

## Model: D3-16.1Y

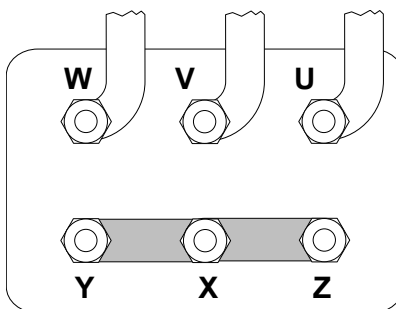
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

### Technical data:

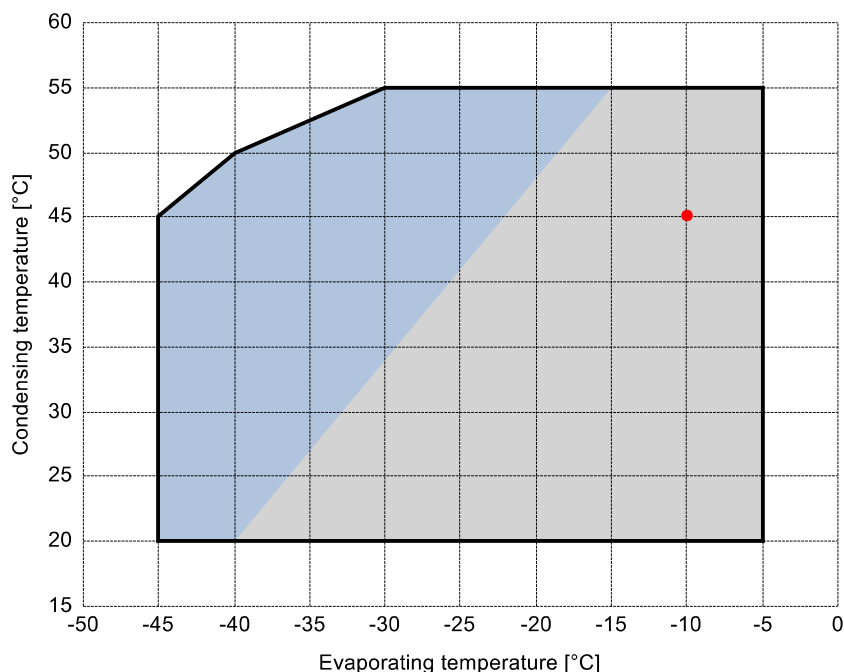
Displacement	16.4 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
maximum allowed operating current (MRA)	9.9 A
locked rotor current (LRA)	43.7 A
Number of pistons	2
Net weight	49 kg
Lubricant	FRASCOLD POE32
Oil charge	1.2 l

### 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.)

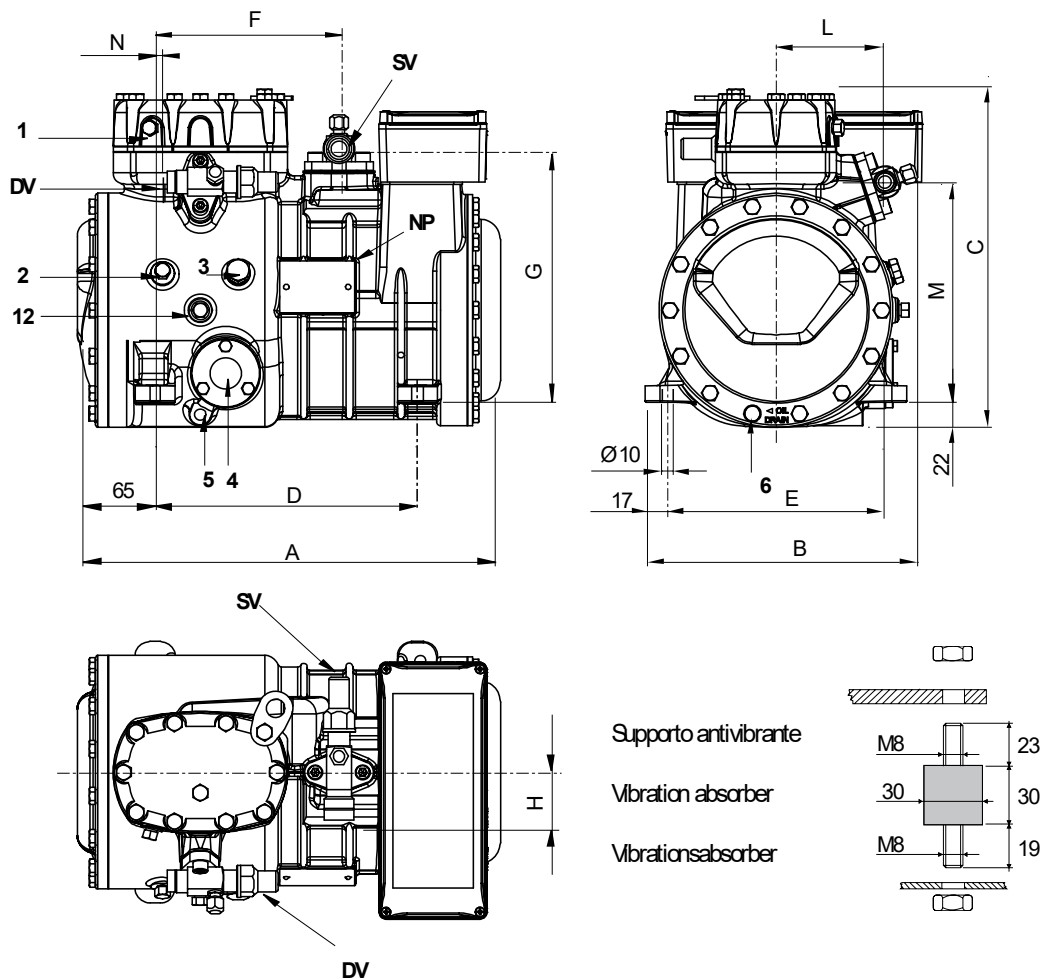
All data subject to change without notice

