

## Model: S12-42Y

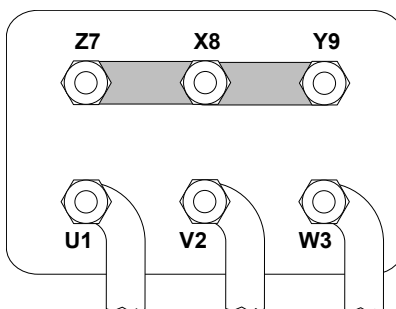
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

### Technical data:

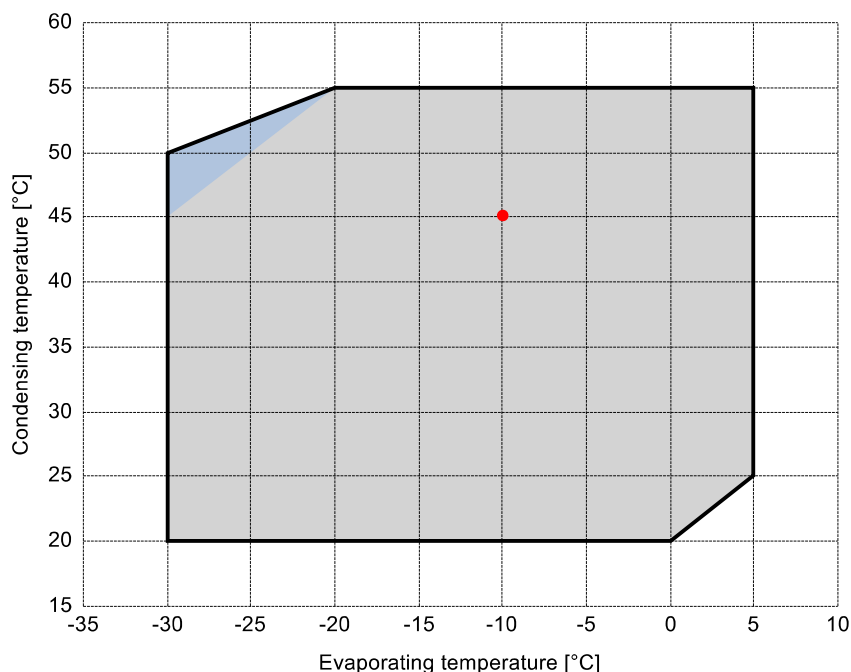
Displacement	41.32 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	22.7 A
locked rotor current (LRA)	89.1 A
Number of pistons	4
Net weight	120 kg
Lubricant	FRASCOLD POE32
Oil charge	2.9 l

