ENGINEERING
TOMORROW

Data sheet

Check valve
Types NRV and NRVH

NRV and NRVH can be used in liquid suction and hot gas lines in refrigeration and air conditioning plants.

The valves ensure the correct flow direction and prevent back-condensation from a warm part of the system to the cold evaporator.

The hermetic tight design of solder versions meet the environmental demands for today and future.

A built-in damping piston makes the valves suitable for installation in lines where pulsation can occur, e. g. in the discharge line from the compressor.

Features

- Ensure correct flow direction
- Available in both straightway and angleway versions
- Prevents back-condensation from warm to cold system part
- Solder versions are compliant with ATEX hazard zone 2
- Hermetic tight design for solder versions
- Built-in damping piston that makes the valves suitable for installation in lines where pulsation can occur, e.g. in the discharge line from the compressor
- NRVH type check valve is with stronger spring and it's recommended to use for compressors in parallel (i.e. power packs) where higher level of pulsation and vibration are expected
- Oversize connections provide flexibility in use

Approvals

Technicala data

Refrigerants	R134a, R22/R407C, R404A/R507, R407A, R407F,R410A, R32, R290, R600, R600a, R1270, R448A, R449A, R450A, R452A, R452B, R454B, R513A, R1234ze, R1234yf
Media temperature range	-50 – 140 °C / -58 – 285 °F
Max. working pressure (PS/MWP)	46 bar / 667 psig

Note: *Only solder version, connection sizes from 6 s to 22 s are allowed for flammable refrigerant*
- *This product is approved for R290, R600, R600a and R1270 by ignition source assessment in accordance to standard EN13463-1. R1234ze can be used for NRV size up to 35s according to the PED category I, Fluid II*
- *For a fully updated list of approved refrigerants, visit www.products.danfoss.com and search for individual code numbers, where refrigerants are listed as part of product specifications*

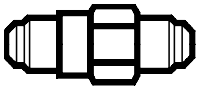
Dimensioning and selection

When selecting the right Danfoss check valve the capacity tables should be utilised together with plant requirements concerning piping and connection sizes.
The optimum solution should include the highest capacity at lowest pressure drop across the valve before it closes. Further, when dimensioning and selecting Danfoss check valves for mounting into the compressor discharge line, it is important to be aware of the following:

The differential pressure across the valve must always be higher than the given minimum pressure drop at which the valve is completely open. This also applies to lowest capacities for compressor with capacity regulation.

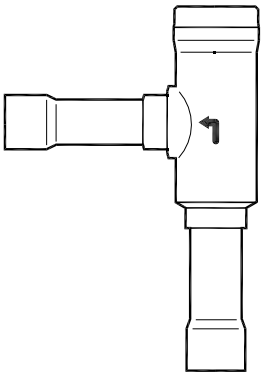
NRVH type check valve is with stronger spring and it's recommended to use for compressors in parallel (i.e. power packs) where higher level of pulsation and vibration are expected.

Ordering



Straightway Flare Version without flare nut

Valve type	Connection type	Connection		Pressure drop across valve Δp [2]		K_v value [3] (calculated value)	C_v value [3] (calculated value)	Code no.
		[in]	[mm]	[bar]	[psi]	[m³/h]	[gal/min]	
NRV 6	Straight-way - flare	1/4	6	0.07	1.01	0.56	0.65	**020-1040**
NRV 10	Straight-way - flare	3/8	10	0.07	1.01	1.2	1.39	**020-1041**
NRV 12	Straight-way - flare	1/2	12	0.05	0.72	2.05	2.37	**020-1042**
NRV 16	Straight-way - flare	5/8	16	0.05	0.72	3.6	4.16	**020-1043**
NRV 19	Straight-way - flare	3/4	19	0.05	0.72	5.5	6.36	**020-1044**



Angleway Solder ODF Version

Valve type	Connection type	Connection		Pressure drop across valve Δp [2]		K_v value [3] (calculated value)	C_v value [3] (calculated value)	Code no.
		[in]	[mm]	[bar]	[psi]	[m³/h]	[gal/min]	
NRV 22s	Angle-way - solder	7/8	22	0.04	0.58	8.5	9.83	**020-1020**
NRVH 22s	Angle-way - solder	7/8	22	0.30	4.35	8.5	9.83	**020-1032**
NRV 22s [1]	Angle-way - solder	1 1/8	–	0.04	0.58	8.5	9.83	**020-1060**
	Angle-way - solder	–	28	0.04	0.58	8.5	9.83	**020-1055**
NRVH 22s [1]	Angle-way - solder	1 1/8	–	0.30	4.35	8.5	9.83	**020-1072**
	Angle-way - solder	–	28	0.30	4.35	8.5	9.83	**020-1067**
NRV 28s	Angle-way - solder	1 1/8	–	0.04	0.58	16.5	19.07	**020-1021**
	Angle-way - solder	–	28	0.04	0.58	16.5	19.07	**020-1025**
NRVH 28s	Angle-way - solder	1 1/8	–	0.30	4.35	16.5	19.07	**020-1029**
	Angle-way - solder	–	28	0.30	4.35	16.5	19.07	**020-1033**
NRV 28s [1]	Angle-way - solder	1 3/8	35	0.04	0.58	16.5	19.07	**020-1056**
NRVH 28s [1]	Angle-way - solder	1 3/8	35	0.30	4.35	16.5	19.07	**020-1068**
NRV 35s	Angle-way - solder	1 3/8	35	0.04	0.58	29	33.52	**020-1026**
NRVH 35s	Angle-way - solder	1 3/8	35	0.30	4.35	29	33.52	**020-1034**
NRV 35s [1]	Angle-way - solder	1 5/8	–	0.04	0.58	29	33.52	**020-1061**
	Angle-way - solder	–	42	0.04	0.58	29	33.52	**020-1027**
NRVH 35s [1]	Angle-way - solder	1 5/8	–	0.30	4.35	29	33.52	**020-1073**
	Angle-way - solder	–	42	0.30	4.35	29	33.52	**020-1035**

[1] *Oversize connections*
[2] *Δp = the minimum pressure at which the valve is completely open*
The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel
[3] *The K_v / C_v value is the flow of water in [m³/h – gal/min] at a pressure drop across valve of 1 bar/14.5 psig*
ρ = 1000 kg/m³ - 2205 lbs/G

Ordering (continued)

Straightway Solder ODF Version

Valve type	Connection type	Connection		Pressure drop across valve Δp [2]		K_v value [3] (calculated value)	C_v value [3] (calculated value)	Code no.
		[in]	[mm]	[bar]	[psi]	[m³/h]	[gal/min]	
NRV 6s	Straight-way - Solder	1/4	–	0.07	1.01	0.56	0.65	020-1010
	Straight-way - Solder	–	6	0.07	1.01	0.56	0.65	020-1014
NRV 6s [1]	Straight-way - Solder	3/8	–	0.07	1.01	0.56	0.65	020-1057
	Straight-way - Solder	–	10	0.07	1.01	0.56	0.65	020-1050
NRVH 6s [1]	Straight-way - Solder	3/8	–	0.30	4.35	0.56	0.65	020-1069
	Straight-way - Solder	–	10	0.30	4.35	0.56	0.65	020-1062
NRV 10s	Straight-way - Solder	3/8	–	0.07	1.01	1.20	1.39	020-1011
	Straight-way - Solder	–	10	0.07	1.01	1.20	1.39	020-1015
NRVH 10s	Straight-way - Solder	3/8	–	0.30	4.35	1.20	1.39	020-1046
	Straight-way - Solder	–	10	0.30	4.35	1.20	1.39	020-1036
NRV 10s [1]	Straight-way - Solder	1/2	–	0.07	1.01	1.20	1.39	020-1058
	Straight-way - Solder	–	12	0.07	1.01	1.20	1.39	020-1051
NRVH 10s [1]	Straight-way - Solder	1/2	–	0.30	4.35	1.20	1.39	020-1070
	Straight-way - Solder	–	12	0.30	4.35	1.20	1.39	020-1063
NRV 12s	Straight-way - Solder	1/2	–	0.05	0.72	2.05	2.37	020-1012
	Straight-way - Solder	–	12	0.05	0.72	2.05	2.37	020-1016
NRVH 12s	Straight-way - Solder	1/2	–	0.30	4.35	2.05	2.37	020-1039
	Straight-way - Solder	–	12	0.30	4.35	2.05	2.37	020-1037
NRV 12s [1]	Straight-way - Solder	5/8	16	0.05	0.72	2.05	2.37	020-1052
NRVH 12s [1]	Straight-way - Solder	5/8	16	0.30	4.35	2.05	2.37	020-1064
NRV 16s	Straight-way - Solder	5/8	16	0.05	0.72	3.60	4.16	020-1018
NRVH 16s	Straight-way - Solder	5/8	16	0.30	4.35	3.60	4.16	020-1038
NRV 16s [1]	Straight-way - Solder	–	18	0.05	0.72	3.60	4.16	020-1053
NRVH 16s [1]	Straight-way - Solder	–	18	0.30	4.35	3.60	4.16	020-1065
NRV 16s [1]	Straight-way - Solder	3/4	19	0.05	0.72	3.60	4.16	020-1059
NRVH 16s [1]	Straight-way - Solder	3/4	19	0.30	4.35	3.60	4.16	020-1071
NRV 19s	Straight-way - Solder	–	18	0.05	0.72	5.50	6.36	020-1017
NRVH 19s	Straight-way - Solder	–	18	0.30	4.35	5.50	6.36	020-1008
NRV 19s	Straight-way - Solder	3/4	19	0.05	0.72	5.50	6.36	020-1019
NRVH 19s	Straight-way - Solder	3/4	19	0.30	4.35	5.50	6.36	020-1023
NRV 19s [1]	Straight-way - Solder	7/8	22	0.05	0.72	5.50	6.36	020-1054
NRVH 19s [1]	Straight-way - Solder	7/8	22	0.30	4.35	5.50	6.36	020-1066

[1] Oversize connections

[2] Δp = the minimum pressure at which the valve is completely open
The NRVH with a stronger spring is used in the discharge line from compressors connected in parallel

[3] The K_v / C_v value is the flow of water in [m³/h – gal/min] at a pressure drop across valve of 1 bar/14.5 psig
ρ = 1000 kg/m³ - 2205 lbs/G

