ENGINEERING
TOMORROW

Quick Select Guide—2023

Products and technologies for all your application needs, today and **tomorrow**

REFRIGERATION & AIR CONDITIONING COMPONENTS

Easy

Find the right products fast with our Quick Select Guide

@DanfossCoolUS

Danfoss Cooling

DanfossCoolUS

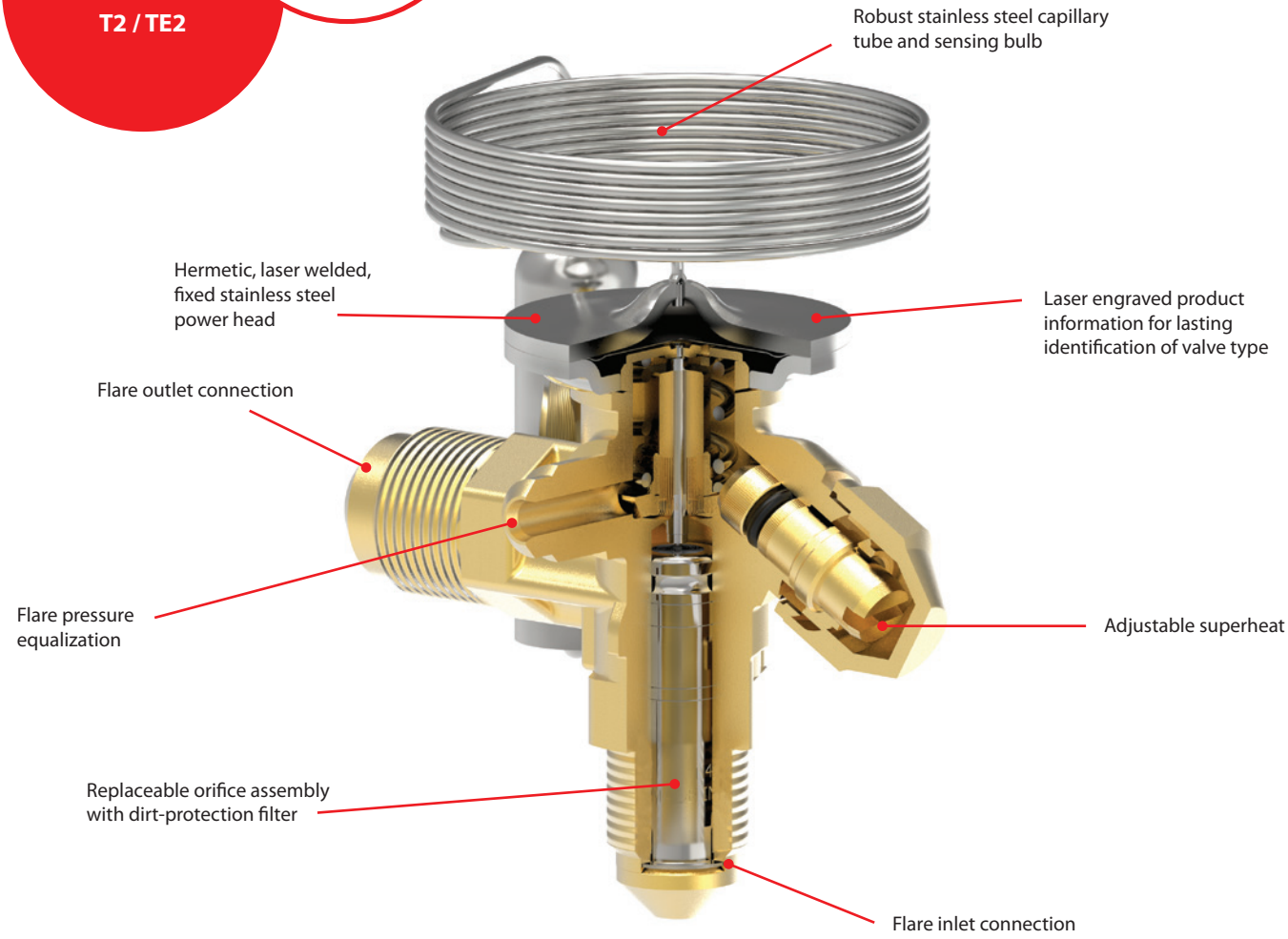
choose.danfoss.com

Table of Contents

T2 / TE2 - Thermostatic Expansion Valves

Danfoss T2/TE2 brass body thermostatic expansion valves feature flare inlet and outlet connections. By pairing one valve body with one of eight replaceable orifices, a contractor can satisfy applications from –40 °F to +50 °F and from ⅛ to 5 ¾ tons capacity (see capacity chart for specifics).

Features
T2 / TE2



Facts

Applications:

- Commercial refrigeration
- Self-contained refrigerators
- Transport refrigeration
- Supermarket refrigeration

- Temperature range: –40 °F to +50 °F
- Capacity range: ⅛ to 5 ¾ tons (varies by refrigerant)
- Refrigerants: R-22, R-407C, R-134a, R-404A, R-448A, R-449A
- Functional valve consists of valve body and orifice
- Flare/solder adaptor available

Product Selection

1. Select Valve Body

Equalization	R-22	R-407C	R-404A	R-134a	R-448A	R-449A
Internal	068Z3206		068Z3400	068Z3346	068Z3728	
External	068Z3209		068Z3403	068Z3348	068Z3727	

All valves above have ⅜ in. × ½ in. flare connections and are desined for evaporator temperatures –40 °F to 50 °F (N charge).
Other variations available, please contact your local Danfoss authorized wholesaler.

2. Select Orifice

A. T2/TE2 valve capacities are based on the installed orifice. To select the correct size, use one of the two methods below:
A. System characteristics: Select the orifice using appropriate refrigerant, evaporator temperature, and system capacity.
OR
B. Nominal capacity of the installed valve: Use the nominal capacity of the originally installed valve and match with the nominal capacity in chart (3rd column from left).

Technical data and ordering

T2 and TE2 (IF EXACT CAPACITY CANNOT FOUND, USE NEXT LARGER ORIFICE)

R-22 / R-407C			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	¼	⅕	¼	¼	¼	¼	¼	¼	¼	¼	¼
00	068-2003	½	¼	⅓	⅓	⅓	⅓	⅓	½	½	½	½
01	068-2010	1	⅓	⅓	½	½	½	¾	¾	¾	1	1
02	068-2015	1 ⅓	⅓	½	½	¾	¾	1	1	1 ¼	1 ⅓	1 ⅓
03	068-2006	2 ⅓	¾	¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ¼	2 ⅓
04	068-2007	3 ⅓	1	1	1 ½	1 ¾	2	2 ⅓	2 ¾	3	3 ½	3 ½
05	068-2008	5	1 ⅓	1 ¾	2	2 ⅓	2 ¾	3	3 ¾	4 ¼	4 ¾	5
06	068-2009	5 ½	1 ½	2	2 ⅓	2 ¾	3	3 ¾	4 ⅓	5	5 ½	5 ¾

R-404A			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	⅙	⅛	⅙	⅙	⅙	⅙	⅕	⅕	⅕	⅕	⅙
00	068-2003	⅓	⅕	⅕	¼	¼	⅓	⅓	⅓	⅓	⅓	⅓
01	068-2010	¾	¼	⅓	⅓	⅓	½	½	½	¾	¾	¾
02	068-2015	1	¼	⅓	⅓	½	½	¾	¾	1	1	1
03	068-2006	1 ¾	½	½	¾	¾	1	1 ⅓	1 ½	1 ¾	1 ¾	1 ¾
04	068-2007	2 ¾	¾	¾	1	1 ⅓	1 ½	2	2 ⅓	2 ½	3	3
05	068-2008	3 ¾	1	1	1 ½	1 ¾	2	2 ½	3	3 ½	3 ¾	4
06	068-2009	4 ½	1	1 ⅓	1 ¾	2	2 ½	3	3 ¾	4	4 ½	4 ½

R-134a			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0X	068-2002	⅕	⅛	⅛	⅙	⅙	⅙	⅕	⅕	⅕	⅕	⅕
00	068-2003	⅓	⅛	⅙	⅕	⅕	¼	¼	¼	⅓	⅓	⅓
01	068-2010	½	⅕	¼	¼	⅓	⅓	⅓	½	½	½	½
02	068-2015	¾	¼	¼	⅓	⅓	⅓	½	½	½	¾	¾
03	068-2006	1 ½	⅓	⅓	½	½	¾	¾	1	1	1 ¼	1 ⅓
04	068-2007	1 ¾	½	½	¾	¾	1	1 ¼	1 ⅓	1 ½	1 ¾	2
05	068-2008	2 ⅓	¾	¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ⅓	2 ½
06	068-2009	3	¾	1	1¼	1 ⅓	1 ½	2	2 ¼	2 ½	2 ¾	3

R-448A			Evaporator temperature (°F)					
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[3] (tons)	–40	–20	0	20	40	50
			Rated capacity[2] (tons)					
0X	**068-2002**	¼	¼	¼	¼	¼	¼	¼
00	**068-2003**	½	⅓	⅓	⅖	½	½	½
01	**068-2010**	1	⅖	½	¾	⅞	1	1
02	**068-2015**	1 ⅖	½	⅔	⅘	1 ⅕	1 ⅖	1 ½
03	**068-2006**	2 ⅓	⅘	1	1 ⅖	1 ⅞	2 ⅓	2 ½
04	**068-2007**	3 ⅗	1 ⅕	1 ⅗	2	2 ⅘	3 ⅔	4
05	**068-2008**	4 ⅗	1 ⅗	2	2 ¾	3 ⅔	4 ¾	5 ⅕
06	**068-2009**	5 ⅗	1 ⅘	2 ½	3 ⅓	4 ½	5 ¾	6 ¼

R-449A			Evaporator temperature (°F)					
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[3] (tons)	–40	–20	0	20	40	50
			Rated capacity[2] (tons)					
0X	**068-2002**	¼	¼	¼	¼	¼	¼	¼
00	**068-2003**	½	⅓	⅓	⅖	½	½	½
01	**068-2010**	1	⅖	½	⅔	⅞	1	1
02	**068-2015**	1 ⅓	½	⅔	⅘	1	1 ⅓	1 ½
03	**068-2006**	2 ⅕	⅘	1	1 ⅖	1 ⅘	2 ⅔	2 ½
04	**068-2007**	3 ⅖	1 ¼	1 ⅗	2	2 ¾	3 ½	3 ⅘
05	**068-2008**	4 ½	1 ⅗	2	2 ¾	3 ⅗	4 ⅗	5
06	**068-2009**	5 ⅖	1 ⅞	2 ½	3 ¼	4 ⅓	5 ⅗	6

All capacity data is in accordance to ARI 750-2007 except where noted.

[1] Nominal capacity based on ARI standards: Evaporating temperature = 40 °F, Liquid temperature = 100 °F, Condensing temperature = 110 °F

[2]Capacity based on condensing temperature of 95 °F and a vapor free liquid temperature of 88 °F ahead of the expansion valve.

[3] Condensing temperature = 100 °F

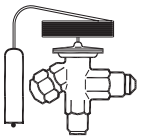
Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	**068U3507**

Selection and Installation Instructions

1. Select Valve Body

Select the valve body based on refrigerant and need for internal or external equalization using the table on the previous page under “Select Valve Body.”

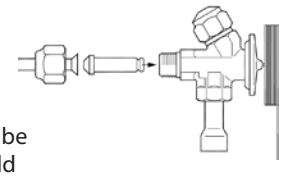


2. Select Orifice

T2/TE2 valve capacities are based on the installed orifice.
To select the correct size orifice, use one of the two methods using the “Select Orifice” section on the previous page.

