

Model: S5-33Y

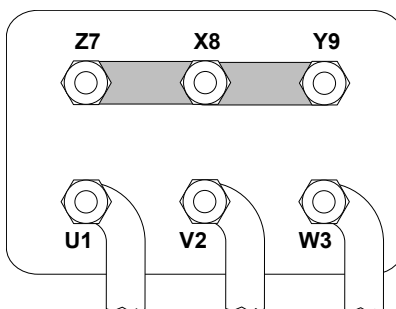
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

Technical data:

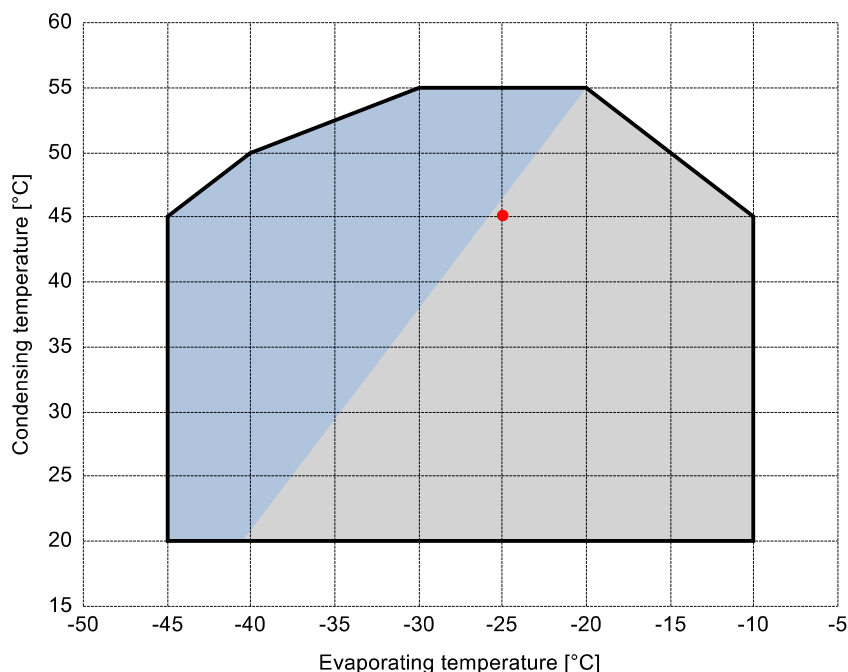
Displacement	32.8 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	12.3 A
locked rotor current (LRA)	55.8 A
Number of pistons	4
Net weight	115 kg
Lubricant	FRASCOLD POE32
Oil charge	2.9 l