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R22				
NRV/NRVH 6	–	7.70	10.9	15.9
NRV/NRVH 10	–	16.5	23.3	34.1
NRV/NRVH 12	23.8	28.2	39.8	58.3
NRV/NRVH 16	41.8	49.5	70.0	102
NRV/NRVH 19	63.9	75.6	107	157
NRV/NRVH 22	98.7	117	165	242
NRV/NRVH 28	192	227	321	469
NRV/NRVH 35	337	399	564	825
R134a				
NRV/NRVH 6	–	7.10	10.1	14.7
NRV/NRVH 10	–	15.3	21.6	31.6
NRV/NRVH 12	22.0	26.1	36.9	53.9
NRV/NRVH 16	38.7	45.8	64.7	94.7
NRV/NRVH 19	59.1	69.9	98.9	145
NRV/NRVH 22	91.3	108	153	224
NRV/NRVH 28	177	300	297	434
NRV/NRVH 35	312	369	521	763
R404A/R507				
NRV/NRVH 6	–	5.20	7.40	10.8
NRV/NRVH 10	–	11.2	15.8	23.1
NRV/NRVH 12	16.1	19.1	27.0	39.5
NRV/NRVH 16	28.3	33.5	47.4	69.3
NRV/NRVH 19	43.2	51.2	72.4	106
NRV/NRVH 22	66.8	79.1	112	164
NRV/NRVH 28	130	154	217	318
NRV/NRVH 35	228	270	382	559

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R22					
NRV/NRVH 6	0.07	0.56	0.86	1.04	1.14
NRV/NRVH 10	0.07	1.20	1.85	2.23	2.44
NRV/NRVH 12	0.05	1.75	2.67	3.23	3.53
NRV/NRVH 16	0.05	3.07	4.70	5.67	6.19
NRV/NRVH 19	0.05	4.68	7.18	8.66	9.46
NRV/NRVH 22	0.05	7.24	11.1	13.4	14.6
NRV/NRVH 28	0.05	14.1	21.5	26.0	28.4
NRV/NRVH 35	0.05	24.7	37.83	45.7	49.9
R134a					
NRV/NRVH 6	0.07	0.38	0.63	0.80	0.89
NRV/NRVH 10	0.07	0.80	1.36	1.71	1.90
NRV/NRVH 12	0.05	1.18	1.98	2.47	2.75
NRV/NRVH 16	0.05	2.07	3.47	4.34	4.83
NRV/NRVH 19	0.05	3.17	5.30	6.64	7.37
NRV/NRVH 22	0.05	4.89	8.20	10.2	11.4
NRV/NRVH 28	0.05	9.50	15.9	19.9	22.1
NRV/NRVH 35	0.05	16.7	28.0	35.0	38.9
R404A/R507					
NRV/NRVH 6	0.07	0.47	0.75	0.92	1.02
NRV/NRVH 10	0.07	1.00	1.61	1.98	2.18
NRV/NRVH 12	0.05	1.46	2.33	2.86	3.15
NRV/NRVH 16	0.05	2.56	4.08	5.02	5.54
NRV/NRVH 19	0.05	3.91	6.24	7.67	8.46
NRV/NRVH 22	0.05	6.05	9.64	11.9	13.1
NRV/NRVH 28	0.05	11.7	18.7	23.0	25.4
NRV/NRVH 35	0.05	20.6	32.9	40.5	44.6

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R22				
NRV/NRVH 6	–	1.40	2.00	2.80
NRV/NRVH 10	–	3.00	4.20	6.10
NRV/NRVH 12	4.3	5.10	7.20	10.0
NRV/NRVH 16	7.6	8.90	12.6	18.3
NRV/NRVH 19	11.5	13.6	19.2	27.9
NRV/NRVH 22	17.8	21.1	29.7	43.1
NRV/NRVH 28	34.6	40.9	57.7	83.7
NRV/NRVH 35	60.9	71.9	101	147
R134a				
NRV/NRVH 6	–	1.1	1.6	2.2
NRV/NRVH 10	–	2.4	3.3	4.8
NRV/NRVH 12	3.4	4.0	5.7	8.2
NRV/NRVH 16	6.0	7.1	10.0	14.4
NRV/NRVH 19	9.2	10.8	15.2	22.0
NRV/NRVH 22	14.2	16.8	23.6	34.0
NRV/NRVH 28	27.5	32.5	45.7	66.0
NRV/NRVH 35	48.4	57.2	80.4	116
R404A/R507				
NRV/NRVH 6	–	1.2	1.7	2.4
NRV/NRVH 10	–	2.6	3.6	5.2
NRV/NRVH 12	3.70	4.4	6.2	9.0
NRV/NRVH 16	6.50	7.7	10.8	15.7
NRV/NRVH 19	9.90	11.7	16.6	24.1
NRV/NRVH 22	15.3	18.1	25.6	37.2
NRV/NRVH 28	29.8	35.2	49.7	72.2
NRV/NRVH 35	52.4	61.9	87.3	127

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R22	0.77	0.82	0.88	0.92	0.96	1.00	1.05	1.10	1.16	1.22	1.30
R134a	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.19	1.28	1.37
R404A/R507	0.67	0.74	0.82	0.87	0.93	1.00	1.08	1.17	1.29	1.43	1.61

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R407A				
NRV/NRVH 6	–	6.80	9.60	14.10
NRV/NRVH 10	–	14.6	20.6	30.2
NRV/NRVH 12	21.0	24.9	35.2	51.5
NRV/NRVH 16	37.0	43.7	61.8	90.5
NRV/NRVH 19	56.5	66.8	94.5	138
NRV/NRVH 22	87.2	103	146	214
NRV/NRVH 28	169	200	283	415
NRV/NRVH 35	298	352	498	729
R407C				
NRV/NRVH 6	–	7.30	10.4	15.2
NRV/NRVH 10	–	15.7	22.2	32.6
NRV/NRVH 12	22.7	26.9	38.0	55.6
NRV/NRVH 16	39.9	47.2	66.7	97.7
NRV/NRVH 19	60.9	72.1	102	149
NRV/NRVH 22	94.2	111	158	231
NRV/NRVH 28	183	216	306	448
NRV/NRVH 35	321	380	538	787
R407F				
NRV/NRVH 6	–	7.50	10.6	15.5
NRV/NRVH 10	–	16.1	22.8	33.3
NRV/NRVH 12	23.2	27.5	38.9	56.9
NRV/NRVH 16	40.8	48.3	68.3	99.9
NRV/NRVH 19	62.3	73.8	104	153
NRV/NRVH 22	96.3	114	161	236
NRV/NRVH 28	187	221	313	458
NRV/NRVH 35	329	389	550	805

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R407A					
NRV/NRVH 6	0.07	0.49	0.79	0.97	1.08
NRV/NRVH 10	0.07	1.04	1.69	2.09	2.30
NRV/NRVH 12	0.05	1.52	2.45	3.02	3.33
NRV/NRVH 16	0.05	2.67	4.30	5.30	5.85
NRV/NRVH 19	0.05	4.07	6.57	8.10	8.94
NRV/NRVH 22	0.05	6.30	10.2	2.52	13.8
NRV/NRVH 28	0.05	12.2	19.7	24.3	26.8
NRV/NRVH 35	0.05	21.5	34.6	42.7	47.2
R407C					
NRV/NRVH 6	0.07	0.49	0.80	0.99	1.09
NRV/NRVH 10	0.07	1.06	1.71	2.11	2.33
NRV/NRVH 12	0.05	1.54	2.48	3.06	3.37
NRV/NRVH 16	0.05	2.70	4.36	5.37	5.93
NRV/NRVH 19	0.05	4.13	6.65	8.20	9.05
NRV/NRVH 22	0.05	6.38	10.3	12.7	14.0
NRV/NRVH 28	0.05	12.4	20.0	24.6	27.2
NRV/NRVH 35	0.05	21.8	35.1	43.2	47.7
R407F					
NRV/NRVH 6	0.07	0.54	0.87	1.06	1.17
NRV/NRVH 10	0.07	1.16	1.85	2.27	2.50
NRV/NRVH 12	0.05	1.69	2.69	3.29	3.62
NRV/NRVH 16	0.05	2.97	4.72	5.77	6.35
NRV/NRVH 19	0.05	4.54	7.21	8.82	9.70
NRV/NRVH 22	0.05	7.02	11.1	13.6	15.0
NRV/NRVH 28	0.05	13.6	21.6	26.5	29.1
NRV/NRVH 35	0.05	24.0	38.0	46.5	51.2

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R407A				
NRV/NRVH 6	–	1.40	2.00	2.90
NRV/NRVH 10	–	3.00	4.30	6.20
NRV/NRVH 12	4.40	5.20	7.30	10.6
NRV/NRVH 16	7.70	9.10	12.9	18.7
NRV/NRVH 19	11.8	13.9	19.7	28.6
NRV/NRVH 22	18.2	21.5	30.4	44.1
NRV/NRVH 28	35.4	41.8	59.0	85.7
NRV/NRVH 35	62.2	73.5	104	151
R407C				
NRV/NRVH 6	–	1.50	2.10	3.00
NRV/NRVH 10	–	3.10	4.40	6.40
NRV/NRVH 12	4.50	5.40	7.60	11.0
NRV/NRVH 16	8.00	9.40	13.3	19.3
NRV/NRVH 19	12.2	14.4	20.3	29.4
NRV/NRVH 22	18.8	22.2	31.3	45.5
NRV/NRVH 28	36.5	43.1	60.8	88.3
NRV/NRVH 35	64.1	75.8	107	155
R407F				
NRV/NRVH 6	–	1.50	2.20	3.20
NRV/NRVH 10	–	3.30	4.70	6.80
NRV/NRVH 12	4.80	5.70	8.00	11.6
NRV/NRVH 16	8.40	9.90	14.0	20.4
NRV/NRVH 19	12.8	15.2	21.4	31.1
NRV/NRVH 22	19.8	23.5	33.1	48.1
NRV/NRVH 28	38.5	45.5	64.2	93.4
NRV/NRVH 35	67.7	80.0	113	164

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R407A	0.71	0.78	0.85	0.90	0.94	1.00	1.06	1.13	1.22	1.32	1.43
R407C	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.13	1.20	1.29	1.40
R407F	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.29	1.39

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R410A				
NRV/NRVH 6	–	7.50	10.7	15.6
NRV/NRVH 10	–	16.2	22.9	33.5
NRV/NRVH 12	23.3	27.6	39.1	57.2
NRV/NRVH 16	41.0	48.5	68.6	100
NRV/NRVH 19	62.6	74.1	105	153
NRV/NRVH 22	96.8	115	162	237
NRV/NRVH 28	188	222	314	460
NRV/NRVH 35	330	391	552	809
R448A				
NRV/NRVH 6	–	6.80	9.70	14.2
NRV/NRVH 10	–	14.7	20.7	30.3
NRV/NRVH 12	21.2	25.0	35.4	51.8
NRV/NRVH 16	37.1	44.0	62.2	91.0
NRV/NRVH 19	56.7	67.1	95.0	139
NRV/NRVH 22	87.7	104	147	215
NRV/NRVH 28	170	201	285	417
NRV/NRVH 35	299	354	501	733
R449A				
NRV/NRVH 6	–	6.70	9.50	13.9
NRV/NRVH 10	–	14.4	20.3	29.8
NRV/NRVH 12	20.8	24.6	34.7	50.9
NRV/NRVH 16	36.5	43.2	61.0	89.3
NRV/NRVH 19	55.7	65.9	93.2	136.5
NRV/NRVH 22	86.1	102	144	211
NRV/NRVH 28	167	198	280	409
NRV/NRVH 35	294	348	492	720

