

# Model: LTZ22

## Data

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**Type:** Hermetic piston compressors

**Producer:** Maneurop

**Series:** LTZ

## Model: LTZ22

### Technical data

Cylinder count:	1
Displacement [m <sup>3</sup> /h]:	8,36
Cylinder capacity [cm <sup>3</sup> ]:	48,1
RPM [min <sup>-1</sup> ]:	2900
Weight [kg]:	21
Oil charge [dm <sup>3</sup> ]:	1
Oil type:	160Z
Crankcase heater type:	PTC 35 W
Maximum system test pressure low side / high side:	25 / 30
Maximum number of starts without softstart [1/h]:	12
Refrigerant charge limit [dm <sup>3</sup> ]:	3
Refrigerant:	R404A/R507
Sound power [dB]:	71
Sound power with acoustic hood [dB]:	64

### Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		1 1/4"
Discharge Rotolock valve connection:		1"
Suction connection with supplied sleeve:		5/8"
Discharge connection with supplied sleeve:		1/2"

### Approvals

CCC	-
CE	+
UL	+

# Model: LTZ22

## Capacity

R404A/R507

### Cooling capacity [W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20
30	533	825	1 212	1 707	2 323	3 073
35	472	739	1 093	1 547	2 113	2 805
40	393	629	944	1 351	1 863	2 492
45	321	521	792	1 146	1 597	2 158
50	-	440	661	957	1 342	1 828
55	-	412	577	809	1 122	1 527
60	-	-	565	728	962	1 282

### Power input [W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20
30	618	759	920	1 101	1 305	1 532
35	628	773	937	1 122	1 331	1 563
40	630	778	945	1 135	1 349	1 587
45	626	776	948	1 143	1 361	1 606
50	-	771	947	1 146	1 370	1 621
55	-	762	942	1 147	1 377	1 634
60	-	-	938	1 147	1 383	1 647

### Current [A]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20
30	1.67	1.96	2.25	2.55	2.85	3.13
35	1.60	1.89	2.19	2.48	2.78	3.06
40	1.55	1.84	2.14	2.44	2.73	3.01
45	1.53	1.82	2.11	2.41	2.71	2.99
50	-	1.81	2.11	2.41	2.70	2.99
55	-	1.83	2.13	2.43	2.72	3.01
60	-	-	2.17	2.47	2.76	3.05

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## Capacity

### Mass flow [kg/s]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20
30	18.67	26.50	36.53	49.02	64.28	82.57
35	16.23	24.22	34.37	46.96	62.27	80.59
40	13.80	21.53	31.40	43.67	58.63	76.57
45	12.28	19.35	28.51	40.06	54.26	71.41
50	-	18.56	26.62	37.03	50.07	66.02
55	-	20.08	26.63	35.50	46.95	61.29
60	-	-	29.44	36.35	45.82	58.14

### C.O.P. [W/W]

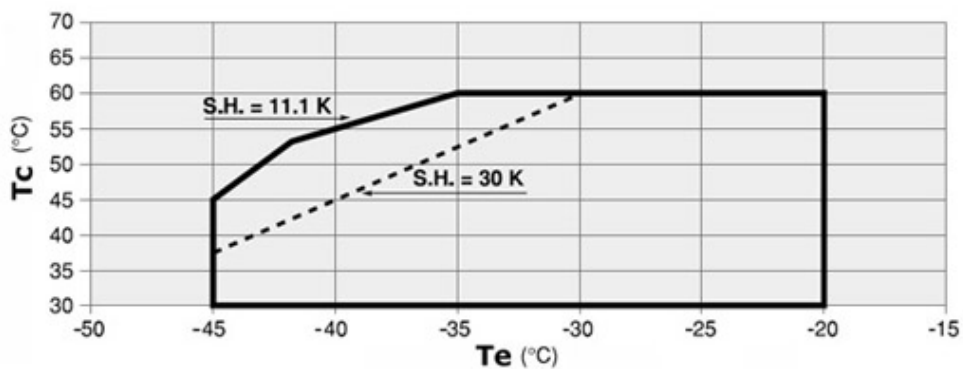
$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20
30	0.86	1.09	1.32	1.55	1.78	2.01
35	0.75	0.96	1.17	1.38	1.59	1.79
40	0.62	0.81	1.00	1.19	1.38	1.57
45	0.51	0.67	0.84	1.00	1.17	1.34
50	-	0.57	0.70	0.84	0.98	1.13
55	-	0.54	0.61	0.71	0.81	0.93
60	-	-	0.60	0.63	0.70	0.78

Operating conditions: suction superheat: 11.1 K, subcooling: 8.3 K

$t_c$  - Condensing temperature [°C]