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Power supply: 400/3/50 DOL-STAR

## Dimensions:



## Legend:

SV: Suction Valve	1 1/8" in - 28.575 mm	M: Discharge valve	192 mm
DV: Discharge valve	5/8" in - 16 mm	N: Discharge valve	13 mm
A: Length	374 mm	1: High pressure connection	1/8" NPT
B: Width	242 mm	2: Low pressure connection	1/8" NPT
C: Height	317 mm	3: Oil charge plug	1/4" GAS
D: Base mounting	234 mm	4: Oil level sight glass	-
E: Base mounting	194 mm	5: Crankcase heater seat	-
F: Suction Valve	165 mm	6: Oil drain plug	M8 x 22
G: Suction Valve	225 mm	12: Oil return plug	1/8" NPT
H: Suction Valve	53 mm	NP: Nameplate	
L: Discharge valve	94 mm		

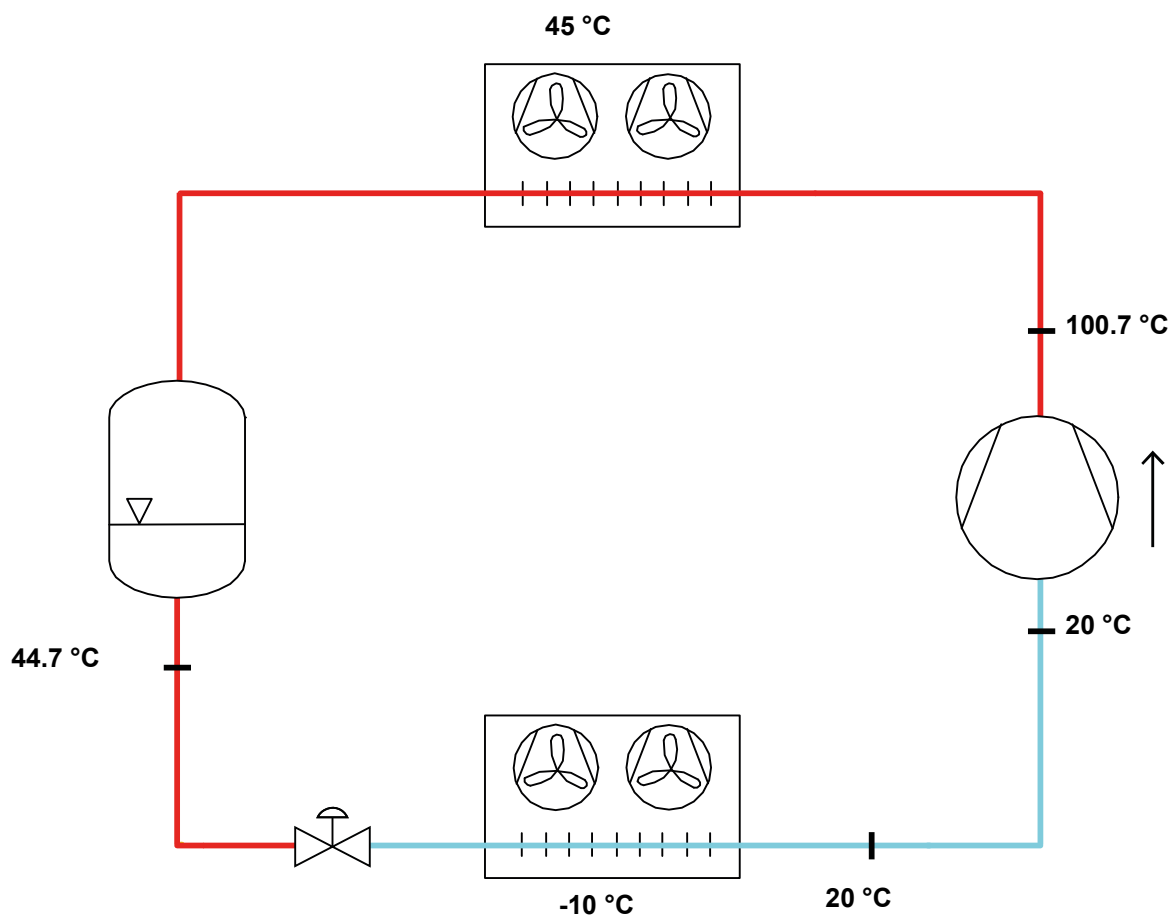
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## P&I Diagram:



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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	-	-	-	2.339	3.15	4.096	5.197	6.472	7.942
50 °C	-	1.277	1.932	2.697	3.592	4.638	5.854	7.26	8.876
45 °C	0.914	1.517	2.226	3.061	4.042	5.189	6.521	8.058	9.822
40 °C	1.12	1.763	2.527	3.433	4.5	5.748	7.197	8.867	10.777
35 °C	1.333	2.016	2.836	3.813	4.966	6.316	7.882	9.685	11.744
30 °C	1.551	2.275	3.152	4.2	5.441	6.893	8.577	10.514	12.721
25 °C	1.776	2.541	3.475	4.596	5.924	7.48	9.283	11.353	13.71
20 °C	2.007	2.814	3.805	4.999	6.416	8.076	9.998	12.203	14.71

**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	-	-	-	2671	3177	3690	4205	4715	5217
50 °C	-	1716	2164	2624	3092	3561	4028	4486	4930
45 °C	1323	1728	2146	2572	3001	3427	3845	4250	4637
40 °C	1355	1735	2123	2514	2903	3285	3654	4005	4334
35 °C	1382	1735	2093	2448	2797	3134	3454	3751	4021
30 °C	1400	1727	2053	2372	2681	2972	3242	3485	3695
25 °C	1409	1708	2002	2285	2552	2798	3018	3205	3356
20 °C	1406	1678	1940	2186	2411	2610	2779	2911	3001

**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	-	-	-	0.88	0.99	1.11	1.24	1.37	1.52
50 °C	-	0.74	0.89	1.03	1.16	1.3	1.45	1.62	1.8
45 °C	0.69	0.88	1.04	1.19	1.35	1.51	1.7	1.9	2.12
40 °C	0.83	1.02	1.19	1.37	1.55	1.75	1.97	2.21	2.49
35 °C	0.96	1.16	1.36	1.56	1.78	2.02	2.28	2.58	2.92
30 °C	1.11	1.32	1.54	1.77	2.03	2.32	2.65	3.02	3.44
25 °C	1.26	1.49	1.74	2.01	2.32	2.67	3.08	3.54	4.09
20 °C	1.43	1.68	1.96	2.29	2.66	3.09	3.6	4.19	4.9

**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	-	-	-	6.21	6.72	7.31	7.96	8.63	9.32
50 °C	-	5.44	5.76	6.16	6.63	7.16	7.73	8.32	8.93
45 °C	5.22	5.45	5.75	6.11	6.54	7	7.5	8.01	8.53
40 °C	5.24	5.46	5.73	6.06	6.44	6.84	7.27	7.7	8.12
35 °C	5.25	5.46	5.71	6	6.33	6.68	7.03	7.39	7.72
30 °C	5.26	5.45	5.68	5.94	6.22	6.51	6.8	7.07	7.32
25 °C	5.27	5.44	5.64	5.86	6.1	6.33	6.55	6.76	6.92
20 °C	5.26	5.42	5.59	5.78	5.97	6.15	6.31	6.44	6.54

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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	-	-	-	80	108	142	182	229	285	
50 °C	-	40	60	84	113	147	187	235	291	
45 °C	26	44	64	89	118	153	194	242	298	
40 °C	30	48	68	93	123	158	200	248	305	
35 °C	34	51	72	98	128	164	206	255	312	
30 °C	37	55	76	102	132	169	212	262	320	
25 °C	40	58	80	106	137	174	217	268	327	
20 °C	44	61	83	110	142	179	223	275	334	