3. Assemble Valve and Install into System

1. Slide the orifice into the valve body and secure using liquid line flare nut
2. Attach evaporator inlet or distributor assembly to valve outlet flare nut
3. Tighten both flare nuts
    - Specification for inlet is 26–33 ft.-lbs
    - Specification for outlet is 37–52 ft.-lbs
4. Secure sensing bulb with enclosed bulb strap to suction line. Bulb should be located between 1:00 & 4:00 or 8:00 & 11:00 on the tube, and the strap should be tight enough that no bulb movement is possible.
5. Wrap included insulation tape beginning one inch before the bulb and overlapping each wrap, finishing one inch beyond the bulb on the other end.



4. Adjust Superheat

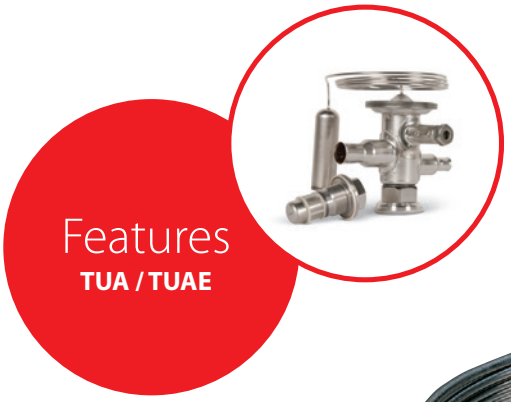
1. Remove the cap
2. Make superheat adjustments ¼ turn at a time (¼ turn ≈ 1.75 °F).
    - Turning clockwise increases superheat.
    - Turning counter-clockwise decreases superheat.
3. Reinstall the cap

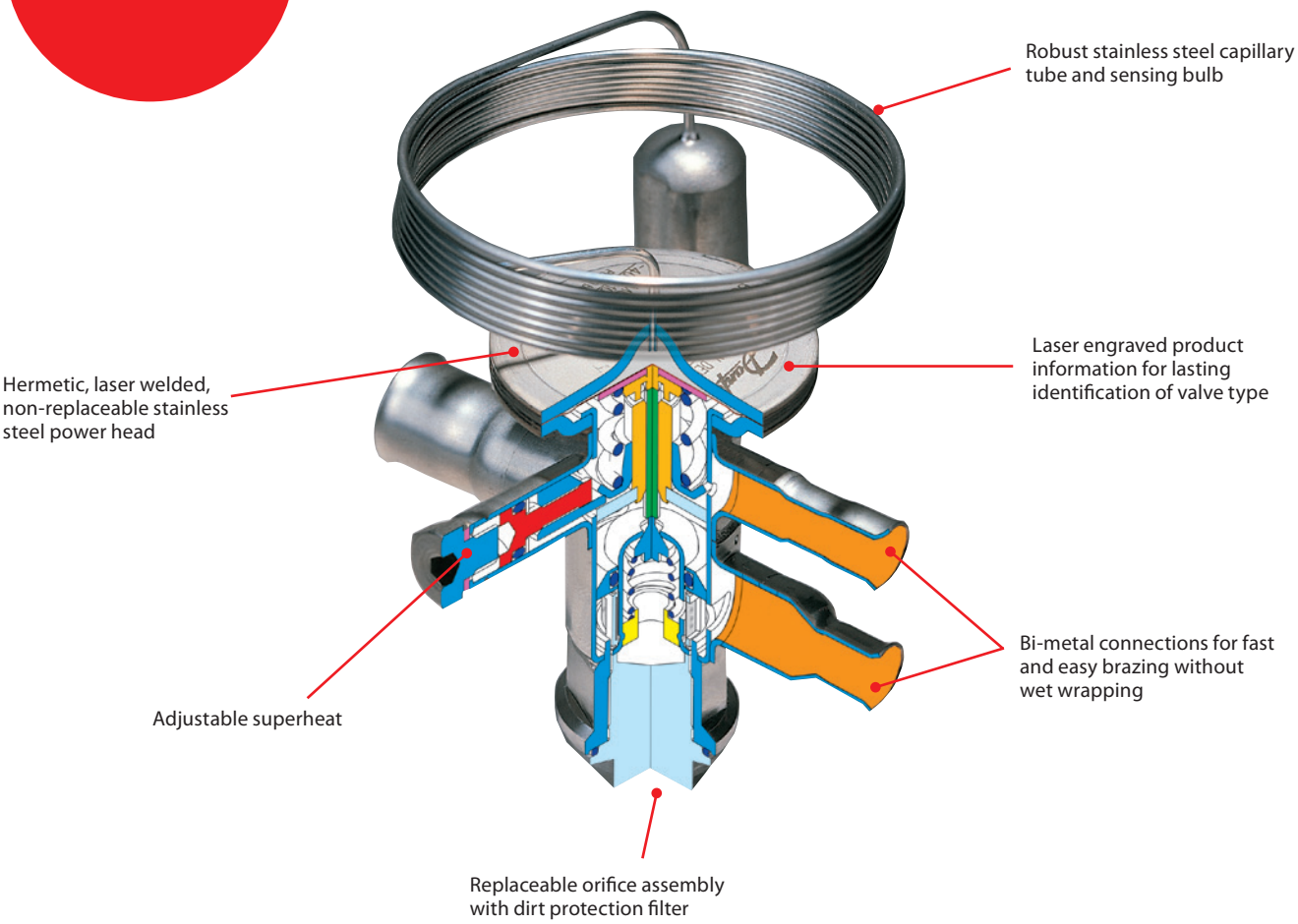
Easy to carry kits for truck stock	
All T2/TE2 valve bodies and orifice featured on the next page and a hex key for superheat adjustment.	**068Z7100**
Both TUA/TUAE valve bodies and orifices and T2/TE2 and orifices plus gaskets for TUA/TUAE and a hex key for superheat adjustment.	**068U7001**

Kits are plastic cases with foam inserts, all valves and orifices, and instructions for selection and installation of the valves. Empty kits and foam available available upon request.

TUA / TUAE - Thermostatic Expansion Valves

Danfoss TUA/TUAE stainless steel thermostatic expansion valves feature solder inlet and outlet connections. By pairing one valve body with one of ten replaceable orifices, a contractor can satisfy applications from –40 °F to + 50 °F and up to 4 ½ tons capacity (see capacity chart for specifics).





Facts

Applications:

- Traditional refrigeration
- Self-contained refrigerators
- Transport refrigeration
- Supermarket refrigeration

- Temperature range: –40 °F to +50 °F
- Capacity range: 1/30 to 4 ½ tons (varies by refrigerant)
- Refrigerants: R-22, R-407C, R-134a, R-404A
- Functional valve consists of valve body and orifice

Scan the QR Code for a video with more information on the TUA valve features and installation or visit http://bit.ly/TUAinstall

Product Selection

1. Select Valve Body

Equalization	R-22	R-407C	R-404A	R-134a	R-448A	R-449A
Internal	068U2235		068U2285	068U2205	068U3859	068U3858
External	068U2237		068U2287	068U2207	068U3945	068U3946

All valves above have ⅜ in. × ½ in. solder ODF connections and are designed for evaporator temperature -40 °F to 50 °F (N charge). Other variation available, please contact your local Danfoss authorized wholesaler.

2. Select Orifice

TUA/TUAE valve capacities are based on the installed orifice. To select the correct size, use one of the two methods below:
A. System characteristics: Select the orifice using appropriate refrigerant, evaporator temperature, and system capacity.
OR
B. Nominal capacity of the installed valve: Use the nominal capacity of the originally installed valve and match with the nominal capacity in chart (3rd column from left).

Technical data and ordering

TUA and TUAE (IF EXACT CAPACITY CANNOT BE FOUND, USE NEXT LARGER ORIFICE)

R-22 / R-407C			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0	068U1030	⅛	1/15	1/15	1/15	1/10	⅛	⅛	⅙	⅙	⅙	⅕
1	068U1031	⅕	1/10	⅛	⅛	⅙	⅙	⅕	⅕	⅕	¼	¼
2	068U1032	¼	1/10	⅛	⅛	⅙	⅕	¼	¼	¼	⅓	⅓
3	068U1033	⅓	⅛	⅙	⅕	¼	¼	⅓	⅓	⅓	⅓	⅓
4	068U1034	½	¼	¼	¼	⅓	⅓	½	½	½	¾	¾
5	068U1035	¾	⅓	⅓	⅓	½	½	¾	¾	¾	1	1
6	068U1036	1 ½	½	½	½	¾	¾	1	1 ¼	1 ⅓	1 ½	1 ½
7	068U1037	2	½	¾	¾	1	1	1 ⅓	1 ½	1 ¾	2	2
8	068U1038	2 ¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ⅓	2 ½	3	3
9	068U1039	4	1 ⅓	1 ½	1 ¾	2	2 ½	2 ¾	3 ¼	3 ½	4	4 ½

R-404A			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0	068U1030	⅛	1/20	1/20	1/15	1/15	1/10	1/10	⅛	⅛	⅛	⅛
1	068U1031	⅕	1/15	1/15	1/10	⅛	⅛	⅙	⅙	⅕	⅕	⅕
2	068U1032	¼	1/15	1/15	1/10	⅛	⅙	⅕	⅕	¼	¼	¼
3	068U1033	⅓	1/10	⅛	⅛	⅙	⅕	¼	¼	⅓	⅓	⅓
4	068U1034	½	⅙	⅕	¼	¼	⅓	⅓	½	½	½	½
5	068U1035	¾	⅕	¼	⅓	⅓	½	½	½	¾	¾	¾
6	068U1036	1 ¼	⅓	⅓	½	½	¾	¾	1	1	1	1 ⅓
7	068U1037	1 ½	⅓	½	½	¾	1	1	1 ⅓	1 ½	1 ½	1 ¾
8	068U1038	2 ⅓	½	¾	1	1	1 ⅓	1 ½	2	2	2 ⅓	2 ½
9	068U1039	3 ⅓	¾	1	1 ⅓	1 ½	2	2 ¼	2 ½	3	3 ½	3 ¾

R-134a			Evaporator temperature (°F)									
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[1] (tons)	–40	–30	–20	–10	0	10	20	30	40	50
			Rated capacity[2] (tons)									
0	068U1030	⅛	1/30	1/20	1/20	1/20	1/15	1/15	1/10	1/10	⅛	⅛
1	068U1031	⅙	1/20	1/15	1/15	1/10	1/10	⅛	⅛	⅙	⅙	⅕
2	068U1032	⅕	1/15	1/15	1/15	1/10	⅛	⅙	⅙	⅕	⅕	⅕
3	068U1033	¼	1/15	1/10	⅛	⅛	⅙	⅕	⅕	¼	¼	¼
4	068U1034	⅓	⅛	⅙	⅕	⅕	¼	¼	⅓	⅓	⅓	½
5	068U1035	½	⅕	⅕	¼	¼	⅓	⅓	½	½	½	½
6	068U1036	¾	¼	¼	⅓	⅓	½	½	¾	¾	1	1
7	068U1037	1 ¼	⅓	⅓	½	½	¾	¾	1	1	1 ¼	1 ½
8	068U1038	1 ¾	½	½	¾	¾	1	1 ¼	1 ½	1 ¾	2	2
9	068U1039	2 ½	¾	1	1	1 ⅓	1 ½	1 ¾	2	2 ⅓	2 ¾	3

R-448A			Evaporator temperature (°F)					
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[3] (tons)	–40	–20	0	20	40	50
			Rated capacity[2] (tons)					
0	**068U1030**	1/5	2/25	1/10	1/5	1/6	1/5	1/5
1	**068U1031**	1/4	1/10	1/8	1/5	1/4	1/4	1/3
2	**068U1032**	1/3	1/8	1/6	1/5	1/4	1/3	1/3
3	**068U1033**	2/5	1/6	1/5	1/4	1/3	2/5	1/2
4	**068U1034**	3/4	1/4	1/3	1/2	3/5	3/4	4/5
5	**068U1035**	1	1/3	1/2	3/5	3/4	1	1
6	**068U1036**	1 1/2	1/2	2/3	1	1 1/5	1 1/2	1 2/3
7	**068U1037**	2	2/3	1	1 1/4	1 3/5	2	2 1/4
8	**068U1038**	3	1	1 1/3	1 4/5	2 1/3	3	3 1/4
9	**068U1039**	4	1 3/5	1 4/5	2 3/5	3 1/6	4	4 1/2

R-449A			Evaporator temperature (°F)					
Orifice size	Danfoss Code No.	Nominal capacity of installed valve[3] (tons)	–40	–20	0	20	40	50
			Rated capacity[2] (tons)					
0	**068U1030**	1/5	2/25	1/10	1/8	1/6	1/5	1/5
1	**068U1031**	1/4	1/10	1/8	1/5	1/4	1/4	1/3
2	**068U1032**	1/3	1/8	1/6	1/5	1/4	1/3	1/3
3	**068U1033**	2/5	1/6	1/5	1/4	1/3	2/5	2/5
4	**068U1034**	2/3	1/4	1/3	1/2	3/5	3/4	4/5
5	**068U1035**	1	1/3	1/2	3/5	3/4	1	1
6	**068U1036**	1 2/5	1/2	2/3	1	1 1/5	1 1/2	1 3/5
7	**068U1037**	2	2/3	1	1 1/5	1 1/2	2	2 1/8
8	**068U1038**	2 4/5	1	1 1/3	1 3/4	2 1/3	2 4/5	3 1/10
9	**068U1039**	4	1 1/3	1 4/5	2 1/3	3 1/8	4	4 2/5

All capacity data is in accordance to ARI 750-2007 except where noted.

