



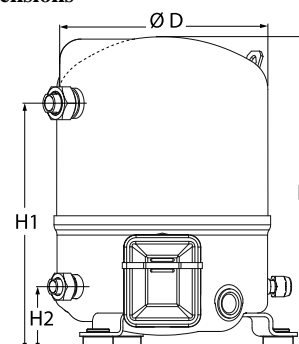
Datasheets

Maneurop[®] Reciprocating compressors MT / MTZ / MPZ / NTZ



General Characteristics

Model number (on compressor nameplate)		NTZ048A4LR1A
Code number for Singlepack*		120F0001
Code number for Industrial pack**		120F0008
Drawing number		8501026f
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		30 bar / 8 bar
Cylinders		1
Swept volume		48 cm3/rev
Displacement @ Nominal speed		8.3 m3/h @ 2900 rpm - 10.1 m3/h @ 3500 rpm
Net weight		21 kg
Oil charge		0,95 litre, POE - 160Z
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, R507A

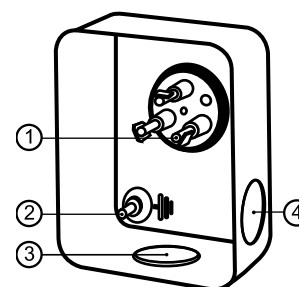
Dimensions


D=224 mm

H=333 mm

H1=263 mm

H2=68 mm

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")

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	11.55 #
Maximum Continuous Current (MCC)	4.8 A
Locked Rotor Amps (LRA)	16 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	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

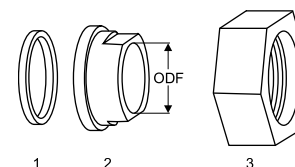
Approvals : CE certified, UL certified (file SA6873), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 8 Unboxed compressors on pallet (order per multiples of 8)

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.

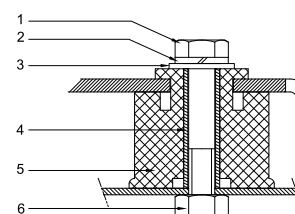
Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2")	7703012
Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2")	7703005
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.

POE lubricant, 160PZ, 1 litre can	7754019
POE lubricant, 160PZ, 2 litre can	7754020

Crankcase heaters
Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106
Belt type crankcase heater, 54 W, 400 V, UL	7773013

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.

Acoustic hood for 1 cylinder compressor	120Z0471
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

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	-	870	1 286	1 789	2 385	3 083	3 891	4 816	-
35	-	-	1 142	1 608	2 160	2 804	3 550	4 403	-
40	-	-	995	1 424	1 931	2 521	3 204	3 987	-
45	-	-	-	1 239	1 700	2 236	2 856	3 567	-
50	-	-	-	-	1 469	1 950	2 507	3 145	-
55	-	-	-	-	-	1 664	2 157	2 723	-
60	-	-	-	-	-	1 380	1 808	2 302	-

Power input in W

30	-	698	899	1 091	1 268	1 420	1 541	1 622	-
35	-	-	889	1 103	1 305	1 487	1 642	1 762	-
40	-	-	868	1 102	1 328	1 539	1 727	1 884	-
45	-	-	-	1 087	1 336	1 574	1 794	1 986	-
50	-	-	-	-	1 328	1 592	1 842	2 069	-
55	-	-	-	-	-	1 591	1 869	2 129	-
60	-	-	-	-	-	1 568	1 874	2 166	-

Current consumption in A

30	-	1.92	2.09	2.28	2.48	2.67	2.84	3.00	-
35	-	-	2.09	2.30	2.52	2.75	2.96	3.16	-
40	-	-	2.08	2.31	2.56	2.81	3.07	3.31	-
45	-	-	-	2.30	2.58	2.87	3.16	3.45	-
50	-	-	-	-	2.58	2.90	3.23	3.56	-
55	-	-	-	-	-	2.92	3.28	3.65	-
60	-	-	-	-	-	2.92	3.31	3.73	-

Mass flow in kg/h

30	-	21	31	43	58	75	96	120	-
35	-	-	29	41	55	73	93	116	-
40	-	-	27	39	53	69	89	112	-
45	-	-	-	36	50	66	85	107	-
50	-	-	-	-	46	62	80	102	-
55	-	-	-	-	-	58	75	96	-
60	-	-	-	-	-	53	70	90	-

Coefficient of performance (C.O.P.)

