

DPF/DPFS

DPF/DPFS Series electronic expansion valve



DPF series



DPFS series

Product Description

DPF/DPFS electronic expansion valve is suitable for refrigeration systems such as air conditioners, commercial refrigerators, small refrigeration storage and heat pumps. It can accurately control the refrigerant flow in the system, so that the system can always

run in the best state, achieve rapid cooling, and achieve the goal of precise control and energy saving.

Features

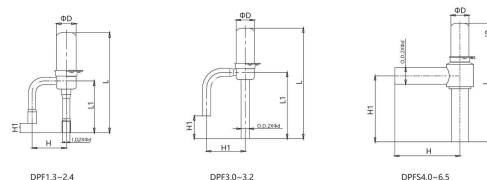
- Small size, light weight, stable and reliable performance;
- Fast response and action;
- New structure design of expansion valve, low noise and low failure rate;

- DPFS series products apply design of balanced port, and the reverse valve opening pressure is high;
- Suitable for systems with little oil or no oil.

Technical Parameters

| | |
|---------------------------------|---|
| Applicable refrigerant | R22, R134a, R404A, R407C, R410A |
| Nominal capacity | 2.5~126KW |
| Medium temperature | -30~+70°C |
| Environment temperature | -30~+60°C |
| Environment humidity | under 95%RH |
| Full open pulse | 500PS |
| Valve opening pulse | 32±20 |
| Rated voltage | 12V DC (±10%), rectangular wave |
| Excitation mode | 1-2 phase excitation, single pole drive |
| Excitation speed | 30~50pps |
| Finishing excitation mode keeps | 0.1~1.0s |
| Time cost for whole course | 6s (83pps) |
| Drive current | 260mA |
| Coil resistance | 48±3.7Ω/phase |
| Coil insulation grade | Class E |
| Protect grade | IP65 |

Structure



DPF1.3-2.4

DPF3.0-3.2

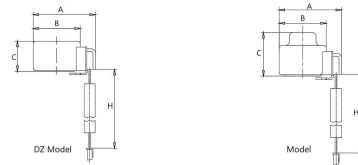
DPFS4.0-6.5

Overall dimension

| Model | φD | L | L1 | H | H1 | φd |
|-------------|------|-----|------|----|------|------|
| DPF1.3-2.4 | 17.3 | 87 | 36.8 | 30 | 8 | 6.5 |
| DPF3.0-3.2 | 17.3 | 105 | 41.5 | 37 | 21.5 | 7.94 |
| DPFS4.0-6.5 | 17.3 | 114 | / | 63 | 64 | 16 |

Note: dimension of connecting pipe can be customized according to requirements

Coil



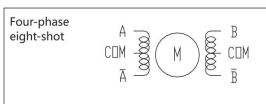
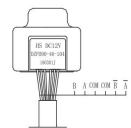
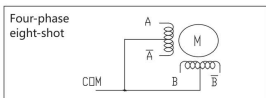
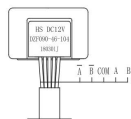
DZ Model

Model

Overall dimension

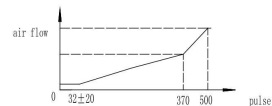
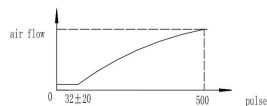
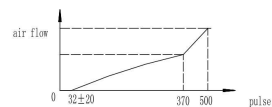
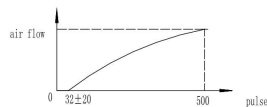
| Series | Coil model | A | B | C | H | Connector model |
|--------|----------------|----|------|------|------|----------------------------------|
| DZ | DZ090-46-0101 | 51 | 38.5 | 25 | 900 | XHP-5 XHP-6 XAP-5 XAP-6 |
| | DZ120-46-0101 | 51 | 38.5 | 25 | 1200 | |
| | DZ200-46-0101 | 51 | 38.5 | 25 | 2000 | |
| | DZ300-46-0101 | 51 | 38.5 | 25 | 3000 | |
| DZF | DZF090-46-0101 | 51 | 38.5 | 35.5 | 900 | XHP-5 XAP-5 XAP-6 |
| | DZF120-46-0101 | 51 | 38.5 | 35.5 | 1200 | |
| | DZF200-46-0101 | 51 | 38.5 | 35.5 | 2000 | |
| | DZF300-46-0101 | 51 | 38.5 | 35.5 | 3000 | |

Note: the lead wire length and connector can be customized according to customer's requirements.

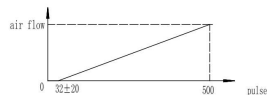


| Excitation method | | | | | | | | |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 相号 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| A | /// | /// | | | | | | /// |
| B | | | /// | /// | | | | |
| A̅ | | | | | /// | /// | | |
| B̅ | | | | | | | /// | /// |

Timing: 1→2→3→4→5→6→7→8 Valve close
8→7→6→5→4→3→2→1 Valve open



DPF1.0~DPF3.2



DPFS4.5~DPFS6.5

Note: the flow curve can be customized according to requirement.