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R410A					
NRV/NRVH 6	0.07	0.71	1.08	1.30	1.41
NRV/NRVH 10	0.07	1.52	2.31	2.78	3.03
NRV/NRVH 12	0.05	2.20	3.34	4.02	4.38
NRV/NRVH 16	0.05	3.86	5.86	7.05	7.70
NRV/NRVH 19	0.05	5.90	8.95	10.8	11.8
NRV/NRVH 22	0.05	9.11	13.8	16.7	18.2
NRV/NRVH 28	0.05	17.7	26.9	32.3	35.3
NRV/NRVH 35	0.05	31.1	47.2	56.8	62.0
R448A					
NRV/NRVH 6	0.07	0.50	0.81	0.99	1.10
NRV/NRVH 10	0.07	1.08	1.73	2.13	2.35
NRV/NRVH 12	0.05	1.57	2.51	3.09	3.40
NRV/NRVH 16	0.05	2.76	4.41	5.42	5.97
NRV/NRVH 19	0.05	4.22	6.74	8.28	9.12
NRV/NRVH 22	0.05	6.52	10.4	12.8	14.1
NRV/NRVH 28	0.05	12.7	20.2	24.8	27.4
NRV/NRVH 35	0.05	22.3	35.5	43.7	48.1
R449A					
NRV/NRVH 6	0.07	0.50	0.80	0.98	1.08
NRV/NRVH 10	0.07	1.07	1.71	2.11	2.32
NRV/NRVH 12	0.05	1.55	2.48	3.05	3.36
NRV/NRVH 16	0.05	2.72	4.35	5.35	5.90
NRV/NRVH 19	0.05	4.16	6.65	8.18	9.01
NRV/NRVH 22	0.05	6.43	10.3	12.6	13.9
NRV/NRVH 28	0.05	12.5	20.0	24.5	27.0
NRV/NRVH 35	0.05	22.0	35.1	43.1	47.5

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R410A				
NRV/NRVH 6	–	1.7	2.4	3.5
NRV/NRVH 10	–	3.6	5.1	7.5
NRV/NRVH 12	5.3	6.2	8.8	12.8
NRV/NRVH 16	9.3	10.9	15.4	22.5
NRV/NRVH 19	14.1	16.7	23.6	34.4
NRV/NRVH 22	21.9	25.9	36.5	53.1
NRV/NRVH 28	42.4	50.2	70.8	103
NRV/NRVH 35	74.6	88.2	124	181
R448A				
NRV/NRVH 6	–	1.4	2.0	3.0
NRV/NRVH 10	–	3.1	4.4	6.4
NRV/NRVH 12	4.5	5.3	7.5	10.9
NRV/NRVH 16	7.9	9.3	13.1	19.1
NRV/NRVH 19	12.0	14.2	20.0	29.1
NRV/NRVH 22	18.6	22.0	31.0	45.0
NRV/NRVH 28	36.1	42.6	60.1	87.4
NRV/NRVH 35	63.4	74.9	106	154
R449A				
NRV/NRVH 6	–	1.4	2.0	2.9
NRV/NRVH 10	–	3.1	4.3	6.3
NRV/NRVH 12	4.4	5.2	7.4	10.7
NRV/NRVH 16	7.8	9.2	12.9	18.8
NRV/NRVH 19	11.9	14.0	19.8	28.7
NRV/NRVH 22	18.3	21.7	30.5	44.4
NRV/NRVH 28	35.6	42.0	59.3	86.1
NRV/NRVH 35	62.5	73.9	104	151

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R410A	0.72	0.78	0.85	0.90	0.95	1.00	1.06	1.14	1.22	1.32	1.45
R448A	0.72	0.78	0.85	0.90	0.95	1.00	1.06	1.13	1.22	1.31	1.43
R449A	0.71	0.77	0.85	0.89	0.94	1.00	1.06	1.14	1.22	1.32	1.44

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R450A				
NRV/NRVH 6	–	6.60	9.30	13.7
NRV/NRVH 10	–	14.1	20.0	29.3
NRV/NRVH 12	20.4	24.2	34.2	50.0
NRV/NRVH 16	35.9	42.4	60.0	87.9
NRV/NRVH 19	54.8	64.8	91.7	134
NRV/NRVH 22	84.7	100	142	208
NRV/NRVH 28	164	195	275	403
NRV/NRVH 35	289	342	484	708
R452A				
NRV/NRVH 6	–	5.30	7.50	11.0
NRV/NRVH 10	–	11.3	16.0	23.5
NRV/NRVH 12	16.4	19.4	27.4	40.1
NRV/NRVH 16	28.8	34.0	48.1	70.5
NRV/NRVH 19	44.0	52.0	73.6	107.7
NRV/NRVH 22	67.9	80.4	114	166.4
NRV/NRVH 28	132	156	221	323.0
NRV/NRVH 35	232	274	388	567.7
R513A				
NRV/NRVH 6	–	6.30	9.00	13.1
NRV/NRVH 10	–	13.6	19.2	28.1
NRV/NRVH 12	19.6	23.2	32.8	48.0
NRV/NRVH 16	34.4	40.7	57.6	84.3
NRV/NRVH 19	52.6	62.2	88.0	129
NRV/NRVH 22	81.3	96.2	136	199
NRV/NRVH 28	158	187	264	387
NRV/NRVH 35	277	328	464	679
R1234ze				
NRV/NRVH 6	–	6.40	9.00	13.2
NRV/NRVH 10	–	13.6	19.3	28.2
NRV/NRVH 12	19.7	23.3	32.9	48.2
NRV/NRVH 16	34.6	40.9	57.8	84.7
NRV/NRVH 19	52.8	62.5	88.4	129
NRV/NRVH 22	81.6	96.6	137	200
NRV/NRVH 28	158	188	265	388
NRV/NRVH 35	279	330	466	682

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R450A					
NRV/NRVH 6	0.07	0.33	0.57	0.72	0.80
NRV/NRVH 10	0.07	0.71	1.22	1.54	1.71
NRV/NRVH 12	0.05	1.04	1.77	2.23	2.48
NRV/NRVH 16	0.05	1.83	3.11	3.91	4.36
NRV/NRVH 19	0.05	2.80	4.75	5.98	6.66
NRV/NRVH 22	0.05	4.32	7.34	9.24	10.3
NRV/NRVH 28	0.05	8.39	14.3	17.9	20.0
NRV/NRVH 35	0.05	14.7	25.1	31.5	35.1
R452A					
NRV/NRVH 6	0.07	0.44	0.72	0.89	0.98
NRV/NRVH 10	0.07	0.95	1.54	1.90	2.10
NRV/NRVH 12	0.05	1.38	2.23	2.75	3.04
NRV/NRVH 16	0.05	2.43	3.91	4.83	5.34
NRV/NRVH 19	0.05	3.71	5.98	7.39	8.17
NRV/NRVH 22	0.05	5.73	9.24	11.4	12.6
NRV/NRVH 28	0.05	11.1	17.9	22.2	24.5
NRV/NRVH 35	0.05	19.5	31.5	38.9	43.1
R513A					
NRV/NRVH 6	0.07	0.36	0.61	0.77	0.86
NRV/NRVH 10	0.07	0.78	1.31	1.65	1.83
NRV/NRVH 12	0.05	1.14	1.91	2.39	2.66
NRV/NRVH 16	0.05	2.00	3.35	4.19	4.66
NRV/NRVH 19	0.05	3.06	5.12	6.41	7.13
NRV/NRVH 22	0.05	4.73	7.91	9.90	11.0
NRV/NRVH 28	0.05	9.18	15.4	19.2	21.4
NRV/NRVH 35	0.05	16.1	27.0	33.8	37.6
R1234ze					
NRV/NRVH 6	0.07	0.29	0.52	0.66	0.73
NRV/NRVH 10	0.07	0.63	1.10	1.40	1.57
NRV/NRVH 12	0.05	0.93	1.61	2.04	2.28
NRV/NRVH 16	0.05	1.63	2.83	3.58	4.00
NRV/NRVH 19	0.05	2.49	4.32	5.47	6.12
NRV/NRVH 22	0.05	3.85	6.67	8.46	9.45
NRV/NRVH 28	0.05	7.47	13.0	16.4	18.35
NRV/NRVH 35	0.05	13.13	22.8	28.9	32.25

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R450A				
NRV/NRVH 6	–	1.00	1.40	2.00
NRV/NRVH 10	–	2.20	3.00	4.40
NRV/NRVH 12	3.10	3.70	5.20	7.50
NRV/NRVH 16	5.50	6.50	9.10	13.1
NRV/NRVH 19	8.40	9.90	13.9	20.0
NRV/NRVH 22	12.9	15.3	21.4	30.9
NRV/NRVH 28	25.1	29.6	41.6	60.0
NRV/NRVH 35	44.1	52.1	73.2	105
R452A				
NRV/NRVH 6	–	1.20	1.70	2.50
NRV/NRVH 10	–	2.60	3.70	5.40
NRV/NRVH 12	3.80	4.50	6.30	9.20
NRV/NRVH 16	6.70	7.90	11.1	16.2
NRV/NRVH 19	10.2	12.1	17.0	24.7
NRV/NRVH 22	15.8	18.6	26.3	38.2
NRV/NRVH 28	30.6	36.2	51.0	74.2
NRV/NRVH 35	53.8	63.6	89.6	130
R513A				
NRV/NRVH 6	–	1.00	1.50	2.10
NRV/NRVH 10	–	2.20	3.20	4.60
NRV/NRVH 12	3.20	3.80	5.40	7.8
NRV/NRVH 16	5.70	6.70	9.50	13.7
NRV/NRVH 19	8.70	10.3	14.4	20.9
NRV/NRVH 22	13.4	15.9	22.3	32.2
NRV/NRVH 28	26.1	30.8	43.3	62.6
NRV/NRVH 35	45.8	54.1	76.1	110
R1234ze				
NRV/NRVH 6	–	0.90	1.30	1.80
NRV/NRVH 10	–	2.00	2.70	3.90
NRV/NRVH 12	2.80	3.30	4.70	6.70
NRV/NRVH 16	5.00	5.90	8.20	11.8
NRV/NRVH 19	7.60	9.00	12.6	18.1
NRV/NRVH 22	11.7	13.9	19.5	28.0
NRV/NRVH 28	22.8	26.9	37.8	54.3
NRV/NRVH 35	40.1	47.3	66.4	95.4

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R450A	0.72	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.28	1.38
R452A	0.67	0.74	0.83	0.88	0.93	1.00	1.08	1.17	1.27	1.40	1.57
R513A	0.71	0.77	0.85	0.89	0.94	1.00	1.06	1.14	1.22	1.32	1.44
R1234ze	0.72	0.78	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.29	1.39

