

Type: Hermetic piston compressors

Producer: Maneurop

Series: NTZ

Model: NTZ136

Technical data

Cylinder count:	2
Displacement [m ³ /h]:	23,7
Cylinder capacity [cm ³]:	136
RPM [min ⁻¹]:	2900
Weight [kg]:	35
Oil charge [dm ³]:	2
Oil type:	160Z
Crankcase heater type:	PTC35W
Maximum system test pressure low side / high side:	25 / 30
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm ³]:	5
Refrigerant:	R404A
Sound power [dB]:	77
Sound power with accoustic hood [dB]:	71

Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 3/4"
Discharge Rotolock valve connection:		1 1/4"
Suction connection with supplied sleeve:		1 1/8"
Discharge connection with supplied sleeve:		3/4"

Approvals

CCC	-
CE	+
UL	+

R404A/R507

Cooling capacity [W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10
30	2 048	2 943	4 059	5 425	7 068	9 019	11 303	13 951
35	1 755	2 599	3 644	4 918	6 452	8 272	10 406	12 884
40	1 465	2 254	3 225	4 407	5 827	7 514	9 496	11 801
45	1 179	1 912	2 807	3 892	5 197	6 748	8 575	10 706
50	-	1 574	2 390	3 377	4 564	5 977	7 646	9 599
55	-	-	1 979	2 865	3 931	5 204	6 713	8 486
60	-	-	1 576	2 359	3 300	4 430	5 776	7 367

Power input [W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10
30	1 885	2 400	2 893	3 358	3 787	4 173	4 509	4 788
35	1 837	2 378	2 911	3 429	3 924	4 390	4 820	5 205
40	1 768	2 329	2 896	3 461	4 017	4 557	5 073	5 560
45	1 692	2 268	2 862	3 468	4 079	4 687	5 285	5 866
50	-	2 209	2 825	3 467	4 126	4 796	5 470	6 140
55	-	-	2 800	3 471	4 173	4 899	5 642	6 395
60	-	-	2 800	3 495	4 234	5 010	5 817	6 647

Current [A]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10
30	5.15	5.59	6.07	6.59	7.13	7.68	8.24	8.80
35	5.05	5.56	6.11	6.70	7.32	7.96	8.61	9.25
40	4.89	5.47	6.10	6.77	7.47	8.20	8.94	9.68
45	4.66	5.32	6.03	6.79	7.58	8.40	9.23	10.08
50	-	5.11	5.91	6.76	7.65	8.56	9.50	10.45
55	-	-	5.74	6.68	7.67	8.69	9.73	10.79
60	-	-	5.51	6.56	7.65	8.78	9.94	11.11

Mass flow [kg/s]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10
30	48.87	70.98	98.11	131.36	171.82	220.60	278.79	347.50
35	44.29	66.15	92.94	125.78	165.75	213.96	271.50	339.48
40	39.28	60.84	87.25	119.63	159.06	206.64	263.48	330.68
45	33.84	55.05	81.03	112.89	151.73	198.64	254.73	321.09
50	-	48.76	74.26	105.56	143.76	189.95	245.23	310.70
55	-	-	66.95	97.63	135.13	180.55	234.98	299.51
60	-	-	59.08	89.10	125.85	170.44	223.96	287.51

C.O.P. [W/W]

