

R407H



REFRIGERANTS

R407H

Product information

## Product description

Drop-In refrigerant for R404A / R507 and Retrofit refrigerant for R22

- Zeotropic Refrigerant containing R32 / R125 / R134a (32.5% / 15% / 52.5% by weight)
- Refrigerant must be charged from the liquid phase
- Comparable thermo-physical properties to R404A / R507 and R22
- Non flammable, low toxic, ASHRAE 34 safety class A1
- Lower GWP compared to R404A / R507
- Compressors must be charged with POE oils

## Applications

- Replacement for R404A / R507 and R22
- Cold storage cells
- Supermarket multiplex systems and display cases
- Ice machines
- Transport refrigeration
- Condensing units, chillers

## Environmental aspects

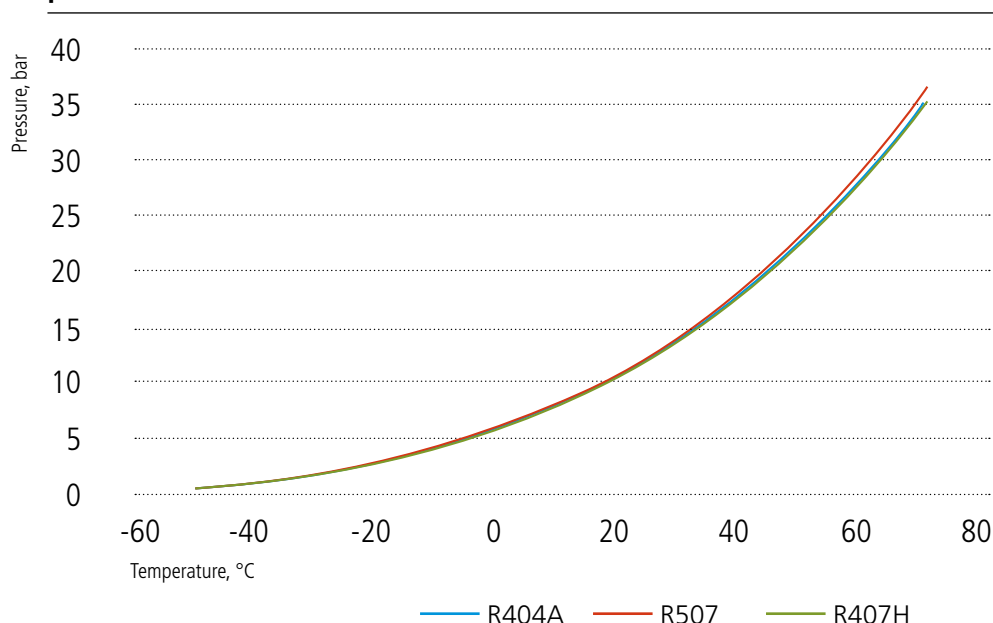
R407H is a zeotropic blend consisting of R32 / R125 / R134a.

It is designed as a R404A / R507 Drop-In and as a R22 Retrofit replacement in refrigeration systems.

Due to its moderate GWP it is suitable to reduce the GWP load while replacing high GWP refrigerant like R404A / R507 for low temperature applications under the same safety conditions.

