

Model: D4-19.1Y

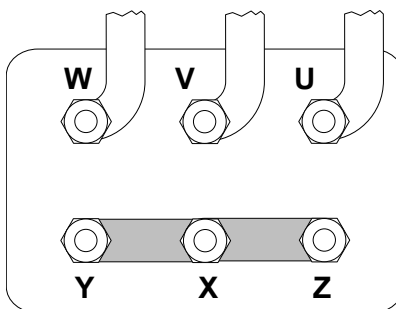
Refrigerant: R404A

Power supply: 400/3/50 DOL-STAR

Technical data:

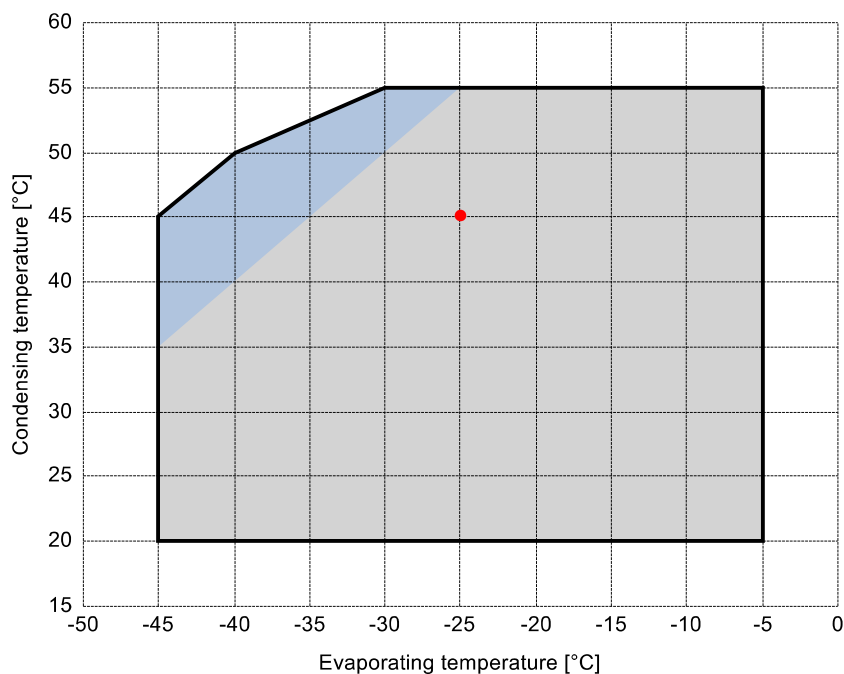
| | |
|---|----------------|
| Displacement | 19.12 m³/h |
| Nominal compressor speed | 1450 rpm |
| Motor voltage | 400 V |
| Nominal operating frequency | 50 Hz |
| maximum allowed operating current (MRA) | 11.8 A |
| locked rotor current (LRA) | 52 A |
| Number of pistons | 2 |
| Net weight | 55 kg |
| 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.)

