	1 830	2 408	3 096	3 910	4 868	5 983	-
50	-	-	1 618	2 151	2 785	3 536	4 420	5 452	-
55	-	-	1 406	1 897	2 479	3 167	3 979	4 929	-
60	-	-	-	1 644	2 175	2 803	3 544	4 414	-
65	-	-	-	-	1 873	2 442	3 113	3 904	-
Power input in W	1								
20	735	760	796	812	812	-	-	-	-
30	814	857	926	977	1 010	1 028	1 032	-	-
40	856	918	1 028	1 118	1 190	1 246	1 287	1 316	-
45	-	935	1 067	1 179	1 272	1 349	1 411	1 460	-
50	-	-	1 097	1 232	1 348	1 447	1 531	1 602	-
55	-	-	1 118	1 277	1 417	1 540	1 648	1 742	-
60	=	-	-	1 314	1 480	1 628	1 760	1 879	-
65	-	-	-	-	1 535	1 709	1 868	2 012	-
Current consump	otion in A				1				
20	1.36	1.42	1.52	1.60	1.66	-	-	-	-
30	1.48	1.55	1.66	1.76	1.83	1.88	1.91	-	-
40	1.56	1.65	1.82	1.95	2.06	2.15	2.21	2.25	-
45	-	1.68	1.88	2.04	2.19	2.30	2.38	2.45	-
50	-	-	1.92	2.12	2.30	2.45	2.57	2.66	-
55	-	-	1.93	2.18	2.41	2.60	2.75	2.88	-
60	-	-	-	2.22	2.49	2.73	2.93	3.11	-
65	-	-	-	-	2.55	2.84	3.10	3.32	-
Mass flow in kg/h		T		T			1	1	
20	38	43	55	69	86	-	-	-	-
30	34	39	51	64	80	99	120	-	-
40	30	35	46	59	74	92	112	135	-
45	-	32	43	56	71	88	108	130	-
50	-	-	41	53	67	84	103	125	-
55	-	-	38	50	64	80	99	120	-
60	-	-	-	46	60	76	94	115	-
65	-	-	-	-	56	71	89	109	-
Coefficient of per	formance (C.C	).P.)							
20	2.67	2.96	3.68	4.61	5.82	-	-	-	-
30	2.00	2.20	2.68	3.27	4.01	4.93	6.06	-	-
40	1.52	1.66	1.99	2.38	2.87	3.44	4.13	4.96	-
45	-	1.44	1.71	2.04	2.43	2.90	3.45	4.10	-
50	-	-	1.47	1.75	2.07	2.44	2.89	3.40	-
55	-	-	1.26	1.49	1.75	2.06	2.41	2.83	_
60	-	_	-	1.25	1.47	1.72	2.01	2.35	_
		-	-	-	1.22	1.43	1.67	1.94	

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

Cooling capacity	3 536	W	
Power input	1 447	W	
Current consumption	2.45	Α	
Mass flow	84	kg/h	
C.O.P.	2.44		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 40 Hz, ARI rating conditions

# **R407C**

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
0 11	. ! \								
Cooling capacity		2 205	2 110	2.076	F 010	1	1		
20	2 089	2 395	3 110	3 976	5 010	- 5 400	-	-	-
30	1 747	2 019	2 653	3 418	4 331	5 408	6 666	7,000	-
40	1 409	1 651	2 209	2 879	3 676	4 619	5 724	7 006	-
45	-	1 468	1 990	2 614	3 357	4 234	5 264	6 462	-
50	-	-	1 772	2 352	3 041	3 855	4 812	5 927	-
55	-	-	-	2 092	2 729	3 481	4 366	5 400	-
60	-	-	-	1 833	2 419	3 111	3 926	4 881	-
65	-	-	-	-	2 111	2 745	3 492	4 370	-
Power input in V	V								
20	735	760	796	812	812	-	-	-	-
30	814	857	926	977	1 010	1 028	1 032	-	-
40	856	918	1 028	1 118	1 190	1 246	1 287	1 316	-
45	-	935	1 067	1 179	1 272	1 349	1 411	1 460	-
50	-	-	1 097	1 232	1 348	1 447	1 531	1 602	-
55	-	-	-	1 277	1 417	1 540	1 648	1 742	-
60	-	-	-	1 314	1 480	1 628	1 760	1 879	-
65	-	-	-	-	1 535	1 709	1 868	2 012	-
Current consum		1.40	4.50	1.00	4.00	1			
20	1.36	1.42	1.52	1.60	1.66	-	-	-	-
30	1.48	1.55	1.66	1.76	1.83	1.88	1.91	-	-
40	1.56	1.65	1.82	1.95	2.06	2.15	2.21	2.25	-
45	-	1.68	1.88	2.04	2.19	2.30	2.38	2.45	-
50	-	-	1.92	2.12	2.30	2.45	2.57	2.66	-
55	-	-	-	2.18	2.41	2.60	2.75	2.88	-
60	-	-	-	2.22	2.49	2.73	2.93	3.11	-
65	-	-	-	-	2.55	2.84	3.10	3.32	-
Mass flow in kg/	h								
20	37	43	55	69	86	-	-	-	-
30	34	39	50	64	80	98	120	-	-
40	30	35	46	58	74	91	111	134	-
45	-	32	43	56	70	87	107	130	-
50	-	-	40	53	67	83	103	125	-
55	-	-	-	49	63	79	98	119	-
60	-	-	-	46	60	75	93	114	-
65	-	-	-	-	55	71	88	108	-
Coefficient of pe	rformance (C C	) D )							
20	2.84	3.15	3.91	4.90	6.17	-	_	_	_
30	2.04	2.36	2.86	3.50	4.29	5.26	6.46	-	-
40	1.65	1.80	2.00	2.57	3.09	3.71	4.45	5.32	
45	-	1.57	1.86	2.22	2.64	3.14	3.73	4.43	
50	-	-	1.62	1.91	2.04	2.66	3.73	3.70	-
				1.91			2.65	1	
55 60	-	-	-		1.93	2.26 1.91	2.65	3.10	-
	-	-	-	1.39	1.63			2.60	-
65	-	-	-	-	1.38	1.61	1.87	2.17	-

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

rioniniai portormanos at to	0,	U-1		
Cooling capacity		3 901	W	
Power input		1 577	W	
Current consumption		2.65	Α	
Mass flow		88	kg/h	
C.O.P.		2.47		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Saaling aanaaitu	in M								
20 20	2 154	2 478	3 240	4 172	5 291	_	_		
30	1 800	2 086	2 754	3 567	4 544	5 703	7 064	-	
40	1 454	1 707	2 290	2 994	3 837	4 838	6 017	<del>                                     </del>	
	1 404							7 392	
45		1 518	2 062	2 715	3 495	4 421	5 512	6 787	-
50	-	-	1 835	2 439	3 158	4 010	5 016	6 195	-
55	-	-	1 606	2 163	2 824	3 606	4 529	5 613	-
60	-	-	-	1 888	2 492	3 206	4 049	5 040	-
65	-	-	-	-	2 160	2 808	3 573	4 474	-
ower input in W	ı	_		_					
20	812	841	884	909	917	-	-	-	-
30	898	944	1 021	1 079	1 120	1 144	1 153	-	-
40	951	1 017	1 135	1 233	1 312	1 374	1 421	1 454	-
45	-	1 040	1 181	1 301	1 401	1 485	1 553	1 606	_
50	-	-	1 217	1 361	1 485	1 592	1 682	1 757	-
55	-	-	1 244	1 413	1 562	1 693	1 808	1 907	-
60	-	-	-	1 456	1 632	1 789	1 929	2 054	-
65	-	-	-	-	1 693	1 877	2 045	2 196	-
Current consump			T			T	1		
20	1.47	1.52	1.61	1.69	1.75	-	-	-	-
30	1.59	1.66	1.79	1.89	1.97	2.02	2.06	-	-
40	1.69	1.79	1.97	2.12	2.24	2.33	2.40	2.44	-
45	-	1.82	2.04	2.22	2.38	2.50	2.60	2.66	-
50	-	-	2.09	2.32	2.51	2.67	2.79	2.88	-
55	-	-	2.12	2.39	2.63	2.83	2.99	3.12	-
60	-	-	-	2.43	2.72	2.97	3.18	3.34	-
65	-	-	-	-	2.78	3.09	3.34	3.56	-
Mass flow in kg/l	n								
20	41	47	61	77	96	-	-	-	_
30	38	43	56	72	90	111	136	-	-
40	33	39	51	66	83	103	126	153	-
45	-	37	49	63	80	99	122	148	-
50	-	-	46	60	76	95	117	142	-
55	-	-	43	57	73	91	112	137	-
60	-	-	-	53	69	87	107	131	-
65	-	-	-	-	64	82	102	125	-
Soufficient of man	ufoumor (C.C	<b>, D</b> )							
20 20	2.65	2.95	3.66	4.59	5.77	_	_	_	_
30	2.00	2.93	2.70	3.30	4.06	4.99	6.12	-	
40	1.53	1.68	2.70	2.43	2.92	3.52	4.24	5.09	
	-			2.43		2.98		1	
45		1.46	1.75		2.49		3.55	4.23	
50	-	-	1.51	1.79	2.13	2.52	2.98	3.52	-
55	-	-	1.29	1.53	1.81	2.13	2.51	2.94	-
60	-	-	-	1.30	1.53	1.79	2.10	2.45	-
65	-	-	-	-	1.28	1.50	1.75	2.04	-