| Model selection | | | | | | | | | | | | | |
|-----------------|-----------------|------------------|------------------|--------------------------|-------|--------|------------|--------|-----|-----|--------------------------------|---|--|
| Product series | Full open steps | Diameter [mm] | Kv ¹⁾ | Nominal capacity [kW] | | | | | | | Max. working pressure [MPa] | Max. working pressure differential [MPa] | Reverse valve opening pressure differential [MPa] |
| | | | | R22 | R134a | R407C | R404A/R507 | R410A | | | | | |
| DPF1.3 | 500 | 1.30 | 0.06 | 4.36 | 3.40 | 4.46 | 3.08 | 5.12 | 4.2 | 4.2 | ≥2.1 | | |
| DPF1.65 | 500 | 1.65 | 0.08 | 8.01 | 6.26 | 8.22 | 5.65 | 9.42 | 4.2 | 4.2 | ≥2.1 | | |
| DPF1.8 | 500 | 1.80 | 0.10 | 9.11 | 7.10 | 9.32 | 6.44 | 10.70 | 4.2 | 4.2 | ≥2.1 | | |
| DPF2.0 | 500 | 2.00 | 0.16 | 11.25 | 8.77 | 11.51 | 7.95 | 13.21 | 4.2 | 4.2 | ≥2.1 | | |
| DPF2.2 | 500 | 2.20 | 0.20 | 13.61 | 10.61 | 13.92 | 9.61 | 15.98 | 4.2 | 4.2 | ≥2.1 | | |
| DPF2.4 | 500 | 2.40 | 0.23 | 16.20 | 12.63 | 16.57 | 11.44 | 19.02 | 4.2 | 4.2 | ≥2.1 | | |
| DPF3.0 | 500 | 3.00 | 0.39 | 20.20 | 15.78 | 20.76 | 14.24 | 23.77 | 4.2 | 4.2 | ≥1.47 | | |
| DPF3.2 | 500 | 3.20 | 0.43 | 27.85 | 21.76 | 28.62 | 19.63 | 32.78 | 4.2 | 4.2 | ≥1.47 | | |
| DPFS4.0 | 500 | 6.50 | 0.50 | 40.37 | 31.54 | 41.49 | 29.45 | 47.52 | 4.2 | 4.2 | ≥3.5 | | |
| DPFS4.5 | 500 | 6.50 | 0.70 | 50.48 | 39.44 | 51.88 | 35.58 | 59.42 | 4.2 | 4.2 | ≥3.5 | | |
| DPFS5.5 | 500 | 6.50 | 0.80 | 67.30 | 52.58 | 69.16 | 47.44 | 79.21 | 4.2 | 4.2 | ≥3.5 | | |
| DPFS6.5 | 500 | 6.50 | 1.10 | 100.96 | 78.88 | 103.75 | 71.16 | 118.83 | 4.2 | 4.2 | ≥3.5 | | |

Nominal condition:
 • Rated capacity is based on: R407C condensing temperature: +38°C; evaporating temperature: +5°C; super cooling degree: 0 K; super heat degree: 0 K;
 • Kv value: the pressure difference based on the two sides between water with density 17/m³ and the valve is equal to the positive flow capacity at 100Kpa.

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|------------------------------|-----------------------------|------|------|------|------|------|-----------------------------|------|------|------|-------|-------|-------|-------|
| | Condensing temperature °C | DPF1.3 | | | | | | DPF1.65 | | | | | | | |
| | | Evaporating temperature(°C) | | | | | | Evaporating temperature(°C) | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 4.38 | 4.73 | 5.02 | 5.24 | 5.41 | 5.63 | 5.71 | 8.06 | 8.72 | 9.25 | 9.65 | 9.96 | 10.36 | 10.51 |
| | 35 | 4.72 | 5.00 | 5.22 | 5.41 | 5.54 | 5.70 | 5.73 | 8.68 | 9.21 | 9.63 | 9.95 | 10.20 | 10.49 | 10.56 |
| | 38 | 4.87 | 5.12 | 5.31 | 5.46 | 5.58 | 5.70 | 5.73 | 8.95 | 9.42 | 9.78 | 10.06 | 10.26 | 10.50 | 10.54 |
| | 40 | 4.93 | 5.17 | 5.36 | 5.49 | 5.59 | 5.70 | 5.70 | 9.10 | 9.53 | 9.86 | 10.11 | 10.29 | 10.49 | 10.50 |