[1] Nominal capacity based on ARI standards: Evaporating temperature = 40 °F, Liquid temperature = 100 °F, Condensing temperature = 110 °F

[2] Capacity based on condensing temperature of 95 °F and a vapor free liquid temperature of 85 °F ahead of the expansion valve.

[3] Condensing temperature = 100 °F

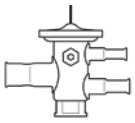
Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	**068U3507**
Metal Gasket (24 pcs)	**068U0015**
Filter for orifices 0–4 (clear, 24 pcs)	**068U1706**
Filter for orifices 5–9 (blue, 24 pcs)	**068U0016**

Selection and Installation Instructions

1. Select Valve Body

Select the valve body based on refrigerant and need for internal or external equalization using the table on the previous page under "Select Valve Body."



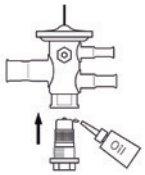
2. Select Orifice

1. Select one of ten orifices using the "Select Orifice" section on the previous page.
2. Prior to installing into system, verify that only mesh portions of the screen cover the orifice inlet.

3. Assemble Valve

1. Place one drop of refrigerant oil between the screen cage and the pushpin.
2. Verify that the metal gasket is seated on the base of the orifice.
3. Tighten orifice into valve (specification is 26–30 ft.-lbs.). In addition to eliminating leaks, proper torquing insures proper superheat control.

► Replace the metal washer/gasket that is mounted at the base of the orifice every time you change the orifice assembly or remove it from the valve body.



4. Braze Valve into System

1. Clean and insert copper tubing into appropriate connection on valve.
2. Direct torch at copper tubing until it begins to color (10–15 seconds).
3. Briefly direct torch on valve connection (2–5 seconds).
4. Apply brazing alloy until it flows.

Do not try to fill the ridge. Attempts to do so may clog the connector.

► Sweat connections using any common brazing alloy (minimum 5% silver).
As internal connector surface is copper, connections are copper to copper, and there is no need for use of high content silver solder or flux.

► *NO WET WRAP REQUIRED*

5. Secure sensing bulb with enclosed bulb strap to suction line. Bulb should be located between 1:00 & 4:00 or 8:00 & 11:00 on the tube, and the strap should be tight enough that no bulb movement is possible.
6. Wrap included insulation tape beginning one inch before the bulb and overlapping each wrap, finishing one inch beyond the bulb on the other end.

5. Adjust Superheat

1. Remove the cap with a 5⁄32 inch hex key.
2. Make superheat adjustments ¼ turn at a time (¼ turn ≈ 1 °F).
   - Turning clockwise increases superheat.
   - Turning counter-clockwise decreases superheat.
3. Reinstall the cap.

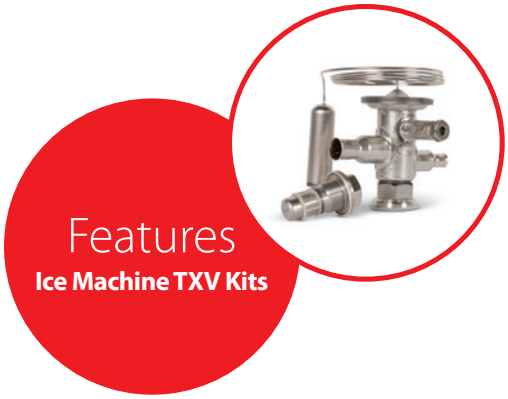
► Expansion valves on low temperature systems may require minor adjustment as the factory setting is for medium temperature systems.

Easy to carry kits for truck stock	
All TUA/TUAE valve bodies and orifice featured on the next page and a hex key for superheat adjustment.	**068U7000**
Both TUA/TUAE valve bodies and orifices and T2/TE2 and orifices plus gaskets for TUA/TUAE and a hex key for superheat adjustment.	**068U7001**

Kits are plastic cases with foam inserts, all valves and orifices, and instructions for selection and installation of the valves. Empty kits and foam available available upon request.

TUA - Thermostatic Expansion Valves for Ice Machines

These kits are designed with contractors in mind to help save time and money by providing a universal valve that can easily be adapted to replace most OEM specific TXVs. Two kits are available, each with a valve body and a selection of three orifice sizes, copper fittings (two elbows and one reducer), a patented bulb strap, and insulation tape.



Facts

Applications:

- Ice machines

- Ice machine capacity: 75 to 2300 pounds per day
- Two kits available

- Each kit contains:
  - Exchangeable orifice thermostatic expansion valve
  - Selection of (3) orifice sizes
  - Copper fittings (2 elbows and 1 reducer)
  - Copper bulb strap
  - Insulation tape
  - Installation guide

Selection and installation instructions

1. Determine the type of machine (cube, flake, or nugget), output of the machine in pounds of ice per 24 hours, and the number of expansion devices installed.
2. Divide the output in pounds of ice by the number of expansion valves.
3. Use the appropriate selection table below under Technical data and ordering to determine the correct orifice size for the ice output per expansion valve.
4. Adhere to start up and performance measurements as specified in the Instructions included with the kit.

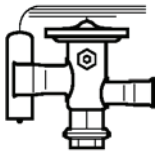
After the new valve is installed and the machine is back in operation, it is important to verify appropriate superheat performance. Cube ice machines typically start cycles with high superheat, which decreases as a harvest cycle approaches.

A properly sized and adjusted valve will assure adequate capacity during all phases of the freeze cycle and positive superheat through the cycle. As the valve nears the end of the freeze cycle it is imperative that you accurately measure the evaporator superheat.

1. Inspect the ice for sufficient production.
2. Inspect the suction line just before the compressor for any frost that could indicate liquid flooding.
3. Measure superheat at the end of the freeze cycle.
4. If superheat is between 10 °F and 18 °F, ice is forming appropriately, and there is no sign of liquid flooding, the installation is complete.
5. If superheat is below 10 °F, increase superheat.
6. If superheat is above 18 °F, decrease superheat.
7. If after adjusting superheat you still see too low superheat or liquid flooding, please install the next smaller orifice and repeat this process.
8. If after adjusting superheat you still see too high superheat or insufficient ice formation, please install the next larger orifice and repeat this process.

If superheat adjustment is necessary, follow these steps:

1. Remove the cap with a 5⁄32 inch hex key.
2. Make superheat adjustments ¼ turn at a time (¼ turn ≈ 1 °F).
   - Turning clockwise increases superheat.
   - Turning counter-clockwise decreases superheat.
3. Reinstall the cap.



Technical data and ordering

TUA for Ice Machines

Machine Size	Estimated orifice size	lbs. of ice/24 hrs. per valve		Danfoss Code No.
		Cuber	Flaker/Nugget	
small	1	75–150	75–200	**068U4900**[1]
	3	151–350	201–500	
	5	351–600	501–950	
large	7	601–1200	951–1650	**068U4901**[2]
	8	1201–1800	1651–2300	

Ice machine kits contain valve, (3) orifices in corresponding tables, (2) elbow fittings, (1) reducer, copper bulb strap, insulation tape, and instructions.

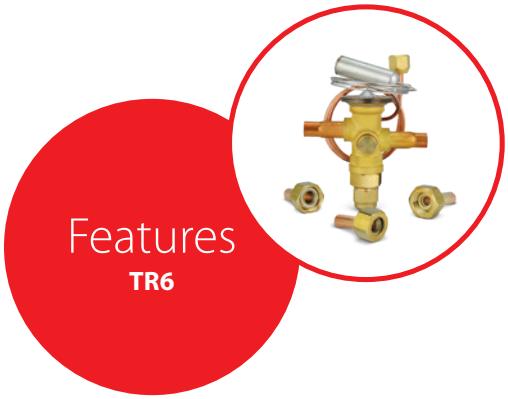
[1] Valve in 068U4900 kit above has straightway ¼ in. × ⅜ in. ODF connections

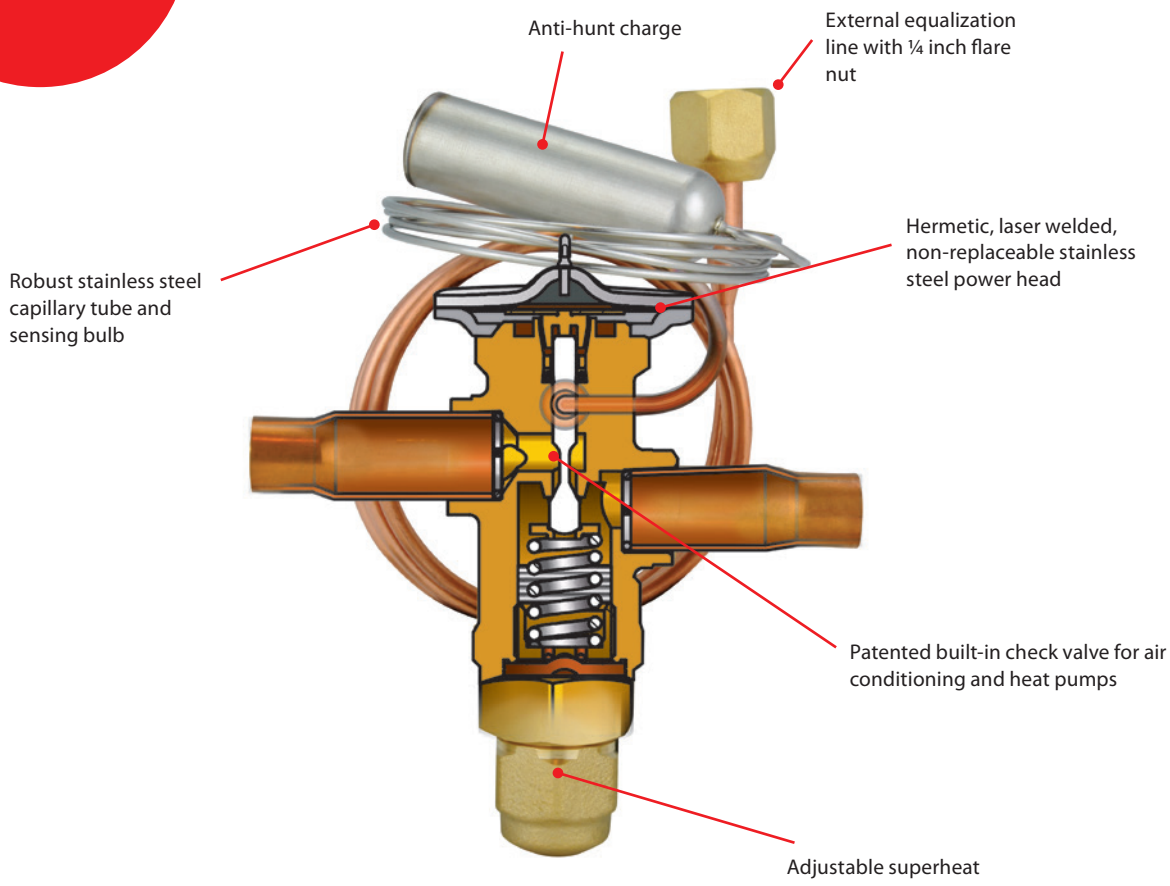
[2] Valve in 068U4901 kit above has straightway ⅜ in. × ½ in. ODF connections

Scan the QR Code for a video with more information on the TUA ice machine kits or visit http://bit.ly/TUAicekit

TR6 - Thermostatic Expansion Valve Kits

Danfoss TR6 kits include a valve, aeroquip, chatleff, and ⅜ inch flare fittings for evaporator connections, insulating tape, a bulb strap and instructions for easy installation in the field. All valves have a balanced port design which reduces the influence from varying condensing pressures. The valves feature a built-in a check valve for heat pump applications and an anti-hunt bulb charge, optimized for residential A/C requirements.