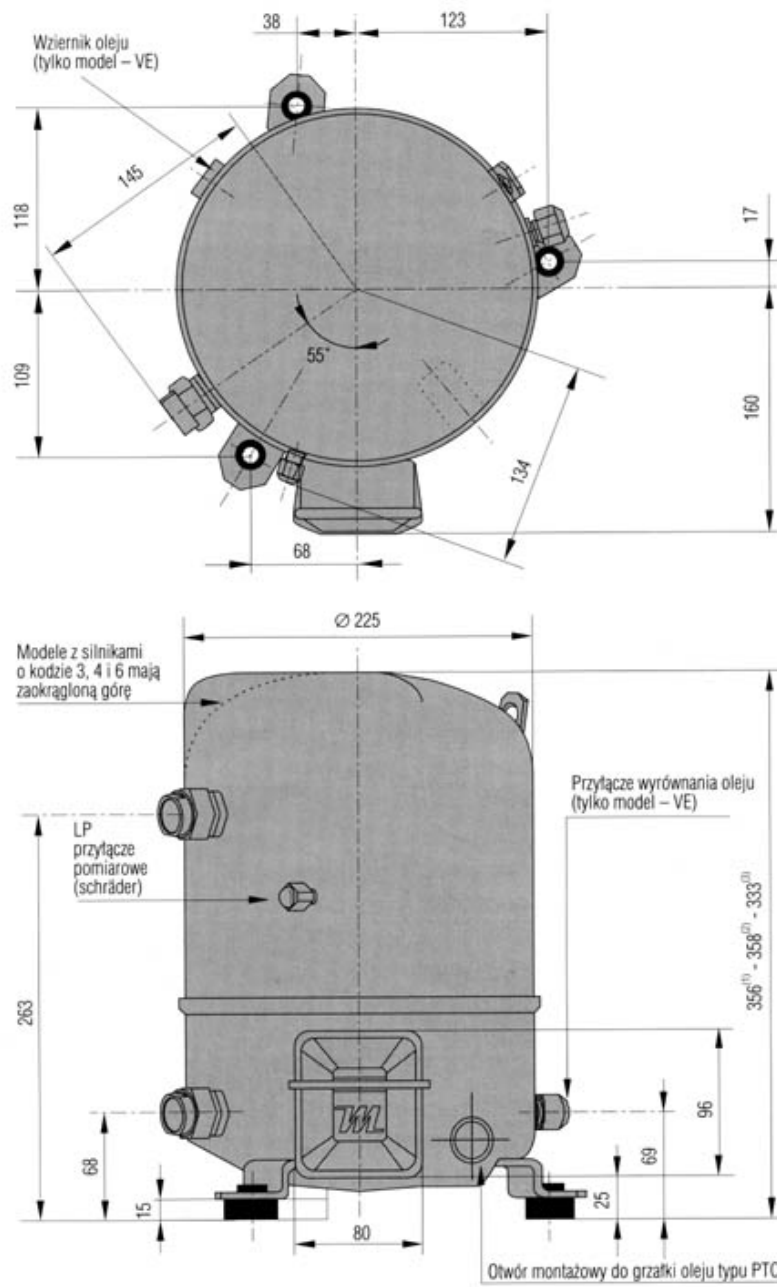
$t_e$  - Evaporating temperature [°C]

### Application range



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## Dimensions



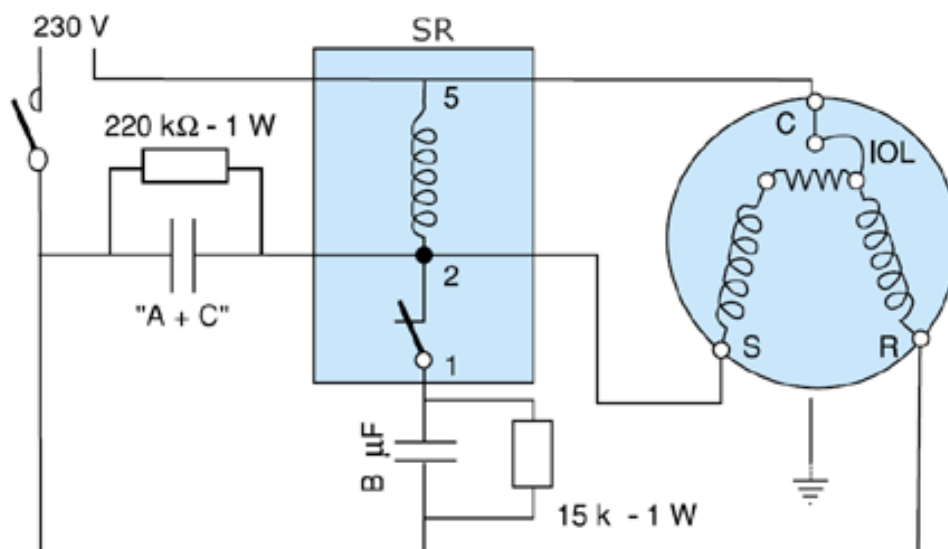


### Single phase power supply

#### Electrical data

Motor voltage code:	1	5
Starting current [A]:	49,3	41
Maximum Continuous Current (MCC) [A]:	17	15
Winding resistance (between phases) (run/start) [ $\Omega$ ]:	1,25/2,49	1,78/4,74
Main condenser (A) (PSC/CSR) [ $\mu\text{F}$ ]:		20
Main condenser (C) (PSC/CSR) [ $\mu\text{F}$ ]:		10
Starting condenser (B) (CSR) [ $\mu\text{F}$ ]:		100
Starting relay (CSR):		3ARR3J4A4