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

	•• •	
Cooling capacity	4 010	W
Power input	1 592	W
Current consumption	2.67	Α
Mass flow	95	kg/h
C.O.P.	2.52	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 45 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling capacity				1		1	1	1	
20	2 290	2 634	3 441	4 427	5 609	-	-	-	-
30	1 929	2 235	2 948	3 813	4 852	6 084	7 529	-	-
40	1 575	1 847	2 475	3 232	4 136	5 209	6 471	7 941	-
45	-	1 653	2 243	2 948	3 789	4 787	5 961	7 331	-
50	-	-	2 010	2 667	3 448	4 372	5 461	6 734	-
55	-	-	-	2 386	3 109	3 963	4 970	6 148	-
60	-	-	-	2 104	2 772	3 559	4 485	5 573	-
65	-	-	-	-	2 434	3 157	4 007	5 007	-
Power input in W	v								
20	812	841	884	909	917	_	_	_	-
30	898	944	1 021	1 079	1 120	1 144	1 153	_	
40	951	1 017	1 135	1 233	1 312	1 374	1 421	1 454	_
45	-	1 040	1 181	1 301	1 401	1 485	1 553	1 606	
50	-	-	1 217	1 361	1 485	1 592	1 682	1 757	
55		-	-	1 413	1 562	1 693	1 808	1 907	
60	-	-	-	1 456	1 632	1 789	1 929	2 054	
65	<u> </u>	-	-	-	1 693	1 877	2 045	2 196	-
υυ	-	<u> </u>		<u> </u>	1 093	10//	2 U43	2 190	
urrent consum	ption in A								
20	1.47	1.52	1.61	1.69	1.75	_	-	_	-
30	1.59	1.66	1.79	1.89	1.97	2.02	2.06	_	_
40	1.69	1.79	1.97	2.12	2.24	2.33	2.40	2.44	_
45	_	1.82	2.04	2.22	2.38	2.50	2.60	2.66	_
50	-	-	2.09	2.32	2.51	2.67	2.79	2.88	_
55	_	_	-	2.39	2.63	2.83	2.99	3.12	
60	_	_	_	2.43	2.72	2.97	3.18	3.34	-
65		-	-	-	2.78	3.09	3.34	3.56	_
00			ı		2.70	0.00	0.01	0.00	
Mass flow in kg/l	h								
20	41	47	60	77	96	_	-	_	_
30	37	43	56	71	89	110	135	-	_
40	33	39	51	66	83	103	126	152	-
45	-	36	49	63	79	99	121	147	
50		-	46	60	76	95	116	142	
55	<u>-</u>	-	-	56	72	90	112	136	
60		-	-	53	68	86	107	130	
65		-	_	-	64	81	107	124	
00	-		<u> </u>		J-7	J 01	101	127	
Coefficient of pe	,	· ·	1		1	1	-	<del>                                     </del>	
20	2.82	3.13	3.89	4.87	6.12	-	-	-	-
30	2.15	2.37	2.89	3.53	4.33	5.32	6.53	-	-
40	1.66	1.82	2.18	2.62	3.15	3.79	4.55	5.46	-
45	-	1.59	1.90	2.27	2.70	3.22	3.84	4.56	-
50	-	-	1.65	1.96	2.32	2.75	3.25	3.83	-
55	-	-	-	1.69	1.99	2.34	2.75	3.22	-
60	-	-	-	1.44	1.70	1.99	2.33	2.71	-
65	-	-	-	-	1.44	1.68	1.96	2.28	-
lominal perform	nance at to = 7.2	2 °C, tc = 54.4 °C	14/	_	F	Pressure switch			
		4 420	14/			Marriagona IID accid		20.4	h = =/=-\

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 = 11.1 K , Subcooling = 8.3 K

4 439

1 732

2.88

100

2.56

W

W

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

	Sound	power	data
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Sound power level	0	dB(A)
With accoustic hood	0	dB(A)



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
		Ш		1			•		
ooling capacity		1	1	T	T	1		1	
20	2 347	2 705	3 551	4 589	5 843	-	-	-	-
30	1 973	2 289	3 029	3 933	5 024	6 324	7 856	-	-
40	1 606	1 886	2 534	3 316	4 256	5 377	6 701	8 251	-
45	-	1 684	2 290	3 016	3 885	4 921	6 146	7 582	-
50	-	-	2 045	2 718	3 520	4 474	5 603	6 928	-
55	-	-	1 797	2 420	3 158	4 033	5 069	6 287	-
60	-	-	-	2 120	2 796	3 596	4 541	5 655	-
65	-	-	-	-	2 433	3 160	4 019	5 031	-
Power input in V	v								
20	893	927	980	1 015	1 032	-	_		
30	985	1 037	1 124	1 192	1 242	1 276	1 293	-	
40	1 048	1 120		1 357	1 446		1 574	1 614	
	- 1 048		1 248 1 299	1 431	1 543	1 518	1 714		-
45 50	<u> </u>	1 148	1 342	1 497		1 637 1 751	1 851	1 775 1 935	<u> </u>
55				1	1 633				<u> </u>
60	-	-	1 374	1 555 1 604	1 717 1 793	1 860 1 963	1 985	2 094	<u> </u>
	-	-	-	1 604			2 115	2 250	
65	-	-	-	_	1 859	2 057	2 238	2 401	-
Current concum	ntion in A								
Current consum		1.62	1.70	1.00	1.07	_			
20	1.58	1.63	1.72	1.80	1.87		- 2.24	-	
30	1.72	1.79	1.93	2.04	2.13	2.20	2.24	-	-
40	1.82	1.93	2.13	2.30	2.44	2.55	2.63	2.68	-
45	-	1.97	2.21	2.42	2.59	2.73	2.84	2.91	-
50	-	-	2.27	2.52	2.74	2.91	3.05	3.15	-
55	-	-	2.30	2.60	2.86	3.08	3.25	3.39	-
60	-	-	-	2.66	2.96	3.23	3.45	3.62	-
65	-	-	-	-	3.04	3.35	3.62	3.84	-
Mass flow in kg/	h								
20	45	51	67	85	106	_	_	_	_
30	41	47	62	79	99	123	151	_	-
40	37	43	57	73	92	115	141	171	_
45	-	41	54	70	89	111	136	165	-
50	-	-	51	67	85	106	131	159	-
55	_	-	48	63	81	102	126	153	_
60	_	-	-	60	77	97	120	147	_
65	_	_	-	-	72	92	115	141	_
•		· L	1	1					
Coefficient of pe	•	1	1	T	T	1		, ,	
20	2.63	2.92	3.62	4.52	5.66	-	-	-	-
30	2.00	2.21	2.70	3.30	4.04	4.96	6.07	-	-
40	1.53	1.68	2.03	2.44	2.94	3.54	4.26	5.11	-
45	-	1.47	1.76	2.11	2.52	3.01	3.59	4.27	-
50	-	-	1.52	1.82	2.16	2.56	3.03	3.58	-
55	-	-	1.31	1.56	1.84	2.17	2.55	3.00	-
60	-	-	-	1.32	1.56	1.83	2.15	2.51	-
65	-	-	-	-	1.31	1.54	1.80	2.10	-

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

Cooling capacity	4 474	W	
Power input	1 751	W	
Current consumption	2.91	Α	
Mass flow	106	kg/h	
C.O.P.	2.56		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 50 Hz, ARI rating conditions