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R32				
NRV/NRVH 6	–	10.8	15.2	22.3
NRV/NRVH 10	–	23.1	32.7	47.8
NRV/NRVH 12	33.4	39.5	55.8	81.7
NRV/NRVH 16	58.6	69.3	98.0	144
NRV/NRVH 19	89.5	106	150	219
NRV/NRVH 22	139	164	231	339
R290				
NRV/NRVH 6	–	8.60	12.1	17.7
NRV/NRVH 10	–	18.4	26.0	38.0
NRV/NRVH 12	26.5	31.4	44.3	64.9
NRV/NRVH 16	46.5	55.1	77.9	114
NRV/NRVH 19	71.1	84.1	119	174
NRV/NRVH 22	110	130	184	269
R600				
NRV/NRVH 6	–	9.70	13.7	20.1
NRV/NRVH 10	–	20.8	29.4	43.0
NRV/NRVH 12	30.0	35.5	50.2	73.5
NRV/NRVH 16	52.7	62.3	88.1	129
NRV/NRVH 19	80.5	95.2	135	197
NRV/NRVH 22	124	147	208	305
R600a				
NRV/NRVH 6	–	8.60	12.2	17.9
NRV/NRVH 10	–	18.5	26.1	38.3
NRV/NRVH 12	26.7	31.6	44.7	65.4
NRV/NRVH 16	46.9	55.5	78.4	115
NRV/NRVH 19	71.6	84.7	120	175
NRV/NRVH 22	111	131	185	271

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R32					
NRV/NRVH 6	0.07	0.92	1.38	1.64	1.78
NRV/NRVH 10	0.07	1.98	2.95	3.52	3.82
NRV/NRVH 12	0.05	2.87	4.27	5.08	5.52
NRV/NRVH 16	0.05	5.04	7.49	8.93	9.70
NRV/NRVH 19	0.05	7.70	11.4	13.6	14.8
NRV/NRVH 22	0.05	11.9	17.7	21.1	22.9
R290					
NRV/NRVH 6	0.07	0.68	1.06	1.28	1.40
NRV/NRVH 10	0.07	1.47	2.26	2.74	3.01
NRV/NRVH 12	0.05	2.13	3.28	3.97	4.35
NRV/NRVH 16	0.05	3.75	5.76	6.97	7.64
NRV/NRVH 19	0.05	5.72	8.80	10.7	11.7
NRV/NRVH 22	0.05	8.85	13.6	16.5	18.0
R600					
NRV/NRVH 6	0.07	0.28	0.52	0.67	0.76
NRV/NRVH 10	0.07	0.60	1.12	1.44	1.62
NRV/NRVH 12	0.05	0.92	1.65	2.11	2.36
NRV/NRVH 16	0.05	1.61	2.90	3.71	4.15
NRV/NRVH 19	0.05	2.46	4.43	5.66	6.34
NRV/NRVH 22	0.05	3.80	6.85	8.75	9.80
R600a					
NRV/NRVH 6	0.07	0.35	0.61	0.77	0.86
NRV/NRVH 10	0.07	0.75	1.31	1.65	1.84
NRV/NRVH 12	0.05	1.12	1.91	2.40	2.68
NRV/NRVH 16	0.05	1.96	3.35	4.22	4.70
NRV/NRVH 19	0.05	2.99	5.12	6.44	7.18
NRV/NRVH 22	0.05	4.63	7.91	9.96	11.1

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R32				
NRV/NRVH 6	–	2.20	3.10	4.50
NRV/NRVH 10	–	4.70	6.60	9.60
NRV/NRVH 12	6.80	8.00	11.3	16.4
NRV/NRVH 16	11.9	14.0	19.8	28.9
NRV/NRVH 19	18.1	21.4	30.3	44.1
NRV/NRVH 22	28.0	33.1	46.8	68.1
R290				
NRV/NRVH 6	–	1.60	2.30	3.30
NRV/NRVH 10	–	3.50	4.90	7.20
NRV/NRVH 12	5.10	6.00	8.4	12.2
NRV/NRVH 16	8.90	10.5	14.8	21.5
NRV/NRVH 19	13.6	16.1	22.7	32.9
NRV/NRVH 22	21.0	24.9	35.0	50.8
R600				
NRV/NRVH 6	–	1.00	1.30	1.90
NRV/NRVH 10	–	2.10	2.90	4.10
NRV/NRVH 12	3.00	3.50	4.90	7.00
NRV/NRVH 16	5.30	6.20	8.70	12.2
NRV/NRVH 19	8.1	9.5	13.2	18.7
NRV/NRVH 22	12.5	14.7	20.5	28.8
R600a				
NRV/NRVH 6	–	1.10	1.50	2.10
NRV/NRVH 10	–	2.30	3.20	4.50
NRV/NRVH 12	3.30	3.90	5.40	7.70
NRV/NRVH 16	5.80	6.80	9.50	13.6
NRV/NRVH 19	8.80	10.4	14.6	20.8
NRV/NRVH 22	13.7	16.1	22.5	32.1

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R32	0.76	0.82	0.88	0.92	0.96	1.00	1.05	1.11	1.17	1.24	1.33
R290	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.19	1.28	1.38
R600	0.77	0.82	0.88	0.92	0.96	1.00	1.05	1.10	1.16	1.22	1.29
R600a	0.75	0.80	0.87	0.91	0.95	1.00	1.05	1.11	1.18	1.25	1.33

Note: *Only solder version, connection sizes from 6 s to 22 s are allowed for flammable refrigerant.*

Capacity

SI units

Liquid capacity (kW)

Type	Liquid capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R1270				
NRV/NRVH 6	–	8.90	12.6	18.4
NRV/NRVH 10	–	19.0	26.9	39.4
NRV/NRVH 12	27.5	32.5	46.0	67.3
NRV/NRVH 16	48.3	57.1	80.7	118
NRV/NRVH 19	73.7	87.2	123	181
NRV/NRVH 22	114	135	191	279
R452B				
NRV/NRVH 6	–	9.0	12.7	18.6
NRV/NRVH 10	–	19.3	27.3	40.0
NRV/NRVH 12	27.9	33.0	46.6	68.3
NRV/NRVH 16	48.9	57.9	81.9	119.9
NRV/NRVH 19	74.8	88.5	125.1	183.1
NRV/NRVH 22	115.6	136.7	193.4	283.0
R454B				
NRV/NRVH 6	–	8.80	12.4	18.2
NRV/NRVH 10	–	18.8	26.6	38.9
NRV/NRVH 12	27.1	32.1	45.4	66.5
NRV/NRVH 16	47.7	56.4	79.8	117
NRV/NRVH 19	72.8	86.2	122	178
NRV/NRVH 22	113	133	188	276
R1234yf				
NRV/NRVH 6	–	5.30	7.50	10.9
NRV/NRVH 10	–	11.3	16.0	23.4
NRV/NRVH 12	16.3	19.3	27.3	40.0
NRV/NRVH 16	28.7	33.9	47.9	70.2
NRV/NRVH 19	43.8	51.8	73.3	107
NRV/NRVH 22	67.7	80.1	113	166

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = -10 °C
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity (kW)

Type	Pressure drop across valve Δp [bar]	Suction vapour capacity [1] at evaporating temperature t_e [°C]			
		-30	-10	0	5
R1270					
NRV/NRVH 6	0.07	0.78	1.18	1.42	1.55
NRV/NRVH 10	0.07	1.68	2.54	3.05	3.33
NRV/NRVH 12	0.05	2.44	3.68	4.41	4.81
NRV/NRVH 16	0.05	4.28	6.45	7.75	8.45
NRV/NRVH 19	0.05	6.54	9.86	11.8	12.9
NRV/NRVH 22	0.05	10.1	15.2	18.3	20.0
R452B					
NRV/NRVH 6	0.07	0.70	1.08	1.30	1.42
NRV/NRVH 10	0.07	1.51	2.31	2.79	3.05
NRV/NRVH 12	0.05	2.19	3.35	4.04	4.41
NRV/NRVH 16	0.05	3.85	5.88	7.09	7.75
NRV/NRVH 19	0.05	5.88	8.98	10.83	11.84
NRV/NRVH 22	0.05	9.09	13.88	16.74	18.29
R454B					
NRV/NRVH 6	0.07	0.76	1.15	1.38	1.50
NRV/NRVH 10	0.07	1.62	2.46	2.95	3.22
NRV/NRVH 12	0.05	2.35	3.55	4.27	4.65
NRV/NRVH 16	0.05	4.13	6.24	7.49	8.17
NRV/NRVH 19	0.05	6.31	9.53	11.4	12.5
NRV/NRVH 22	0.05	9.75	14.7	17.7	19.3
R1234yf					
NRV/NRVH 6	0.07	0.33	0.55	0.70	0.78
NRV/NRVH 10	0.07	0.70	1.19	1.49	1.66
NRV/NRVH 12	0.05	1.03	1.73	2.17	2.41
NRV/NRVH 16	0.05	1.81	3.03	3.80	4.23
NRV/NRVH 19	0.05	2.76	4.63	5.81	6.47
NRV/NRVH 22	0.05	4.27	7.16	8.98	10.0

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 K
-Condensing temperature, t_c = 30 °C
-Subcooling Δ t_{sub} = 5 K
The table values refer to the evaporator capacity

Hot gas capacity (kW)

Type	Hot gas capacity [1] at pressure drop across valve Δp [bar]			
	NRV			NRV/ NRVH
	0.05	0.07	0.14	0.3 [2]
R1270				
NRV/NRVH 6	–	1.80	2.60	3.70
NRV/NRVH 10	–	3.90	5.50	8.00
NRV/NRVH 12	5.60	6.60	9.40	13.6
NRV/NRVH 16	9.90	11.7	16.5	23.9
NRV/NRVH 19	15.1	17.8	25.1	36.5
NRV/NRVH 22	23.3	27.6	38.9	56.4
R452B				
NRV/NRVH 6	–	2.0	2.8	4.0
NRV/NRVH 10	–	4.2	5.9	8.6
NRV/NRVH 12	6.0	7.1	10.1	14.7
NRV/NRVH 16	10.6	12.6	17.7	25.8
NRV/NRVH 19	16.2	19.2	27.1	39.4
NRV/NRVH 22	25.1	29.6	41.8	60.9
R454B				
NRV/NRVH 6	–	1.90	2.60	3.80
NRV/NRVH 10	–	4.00	5.60	8.20
NRV/NRVH 12	5.80	6.80	9.60	14.0
NRV/NRVH 16	10.1	11.9	16.9	24.5
NRV/NRVH 19	15.4	18.3	25.8	37.5
NRV/NRVH 22	23.9	28.2	39.8	58.0
R1234yf				
NRV/NRVH 6	–	0.90	1.30	1.90
NRV/NRVH 10	–	2.00	2.80	4.00
NRV/NRVH 12	2.90	3.40	4.80	6.90
NRV/NRVH 16	5.00	5.90	8.30	12.0
NRV/NRVH 19	7.70	9.10	12.7	18.4
NRV/NRVH 22	11.9	14.0	19.7	28.5

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = -10 °C
- Condensing temperature, t_c = 30 °C
- Subcooling Δ t_{sub} = 5 K
- Hot gas temperature, t_h = 60 °C ahead of the valve
- Discharge temperature, t_d = 80 °C after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°C]	-10	0	10	15	20	25	30	35	40	45	50
R1270	0.74	0.79	0.87	0.91	0.95	1.00	1.06	1.12	1.19	1.27	1.37
R452B	0.75	0.80	0.87	0.91	0.95	1.00	1.05	1.11	1.18	1.26	1.35
R454B	0.74	0.80	0.87	0.91	0.95	1.00	1.06	1.12	1.19	1.28	1.38
R1234yf	0.69	0.75	0.84	0.88	0.94	1.00	1.07	1.15	1.25	1.36	1.49

Note: *Only solder version, connection sizes from 6 s to 22 s are allowed for flammable refrigerant.*
- For capacity calculation of other refrigerants, please contact Danfoss.