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

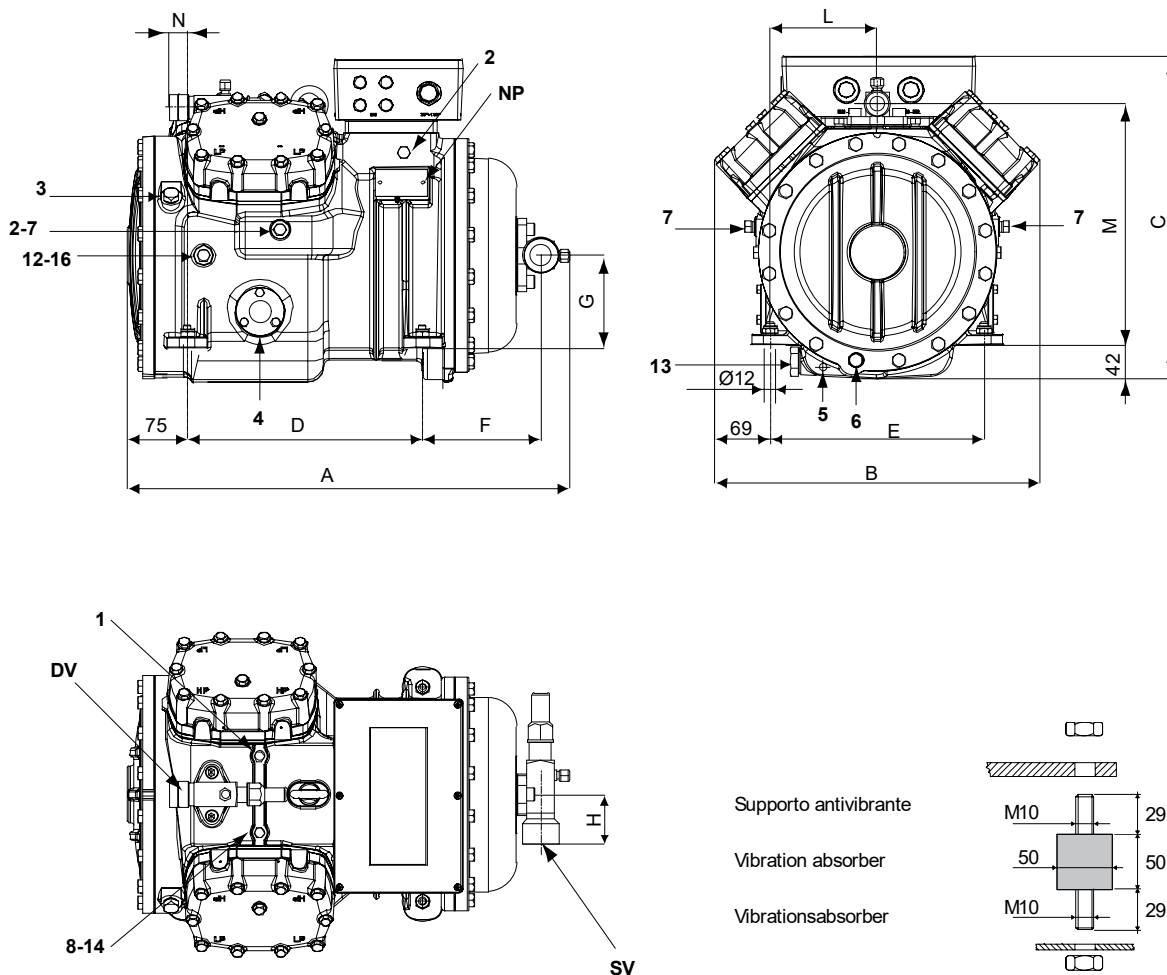
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Dimensions:



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	

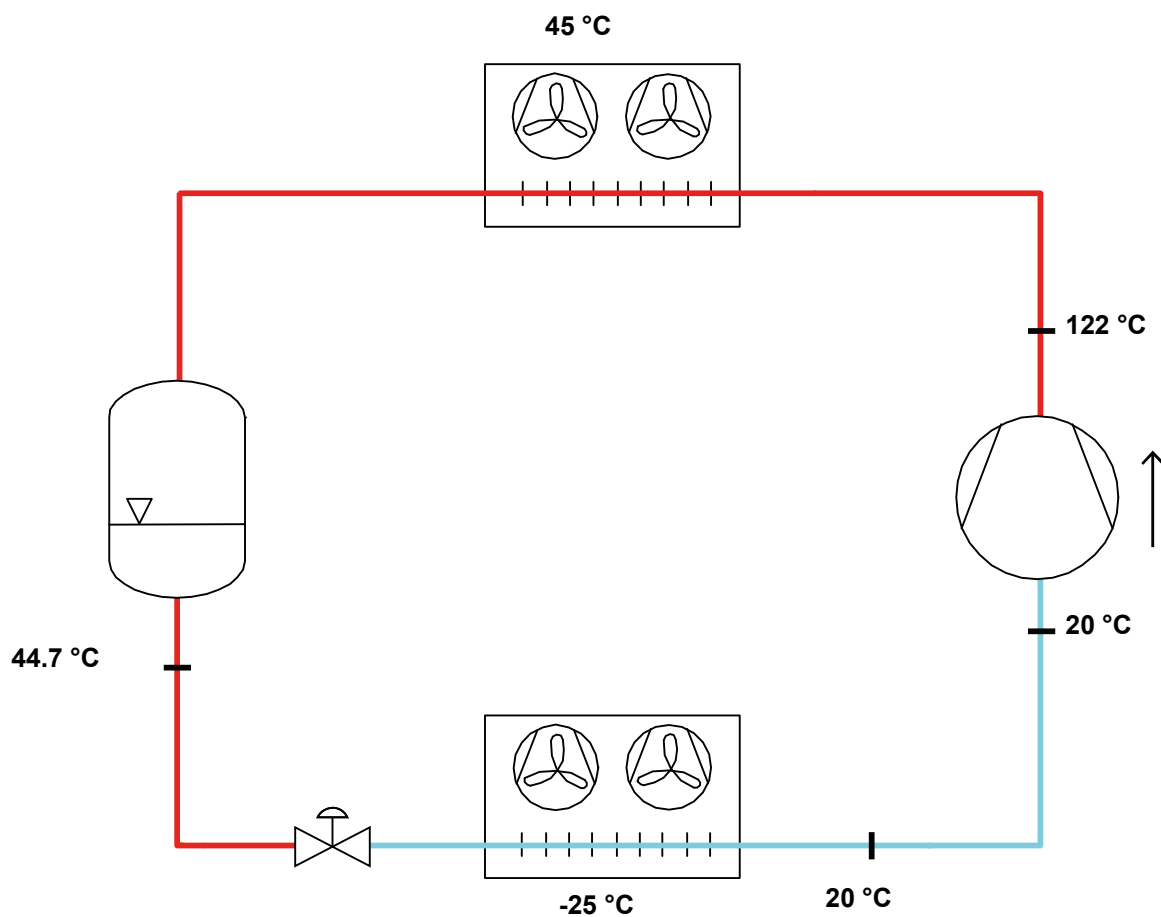
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P&I Diagram:



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Power supply: 400/3/50 DOL-STAR

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
T.Cond								
55 °C	-	-	-	5.33	6.961	-	-	-
50 °C	-	3.145	4.583	6.145	7.913	9.968	-	-
45 °C	2.298	3.736	5.249	6.918	8.825	11.053	-	-
40 °C	2.807	4.289	5.878	7.657	9.708	12.113	14.954	-
35 °C	3.283	4.812	6.482	8.375	10.573	13.157	16.211	19.816
30 °C	3.737	5.318	7.071	9.081	11.429	14.197	17.468	21.322
25 °C	4.181	5.815	7.656	9.787	12.288	15.243	18.733	22.841
20 °C	4.624	6.316	8.248	10.502	13.16	16.305	20.019	24.383

Power input [W]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C
T.Cond								
55 °C	-	-	-	5576	6517	-	-	-
50 °C	-	3725	4599	5465	6305	7100	-	-
45 °C	2976	3751	4534	5307	6051	6747	-	-
40 °C	3036	3728	4426	5110	5762	6364	6896	-
35 °C	3051	3664	4281	4881	5446	5958	6399	6749
30 °C	3027	3567	4107	4628	5111	5539	5892	6151
25 °C	2972	3443	3912	4358	4765	5112	5383	5557
20 °C	2893	3301	3703	4080	4414	4687	4879	4973

COP/EER [W/W]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C
T.Cond								
55 °C	-	-	-	0.96	1.07	-	-	-
50 °C	-	0.84	1	1.12	1.26	1.4	-	-
45 °C	0.77	1	1.16	1.3	1.46	1.64	-	-
40 °C	0.92	1.15	1.33	1.5	1.68	1.9	2.17	-
35 °C	1.08	1.31	1.51	1.72	1.94	2.21	2.53	2.94
30 °C	1.23	1.49	1.72	1.96	2.24	2.56	2.96	3.47
25 °C	1.41	1.69	1.96	2.25	2.58	2.98	3.48	4.11
20 °C	1.6	1.91	2.23	2.57	2.98	3.48	4.1	4.9

Current [A]

T.Evap	-45 °C	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C
T.Cond								
55 °C	-	-	-	9.74	11.16	-	-	-
50 °C	-	7.09	8.31	9.57	10.84	12.06	-	-
45 °C	6.13	7.12	8.21	9.34	10.45	11.51	-	-
40 °C	6.21	7.09	8.06	9.05	10.02	10.93	11.74	-
35 °C	6.22	7.01	7.85	8.71	9.55	10.31	10.98	11.52
30 °C	6.2	6.88	7.61	8.35	9.05	9.68	10.21	10.61
25 °C	6.13	6.72	7.34	7.96	8.54	9.05	9.45	9.71
20 °C	6.04	6.54	7.06	7.57	8.04	8.43	8.71	8.85

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Power supply: 400/3/50 DOL-STAR

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
T.Cond									
55 °C	-	-	-	182	239	-	-	-	-
50 °C	-	97	143	192	249	316	-	-	-
45 °C	66	108	152	201	258	325	-	-	-
40 °C	75	116	159	208	265	333	415	-	-
35 °C	83	122	165	214	272	341	423	522	-
30 °C	90	128	171	220	278	348	431	530	-
25 °C	95	133	176	225	284	355	439	539	-
20 °C	101	138	180	231	290	362	447	549	-