#### CSR start with additional crankcase heater



IOL: Inner motor protection (klixon)

A + C: Main condensers

B: Starting condenser

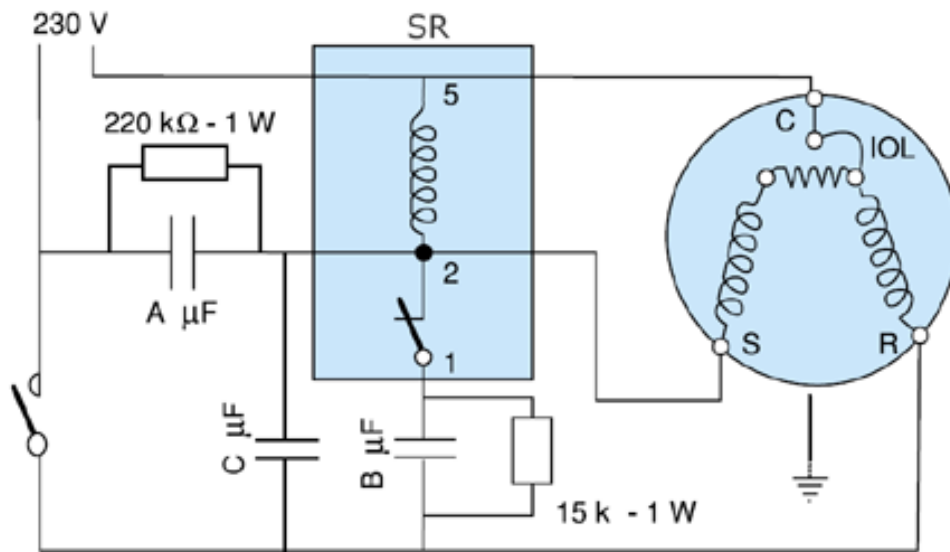
C: common ("ground")

S: Starting winding (additional)

R: Running winding (main)

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

**CSR start with additional wire (for LTZ 22)**



IOL: Inner motor protection (klixon)

A + C: Main condensers

B: Starting condenser

C: common ("ground")

S: Starting winding (additional)

R: Running winding (main)

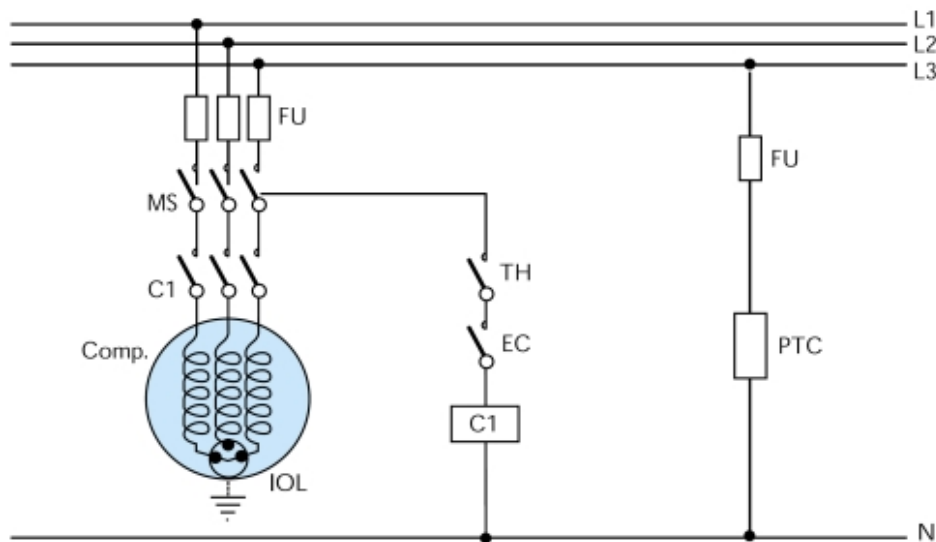
Condensers A and C are replaced by one condenser of capacity A + C

## Three-phase power supply

### Electrical data

Motor voltage code:	3	4	6	9
Starting current [A]:	38	16		22
Maximum Continuous Current (MCC) [A]:	11	6		5
Winding resistance (between phases) [ $\Omega$ ]:	2,49	10,24		13,1

### Suggested wiring



FU: Fuses

MS: Main switch

C1: Compressor contactor

TH: Thermostat

EC: Outside sensors

COMP: Compressor

PTC: Oil heater

IOL: Inner motor protection (klixon)



### **Equipment**

- ▶ crankcase heater - PTC 35 W
- ▶ belt type heater - crankcase heater 55W, 230V
- ▶ Rotolock valves
  - suction: Rotolock valve connection 1 1/4", connection with supplied sleeve 5/8"
  - discharge: Rotolock valve connection 1", connection with supplied sleeve 1/2"
- ▶ soft-start kit - electronic softstart MCI 15C
- ▶ acoustic hood - acoustic shield of Danfoss catalogue number 7755001