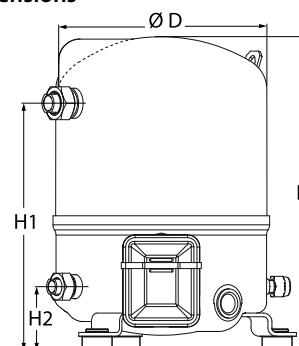


General Characteristics

Model number (on compressor nameplate)		NTZ048A5LR1B
Code number for Singlepack*		120F0228
Code number for Industrial pack**		120F0229
Drawing number		8501022e
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		1
Swept volume		48 cm ³ /rev
Displacement @ Nominal speed		8.3 m ³ /h @ 2900 rpm
Net weight		21 kg
Oil charge		0.95 litre, POE - 175PZ
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		12
Refrigerant charge limit		2.5 kg
Approved refrigerants		R404A, R452A

Dimensions


D=224 mm

H=333 mm

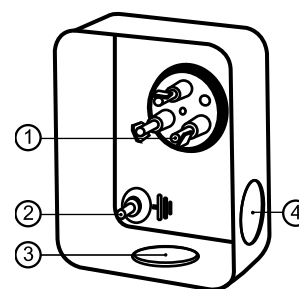
H1=263 mm

H2=68 mm

H3= mm

Electrical Characteristics

Nominal voltage	220-240V/1/50Hz
Voltage range	220-240 V
Winding resistance (main / start) at 25°C	1.67 Ω / 4.02 Ω
Run capacitors A + C	20 μF + 10 μF
Start capacitor B	100 μF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	11 A
Locked Rotor Amps (LRA)	37 A
Motor protection	Internal overload protector

Terminal box


IP55 (with cable gland)

1: Spade connectors 1/4"

2: Earth M4-12

3: Knock-out Ø 21 mm (0.83")

4: Hole Ø 21 mm (0.83")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	2 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, -, -

*Singlepack: Compressor in cardboard box

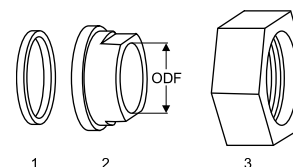
**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

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
Gasket, 1-1/4"	8156131

Gaskets, sleeves and nuts



- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

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

Rotolock accessories, sets

Code no.

Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2")	7703012
Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2")	7703005
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants

Code no.

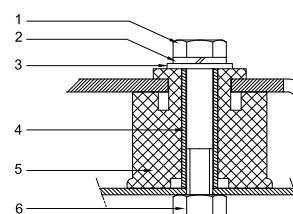
POE lubricant, 175PZ, 1 litre can	120Z0638
POE lubricant, 175PZ, 2.5 litre can	120Z0639

Crankcase heaters

Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106

Mounting kit



- 1: Bolt (3x)
- 2: Lock washer (3x)
- 3: Flat washer (3x)
- 4: Sleeve (3x)
- 5: Grommet (3x)
- 6: Nut (3x)

Miscellaneous accessories

Code no.

PSC starting kit, 20 µF, 10 µF	7701026
CSR starting kit, 20 µF, 10 µF, 98 µF	7701022
CSR starting kit, prewired box, 20 µF, 10 µF, 98 µF	7701028
Acoustic hood for 1 cylinder compressor	120Z0575
Oil equalisation nut	8153127

Spare parts

Code no.

Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

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Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-45	-40	-35	-30	-25	-20	-15	-10

Cooling capacity in W

30	-	-	1 226	1 726	2 337	3 073	3 946	4 968	-
35	-	-	1 073	1 531	2 092	2 767	3 570	4 512	-
40	-	-	928	1 347	1 859	2 476	3 211	4 076	-
45	-	-	-	1 173	1 639	2 200	2 869	3 659	-
50	-	-	-	-	1 429	1 937	2 543	3 259	-
55	-	-	-	-	-	1 684	2 229	2 876	-
60	-	-	-	-	-	-	-	-	-

Power input in W

30	-	-	818	965	1 112	1 255	1 389	1 510	-
35	-	-	810	969	1 132	1 296	1 455	1 605	-
40	-	-	797	967	1 145	1 328	1 511	1 689	-
45	-	-	-	960	1 152	1 353	1 558	1 764	-
50	-	-	-	-	1 155	1 373	1 599	1 830	-
55	-	-	-	-	-	1 388	1 634	1 890	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

30	-	-	3.68	4.32	4.99	5.64	6.25	6.78	-
35	-	-	3.67	4.36	5.10	5.84	6.56	7.24	-
40	-	-	3.63	4.37	5.17	6.00	6.84	7.65	-
45	-	-	-	4.34	5.21	6.13	7.07	8.01	-
50	-	-	-	-	5.22	6.22	7.27	8.34	-
55	-	-	-	-	-	6.29	7.44	8.64	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