| | 45 | 5.07 | 5.26 | 5.39 | 5.49 | 5.58 | 5.63 | 5.61 | 9.33 | 9.68 | 9.93 | 10.13 | 10.26 | 10.38 | 10.32 |
| 50 | 5.10 | 5.24 | 5.36 | 5.42 | 5.48 | 5.49 | 5.42 | 9.39 | 9.65 | 9.85 | 9.99 | 10.07 | 10.11 | 10.00 | |
| R407C | 30 | 3.79 | 4.06 | 4.28 | 4.43 | 4.55 | 4.66 | 4.66 | 6.96 | 7.47 | 7.86 | 8.15 | 8.36 | 8.57 | 8.60 |
| | 35 | 4.12 | 4.65 | 4.50 | 4.61 | 4.70 | 4.77 | 4.75 | 7.58 | 7.99 | 8.28 | 8.50 | 8.64 | 8.76 | 8.74 |
| | 38 | 4.28 | 4.46 | 4.60 | 4.70 | 4.77 | 4.80 | 4.77 | 7.88 | 8.22 | 8.47 | 8.65 | 8.76 | 8.85 | 8.78 |
| | 40 | 4.38 | 4.55 | 4.66 | 4.75 | 4.80 | 4.83 | 4.77 | 8.06 | 8.36 | 8.58 | 8.74 | 8.83 | 8.89 | 8.79 |
| | 45 | 4.56 | 4.68 | 4.77 | 4.83 | 4.85 | 4.85 | 4.77 | 8.39 | 8.63 | 8.79 | 8.89 | 8.95 | 8.92 | 8.76 |
| 50 | 4.68 | 4.77 | 4.82 | 4.85 | 4.87 | 4.82 | 4.70 | 8.46 | 8.78 | 8.88 | 8.93 | 8.95 | 8.86 | 8.65 | |
| R22 | 30 | 3.63 | 3.92 | 4.14 | 4.31 | 4.44 | 4.61 | 4.68 | 6.68 | 7.21 | 7.63 | 7.95 | 8.18 | 8.49 | 8.61 |
| | 35 | 3.97 | 4.21 | 4.39 | 4.53 | 4.63 | 4.75 | 4.78 | 7.32 | 7.75 | 8.08 | 8.33 | 8.53 | 8.75 | 8.81 |
| | 38 | 4.14 | 4.36 | 4.51 | 4.63 | 4.72 | 4.82 | 4.83 | 7.64 | 8.01 | 8.31 | 8.53 | 8.70 | 8.88 | 8.90 |
| | 40 | 4.26 | 4.44 | 4.58 | 4.70 | 4.77 | 4.85 | 4.87 | 7.82 | 8.17 | 8.43 | 8.64 | 8.78 | 8.93 | 8.95 |
| | 45 | 4.46 | 4.61 | 4.73 | 4.82 | 4.87 | 4.92 | 4.90 | 8.22 | 8.50 | 8.71 | 8.86 | 8.97 | 9.06 | 9.03 |
| 50 | 4.63 | 4.75 | 4.83 | 4.90 | 4.93 | 4.95 | 4.90 | 8.53 | 8.74 | 8.90 | 9.01 | 9.08 | 9.11 | 9.04 | |
| R134a | 30 | 2.89 | 3.08 | 3.23 | 3.33 | 3.40 | 3.45 | 3.41 | 5.31 | 5.67 | 5.93 | 6.11 | 6.24 | 6.33 | 6.29 |
| | 35 | 3.14 | 3.30 | 3.40 | 3.46 | 3.52 | 3.53 | 3.46 | 5.79 | 6.07 | 6.26 | 6.39 | 6.46 | 6.49 | 6.39 |
| | 38 | 3.28 | 3.40 | 3.48 | 3.53 | 3.57 | 3.57 | 3.50 | 6.04 | 6.26 | 6.42 | 6.51 | 6.57 | 6.56 | 6.43 |
| | 40 | 3.35 | 3.46 | 3.53 | 3.58 | 3.60 | 3.58 | 3.50 | 6.18 | 6.38 | 6.51 | 6.58 | 6.63 | 6.58 | 6.45 |
| | 45 | 3.52 | 3.58 | 3.63 | 3.65 | 3.65 | 3.60 | 3.50 | 6.46 | 6.60 | 6.68 | 6.72 | 6.72 | 6.63 | 6.43 |
| 50 | 3.62 | 3.67 | 3.68 | 3.68 | 3.67 | 3.58 | 3.46 | 6.65 | 6.74 | 6.78 | 6.78 | 6.75 | 6.60 | 6.38 | |
| R404A | 30 | 2.70 | 2.89 | 3.04 | 3.13 | 3.19 | 3.24 | 3.21 | 4.97 | 5.33 | 5.58 | 5.76 | 5.89 | 5.97 | 5.90 |
| | 35 | 2.89 | 3.03 | 3.13 | 3.19 | 3.23 | 3.23 | 3.18 | 5.32 | 5.57 | 5.76 | 5.88 | 5.95 | 5.96 | 5.83 |
| | 38 | 2.96 | 3.08 | 3.14 | 3.19 | 3.21 | 3.19 | 3.11 | 5.43 | 5.65 | 5.79 | 5.88 | 5.92 | 5.89 | 5.74 |
| | 40 | 2.97 | 3.08 | 3.14 | 3.18 | 3.19 | 3.16 | 3.06 | 5.47 | 5.67 | 5.78 | 5.85 | 5.88 | 5.82 | 5.64 |
| | 45 | 3.01 | 3.08 | 3.11 | 3.13 | 3.11 | 3.04 | 2.92 | 5.53 | 5.65 | 5.72 | 5.74 | 5.72 | 5.61 | 5.39 |
| 50 | 2.96 | 2.99 | 3.01 | 2.99 | 2.97 | 2.87 | 2.72 | 5.45 | 5.51 | 5.53 | 5.51 | 5.46 | 5.29 | 5.01 | |