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R22				
NRV/NRVH 6	0.70	2.20	3.10	4.60
NRV/NRVH 10	1.50	4.70	6.60	9.80
NRV/NRVH 12	6.80	8.00	11.3	16.7
NRV/NRVH 16	11.9	14.1	19.9	29.3
NRV/NRVH 19	18.2	21.5	30.4	44.7
NRV/NRVH 22	28.2	33.3	47.0	69.1
NRV/NRVH 28	54.7	64.6	91.2	134
NRV/NRVH 35	96.1	114	160	236
R134a				
NRV/NRVH 6	0.60	2.00	2.90	4.20
NRV/NRVH 10	1.30	4.30	6.10	9.00
NRV/NRVH 12	6.30	7.40	10.5	15.4
NRV/NRVH 16	11.0	13.0	18.4	27.1
NRV/NRVH 19	16.9	19.9	28.1	41.4
NRV/NRVH 22	26.1	30.8	43.4	64.0
NRV/NRVH 28	50.6	59.8	84.3	124
NRV/NRVH 35	88.9	105	148	218
R404A/R507				
NRV/NRVH 6	0.50	1.50	2.10	3.10
NRV/NRVH 10	1.00	3.20	4.50	6.60
NRV/NRVH 12	4.60	5.40	7.70	11.3
NRV/NRVH 16	8.10	9.50	13.5	19.8
NRV/NRVH 19	12.3	14.6	20.6	30.3
NRV/NRVH 22	19.1	22.5	31.8	46.8
NRV/NRVH 28	37.0	43.8	61.7	90.9
NRV/NRVH 35	65.1	76.9	109	160

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R22					
NRV/NRVH 6	1.02	0.16	0.25	0.30	0.32
NRV/NRVH 10	1.02	0.34	0.53	0.64	0.69
NRV/NRVH 12	0.73	0.50	0.76	0.92	1.01
NRV/NRVH 16	0.73	0.87	1.34	1.62	1.77
NRV/NRVH 19	0.73	1.34	2.05	2.47	2.70
NRV/NRVH 22	0.73	2.06	3.16	3.82	4.17
NRV/NRVH 28	0.73	4.01	6.14	7.41	8.10
NRV/NRVH 35	0.73	7.04	10.8	13.0	14.2
R134a					
NRV/NRVH 6	1.02	0.11	0.18	0.23	0.25
NRV/NRVH 10	1.02	0.23	0.39	0.49	0.54
NRV/NRVH 12	0.73	0.34	0.56	0.71	0.78
NRV/NRVH 16	0.73	0.59	0.99	1.24	1.38
NRV/NRVH 19	0.73	0.90	1.51	1.89	2.10
NRV/NRVH 22	0.73	1.40	2.34	2.93	3.25
NRV/NRVH 28	0.73	2.71	4.54	5.68	6.31
NRV/NRVH 35	0.73	4.76	7.98	9.98	11.1
R404A/R507					
NRV/NRVH 6	1.02	0.13	0.21	0.26	0.29
NRV/NRVH 10	1.02	0.29	0.46	0.56	0.62
NRV/NRVH 12	0.73	0.42	0.66	0.82	0.90
NRV/NRVH 16	0.73	0.73	1.16	1.43	1.58
NRV/NRVH 19	0.73	1.12	1.78	2.19	2.41
NRV/NRVH 22	0.73	1.72	2.75	3.38	3.73
NRV/NRVH 28	0.73	3.35	5.34	6.57	7.24
NRV/NRVH 35	0.73	5.88	9.38	11.5	12.7

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R22				
NRV/NRVH 6	0.10	0.30	0.50	0.70
NRV/NRVH 10	0.20	0.70	1.00	1.50
NRV/NRVH 12	1.10	1.20	1.70	2.60
NRV/NRVH 16	1.80	2.20	3.10	4.50
NRV/NRVH 19	2.80	3.30	4.70	6.80
NRV/NRVH 22	4.40	5.20	7.30	10.6
NRV/NRVH 28	8.50	10.0	14.1	20.5
NRV/NRVH 35	14.9	17.6	24.7	36.1
R134a				
NRV/NRVH 6	0.10	0.30	0.40	0.60
NRV/NRVH 10	0.20	0.60	0.80	1.20
NRV/NRVH 12	0.80	1.00	1.40	2.00
NRV/NRVH 16	1.50	1.70	2.40	3.50
NRV/NRVH 19	2.30	2.70	3.70	5.40
NRV/NRVH 22	3.50	4.10	5.80	8.40
NRV/NRVH 28	6.80	8.00	11.2	16.3
NRV/NRVH 35	11.9	14.0	19.7	28.6
R404A/R507				
NRV/NRVH 6	0.10	0.30	0.40	0.60
NRV/NRVH 10	0.20	0.60	0.90	1.30
NRV/NRVH 12	0.90	1.10	1.50	2.20
NRV/NRVH 16	1.60	1.90	2.60	3.80
NRV/NRVH 19	2.40	2.80	4.00	5.80
NRV/NRVH 22	3.70	4.40	6.20	9.00
NRV/NRVH 28	7.20	8.50	12.0	17.5
NRV/NRVH 35	12.7	14.9	21.0	30.7

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R22	0.77	0.82	0.88	0.92	0.96	1.00	1.05	1.10	1.16	1.22	1.30
R134a	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.19	1.28	1.37
R404A/R507	0.67	0.74	0.82	0.87	0.93	1.00	1.08	1.17	1.29	1.43	1.61

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R407A				
NRV/NRVH 6	0.60	1.90	2.70	4.00
NRV/NRVH 10	1.30	4.20	5.90	8.60
NRV/NRVH 12	6.00	7.10	10.0	14.7
NRV/NRVH 16	10.5	12.5	17.6	25.9
NRV/NRVH 19	16.1	19.0	26.9	39.5
NRV/NRVH 22	24.9	29.4	41.5	61.1
NRV/NRVH 28	48.3	57.1	80.6	119
NRV/NRVH 35	84.9	100	142	209
R407C				
NRV/NRVH 6	0.60	2.10	3.00	4.30
NRV/NRVH 10	1.40	4.50	6.30	9.30
NRV/NRVH 12	6.50	7.70	10.8	15.9
NRV/NRVH 16	11.4	13.4	19.0	27.9
NRV/NRVH 19	17.4	20.5	29.0	42.7
NRV/NRVH 22	26.9	31.8	44.8	65.9
NRV/NRVH 28	52.1	61.6	86.9	128
NRV/NRVH 35	91.6	108	153	225
R407F				
NRV/NRVH 6	0.70	2.10	3.00	4.40
NRV/NRVH 10	1.40	4.60	6.50	9.50
NRV/NRVH 12	6.60	7.80	11.1	16.3
NRV/NRVH 16	11.6	13.8	19.4	28.6
NRV/NRVH 19	17.8	21.0	29.7	43.7
NRV/NRVH 22	27.5	32.5	45.8	67.5
NRV/NRVH 28	53.3	63.1	89.0	131
NRV/NRVH 35	93.8	111	156	230

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R407A					
NRV/NRVH 6	1.02	0.14	0.22	0.28	0.31
NRV/NRVH 10	1.02	0.30	0.48	0.59	0.66
NRV/NRVH 12	0.73	0.43	0.70	0.86	0.95
NRV/NRVH 16	0.73	0.76	1.23	1.51	1.67
NRV/NRVH 19	0.73	1.16	1.87	2.31	2.55
NRV/NRVH 22	0.73	1.80	2.90	3.57	3.94
NRV/NRVH 28	0.73	3.49	5.62	6.93	7.66
NRV/NRVH 35	0.73	6.13	9.88	12.2	13.5
R407C					
NRV/NRVH 6	1.02	0.14	0.23	0.28	0.31
NRV/NRVH 10	1.02	0.30	0.49	0.60	0.66
NRV/NRVH 12	0.73	0.44	0.71	0.87	0.96
NRV/NRVH 16	0.73	0.77	1.24	1.53	1.69
NRV/NRVH 19	0.73	1.18	1.90	2.34	2.58
NRV/NRVH 22	0.73	1.82	2.93	3.62	3.99
NRV/NRVH 28	0.73	3.53	5.69	7.02	7.75
NRV/NRVH 35	0.73	6.21	10.0	12.3	13.6
R407F					
NRV/NRVH 6	1.02	0.15	0.25	0.30	0.33
NRV/NRVH 10	1.02	0.33	0.53	0.65	0.71
NRV/NRVH 12	0.73	0.48	0.77	0.94	1.03
NRV/NRVH 16	0.73	0.85	1.35	1.65	1.81
NRV/NRVH 19	0.73	1.30	2.06	2.52	2.77
NRV/NRVH 22	0.73	2.00	3.18	3.89	4.28
NRV/NRVH 28	0.73	3.89	6.17	7.55	8.30
NRV/NRVH 35	0.73	6.83	10.8	13.3	14.6

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R407A				
NRV/NRVH 6	0.10	0.30	0.50	0.70
NRV/NRVH 10	0.20	0.70	1.00	1.50
NRV/NRVH 12	1.10	1.30	1.80	2.60
NRV/NRVH 16	1.90	2.20	3.10	4.50
NRV/NRVH 19	2.90	3.40	4.70	6.90
NRV/NRVH 22	4.40	5.20	7.30	10.7
NRV/NRVH 28	8.60	10.1	14.2	20.8
NRV/NRVH 35	15.1	17.8	25.0	36.6
R407C				
NRV/NRVH 6	0.10	0.40	0.50	0.70
NRV/NRVH 10	0.20	0.80	1.10	1.60
NRV/NRVH 12	1.10	1.30	1.80	2.70
NRV/NRVH 16	1.90	2.30	3.20	4.70
NRV/NRVH 19	2.90	3.50	4.90	7.20
NRV/NRVH 22	4.60	5.40	7.60	11.1
NRV/NRVH 28	8.80	10.5	14.7	21.5
NRV/NRVH 35	15.6	18.4	25.8	37.7
R407F				
NRV/NRVH 6	0.10	0.40	0.50	0.80
NRV/NRVH 10	0.20	0.80	1.10	1.70
NRV/NRVH 12	1.20	1.40	1.90	2.80
NRV/NRVH 16	2.00	2.40	3.40	5.00
NRV/NRVH 19	3.10	3.70	5.20	7.60
NRV/NRVH 22	4.80	5.70	8.00	11.7
NRV/NRVH 28	9.30	11.0	15.5	22.7
NRV/NRVH 35	16.4	19.4	27.3	39.9