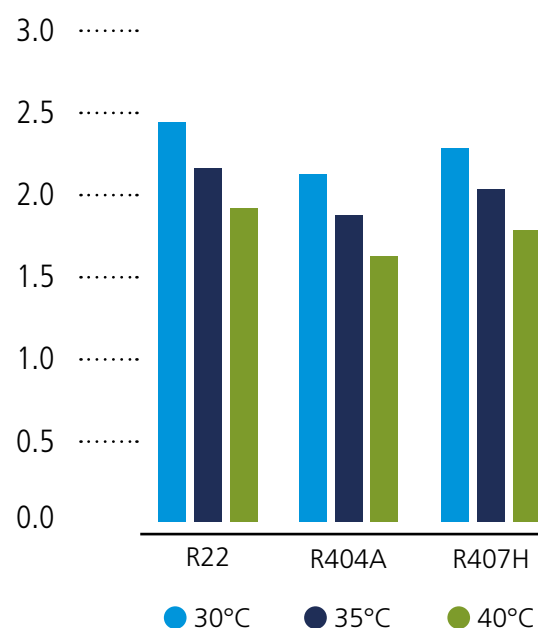
## Range of Applications

p/t Curve

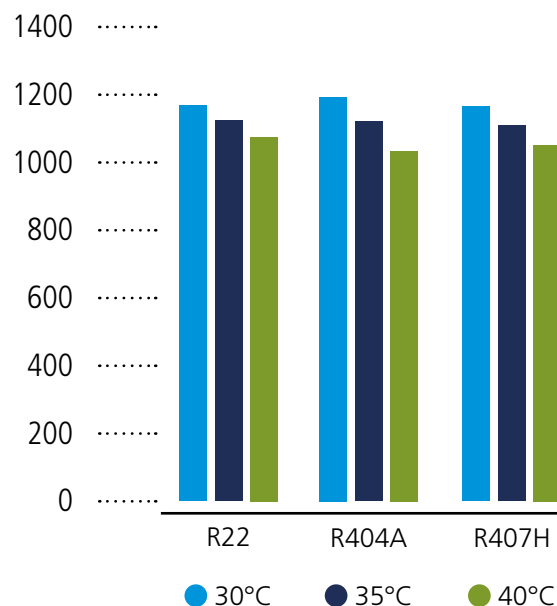


## Theoretical Performance<sup>1</sup>

### COP



### Capacity, kJ/m<sup>3</sup>



<sup>1</sup>Conditions Cycle Simulation:

$t_o: 0^\circ\text{C}$ ,  $t_c = \text{variable}$ ,  $T_{\text{superheat}} = 10\text{K}$ ,  $T_{\text{subc}} = 2\text{K}$ ,  $\text{isent. eff.} = f(p_o/p_c)$

## Physical Properties<sup>2</sup>

| Chemical Name                                         |                                              | Difluoromethane / Pentafluoroethane / 1,1,1-Tetrafluoroethane                            |
|-------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical Formula                                      |                                              | $\text{CH}_2\text{F}_2$ / $\text{CHF}_2\text{-CF}_3$ / $\text{CF}_3\text{-CH}_2\text{F}$ |
| GWP <sub>100</sub>                                    | IPCC 4 <sup>th</sup> AR / 5 <sup>th</sup> AR | 1495 / 1380                                                                              |
| Molecular Weight                                      | kg/kmol                                      | 79.1                                                                                     |
| Boiling Point @ 1.013 bar<br>bubble point / dew point | °C                                           | -44.7 / -37.6                                                                            |
| Critical Temperature                                  | °C                                           | 86.5                                                                                     |
| Critical Pressure                                     | bar                                          | 48.5                                                                                     |
| Critical Density                                      | kg/m <sup>3</sup>                            | 464.1                                                                                    |
| Critical Volume                                       | dm <sup>3</sup> /kg                          | 2.155                                                                                    |
| Liquid Density <sup>3</sup>                           | kg/m <sup>3</sup>                            | 1111.2                                                                                   |
| Vapour Density <sup>3</sup>                           | kg/m <sup>3</sup>                            | 41.86                                                                                    |
| Heat of Vaporization <sup>3</sup>                     | kJ/kg                                        | 199.02                                                                                   |
| $c_{p, \text{liq.}}$ <sup>3</sup>                     | kJ/(kg K)                                    | 1.585                                                                                    |
| $c_{p, \text{vap.}}$ <sup>3</sup>                     | kJ/(kg K)                                    | 1.176                                                                                    |
| Temp. Glide @ NBP                                     | K                                            | 7.0                                                                                      |
| ASHRAE 34 safety class                                |                                              | A1                                                                                       |

<sup>2</sup> All thermo-physical data are based on Refprop 9.0

<sup>3</sup>sat. @25°C

## Packaging

| Type                       | Loan Steel Container   | Iso Tank Containers                                   |
|----------------------------|------------------------|-------------------------------------------------------|
| Size                       | 859 x 2230 (D x L)     | 6096 x 2438 x 2591 (L x W x H)                        |
| Volume                     | 900 l                  | 18000 l                                               |
| Tara                       | ~ 500 kg               | 7300 – 9000 kg                                        |
| Net Content                | 720 kg                 | 16500 kg                                              |
| Connections                | Valve DIN4676, W 1-1/4 | Flange DIN2635, DN40 / PN40 (liq.), DN40 / PN40 (gas) |
| Other packaging on request |                        |                                                       |

