

Model: S10-52Y

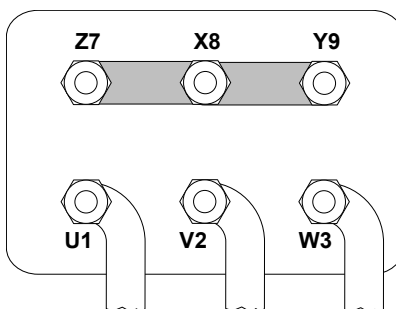
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

Technical data:

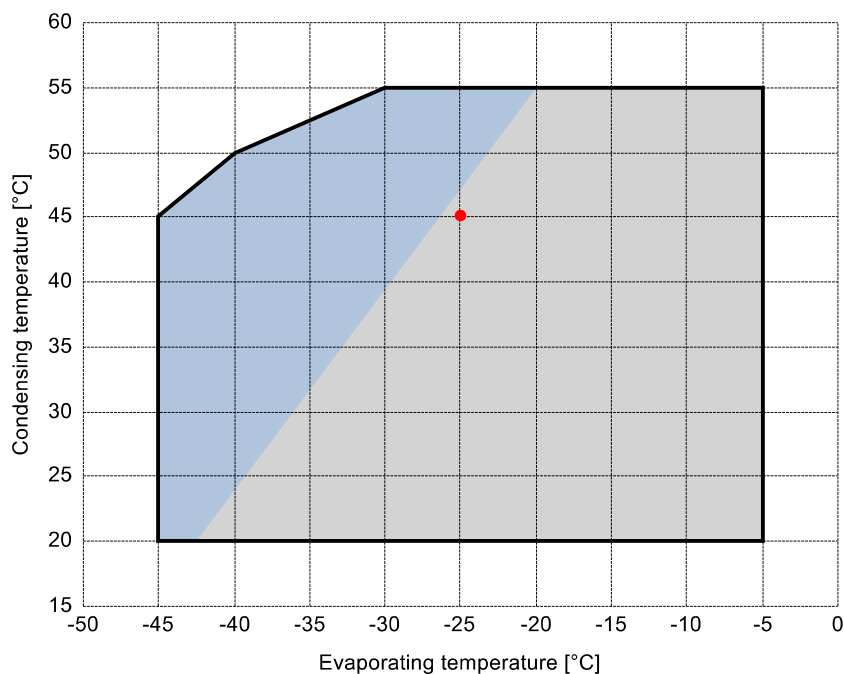
Displacement	51.5 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	21 A
locked rotor current (LRA)	86.1 A
Number of pistons	4
Net weight	120 kg
Lubricant	FRASCOLD POE32
Oil charge	2.9 l

Motor connections:



Application range:

Additional cooling required



Reference conditions according to EN12900

- Suction gas temperature = 20 °C
- Liquid subcooling = 0 K
- 100% of the capacity

Certified by:

- Frascold tentative data

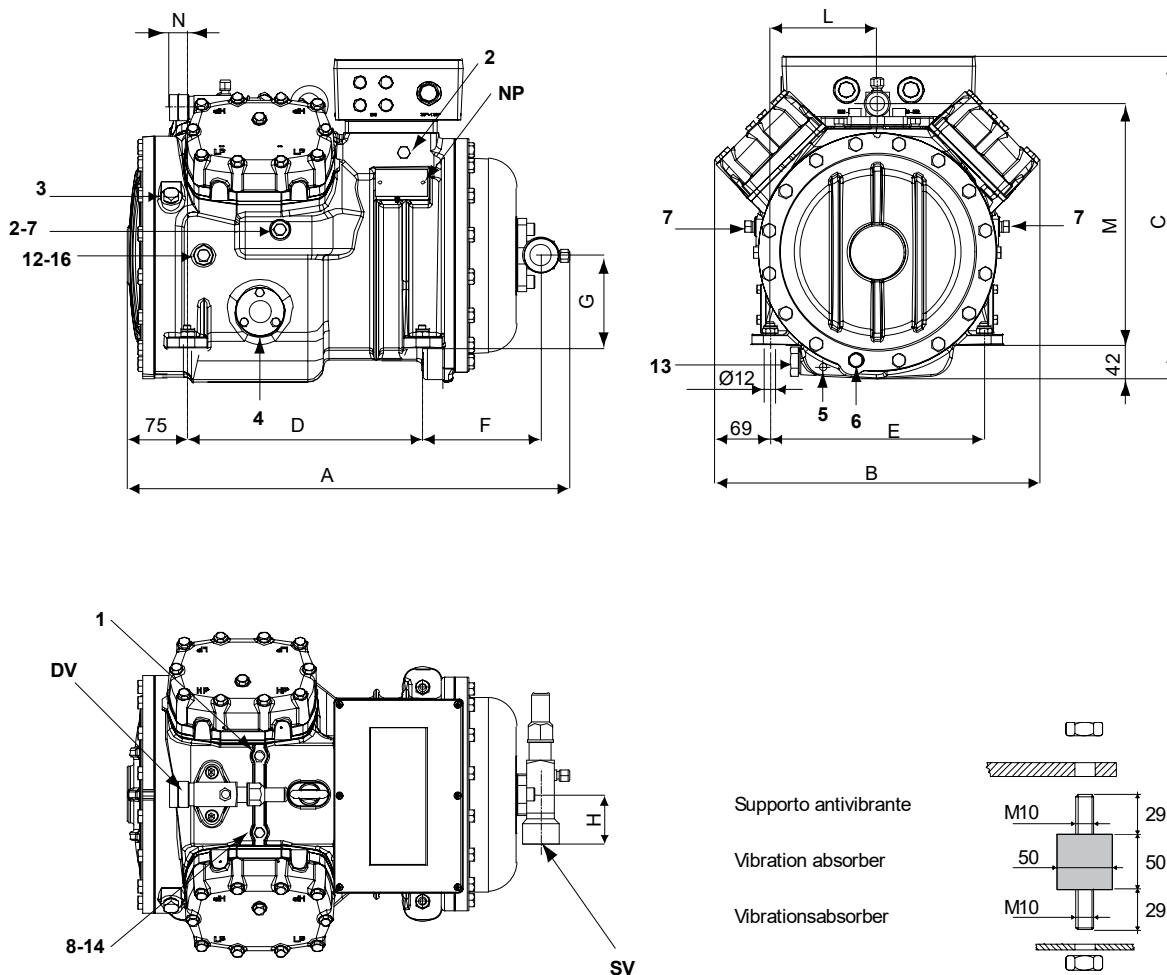
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Dimensions:



Legend:

SV: Suction Valve	1 3/8" in - 35 mm	1: High pressure connection	1/8" NPT
DV: Discharge valve	1 1/8" in - 28.575 mm	2: Low pressure connection	1/8" NPT
A: Length	550 mm	3: Oil charge plug	1/4" GAS
B: Width	405 mm	4: Oil level sight glass	-
C: Height	405 mm	5: Crankcase heater seat	-
D: Base mounting	292 mm	6: Oil drain plug	M10 x 30
E: Base mounting	266 mm	7: Liquid injection plug	1/4" NPT
F: Suction Valve	147 mm	8: Liquid injection sensor plug	1/8" NPT
G: Suction Valve	115 mm	12: Oil return plug	1/4" NPT
H: Suction Valve	58 mm	13: Magnetic plug	1/2" GAS
L: Discharge valve	133 mm	14: Max discharge temperature sensor connection	1/8" NPT
M: Discharge valve	298 mm	16: Crankcase pressure plug	1/4" NPT
N: Discharge valve	23 mm	NP: Nameplate	

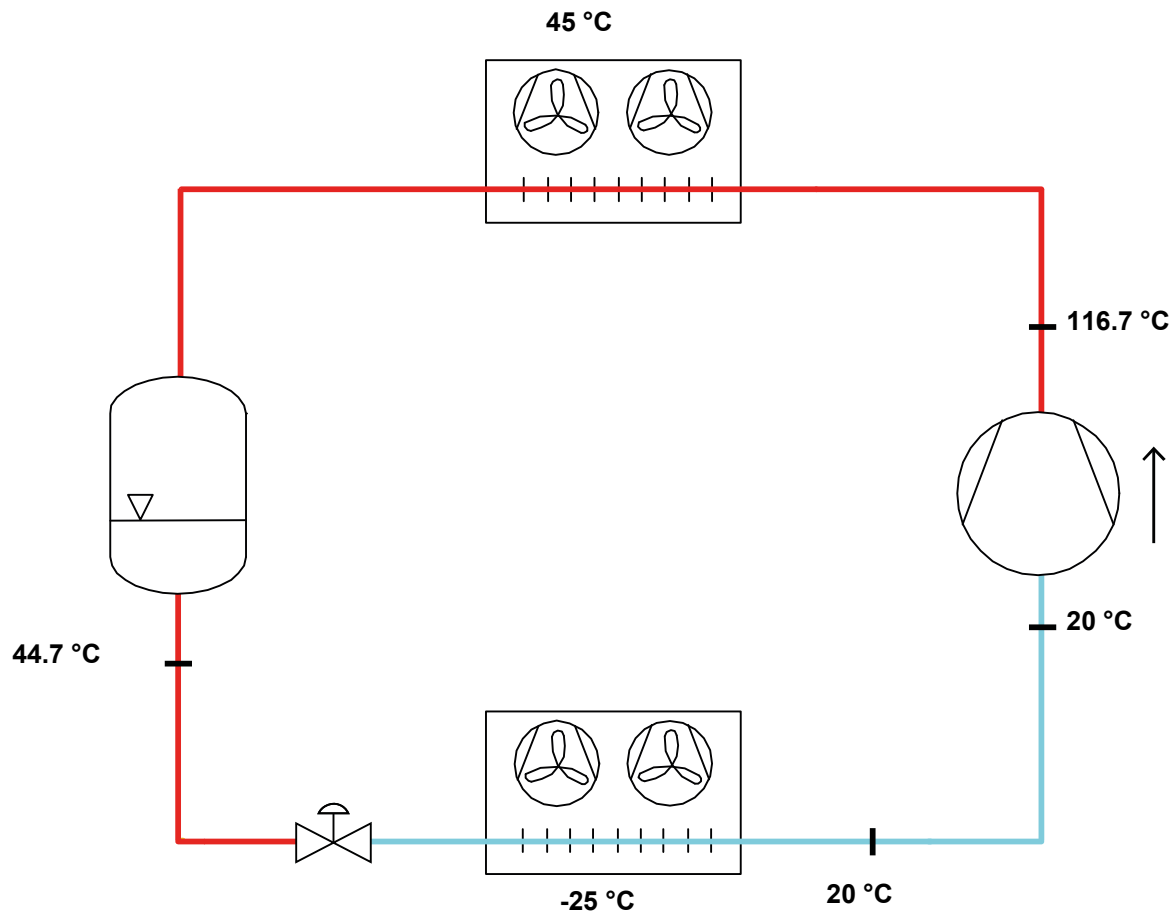
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P&I Diagram:



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Performance data:

Operating mode	Subcritical, 100 % of the capacity
Liquid subcooling	0 K
Suction gas temperature	20 °C
Useful fraction of superheating	100 %
Frequency	50 Hz
Additional cooling required	

Refrigerating capacity [kW]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C
T.Cond									
55 °C	-	-	-	8.358	10.886	13.768	-	-	-
50 °C	-	4.855	7.142	9.591	12.327	15.471	19.147	-	-
45 °C	3.487	5.78	8.167	10.774	13.722	17.134	21.134	-	-
40 °C	4.308	6.651	9.146	11.915	15.081	18.767	23.096	28.191	-
35 °C	5.079	7.479	10.085	13.022	16.412	20.377	25.042	30.528	36.958
30 °C	5.809	8.27	10.995	14.105	17.724	21.974	26.979	32.862	39.744
25 °C	6.506	9.035	11.883	15.172	19.026	23.567	28.918	35.202	42.543
20 °C	7.179	9.782	12.759	16.233	20.327	25.164	30.867	37.558	45.362

Power input [W]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C
T.Cond									
55 °C	-	-	-	7815	9219	10671	-	-	-
50 °C	-	5340	6462	7700	9012	10356	11690	-	-
45 °C	4384	5305	6366	7525	8743	9975	11182	-	-
40 °C	4354	5227	6223	7302	8422	9541	10618	11610	-
35 °C	4296	5118	6047	7043	8063	9065	10009	10852	11553
30 °C	4222	4990	5850	6759	7676	8560	9368	10059	10592
25 °C	4144	4856	5643	6463	7275	8036	8706	9243	9604
20 °C	4074	4727	5438	6166	6870	7507	8036	8415	8603

COP/EER [W/W]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C
T.Cond									
55 °C	-	-	-	1.07	1.18	1.29	-	-	-
50 °C	-	0.91	1.11	1.25	1.37	1.49	1.64	-	-
45 °C	0.8	1.09	1.28	1.43	1.57	1.72	1.89	-	-
40 °C	0.99	1.27	1.47	1.63	1.79	1.97	2.18	2.43	-
35 °C	1.18	1.46	1.67	1.85	2.04	2.25	2.5	2.81	3.2
30 °C	1.38	1.66	1.88	2.09	2.31	2.57	2.88	3.27	3.75
25 °C	1.57	1.86	2.11	2.35	2.62	2.93	3.32	3.81	4.43
20 °C	1.76	2.07	2.35	2.63	2.96	3.35	3.84	4.46	5.27

Current [A]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C
T.Cond									
55 °C	-	-	-	14.61	16.64	18.84	-	-	-
50 °C	-	11.32	12.75	14.44	16.34	18.36	20.43	-	-
45 °C	10.21	11.28	12.62	14.2	15.94	17.78	19.63	-	-
40 °C	10.18	11.18	12.44	13.89	15.47	17.12	18.76	20.31	-
35 °C	10.11	11.05	12.21	13.53	14.96	16.41	17.83	19.12	20.22
30 °C	10.03	10.9	11.96	13.15	14.41	15.67	16.86	17.9	18.72
25 °C	9.95	10.74	11.69	12.75	13.85	14.92	15.89	16.68	17.22
20 °C	9.87	10.59	11.44	12.36	13.3	14.17	14.92	15.46	15.74

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Performance data:

Operating mode	Subcritical, 100 % of the capacity
Liquid subcooling	0 K
Suction gas temperature	20 °C
Useful fraction of superheating	100 %
Frequency	50 Hz
Additional cooling required	

Mass flow [kg/h]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C
T.Cond									
55 °C	-	-	-	285	374	477	-	-	-
50 °C	-	150	222	300	388	491	613	-	-
45 °C	100	166	236	313	401	504	627	-	-
40 °C	116	179	247	324	412	516	641	789	-
35 °C	129	190	257	333	422	528	653	803	983
30 °C	139	199	265	342	432	538	665	817	998
25 °C	148	207	273	349	440	548	677	831	1014
20 °C	156	213	279	357	449	558	689	845	1030