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R407A	0.71	0.78	0.85	0.90	0.94	1.00	1.06	1.13	1.22	1.32	1.43
R407C	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.13	1.20	1.29	1.40
R407F	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.29	1.39

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R410A				
NRV/NRVH 6	0.70	2.10	3.00	4.50
NRV/NRVH 10	1.40	4.60	6.50	9.60
NRV/NRVH 12	6.70	7.90	11.1	16.3
NRV/NRVH 16	11.7	13.8	19.5	28.7
NRV/NRVH 19	17.9	21.1	29.8	43.9
NRV/NRVH 22	27.6	32.6	46.0	67.8
NRV/NRVH 28	53.6	63.3	89.4	132
NRV/NRVH 35	94.2	111	157	231
R448A				
NRV/NRVH 6	0.60	1.90	2.70	4.00
NRV/NRVH 10	1.30	4.20	5.90	8.70
NRV/NRVH 12	6.00	7.10	10.1	14.8
NRV/NRVH 16	10.6	12.5	17.7	26.0
NRV/NRVH 19	16.2	19.1	27.0	39.7
NRV/NRVH 22	25.0	29.6	41.7	61.4
NRV/NRVH 28	48.6	57.4	81.0	119
NRV/NRVH 35	85.4	101	142	210
R449A				
NRV/NRVH 6	0.60	1.90	2.70	4.00
NRV/NRVH 10	1.30	4.10	5.80	8.50
NRV/NRVH 12	5.90	7.00	9.90	14.5
NRV/NRVH 16	10.4	12.3	17.3	25.5
NRV/NRVH 19	15.9	18.8	26.5	39.0
NRV/NRVH 22	24.6	29.0	41.0	60.3
NRV/NRVH 28	47.7	56.4	79.5	117
NRV/NRVH 35	83.8	99.1	140	206

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R410A					
NRV/NRVH 6	1.02	0.20	0.31	0.37	0.40
NRV/NRVH 10	1.02	0.43	0.66	0.79	0.86
NRV/NRVH 12	0.73	0.63	0.95	1.15	1.25
NRV/NRVH 16	0.73	1.10	1.67	2.01	2.20
NRV/NRVH 19	0.73	1.68	2.55	3.07	3.35
NRV/NRVH 22	0.73	2.60	3.95	4.75	5.18
NRV/NRVH 28	0.73	5.05	7.66	9.22	10.1
NRV/NRVH 35	0.73	8.87	13.5	16.2	17.7
R448A					
NRV/NRVH 6	1.02	0.14	0.23	0.28	0.31
NRV/NRVH 10	1.02	0.31	0.49	0.61	0.67
NRV/NRVH 12	0.73	0.45	0.72	0.88	0.97
NRV/NRVH 16	0.73	0.79	1.26	1.55	1.70
NRV/NRVH 19	0.73	1.20	1.92	2.36	2.60
NRV/NRVH 22	0.73	1.86	2.97	3.65	4.02
NRV/NRVH 28	0.73	3.61	5.77	7.08	7.81
NRV/NRVH 35	0.73	6.35	10.1	12.5	13.7
R449A					
NRV/NRVH 6	1.02	0.14	0.23	0.28	0.31
NRV/NRVH 10	1.02	0.30	0.49	0.60	0.66
NRV/NRVH 12	0.73	0.44	0.71	0.87	0.96
NRV/NRVH 16	0.73	0.78	1.24	1.53	1.68
NRV/NRVH 19	0.73	1.19	1.90	2.33	2.57
NRV/NRVH 22	0.73	1.84	2.93	3.60	3.97
NRV/NRVH 28	0.73	3.56	5.69	7.00	7.71
NRV/NRVH 35	0.73	6.26	10.0	12.3	13.6

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R410A				
NRV/NRVH 6	0.10	0.40	0.60	0.80
NRV/NRVH 10	0.30	0.90	1.20	1.80
NRV/NRVH 12	1.30	1.50	2.10	3.10
NRV/NRVH 16	2.20	2.60	3.70	5.40
NRV/NRVH 19	3.40	4.00	5.70	8.30
NRV/NRVH 22	5.30	6.20	8.80	12.8
NRV/NRVH 28	10.2	12.1	17.0	24.9
NRV/NRVH 35	18.0	21.2	29.9	43.8
R448A				
NRV/NRVH 6	0.10	0.30	0.50	0.70
NRV/NRVH 10	0.20	0.70	1.10	1.50
NRV/NRVH 12	1.10	1.30	1.80	2.60
NRV/NRVH 16	1.90	2.20	3.20	4.60
NRV/NRVH 19	2.90	3.40	4.80	7.10
NRV/NRVH 22	4.50	5.30	7.50	10.9
NRV/NRVH 28	8.70	10.3	14.5	21.2
NRV/NRVH 35	15.3	18.1	25.5	37.2
R449A				
NRV/NRVH 6	0.10	0.30	0.50	0.70
NRV/NRVH 10	0.20	0.70	1.00	1.50
NRV/NRVH 12	1.10	1.30	1.80	2.60
NRV/NRVH 16	1.90	2.20	3.10	4.60
NRV/NRVH 19	2.90	3.40	4.80	7.00
NRV/NRVH 22	4.40	5.20	7.40	10.7
NRV/NRVH 28	8.60	10.1	14.3	20.9
NRV/NRVH 35	15.1	17.8	25.1	36.7

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R410A	0.72	0.78	0.85	0.90	0.95	1.00	1.06	1.14	1.22	1.32	1.45
R448A	0.72	0.78	0.85	0.90	0.95	1.00	1.06	1.13	1.22	1.31	1.43
R449A	0.71	0.77	0.85	0.89	0.94	1.00	1.06	1.14	1.22	1.32	1.44

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R450A				
NRV/NRVH 6	0.60	1.90	2.70	3.90
NRV/NRVH 10	1.20	4.00	5.70	8.40
NRV/NRVH 12	5.80	6.90	9.70	14.3
NRV/NRVH 16	10.2	12.1	17.1	25.1
NRV/NRVH 19	15.6	18.5	26.1	38.4
NRV/NRVH 22	24.2	28.6	40.3	59.3
NRV/NRVH 28	46.9	55.4	78.2	115
NRV/NRVH 35	82.4	97.4	138	202
R452A				
NRV/NRVH 6	0.50	1.50	2.10	3.10
NRV/NRVH 10	1.00	3.20	4.60	6.70
NRV/NRVH 12	4.70	5.50	7.80	11.5
NRV/NRVH 16	8.20	9.70	13.7	20.2
NRV/NRVH 19	12.5	14.8	20.9	30.8
NRV/NRVH 22	19.4	22.9	32.3	47.6
NRV/NRVH 28	37.6	44.5	62.7	92.4
NRV/NRVH 35	66.1	78.2	110	162
R513A				
NRV/NRVH 6	0.60	1.80	2.50	3.80
NRV/NRVH 10	1.20	3.90	5.50	8.00
NRV/NRVH 12	5.60	6.60	9.30	13.7
NRV/NRVH 16	9.80	11.6	16.4	24.1
NRV/NRVH 19	15.0	17.7	25.0	36.8
NRV/NRVH 22	23.2	27.4	38.7	56.9
NRV/NRVH 28	45.0	53.2	75.1	111
NRV/NRVH 35	79.1	93.5	132	194
R1234ze				
NRV/NRVH 6	0.60	1.80	2.60	3.80
NRV/NRVH 10	1.20	3.90	5.50	8.10
NRV/NRVH 12	5.60	6.60	9.40	13.8
NRV/NRVH 16	9.90	11.7	16.4	24.2
NRV/NRVH 19	15.1	17.8	25.1	37.0
NRV/NRVH 22	23.3	27.5	38.8	57.2
NRV/NRVH 28	45.2	53.4	75.4	111
NRV/NRVH 35	79.4	93.9	133	195

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R450A					
NRV/NRVH 6	1.02	0.09	0.16	0.20	0.23
NRV/NRVH 10	1.02	0.20	0.35	0.44	0.49
NRV/NRVH 12	0.73	0.30	0.51	0.64	0.71
NRV/NRVH 16	0.73	0.52	0.89	1.12	1.24
NRV/NRVH 19	0.73	0.80	1.36	1.71	1.90
NRV/NRVH 22	0.73	1.23	2.10	2.64	2.94
NRV/NRVH 28	0.73	2.39	4.07	5.12	5.70
NRV/NRVH 35	0.73	4.21	7.15	8.99	10.0
R452A					
NRV/NRVH 6	1.02	0.13	0.20	0.25	0.28
NRV/NRVH 10	1.02	0.27	0.44	0.54	0.60
NRV/NRVH 12	0.73	0.39	0.64	0.79	0.87
NRV/NRVH 16	0.73	0.69	1.12	1.38	1.52
NRV/NRVH 19	0.73	1.06	1.71	2.11	2.33
NRV/NRVH 22	0.73	1.63	2.64	3.26	3.60
NRV/NRVH 28	0.73	3.17	5.12	6.32	6.99
NRV/NRVH 35	0.73	5.57	8.99	11.1	12.3
R513A					
NRV/NRVH 6	1.02	0.10	0.17	0.22	0.24
NRV/NRVH 10	1.02	0.22	0.37	0.47	0.52
NRV/NRVH 12	0.73	0.33	0.54	0.68	0.76
NRV/NRVH 16	0.73	0.57	0.96	1.20	1.33
NRV/NRVH 19	0.73	0.87	1.46	1.83	2.03
NRV/NRVH 22	0.73	1.35	2.26	2.83	3.14
NRV/NRVH 28	0.73	2.62	4.38	5.48	6.10
NRV/NRVH 35	0.73	4.60	7.70	9.64	10.7
R1234ze					
NRV/NRVH 6	1.02	0.08	0.15	0.19	0.21
NRV/NRVH 10	1.02	0.18	0.31	0.40	0.45
NRV/NRVH 12	0.73	0.26	0.46	0.58	0.65
NRV/NRVH 16	0.73	0.46	0.81	1.02	1.14
NRV/NRVH 19	0.73	0.71	1.23	1.56	1.75
NRV/NRVH 22	0.73	1.10	1.90	2.41	2.70
NRV/NRVH 28	0.73	2.13	3.69	4.68	5.24
NRV/NRVH 35	0.73	3.74	6.49	8.23	9.20