30	-	-	30	42	57	75	97	123	-
35	-	-	27	39	53	71	92	117	-
40	-	-	25	36	50	67	88	112	-
45	-	-	-	33	47	64	84	107	-
50	-	-	-	-	44	60	79	103	-
55	-	-	-	-	-	57	75	98	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

30	-	-	1.50	1.79	2.10	2.45	2.84	3.29	-
35	-	-	1.32	1.58	1.85	2.14	2.45	2.81	-
40	-	-	1.16	1.39	1.62	1.87	2.13	2.41	-
45	-	-	-	1.22	1.42	1.63	1.84	2.07	-
50	-	-	-	-	1.24	1.41	1.59	1.78	-
55	-	-	-	-	-	1.21	1.36	1.52	-
60	-	-	-	-	-	-	-	-	-

Nominal performance at to = -35 °C, tc = 40 °C

Cooling capacity	928	W
Power input	797	W
Current consumption	3.63	A
Mass flow	25	kg/h
C.O.P.	1.16	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.1	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R452A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-45	-40	-35	-30	-25	-20	-15	-10

Cooling capacity in W

30	-	747	1 122	1 598	2 190	2 912	3 780	4 809	-
35	-	625	965	1 397	1 934	2 593	3 388	4 335	-
40	-	510	818	1 208	1 694	2 291	3 015	3 883	-
45	-	-	680	1 030	1 466	2 004	2 660	3 450	-
50	-	-	-	862	1 251	1 732	2 321	3 036	-
55	-	-	-	702	1 045	1 471	1 996	2 637	-
60	-	-	-	-	-	-	-	-	-

Power input in W

30	-	676	818	965	1 112	1 255	1 389	1 510	-
35	-	660	810	969	1 132	1 296	1 455	1 605	-
40	-	642	797	967	1 145	1 328	1 511	1 689	-
45	-	-	782	960	1 152	1 353	1 558	1 764	-
50	-	-	-	950	1 155	1 373	1 599	1 830	-
55	-	-	-	939	1 154	1 388	1 634	1 890	-
60	-	-	-	-	-	-	-	-	-

Current consumption in A

30	-	3.08	3.68	4.32	4.99	5.64	6.25	6.78	-
35	-	3.04	3.67	4.36	5.10	5.84	6.56	7.24	-
40	-	2.98	3.63	4.37	5.17	6.00	6.84	7.65	-
45	-	-	3.56	4.34	5.21	6.13	7.07	8.01	-
50	-	-	-	4.29	5.22	6.22	7.27	8.34	-
55	-	-	-	4.23	5.21	6.29	7.44	8.64	-
60	-	-	-	-	-	-	-	-	-

Mass flow in kg/h

30	-	24	36	49	66	86	109	135	-
35	-	22	33	46	62	81	103	129	-
40	-	19	30	43	58	77	98	124	-
45	-	-	27	40	55	73	94	118	-
50	-	-	-	37	51	69	89	113	-
55	-	-	-	33	48	65	85	108	-
60	-	-	-	-	-	-	-	-	-

Coefficient of performance (C.O.P.)

30	-	1.11	1.37	1.66	1.97	2.32	2.72	3.18	-
35	-	0.95	1.19	1.44	1.71	2.00	2.33	2.70	-
40	-	0.80	1.03	1.25	1.48	1.73	2.00	2.30	-
45	-	-	0.87	1.07	1.27	1.48	1.71	1.96	-
50	-	-	-	0.91	1.08	1.26	1.45	1.66	-
55	-	-	-	0.75	0.91	1.06	1.22	1.40	-
60	-	-	-	-	-	-	-	-	-

Nominal performance at to = -35 °C, tc = 40 °C

Cooling capacity	818	W
Power input	797	W
Current consumption	3.63	A
Mass flow	30	kg/h
C.O.P.	1.03	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.1	bar(g)

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-45	-40	-35	-30	-25	-20	-15	-10

Cooling capacity in W

30	-	868	1 283	1 792	2 403	3 123	3 962	4 927	-
35	-	-	1 126	1 602	2 171	2 841	3 621	4 519	-
40	-	-	964	1 406	1 932	2 551	3 271	4 100	-
45	-	-	-	1 206	1 688	2 254	2 912	3 671	-
50	-	-	-	-	1 441	1 952	2 548	3 235	-
55	-	-	-	-	-	1 649	2 180	2 794	-
60	-	-	-	-	-	1 345	1 810	2 351	-

Power input in W

30	-	829	993	1 146	1 291	1 431	1 571	1 712	-
35	-	-	988	1 158	1 321	1 481	1 641	1 805	-
40	-	-	976	1 162	1 342	1 520	1 700	1 885	-
45	-	-	-	1 158	1 354	1 549	1 748	1 953	-
50	-	-	-	-	1 357	1 568	1 785	2 009	-
55	-	-	-	-	-	1 578	1 810	2 052	-
60	-	-	-	-	-	1 577	1 825	2 083	-