# **R407C**

Cocling capacity in W	Cond. temp. in				Evapora	ating temperature	in °C (to)			
20	°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
20										
30			1	T					1	
							+	<u> </u>	1	
45									+	-
Section   Sect										
		-			1				<del> </del>	-
60		-	-	2 240						-
Power Input in W   Power Input		-	-	-	1					-
Power input in W  20 893 927 960 1015 1032		-	-	-	2 363	3 110			6 254	-
20	65	-	-	-	-	2 742	3 552	4 507	5 631	-
20	Power input in V	v								
30			927	980	1 015	1 032	_	_	_	-
40								1	1	
45									1 614	
So				1					1	
S55   -   -   -     1555   1717   1860   1985   2094   -			1						1	
Control of the cont				1	1					
Current consumption in A  20						•		•	1	
Surrent consumption in A					1				<del> </del>	
20	00			I.	I	1 000	2 007	2 200	2 101	
1.72	urrent consum	ption in A								
40	20	1.58	1.63	1.72	1.80	1.87	-	-	-	-
40	30	1.72	1.79	1.93	2.04	2.13	2.20	2.24	-	-
50 2.27	40	1.82	1.93	2.13	2.30	2.44	2.55	2.63	2.68	-
50 2.27	45	-	1.97	2.21	2.42	2.59	2.73	2.84	2.91	-
55		_	i e	2.27	1	1	2.91	3.05	1	-
60 2.66 2.96 3.23 3.45 3.62 - 65 3.04 3.35 3.62 3.84   Mass flow in kg/h  20 45 51 66 84 106		-	-							-
Mass flow in kg/h		-	-	_			1		<del> </del>	_
20         45         51         66         84         106         -<		-	-	-	-					-
20         45         51         66         84         106         -<				•	•	1	1	•		
30	Mass flow in kg/l	h								
40       37       43       57       73       92       114       140       170       -         45       -       40       54       70       88       110       135       164       -         50       -       -       -       51       66       85       106       130       158       -         55       -       -       -       63       81       101       125       152       -         60       -       -       -       59       76       96       120       146       -         65       -       -       -       -       72       92       114       140       -         66       -       -       -       -       72       92       114       140       -         65       -       -       -       -       72       92       114       140       -         20       2.80       3.10       3.85       4.80       6.00       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	20	45	51	66	84	106	-	-	-	-
45         -         40         54         70         88         110         135         164         -           50         -         -         51         66         85         106         130         158         -           55         -         -         -         63         81         101         125         152         -           60         -         -         -         59         76         96         120         146         -           65         -         -         -         -         72         92         114         140         -           20         2.80         3.10         3.85         4.80         6.00         - <td>30</td> <td>41</td> <td>47</td> <td>61</td> <td>78</td> <td>99</td> <td>122</td> <td>150</td> <td>-</td> <td>-</td>	30	41	47	61	78	99	122	150	-	-
50         -         -         51         66         85         106         130         158         -           55         -         -         -         63         81         101         125         152         -           60         -         -         -         59         76         96         120         146         -           65         -         -         -         -         72         92         114         140         -           20         2.80         3.10         3.85         4.80         6.00         -         -         -         -         -         -           30         2.15         2.37         2.88         3.53         4.32         5.29         6.47         -         -         -           40         1.66         1.82         2.19         2.64         3.17         3.81         4.58         5.49         -           45         -         1.60         1.92         2.29         2.73         3.26         3.88         4.61         -           50         -         -         -         1.67         1.99         2.35         2.79         3.29	40	37	43	57	73	92	114	140	170	-
55         -         -         -         63         81         101         125         152         -           60         -         -         -         59         76         96         120         146         -           65         -         -         -         -         72         92         114         140         -           20         2.80         3.10         3.85         4.80         6.00         -	45	=	40	54	70	88	110	135	164	-
60         -         -         -         59         76         96         120         146         -           65         -         -         -         -         72         92         114         140         -           Coefficient of performance (C.O.P.)           20         2.80         3.10         3.85         4.80         6.00         -	50	-	-	51	66	85	106	130	158	-
60         -         -         -         59         76         96         120         146         -           65         -         -         -         -         72         92         114         140         -           Coefficient of performance (C.O.P.)           20         2.80         3.10         3.85         4.80         6.00         -		-	-							-
65         -         -         -         -         72         92         114         140         -           Coefficient of performance (C.O.P.)           20         2.80         3.10         3.85         4.80         6.00         -         <		-								-
Coefficient of performance (C.O.P.)           20         2.80         3.10         3.85         4.80         6.00         - <td></td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>-</td>		-	-	-					1	-
20         2.80         3.10         3.85         4.80         6.00         -	•		•		•	•			· "	
30     2.15     2.37     2.88     3.53     4.32     5.29     6.47     -     -       40     1.66     1.82     2.19     2.64     3.17     3.81     4.58     5.49     -       45     -     1.60     1.92     2.29     2.73     3.26     3.88     4.61     -       50     -     -     1.67     1.99     2.35     2.79     3.29     3.89     -       55     -     -     -     1.72     2.02     2.38     2.80     3.29     -       60     -     -     1.47     1.73     2.03     2.38     2.78     -	· ·	•	1	0.05	4.00	0.00			<u> </u>	
40     1.66     1.82     2.19     2.64     3.17     3.81     4.58     5.49     -       45     -     1.60     1.92     2.29     2.73     3.26     3.88     4.61     -       50     -     -     1.67     1.99     2.35     2.79     3.29     3.89     -       55     -     -     -     1.72     2.02     2.38     2.80     3.29     -       60     -     -     -     1.47     1.73     2.03     2.38     2.78     -					1			1	<del> </del>	
45         -         1.60         1.92         2.29         2.73         3.26         3.88         4.61         -           50         -         -         1.67         1.99         2.35         2.79         3.29         3.89         -           55         -         -         -         1.72         2.02         2.38         2.80         3.29         -           60         -         -         -         1.47         1.73         2.03         2.38         2.78         -									<del> </del>	
50     -     -     1.67     1.99     2.35     2.79     3.29     3.89     -       55     -     -     -     1.72     2.02     2.38     2.80     3.29     -       60     -     -     -     1.47     1.73     2.03     2.38     2.78     -	-				+		1		<del> </del>	
55     -     -     -     1.72     2.02     2.38     2.80     3.29     -       60     -     -     -     1.47     1.73     2.03     2.38     2.78     -										
60 1.47 1.73 2.03 2.38 2.78 -		-	-	1.67					<del> </del>	-
		-	-	-						-
65 1.48 1.73 2.01 2.35 -		-	-	-	1.47		1			-
	65	-	-	-	-	1.48	1.73	2.01	2.35	-
Iominal performance at to = 7.2 °C, tc = 54.4 °C  Pressure switch settings	Parling apparit		4.004	14/		Г	Pressure switch		20.4	h = =/=\

Current consumption	
Mass flow	

Cooling capacity

Power input

C.O.P.

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

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

Sound	power	data
	P	

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

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W

W

4 964

1 903

3.14 112

2.61

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
			•	•		•	•		
ooling capacity		1	1	T		1	T	1	
20	2 545	2 935	3 859	4 998	6 379	-	-	-	-
30	2 148	2 493	3 303	4 296	5 497	6 933	8 631	-	-
40	1 757	2 064	2 773	3 633	4 669	5 907	7 375	9 098	-
45	-	1 847	2 511	3 310	4 268	5 413	6 771	8 368	-
50	-	-	2 248	2 988	3 873	4 927	6 179	7 653	-
55	-	-	1 980	2 666	3 480	4 448	5 596	6 952	-
60	-	-	-	2 341	3 087	3 972	5 021	6 260	-
65	-	-	-	-	2 692	3 497	4 450	5 577	-
Power input in V	v								
20	978	1 017	1 082	1 130	1 159	_	_	_	-
30	1 077	1 134	1 234	1 315	1 378	1 424	1 452	_	-
40	1 147	1 226	1 367	1 490	1 593	1 679	1 747	1 798	-
45	-	1 258	1 423	1 569	1 696	1 804	1 894	1 967	-
50	-	-	1 470	1 641	1 792	1 925	2 039	2 136	_
55	-	-	1 507	1 704	1 882	2 040	2 181	2 304	_
60	-	-	-	1 756	1 962	2 149	2 317	2 467	_
65	_	_	-	-	2 033	2 249	2 447	2 626	_
		L.	1	1	_ 500				
Current consum	ption in A								
20	1.70	1.75	1.85	1.94	2.02	-	_	_	_
30	1.85	1.93	2.08	2.21	2.32	2.41	2.47	_	-
40	1.97	2.08	2.30	2.49	2.66	2.79	2.89	2.95	_
45	-	2.13	2.39	2.62	2.82	2.99	3.11	3.20	_
50	_	-	2.46	2.74	2.98	3.18	3.33	3.45	_
55	_	-	2.50	2.83	3.11	3.35	3.55	3.70	_
60	_	_	-	2.88	3.22	3.51	3.75	3.94	-
65	-	-	-	-	3.30	3.64	3.93	4.16	-
		1	l	1		1			
Mass flow in kg/	h								
20	49	56	72	92	116	-	_	_	_
30	45	52	67	86	109	135	166	-	-
40	40	47	62	80	101	126	155	189	-
45	-	45	59	77	97	122	150	182	-
50	-	-	56	73	94	117	144	176	-
55	-	-	53	70	89	112	139	169	_
60	-	-	-	66	85	107	133	163	-
65	-	-	-	-	80	102	127	156	_
		1	1	1					
Coefficient of pe	rformance (C.C	D.P.)	_		1			,	
20	2.60	2.88	3.57	4.43	5.50	-	-	-	-
30	2.00	2.20	2.68	3.27	3.99	4.87	5.94	-	-
40	1.53	1.68	2.03	2.44	2.93	3.52	4.22	5.06	-
45	-	1.47	1.76	2.11	2.52	3.00	3.57	4.25	-
50	-	-	1.53	1.82	2.16	2.56	3.03	3.58	-
55	-	-	1.31	1.56	1.85	2.18	2.57	3.02	-
60	-	-	-	1.33	1.57	1.85	2.17	2.54	-
65	-	-	-	-	1.32	1.55	1.82	2.12	-

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

Cooling capacity	4 927	W	
Power input	1 925	W	
Current consumption	3.18	Α	
Mass flow	117	kg/h	
C.O.P.	2.56		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 55 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
<u>'</u>		1	U.	U.	.1	1	U.		
ooling capacity		T	1	1	T	1	1		
20	2 706	3 119	4 098	5 303	6 762	-	-	-	-
30	2 303	2 671	3 535	4 592	5 870	7 396	9 199	-	-
40	1 903	2 234	2 997	3 921	5 033	6 360	7 931	9 773	-
45	-	2 012	2 731	3 594	4 628	5 861	7 322	9 038	-
50	-	-	2 463	3 268	4 228	5 372	6 726	8 319	-
55	-	-	-	2 941	3 831	4 888	6 140	7 615	-
60	-	-	-	2 609	3 434	4 409	5 562	6 923	-
65	-	-	-	-	3 034	3 931	4 990	6 241	-
Power input in V	v								
20	978	1 017	1 082	1 130	1 159	_	-		_
30	1 077	1 134	1 234	1 315	1 378	1 424	1 452		_
40	1 147	1 226	1 367	1 490	1 593	1 679	1 747	1 798	_
45	-	1 258	1 423	1 569	1 696	1 804	1 894	1 967	
50	_	-	1 470	1 641	1 792	1 925	2 039	2 136	
55	_	_	-	1 704	1 882	2 040	2 181	2 304	
60		-	-	1 756	1 962	2 149	2 317	2 467	
65		_	-	-	2 033	2 249	2 447	2 626	
00	*	_	_	_	2 333	2 2 7 7	1 - 17/	2 020	
Current consum	ntion in A								
20	1.70	1.75	1.85	1.94	2.02	_	_		
30	1.85	1.93	2.08	2.21	2.32	2.41	2.47	_	_
40	1.97	2.08	2.30	2.49	2.66	2.79	2.89	2.95	_
45	-	2.13	2.39	2.62	2.82	2.99	3.11	3.20	_
50		-	2.46	2.74	2.98	3.18	3.33	3.45	
55	-	-	-	2.83	3.11	3.35	3.55	3.70	
60	_	_	_	2.88	3.22	3.51	3.75	3.94	_
65	_	-	_	-	3.30	3.64	3.93	4.16	_
00					0.00	0.01	0.00	1.10	
Mass flow in kg/	h								
20	48	56	72	92	116	_	_	_	-
30	45	51	67	86	108	134	165	_	_
40	40	47	62	80	101	125	154	188	_
45	-	44	59	76	97	121	149	181	_
50	_	-	56	73	93	116	143	175	_
55	_	-	-	69	89	112	138	168	
60		-	-	65	84	107	132	162	
65		_	-	-	80	101	126	155	
00	*	_	_	_	1 30	.01	1 .20	.55	
Coefficient of pe	erformance (C.C	).P.)							
20	2.77	3.07	3.79	4.70	5.83	-	-	-	-
30	2.14	2.36	2.86	3.49	4.26	5.20	6.33	-	-
40	1.66	1.82	2.19	2.63	3.16	3.79	4.54	5.44	-
45	-	1.60	1.92	2.29	2.73	3.25	3.87	4.59	-
50	_	-	1.67	1.99	2.36	2.79	3.30	3.89	-
55	-	-	-	1.73	2.04	2.40	2.82	3.31	-
60	_	-	_	1.49	1.75	2.05	2.40	2.81	
~~	_	_	_	-	1.49	1.75	2.04	2.38	