Facts

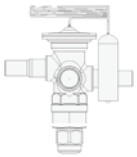
Applications:

- Residential air conditioning systems
- Rooftop units
- Heat pumps
- Light commercial air conditioning systems
- Chillers
- Split systems

- Refrigerants: R-22, R-407C, R-410A
- Capacity range: 3 to 7 Tons
- Temperature range: 15 °F to 60 °F

- Kits Include:
  - Thermostatic expansion valve
  - Aeroquip, chatleff, ⅜ inch flare fittings
  - Insulating tape
  - Bulb strap
  - Installation guide

Ordering



R-22 / R-407C and R-410A

Valve type	Orifice no.	Rated capacity						Connections solder ODF		Code no. Multi pack[1]
		R410A[2]		R-407C		R-22		Inlet x Outlet [in.]	Pressure equalization [in.]	
		[KW]	[TR]	[KW]	[TR]	[KW]	[TR]			
TR6	3	–	–	9.8	2.8	11	3.1	⅜ × ⅜	¼	**067L5855**
TR6	4	–	–	13.8	3.9	15.5	4.4	⅜ × ⅜	¼	**067L5856**
TR6	5	–	–	16.4	4.7	18.4	5.2	⅜ × ⅜	¼	**067L5857**
TR6	6	–	–	17.4	4.9	19.6	5.6	⅜ × ⅜	¼	**067L5858**
TR6	7	–	–	20.9	6	23.8	6.8	⅜ × ⅜	¼	**067L5859**
TR6	3	11.3	3.2	–	–	–	–	⅜ × ⅜	¼	**067L5955**
TR6	4	15.9	4.5	–	–	–	–	⅜ × ⅜	¼	**067L5956**
TR6	5	19	5.4	–	–	–	–	⅜ × ⅜	¼	**067L5957**
TR6	6	20.2	5.8	–	–	–	–	⅜ × ⅜	¼	**067L5958**
TR6	7	24.5	7	–	–	–	–	⅜ × ⅜	¼	**067L5959**

[1] Kit part numbers consist of a valve, bulb strap, insulation tape, installation guide, and the following connectors:
1 Chatleff female ¾ in. connector
1 Aeroquip female ⅝ in. connector
1 Flare ⅜ in. connector

[2] The rated capacity is based on:
Evaporating temperature t_e : 4.4 °C / 40 °F
Condensing temperature t_c : 38 °C / 100 °F
Refrigerant temperature ahead of valve t_l : 37 °C / 98 °F
Temperature range = -10 to 15 °C / 15 to 60 °F = 4 K / 7.2 °F
TR6 with fixed superheat setting are available upon request.
Single pack = 1 valve kit in a box
Industrial pack = 12 pieces in one box

Easy to carry kits for truck stock	Danfoss Code No.
All (3) R-410A TR6 valve kit (pictured left)	**067L7000**
All (4) R-22/407C TR6 valve kits	**067L7001**

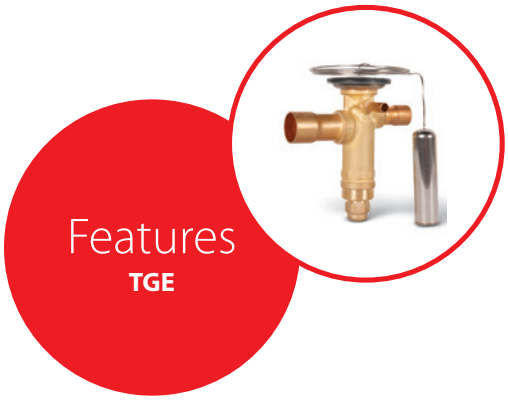
Spare Parts and Accessories

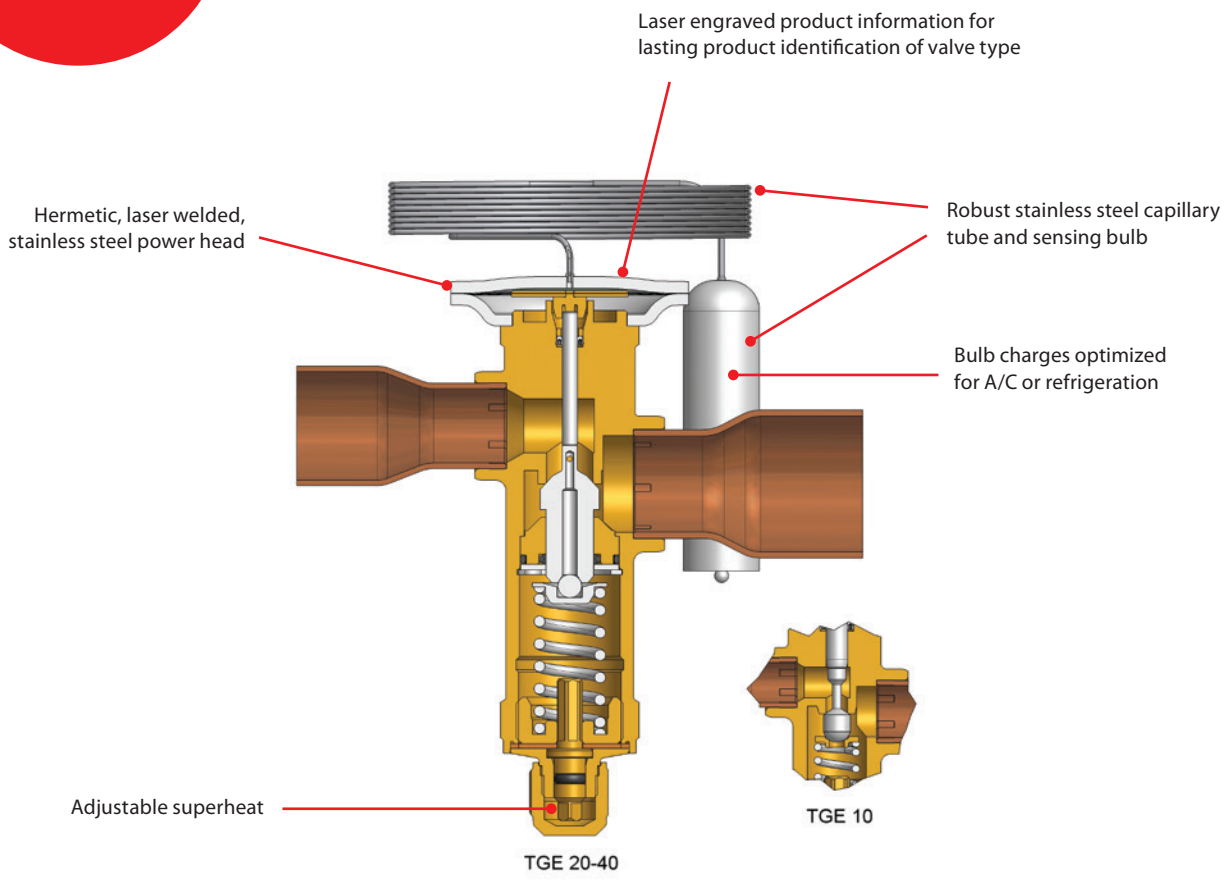
Description	Danfoss Code No.
Bulb strap	**068U3507**
Fitting ⅜ in. ODM × Chatleff	**119F3965**
Fitting ⅜ in. ODM × Aeroquip	**119F3966**

Scan the QR Code for a video with more information on TR6 valve features or visit http://bit.ly/TR6Features

TGE - Thermostatic Expansion Valves

Danfoss TGE thermostatic expansion valves are designed for commercial air conditioning and refrigeration. They feature a balanced port design which reduces the influence from varying condensing pressures. The air conditioning valves in this catalog feature an anti-hunt charge optimized for A/C applications and the refrigeration valves are designed for stable operation across a wide temperature range.





Facts

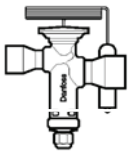
Applications:

- Traditional refrigeration
- Residential air conditioning systems
- Rooftops
- Commercial air conditioning systems
- Chillers

- Refrigerants: R-22, R-407C, R-410A, R-404A, R-507A, R-134a
- Capacity range: 9 to 46 tons (varies by refrigerant)

- Temperature range:
  - Refrigeration Valves: –40 °F to +50 °F
  - Air Conditioning Valves: –22 °F to +60 °F
- Balanced port