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|------------------------------|-----------------------------|-------|-------|-------|-------|-------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| | Condensing temperature °C | DPF1.6 | | | | | | DPF2.0 | | | | | | | |
| | | Evaporating temperature(°C) | | | | | | Evaporating temperature(°C) | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 9.15 | 9.88 | 10.49 | 10.95 | 11.31 | 11.77 | 11.93 | 11.30 | 12.20 | 12.95 | 13.52 | 13.96 | 14.52 | 14.73 |
| | 35 | 9.66 | 10.45 | 10.91 | 11.31 | 11.58 | 11.91 | 11.97 | 12.18 | 12.90 | 13.47 | 13.96 | 14.29 | 14.71 | 14.78 |
| | 38 | 10.18 | 10.70 | 11.10 | 11.41 | 11.66 | 11.91 | 11.97 | 12.56 | 13.21 | 13.70 | 14.09 | 14.40 | 14.71 | 14.78 |
| | 40 | 10.30 | 10.80 | 11.20 | 11.47 | 11.68 | 11.91 | 11.91 | 12.72 | 13.34 | 13.83 | 14.16 | 14.42 | 14.71 | 14.71 |
| | 45 | 10.59 | 10.99 | 11.26 | 11.47 | 11.66 | 11.77 | 11.72 | 13.08 | 13.57 | 13.91 | 14.16 | 14.40 | 14.52 | 14.47 |
| 50 | 10.66 | 10.95 | 11.20 | 11.33 | 11.45 | 11.47 | 11.33 | 13.16 | 13.52 | 13.83 | 13.98 | 14.14 | 14.16 | 13.98 | |
| R407C | 30 | 7.92 | 8.48 | 8.94 | 9.26 | 9.51 | 9.74 | 9.74 | 9.78 | 10.47 | 11.04 | 11.43 | 11.74 | 12.02 | 12.02 |
| | 35 | 8.61 | 9.72 | 9.40 | 9.63 | 9.82 | 9.97 | 9.93 | 10.63 | 12.00 | 11.61 | 11.89 | 12.13 | 12.31 | 12.25 |
| | 38 | 8.94 | 9.32 | 9.61 | 9.82 | 9.97 | 10.03 | 9.97 | 11.04 | 11.51 | 11.87 | 12.13 | 12.31 | 12.38 | 12.31 |
| | 40 | 9.15 | 9.51 | 9.74 | 9.93 | 10.03 | 10.09 | 9.97 | 11.30 | 11.74 | 12.02 | 12.25 | 12.38 | 12.46 | 12.31 |
| | 45 | 9.53 | 9.78 | 9.97 | 10.09 | 10.14 | 10.14 | 9.97 | 11.76 | 12.07 | 12.31 | 12.46 | 12.51 | 12.51 | 12.31 |
| 50 | 9.78 | 9.97 | 10.07 | 10.14 | 10.18 | 10.07 | 9.82 | 12.07 | 12.31 | 12.44 | 12.51 | 12.56 | 12.44 | 12.13 | |
| R22 | 30 | 7.59 | 8.19 | 8.65 | 9.01 | 9.28 | 9.63 | 9.78 | 9.36 | 10.11 | 10.68 | 11.12 | 11.45 | 11.89 | 12.07 |
| | 35 | 8.30 | 8.80 | 9.17 | 9.47 | 9.68 | 9.93 | 9.99 | 10.24 | 10.86 | 11.33 | 11.69 | 11.94 | 12.25 | 12.33 |
| | 38 | 8.65 | 9.11 | 9.42 | 9.68 | 9.86 | 10.07 | 10.09 | 10.68 | 11.25 | 11.64 | 11.94 | 12.18 | 12.44 | 12.46 |
| | 40 | 8.90 | 9.28 | 9.57 | 9.82 | 9.97 | 10.14 | 10.18 | 10.99 | 11.45 | 11.82 | 12.13 | 12.31 | 12.51 | 12.56 |
| | 45 | 9.32 | 9.63 | 9.88 | 10.07 | 10.18 | 10.28 | 10.24 | 11.51 | 11.89 | 12.20 | 12.44 | 12.56 | 12.69 | 12.64 |
| 50 | 9.68 | 9.93 | 10.09 | 10.24 | 10.30 | 10.34 | 10.24 | 11.94 | 12.25 | 12.46 | 12.64 | 12.72 | 12.77 | 12.64 | |
| R134a | 30 | 6.04 | 6.44 | 6.75 | 6.96 | 7.10 | 7.21 | 7.13 | 7.46 | 7.95 | 8.33 | 8.59 | 8.77 | 8.90 | 8.80 |
| | 35 | 6.56 | 6.90 | 7.10 | 7.23 | 7.36 | 7.38 | 7.23 | 8.10 | 8.51 | 8.77 | 8.93 | 9.08 | 9.11 | 8.93 |
| | 38 | 6.85 | 7.10 | 7.27 | 7.38 | 7.46 | 7.46 | 7.31 | 8.46 | 8.77 | 8.98 | 9.11 | 9.21 | 9.21 | 9.03 |
| | 40 | 7.00 | 7.23 | 7.38 | 7.48 | 7.52 | 7.48 | 7.31 | 8.64 | 8.93 | 9.11 | 9.24 | 9.29 | 9.24 | 9.03 |
| | 45 | 7.36 | 7.48 | 7.59 | 7.63 | 7.63 | 7.52 | 7.31 | 9.08 | 9.24 | 9.36 | 9.42 | 9.42 | 9.29 | 9.03 |
| 50 | 7.56 | 7.67 | 7.69 | 7.69 | 7.67 | 7.48 | 7.23 | 9.34 | 9.47 | 9.49 | 9.49 | 9.47 | 9.24 | 8.93 | |
| R404A | 30 | 5.64 | 6.04 | 6.35 | 6.54 | 6.67 | 6.77 | 6.71 | 6.97 | 7.46 | 7.84 | 8.08 | 8.23 | 8.36 | 8.28 |
| | 35 | 6.04 | 6.33 | 6.54 | 6.67 | 6.75 | 6.75 | 6.65 | 7.46 | 7.82 | 8.08 | 8.23 | 8.33 | 8.33 | 8.20 |
| | 38 | 6.19 | 6.44 | 6.56 | 6.67 | 6.71 | 6.67 | 6.50 | 7.64 | 7.95 | 8.10 | 8.23 | 8.28 | 8.23 | 8.02 |
| | 40 | 6.21 | 6.44 | 6.56 | 6.65 | 6.67 | 6.60 | 6.39 | 7.66 | 7.95 | 8.10 | 8.20 | 8.23 | 8.15 | 7.89 |
| | 45 | 6.29 | 6.44 | 6.50 | 6.54 | 6.50 | 6.35 | 6.10 | 7.77 | 7.95 | 8.02 | 8.08 | 8.02 | 7.94 | 7.53 |
| 50 | 6.19 | 6.25 | 6.29 | 6.25 | 6.21 | 6.00 | 5.88 | 7.64 | 7.71 | 7.77 | 7.71 | 7.66 | 7.40 | 7.02 | |