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

Cooling capacity	5 476	W	
Power input	2 089	W	
Current consumption	3.42	Α	
Mass flow	123	kg/h	
C.O.P.	2.62		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
		•			•	•			
Cooling capacity		1	T	T	Т	1			
20	2 747	3 167	4 166	5 400	6 900	-	-	-	-
30	2 326	2 699	3 576	4 654	5 961	7 530	9 389	-	-
40	1 907	2 240	3 010	3 944	5 074	6 428	8 038	9 933	-
45	-	2 006	2 728	3 597	4 642	5 895	7 385	9 144	-
50	-	-	2 445	3 251	4 216	5 370	6 745	8 369	-
55	-	-	2 156	2 903	3 791	4 851	6 113	7 607	-
60	-	-	-	2 551	3 366	4 335	5 488	6 855	-
65	-	-	-	-	2 937	3 819	4 866	6 111	-
Power input in V	v								
20	1 066	1 113	1 192	1 253	1 297	-	_	_	_
30	1 172	1 236	1 352	1 449	1 527	1 587	1 629	_	-
40	1 249	1 335	1 493	1 632	1 753	1 856	1 939	2 005	_
45	-	1 371	1 552	1 716	1 860	1 987	2 094	2 183	_
50	_	-	1 603	1 792	1 962	2 113	2 246	2 360	_
55	_	-	1 643	1 859	2 056	2 234	2 394	2 535	_
60	_	-	-	1 915	2 141	2 348	2 537	2 706	_
65	_	-	_	-	2 215	2 453	2 672	2 872	_
		I.	L	L					
Current consum	ption in A								
20	1.83	1.89	2.00	2.10	2.20	-	-	-	-
30	2.00	2.09	2.25	2.40	2.54	2.65	2.74	-	-
40	2.12	2.25	2.49	2.71	2.90	3.06	3.19	3.27	-
45	-	2.30	2.58	2.84	3.07	3.27	3.42	3.53	-
50	-	-	2.66	2.96	3.23	3.46	3.65	3.79	-
55	-	-	2.70	3.06	3.37	3.65	3.87	4.05	-
60	-	-	-	3.12	3.49	3.81	4.08	4.29	-
65	-	-	-	-	3.57	3.95	4.26	4.52	-
Mass flow in kg/		1	Т	Т	T	T	T		
20	53	60	78	100	126	-	-	-	-
30	48	56	73	93	118	147	181	-	-
40	44	51	67	87	110	137	169	206	-
45	-	48	65	84	106	132	163	199	-
50	-	-	61	80	102	127	157	192	-
55	-	-	58	76	97	122	152	185	-
60	-	-	-	72	93	117	145	178	-
65	-	-	-	-	87	111	139	171	-
Coefficient of pe	rformance (C.C	D.P.)							
20	2.58	2.85	3.49	4.31	5.32	-	-	-	-
30	1.98	2.18	2.65	3.21	3.90	4.74	5.76	-	-
40	1.53	1.68	2.02	2.42	2.89	3.46	4.14	4.95	-
45	-	1.46	1.76	2.10	2.50	2.97	3.53	4.19	-
50	-	-	1.53	1.81	2.15	2.54	3.00	3.55	-
55	-	-	1.31	1.56	1.84	2.17	2.55	3.00	-
60	-	-	-	1.33	1.57	1.85	2.16	2.53	-
65	-	_	_	_	1.33	1.56	1.82	2.13	_

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

Cooling capacity	5 370	W
Power input	2 113	W
Current consumption	3.46	Α
Mass flow	127	kg/h
C.O.P.	2.54	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 60 Hz, ARI rating conditions

# **R407C**

Cond. temp. in	. in Evaporating temperature in °C (to)								
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling capacit	w in W								
		2 207	4 424	F 700	7.045	1		1	
20	2 921	3 367	+	5 729	7 315	-	-	-	-
30	2 493	2 892	3 827	4 974	6 366	8 033	10 007	-	-
40	2 065	2 424	3 253	4 257	5 469	6 921	8 644	10 671	-
45	-	2 185	2 967	3 906	5 034	6 383	7 987	9 876	-
50	-	-	2 678	3 555	4 603	5 854	7 342	9 098	-
55	-	-	-	3 202	4 174	5 331	6 707	8 333	-
60	-	-	-	2 843	3 744	4 811	6 080	7 581	-
65	-	-	-	-	3 310	4 293	5 458	6 839	-
Power input in \	W								
20	1 066	1 113	1 192	1 253	1 297	-	-	-	-
30	1 172	1 236	1 352	1 449	1 527	1 587	1 629	-	-
40	1 249	1 335	1 493	1 632	1 753	1 856	1 939	2 005	-
45	-	1 371	1 552	1 716	1 860	1 987	2 094	2 183	-
50	-	-	1 603	1 792	1 962	2 113	2 246	2 360	-
55	-	-	-	1 859	2 056	2 234	2 394	2 535	-
60	-	-	-	1 915	2 141	2 348	2 537	2 706	-
65	-	-	-	-	2 215	2 453	2 672	2 872	-
Current consum	•	T				1		1	
20	1.83	1.89	2.00	2.10	2.20	-	-	-	-
30	2.00	2.09	2.25	2.40	2.54	2.65	2.74	-	-
40	2.12	2.25	2.49	2.71	2.90	3.06	3.19	3.27	-
45	-	2.30	2.58	2.84	3.07	3.27	3.42	3.53	-
50	-	-	2.66	2.96	3.23	3.46	3.65	3.79	-
55	-	-	-	3.06	3.37	3.65	3.87	4.05	-
60	-	-	-	3.12	3.49	3.81	4.08	4.29	-
65	-	-	-	-	3.57	3.95	4.26	4.52	-
Mass flow in kg	/h								
20	52	60	78	99	125	-	-	-	-
30	48	56	73	93	117	146	179	-	-
40	44	51	67	86	109	136	168	205	-
45	-	48	64	83	105	132	162	198	-
50	-	-	61	79	101	127	157	191	-
55	-	-	-	76	97	122	151	184	-
60	ı	-	-	71	92	116	145	177	-
65	-	-	-	-	87	111	138	170	-
Coefficient of po	erformance (C.C	).P.)							
20	2.74	3.03	3.71	4.57	5.64	-	-	-	-
30	2.13	2.34	2.83	3.43	4.17	5.06	6.14	-	-
40	1.65	1.82	2.18	2.61	3.12	3.73	4.46	5.32	-
45	-	1.59	1.91	2.28	2.71	3.21	3.81	4.52	-
50	-	-	1.67	1.98	2.35	2.77	3.27	3.85	-
55	-	-	-	1.72	2.03	2.39	2.80	3.29	-
60	-	-	-	1.49	1.75	2.05	2.40	2.80	-
• • •									

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

	• •		
Cooling capacity	5 976	W	
Power input	2 291	W	
Current consumption	3.73	Α	
Mass flow	135	kg/h	
C.O.P.	2.61		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling canacity	in W								
Cooling capacity 20	2 953	3 403	4 471	5 794	7 407	-	_		
30	2 506	2 907	3 849	5 008	6 418	8 114	10 130	-	
								†	
40	2 055	2 414	3 243	4 251	5 471	6 940	8 690	10 757	
45	-	2 162	2 940	3 877	5 008	6 368	7 990	9 910	-
50	-	-	2 634	3 504	4 549	5 803	7 300	9 076	-
55	-	-	2 323	3 129	4 091	5 242	6 618	8 254	-
60	-	-	-	2 749	3 631	4 684	5 942	7 440	-
65	-	-	-	-	3 168	4 125	5 269	6 633	-
Power input in W	ı								
20	1 159	1 213	1 309	1 387	1 445	-	-	-	-
30	1 271	1 344	1 477	1 592	1 689	1 767	1 825	-	-
40	1 353	1 448	1 624	1 784	1 926	2 048	2 152	2 235	-
45	-	1 486	1 687	1 871	2 037	2 185	2 313	2 422	-
50	-	-	1 740	1 950	2 142	2 317	2 472	2 607	-
55	-	-	1 782	2 019	2 240	2 442	2 625	2 789	-
60	-	-	-	2 078	2 328	2 560	2 773	2 966	-
65	-	-	-	-	2 405	2 668	2 913	3 138	-
						•			
Current consum					1	1	T	1	
20	1.97	2.03	2.16	2.29	2.42	-	-	-	-
30	2.15	2.25	2.44	2.62	2.78	2.92	3.04	-	-
40	2.28	2.42	2.69	2.94	3.16	3.36	3.52	3.64	-
45	-	2.47	2.79	3.08	3.34	3.57	3.76	3.90	-
50	-	-	2.86	3.20	3.51	3.77	4.00	4.17	-
55	-	-	2.90	3.30	3.65	3.96	4.23	4.44	-
60	-	-	-	3.36	3.77	4.13	4.44	4.69	-
65	-	-	-	-	3.86	4.27	4.63	4.93	-
Mass flow in kg/h	n								
20	57	65	84	107	135	_	_	_	
30	52	60	78	100	127	158	195	_	
40	47	55	73	94	119	148	183	223	-
45	-	52	70	90	114	143	177	216	
50		-	66	86	110	138	170	209	
55	-	-	62	82	105	132	164	209	
60	-	-	- 02	77	100	126	157	193	-
65					94	120	150	185	
00	-	-	-	-	J4	120	130	100	-
Coefficient of pe	,	, <i>'</i>			ı	T		1	
20	2.55	2.80	3.42	4.18	5.12	-	-	-	-
30	1.97	2.16	2.61	3.14	3.80	4.59	5.55	-	-
40	1.52	1.67	2.00	2.38	2.84	3.39	4.04	4.81	-
45	-	1.46	1.74	2.07	2.46	2.91	3.45	4.09	-
50	-	-	1.51	1.80	2.12	2.50	2.95	3.48	-
55	-	-	1.30	1.55	1.83	2.15	2.52	2.96	-
60	-	-	-	1.32	1.56	1.83	2.14	2.51	-
65	-	-	-	-	1.32	1.55	1.81	2.11	-