Current consumption in A

30	-	3.79	4.38	5.01	5.64	6.25	6.80	7.27	-
35	-	-	4.45	5.13	5.84	6.56	7.25	7.89	-
40	-	-	4.42	5.14	5.92	6.73	7.55	8.34	-
45	-	-	-	5.08	5.91	6.81	7.73	8.66	-
50	-	-	-	-	5.88	6.84	7.85	8.90	-
55	-	-	-	-	-	6.86	7.96	9.12	-
60	-	-	-	-	-	6.94	8.10	9.35	-

Mass flow in kg/h

30	-	21	31	43	58	76	98	123	-
35	-	-	29	41	56	73	94	119	-
40	-	-	26	38	53	70	91	115	-
45	-	-	-	35	49	66	86	110	-
50	-	-	-	-	45	62	82	105	-
55	-	-	-	-	-	57	76	99	-
60	-	-	-	-	-	52	70	92	-

Coefficient of performance (C.O.P.)

30	-	1.05	1.29	1.56	1.86	2.18	2.52	2.88	-
35	-	-	1.14	1.38	1.64	1.92	2.21	2.50	-
40	-	-	0.99	1.21	1.44	1.68	1.92	2.17	-
45	-	-	-	1.04	1.25	1.45	1.67	1.88	-
50	-	-	-	-	1.06	1.24	1.43	1.61	-
55	-	-	-	-	-	1.05	1.20	1.36	-
60	-	-	-	-	-	0.85	0.99	1.13	-

Nominal performance at to = -35 °C, tc = 40 °C

Cooling capacity	964	W
Power input	976	W
Current consumption	4.42	A
Mass flow	26	kg/h
C.O.P.	0.99	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.1	bar(g)

Sound power data

Sound power level	70	dB(A)
With acoustic hood	60	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-45	-40	-35	-30	-25	-20	-15	-10

Cooling capacity in W

30	471	772	1 157	1 639	2 227	2 933	3 767	4 741	-
35	360	639	996	1 440	1 982	2 634	3 407	4 312	-
40	251	508	833	1 238	1 733	2 329	3 039	3 873	-
45	148	380	673	1 037	1 482	2 021	2 665	3 426	-
50	-	259	517	838	1 233	1 713	2 289	2 975	-
55	-	-	369	646	987	1 406	1 913	2 522	-
60	-	-	233	462	749	1 104	1 539	2 068	-

Power input in W

30	649	829	993	1 146	1 291	1 431	1 571	1 712	-
35	614	808	988	1 158	1 321	1 481	1 641	1 805	-
40	575	782	976	1 162	1 342	1 520	1 700	1 885	-
45	532	750	958	1 158	1 354	1 549	1 748	1 953	-
50	-	713	933	1 146	1 357	1 568	1 785	2 009	-
55	-	-	901	1 127	1 351	1 578	1 810	2 052	-
60	-	-	864	1 100	1 337	1 577	1 825	2 083	-

Current consumption in A

30	3.26	3.79	4.38	5.01	5.64	6.25	6.80	7.27	-
35	3.31	3.83	4.45	5.13	5.84	6.56	7.25	7.89	-
40	3.29	3.80	4.42	5.14	5.92	6.73	7.55	8.34	-
45	3.25	3.72	4.34	5.08	5.91	6.81	7.73	8.66	-
50	-	3.66	4.26	5.01	5.88	6.84	7.85	8.90	-
55	-	-	4.22	4.97	5.86	6.86	7.96	9.12	-
60	-	-	4.28	5.00	5.90	6.94	8.10	9.35	-

Mass flow in kg/h

30	16	26	38	52	68	88	110	136	-
35	13	23	35	49	65	84	106	131	-
40	10	20	32	46	62	81	102	127	-
45	6	16	28	42	58	76	97	122	-
50	-	13	24	37	53	71	92	116	-
55	-	-	20	33	48	66	86	109	-
60	-	-	15	27	42	59	79	102	-

Coefficient of performance (C.O.P.)

30	0.73	0.93	1.17	1.43	1.72	2.05	2.40	2.77	-
35	0.59	0.79	1.01	1.24	1.50	1.78	2.08	2.39	-
40	0.44	0.65	0.85	1.07	1.29	1.53	1.79	2.05	-
45	0.28	0.51	0.70	0.90	1.10	1.30	1.52	1.75	-
50	-	0.36	0.55	0.73	0.91	1.09	1.28	1.48	-
55	-	-	0.41	0.57	0.73	0.89	1.06	1.23	-
60	-	-	0.27	0.42	0.56	0.70	0.84	0.99	-

Nominal performance at to = -35 °C, tc = 40 °C

Cooling capacity	833	W
Power input	976	W
Current consumption	4.42	A
Mass flow	32	kg/h
C.O.P.	0.85	

Pressure switch settings

Maximum HP switch setting	27.7	bar(g)
Minimum LP switch setting	0.1	bar(g)
LP pump down setting	0.1	bar(g)

Sound power data

Sound power level	70	dB(A)
With acoustic hood	60	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900