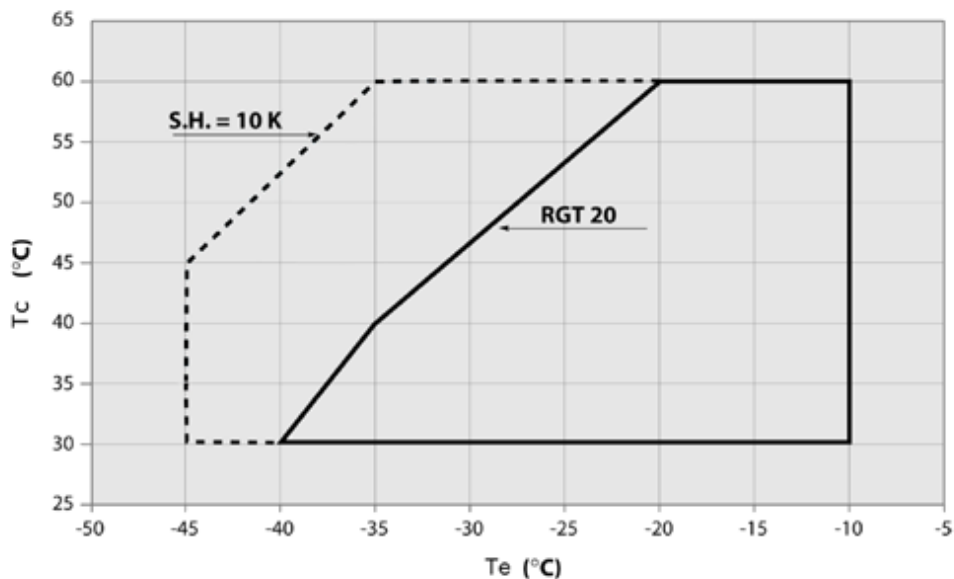
$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10
30	1.09	1.23	1.40	1.62	1.87	2.16	2.51	2.91
35	0.96	1.09	1.25	1.43	1.64	1.88	2.16	2.48
40	0.83	0.97	1.11	1.27	1.45	1.65	1.87	2.12
45	0.70	0.84	0.98	1.12	1.27	1.44	1.62	1.82
50	-	0.71	0.85	0.97	1.11	1.25	1.40	1.56
55	-	-	0.71	0.83	0.94	1.06	1.19	1.33
60	-	-	0.56	0.67	0.78	0.88	0.99	1.11

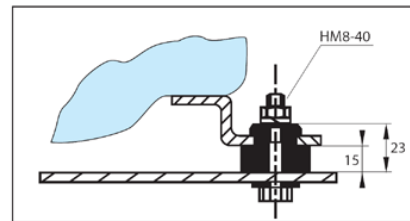
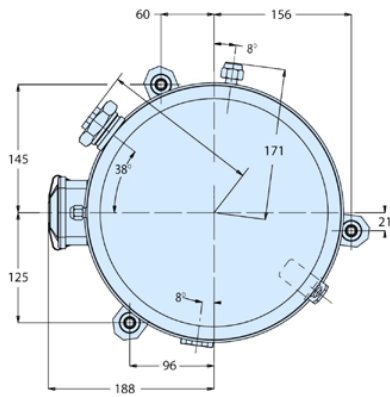
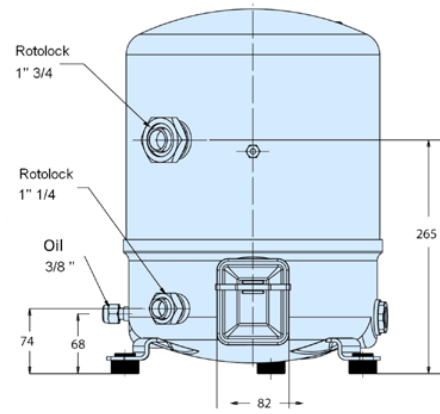
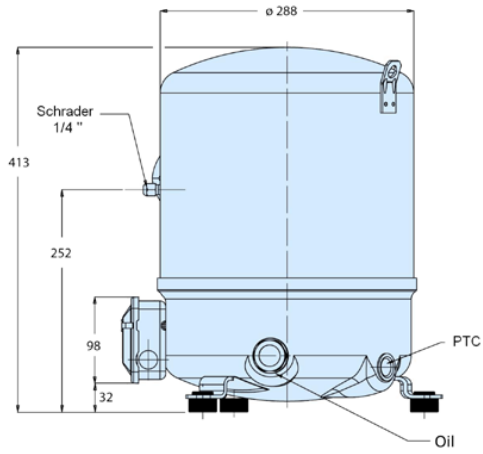
Operating conditions: suction gas return temperature: 20°C, subcooling: 0 K