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

Cooling capacity	5 803	W	
Power input	2 317	W	
Current consumption	3.77	Α	
Mass flow	138	kg/h	
C.O.P.	2.50		

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 65 Hz, ARI rating conditions

# **R407C**

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-17.5	-15	-10	-5	0	5	10	15		
Cooling canacity	in W									
Cooling capacity 20	3 141	3 617	4 748	6 147	7 852	-	_			
30	2 687	3 114	4 119	5 353	6 853	8 656	10 797	-		
								†		
40	2 226	2 612	3 505	4 588	5 898	7 472	9 346	11 556		
45	-	2 355	3 197	4 210	5 431	6 895	8 641	10 704	-	
50	-	-	2 886	3 832	4 967	6 326	7 947	9 867	-	
55	-	-	-	3 451	4 503	5 761	7 261	9 042	-	
60	-	-	-	3 065	4 039	5 199	6 583	8 227	-	
65	-	-	-	-	3 570	4 638	5 909	7 423	-	
Power input in W	1									
20	1 159	1 213	1 309	1 387	1 445	-	-	-	-	
30	1 271	1 344	1 477	1 592	1 689	1 767	1 825	-	-	
40	1 353	1 448	1 624	1 784	1 926	2 048	2 152	2 235	-	
45	-	1 486	1 687	1 871	2 037	2 185	2 313	2 422	-	
50	-	-	1 740	1 950	2 142	2 317	2 472	2 607	-	
55	-	-	-	2 019	2 240	2 442	2 625	2 789	-	
60	-	-	-	2 078	2 328	2 560	2 773	2 966	-	
65	-	-	-	-	2 405	2 668	2 913	3 138	-	
_										
Current consump		0.00	0.40	1 000	0.40	1		1		
20	1.97	2.03	2.16	2.29	2.42	-	-	-	-	
30	2.15	2.25	2.44	2.62	2.78	2.92	3.04	-	-	
40	2.28	2.42	2.69	2.94	3.16	3.36	3.52	3.64	-	
45	-	2.47	2.79	3.08	3.34	3.57	3.76	3.90	-	
50	-	-	2.86	3.20	3.51	3.77	4.00	4.17	-	
55	-	-	-	3.30	3.65	3.96	4.23	4.44	-	
60	-	-	-	3.36	3.77	4.13	4.44	4.69	-	
65	-	-	-	-	3.86	4.27	4.63	4.93	-	
Mass flow in kg/l	n									
20	56	64	83	106	134	-	-	-	_	
30	52	60	78	100	126	157	194	-	-	
40	47	55	72	93	118	147	182	222	-	
45	-	52	69	90	114	142	176	215	-	
50	-	-	66	86	109	137	169	207	-	
55	-	-	-	81	104	132	163	200	-	
60	-	-	-	77	99	126	156	192	-	
65	-	-	-	-	94	120	149	184	-	
Paoffialant of con-	ufauman == 10 0	\ <b>D</b> \								
Coefficient of per 20	2.71	2.98	3.63	4.43	5.43	_	_	_ [		
30	2.11	2.32	2.79	3.36	4.06	4.90	5.92	-		
40	1.64	1.80	2.16	2.57	3.06	3.65	4.34	5.17	-	
45	-	1.58	1.90	2.25	2.67	3.16	3.74	4.42		
50	-	-	1.66	1.97	2.32	2.73	3.74	3.78		
	<u>-</u>	1	1.00							
55		-		1.71	2.01	2.36	2.77	3.24	-	
60	-	-	-	1.47	1.73	2.03	2.37	2.77	-	
65	-	-	-	-	1.48	1.74	2.03	2.37	-	

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

	• •		
Cooling capacity	6 463	W	
Power input	2 509	W	
Current consumption	4.06	Α	
Mass flow	146	kg/h	
C.O.P.	2.58		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

#### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling capacity		0.040	1 4 774	0.400	7,000		1	1	
20	3 164	3 640	4 774	6 180	7 898	-	-	-	-
30	2 689	3 116	4 121	5 358	6 866	8 686	10 855	-	-
40	2 202	2 586	3 473	4 552	5 862	7 442	9 332	11 570	-
45	-	2 314	3 147	4 151	5 366	6 831	8 585	10 667	-
50	-	-	2 817	3 749	4 872	6 225	7 846	9 775	-
55	-	-	2 482	3 345	4 379	5 621	7 112	8 891	-
60	-	-	-	2 937	3 884	5 019	6 383	8 014	-
65	-	-	-	-	3 386	4 417	5 657	7 143	-
ower input in V	v								
20	1 256	1 319	1 433	1 529	1 605	-	-	-	-
30	1 374	1 456	1 610	1 746	1 865	1 963	2 039	-	-
40	1 459	1 564	1 762	1 945	2 111	2 258	2 384	2 487	-
45	-	1 603	1 826	2 034	2 226	2 399	2 552	2 683	-
50	-	-	1 881	2 115	2 334	2 535	2 716	2 876	-
55	-	-	1 925	2 187	2 434	2 663	2 874	3 065	-
60	-	-	-	2 248	2 524	2 784	3 026	3 248	-
65	-	-	-	-	2 604	2 896	3 170	3 425	-
urrent consum	ption in A								
20	2.11	2.19	2.35	2.51	2.66	-	-	-	-
30	2.31	2.43	2.65	2.86	3.05	3.23	3.39	-	-
40	2.44	2.60	2.90	3.18	3.44	3.68	3.88	4.04	-
45	-	2.65	3.00	3.33	3.63	3.90	4.13	4.32	-
50	-	-	3.07	3.45	3.79	4.10	4.37	4.60	-
55	-	-	3.11	3.54	3.94	4.30	4.61	4.87	-
60	-	-	-	3.61	4.06	4.47	4.83	5.13	-
65	-	-	-	-	4.15	4.62	5.03	5.38	-
lass flow in kg/		T	1	1	Т	1	T	T T	
20	61	69	90	114	144	-	-	-	-
30	56	65	84	107	136	169	209	-	-
40	51	59	78	100	127	159	196	240	-
45	-	56	74	96	122	153	190	232	-
50	-	-	71	92	118	148	183	225	-
55	-	-	66	88	112	142	176	217	-
60	-	-	-	82	107	136	169	208	-
65	-	-	-	-	101	129	161	200	-
coefficient of pe	erformance (C.C	D.P.)							
20	2.52	2.76	3.33	4.04	4.92	-	-	-	-
30	1.96	2.14	2.56	3.07	3.68	4.43	5.32	-	-
40	1.51	1.65	1.97	2.34	2.78	3.30	3.91	4.65	-
45	-	1.44	1.72	2.04	2.41	2.85	3.36	3.98	-
50	-	-	1.50	1.77	2.09	2.46	2.89	3.40	-
55	-	-	1.29	1.53	1.80	2.11	2.47	2.90	-
60	-	-	-	1.31	1.54	1.80	2.11	2.47	-
65	_	_	_	-	1.30	1.53	1.78	2.09	_

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

Cooling capacity	6 225	W
Power input	2 535	W
Current consumption	4.10	Α
Mass flow	148	kg/h
C.O.P.	2.46	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 70 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
						•	•		
cooling capacity		T	1	1	Т	1	1	T T	
20	3 365	3 870	5 069	6 557	8 373	-	-	-	-
30	2 882	3 338	4 409	5 727	7 332	9 266	11 569	-	-
40	2 385	2 798	3 753	4 913	6 319	8 013	10 036	12 429	-
45	-	2 521	3 422	4 507	5 819	7 397	9 284	11 522	-
50	-	-	3 086	4 100	5 320	6 786	8 541	10 626	-
55	-	-	-	3 690	4 821	6 178	7 804	9 740	-
60	-	-	-	3 274	4 320	5 571	7 072	8 863	-
65	-	-	-	-	3 815	4 966	6 344	7 994	-
Power input in V	ı								
20	1 256	1 319	1 433	1 529	1 605	_	_	_ 1	-
30	1 374	1 456	1 610	1 746	1 865	1 963	2 039	_	-
40	1 459	1 564	1 762	1 945	2 111	2 258	2 384	2 487	-
45	-	1 603	1 826	2 034	2 226	2 399	2 552	2 683	-
50	-	-	1 881	2 115	2 334	2 535	2 716	2 876	-
55	-	-	-	2 187	2 434	2 663	2 874	3 065	-
60	-	-	-	2 248	2 524	2 784	3 026	3 248	-
65	-	-	-	-	2 604	2 896	3 170	3 425	-
					•				
urrent consum	ption in A								
20	2.11	2.19	2.35	2.51	2.66	-	-	-	-
30	2.31	2.43	2.65	2.86	3.05	3.23	3.39	-	-
40	2.44	2.60	2.90	3.18	3.44	3.68	3.88	4.04	-
45	-	2.65	3.00	3.33	3.63	3.90	4.13	4.32	-
50	-	-	3.07	3.45	3.79	4.10	4.37	4.60	-
55	-	-	-	3.54	3.94	4.30	4.61	4.87	-
60	-	-	-	3.61	4.06	4.47	4.83	5.13	-
65	-	-	-	-	4.15	4.62	5.03	5.38	-
		•	•	•	•	•	•	'	
/lass flow in kg/	h								
20	60	69	89	114	143	-	-	-	-
30	56	64	84	107	135	168	207	-	-
40	50	59	77	100	126	158	195	239	-
45	-	56	74	96	122	153	189	231	-
50	-	-	70	92	117	147	182	223	-
55	-	-	-	87	112	141	175	215	-
60	-	-	-	82	106	135	168	207	-
65	-	-	-	-	100	128	161	198	-
Coefficient of	ufaumar == 10 0								
Coefficient of pe	2.68	2.93	3.54	4 20	5.22				
20		1	3.54	4.29	5.22	4.72	- 5.67	-	-
30 40	2.10	2.29	2.74	3.28	3.93	4.72	5.67	- 5.00	-
	1.63	1.79	2.13	2.53	2.99	3.55	4.21	5.00	
45	-	1.57	1.87	2.22	2.61	3.08	3.64	4.29	-
50	-	-	1.64	1.94	2.28	2.68	3.14	3.69	-
55	<u>-</u>	-	-	1.69 1.46	1.98 1.71	2.32	2.71	3.18 2.73	-
60			-	ı ı 4b	1./1	. / 00	1 / .34	/ /3	-

