

## Model: S20-56Y

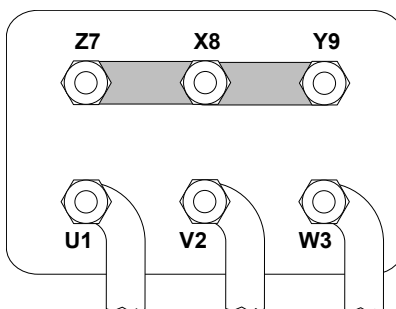
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

### Technical data:

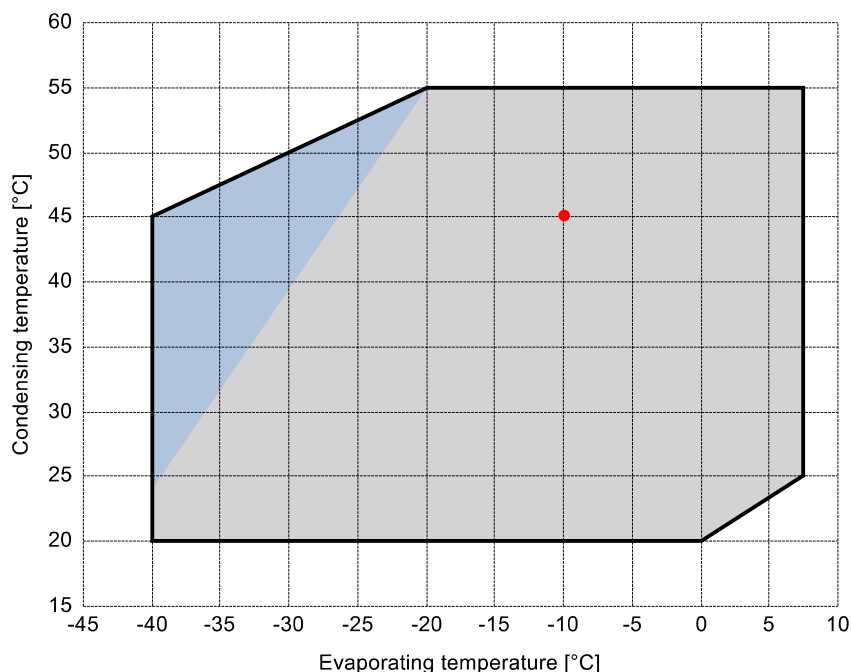
Displacement	56 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	37 A
locked rotor current (LRA)	146 A
Number of pistons	4
Net weight	132 kg
Lubricant	FRASCOLD POE32
Oil charge	2.9 l

### 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

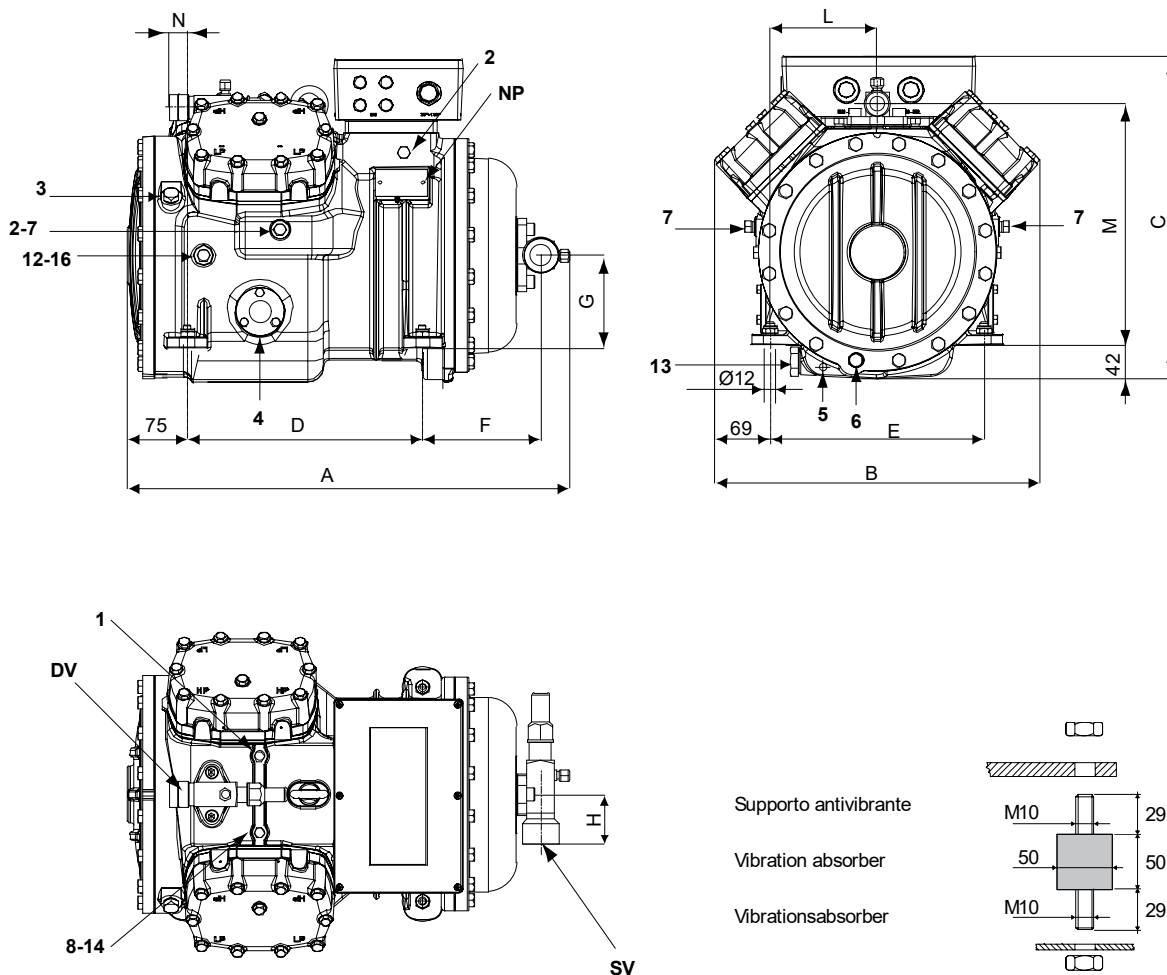
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## Dimensions:



## Legend:

SV: Suction Valve	1 5/8" in - 42 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	61 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	

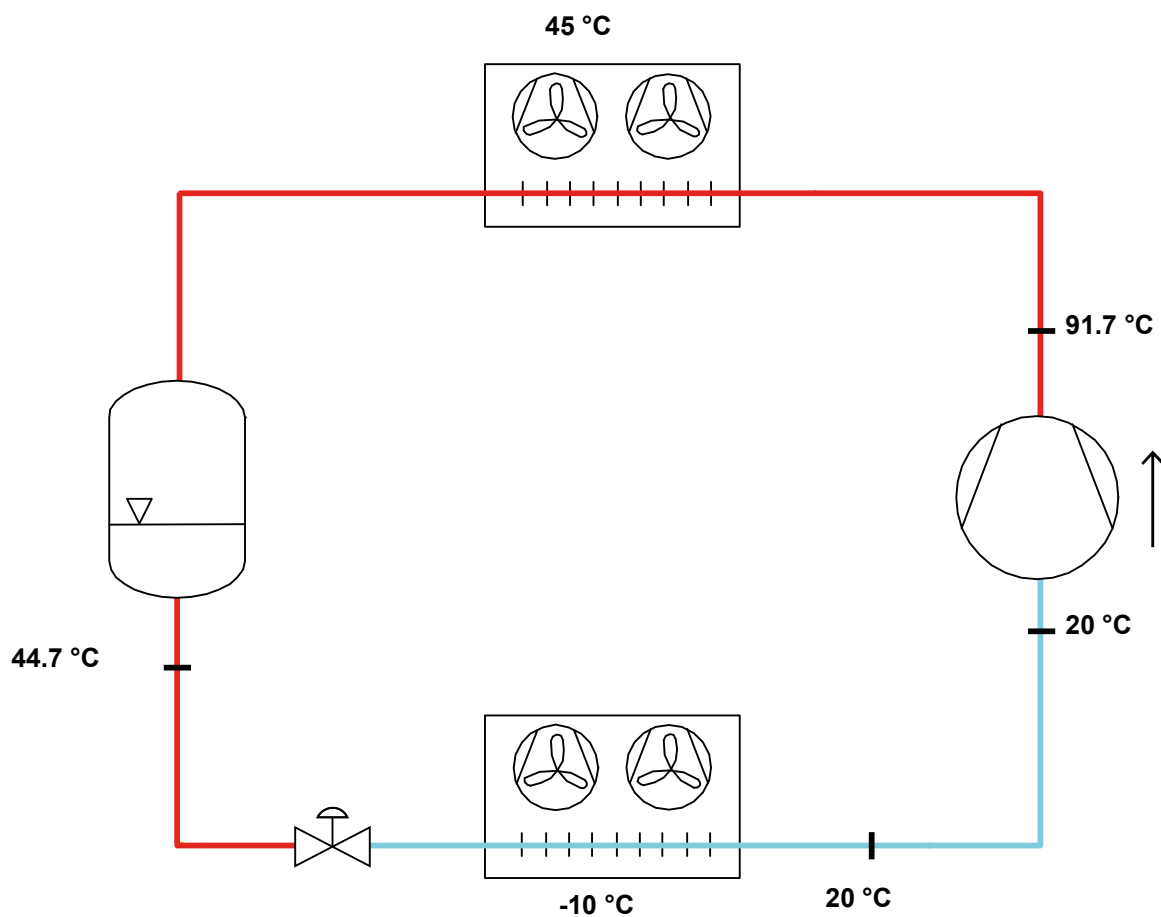
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## P&I Diagram:



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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	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	7.5 °C
T.Cond											
55 °C	-	-	-	-	15.531	19.409	23.784	28.791	34.569	41.253	44.979
50 °C	-	-	10.142	13.632	17.435	21.687	26.525	32.087	38.509	45.928	50.054
45 °C	4.842	8.131	11.548	15.231	19.315	23.94	29.24	35.354	42.419	50.57	55.096
40 °C	6.111	9.41	12.928	16.801	21.166	26.161	31.922	38.587	46.291	55.174	60.099
35 °C	7.352	10.66	14.275	18.337	22.981	28.344	34.564	41.777	50.121	59.732	65.055
30 °C	8.557	11.871	15.584	19.832	24.753	30.483	37.16	44.92	53.901	64.239	69.959
25 °C	9.72	13.039	16.847	21.28	26.476	32.571	39.703	48.008	57.624	68.687	74.804
20 °C	10.835	14.157	18.058	22.674	28.143	34.601	42.186	51.035	61.284	-	-

## Power input [W]

T.Evap	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	7.5 °C
T.Cond											
55 °C	-	-	-	-	10939	12378	13855	15325	16747	18076	18692
50 °C	-	-	8245	9435	10724	12067	13421	14744	15990	17118	17624
45 °C	6181	7047	8071	9210	10421	11661	12885	14051	15114	16033	16424
40 °C	5995	6855	7846	8926	10052	11179	12265	13266	14139	14840	15113
35 °C	5795	6640	7591	8604	9636	10643	11582	12411	13084	13560	13710
30 °C	5600	6423	7324	8262	9192	10072	10857	11504	11971	12213	12237
25 °C	5431	6223	7068	7922	8743	9486	10109	10567	10819	10819	10712
20 °C	5308	6061	6841	7604	8306	8905	9358	9620	9648	-	-

## COP/EER [W/W]

T.Evap	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	7.5 °C
T.Cond											
55 °C	-	-	-	-	1.42	1.57	1.72	1.88	2.06	2.28	2.41
50 °C	-	-	1.23	1.44	1.63	1.8	1.98	2.18	2.41	2.68	2.84
45 °C	0.78	1.15	1.43	1.65	1.85	2.05	2.27	2.52	2.81	3.15	3.35
40 °C	1.02	1.37	1.65	1.88	2.11	2.34	2.6	2.91	3.27	3.72	3.98
35 °C	1.27	1.61	1.88	2.13	2.39	2.66	2.98	3.37	3.83	4.4	4.75
30 °C	1.53	1.85	2.13	2.4	2.69	3.03	3.42	3.9	4.5	5.26	5.72
25 °C	1.79	2.1	2.38	2.69	3.03	3.43	3.93	4.54	5.33	6.35	6.98
20 °C	2.04	2.34	2.64	2.98	3.39	3.89	4.51	5.31	6.35	-	-

## Current [A]

T.Evap	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	7.5 °C
T.Cond											
55 °C	-	-	-	-	26.48	28.11	29.9	31.78	33.68	35.53	36.41
50 °C	-	-	23.82	24.93	26.25	27.75	29.36	31.02	32.66	34.19	34.89
45 °C	22.22	22.84	23.67	24.71	25.93	27.28	28.71	30.14	31.5	32.71	33.24
40 °C	22.1	22.69	23.48	24.44	25.55	26.75	27.98	29.17	30.25	31.15	31.5
35 °C	21.97	22.54	23.27	24.14	25.13	26.17	27.2	28.15	28.95	29.53	29.72
30 °C	21.86	22.38	23.05	23.84	24.69	25.57	26.4	27.11	27.64	27.92	27.95
25 °C	21.76	22.25	22.85	23.54	24.27	24.98	25.61	26.09	26.35	26.35	26.24
20 °C	21.69	22.14	22.68	23.28	23.88	24.42	24.85	25.11	25.14	-	-

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Frequency	50 Hz
Additional cooling required	

Mass flow [kg/h]	T.Evap	-40 °C	-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	7.5 °C
T.Cond												
55 °C	-	-	-	-	538	679	841	1033	1262	1536	1695	
50 °C	-	-	317	429	553	695	859	1052	1283	1558	1716	
45 °C	139	235	335	445	568	710	877	1073	1305	1583	1742	
40 °C	165	255	351	459	582	726	894	1092	1328	1608	1768	
35 °C	187	272	365	472	595	739	910	1111	1350	1633	1794	
30 °C	206	286	378	483	606	752	924	1128	1370	1656	1818	
25 °C	222	299	388	492	616	763	937	1144	1389	1678	1841	
20 °C	236	310	397	500	624	773	949	1159	1406	-	-	