Wet-Vapor Table of R407H \*

| Temp. | p     | p''   | v'     | v''    | rho'    | rho'' | h'     | h''    | r      | s'      | s''     |
|-------|-------|-------|--------|--------|---------|-------|--------|--------|--------|---------|---------|
| °C    | bar   | bar   | dm³/kg | dm³/kg | kg/m³   | kg/m³ | kJ/kg  | kJ/kg  | kJ/kg  | kJ/kg K | kJ/kg K |
| -50   | 0.774 | 0.528 | 0.731  | 433.03 | 1367.87 | 2.31  | 130.16 | 400.13 | 269.97 | 0.7196  | 1.9506  |
| -49   | 0.815 | 0.558 | 0.733  | 410.95 | 1364.91 | 2.43  | 131.51 | 400.72 | 269.21 | 0.7256  | 1.9476  |
| -48   | 0.857 | 0.589 | 0.734  | 390.21 | 1361.95 | 2.56  | 132.86 | 401.31 | 268.46 | 0.7316  | 1.9446  |
| -47   | 0.900 | 0.622 | 0.736  | 370.72 | 1358.98 | 2.70  | 134.21 | 401.91 | 267.70 | 0.7376  | 1.9416  |
| -46   | 0.946 | 0.657 | 0.737  | 352.39 | 1356.00 | 2.84  | 135.56 | 402.49 | 266.94 | 0.7435  | 1.9387  |
| -45   | 0.993 | 0.693 | 0.739  | 335.13 | 1353.01 | 2.98  | 136.91 | 403.08 | 266.17 | 0.7494  | 1.9359  |
| -44   | 1.042 | 0.731 | 0.741  | 318.89 | 1350.02 | 3.14  | 138.27 | 403.67 | 265.40 | 0.7553  | 1.9330  |
| -43   | 1.093 | 0.770 | 0.742  | 303.59 | 1347.01 | 3.29  | 139.62 | 404.25 | 264.63 | 0.7612  | 1.9303  |
| -42   | 1.146 | 0.811 | 0.744  | 289.16 | 1344.00 | 3.46  | 140.98 | 404.84 | 263.86 | 0.7671  | 1.9275  |
| -41   | 1.202 | 0.854 | 0.746  | 275.56 | 1340.98 | 3.63  | 142.34 | 405.42 | 263.08 | 0.7730  | 1.9249  |
| -40   | 1.259 | 0.898 | 0.747  | 262.72 | 1337.96 | 3.81  | 143.70 | 406.00 | 262.30 | 0.7788  | 1.9222  |
| -39   | 1.318 | 0.944 | 0.749  | 250.59 | 1334.92 | 3.99  | 145.07 | 406.58 | 261.51 | 0.7846  | 1.9196  |
| -38   | 1.379 | 0.992 | 0.751  | 239.14 | 1331.87 | 4.18  | 146.43 | 407.15 | 260.72 | 0.7904  | 1.9170  |
| -37   | 1.443 | 1.042 | 0.753  | 228.31 | 1328.82 | 4.38  | 147.80 | 407.73 | 259.93 | 0.7962  | 1.9145  |
| -36   | 1.509 | 1.094 | 0.754  | 218.07 | 1325.76 | 4.59  | 149.17 | 408.30 | 259.13 | 0.8019  | 1.9120  |