30	-	1.25	1.43	1.64	1.88	2.17	2.52	2.97	-
35	-	-	1.28	1.46	1.66	1.89	2.16	2.50	-
40	-	-	1.15	1.29	1.45	1.64	1.86	2.12	-
45	-	-	-	1.14	1.27	1.42	1.59	1.80	-
50	-	-	-	-	1.11	1.22	1.36	1.52	-
55	-	-	-	-	-	1.05	1.15	1.28	-
60	-	-	-	-	-	0.88	0.96	1.06	-

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

Cooling capacity	995	W
Power input	868	W
Current consumption	2.08	A
Mass flow	27	kg/h
C.O.P.	1.15	



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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)

All performance data +/- 5%

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	466	774	1 160	1 636	2 211	2 896	3 700	4 635	-
35	371	655	1 010	1 445	1 972	2 600	3 340	4 202	-
40	278	538	860	1 255	1 732	2 303	2 977	3 766	-
45	189	423	712	1 065	1 493	2 006	2 614	3 329	-
50	-	312	568	879	1 257	1 711	2 252	2 893	-
55	-	-	429	698	1 024	1 419	1 893	2 458	-
60	-	-	298	523	797	1 132	1 537	2 025	-

Power input in W

30	497	698	899	1 091	1 268	1 420	1 541	1 622	-
35	457	671	889	1 103	1 305	1 487	1 642	1 762	-
40	410	635	868	1 102	1 328	1 539	1 727	1 884	-
45	353	588	835	1 087	1 336	1 574	1 794	1 986	-
50	-	528	789	1 058	1 328	1 592	1 842	2 069	-
55	-	-	727	1 012	1 302	1 591	1 869	2 129	-
60	-	-	648	947	1 257	1 568	1 874	2 166	-

Current consumption in A

30	1.76	1.92	2.09	2.28	2.48	2.67	2.84	3.00	-
35	1.73	1.90	2.09	2.30	2.52	2.75	2.96	3.16	-
40	1.69	1.87	2.08	2.31	2.56	2.81	3.07	3.31	-
45	1.64	1.83	2.05	2.30	2.58	2.87	3.16	3.45	-
50	-	1.78	2.01	2.28	2.58	2.90	3.23	3.56	-
55	-	-	1.96	2.25	2.57	2.92	3.28	3.65	-
60	-	-	1.88	2.19	2.54	2.92	3.31	3.73	-

Mass flow in kg/h

30	16	26	38	52	68	87	108	133	-
35	14	24	35	49	65	83	104	128	-
40	11	21	33	46	62	80	100	123	-
45	8	18	30	43	58	76	95	118	-
50	-	15	26	39	54	71	90	112	-
55	-	-	23	35	50	66	85	106	-
60	-	-	19	31	45	61	79	100	-

Coefficient of performance (C.O.P.)

30	0.94	1.11	1.29	1.50	1.74	2.04	2.40	2.86	-
35	0.81	0.98	1.14	1.31	1.51	1.75	2.03	2.39	-
40	0.68	0.85	0.99	1.14	1.30	1.50	1.72	2.00	-
45	0.53	0.72	0.85	0.98	1.12	1.27	1.46	1.68	-
50	-	0.59	0.72	0.83	0.95	1.07	1.22	1.40	-
55	-	-	0.59	0.69	0.79	0.89	1.01	1.15	-
60	-	-	0.46	0.55	0.63	0.72	0.82	0.94	-

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

Cooling capacity	860	W
Power input	868	W
Current consumption	2.08	A
Mass flow	33	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