### 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

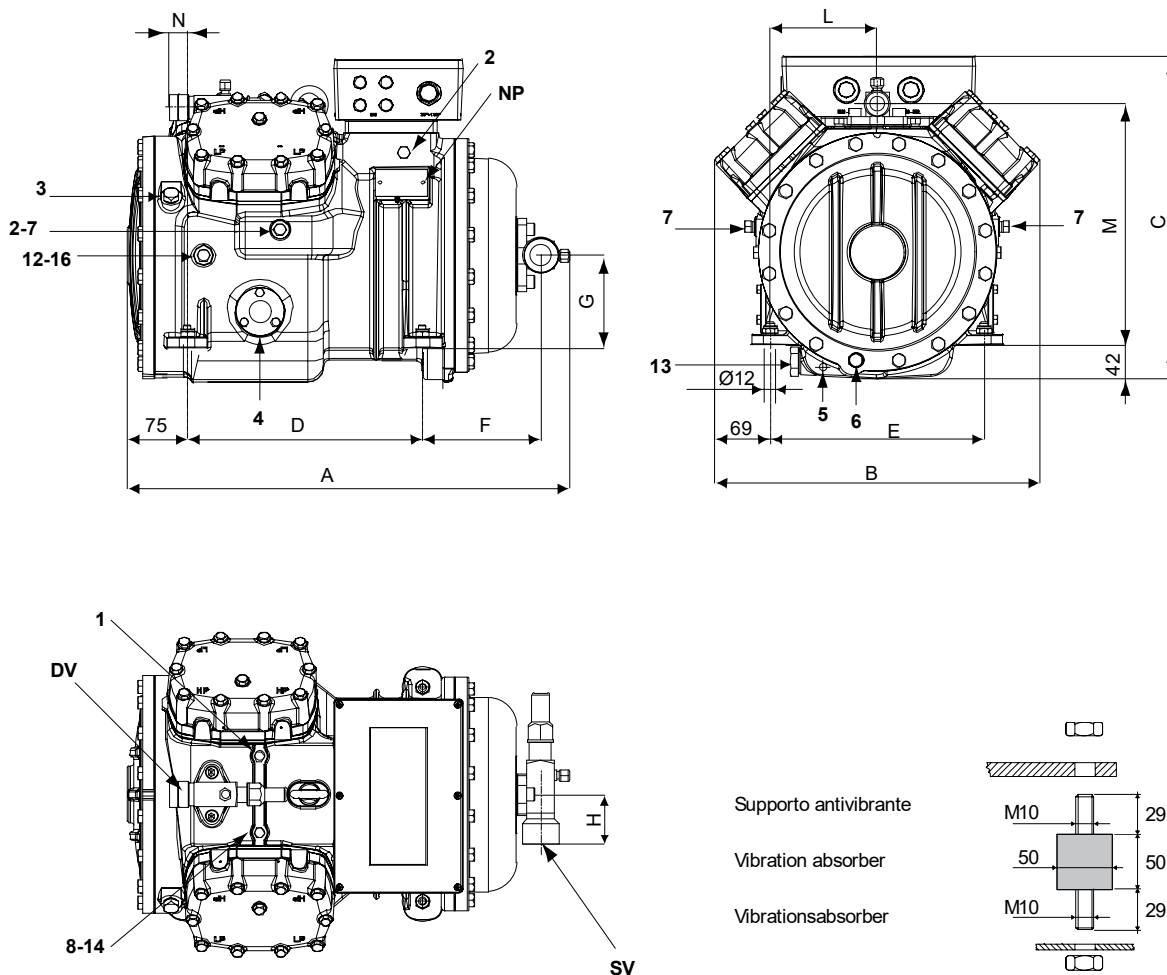
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## Dimensions:



## 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	

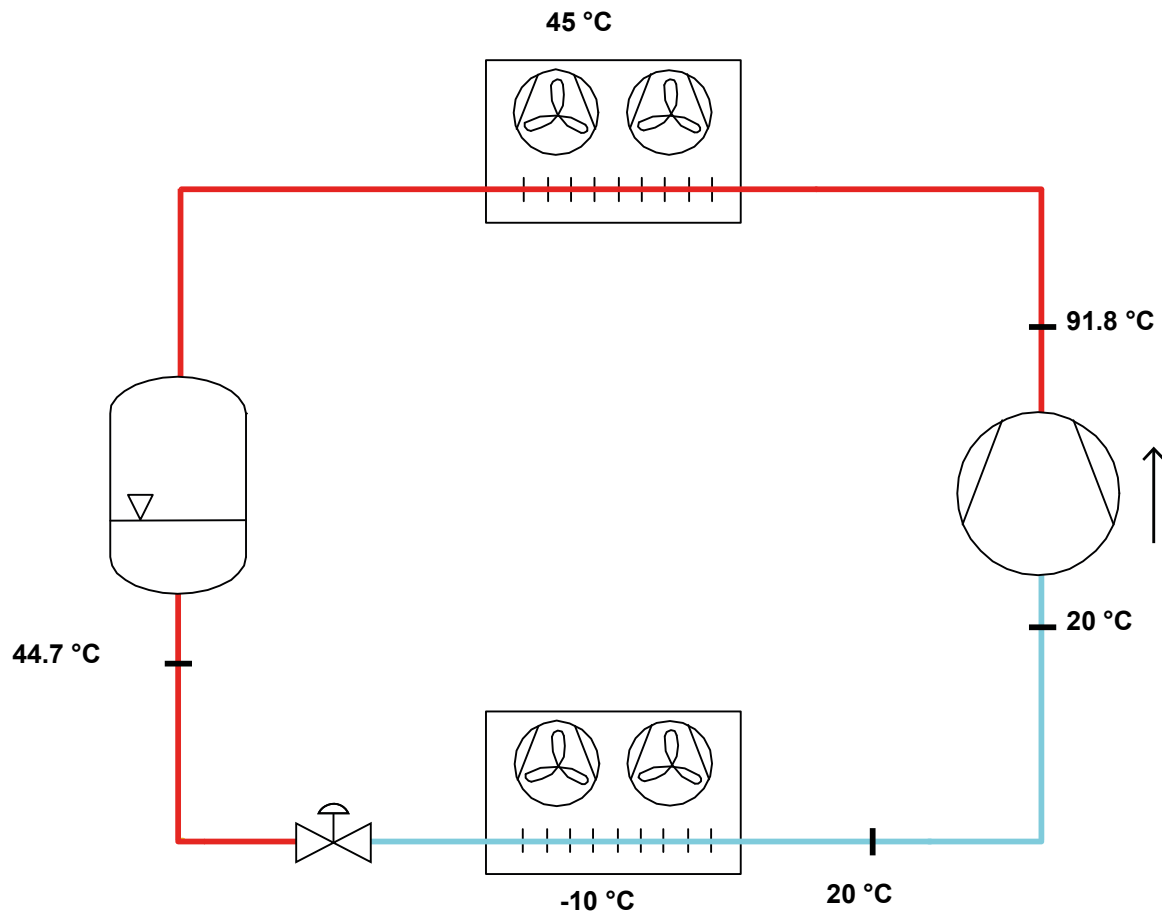
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## P&I Diagram:



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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	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C
T.Cond								
55 °C	-	-	9.498	12.266	15.526	19.332	23.739	28.802
50 °C	6.138	8.325	10.933	14.016	17.629	21.829	26.668	32.203
45 °C	7.086	9.508	12.389	15.785	19.751	24.342	29.612	35.617
40 °C	8.059	10.713	13.866	17.573	21.889	26.869	32.568	39.041
35 °C	9.054	11.938	15.361	19.377	24.041	29.409	35.534	42.473
30 °C	10.068	13.181	16.872	21.195	26.205	31.958	38.508	45.911
25 °C	11.101	14.441	18.397	23.025	28.38	34.516	41.489	49.353
20 °C	12.15	15.714	19.934	24.865	30.562	37.08	44.473	-

**Power input [W]**

T.Evap	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C
T.Cond								
55 °C	-	-	7081	8174	9270	10349	11392	12380
50 °C	5037	6009	7009	8018	9016	9984	10904	11757
45 °C	5065	5974	6897	7817	8713	9566	10359	11071
40 °C	5060	5901	6744	7570	8360	9094	9755	10322
35 °C	5022	5791	6549	7277	7956	8567	9091	9509
30 °C	4949	5641	6310	6936	7500	7983	8366	8631
25 °C	4840	5452	6027	6546	6991	7342	7580	7686
20 °C	4695	5221	5698	6107	6427	6642	6731	-

**COP/EER [W/W]**

T.Evap	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C
T.Cond								
55 °C	-	-	1.34	1.5	1.67	1.87	2.08	2.33
50 °C	1.22	1.39	1.56	1.75	1.96	2.19	2.45	2.74
45 °C	1.4	1.59	1.8	2.02	2.27	2.54	2.86	3.22
40 °C	1.59	1.82	2.06	2.32	2.62	2.95	3.34	3.78
35 °C	1.8	2.06	2.35	2.66	3.02	3.43	3.91	4.47
30 °C	2.03	2.34	2.67	3.06	3.49	4	4.6	5.32
25 °C	2.29	2.65	3.05	3.52	4.06	4.7	5.47	6.42
20 °C	2.59	3.01	3.5	4.07	4.75	5.58	6.61	-

**Current [A]**

T.Evap	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C
T.Cond								
55 °C	-	-	12.73	14.31	15.95	17.59	19.2	20.73
50 °C	9.97	11.24	12.62	14.08	15.57	17.03	18.44	19.76
45 °C	10	11.19	12.47	13.79	15.11	16.4	17.6	18.7
40 °C	10	11.09	12.25	13.43	14.59	15.68	16.68	17.55
35 °C	9.95	10.94	11.98	13.01	13.99	14.89	15.68	16.31
30 °C	9.86	10.75	11.65	12.52	13.33	14.03	14.6	14.99
25 °C	9.72	10.5	11.26	11.97	12.6	13.1	13.44	13.6
20 °C	9.54	10.2	10.82	11.37	11.81	12.11	12.23	-

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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	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C
T.Cond								
55 °C	-	-	329	429	549	694	866	1073
50 °C	192	262	347	449	571	716	888	1093
45 °C	206	278	365	468	592	738	911	1115
40 °C	219	293	382	487	613	761	934	1138
35 °C	232	307	398	505	633	782	957	1161
30 °C	244	321	413	523	652	803	979	1184
25 °C	256	334	428	539	670	823	1000	1206
20 °C	267	347	442	555	688	842	1020	-