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R450A				
NRV/NRVH 6	0.10	0.20	0.30	0.50
NRV/NRVH 10	0.20	0.50	0.70	1.10
NRV/NRVH 12	0.80	0.90	1.30	1.80
NRV/NRVH 16	1.30	1.60	2.20	3.20
NRV/NRVH 19	2.10	2.40	3.40	4.90
NRV/NRVH 22	3.20	3.80	5.30	7.60
NRV/NRVH 28	6.20	7.30	10.2	14.8
NRV/NRVH 35	10.9	12.8	17.9	26.0
R452A				
NRV/NRVH 6	0.10	0.30	0.40	0.60
NRV/NRVH 10	0.20	0.60	0.90	1.30
NRV/NRVH 12	0.90	1.10	1.50	2.20
NRV/NRVH 16	1.60	1.90	2.70	3.90
NRV/NRVH 19	2.50	2.90	4.10	6.00
NRV/NRVH 22	3.80	4.50	6.30	9.20
NRV/NRVH 28	7.40	8.70	12.3	17.9
NRV/NRVH 35	13.0	15.3	21.6	31.5
R513A				
NRV/NRVH 6	0.10	0.30	0.40	0.50
NRV/NRVH 10	0.20	0.50	0.80	1.10
NRV/NRVH 12	0.80	0.90	1.30	1.90
NRV/NRVH 16	1.40	1.60	2.30	3.40
NRV/NRVH 19	2.10	2.50	3.50	5.10
NRV/NRVH 22	3.30	3.90	5.50	7.90
NRV/NRVH 28	6.40	7.60	10.6	15.4
NRV/NRVH 35	11.3	13.3	18.6	27.1
R1234ze				
NRV/NRVH 6	0.10	0.20	0.30	0.50
NRV/NRVH 10	0.10	0.50	0.70	1.00
NRV/NRVH 12	0.70	0.80	1.20	1.70
NRV/NRVH 16	1.20	1.40	2.00	2.90
NRV/NRVH 19	1.90	2.20	3.10	4.50
NRV/NRVH 22	2.90	3.40	4.80	6.90
NRV/NRVH 28	5.60	6.60	9.30	13.4
NRV/NRVH 35	9.90	11.7	16.3	23.6

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R450A	0.72	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.28	1.38
R452A	0.67	0.74	0.83	0.88	0.93	1.00	1.08	1.17	1.27	1.40	1.57
R513A	0.71	0.77	0.85	0.89	0.94	1.00	1.06	1.14	1.22	1.32	1.44
R1234ze	0.72	0.78	0.86	0.90	0.95	1.00	1.06	1.12	1.20	1.29	1.39

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R32				
NRV/NRVH 6	1.00	3.10	4.30	6.40
NRV/NRVH 10	2.00	6.60	9.30	13.7
NRV/NRVH 12	9.50	11.2	15.9	23.4
NRV/NRVH 16	16.7	19.8	27.9	41.0
NRV/NRVH 19	25.5	30.2	42.6	62.7
NRV/NRVH 22	39.5	46.6	65.8	96.9
R290				
NRV/NRVH 6	0.80	2.40	3.40	5.10
NRV/NRVH 10	1.60	5.20	7.40	10.9
NRV/NRVH 12	7.60	8.90	12.6	18.6
NRV/NRVH 16	13.3	15.7	22.1	32.6
NRV/NRVH 19	20.3	24.0	33.8	49.8
NRV/NRVH 22	31.3	37.1	52.3	77.0
R600				
NRV/NRVH 6	0.90	2.80	3.90	5.70
NRV/NRVH 10	1.80	5.90	8.40	12.3
NRV/NRVH 12	8.60	10.1	14.3	21.0
NRV/NRVH 16	15.0	17.8	25.1	36.9
NRV/NRVH 19	23.0	27.1	38.3	56.4
NRV/NRVH 22	35.5	41.9	59.2	87.1
R600a				
NRV/NRVH 6	0.80	2.50	3.50	5.10
NRV/NRVH 10	1.60	5.30	7.40	10.9
NRV/NRVH 12	7.60	9.00	12.7	18.7
NRV/NRVH 16	13.4	15.8	22.3	32.8
NRV/NRVH 19	20.4	24.1	34.1	50.1
NRV/NRVH 22	31.6	37.3	52.6	77.5

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R32					
NRV/NRVH 6	1.02	0.26	0.39	0.47	0.51
NRV/NRVH 10	1.02	0.56	0.84	1.00	1.09
NRV/NRVH 12	0.73	0.82	1.22	1.45	1.58
NRV/NRVH 16	0.73	1.44	2.14	2.55	2.77
NRV/NRVH 19	0.73	2.20	3.26	3.89	4.23
NRV/NRVH 22	0.73	3.39	5.05	6.01	6.53
R290					
NRV/NRVH 6	1.02	0.20	0.30	0.36	0.40
NRV/NRVH 10	1.02	0.42	0.65	0.78	0.86
NRV/NRVH 12	0.73	0.61	0.94	1.13	1.24
NRV/NRVH 16	0.73	1.07	1.64	1.99	2.18
NRV/NRVH 19	0.73	1.63	2.51	3.04	3.33
NRV/NRVH 22	0.73	2.52	3.88	4.70	5.14
R600					
NRV/NRVH 6	1.02	0.08	0.15	0.19	0.22
NRV/NRVH 10	1.02	0.17	0.32	0.41	0.46
NRV/NRVH 12	0.73	0.26	0.47	0.60	0.67
NRV/NRVH 16	0.73	0.46	0.83	1.06	1.18
NRV/NRVH 19	0.73	0.70	1.26	1.61	1.81
NRV/NRVH 22	0.73	1.08	1.95	2.50	2.80
R600a					
NRV/NRVH 6	1.02	0.10	0.17	0.22	0.24
NRV/NRVH 10	1.02	0.21	0.37	0.47	0.52
NRV/NRVH 12	0.73	0.32	0.54	0.69	0.76
NRV/NRVH 16	0.73	0.56	0.96	1.20	1.34
NRV/NRVH 19	0.73	0.85	1.46	1.84	2.05
NRV/NRVH 22	0.73	1.32	2.26	2.84	3.16

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R32				
NRV/NRVH 6	0.20	0.50	0.70	1.10
NRV/NRVH 10	0.30	1.10	1.60	2.30
NRV/NRVH 12	1.60	1.90	2.70	4.00
NRV/NRVH 16	2.90	3.40	4.80	7.00
NRV/NRVH 19	4.40	5.20	7.30	10.7
NRV/NRVH 22	6.80	8.00	11.3	16.5
R290				
NRV/NRVH 6	0.10	0.40	0.60	0.80
NRV/NRVH 10	0.30	0.90	1.20	1.80
NRV/NRVH 12	1.20	1.50	2.10	3.00
NRV/NRVH 16	2.20	2.60	3.60	5.30
NRV/NRVH 19	3.30	3.90	5.50	8.10
NRV/NRVH 22	5.10	6.10	8.50	12.4
R600				
NRV/NRVH 6	0.10	0.20	0.30	0.50
NRV/NRVH 10	0.20	0.50	0.70	1.00
NRV/NRVH 12	0.80	0.90	1.20	1.70
NRV/NRVH 16	1.30	1.60	2.20	3.10
NRV/NRVH 19	2.00	2.40	3.30	4.70
NRV/NRVH 22	3.10	3.70	5.10	7.20
R600a				
NRV/NRVH 6	0.10	0.30	0.40	0.50
NRV/NRVH 10	0.20	0.60	0.80	1.10
NRV/NRVH 12	0.80	1.00	1.30	1.90
NRV/NRVH 16	1.40	1.70	2.40	3.40
NRV/NRVH 19	2.20	2.60	3.60	5.20
NRV/NRVH 22	3.40	4.00	5.60	8.00

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R32	0.76	0.82	0.88	0.92	0.96	1.00	1.05	1.11	1.17	1.24	1.33
R290	0.73	0.79	0.86	0.90	0.95	1.00	1.06	1.12	1.19	1.28	1.38
R600	0.77	0.82	0.88	0.92	0.96	1.00	1.05	1.10	1.16	1.22	1.29
R600a	0.75	0.80	0.87	0.91	0.95	1.00	1.05	1.11	1.18	1.25	1.33

Note: *Only solder version, connection sizes from 6 s to 22 s are allowed for flammable refrigerant.*
- For capacity calculation of other refrigerants, please contact Danfoss.

Capacity

US units

Liquid capacity [TR]

Type	Liquid capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R1270				
NRV/NRVH 6	0.80	2.50	3.60	5.30
NRV/NRVH 10	1.70	5.40	7.70	11.3
NRV/NRVH 12	7.80	9.30	13.1	19.2
NRV/NRVH 16	13.8	16.3	23.0	33.8
NRV/NRVH 19	21.0	24.9	35.1	51.6
NRV/NRVH 22	32.5	38.4	54.2	79.8
R452B				
NRV/NRVH 6	0.79	2.6	3.6	5.3
NRV/NRVH 10	1.7	5.5	7.8	11.4
NRV/NRVH 12	8.0	9.4	13.3	19.5
NRV/NRVH 16	14.0	16.5	23.3	34.3
NRV/NRVH 19	21.3	25.2	35.6	52.4
NRV/NRVH 22	33.0	39.0	55.0	80.9
R454B				
NRV/NRVH 6	0.80	2.50	3.50	5.20
NRV/NRVH 10	1.70	5.40	7.60	11.1
NRV/NRVH 12	7.70	9.20	12.9	19.0
NRV/NRVH 16	13.6	16.1	22.7	33.4
NRV/NRVH 19	20.8	24.6	34.6	51.0
NRV/NRVH 22	32.1	38.0	53.5	78.8
R1234yf				
NRV/NRVH 6	0.50	1.50	2.10	3.10
NRV/NRVH 10	1.00	3.20	4.50	6.70
NRV/NRVH 12	4.70	5.50	7.80	11.4
NRV/NRVH 16	8.20	9.70	13.6	20.1
NRV/NRVH 19	12.5	14.8	20.8	30.7
NRV/NRVH 22	19.3	22.8	32.2	47.4

[1]) Rated liquid capacities are based on:
-Evaporating temperature, t_e = 14 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Suction vapour capacity [TR]