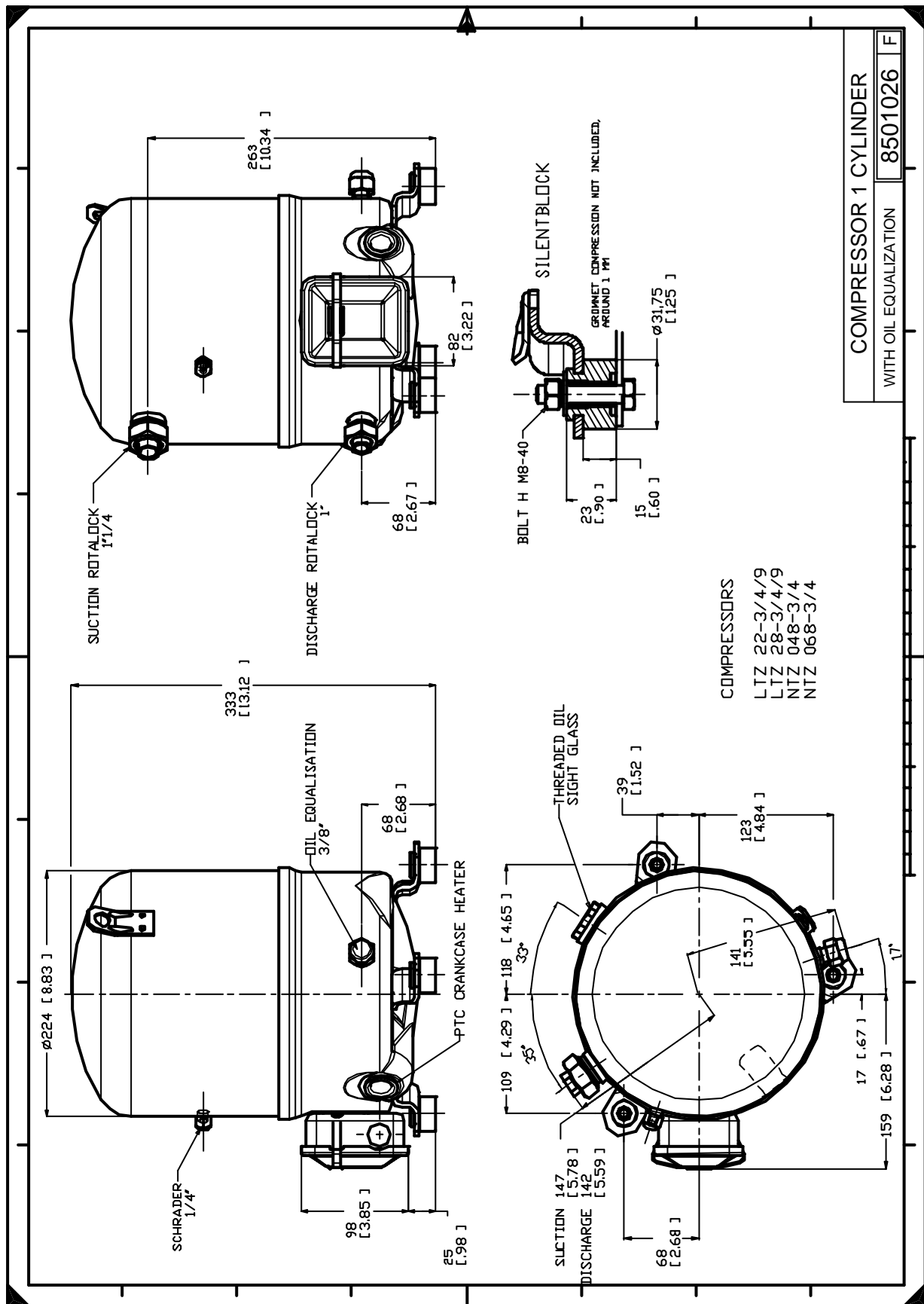
Sound power level	70	dB(A)
With acoustic hood	60	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%



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