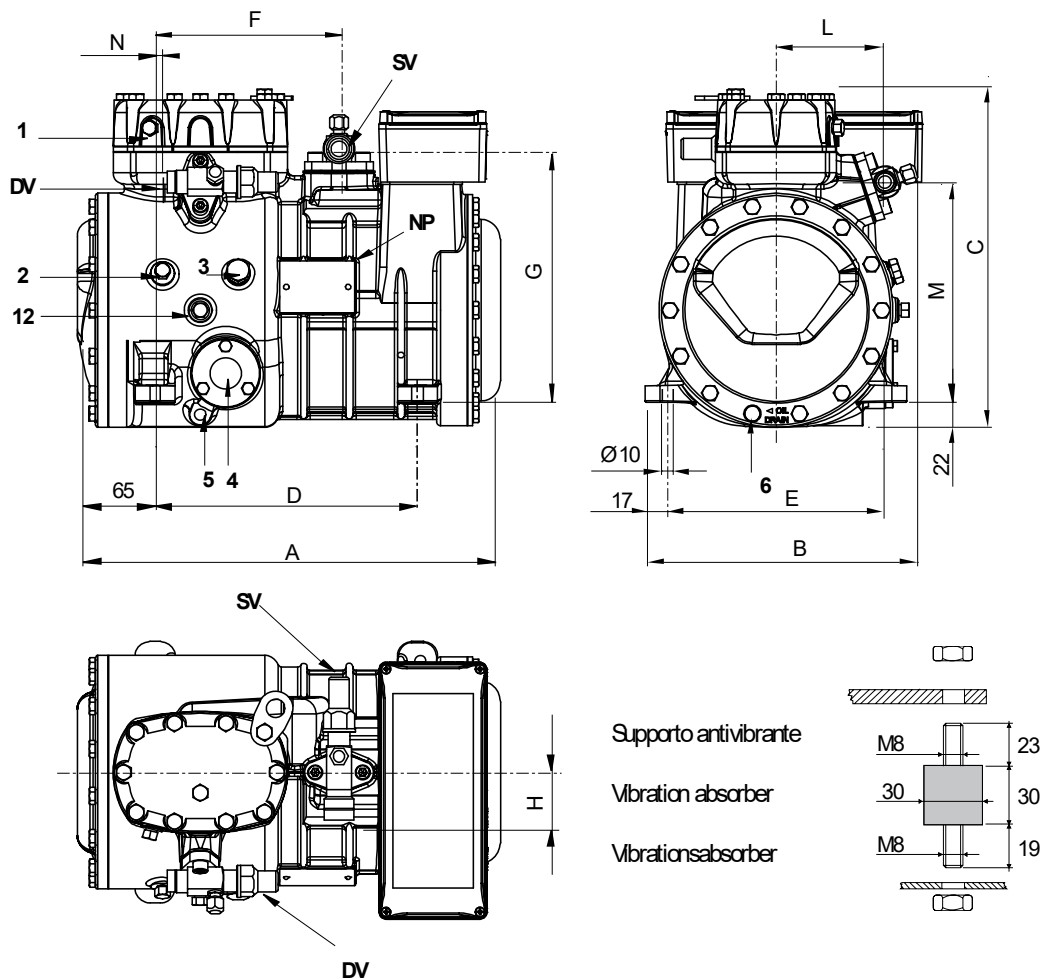
All data subject to change without notice

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Dimensions:



Legend:

| | | | |
|---------------------|-----------------------|-----------------------------|----------|
| SV: Suction Valve | 1 1/8" in - 28.575 mm | M: Discharge valve | 192 mm |
| DV: Discharge valve | 3/4" in - 19 mm | N: Discharge valve | 5 mm |
| A: Length | 401 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 | | |