| -35   | 1.577 | 1.148 | 0.756  | 208.38 | 1322.68 | 4.80  | 150.54 | 408.87 | 258.33 | 0.8077  | 1.9096  |
| -34   | 1.648 | 1.205 | 0.758  | 199.20 | 1319.60 | 5.02  | 151.91 | 409.44 | 257.53 | 0.8134  | 1.9072  |
| -33   | 1.721 | 1.263 | 0.760  | 190.51 | 1316.51 | 5.25  | 153.28 | 410.00 | 256.72 | 0.8191  | 1.9048  |
| -32   | 1.797 | 1.323 | 0.761  | 182.28 | 1313.41 | 5.49  | 154.66 | 410.56 | 255.91 | 0.8248  | 1.9024  |
| -31   | 1.875 | 1.386 | 0.763  | 174.47 | 1310.30 | 5.73  | 156.04 | 411.13 | 255.09 | 0.8305  | 1.9001  |
| -30   | 1.956 | 1.451 | 0.765  | 167.06 | 1307.17 | 5.99  | 157.42 | 411.68 | 254.27 | 0.8362  | 1.8979  |
| -29   | 2.039 | 1.519 | 0.767  | 160.03 | 1304.04 | 6.25  | 158.80 | 412.24 | 253.44 | 0.8418  | 1.8956  |
| -28   | 2.125 | 1.588 | 0.769  | 153.35 | 1300.90 | 6.52  | 160.19 | 412.80 | 252.61 | 0.8475  | 1.8934  |
| -27   | 2.214 | 1.661 | 0.771  | 147.01 | 1297.74 | 6.80  | 161.57 | 413.35 | 251.77 | 0.8531  | 1.8912  |
| -26   | 2.306 | 1.736 | 0.772  | 140.98 | 1294.58 | 7.09  | 162.96 | 413.90 | 250.93 | 0.8587  | 1.8891  |
| -25   | 2.401 | 1.813 | 0.774  | 135.25 | 1291.40 | 7.39  | 164.35 | 414.44 | 250.09 | 0.8643  | 1.8870  |
| -24   | 2.499 | 1.894 | 0.776  | 129.80 | 1288.21 | 7.70  | 165.75 | 414.99 | 249.24 | 0.8698  | 1.8849  |
| -23   | 2.600 | 1.977 | 0.778  | 124.61 | 1285.01 | 8.02  | 167.14 | 415.53 | 248.39 | 0.8754  | 1.8828  |
| -22   | 2.704 | 2.063 | 0.780  | 119.68 | 1281.80 | 8.36  | 168.54 | 416.07 | 247.53 | 0.8809  | 1.8808  |
| -21   | 2.811 | 2.151 | 0.782  | 114.97 | 1278.58 | 8.70  | 169.94 | 416.60 | 246.66 | 0.8865  | 1.8788  |
| -20   | 2.922 | 2.243 | 0.784  | 110.49 | 1275.34 | 9.05  | 171.34 | 417.13 | 245.79 | 0.8920  | 1.8768  |
| -19   | 3.036 | 2.338 | 0.786  | 106.22 | 1272.09 | 9.41  | 172.75 | 417.66 | 244.91 | 0.8975  | 1.8748  |
| -18   | 3.153 | 2.435 | 0.788  | 102.14 | 1268.83 | 9.79  | 174.16 | 418.19 | 244.03 | 0.9030  | 1.8729  |
| -17   | 3.274 | 2.536 | 0.790  | 98.25  | 1265.55 | 10.18 | 175.57 | 418.72 | 243.15 | 0.9085  | 1.8710  |