Technical data and ordering



TGE

Danfoss Type	Competitor Model Numbers		Nominal capacity (tons)[3]	Solder ODF connection (in.)	Danfoss Code No.
R-22, MAH charge[1]		**R-407C, MAH charge[1]**			
TGEX 10	SVE-5, EVRE-5	HFES-5H	6	½ × ⅝	**067N9403**
TGEX 10	SVE-5, EVRE-5	HFES-5H	6	½ × ⅞	**067N9404**
TGEX 10	SVE-6, EVRE-6		7 ½	⅝ × ⅞	**067N9406**
TGEX 10	SVE-6, EVRE-6		7 ½	⅝ × 1 ⅛	**067N9483**
TGEX 10	SVE-8, SVE-10, EBSVE 8, EVRE 8, EVRE 10	HFES-8H, HFES-10H, TRAE-10H	11	⅝ × ⅞	**067N9407**
TGEX 20	EBSVE 11, EVRE 12		12	⅝ × ⅞	**067N9409**
TGEX 20	EBSVE15, OVE 15	HFES-15H, TRAE-15H	15	⅝ × 1 ⅛	**067N9411**
TGEX 20	EBSVE15, OVE 15	HFES-15H, TRAE-15H	15	⅞ × 1 ⅛	**067N9412**
TGEX 20			18	⅞ × 1 ⅛	**067N9413**
TGEX 40	EBSVE 20, OVE 20	HFES-20H, TRAE 20H	26	⅞ × 1 ⅜	**067N9415**
TGEX 40	OVE 30	TRAE 30H	30	1 ⅛ × 1 ⅜	**067N9418**
TGEX 40	OVE 40	TRAE 40H	38	2 ⅛ × 1 ⅜	**067N9419**
R-410A, MAH charge[1]					
TGEL 10	ERZE-8		9	⅝ × ⅞	**067N9206**
TGEL 10	ERZE-12.5	TFES-12Z	13	⅝ × ⅞	**067N9207**
TGEL 20	ERZE-15	TFES-16Z	15	⅝ × ⅞	**067N9209**
TGEL 20	ERZE-15	TFES-16Z	15	⅝ × 1 ⅛	**067N9210**
TGEL 20	OZE-20		23	⅞ × 1 ⅛	**067N9213**
TGEL 20	OZE-20		23	1 ⅛ × 1 ⅛	**067N9284**
TGEL 40	OZE-25		31	⅞ × 1 ⅛	**067N9285**
TGEL 40	OZE-25		31	⅞ × 1 ⅜	**067N9215**
TGEL 40	OZE-35		35	1 ⅛ × 1 ⅜	**067N9218**
TGEL 40			46	1 ⅛ × 1 ⅜	**067N9219**
R-134a, N charge[2]					
TGEN 10	SJE-5, SJE-6, EBSJE-5	HFES-6M	7	⅝ × 1 ⅛	**067N5158**
TGEN 20	EBSJE-7	HFES-7.5M	8	⅝ × ⅞	**067N5159**
TGEN 20	EBSJE-12, OJE-12	HFES-11M	12	⅞ × 1 ⅛	**067N5163**
TGEN 40	OJE-16	HFES-14M, TRAE-13M, TRAE-14M	17	1 ⅛ × 1 ⅛	**067N5254**
TGEN 40			20	1 ⅛ × 1 ⅛	**067N5255**
TGEN 40	OJE-23	TRAE-22M	25	1 ⅛ × 1 ⅜	**067N5169**
R-404A, N charge[2]		**R-507A, N charge[2]**			
TGES 10	SSE-3	HFES-3.5S	4	½ × ⅞	**067N6151**
TGES 10	SSE-4	HFES-5S	5	½ × ⅞	**067N6166**
TGES 10	SSE-4	HFES-5S	5	⅝ × ⅞	**067N6150**
TGES 10	SSE-6, SSE-7, EBSSE-6	HFES-7S	7 ½	⅝ × ⅞	**067N6154**
TGES 20	EBSSE-7.5	TRAE-8S	9	⅝ × ⅞	**067N6158**
TGES 20	EBSSE-10, OSE-9	HFES-10S	11	⅝ × ⅞	**067N6188**
TGES 20	EBSSE-10, OSE-9	HFES-10S	11	⅝ × 1 ⅛	**067N6155**
TGES 20	EBSSE-10, OSE-9	HFES-10S	11	⅞ × 1 ⅛	**067N6181**
TGES 20	EBSSE-13, OSE-12	HFES-13S, TRAE-12S	13	⅞ × 1 ⅛	**067N6162**
TGES 20	OSE-21	TRAE-20S	21	1 ⅛ × 1 ⅜	**067N6186**

[1] MAH charge: –22 °F to 60 °F, Maximum operating temperature = 300 °F

[2] N charge: –40 °F to 50 °F, Maximum operating temperature = 210 °F

[3] Nominal capacity based on ARI standard: Evaporating temperature = 40 °F, Liquid temperature = 100 °F, Condensing temperature = 110 °F

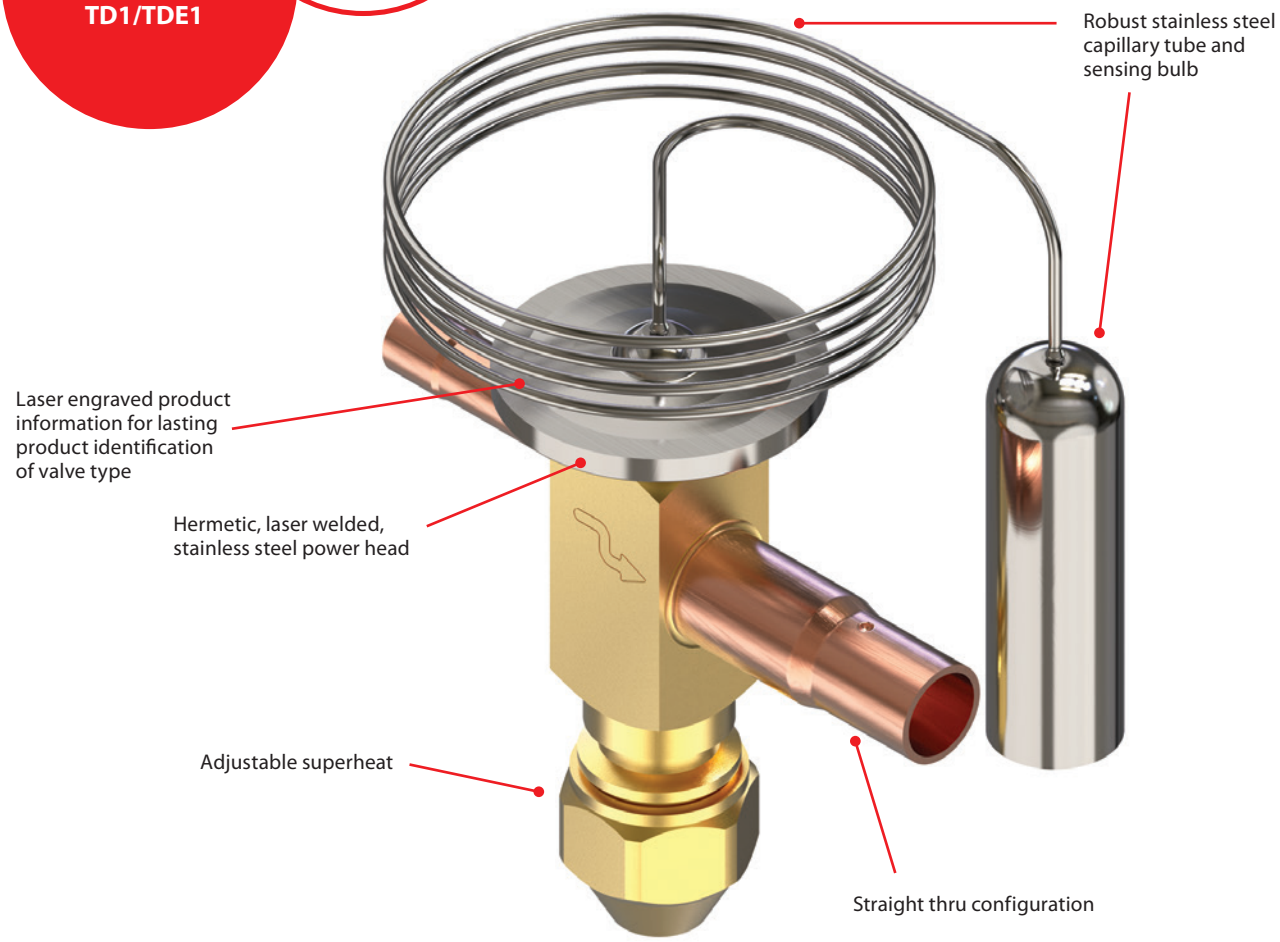
Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	**067N0557**

TD1/TDE1 - Thermostatic Expansion Valves

The Danfoss TD1/TDE1 range of thermostatic expansion valves are designed for small commercial refrigeration applications. TD1/TDE1 TXVs have been proven to achieve energy savings and quicker pull-down times when compared to a capillary tube. Danfoss TD1/TDE1 is UL approved and is available in a straight through configuration for refrigerants R-134a, R-404A, and R-290.

Features
TD1/TDE1



Facts

Applications:

- GDMs
- Ice cream cabinets
- small ice machines
- refrigerated beverage dispensers
- specialty cooling
- transport refrigeration
- reach-in fridges
- small chillers
- small refrigeration units

- Temperature range: –40 °F–+50 °F
- Capacity range: 1/10–2 tons
- Refrigerants: R-134a, R-513A, R-404A, R-290, R-448A/9A

Technical data and ordering

TD1/TDE1 Thermostatic Expansion Valves

Model no.	Capacity* in TR MBP	Capacity* in TR LBP	Orifice size	Range	Inlet size (in.)	Outlet size (in.)	Equalization size (in.)	Superheat	Danfoss Code No.
R-134a[1]									
TD1-0 R134a	1/8	3/50	0	–40–+50 °F	3/8	1/2	—	Adjustable	**068N7671**
TD1-1 R134a	1/5	1/10	1						**068N7672**
TD1-2 R134a	1/3	1/5	2						**068N7673**
TD1-3 R134a	1/2	1/3	3						**068N7674**
TD1-4 R134a	3/4	1/2	4						**068N7675**
TD1-5 R134a	1	1/2	5						**068N7676**
TDE1-3 R134a	1/2	1/3	3				1/4		**068N7690**
TDE1-4 R134a	3/4	1/2	4						**068N7677**
TDE1-5 R134a	1	1/2	5						**068N7678**
R-404A									
TD1-0 R404A	1/4	1/10	0	–40–+50 °F	3/8	1/2	—	Adjustable	**068N7679**
TD1-1 R404A	1/3	1/6	1						**068N7680**
TD1-2 R404A	1/2	2/7	2						**068N7663**
TD1-3 R404A	2/3	1/2	3						**068N7664**
TD1-4 R404A	1	3/4	4						**068N7665**
TD1-5 R404A	1 1/2	3/4	5						**068N7666**
TDE1-3 R404A	2/3	1/2	3				1/4		**068N7667**
TDE1-4 R404A	1	3/4	4						**068N7668**
TDE1-5 R404A	1 1/2	3/4	5						**068N7669**
R-290									
TD1-0 R290	1/4	1/8	0	–40–+50 °F	3/8	1/2	—	Adjustable	**068N7681**
TD1-1 R290	1/3	1/5	1						**068N7682**
TD1-2 R290	1/2	3/8	2						**068N7683**
TD1-3 R290	3/4	1/2	3						**068N7684**
TD1-4 R290	1 1/4	3/4	4						**068N7685**
TD1-5 R290	2	1	5						**068N7686**
TDE1-3 R290	3/4	1/2	3				1/4		**068N7687**
TDE1-4 R290	1 1/4	3/4	4						**068N7688**
TDE1-5 R290	2	1	5						**068N7689**
R-448A[2]									
TD1-0 R448A/R449A	1/4	1/8	0	–40–+50 °F	3/8	1/2	—	Adjustable	**068N7691**
TD1-1 R448A/R449A	1/3	1/5	1						**068N7692**
TD1-2 R448A/R449A	2/3	1/3	2						**068N7693**
TD1-3 R448A/R449A	3/4	2/3	3						**068N7694**
TD1-4 R448A/R449A	1 1/4	3/4	4						**068N7695**
TD1-5 R448A/R449A	2 1/8	1	5						**068N7696**
TDE1-3 R448A/R449A	1	2/3	3				1/4		**068N7697**
TDE1-4 R448A/R449A	1 1/4	3/4	4						**068N7698**
TDE1-5 R448A/R449A	2 1/8	1	5						**068N7699**

*The rated capacity is based on:
Evaporating temp. Te = +41 °F MBP/–20 °F LBP
Condensing temp. Tc = +90 °F
Refrigerant temp. ahead of the value = +82 °F
Included in package: bulb strap

[1] Compatible with R-513A

[2] Compatible with R-449A

Spare Parts

Code No.	Description	Pack mode	Order multiple
068U3505	Bulb strap; 0.4 mm thick, max. 28 mm diameter tube	Industrial	45
068U3507	Bulb strap; 0.4 mm thick, max. 28 mm diameter tube	Single	1

AK-RC 251 - Optyma™ Control for Walk-in Coolers and Freezers

The Optyma™ **Control** is designed with both upgrades and new room installs in mind. This electronic controller eliminates the need for mechanical thermostats in cooling applications along with defrost timers in freezer applications. The Optyma™ **Control** features a weatherproof enclosure and can reduce installation time by up to 60% and improve room efficiency by up to 30%.

Features
AK-RC 251

Quick and easy to mount

Compatible with standard ¾ in. fittings

Simple to wire

Packaged with two NTC sensors: 5 ft. and 10 ft.