Type	Pressure drop across valve Δp [psi]	Suction vapour capacity [1] at evaporating temperature t_e [°F]			
		-22	14	32	41
R1270					
NRV/NRVH 6	1.02	0.22	0.34	0.41	0.44
NRV/NRVH 10	1.02	0.48	0.72	0.87	0.95
NRV/NRVH 12	0.73	0.70	1.05	1.26	1.37
NRV/NRVH 16	0.73	1.22	1.84	2.21	2.41
NRV/NRVH 19	0.73	1.87	2.81	3.38	3.68
NRV/NRVH 22	0.73	2.88	4.35	5.22	5.69
R452B					
NRV/NRVH 6	1.02	0.20	0.31	0.37	0.41
NRV/NRVH 10	1.02	0.43	0.66	0.80	0.87
NRV/NRVH 12	0.73	0.63	0.95	1.15	1.26
NRV/NRVH 16	0.73	1.10	1.68	2.02	2.21
NRV/NRVH 19	0.73	1.68	2.56	3.09	3.38
NRV/NRVH 22	0.73	2.59	3.96	4.78	5.22
R454B					
NRV/NRVH 6	1.02	0.22	0.33	0.39	0.43
NRV/NRVH 10	1.02	0.46	0.70	0.84	0.92
NRV/NRVH 12	0.73	0.67	1.01	1.22	1.33
NRV/NRVH 16	0.73	1.18	1.78	2.14	2.33
NRV/NRVH 19	0.73	1.80	2.72	3.26	3.56
NRV/NRVH 22	0.73	2.78	4.20	5.05	5.50
R1234yf					
NRV/NRVH 6	1.02	0.09	0.16	0.20	0.22
NRV/NRVH 10	1.02	0.20	0.34	0.43	0.47
NRV/NRVH 12	0.73	0.29	0.49	0.62	0.69
NRV/NRVH 16	0.73	0.52	0.86	1.09	1.21
NRV/NRVH 19	0.73	0.79	1.32	1.66	1.85
NRV/NRVH 22	0.73	1.22	2.04	2.56	2.85

[1]) Rated suction vapour capacities are based on:
-Suction superheat sh = 0 °F
-Condensing temperature, t_c = 86 °F
-Subcooling Δ t_{sub} = 9 °F
The table values refer to the evaporator capacity

Hot gas capacity [TR]

Type	Hot gas capacity [1] at pressure drop across valve Δp [psi]			
	NRV			NRV/ NRVH
	0.73	1.02	2.03	4.4 [2]
R1270				
NRV/NRVH 6	0.10	0.40	0.60	0.90
NRV/NRVH 10	0.30	0.90	1.30	1.90
NRV/NRVH 12	1.40	1.60	2.30	3.30
NRV/NRVH 16	2.40	2.80	4.00	5.80
NRV/NRVH 19	3.70	4.30	6.10	8.90
NRV/NRVH 22	5.70	6.70	9.40	13.8
R452B				
NRV/NRVH 6	0.14	0.45	0.63	0.92
NRV/NRVH 10	0.30	1.0	1.4	2.0
NRV/NRVH 12	1.4	1.6	2.3	3.4
NRV/NRVH 16	2.4	2.9	4.1	5.9
NRV/NRVH 19	3.7	4.4	6.2	9.1
NRV/NRVH 22	5.8	6.8	9.6	14.0
R454B				
NRV/NRVH 6	0.10	0.40	0.60	0.90
NRV/NRVH 10	0.30	1.00	1.40	2.00
NRV/NRVH 12	1.40	1.60	2.30	3.40
NRV/NRVH 16	2.40	2.90	4.10	5.90
NRV/NRVH 19	3.70	4.40	6.20	9.10
NRV/NRVH 22	5.80	6.80	9.60	14.0
R1234yf				
NRV/NRVH 6	0.10	0.20	0.30	0.50
NRV/NRVH 10	0.10	0.50	0.70	1.00
NRV/NRVH 12	0.70	0.80	1.20	1.70
NRV/NRVH 16	1.20	1.50	2.00	3.00
NRV/NRVH 19	1.90	2.20	3.10	4.50
NRV/NRVH 22	2.90	3.40	4.80	7.00

[1]) Rated hot gas capacities are based on:
- Evaporating temperature, t_e = 14 °F
- Condensing temperature, t_c = 86 °F
- Subcooling Δ t_{sub} = 9 °F
- Hot gas temperature, t_h = 140 °F ahead of the valve
- Discharge temperature, t_d = 176 °F after compressor
[2]) Capacity for NRVH
The table values refer to the evaporator capacity

Correction factors

When selecting the evaporator capacity is to be multiplied by a correction factor depending on the liquid temperature t_l ahead of the valve/the evaporator. The corrected capacity can then be found from the table.

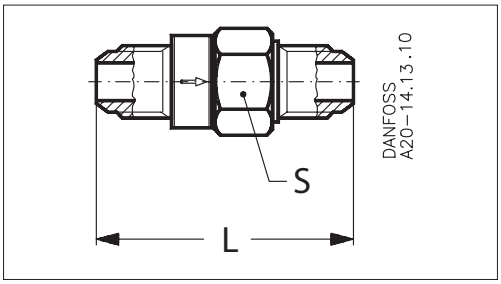
Correction factors for liquid temperature t_l

t_l [°F]	14	32	50	59	68	77	86	95	104	113	122
R1270	0.74	0.79	0.87	0.91	0.95	1.00	1.06	1.12	1.19	1.27	1.37
R452B	0.68	0.71	0.74	0.75	0.76	0.78	0.80	0.81	0.83	0.85	0.87
R454B	0.74	0.80	0.87	0.91	0.95	1.00	1.06	1.12	1.19	1.28	1.38
R1234yf	0.69	0.75	0.84	0.88	0.94	1.00	1.07	1.15	1.25	1.36	1.49

Note: *Only solder version, connection sizes from 6 s to 22 s are allowed for flammable refrigerant.*
- For capacity calculation of other refrigerants, please contact Danfoss.

Dimensions and weights

NRV 6 - 19



Flare straightway connection - SI Units

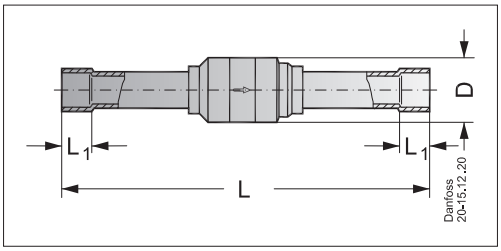
Type	Size		L	Spanner flats S	Net weight
	[in]	[mm]	[mm]	[mm]	[kg]
NRV 6	1/4	6	55	19	0.07
NRV 10	3/8	10	60	19	0.08
NRV 12	1/2	12	70	24	0.14
NRV 16	5/8	16	81	28	0.20
NRV 19	3/4	19	95	34	0.34

Flare straightway connection - US Units

Type	Size	L	Spanner flats S	Net weight
	[in]	[in]	[in]	[lbs]
NRV 6	1/4	2.17	0.75	0.15
NRV 10	3/8	2.36	0.75	0.19
NRV 12	1/2	2.76	0.94	0.30
NRV 16	5/8	3.19	1.10	0.45
NRV 19	3/4	3.74	1.34	0.75

Dimensions and weights

NRV 6s - 19s / NRVH 6s - 19s



Solder straightway connection - SI Units

Type	Size		L	L_1	øD	Net weight
	[in]	[mm]	[mm]	[mm]	[mm]	[kg]
NRV/NRVH 6s	1/4	6	92	7	18	0.06
NRV/NRVH 6s [1])	3/8	10	95	9	18	0.07
NRV/NRVH 10s	3/8	10	109	9	18	0.06
NRV/NRVH 10s [1])	1/2	12	109	10	18	0.07
NRV/NRVH 12s	1/2	12	131	10	22	0.10
NRV/NRVH 12s [1])	5/8	16	131	12	22	0.11
NRV/NRVH 16s	5/8	16	139	12	28	0.17
NRV/NRVH 16s [1])	–	18	139	14	28	0.19
NRV/NRVH 19s	–	18	165	14	34	0.28
NRV/NRVH 16s [1])	3/4	19	139	14	28	0.19
NRV/NRVH 19s	3/4	19	165	14	34	0.29
NRV/NRVH 19s [1])	7/8	22	165	17	34	0.29

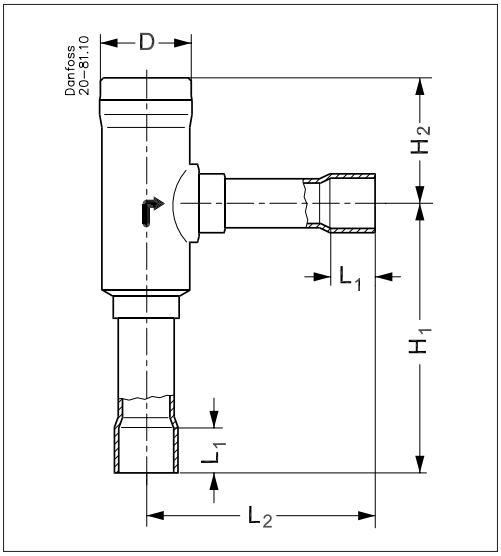
Solder straightway connection - US Units

Type	Size	L	L_1	øD	Net weight
	[in]	[in]	[in]	[in]	[lbs]
NRV/NRVH 6s	1/4	3.62	0.28	0.71	0.14
NRV/NRVH 6s [1])	3/8	3.74	0.35	0.71	0.16
NRV/NRVH 10s	3/8	4.29	0.35	0.71	0.14
NRV/NRVH 10s [1])	1/2	4.29	0.39	0.71	0.16
NRV/NRVH 12s	1/2	5.16	0.39	0.87	0.22
NRV/NRVH 12s [1])	5/8	5.16	0.47	0.87	0.24
NRV/NRVH 16s	5/8	5.47	0.47	1.10	0.39
NRV/NRVH 16s [1])	3/4	5.47	0.55	1.10	0.43
NRV/NRVH 19s	3/4	6.50	0.55	1.34	0.64
NRV/NRVH 19s [1])	7/8	6.50	0.67	1.34	0.64

[1]) Oversize connections.

Dimensions and weights

NRV 22s - 35s / NRVH 22s - 35s



Solder angleway connection - SI Units

Type	Size		H_1	H_2	L_1	L_2	øD	Net weight
	[in]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[Kg]
NRV/NRVH 22s	7/8	22	94	48	17	87	37	0.58
NRV/NRVH 22s ¹)	1 1/8	28	94	48	22	87	37	0.61
NRV/NRVH 28s	1 1/8	28	141	67	20	123	49	1.33
NRV/NRVH 28s ¹)	1 3/8	35	141	67	25	123	49	1.47
NRV/NRVH 35s	1 3/8	35	141	67	25	123	49	1.40
NRV/NRVH 35s ¹)	1 5/8	42	141	67	29	123	49	1.38

Solder angleway connection - US Units

Type	Size	H_1	H_2	L_1	L_2	øD	Net weight
	[in]	[in]	[in]	[in]	[in]	[in]	[lbs]
NRV/NRVH 22s	7/8	3.70	1.89	0.67	3.43	1.46	1.28
NRV/NRVH 22s ¹)	1 1/8	3.70	1.89	0.87	3.43	1.46	1.35
NRV/NRVH 28s	1 1/8	5.55	2.64	0.79	4.84	1.93	2.93
NRV/NRVH 28s ¹)	1 3/8	5.55	2.64	0.98	4.84	1.93	3.26
NRV/NRVH 35s	1 3/8	5.55	2.64	0.98	4.84	1.93	3.08
NRV/NRVH 35s ¹)	1 5/8	5.55	2.64	1.14	4.84	1.93	3.06

¹) Oversize connections.