\*based on Refprop 9.0

| Temp. | p     | p''   | v'     | v''    | rho'    | rho'' | h'     | h''    | r      | s'      | s''     |
|-------|-------|-------|--------|--------|---------|-------|--------|--------|--------|---------|---------|
| °C    | bar   | bar   | dm³/kg | dm³/kg | kg/m³   | kg/m³ | kJ/kg  | kJ/kg  | kJ/kg  | kJ/kg K | kJ/kg K |
| -16   | 3.398 | 2.640 | 0.792  | 94.54  | 1262.26 | 10.58 | 176.98 | 419.24 | 242.25 | 0.9140  | 1.8691  |
| -15   | 3.525 | 2.748 | 0.794  | 91.00  | 1258.96 | 10.99 | 178.40 | 419.75 | 241.35 | 0.9194  | 1.8673  |
| -14   | 3.657 | 2.858 | 0.796  | 87.61  | 1255.64 | 11.41 | 179.82 | 420.27 | 240.45 | 0.9249  | 1.8654  |
| -13   | 3.792 | 2.973 | 0.799  | 84.38  | 1252.31 | 11.85 | 181.24 | 420.78 | 239.54 | 0.9303  | 1.8636  |
| -12   | 3.931 | 3.090 | 0.801  | 81.29  | 1248.97 | 12.30 | 182.67 | 421.29 | 238.62 | 0.9357  | 1.8618  |
| -11   | 4.073 | 3.212 | 0.803  | 78.33  | 1245.60 | 12.77 | 184.09 | 421.79 | 237.70 | 0.9411  | 1.8601  |
| -10   | 4.220 | 3.336 | 0.805  | 75.51  | 1242.23 | 13.24 | 185.52 | 422.29 | 236.77 | 0.9465  | 1.8583  |
| -9    | 4.371 | 3.465 | 0.807  | 72.80  | 1238.84 | 13.74 | 186.96 | 422.79 | 235.83 | 0.9519  | 1.8566  |
| -8    | 4.525 | 3.597 | 0.809  | 70.21  | 1235.43 | 14.24 | 188.39 | 423.28 | 234.89 | 0.9573  | 1.8549  |
| -7    | 4.684 | 3.734 | 0.812  | 67.73  | 1232.00 | 14.76 | 189.83 | 423.77 | 233.94 | 0.9627  | 1.8532  |
| -6    | 4.847 | 3.874 | 0.814  | 65.35  | 1228.56 | 15.30 | 191.27 | 424.26 | 232.98 | 0.9680  | 1.8515  |
| -5    | 5.014 | 4.018 | 0.816  | 63.08  | 1225.10 | 15.85 | 192.72 | 424.74 | 232.02 | 0.9734  | 1.8499  |
| -4    | 5.186 | 4.166 | 0.819  | 60.89  | 1221.63 | 16.42 | 194.17 | 425.22 | 231.05 | 0.9787  | 1.8482  |
| -3    | 5.362 | 4.319 | 0.821  | 58.80  | 1218.13 | 17.01 | 195.62 | 425.70 | 230.07 | 0.9841  | 1.8466  |
| -2    | 5.543 | 4.475 | 0.823  | 56.79  | 1214.62 | 17.61 | 197.08 | 426.17 | 229.09 | 0.9894  | 1.8450  |
| -1    | 5.728 | 4.636 | 0.826  | 54.87  | 1211.09 | 18.23 | 198.54 | 426.63 | 228.09 | 0.9947  | 1.8434  |
| 0     | 5.917 | 4.802 | 0.828  | 53.02  | 1207.54 | 18.86 | 200.00 | 427.09 | 227.09 | 1.0000  | 1.8418  |
| 1     | 6.112 | 4.972 | 0.831  | 51.24  | 1203.98 | 19.51 | 201.47 | 427.55 | 226.08 | 1.0053  | 1.8403  |
| 2     | 6.311 | 5.146 | 0.833  | 49.54  | 1200.39 | 20.19 | 202.94 | 428.00 | 225.07 | 1.0106  | 1.8387  |
| 3     | 6.515 | 5.325 | 0.836  | 47.90  | 1196.78 | 20.88 | 204.41 | 428.45 | 224.04 | 1.0159  | 1.8372  |
| 4     | 6.724 | 5.509 | 0.838  | 46.32  | 1193.15 | 21.59 | 205.89 | 428.90 | 223.01 | 1.0212  | 1.8356  |
| 5     | 6.938 | 5.697 | 0.841  | 44.81  | 1189.50 | 22.32 | 207.37 | 429.34 | 221.97 | 1.0264  | 1.8341  |
| 6     | 7.157 | 5.891 | 0.843  | 43.35  | 1185.83 | 23.07 | 208.85 | 429.77 | 220.92 | 1.0317  | 1.8326  |
| 7     | 7.382 | 6.089 | 0.846  | 41.95  | 1182.13 | 23.84 | 210.34 | 430.20 | 219.86 | 1.0369  | 1.8311  |
| 8     | 7.611 | 6.293 | 0.849  | 40.61  | 1178.42 | 24.63 | 211.84 | 430.62 | 218.79 | 1.0422  | 1.8297  |
| 9     | 7.846 | 6.501 | 0.851  | 39.31  | 1174.68 | 25.44 | 213.33 | 431.04 | 217.71 | 1.0474  | 1.8282  |
| 10    | 8.086 | 6.715 | 0.854  | 38.06  | 1170.91 | 26.27 | 214.83 | 431.46 | 216.62 | 1.0527  | 1.8267  |
| 11    | 8.332 | 6.934 | 0.857  | 36.86  | 1167.12 | 27.13 | 216.34 | 431.87 | 215.53 | 1.0579  | 1.8253  |
| 12    | 8.583 | 7.159 | 0.860  | 35.70  | 1163.31 | 28.01 | 217.85 | 432.27 | 214.42 | 1.0631  | 1.8238  |
| 13    | 8.840 | 7.389 | 0.862  | 34.58  | 1159.47 | 28.92 | 219.36 | 432.67 | 213.30 | 1.0684  | 1.8224  |
| 14    | 9.102 | 7.624 | 0.865  | 33.51  | 1155.61 | 29.85 | 220.88 | 433.06 | 212.17 | 1.0736  | 1.8210  |
| 15    | 9.370 | 7.866 | 0.868  | 32.47  | 1151.71 | 30.80 | 222.41 | 433.44 | 211.04 | 1.0788  | 1.8195  |
| 16    | 9.645 | 8.113 | 0.871  | 31.47  | 1147.79 | 31.78 | 223.94 | 433.82 | 209.89 | 1.0840  | 1.8181  |
| 17    | 9.925 | 8.366 | 0.874  | 30.50  | 1143.85 | 32.78 | 225.47 | 434.20 | 208.73 | 1.0892  | 1.8167  |