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|------------------------------|-------|-------|-------|-------|-------|-------|-------|
| | Condensing temperature [°C] | DPF2.2 | | | | | | DPF2.4 | | | | | | | |
| | | Evaporating temperature [°C] | | | | | | Evaporating temperature [°C] | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 13.67 | 14.77 | 15.67 | 16.36 | 16.89 | 17.57 | 17.82 | 18.27 | 17.57 | 18.65 | 19.47 | 20.10 | 20.92 | 21.21 |
| | 35 | 14.73 | 15.61 | 16.30 | 16.89 | 17.29 | 17.79 | 17.89 | 17.53 | 18.56 | 19.39 | 20.10 | 20.56 | 21.18 | 21.29 |
| | 38 | 15.20 | 15.98 | 16.58 | 17.04 | 17.42 | 17.79 | 17.89 | 18.09 | 19.02 | 19.73 | 20.28 | 20.73 | 21.18 | 21.29 |
| | 40 | 15.39 | 16.14 | 16.73 | 17.14 | 17.45 | 17.79 | 17.79 | 18.32 | 19.21 | 19.91 | 20.40 | 20.77 | 21.18 | 21.18 |
| | 45 | 15.83 | 16.42 | 16.83 | 17.14 | 17.42 | 17.57 | 17.51 | 18.84 | 19.54 | 20.02 | 20.40 | 20.73 | 20.92 | 20.84 |
| 50 | 15.92 | 16.36 | 16.73 | 16.92 | 17.11 | 17.14 | 16.92 | 18.95 | 19.47 | 19.91 | 20.14 | 20.36 | 20.40 | 20.14 | |
| R407C | 30 | 11.83 | 12.67 | 13.36 | 13.83 | 14.20 | 14.55 | 14.55 | 14.08 | 15.08 | 15.90 | 16.46 | 16.90 | 17.31 | 17.31 |
| | 35 | 12.86 | 14.52 | 14.05 | 14.39 | 14.67 | 14.89 | 14.83 | 15.31 | 17.27 | 16.72 | 17.13 | 17.46 | 17.72 | 17.65 |
| | 38 | 13.36 | 13.92 | 14.36 | 14.67 | 14.89 | 14.98 | 14.89 | 15.90 | 16.57 | 17.09 | 17.46 | 17.72 | 17.83 | 17.72 |
| | 40 | 13.67 | 14.20 | 14.55 | 14.83 | 14.98 | 15.08 | 14.89 | 16.27 | 16.90 | 17.31 | 17.65 | 17.83 | 17.94 | 17.72 |
| | 45 | 14.23 | 14.61 | 14.89 | 15.08 | 15.14 | 15.14 | 14.89 | 16.94 | 17.39 | 17.72 | 17.94 | 18.02 | 18.02 | 17.72 |
| 50 | 14.61 | 14.89 | 15.05 | 15.14 | 15.20 | 15.05 | 14.67 | 17.39 | 17.72 | 17.91 | 18.02 | 18.09 | 17.91 | 17.46 | |
| R22 | 30 | 11.33 | 12.24 | 12.92 | 13.45 | 13.86 | 14.39 | 14.61 | 13.49 | 14.56 | 15.38 | 16.01 | 16.49 | 17.13 | 17.39 |
| | 35 | 12.39 | 13.14 | 13.70 | 14.14 | 14.45 | 14.83 | 14.92 | 14.75 | 15.64 | 16.31 | 16.83 | 17.20 | 17.65 | 17.76 |
| | 38 | 12.92 | 13.61 | 14.08 | 14.45 | 14.73 | 15.05 | 15.08 | 15.38 | 16.20 | 16.75 | 17.20 | 17.53 | 17.91 | 17.94 |
| | 40 | 13.30 | 13.86 | 14.30 | 14.67 | 14.89 | 15.14 | 15.20 | 15.83 | 16.49 | 17.01 | 17.46 | 17.72 | 18.02 | 18.09 |
| | 45 | 13.92 | 14.39 | 14.77 | 15.05 | 15.20 | 15.36 | 15.30 | 16.57 | 17.13 | 17.57 | 17.91 | 18.09 | 18.28 | 18.20 |
| 50 | 14.45 | 14.83 | 15.08 | 15.30 | 15.39 | 15.45 | 15.30 | 17.20 | 17.65 | 17.94 | 18.20 | 18.32 | 18.39 | 18.20 | |
| R134a | 30 | 9.02 | 9.61 | 10.08 | 10.40 | 10.61 | 10.77 | 10.64 | 10.74 | 11.44 | 12.00 | 12.37 | 12.63 | 12.82 | 12.67 |
| | 35 | 9.80 | 10.30 | 10.61 | 10.80 | 10.99 | 11.02 | 10.80 | 11.67 | 12.26 | 12.63 | 12.85 | 13.08 | 13.11 | 12.85 |
| | 38 | 10.24 | 10.61 | 10.86 | 11.02 | 11.14 | 11.14 | 10.93 | 12.19 | 12.65 | 12.93 | 13.11 | 13.26 | 13.26 | 13.00 |
| | 40 | 10.46 | 10.80 | 11.02 | 11.18 | 11.24 | 11.18 | 10.93 | 12.45 | 12.85 | 13.11 | 13.30 | 13.37 | 13.30 | 13.00 |
| | 45 | 10.99 | 11.18 | 11.33 | 11.39 | 11.39 | 11.24 | 10.93 | 13.08 | 13.30 | 13.49 | 13.56 | 13.56 | 13.37 | 13.00 |
| 50 | 11.30 | 11.46 | 11.49 | 11.49 | 11.46 | 11.18 | 10.80 | 13.45 | 13.63 | 13.67 | 13.67 | 13.63 | 13.30 | 12.85 | |
| R404A | 30 | 8.43 | 9.02 | 9.49 | 9.77 | 9.96 | 10.11 | 10.02 | 10.03 | 10.74 | 11.29 | 11.63 | 11.85 | 12.04 | 11.93 |
| | 35 | 9.02 | 9.46 | 9.77 | 9.96 | 10.08 | 10.08 | 9.93 | 10.74 | 11.26 | 11.63 | 11.85 | 12.00 | 12.00 | 11.81 |
| | 38 | 9.24 | 9.61 | 9.80 | 9.96 | 10.02 | 9.96 | 9.71 | 11.00 | 11.44 | 11.67 | 11.85 | 11.93 | 11.85 | 11.55 |
| | 40 | 9.27 | 9.61 | 9.80 | 9.93 | 9.96 | 9.86 | 9.55 | 11.03 | 11.44 | 11.67 | 11.81 | 11.85 | 11.74 | 11.37 |
| | 45 | 9.40 | 9.61 | 9.71 | 9.77 | 9.71 | 9.49 | 9.12 | 11.18 | 11.44 | 11.55 | 11.63 | 11.55 | 11.29 | 10.85 |
| 50 | 9.24 | 9.33 | 9.40 | 9.33 | 9.27 | 8.96 | 8.49 | 11.00 | 11.11 | 11.11 | 11.03 | 10.66 | 10.10 | | |