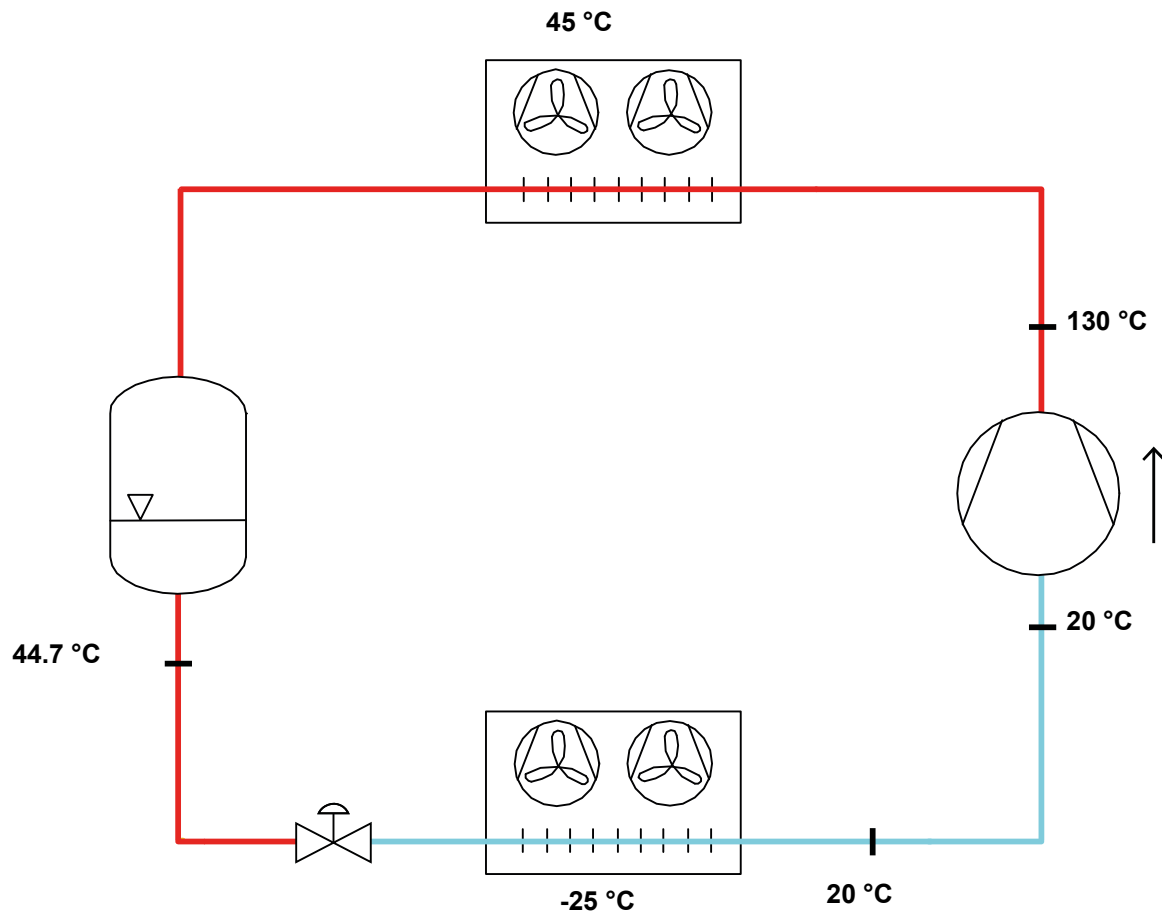
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P&I Diagram:



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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 | - | - | - | 3.128 | 4.008 | 5.03 | 6.227 | 7.632 | 9.28 |
| 50 °C | - | 1.927 | 2.666 | 3.503 | 4.474 | 5.611 | 6.948 | 8.519 | 10.357 |
| 45 °C | 1.505 | 2.196 | 2.978 | 3.884 | 4.947 | 6.203 | 7.684 | 9.424 | 11.457 |
| 40 °C | 1.75 | 2.462 | 3.29 | 4.268 | 5.429 | 6.806 | 8.435 | 10.347 | 12.578 |
| 35 °C | 1.987 | 2.724 | 3.602 | 4.655 | 5.916 | 7.419 | 9.199 | 11.287 | 13.719 |
| 30 °C | 2.215 | 2.981 | 3.912 | 5.044 | 6.409 | 8.041 | 9.975 | 12.243 | 14.88 |
| 25 °C | 2.434 | 3.231 | 4.22 | 5.434 | 6.906 | 8.671 | 10.763 | 13.214 | 16.059 |
| 20 °C | 2.642 | 3.475 | 4.524 | 5.824 | 7.407 | 9.308 | 11.561 | 14.199 | 17.255 |