| Temp. | p      | p''    | v'     | v''    | rho'    | rho''  | h'     | h''    | r      | s'      | s''     |
|-------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|---------|
| °C    | bar    | bar    | dm³/kg | dm³/kg | kg/m³   | kg/m³  | kJ/kg  | kJ/kg  | kJ/kg  | kJ/kg K | kJ/kg K |
| 18    | 10.211 | 8.624  | 0.877  | 29.57  | 1139.87 | 33.82  | 227.01 | 434.56 | 207.56 | 1.0944  | 1.8153  |
| 19    | 10.503 | 8.889  | 0.880  | 28.67  | 1135.86 | 34.88  | 228.55 | 434.93 | 206.37 | 1.0996  | 1.8139  |
| 20    | 10.802 | 9.160  | 0.884  | 27.80  | 1131.83 | 35.96  | 230.10 | 435.28 | 205.18 | 1.1048  | 1.8125  |
| 21    | 11.106 | 9.437  | 0.887  | 26.97  | 1127.76 | 37.08  | 231.65 | 435.63 | 203.97 | 1.1100  | 1.8111  |
| 22    | 11.417 | 9.721  | 0.890  | 26.16  | 1123.66 | 38.23  | 233.21 | 435.97 | 202.75 | 1.1152  | 1.8097  |
| 23    | 11.735 | 10.011 | 0.893  | 25.38  | 1119.52 | 39.41  | 234.78 | 436.30 | 201.52 | 1.1204  | 1.8083  |
| 24    | 12.059 | 10.307 | 0.897  | 24.62  | 1115.36 | 40.62  | 236.35 | 436.63 | 200.28 | 1.1256  | 1.8069  |
| 25    | 12.389 | 10.610 | 0.900  | 23.89  | 1111.15 | 41.86  | 237.92 | 436.94 | 199.02 | 1.1308  | 1.8055  |
| 26    | 12.726 | 10.920 | 0.903  | 23.18  | 1106.91 | 43.14  | 239.51 | 437.26 | 197.75 | 1.1360  | 1.8041  |
| 27    | 13.070 | 11.237 | 0.907  | 22.50  | 1102.64 | 44.45  | 241.09 | 437.56 | 196.46 | 1.1412  | 1.8027  |
| 28    | 13.421 | 11.560 | 0.910  | 21.84  | 1098.33 | 45.79  | 242.69 | 437.85 | 195.16 | 1.1464  | 1.8013  |
| 29    | 13.779 | 11.891 | 0.914  | 21.20  | 1093.97 | 47.17  | 244.29 | 438.14 | 193.85 | 1.1516  | 1.7999  |
| 30    | 14.144 | 12.228 | 0.918  | 20.58  | 1089.58 | 48.59  | 245.90 | 438.42 | 192.52 | 1.1568  | 1.7984  |
| 31    | 14.516 | 12.573 | 0.922  | 19.98  | 1085.15 | 50.05  | 247.51 | 438.68 | 191.17 | 1.1620  | 1.7970  |
| 32    | 14.895 | 12.925 | 0.925  | 19.40  | 1080.67 | 51.55  | 249.13 | 438.94 | 189.81 | 1.1672  | 1.7956  |
| 33    | 15.281 | 13.285 | 0.929  | 18.84  | 1076.15 | 53.09  | 250.76 | 439.20 | 188.44 | 1.1724  | 1.7942  |
| 34    | 15.675 | 13.652 | 0.933  | 18.29  | 1071.59 | 54.67  | 252.39 | 439.44 | 187.04 | 1.1776  | 1.7927  |
| 35    | 16.076 | 14.027 | 0.937  | 17.76  | 1066.98 | 56.29  | 254.04 | 439.67 | 185.63 | 1.1829  | 1.7913  |
| 36    | 16.485 | 14.410 | 0.941  | 17.25  | 1062.32 | 57.96  | 255.69 | 439.89 | 184.20 | 1.1881  | 1.7898  |
| 37    | 16.902 | 14.800 | 0.946  | 16.76  | 1057.61 | 59.68  | 257.34 | 440.10 | 182.76 | 1.1933  | 1.7884  |
| 38    | 17.326 | 15.199 | 0.950  | 16.28  | 1052.84 | 61.44  | 259.01 | 440.30 | 181.29 | 1.1985  | 1.7869  |
| 39    | 17.758 | 15.606 | 0.954  | 15.81  | 1048.03 | 63.26  | 260.68 | 440.49 | 179.80 | 1.2038  | 1.7854  |
| 40    | 18.198 | 16.021 | 0.959  | 15.36  | 1043.16 | 65.12  | 262.36 | 440.66 | 178.30 | 1.2090  | 1.7839  |