Technical data and ordering
AK-RC 251

Power supply	100 - 240VAC, 50/60 Hz, autodetect
Probe temperature range	- 58 to + 211 °F
IP rating	IP65
Display	3 ½ digits, up to 15 symbols/indicators (application dependent)
Inputs	2 NTC temperature sensors (included) 2 digital inputs (1 accepts NTC)
Sensors included in kit	2 NTC, 5 ft & 10 ft
Operating conditions	+ 14 to + 122 °F
Storage conditions	- 22 to +140 °F
Relays	1 x 16A SPDT (AUX 2) • NO: UL - 60730: 5 FLA 30 LRA, 240VAC • NO: UL - 60730: RES 10A, 240VAC • NC: UL - 60370: 5A, 240VAC 2 x 20A SPDT (DEFROST, AUX 1) • NO: UL - 60370: 9 FLA 54 LRA, 240VAC • NO: UL - 60370: RES 12A, 240VAC • NC: UL - 60370: RES 6A, 240VAC 2 x 16A SPST (FAN, COOL) • UL - 60370: 5 FLA 30 LRA, 240VAC • UL - 60370: RES 10A, 240VAC
Internal buzzer	Yes
Communication	Modbus (Connection to Danfoss system manager in development)
Dimensions	11.40 in (W) x 5.55 in (H) x 3.32 in (D)

Technical data and ordering
Optyma Control

Voltage	Danfoss Code No.
100–240VAC, 50/60 Hz, autodetect	**080Z5000**

Spare Parts and Accessories

Description	Quantity	Danfoss Code No.
Sensor EKS 221 NTC 10K 1.5m cable	150	**084N3200**
Sensor EKS 221 NTC 10K 8.5m cable	50	**084N3208**
Sensor EKS 221 NTC 10K 3.5m cable	1	**084N3210**

For more details on sensors, please consult EKS 221 technical documentation.

Scan this QR Code for more information about the Optyma™ **Control**

ERC 213 - Electronic Temperature Control

The ERC 213 is designed to meet the needs of today's refrigeration technician. Its universal fit, easy setup, and capacity to work with any common temperature sensor make it the obvious choice when replacing an electronic temperature control.

Features
ERC 213

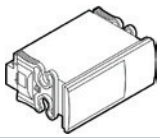
Compatible with all common temperature sensors

Kitted with two temperature sensors

Easy to install (attachment clips included)

Quick five-step set up process

Technical data and ordering



ERC 213

Voltage	Applications	Danfoss Code No.
115V 50/60 Hz	Compressor or solenoid for pump down, defrost, and fan	**080G3411**
220V 50/60 Hz		**080G3412**

Scan the QR Code for a step-by-step set up video or visit http://bit.ly/ERC213_video

Spare Parts and Accessories

Description	Danfoss Code No.
EKA183B Programming Key, ERC 21X	**080G9741**
Sensor EKS 221 NTC 10K 3.5m cable	**084N3210**

Facts

Applications:
- Traditional refrigeration
- Walk-ins
- Chillers

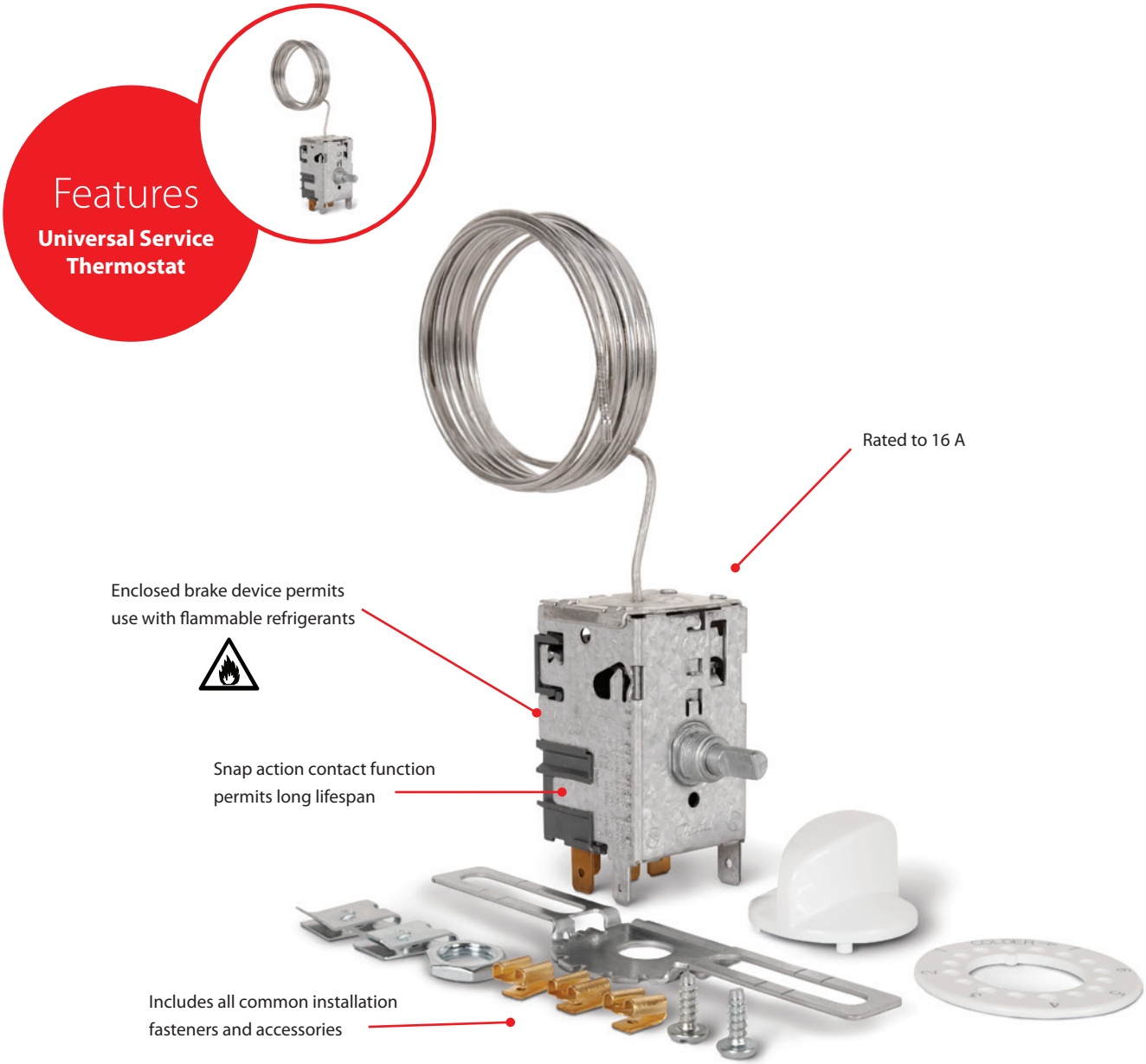
- Controls:
  - defrost
  - fan
  - compressor/solenoid for pump down

- Temperature range:
  - operating conditions: 14 °F to 131 °F
  - storage conditions: –40 °F to 158 °F

- 4 inputs:
  - 2 analog
  - 1 analog/digital
  - 1 digital

Universal Service Thermostat

Danfoss universal service thermostats are kitted with all the necessary accessories for standard applications, ensuring a quick and easy installation. Thanks to the integrated enclosed brake device, these controls can be safely used in isobutene or propane refrigeration systems.



Facts

Applications:

- Traditional refrigeration
- Self-contained refrigerators
- Reach-ins
- Bottle coolers
- Under counter refrigerators

- Eight kit options
- Fixed cut-in and constant differential options available
- Enclosed brake device permits use with flammable refrigerants
- Contact Load: 16 A (120V)

- Kit includes:
  - Thermostat
  - Mounting bracket
  - Adjustment knob
  - Fasteners

Technical data and ordering

Universal Service Thermostat

Application	Operation mode	Temperature Range (°F)			Sensor type	Capillary tube length (in.)	Competitor Model No.	Danfoss Code No.
		Warm pos. cut-in/cut-out	Middle pos. cut-in/cut-out	Cold pos. cut-in/cut-out				
Refrigerator	Constant Cut-in	38/28	38/19	38/9	Coiled Bulb	39	A12-1506 A12-710 A12-711	**077Z7010**
Refrigerator	Constant Cut-in	41/29.5	41/23.5	41/17	Straight Sensor	84	A12-700 A12-701 A12-1560 A12-712	**077Z7011**
Refrigerator/ Freezer	Adaptable Constant Differential	36/26	21.5/9	3/–14	Straight Sensor	42	A30-180 A30-182 A30-184 A30-185	**077Z7012**
Refrigerator/ Freezer	Adaptable Constant Differential	36/26	21.5/9	3/–14	Straight Sensor	84	A30-181 A30-183 A30-260 A30-263	**077Z7013**
Low Temp. Freezer	Adaptable Constant Differential	16.5/7	4.0/–7.5	–11/–25.5	Straight Sensor	84	A30-301 A30-307	**077Z7014**
Low Temp. Freezer	Adaptable Constant Differential	9.5/3	–3/–11	–18.5/–29	Straight Sensor	42	A30-310 A30-311 A30-313	**077Z7015**
Low Temp. Freezer	Adaptable Constant Differential	9.5/3	–3/–11	–18.5/–29	Straight Sensor	84	A30-308 A30-314	**077Z7016**
Refrigerator	Adaptable Constant Differential	47/36.5	37.5/25.0	25.5/10.0	Straight Sensor	66	A22-391 A22-1112	**077Z7017**

All controls feature an enclosed brake device to permit use with flamable refrigerants and are kitted with adjustment knob, installation fasteners, and mounting bracket.

Contact Load		120V	240V
	Full Load Amps	16A	8A
	Locked Rotor Amps	96A	40A

KPU 19 - Thermostats

The KPU 19 thermostats are designed for easy installation and service with bottom and rear knockouts, differential adjustment dial, a tamper-resistant design, and a robust thermoplastic housing.

Features
KPU 19

Facts

Applications:

- Traditional refrigeration
- Air conditioning
- Ventilating systems
- Heating systems

- Ambient temperature: –30 °F to +158 °F (bulb sensor); –30 °F to +140 °F (room sensor)
- Switch: Single pole changeover switch (SPDT) and single pole non-changeover switch (SPST)
- Enclosure: NEMA 1
- Cable entry: ⅞ inch cable entry for ½ inch male pipe thread connection (conduit boss) or similar screwed cable entry

Technical data and ordering

KPU 19 Thermostats

KPU Series	Bulb type	Range (°F)	Contact/ Reset	Capillary tube length (in.)	Maximum bulb temperature (°F)	Competitor part no.	Danfoss Type	Danfoss Code No.
KPU 19	Remote bulb	–30 to 80	SPDT/Auto	120	140	A19ABC-24C A19ABC-37C A19ABC-74C A19AAC-4C A19AAF-20C	KPU19	**060L2150**[1]
KPU 19		–30 to 80	SPST/Auto	80	140	A19AAD-5C A19ABA-40C A19AAD-12C	KPU19	**060L2151**[1]
KPU 19	Room bulb	–30 to 80	SPDT/Auto	Room sensor	140	A19BBC-2C A19BAB-3C A19BAC-1C A19BAF-1C	KPU19	**060L2152**

[1] As 060L1250 is SPDT, 060L2150 can replace competitor parts crossed to both 060L2150 and 060L2151.

