

Model: Q5-28.1Y

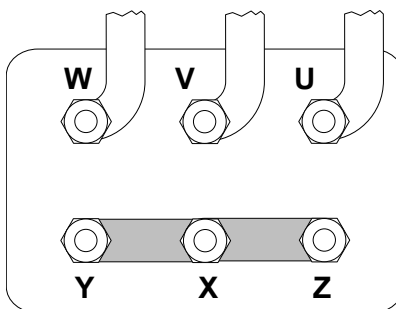
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

Technical data:

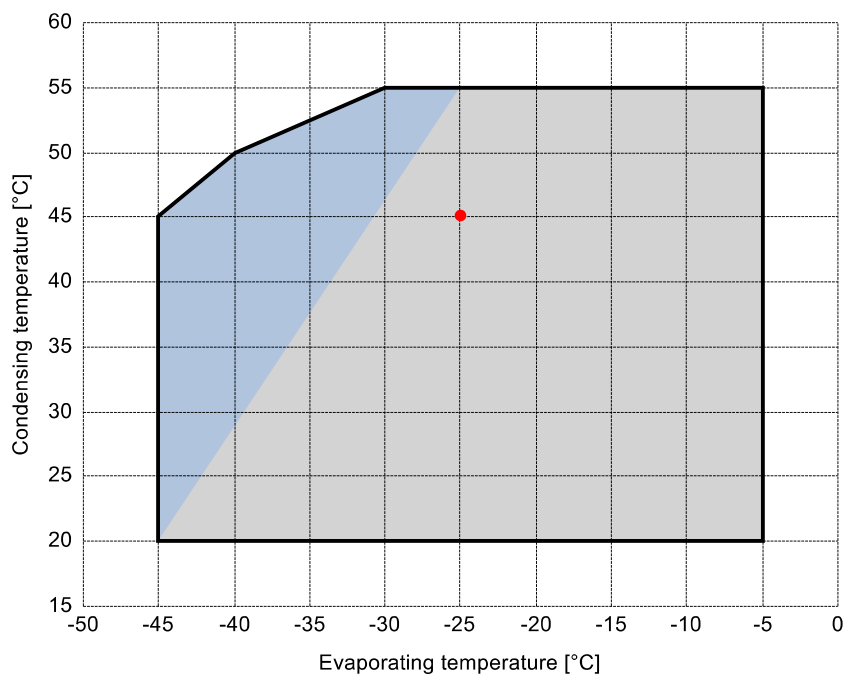
Displacement	28.02 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	14 A
locked rotor current (LRA)	63.1 A
Number of pistons	4
Net weight	79 kg
Lubricant	FRASCOLD POE32
Oil charge	1.6 l

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:

- ASERCOM (ref. EN12900, 50 Hz, 100% cap.)

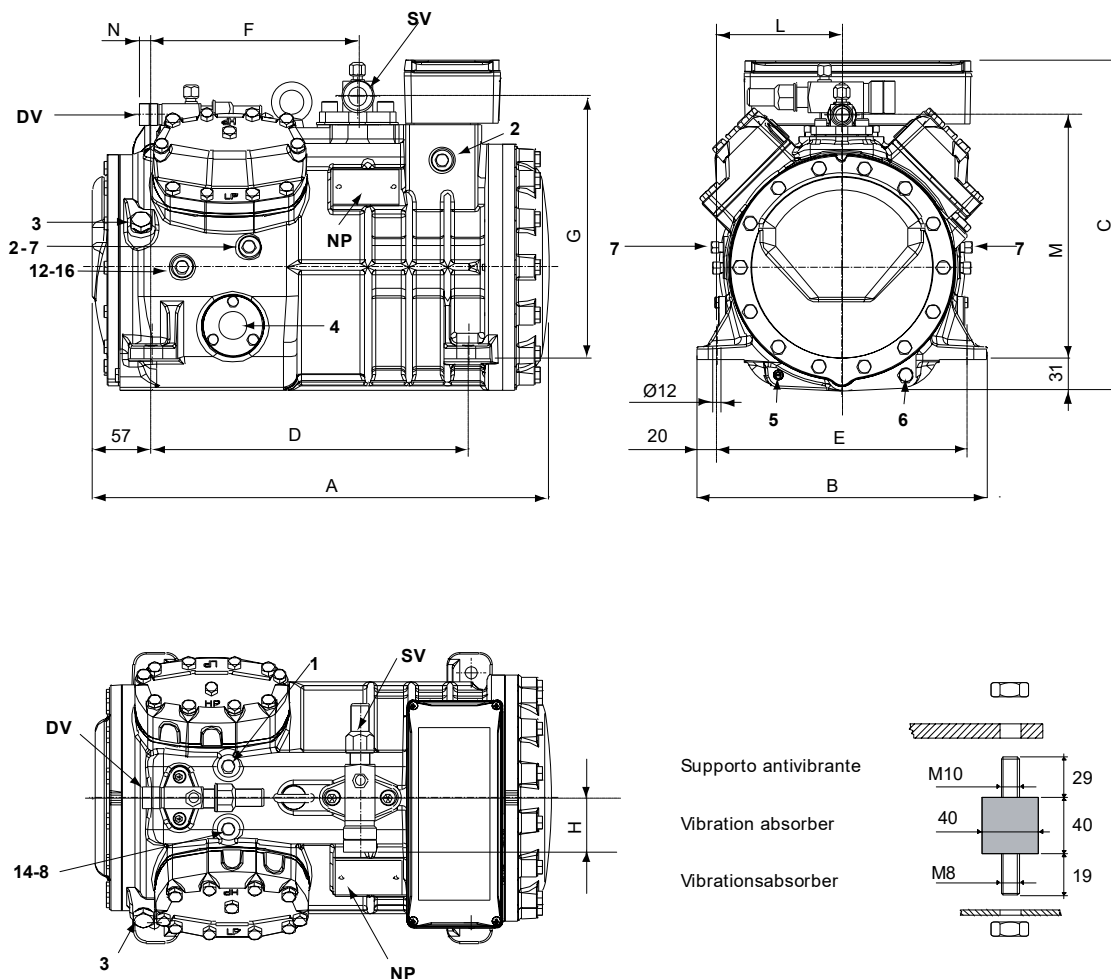
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Dimensions:



Legend:

SV: Suction Valve	1 3/8" in - 35 mm	1: High pressure connection	1/8" NPT
DV: Discharge valve	7/8" in - 22.225 mm	2: Low pressure connection	1/8" NPT
A: Length	449 mm	3: Oil charge plug	1/4" GAS
B: Width	286 mm	4: Oil level sight glass	-
C: Height	325 mm	5: Crankcase heater seat	-
D: Base mounting	312 mm	6: Oil drain plug	M8 x 22
E: Base mounting	246 mm	7: Liquid injection plug	1/8" NPT
F: Suction Valve	203 mm	8: Liquid injection sensor plug	1/8" NPT
G: Suction Valve	261 mm	12: Oil return plug	1/8" NPT
H: Suction Valve	58 mm	14: Max discharge temperature sensor connection	1/8" NPT
L: Discharge valve	123 mm	16: Crankcase pressure plug	1/8" NPT
M: Discharge valve	239 mm	NP: Nameplate	
N: Discharge valve	17 mm		

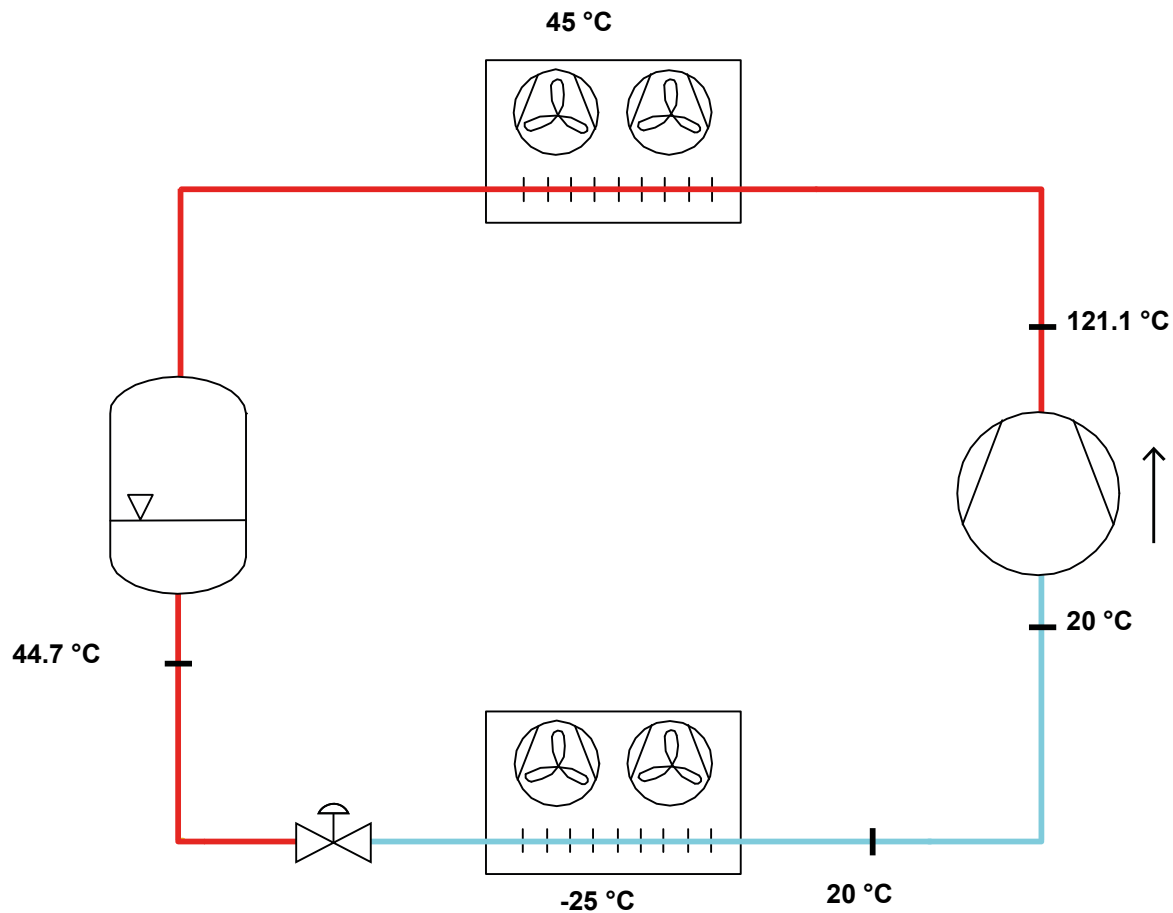
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P&I Diagram:



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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	-	-	-	4.082	5.412	6.971	8.792	10.91	13.358
50 °C	-	2.358	3.435	4.699	6.185	7.928	9.962	12.32	15.037
45 °C	1.76	2.755	3.931	5.323	6.966	8.894	11.14	13.738	16.724
40 °C	2.092	3.158	4.435	5.956	7.755	9.866	12.325	15.164	18.419
35 °C	2.43	3.569	4.946	6.595	8.55	10.846	13.517	16.597	20.12
30 °C	2.776	3.987	5.464	7.241	9.353	11.833	14.716	18.036	21.828
25 °C	3.128	4.411	5.988	7.894	10.162	12.826	15.922	19.482	23.542
20 °C	3.486	4.841	6.519	8.552	10.977	13.825	17.133	20.934	25.262

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	-	-	-	4136	4884	5638	6390	7133	7860
50 °C	-	2747	3425	4117	4816	5514	6205	6881	7536
45 °C	2168	2791	3429	4075	4722	5363	5991	6599	7179
40 °C	2227	2813	3409	4008	4601	5183	5746	6283	6787
35 °C	2265	2814	3366	3915	4453	4974	5471	5935	6360
30 °C	2283	2791	3298	3796	4277	4735	5163	5553	5898
25 °C	2279	2746	3205	3649	4071	4465	4822	5135	5398
20 °C	2253	2676	3086	3475	3836	4162	4447	4682	4862

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	-	-	-	0.99	1.11	1.24	1.38	1.53	1.7
50 °C	-	0.86	1	1.14	1.28	1.44	1.61	1.79	2
45 °C	0.81	0.99	1.15	1.31	1.48	1.66	1.86	2.08	2.33
40 °C	0.94	1.12	1.3	1.49	1.69	1.9	2.14	2.41	2.71
35 °C	1.07	1.27	1.47	1.68	1.92	2.18	2.47	2.8	3.16
30 °C	1.22	1.43	1.66	1.91	2.19	2.5	2.85	3.25	3.7
25 °C	1.37	1.61	1.87	2.16	2.5	2.87	3.3	3.79	4.36
20 °C	1.55	1.81	2.11	2.46	2.86	3.32	3.85	4.47	5.2

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	-	-	-	7.81	8.85	9.93	11.03	12.13	13.22
50 °C	-	6.1	6.89	7.79	8.75	9.75	10.75	11.75	12.73
45 °C	5.52	6.15	6.9	7.73	8.62	9.53	10.44	11.33	12.2
40 °C	5.57	6.17	6.87	7.64	8.45	9.27	10.08	10.87	11.61
35 °C	5.61	6.17	6.82	7.52	8.25	8.97	9.68	10.36	10.98
30 °C	5.63	6.15	6.74	7.36	8	8.64	9.24	9.8	10.3
25 °C	5.62	6.1	6.63	7.18	7.73	8.26	8.76	9.2	9.58
20 °C	5.6	6.02	6.48	6.96	7.42	7.85	8.24	8.56	8.82

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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	-	-	-	139	186	241	307	386	479	
50 °C	-	73	107	147	195	252	319	399	493	
45 °C	50	79	114	155	204	262	331	412	507	
40 °C	56	85	120	162	212	271	342	425	521	
35 °C	62	91	126	169	220	281	353	437	535	
30 °C	67	96	132	175	228	290	363	449	548	
25 °C	71	101	137	182	235	298	373	460	561	
20 °C	76	106	143	188	242	307	383	471	573	