| 41    | 18.645 | 16.444 | 0.963  | 14.92  | 1038.23 | 67.04  | 264.05 | 440.83 | 176.77 | 1.2143  | 1.7824  |
| 42    | 19.101 | 16.876 | 0.968  | 14.49  | 1033.25 | 69.01  | 265.75 | 440.98 | 175.23 | 1.2195  | 1.7809  |
| 43    | 19.566 | 17.317 | 0.973  | 14.08  | 1028.20 | 71.04  | 267.46 | 441.12 | 173.66 | 1.2248  | 1.7793  |
| 44    | 20.038 | 17.766 | 0.977  | 13.67  | 1023.09 | 73.13  | 269.18 | 441.25 | 172.06 | 1.2301  | 1.7777  |
| 45    | 20.519 | 18.224 | 0.982  | 13.28  | 1017.91 | 75.28  | 270.91 | 441.36 | 170.45 | 1.2354  | 1.7761  |
| 46    | 21.008 | 18.691 | 0.987  | 12.90  | 1012.67 | 77.50  | 272.65 | 441.46 | 168.81 | 1.2407  | 1.7745  |
| 47    | 21.506 | 19.168 | 0.993  | 12.53  | 1007.35 | 79.78  | 274.40 | 441.54 | 167.14 | 1.2460  | 1.7729  |
| 48    | 22.013 | 19.654 | 0.998  | 12.18  | 1001.96 | 82.13  | 276.16 | 441.61 | 165.45 | 1.2513  | 1.7712  |
| 49    | 22.528 | 20.149 | 1.004  | 11.83  | 996.49  | 84.56  | 277.93 | 441.67 | 163.74 | 1.2567  | 1.7696  |
| 50    | 23.052 | 20.654 | 1.009  | 11.49  | 990.95  | 87.06  | 279.71 | 441.70 | 161.99 | 1.2620  | 1.7679  |
| 51    | 23.585 | 21.168 | 1.015  | 11.16  | 985.31  | 89.63  | 281.51 | 441.72 | 160.21 | 1.2674  | 1.7661  |
| Temp. | p      | p''    | v'     | v''    | rho'    | rho''  | h'     | h''    | r      | s'      | s''     |
| °C    | bar    | bar    | dm³/kg | dm³/kg | kg/m³   | kg/m³  | kJ/kg  | kJ/kg  | kJ/kg  | kJ/kg K | kJ/kg K |
| 52    | 24.127 | 21.693 | 1.021  | 10.83  | 979.59  | 92.30  | 283.32 | 441.72 | 158.41 | 1.2728  | 1.7643  |
| 53    | 24.679 | 22.227 | 1.027  | 10.52  | 973.78  | 95.04  | 285.14 | 441.71 | 156.57 | 1.2782  | 1.7625  |
| 54    | 25.239 | 22.772 | 1.033  | 10.22  | 967.86  | 97.88  | 286.97 | 441.67 | 154.70 | 1.2837  | 1.7607  |
| 55    | 25.809 | 23.327 | 1.040  | 9.92   | 961.85  | 100.81 | 288.82 | 441.61 | 152.79 | 1.2891  | 1.7588  |
| 56    | 26.389 | 23.893 | 1.046  | 9.63   | 955.73  | 103.84 | 290.69 | 441.54 | 150.85 | 1.2946  | 1.7569  |
| 57    | 26.978 | 24.470 | 1.053  | 9.35   | 949.49  | 106.98 | 292.57 | 441.43 | 148.87 | 1.3002  | 1.7549  |
| 58    | 27.577 | 25.058 | 1.060  | 9.07   | 943.14  | 110.23 | 294.47 | 441.31 | 146.84 | 1.3057  | 1.7529  |
| 59    | 28.185 | 25.657 | 1.068  | 8.80   | 936.66  | 113.59 | 296.38 | 441.16 | 144.78 | 1.3113  | 1.7509  |
| 60    | 28.804 | 26.267 | 1.075  | 8.54   | 930.04  | 117.08 | 298.31 | 440.99 | 142.67 | 1.3169  | 1.7487  |
| 61    | 29.432 | 26.889 | 1.083  | 8.28   | 923.28  | 120.70 | 300.27 | 440.78 | 140.52 | 1.3225  | 1.7466  |
| 62    | 30.071 | 27.522 | 1.091  | 8.03   | 916.36  | 124.46 | 302.24 | 440.55 | 138.31 | 1.3282  | 1.7443  |
| 63    | 30.720 | 28.168 | 1.100  | 7.79   | 909.29  | 128.37 | 304.24 | 440.29 | 136.05 | 1.3340  | 1.7420  |