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|------------------------------|-------|-------|-------|-------|-------|-------|-------|
| | Condensing temperature [°C] | DPF3.0 | | | | | | DPF3.2 | | | | | | | |
| | | Evaporating temperature [°C] | | | | | | Evaporating temperature [°C] | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 20.33 | 22.02 | 23.35 | 24.33 | 25.18 | 26.16 | 26.51 | 28.04 | 30.36 | 32.20 | 33.55 | 34.72 | 36.07 | 36.55 |
| | 35 | 21.88 | 23.21 | 24.33 | 25.11 | 25.74 | 26.44 | 26.65 | 30.17 | 32.01 | 33.55 | 34.62 | 35.49 | 36.46 | 36.75 |
| | 38 | 22.58 | 23.77 | 24.69 | 25.39 | 25.95 | 26.51 | 26.58 | 31.14 | 32.78 | 34.04 | 35.01 | 35.78 | 36.55 | 36.65 |
| | 40 | 23.00 | 24.06 | 24.90 | 25.53 | 26.02 | 26.51 | 26.51 | 31.72 | 33.17 | 34.33 | 35.20 | 35.88 | 36.55 | 36.55 |
| | 45 | 23.56 | 24.40 | 25.11 | 25.60 | 25.88 | 26.16 | 26.02 | 32.49 | 33.65 | 34.62 | 35.30 | 35.68 | 36.07 | 35.88 |
| 50 | 23.70 | 24.33 | 24.90 | 25.18 | 25.45 | 25.53 | 25.24 | 32.68 | 33.55 | 34.33 | 34.72 | 35.10 | 35.20 | 34.81 | |
| R407C | 30 | 17.54 | 18.86 | 19.85 | 20.55 | 21.04 | 21.60 | 21.67 | 24.18 | 26.01 | 27.37 | 28.33 | 29.01 | 29.78 | 29.88 |
| | 35 | 19.15 | 20.12 | 20.90 | 21.39 | 21.81 | 22.09 | 22.02 | 26.40 | 27.75 | 28.82 | 29.49 | 30.07 | 30.46 | 30.36 |
| | 38 | 19.85 | 20.76 | 21.39 | 21.81 | 22.09 | 22.30 | 22.09 | 27.37 | 28.62 | 29.49 | 30.07 | 30.46 | 30.75 | 30.46 |
| | 40 | 20.27 | 21.11 | 21.67 | 22.02 | 22.30 | 22.37 | 22.16 | 27.95 | 29.11 | 29.88 | 30.36 | 30.75 | 30.85 | 30.56 |
| | 45 | 21.18 | 21.74 | 22.16 | 22.44 | 22.51 | 22.51 | 22.09 | 29.20 | 29.98 | 30.56 | 31.04 | 31.04 | 31.04 | 30.46 |
| 50 | 21.67 | 22.09 | 22.37 | 22.51 | 22.58 | 22.30 | 22.18 | 29.88 | 30.46 | 30.85 | 31.04 | 31.14 | 30.75 | 30.07 | |
| R22 | 30 | 16.83 | 18.23 | 19.28 | 20.06 | 20.69 | 21.46 | 21.74 | 23.21 | 25.14 | 26.59 | 27.66 | 28.53 | 29.59 | 29.98 |
| | 35 | 18.44 | 19.57 | 20.41 | 21.04 | 21.53 | 22.09 | 22.23 | 25.43 | 26.98 | 28.14 | 29.01 | 29.69 | 30.46 | 30.65 |
| | 38 | 19.28 | 20.20 | 20.97 | 21.53 | 21.95 | 22.37 | 22.44 | 26.59 | 27.85 | 28.91 | 29.69 | 30.27 | 30.85 | 30.94 |
| | 40 | 19.78 | 20.62 | 21.32 | 21.81 | 22.16 | 22.58 | 22.58 | 27.27 | 28.43 | 29.40 | 30.07 | 30.56 | 31.14 | 31.14 |
| | 45 | 20.76 | 21.46 | 22.02 | 22.37 | 22.65 | 22.86 | 22.79 | 28.62 | 29.59 | 30.36 | 30.85 | 31.23 | 31.52 | 31.43 |
| 50 | 21.53 | 22.09 | 22.44 | 22.79 | 22.93 | 23.00 | 22.79 | 29.69 | 30.46 | 30.94 | 31.43 | 31.62 | 31.72 | 31.43 | |
| R134a | 30 | 13.39 | 14.31 | 15.04 | 15.43 | 15.78 | 15.99 | 15.85 | 18.47 | 19.73 | 20.69 | 21.27 | 21.76 | 22.05 | 21.85 |
| | 35 | 14.66 | 15.36 | 15.78 | 16.13 | 16.34 | 16.41 | 16.13 | 20.21 | 21.18 | 21.76 | 22.24 | 22.53 | 22.63 | 22.24 |
| | 38 | 15.21 | 15.78 | 16.20 | 16.48 | 16.55 | 16.55 | 16.20 | 20.98 | 21.76 | 22.34 | 22.72 | 22.82 | 22.82 | 22.34 |
| | 40 | 15.57 | 16.06 | 16.41 | 16.62 | 16.69 | 16.65 | 16.27 | 21.14 | 22.14 | 22.63 | 22.92 | 23.01 | 22.82 | 22.43 |
| | 45 | 16.34 | 16.69 | 16.90 | 16.97 | 16.97 | 16.69 | 16.27 | 22.53 | 23.01 | 23.30 | 23.40 | 23.40 | 23.01 | 22.43 |
| 50 | 16.83 | 17.04 | 17.11 | 17.11 | 17.04 | 16.69 | 16.06 | 23.21 | 23.50 | 23.59 | 23.59 | 23.50 | 23.21 | 22.60 | |
| R404A | 30 | 12.55 | 13.47 | 14.10 | 14.58 | 14.87 | 15.08 | 14.94 | 17.31 | 18.57 | 19.44 | 20.11 | 20.50 | 20.79 | 20.14 |
| | 35 | 13.39 | 14.10 | 14.52 | 14.87 | 15.00 | 15.00 | 14.73 | 18.47 | 19.44 | 20.02 | 20.50 | 20.69 | 20.69 | 20.31 |
| | 38 | 13.74 | 14.24 | 14.66 | 14.87 | 14.94 | 14.87 | 14.52 | 18.95 | 19.63 | 20.21 | 20.50 | 20.60 | 20.50 | 20.02 |
| | 40 | 13.82 | 14.31 | 14.58 | 14.79 | 14.79 | 14.66 | 14.24 | 19.05 | 19.73 | 20.11 | 20.40 | 20.40 | 20.21 | 19.63 |
| | 45 | 13.95 | 14.16 | 14.45 | 14.52 | 14.45 | 14.16 | 13.60 | 19.24 | 19.53 | 19.92 | 20.02 | 19.92 | 19.53 | 18.76 |
| 50 | 13.74 | 13.89 | 13.95 | 13.89 | 13.82 | 13.32 | 12.69 | 18.95 | 19.15 | 19.24 | 19.15 | 19.05 | 18.37 | 17.50 | |