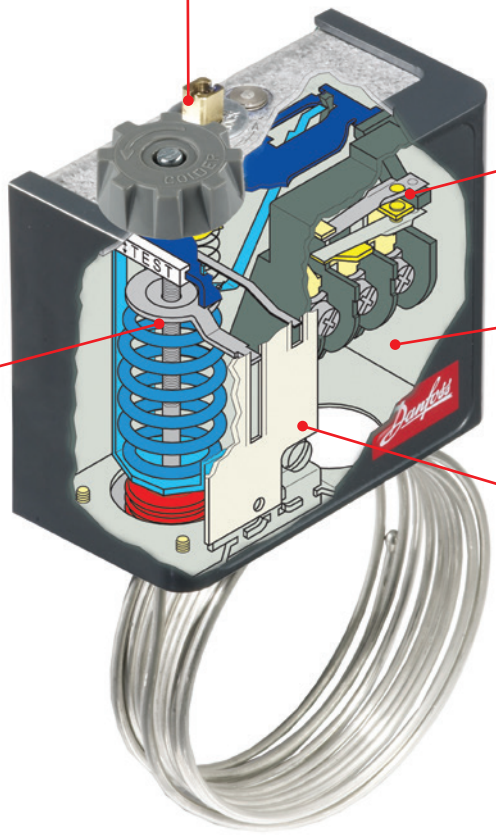
Contact Load	Resistive load		0.5~16A/120V AC 0.5~8A/240V AC
	Inductive load	Full load	0.5~16A/120V AC 0.5~8A/240V AC
		Locked rotor	96A/120V AC 48A/240V AC
	Pilot duty		125VA/240V DC

Scan the QR Code for a video of a KPU 19 temperature control replacement or visit http://bit.ly/KPU19_video

KPU 60/70 - Thermostats

KPU 60/70 thermostats are designed to be technician-friendly by functioning as easy and direct replacements for most controls on the market and feature snap-action switches, highly visible contrast scales, fingertip contact testing, and are easily adjustable using a standard refrigeration wrench.

Features
KPU 60/70



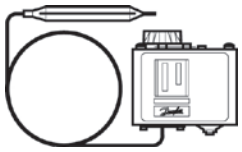
Facts

Applications:

- Traditional refrigeration
- Air conditioning
- Ventilating systems
- Heating systems

- Ambient temperature: –40 °F to +122 °F (175 °F for maximum 2 hours)
- Switch: Single pole double throw (SPDT)
- Enclosure: NEMA 1
- Cable entry: ⅞ inch cable entry for ½ inch male pipe thread connection (conduit boss) or similar screwed cable entry

Technical data and ordering



KPU 60/70 Thermostats

Danfoss Type	Bulb type	Range (°F)	Contact/ Reset	Capillary tube length (in.)	Differential		Maximum bulb temperature (°F)	Competitor part no.	Danfoss Code No.
					at lowest temp. setting	at highest temp. setting			
KPU 61	Straight capillary tube[1]	–20 to 60	SPDT/Auto	80	10 to 40	2.5 to 13	250	O10-1416 O10-1010 O16-111 O10-1419	**060L5201**
KPU 61	Remote air coil[1]	–20 to 60	SPDT/Auto	80	10 to 40	2.5 to 13	250	O10-1408 O10-1409 O10-1473 O16-104 O10-1410	**060L5203**
KPU 62	Room sensor[1]	–20 to 60	SPDT/Auto	Room sensor	10 to 40	2.5 to 13	250	O10-1072 O10-1418 O16-594 O60-101	**060L5206**
KPU 68	Room sensor[1]	25 to 95	SPDT/Auto	Room sensor	8 to 45	3 to 13	250	O10-1802 O16-595 O10-301 O16-165	**060L5215**
KPU 73	Remote bulb[2]	–15 to 60	SPDT/Auto	80	6.5 to 32	5 to 50	175	O60-100 O60-120	**060L5208**
KPU 71	Remote bulb[2]	25 to 70	SPDT/Auto	80	5.5 to 18	4 to 16	175		**060L5218**
KPU 77	Remote bulb[2]	60 to 140	SPDT/Auto	80	6 to 18	6.3 to 18	265	O60-200 A19AAF-12C A19AAB-4C A19ABB-2C A19ABB-7C	**060L5223**

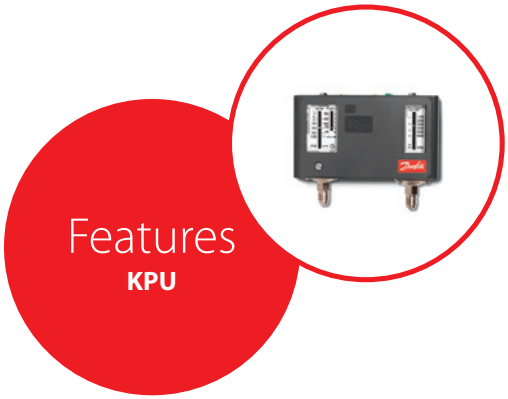
[1] Bulb must be installed in colder position than thermostat housing and capillary tube.
[2] Temperature variations in excess of 70 °F between sensing bulb, housing, and capillary tube will influence scale accuracy.

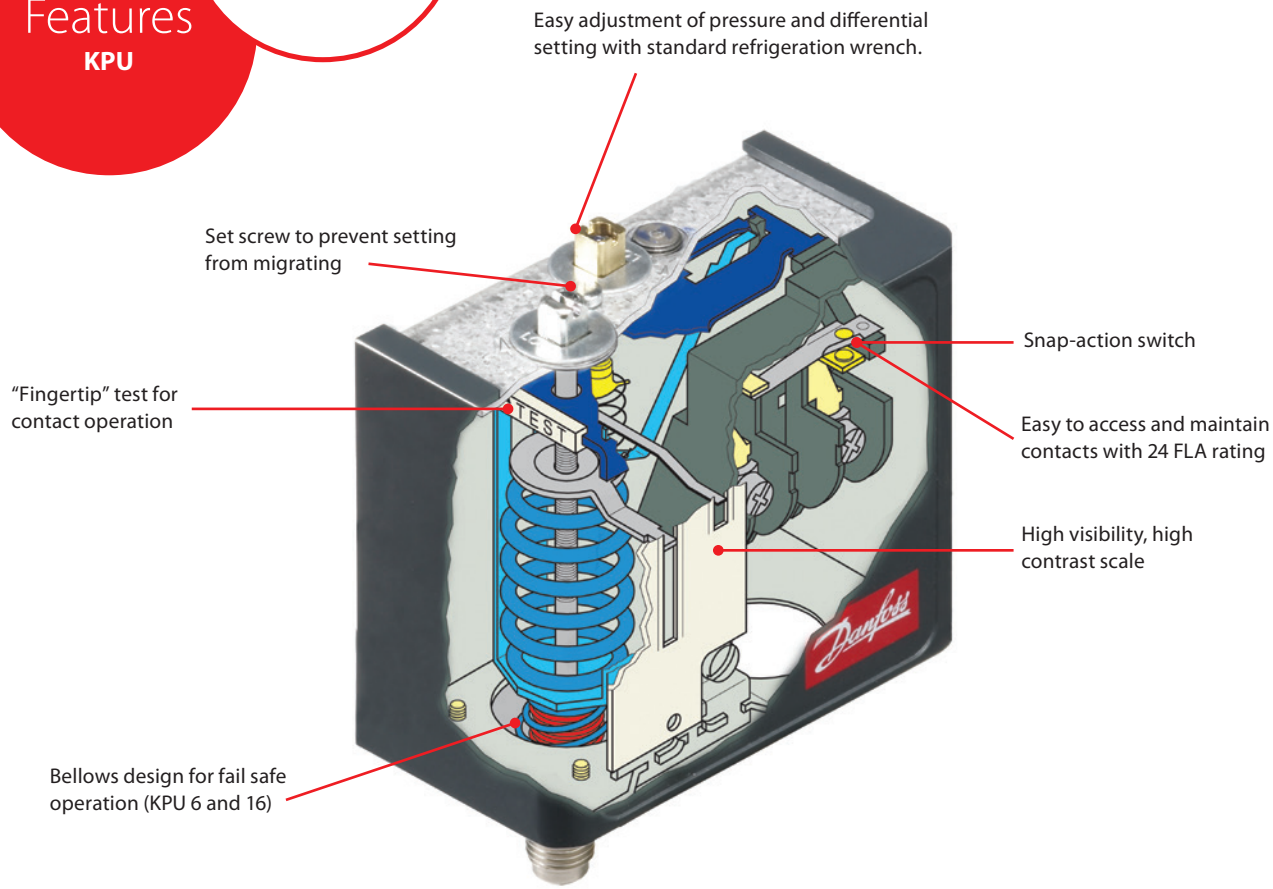
Contact Load	Resistive load		24A/120V AC 24A/240V AC
	Inductive load	Full load	24A/120V AC 24A/240V AC
		Locked rotor	144A/120V AC 144A/240V AC
	Pilot duty		12W/120V DC

Scan the QR Code for a video of a KPU 60/70 temperature control replacement or visit http://bit.ly/KPU6070_video

KPU - Pressure Switches

KPU pressure switches are designed to be contractor friendly and used in refrigeration and air-conditioning systems to protect the systems from excessively low suction or high discharge pressure. They can also be applied to start and stop compressors and the fans of air-cooled condensers. KPU pressure switches, in single and dual versions, cover a comprehensive range of applications and are designed for use with fluorinated and non-aggressive refrigerants. Most KPU pressure controls can be used with R-410a systems with only a few code numbers.





Facts

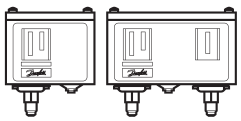
Applications:

- Commercial air conditioning
- Commercial refrigeration
- Supermarket Refrigeration
- Food processing and storage

- Product Types
  - Low Pressure
  - High Pressure
  - Dual Pressure
- Maximum working/test pressure
  - LP controls: 245/290 psig
  - HP controls: 505/505 psig
  - KPU 6 and 16 on HP side: 675/675 psig

- Refrigerants: R-22, R-134a, R-404A, R-407A, R-407C, R-407F, R-422B, R-422D, R-438A, R-448A, R-449A, R-450A, R-452A, R-507A, R-513A, R-410A (only KPU 1, 2, 6, 16)
- Ambient temperature: –40 to +150 °F (175 °F for max. 2 hours)
- Enclosure: NEMA 1
- Cable entry: ⅞ inch cable entry for ½ inch male pipe thread connection (conduit boss) or similar screwed cable entry
- Pressure connection: ¼ inch M flare or 36 inch capillary tube with ¼ inch flare nut
- KPU 6W, 6B, and 16B feature "dual bellows" on high pressure side to prevent leaks in the case of a bellows rupture

Technical data and ordering



KPU Pressure Switches

Danfoss Type	Pressure	Reset	Contact system	Range (in. Hg/psig)	Differential (psig)	Max. working pressure (psig)	Competitor part no.[1]	Danfoss Code No.	
								¼ in. M flare	36 in. capillary tubes with ¼ in. flare nuts
KPU 1	Low	Automatic	SPDT	6 to 108	10 to 60	250	O10-1483 P70AB-2C	**060-5231**	**060-5233**
KPU 2	Low	Automatic	SPST (NO)	6 to 73	6 to 30	250	O10-1402 P70AB-12C P170AB-12C	**060-5237**	**060-5235**
KPU 2	Low	Automatic	SPDT	6 to 73	6 to 30	250		**060-5239**	**060-5240**
KPU1B	Low	Manual	SPDT	28 to 100	10.2	250		**060-5232**	**060-5234**
KPU 5	Fan cycling	Automatic	SPST (NO)	100 to 465	25 to 85	510	O10-2054 P70AA-118C	**060-5241**	**060-5242**
KPU 6W[2]	High	Automatic	SPDT	100 to 600	58 to 145	675	O16-108 P170CA-400C P70CA-3C	**060-5243**	**060-5245**
KPU 6B[2]	High	Manual	SPDT	100 to 600	60	675	P70DA-1C	**060-5244**	**060-5246**

KPU Dual Pressure Switches

Danfoss Type	Low pressure side		High pressure side		Rest		Contact system (LP/HP)	Max. working pressure (low/high side) (psig)	Competitor part no.[1]	Danfoss Code No.	
	Range (in. Hg/psig)	Differential (psig)	Range (psig)	Differential (psig)	Low pressure side	High pressure side				¼ in. M flare	36 in. capillary tubes with ¼ flare nuts
KPU 15	6 to 108	10 to 60	100 to 465	60	Automatic	Automatic	SPST (NO/NC)	250/510	O12-1549 P170LB-1C	**060-5247**	**060-5248**
KPU 15B	6 to 108	10 to 60	100 to 465		Automatic	Manual	SPST (NO/NC)	250/510	P70LB-1C P70MA-1C	**060-5249**	**060-5250**
KPU 16B	6 to 108	10 to 60	100 to 600		Convertible[3]	Convertible[3]	SPDT/ SPST (NO)	250/675	O12-4834 P170LB-1C P70LB-1C P70MA-1C	**060-5253**	**060-5254**

[1] Competitor part no. equipped with capillary tube for all but P170LB-1C which has flare connections.