| 64    | 31.379 | 28.826 | 1.109  | 7.55   | 902.03  | 132.44 | 306.26 | 439.99 | 133.73 | 1.3398  | 1.7396  |
| 65    | 32.049 | 29.496 | 1.118  | 7.32   | 894.59  | 136.68 | 308.30 | 439.66 | 131.36 | 1.3456  | 1.7372  |
| 66    | 32.729 | 30.180 | 1.127  | 7.09   | 886.94  | 141.10 | 310.37 | 439.29 | 128.91 | 1.3515  | 1.7346  |
| 67    | 33.420 | 30.876 | 1.138  | 6.86   | 879.07  | 145.72 | 312.47 | 438.88 | 126.40 | 1.3574  | 1.7320  |
| 68    | 34.122 | 31.586 | 1.148  | 6.64   | 870.96  | 150.55 | 314.61 | 438.42 | 123.81 | 1.3635  | 1.7292  |
| 69    | 34.834 | 32.310 | 1.159  | 6.43   | 862.58  | 155.62 | 316.77 | 437.92 | 121.14 | 1.3696  | 1.7264  |
| 70    | 35.558 | 33.048 | 1.171  | 6.21   | 853.92  | 160.94 | 318.98 | 437.36 | 118.38 | 1.3757  | 1.7234  |
| 71    | 36.293 | 33.801 | 1.184  | 6.00   | 844.93  | 166.54 | 321.22 | 436.75 | 115.53 | 1.3820  | 1.7203  |
| 72    | 37.038 | 34.568 | 1.197  | 5.80   | 835.58  | 172.44 | 323.51 | 436.07 | 112.56 | 1.3884  | 1.7170  |
| 73    | 37.796 | 35.351 | 1.211  | 5.60   | 825.84  | 178.69 | 325.85 | 435.33 | 109.48 | 1.3949  | 1.7136  |
| 74    | 38.564 | 36.150 | 1.226  | 5.40   | 815.64  | 185.32 | 328.25 | 434.51 | 106.26 | 1.4016  | 1.7099  |
| 75    | 39.344 | 36.966 | 1.242  | 5.20   | 804.93  | 192.37 | 330.71 | 433.60 | 102.89 | 1.4084  | 1.7061  |
| 76    | 40.135 | 37.799 | 1.260  | 5.00   | 793.63  | 199.92 | 333.25 | 432.60 | 99.35  | 1.4154  | 1.7020  |
| 77    | 40.937 | 38.650 | 1.279  | 4.81   | 781.64  | 208.04 | 335.87 | 431.48 | 95.61  | 1.4226  | 1.6976  |
| 78    | 41.750 | 39.521 | 1.301  | 4.61   | 768.84  | 216.82 | 338.59 | 430.23 | 91.64  | 1.4300  | 1.6929  |
| 79    | 42.574 | 40.411 | 1.324  | 4.42   | 755.05  | 226.39 | 341.44 | 428.83 | 87.39  | 1.4378  | 1.6877  |
| 80    | 43.409 | 41.324 | 1.351  | 4.22   | 740.04  | 236.92 | 344.43 | 427.24 | 82.81  | 1.4460  | 1.6821  |
| 81    | 44.254 | 42.260 | 1.382  | 4.02   | 723.48  | 248.66 | 347.62 | 425.41 | 77.79  | 1.4547  | 1.6758  |
| 82    | 45.106 | 43.223 | 1.419  | 3.82   | 704.83  | 261.97 | 351.06 | 423.28 | 72.22  | 1.4640  | 1.6688  |
| 83    | 45.965 | 44.217 | 1.464  | 3.60   | 683.19  | 277.44 | 354.88 | 420.74 | 65.86  | 1.4744  | 1.6606  |
| 84    | 46.824 | 45.249 | 1.523  | 3.38   | 656.75  | 296.16 | 359.29 | 417.58 | 58.28  | 1.4865  | 1.6507  |
| 85    | 47.667 | 46.333 | 1.611  | 3.12   | 620.84  | 320.51 | 364.92 | 413.36 | 48.45  | 1.5018  | 1.6380  |

The information contained herein is subject to change without notice, due to the refrigerants being under development. The information contained herein represents examples of actual measurement data, and examples of use herein do not guarantee that the products can be practically applicable for the example of use.

# R407H

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