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|------------------------------|-------|-------|-------|-------|-------|-------|-------|
| | Condensing temperature [°C] | DPF4.0 | | | | | | DPF4.5 | | | | | | | |
| | | Evaporating temperature [°C] | | | | | | Evaporating temperature [°C] | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 40.64 | 44.01 | 46.67 | 48.63 | 50.33 | 52.28 | 52.98 | 50.83 | 55.03 | 58.37 | 60.81 | 62.93 | 65.38 | 66.25 |
| | 35 | 43.73 | 46.40 | 48.63 | 50.18 | 51.44 | 52.85 | 53.27 | 54.69 | 58.02 | 60.81 | 62.75 | 64.33 | 66.09 | 66.61 |
| | 38 | 45.14 | 47.52 | 49.34 | 50.75 | 51.86 | 52.98 | 53.13 | 56.45 | 59.42 | 61.70 | 63.46 | 64.86 | 66.25 | 66.43 |
| | 40 | 45.98 | 48.08 | 49.76 | 51.02 | 52.01 | 52.98 | 52.98 | 57.50 | 60.13 | 62.23 | 63.80 | 65.04 | 66.25 | 66.25 |
| | 45 | 47.09 | 48.78 | 50.18 | 51.17 | 51.72 | 52.28 | 52.01 | 58.89 | 61.00 | 62.75 | 63.99 | 64.67 | 65.38 | 65.04 |
| 50 | 47.37 | 48.63 | 49.76 | 50.33 | 50.88 | 51.02 | 50.46 | 59.24 | 60.81 | 62.23 | 62.93 | 63.62 | 63.80 | 63.10 | |
| R407C | 30 | 35.05 | 37.70 | 39.67 | 41.06 | 42.05 | 43.17 | 43.31 | 43.83 | 47.15 | 49.61 | 51.35 | 52.58 | 53.98 | 54.16 |
| | 35 | 38.27 | 40.22 | 41.78 | 42.75 | 43.59 | 44.15 | 44.01 | 47.85 | 50.30 | 52.24 | 53.45 | 54.51 | 55.21 | 55.03 |
| | 38 | 39.67 | 41.49 | 42.75 | 43.59 | 44.15 | 44.57 | 44.15 | 49.61 | 51.88 | 53.45 | 54.51 | 55.21 | 55.74 | 55.21 |
| | 40 | 40.51 | 42.20 | 43.31 | 44.01 | 44.57 | 44.72 | 44.30 | 50.66 | 52.77 | 54.16 | 55.03 | 55.74 | 55.92 | 55.39 |
| | 45 | 42.33 | 43.46 | 44.30 | 44.85 | 44.99 | 44.99 | 44.15 | 52.93 | 54.34 | 55.39 | 56.08 | 56.26 | 56.26 | 55.21 |
| 50 | 43.31 | 44.15 | 44.72 | 44.99 | 45.14 | 44.57 | 43.59 | 54.16 | 55.21 | 55.92 | 56.26 | 56.45 | 56.74 | 54.51 | |
| R22 | 30 | 33.64 | 36.44 | 38.54 | 40.09 | 41.35 | 42.89 | 43.46 | 42.07 | 45.57 | 48.20 | 50.14 | 51.71 | 53.64 | 54.34 |
| | 35 | 36.86 | 39.11 | 40.79 | 42.05 | 43.04 | 44.15 | 44.43 | 46.10 | 48.90 | 51.01 | 52.58 | 53.82 | 55.21 | 55.56 |
| | 38 | 38.54 | 40.37 | 41.91 | 43.04 | 43.88 | 44.72 | 44.85 | 48.20 | 50.48 | 52.40 | 53.82 | 54.87 | 55.92 | 56.08 |
| | 40 | 39.53 | 41.21 | 42.62 | 43.59 | 44.30 | 45.14 | 45.14 | 49.43 | 51.53 | 53.29 | 54.51 | 55.39 | 56.45 | 56.45 |
| | 45 | 41.49 | 42.89 | 44.01 | 44.72 | 45.27 | 45.69 | 45.56 | 51.88 | 53.64 | 55.03 | 55.92 | 56.61 | 57.13 | 56.97 |
| 50 | 43.04 | 44.15 | 44.85 | 45.56 | 45.83 | 45.98 | 45.56 | 53.82 | 55.21 | 56.08 | 56.97 | 57.32 | 57.50 | 56.97 | |
| R134a | 30 | 26.77 | 28.60 | 29.99 | 30.83 | 31.54 | 31.96 | 31.67 | 33.48 | 35.76 | 37.50 | 38.55 | 39.44 | 39.97 | 39.61 |
| | 35 | 29.29 | 30.70 | 31.54 | 32.24 | 32.66 | 32.80 | 32.24 | 36.63 | 38.39 | 39.44 | 40.31 | 40.84 | 41.02 | 40.31 |
| | 38 | 30.41 | 31.54 | 32.38 | 32.93 | 33.08 | 33.08 | 32.58 | 38.03 | 39.44 | 40.49 | 41.18 | 41.36 | 41.36 | 40.49 |
| | 40 | 31.12 | 32.09 | 32.80 | 33.22 | 33.35 | 33.08 | 32.58 | 38.92 | 40.13 | 41.02 | 41.55 | 41.71 | 41.36 | 40.66 |
| | 45 | 32.66 | 33.35 | 33.77 | 33.92 | 33.92 | 33.35 | 32.51 | 40.84 | 41.71 | 42.23 | 42.42 | 42.42 | 41.71 | 40.66 |
| 50 | 33.64 | 34.06 | 34.19 | 34.19 | 34.06 | 33.35 | 32.09 | 42.07 | 42.60 | 42.76 | 42.76 | 42.60 | 41.71 | 40.13 | |
| R404A | 30 | 25.09 | 26.92 | 28.18 | 29.15 | 29.72 | 30.14 | 29.86 | 31.38 | 33.66 | 35.24 | 36.45 | 37.16 | 37.68 | 37.34 |
| | 35 | 26.77 | 28.10 | 29.02 | 29.72 | 29.99 | 29.99 | 29.44 | 33.48 | 35.24 | 36.29 | 37.16 | 37.50 | 37.50 | 36.81 |
| | 38 | 27.47 | 28.45 | 29.29 | 29.72 | 29.86 | 29.72 | 29.02 | 34.35 | 35.58 | 36.63 | 37.16 | 37.34 | 37.16 | 36.29 |
| | 40 | 27.61 | 28.60 | 29.15 | 29.57 | 29.57 | 29.29 | 28.45 | 34.53 | 35.76 | 36.45 | 36.98 | 36.98 | 36.63 | 35.58 |
| | 45 | 27.89 | 28.31 | 28.87 | 29.02 | 28.87 | 28.31 | 27.19 | 34.88 | 35.40 | 36.11 | 36.29 | 36.11 | 35.40 | 34.01 |
| 50 | 27.47 | 27.76 | 27.89 | 27.76 | 27.61 | 26.63 | 25.37 | 34.35 | 34.71 | 34.88 | 34.71 | 34.53 | 33.30 | 31.72 | |