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Application range



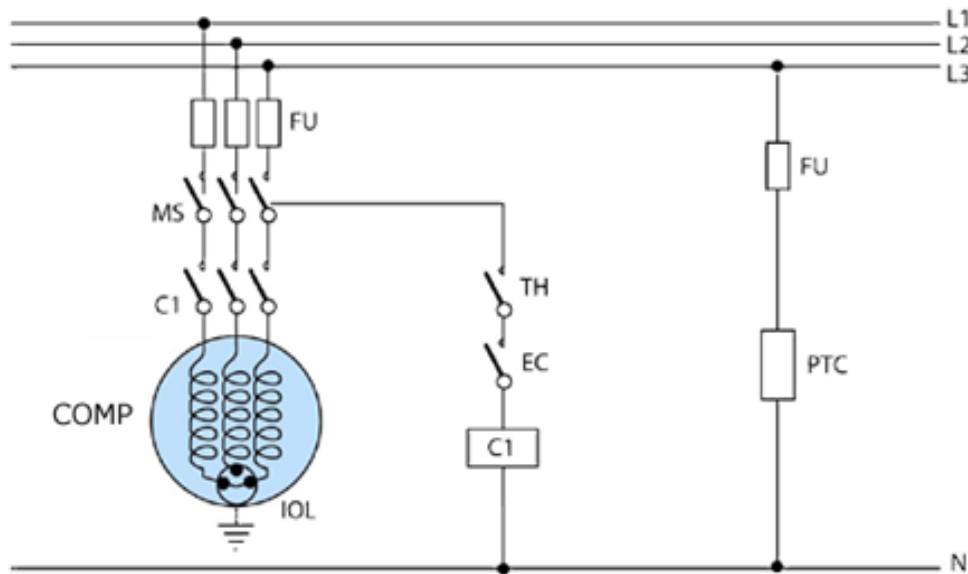




Electrical data

Starting current [A]:	51
Maximum Continuous Current (MCC) [A]:	14,3
Winding resistance (between phases) [Ω]:	3,8

Three-phase power supply



FU: Fuses

C1: Compressor contactor

EC: Outside sensors

PTC: Oil heater

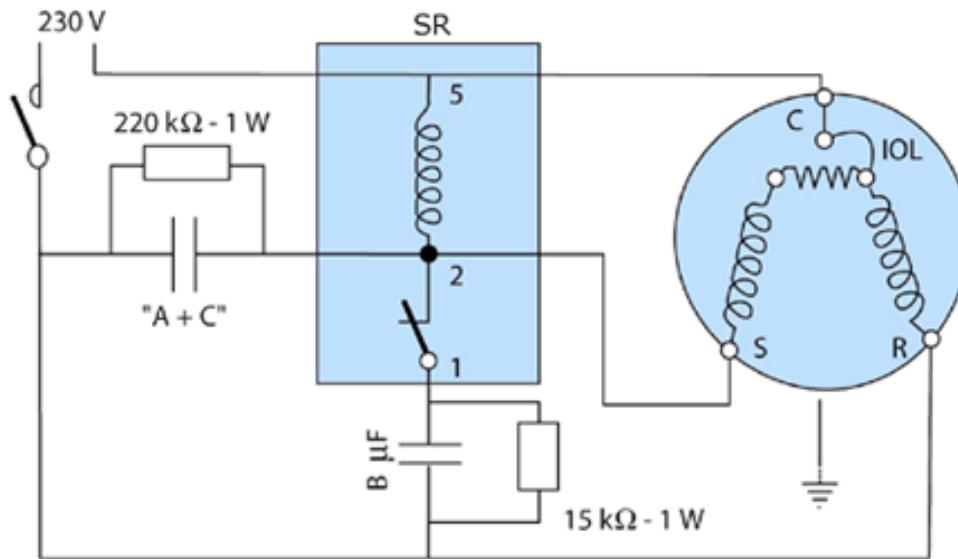
MS: Main switch

TH: Thermostat

COMP: Compressor

IOL: Internal motor protection

Single phase power supply



IOL: Internal motor protection

B: starting condenser

S: additional starting winding

condensers A and C are replaced by one condenser of capacity A + C

A+C: main condensers

C: common

R: main running winding

Equipment

- ▶ crankcase heater - PTC35W
- ▶ belt type heater - crankcase heater 65W, 230V
- ▶ Rotolock valves
 - suction: Rotolock valve connection 1 3/4", connection with supplied sleeve 1 1/8"
 - discharge: Rotolock valve connection 1 1/4", connection with supplied sleeve 3/4"
- ▶ soft-start kit - electronic softstart MCI 15C
- ▶ acoustic hood - acoustic shield of Danfoss catalogue number 7755002