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 | - | - | - | 3550 | 4069 | 4593 | 5110 | 5607 | 6071 |
| 50 °C | - | 2569 | 2991 | 3442 | 3909 | 4379 | 4839 | 5275 | 5676 |
| 45 °C | 2214 | 2555 | 2935 | 3340 | 3759 | 4177 | 4582 | 4962 | 5303 |
| 40 °C | 2234 | 2538 | 2878 | 3241 | 3614 | 3984 | 4339 | 4665 | 4949 |
| 35 °C | 2244 | 2515 | 2818 | 3142 | 3473 | 3798 | 4105 | 4381 | 4612 |
| 30 °C | 2242 | 2482 | 2752 | 3040 | 3332 | 3616 | 3879 | 4107 | 4288 |
| 25 °C | 2224 | 2437 | 2677 | 2932 | 3189 | 3435 | 3656 | 3841 | 3976 |
| 20 °C | 2187 | 2376 | 2590 | 2816 | 3041 | 3252 | 3436 | 3580 | 3671 |

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 | 1.1 | 1.22 | 1.36 | 1.53 |
| 50 °C | - | 0.75 | 0.89 | 1.02 | 1.14 | 1.28 | 1.44 | 1.61 | 1.82 |
| 45 °C | 0.68 | 0.86 | 1.01 | 1.16 | 1.32 | 1.49 | 1.68 | 1.9 | 2.16 |
| 40 °C | 0.78 | 0.97 | 1.14 | 1.32 | 1.5 | 1.71 | 1.94 | 2.22 | 2.54 |
| 35 °C | 0.89 | 1.08 | 1.28 | 1.48 | 1.7 | 1.95 | 2.24 | 2.58 | 2.97 |
| 30 °C | 0.99 | 1.2 | 1.42 | 1.66 | 1.92 | 2.22 | 2.57 | 2.98 | 3.47 |
| 25 °C | 1.09 | 1.33 | 1.58 | 1.85 | 2.17 | 2.52 | 2.94 | 3.44 | 4.04 |
| 20 °C | 1.21 | 1.46 | 1.75 | 2.07 | 2.44 | 2.86 | 3.36 | 3.97 | 4.7 |

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 | - | - | - | 8.12 | 8.67 | 9.28 | 9.93 | 10.57 | 11.19 |
| 50 °C | - | 7.32 | 7.61 | 8.01 | 8.49 | 9.03 | 9.59 | 10.14 | 10.66 |
| 45 °C | 7.14 | 7.31 | 7.57 | 7.91 | 8.33 | 8.79 | 9.27 | 9.74 | 10.18 |
| 40 °C | 7.15 | 7.3 | 7.53 | 7.83 | 8.18 | 8.57 | 8.98 | 9.37 | 9.73 |
| 35 °C | 7.15 | 7.29 | 7.48 | 7.74 | 8.04 | 8.37 | 8.71 | 9.03 | 9.31 |
| 30 °C | 7.15 | 7.27 | 7.44 | 7.65 | 7.91 | 8.18 | 8.46 | 8.71 | 8.92 |
| 25 °C | 7.14 | 7.24 | 7.39 | 7.57 | 7.78 | 8 | 8.22 | 8.42 | 8.56 |
| 20 °C | 7.13 | 7.21 | 7.33 | 7.48 | 7.65 | 7.83 | 8 | 8.15 | 8.24 |

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Performance data:

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| 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 | - | - | - | 107 | 138 | 174 | 218 | 270 | 333 | |
| 50 °C | - | 60 | 83 | 110 | 141 | 178 | 223 | 276 | 340 | |
| 45 °C | 43 | 63 | 86 | 113 | 145 | 183 | 228 | 283 | 348 | |
| 40 °C | 47 | 66 | 89 | 116 | 148 | 187 | 234 | 290 | 356 | |
| 35 °C | 50 | 69 | 92 | 119 | 152 | 192 | 240 | 297 | 365 | |
| 30 °C | 53 | 72 | 94 | 122 | 156 | 197 | 246 | 305 | 374 | |
| 25 °C | 55 | 74 | 97 | 125 | 160 | 202 | 252 | 312 | 383 | |
| 20 °C | 57 | 76 | 99 | 128 | 163 | 207 | 258 | 319 | 392 | |