| Rated capacity (kW) | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|------------------------------|--------|--------|--------|--------|--------|--------|--------|
| | Condensing temperature [°C] | DPF5.5 | | | | | | DPF6.5 | | | | | | | |
| | | Evaporating temperature [°C] | | | | | | Evaporating temperature [°C] | | | | | | | |
| | | 10 | 5 | 0 | -5 | -10 | -20 | -30 | 10 | 5 | 0 | -5 | -10 | -20 | -30 |
| R410A | 30 | 67.76 | 73.37 | 77.81 | 81.07 | 83.90 | 87.16 | 88.32 | 101.65 | 110.06 | 116.73 | 121.62 | 125.86 | 130.76 | 132.50 |
| | 35 | 72.91 | 77.35 | 81.07 | 83.66 | 85.76 | 88.11 | 88.81 | 109.37 | 116.94 | 121.62 | 125.50 | 128.65 | 132.17 | 133.22 |
| | 38 | 75.25 | 79.21 | 82.26 | 84.60 | 86.46 | 88.32 | 88.57 | 112.88 | 118.83 | 123.40 | 126.91 | 129.71 | 132.50 | 132.86 |
| | 40 | 76.65 | 80.16 | 82.96 | 85.06 | 86.71 | 88.32 | 88.32 | 114.99 | 120.24 | 124.45 | 127.60 | 130.07 | 132.50 | 132.50 |
| | 45 | 78.51 | 81.32 | 83.66 | 85.30 | 86.22 | 87.16 | 86.71 | 117.78 | 121.98 | 125.50 | 127.97 | 129.34 | 130.76 | 130.07 |
| 50 | 79.87 | 81.07 | 82.96 | 83.90 | 84.82 | 85.06 | 84.12 | 118.47 | 121.62 | 124.45 | 125.86 | 127.24 | 127.60 | 126.19 | |
| R407C | 30 | 58.43 | 62.85 | 66.14 | 68.46 | 70.10 | 71.96 | 72.21 | 87.65 | 94.29 | 99.22 | 102.70 | 105.16 | 107.95 | 108.32 |
| | 35 | 63.80 | 67.06 | 69.64 | 71.26 | 72.67 | 73.61 | 73.37 | 95.70 | 100.60 | 104.74 | 106.90 | 109.01 | 110.42 | 110.06 |
| | 38 | 66.14 | 69.16 | 71.26 | 72.67 | 73.61 | 74.31 | 73.61 | 99.22 | 103.75 | 106.90 | 109.01 | 110.42 | 111.47 | 110.42 |
| | 40 | 67.54 | 70.35 | 72.21 | 73.37 | 74.31 | 74.55 | 73.85 | 103.32 | 105.53 | 108.32 | 110.06 | 111.47 | 111.83 | 110.78 |
| | 45 | 70.56 | 72.45 | 73.85 | 74.77 | 75.01 | 75.01 | 73.61 | 105.85 | 108.68 | 110.78 | 112.16 | 112.52 | 112.52 | 110.42 |
| 50 | 72.21 | 73.61 | 74.55 | 75.01 | 75.25 | 74.31 | 72.67 | 108.32 | 110.42 | 111.83 | 112.52 | 112.88 | 111.47 | 109.01 | |
| R22 | 30 | 56.09 | 60.75 | 64.26 | 66.84 | 68.94 | 71.51 | 72.45 | 84.14 | 91.13 | 96.39 | 100.27 | 103.42 | 107.27 | 108.68 |
| | 35 | 61.45 | 65.20 | 68.00 | 70.10 | 71.75 | 73.61 | 74.07 | 92.19 | 97.80 | 102.01 | 105.16 | 107.63 | 110.42 | 111.11 |
| | 38 | 64.26 | 67.30 | 69.86 | 71.75 | 73.15 | 74.55 | 74.77 | 96.39 | 100.96 | 104.80 | 107.63 | 109.73 | 111.83 | 112.16 |
| | 40 | 65.90 | 68.70 | 71.05 | 72.67 | 73.61 | 73.85 | 75.25 | 75.25 | 98.86 | 103.06 | 106.58 | 109.01 | 110.78 | 112.88 |
| | 45 | 69.16 | 71.51 | 73.37 | 74.55 | 75.47 | 76.17 | 75.95 | 103.75 | 107.27 | 110.06 | 111.83 | 113.21 | 114.26 | 113.94 |
| 50 | 71.75 | 73.61 | 74.77 | 75.95 | 76.41 | 76.65 | 75.95 | 107.63 | 110.42 | 112.16 | 113.94 | 114.62 | 114.99 | 113.94 | |
| R134a | 30 | 44.63 | 47.68 | 50.00 | 51.40 | 52.58 | 53.28 | 52.80 | 66.96 | 71.52 | 75.00 | 77.11 | 78.88 | 79.93 | 79.21 |
| | 35 | 48.84 | 51.18 | 52.58 | 53.74 | 54.44 | 54.69 | 53.74 | 73.26 | 76.78 | 78.88 | 80.62 | 81.67 | 82.04 | 80.62 |
| | 38 | 50.70 | 52.58 | 53.99 | 54.90 | 55.15 | 55.15 | 53.99 | 76.05 | 78.88 | 80.58 | 82.36 | 82.72 | 82.72 | 80.58 |
| | 40 | 51.88 | 53.50 | 54.69 | 55.39 | 55.60 | 55.15 | 54.20 | 77.83 | 80.26 | 82.04 | 83.09 | 83.41 | 82.72 | 81.31 |
| | 45 | 54.44 | 55.60 | 56.31 | 56.55 | 56.55 | 55.60 | 54.20 | 81.67 | 83.41 | 84.46 | 84.83 | 84.83 | 83.41 | 81.31 |
| 50 | 56.09 | 56.79 | 57.01 | 57.01 | 56.79 | 55.60 | 53.50 | 84.14 | 85.19 | 85.52 | 85.52 | 85.19 | 83.41 | 80.26 | |
| R404A | 30 | 41.83 | 44.88 | 46.98 | 48.60 | 49.54 | 50.24 | 49.78 | 62.75 | 67.32 | 70.47 | 72.90 | 74.31 | 75.37 | 74.68 |
| | 35 | 44.63 | 46.98 | 48.38 | 49.54 | 50.00 | 50.00 | 49.08 | 66.96 | 70.47 | 72.57 | 74.31 | 75.00 | 75.00 | 73.63 |
| | 38 | 45.79 | 47.44 | 48.84 | 49.54 | 49.78 | 49.54 | 48.38 | 68.07 | 71.16 | 73.26 | 74.31 | 74.68 | 74.31 | 72.57 |
| | 40 | 46.04 | 47.68 | 48.60 | 49.30 | 49.30 | 48.84 | 47.44 | 69.06 | 71.52 | 72.90 | 73.95 | 73.95 | 73.26 | 71.16 |
| | 45 | 46.49 | 47.19 | 48.14 | 48.38 | 48.14 | 47.19 | 45.33 | 69.75 | 70.80 | 72.21 | 72.57 | 72.21 | 70.80 | 68.01 |
| 50 | 45.79 | 46.28 | 46.49 | 46.28 | 46.04 | 44.39 | 42.29 | 68.70 | 69.42 | 69.75 | 69.42 | 69.06 | 66.59 | 63.44 | |