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

po	,		
Cooling capacity	6 937	W	
Power input	2 742	W	
Current consumption	4.42	Α	
Mass flow	156	kg/h	
C.O.P.	2.53		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-17.5	-15	-10	-5	0	5	10	15		
Cooling canacity	in W									
Cooling capacity 20	3 379	3 881	5 075	6 558	8 375	_	<u> </u>		_	
30	2 874	3 327	4 392	5 704	7 307	9 245	11 562	-		
								†		
40	2 348	2 756	3 699	4 848	6 246	7 936	9 963	12 370	-	
45	-	2 463	3 348	4 418	5 716	7 285	9 170	11 414	-	
50	-	-	2 993	3 986	5 186	6 636	8 381	10 464	-	
55	-	-	2 633	3 551	4 655	5 989	7 595	9 519	-	
60	-	-	-	3 113	4 123	5 341	6 812	8 578	-	
65	-	-	-	-	3 589	4 694	6 031	7 642	-	
Power input in W	1									
20	1 356	1 430	1 564	1 680	1 775	-	-	-	-	
30	1 480	1 573	1 750	1 911	2 053	2 174	2 271	-	-	
40	1 567	1 683	1 906	2 115	2 309	2 483	2 635	2 763	-	
45	-	1 723	1 971	2 206	2 426	2 628	2 810	2 968	-	
50	-	-	2 026	2 288	2 536	2 767	2 979	3 169	-	
55	-	-	2 071	2 360	2 637	2 898	3 141	3 363	-	
60	-	-	-	2 422	2 729	3 021	3 296	3 551	-	
65	-	-	-	-	2 811	3 135	3 443	3 733	-	
				•						
Current consum				Т	1		1	1		
20	2.26	2.35	2.55	2.75	2.94	-	-	-	-	
30	2.49	2.61	2.87	3.12	3.35	3.58	3.78	-	-	
40	2.62	2.79	3.12	3.45	3.75	4.03	4.28	4.49	-	
45	-	2.83	3.22	3.59	3.93	4.25	4.53	4.77	-	
50	-	-	3.29	3.71	4.10	4.46	4.78	5.06	-	
55	-	-	3.32	3.80	4.24	4.65	5.02	5.34	-	
60	-	-	-	3.86	4.37	4.83	5.25	5.61	-	
65	-	-	-	-	4.46	4.99	5.46	5.87	-	
Mana flass in Ira/	_									
Mass flow in kg/l		7.	٥٥	404	450	I	Γ	1		
20	65	74	95	121	153	- 190	-	-	-	
30	60	69	90	114	144	180	222	+	-	
40	54	63	83	107	135	169	209	257	-	
45	-	59	79	103	130	164	203	249	-	
50	-	-	75	98	125	158	196	240	-	
55	-	-	70	93	120	151	188	232	-	
60	-	-	-	87	113	144	180	223	-	
65	-	-	-	-	107	137	172	214	-	
Coefficient of pe	rformance (C.C	D.P.)								
20	2.49	2.71	3.25	3.90	4.72	-	-	-	-	
30	1.94	2.11	2.51	2.98	3.56	4.25	5.09	-	-	
40	1.50	1.64	1.94	2.29	2.71	3.20	3.78	4.48	-	
45	-	1.43	1.70	2.00	2.36	2.77	3.26	3.85	-	
50	-	-	1.48	1.74	2.05	2.40	2.81	3.30	-	
55	-	-	1.27	1.50	1.77	2.07	2.42	2.83	-	
60	-	-	-	1.29	1.51	1.77	2.07	2.42	-	
65	-	-	-	-	1.28	1.50	1.75	2.05	-	

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

	•••	
Cooling capacity	6 636	W
Power input	2 767	W
Current consumption	4.46	Α
Mass flow	158	kg/h
C.O.P.	2.40	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 75 Hz, ARI rating conditions

# **R407C**

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-17.5	-15	-10	-5	0	5	10	15		
Cooling canacity	in W									
Cooling capacity 20	3 593	4 125	5 389	6 958	8 878	-	<u> </u>	<u> </u>		
30	3 081	3 564	4 699	6 097	7 803	9 863	12 323	-		
								†		
40	2 543	2 983	3 998	5 233	6 732	8 544	10 714	13 289		
45	-	2 682	3 641	4 797	6 198	7 889	9 917	12 329	-	
50	-	-	3 279	4 359	5 662	7 235	9 123	11 375	-	
55	-	-	-	3 917	5 125	6 581	8 333	10 428	-	
60	-	-	-	3 470	4 586	5 929	7 547	9 486	-	
65	-	-	-	-	4 045	5 277	6 764	8 552	-	
Power input in W	1									
20	1 356	1 430	1 564	1 680	1 775	-	-	-	-	
30	1 480	1 573	1 750	1 911	2 053	2 174	2 271	-	-	
40	1 567	1 683	1 906	2 115	2 309	2 483	2 635	2 763	-	
45	-	1 723	1 971	2 206	2 426	2 628	2 810	2 968	-	
50	-	-	2 026	2 288	2 536	2 767	2 979	3 169	-	
55	-	-	-	2 360	2 637	2 898	3 141	3 363	-	
60	-	-	-	2 422	2 729	3 021	3 296	3 551	-	
65	-	-	-	-	2 811	3 135	3 443	3 733	-	
Current consum		0.05	0.55	0.75	0.04		1	1		
20	2.26	2.35	2.55	2.75	2.94	-	-	-	-	
30	2.49	2.61	2.87	3.12	3.35	3.58	3.78	-	-	
40	2.62	2.79	3.12	3.45	3.75	4.03	4.28	4.49	-	
45	-	2.83	3.22	3.59	3.93	4.25	4.53	4.77	-	
50	-	-	3.29	3.71	4.10	4.46	4.78	5.06	-	
55	-	-	-	3.80	4.24	4.65	5.02	5.34	-	
60	-	-	-	3.86	4.37	4.83	5.25	5.61	-	
65	-	-	-	-	4.46	4.99	5.46	5.87	-	
Mass flow in kg/h	1									
20	64	73	95	121	152	-	-	-	-	
30	60	69	89	114	143	179	221	-	-	
40	54	63	83	106	135	168	208	255	-	
45	-	59	79	102	130	163	202	247	-	
50	-	-	75	97	125	157	195	239	-	
55	-	-	-	92	119	150	187	230	-	
60	-	-	-	87	113	143	179	222	-	
65	-	-	-	-	106	136	171	212	-	
Coefficient of pe	rformance (C C	) P )								
20	2.65	2.89	3.45	4.14	5.00	_	_	_ [		
30	2.08	2.27	2.69	3.19	3.80	4.54	5.43	-		
40	1.62	1.77	2.09	2.47	2.92	3.44	4.07	4.81	<u> </u>	
45	-		1.85	2.47		3.00	3.53			
50	-	1.56	1.62	1.91	2.55 2.23	2.61	3.06	4.15 3.59		
	<u>-</u>	1	1.02							
55		-		1.66	1.94	2.27	2.65	3.10	-	
60	-	-	-	1.43	1.68	1.96	2.29	2.67	-	
65	-	-	-	-	1.44	1.68	1.96	2.29	-	

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

recinitial portormanos acto	0,	U-1		
Cooling capacity		7 398	W	
Power input		2 991	W	
Current consumption		4.80	Α	
Mass flow		167	kg/h	
C.O.P.		2.47		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
cooling capacity		4.404	5.074	0.000	0.007	I	1	1	
20	3 598	4 124	5 374	6 929	8 837		-	-	-
30	3 061	3 540	4 662	6 046	7 740	9 793	12 253	-	-
40	2 492	2 925	3 923	5 139	6 622	8 421	10 584	13 160	-
45	-	2 608	3 545	4 678	6 057	7 730	9 745	12 152	-
50	-	-	3 162	4 214	5 490	7 038	8 906	11 145	-
55	-	-	2 777	3 748	4 920	6 344	8 067	10 138	-
60	-	-	-	3 279	4 350	5 650	7 228	9 132	-
65	-	-	-	-	3 779	4 956	6 390	8 129	-
Power input in V	v								
20	1 461	1 545	1 702	1 840	1 957	-	-	-	-
30	1 590	1 696	1 898	2 086	2 255	2 402	2 522	-	-
40	1 678	1 806	2 056	2 295	2 519	2 725	2 907	3 062	-
45	-	1 846	2 121	2 386	2 639	2 874	3 088	3 277	-
50	-	-	2 175	2 468	2 749	3 015	3 261	3 484	-
55	-	-	2 220	2 540	2 850	3 147	3 426	3 684	-
60	-	-	-	2 602	2 943	3 271	3 583	3 876	-
65	-	-	-	-	3 026	3 386	3 733	4 061	-
l		•	•	•	•	•	•		
Current consum	ption in A							<u> </u>	
20	2.42	2.53	2.77	3.01	3.25	-	-	-	-
30	2.67	2.81	3.10	3.40	3.68	3.95	4.20	-	-
40	2.80	2.98	3.36	3.72	4.08	4.41	4.71	4.98	-
45	-	3.03	3.45	3.86	4.26	4.63	4.97	5.27	-
50	-	-	3.51	3.97	4.42	4.84	5.22	5.56	-
55	-	-	3.54	4.06	4.56	5.03	5.46	5.85	-
60	-	-	-	4.12	4.68	5.21	5.70	6.13	-
65	-	-	-	-	4.78	5.37	5.92	6.41	-
	_								
Mass flow in kg/			1			1	1	1	
20	69	79	101	128	161	-	-	-	-
30	64	73	95	121	153	191	236	-	-
40	57	67	88	113	144	180	223	273	-
45	-	63	84	109	138	174	215	265	-
50	-	-	79	104	133	167	208	256	-
55	-	-	74	98	126	160	200	247	-
60	-	-	-	92	120	153	191	237	-
65	-	-	-	-	112	144	182	227	-
coefficient of pe	erformance (C.C	D.P.)				<del>-</del>			
20	2.46	2.67	3.16	3.76	4.52	-	-	-	-
30	1.93	2.09	2.46	2.90	3.43	4.08	4.86	-	-
40	1.49	1.62	1.91	2.24	2.63	3.09	3.64	4.30	-
45	-	1.41	1.67	1.96	2.30	2.69	3.16	3.71	-
50	-	-	1.45	1.71	2.00	2.33	2.73	3.20	-
55	-	-	1.25	1.48	1.73	2.02	2.35	2.75	-
60	-	-	-	1.26	1.48	1.73	2.02	2.36	-
65	-	-	-	_	1.25	1.46	1.71	2.00	_

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

-,		
Cooling capacity	7 038	W
Power input	3 015	W
Current consumption	4.84	Α
Mass flow	167	kg/h
C.O.P.	2.33	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 80 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
		•				•			
Cooling capacit		1			Т				
20	3 827	4 384	5 707	7 352	9 368	-	-	-	-
30	3 281	3 792	4 989	6 463	8 265	10 447	13 059	-	-
40	2 699	3 165	4 239	5 546	7 138	9 066	11 382	14 137	-
45	-	2 840	3 855	5 080	6 568	8 370	10 539	13 126	-
50	-	-	3 464	4 609	5 994	7 672	9 695	12 115	-
55	-	-	-	4 133	5 417	6 972	8 851	11 106	-
60	-	-	-	3 655	4 838	6 271	8 007	10 099	-
65	-	-	-	-	4 258	5 572	7 167	9 097	-
Power input in \	W								
20	1 461	1 545	1 702	1 840	1 957	_	_	_	-
30	1 590	1 696	1 898	2 086	2 255	2 402	2 522	_	_
40	1 678	1 806	2 056	2 295	2 519	2 725	2 907	3 062	_
45	-	1 846	2 121	2 386	2 639	2 874	3 088	3 277	-
50	-	-	2 175	2 468	2 749	3 015	3 261	3 484	_
55	-	-	-	2 540	2 850	3 147	3 426	3 684	
60	-	-	_	2 602	2 943	3 271	3 583	3 876	
65	-	-	_	-	3 026	3 386	3 733	4 061	
00			I.	I.	0 020	0 000	0.700	1 001	
urrent consum	nption in A								
20	2.42	2.53	2.77	3.01	3.25	_	_	_	-
30	2.67	2.81	3.10	3.40	3.68	3.95	4.20	_	-
40	2.80	2.98	3.36	3.72	4.08	4.41	4.71	4.98	-
45	-	3.03	3.45	3.86	4.26	4.63	4.97	5.27	-
50	-	_	3.51	3.97	4.42	4.84	5.22	5.56	_
55	-	_	-	4.06	4.56	5.03	5.46	5.85	_
60	-	_	_	4.12	4.68	5.21	5.70	6.13	-
65	-	_	_	-	4.78	5.37	5.92	6.41	-
		1	1			1			
Mass flow in kg	/h								
20	69	78	100	127	160	-	-	-	-
30	63	73	95	121	152	190	234	-	-
40	57	66	87	113	143	179	221	271	-
45	-	63	83	108	137	173	214	263	-
50	-	-	79	103	132	166	207	255	-
55	-	-	_	98	126	159	199	245	-
60	-	-	-	91	119	152	190	236	-
65	-	-	_	-	112	144	181	226	-
					1				
•	erformance (C.C	<del>, '</del>	2.05	2.00	4.70	1	<u> </u>	<u> </u>	
20	2.62	2.84	3.35	3.99	4.79	- 105	- 5.40	-	-
30	2.06	2.24	2.63	3.10	3.66	4.35	5.18	-	-
40	1.61	1.75	2.06	2.42	2.83	3.33	3.92	4.62	-
45	-	1.54	1.82	2.13	2.49	2.91	3.41	4.01	-
50	-	-	1.59	1.87	2.18	2.54	2.97	3.48	-
55	-	-	-	1.63	1.90	2.22	2.58	3.01	-
60	-	-	-	1.40	1.64	1.92	2.23	2.61	-
65	-	-	-	-	1.41	1.65	1.92	2.24	-
						_			
lominal perforn	nance at to = 7.2	2 °C, tc = 54.4 °C	10/		-	Pressure switch		20.4	h = u(=)

Cooling capacity

Current consumption

Power input

Mass flow

C.O.P.

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

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

Sound	power	data
	P	

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

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W

W

7 847

3 255

5.20

177

2.41

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
cooling capacity			T				1	1	
20	3 822	4 370	5 672	7 292	9 284	-	-	-	-
30	3 251	3 754	4 932	6 384	8 164	10 328	12 927	-	-
40	2 635	3 091	4 143	5 424	6 991	8 896	11 193	13 937	-
45	-	2 749	3 736	4 932	6 390	8 165	10 311	12 881	-
50	-	-	3 325	4 434	5 784	7 428	9 421	11 817	-
55	-	-	2 912	3 934	5 174	6 687	8 527	10 747	-
60	-	-	-	3 433	4 563	5 945	7 631	9 675	-
65	-	-	-	-	3 955	5 204	6 735	8 603	-
ower input in V	v								
20	1 570	1 666	1 847	2 010	2 150	-	-	_	-
30	1 704	1 823	2 054	2 271	2 470	2 645	2 792	_	-
40	1 791	1 932	2 212	2 484	2 743	2 982	3 198	3 384	-
45	-	1 971	2 276	2 575	2 863	3 134	3 385	3 608	-
50	-	-	2 329	2 655	2 973	3 277	3 561	3 822	-
55	-	-	2 372	2 726	3 073	3 409	3 729	4 026	-
60	-	_	-	2 788	3 165	3 533	3 887	4 222	-
65	-	-	-	_	3 249	3 649	4 038	4 410	-
		•			•				
urrent consum	ption in A							<u> </u>	
20	2.58	2.72	3.01	3.30	3.60	-	-	-	-
30	2.86	3.02	3.36	3.70	4.03	4.36	4.67	-	-
40	2.99	3.19	3.61	4.02	4.42	4.81	5.18	5.51	-
45	-	3.23	3.69	4.15	4.60	5.03	5.43	5.80	-
50	-	-	3.74	4.25	4.75	5.23	5.68	6.10	-
55	-	-	3.76	4.34	4.89	5.43	5.93	6.40	-
60	-	-	-	4.39	5.01	5.61	6.17	6.69	-
65	-	-	-	-	5.11	5.78	6.41	6.99	-
lass flow in kg/			1	1		T	1	1	
20	73	83	106	135	169	-	-	-	-
30	68	78	101	128	161	201	249	-	-
40	61	71	93	120	152	190	235	289	-
45	-	66	88	115	146	183	228	281	-
50	-	-	83	109	140	176	220	272	-
55	-	-	78	103	133	169	211	262	-
60	-	-	-	96	126	161	202	251	-
65	-	-	-	-	118	152	192	240	-
coefficient of pe	rformance (C.C	).P.)							
20	2.43	2.62	3.07	3.63	4.32	-	-	-	-
30	1.91	2.06	2.40	2.81	3.31	3.90	4.63	-	-
40	1.47	1.60	1.87	2.18	2.55	2.98	3.50	4.12	-
45	-	1.39	1.64	1.92	2.23	2.61	3.05	3.57	-
50	-	-	1.43	1.67	1.95	2.27	2.65	3.09	-
55	-	-	1.23	1.44	1.68	1.96	2.29	2.67	-
60	-	-	-	1.23	1.44	1.68	1.96	2.29	-
65	-	-	-	-	1.22	1.43	1.67	1.95	-

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

Cooling capacity	7 428	W
Power input	3 277	W
Current consumption	5.23	Α
Mass flow	176	kg/h
C.O.P.	2.27	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

Sound p	ower level	0	dB(A)	
With acc	coustic hood	0	dB(A)	

tc: Condensing temperature at dew point

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



## Inverter reciprocating compressors VTZ038-G

## Performance data at 85 Hz, ARI rating conditions

# **R407C**

Cond. temp. in	p. in Evaporating temperature in °C (to)								
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling conseit	u in W								
20 Cooling capacit	y in W 4 064	4 645	6 023	7 737	9 842	_	_	1 -	_
		+	+			+	1		
30	3 485	4 022	5 277	6 824	8 718	11 017	13 777	-	-
40	2 854	3 346	4 477	5 855	7 536	9 578	12 038	14 972	-
45	-	2 994	4 063	5 355	6 929	8 842	11 151	13 913	-
50	-	-	3 642	4 849	6 315	8 098	10 256	12 846	-
55	-	-	-	4 339	5 696	7 349	9 356	11 773	-
60	-	-	-	3 826	5 076	6 599	8 454	10 700	-
65	-	-	-	-	4 456	5 849	7 554	9 629	-
Power input in V	v								
20	1 570	1 666	1 847	2 010	2 150	-	-	-	-
30	1 704	1 823	2 054	2 271	2 470	2 645	2 792	-	-
40	1 791	1 932	2 212	2 484	2 743	2 982	3 198	3 384	-
45	-	1 971	2 276	2 575	2 863	3 134	3 385	3 608	-
50	-	-	2 329	2 655	2 973	3 277	3 561	3 822	-
55	-	-	-	2 726	3 073	3 409	3 729	4 026	-
60	-	-	-	2 788	3 165	3 533	3 887	4 222	-
65	-	-	-	-	3 249	3 649	4 038	4 410	-
		1	1	-I				-	
Current consum	ption in A								
20	2.58	2.72	3.01	3.30	3.60	-	-	-	-
30	2.86	3.02	3.36	3.70	4.03	4.36	4.67	-	-
40	2.99	3.19	3.61	4.02	4.42	4.81	5.18	5.51	-
45	-	3.23	3.69	4.15	4.60	5.03	5.43	5.80	-
50	-	_	3.74	4.25	4.75	5.23	5.68	6.10	-
55	-	-	-	4.34	4.89	5.43	5.93	6.40	-
60	-	-	-	4.39	5.01	5.61	6.17	6.69	-
65	-	-	_	-	5.11	5.78	6.41	6.99	-
		I	I						
Mass flow in kg/	h								
20	73	83	106	134	168	-	-	-	-
30	67	77	100	127	160	200	247	-	-
40	60	70	92	119	151	189	234	288	-
45	-	66	88	114	145	182	227	279	-
50	-	-	83	108	139	175	219	270	-
55	-	-	-	102	132	168	210	260	-
60	-	-	-	96	125	160	201	250	-
65	-	-	-	-	117	151	191	239	
Coefficient of a	uformaris 10 c								
20	2.59	2.79	3.26	3.85	A 50	-			
		2.79			4.58		- 4.02	-	-
30	2.04		2.57	3.00	3.53	4.16	4.93	- 4.42	-
40 45	1.59	1.73	2.02	2.36	2.75	3.21	3.76	4.42	
45	-	1.52	1.79	2.08	2.42	2.82	3.29	3.86	-
50	-	-	1.56	1.83	2.12	2.47	2.88	3.36	-
55	-	-	-	1.59	1.85	2.16	2.51	2.92	-
60	-	-	-	1.37	1.60	1.87	2.17	2.53	-
65	-	-	-	-	1.37	1.60	1.87	2.18	-

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

	-,	
Cooling capacity	8 283	W
Power input	3 535	W
Current consumption	5.63	Α
Mass flow	187	kg/h
C.O.P.	2.34	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, EN 12900 rating conditions

# **R407C**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
Cooling capacity		4.040	5.007	7.047	0.740	1	1		
20	4 050	4 619	5 967	7 647	9 716	-	-	-	-
30	3 443	3 970	5 200	6 718	8 581	10 850	13 584	-	-
40	2 777	3 256	4 359	5 705	7 353	9 362	11 793	14 703	-
45	-	2 887	3 922	5 179	6 715	8 591	10 866	13 600	-
50	-	-	3 481	4 645	6 068	7 809	9 926	12 480	-
55	-	-	3 039	4 109	5 416	7 019	8 976	11 348	-
60	-	-	-	3 576	4 764	6 226	8 021	10 209	-
65	-	-	-	-	4 116	5 436	7 066	9 067	-
Power input in V	v								
20	1 682	1 791	1 999	2 189	2 353	-	-	-	-
30	1 822	1 955	2 217	2 467	2 698	2 905	3 080	-	-
40	1 906	2 062	2 375	2 683	2 979	3 256	3 509	3 729	-
45	-	2 098	2 436	2 771	3 099	3 411	3 701	3 963	_
50	-	-	2 486	2 849	3 207	3 553	3 881	4 183	-
55	-	-	2 528	2 918	3 306	3 685	4 049	4 391	-
60	-	-	-	2 979	3 396	3 808	4 208	4 590	-
65	-	-	-	-	3 480	3 924	4 359	4 779	_
		L	I.	L		1	1		
Current consum	ption in A								
20	2.76	2.92	3.26	3.61	3.97	-	-	_	-
30	3.06	3.24	3.63	4.02	4.42	4.80	5.18	_	_
40	3.18	3.41	3.86	4.33	4.79	5.25	5.68	6.09	-
45	-	3.43	3.94	4.45	4.96	5.46	5.93	6.38	_
50	-	_	3.98	4.54	5.11	5.65	6.18	6.68	_
55	_	_	3.99	4.62	5.24	5.85	6.43	6.99	_
60	_	_	-	4.67	5.35	6.03	6.68	7.30	-
65	-	_	-	-	5.45	6.20	6.93	7.61	-
		ı	ı		0.10	0.20	0.00	1.0.	
Mass flow in kg/	'h								
20	78	88	112	141	177	-	-	-	-
30	72	82	106	135	169	211	261	-	-
40	64	74	98	126	159	200	248	305	-
45	-	70	93	120	153	193	240	296	-
50	-	-	87	114	147	185	232	287	-
55	-	-	81	108	139	177	222	276	-
60	-	-	-	100	131	168	212	265	-
65	-	-	-	-	122	159	202	253	-
				•					
Coefficient of pe	2.41	2.58	2.99	2.40	4 42	1	1	1 1	
20		1		3.49	4.13	- 2.74	- 4.41	-	-
30	1.89	2.03	2.35	2.72	3.18	3.74	4.41	- 2.04	-
40	1.46	1.58	1.84	2.13	2.47	2.88	3.36	3.94	-
45	-	1.38	1.61	1.87	2.17	2.52	2.94	3.43	-
50	-	-	1.40	1.63	1.89	2.20	2.56	2.98	-
55	-	-	1.20	1.41	1.64	1.90	2.22	2.58	-
60	-	-	-	1.20	1.40	1.63	1.91	2.22	-
65	-	-	-	-	1.18	1.39	1.62	1.90	-

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

		-,	
Cooling c	apacity	7 809	W
Power inp	out	3 553	W
Current co	onsumption	5.65	Α
Mass flow	1	185	kg/h
C.O.P.		2.20	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

### Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point



## Inverter reciprocating compressors VTZ038-G

## Performance data at 90 Hz, ARI rating conditions

# **R407C**

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-17.5	-15	-10	-5	0	5	10	15	
ooling cours'	ı in W								
ooling capacity 20	4 307	4 909	6 337	8 113	10 300	_		1	
						+	- 44.477	-	-
30	3 691	4 253	5 565	7 181	9 163	11 575	14 477	-	-
40	3 008	3 524	4 711	6 157	7 926	10 080	12 682	15 795	-
45		3 144	4 265	5 623	7 281	9 303	11 751	14 689	-
50	-	-	3 813	5 080	6 625	8 513	10 805	13 566	-
55	-	-	-	4 533	5 963	7 714	9 848	12 431	-
60	-	-	-	3 986	5 299	6 911	8 886	11 289	-
65	-	-	-	-	4 639	6 110	7 925	10 147	-
ower input in W	ı								
20	1 682	1 791	1 999	2 189	2 353	-	-	-	-
30	1 822	1 955	2 217	2 467	2 698	2 905	3 080	-	-
40	1 906	2 062	2 375	2 683	2 979	3 256	3 509	3 729	-
45	-	2 098	2 436	2 771	3 099	3 411	3 701	3 963	-
50	-	-	2 486	2 849	3 207	3 553	3 881	4 183	-
55	-	-	-	2 918	3 306	3 685	4 049	4 391	-
60	-	-	-	2 979	3 396	3 808	4 208	4 590	-
65	-	-	-	-	3 480	3 924	4 359	4 779	-
urrent consum			Г	T	1	1	Т		
20	2.76	2.92	3.26	3.61	3.97	-	-	-	-
30	3.06	3.24	3.63	4.02	4.42	4.80	5.18	-	-
40	3.18	3.41	3.86	4.33	4.79	5.25	5.68	6.09	-
45	-	3.43	3.94	4.45	4.96	5.46	5.93	6.38	-
50	-	-	3.98	4.54	5.11	5.65	6.18	6.68	-
55	-	-	-	4.62	5.24	5.85	6.43	6.99	-
60	-	-	-	4.67	5.35	6.03	6.68	7.30	-
65	-	-	-	-	5.45	6.20	6.93	7.61	-
/lass flow in kg/l	1								
20	77	87	111	141	176	-	-	_	-
30	71	82	105	134	169	210	260	-	-
40	64	74	97	125	158	199	247	303	-
45	-	69	92	120	152	192	239	295	-
50	-	-	87	114	146	184	230	285	-
55	-	-	-	107	138	176	221	275	_
60	-	-	-	100	130	167	211	263	-
65	-	-	-	-	122	158	200	251	-
•								•	
coefficient of pe	•		2 47	2 74	4 20	1		<u> </u>	
20	2.56	2.74	3.17	3.71	4.38	2.00	4.70	-	-
30	2.03	2.18	2.51	2.91	3.40	3.98	4.70	-	-
40	1.58	1.71	1.98	2.30	2.66	3.10	3.61	4.24	-
45	-	1.50	1.75	2.03	2.35	2.73	3.18	3.71	-
50	-	-	1.53	1.78	2.07	2.40	2.78	3.24	-
55	-	-	-	1.55	1.80	2.09	2.43	2.83	-
60	-	-	-	1.34	1.56	1.81	2.11	2.46	-
65	-	-	-	-	1.33	1.56	1.82	2.12	-

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

	,	
Cooling capacity	8 706	W
Power input	3 831	W
Current consumption	6.08	Α
Mass flow	196	kg/h
C.O.P.	2.27	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	29.4	bar(g)
Minimum LP switch setting	0.2	bar(g)
LP pump down setting	1.3	bar(g)

## Sound power data

I	Sound power level	0	dB(A)
	With accoustic hood	0	dB(A)

tc: Condensing temperature at dew point