[2] KPU 6 and the high pressure side of KPU 16 are designed with fail-safe double bellows.

[3] Convertible reset controls can be adjusted for either automatic or manual reset. Adjust reset setting to match product being replaced.

All controls are supplied with universal mounting bracket and mounting screws.

Ambient tempature: –40 °F to +122 °F (175 °F for maximum 2 hours).

KPU 1, 2, 6, 16 suitable for all HFC refrigerants, including R-410A.

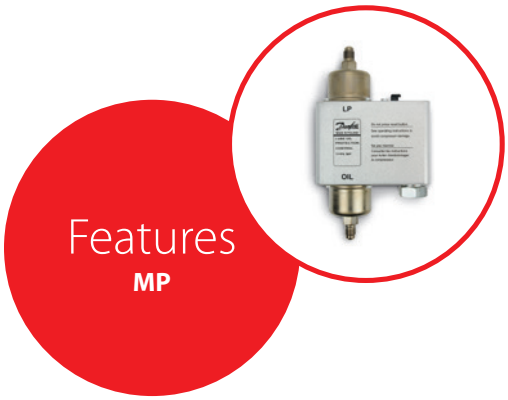
	120/240 VAC
Alternating Current	
Motor Full Load Amps (FLA)	24
Locked Rotor Amps (LRA)	144
Direct Current	240 V DC: 12W pilot duty

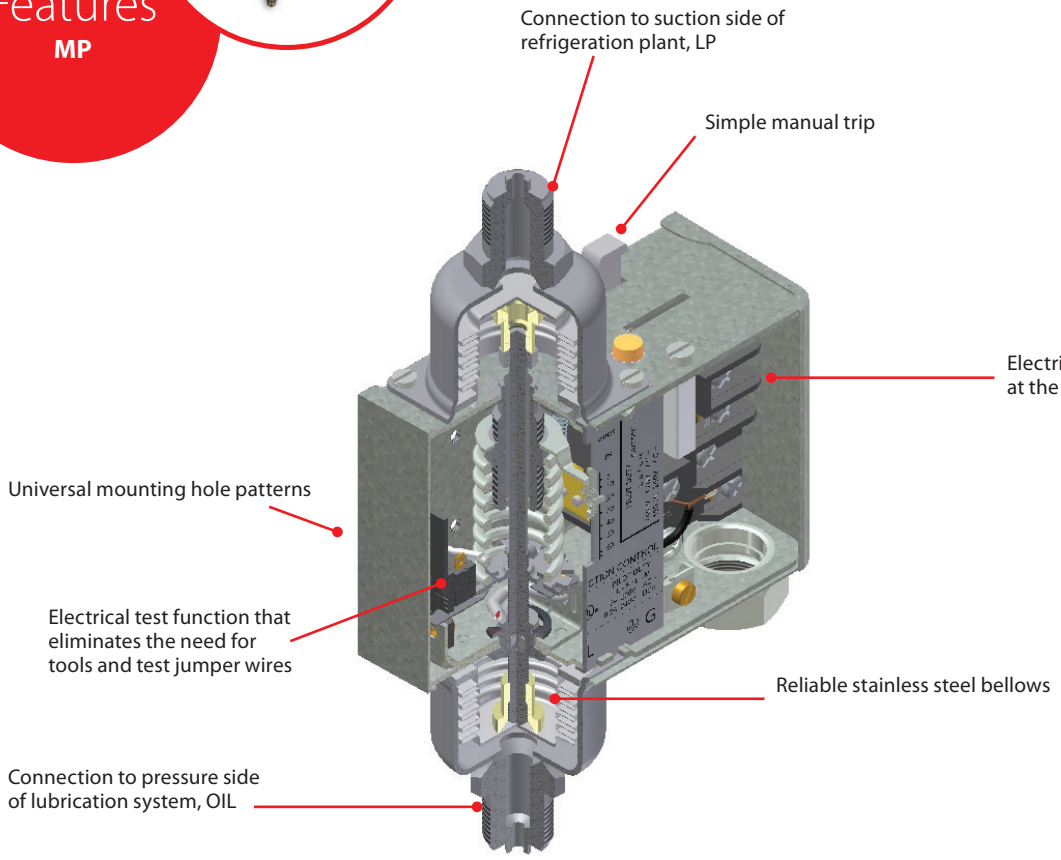
Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Capillary tube; 39 in. with ¼ in. flare coupling nuts on each end	KPU with ¼ in. M flare	**060-017166**

MP - Differential Pressure Switch / Lube Oil Protection Switch

MP 54 and MP 55 oil differential pressure switches are used to protect refrigeration compressors against low oil pressure. These switches are compatible with HCFC and non-flammable HFC refrigerants.



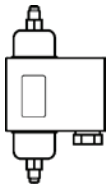


Facts

Applications:

- Commercial refrigeration
- Commercial air conditioning
- Supermarket Refrigeration
- Food processing and storage

- Product Types
  - Fixed Differential (MP 54)
  - Adjustable Differential (MP 55)
- Refrigerants: HCFC and non-flammable HFC refrigerants
- Max working/test pressure: 245 psig/320 psig
- Ambient temperature: The time relay is temperature-compensated in the range –40 °F to +140 °F
- Enclosure: ~NEMA 1
- Cable entry: Integral ½ inch female NPSM swivel cable connector for ½ inch male pipe thread connector.
- Pressure connection: ¼ inch M flare or 36 inch capillary tube with ¼ inch flare nut



Technical data and ordering

MP - Differential Pressure Control / Lube Oil Protection Control

Danfoss Type	Control differential Δp (psig)	LP side Regulation range (in. Hg/psig)	Time relay delay time seconds	Competitor Code Nos.	Danfoss Code No.	Competitor Code Nos.	Danfoss Code No.
				¼ in. M flare		36 in. capillary tubes with ¼ in. flare nuts	
MP54	6	29 to 175	45	P145NCA/B-82C	**060B200891**	P45NCA-82C 3321-009	**060B205091**
	9	29 to 175	90	3321-001	**060B200266**		
	9	29 to 175	120	P145NCA/B-12C P31-5827 3321-001	**060B200391**[2]	P45NCA-12C P30-5826 3321-010	**060B205391**[2]
MP55	4.3 to 65	29 to 175	45			P288AA-18/2C P30-3601 3321-014/5[3]	**060B205491**
	4.3 to 65	29 to 175	60	P128AA-2C	**060B201291**[1]		
	4.3 to 65	29 to 175	120	P128AA-17C	**060B200791**	P28AA-17C P28NA-5C P30-3801 3321-014/5[3]	**060B205791**

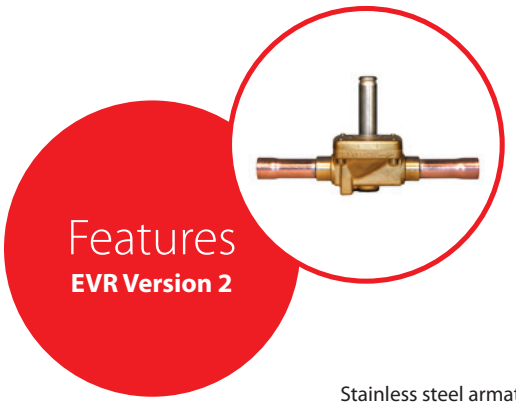
[1] With glow lamp that remains on during normal operation of compressor.
Note: When time delay is energized which also means that min. permissible oil pressure (differential Δp) is reached, light goes out.
[2] Three-wire hook-up with jumper that is provided in the box with control.
[3] The 3321 series controls feature adjustable delay and fixed differential. The differential for 3321-014 controls is set at 15 psig and 3321-015 is at 30 psig. Select control with appropriate delay time.

Spare Parts and Accessories

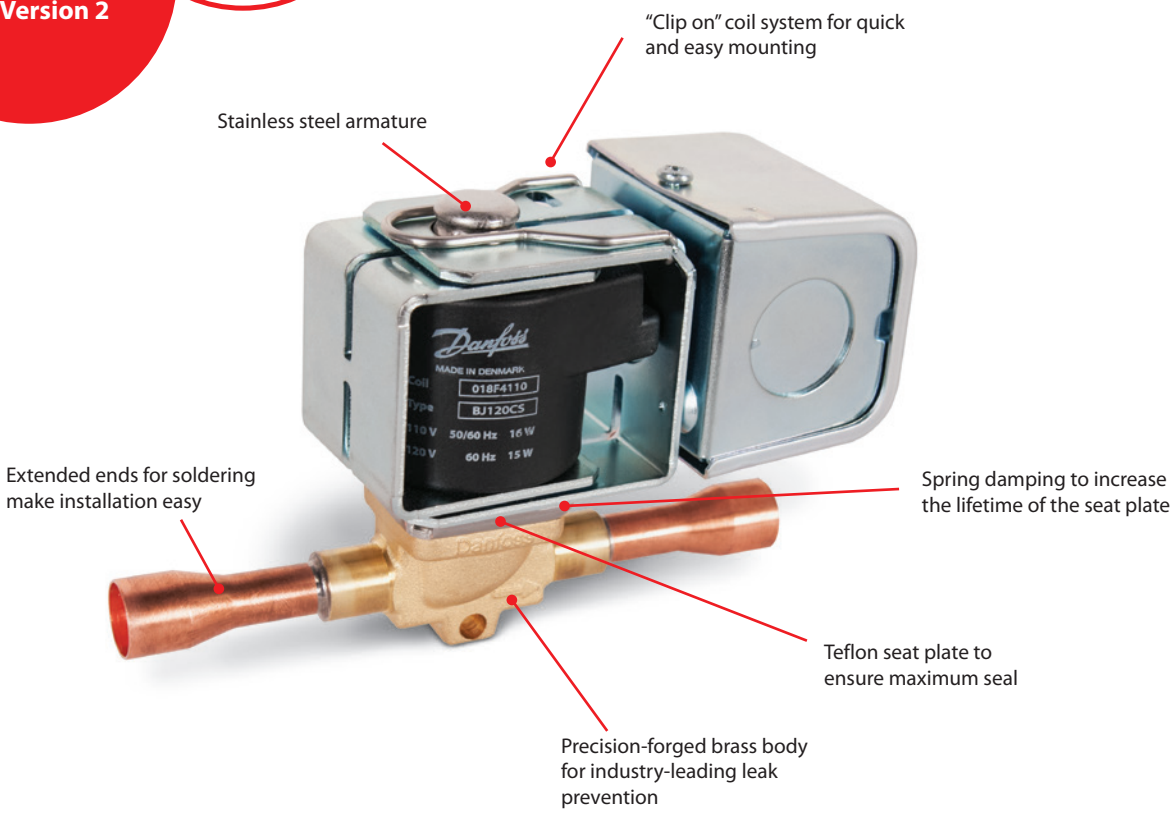
Description	Type(s) applied to	Danfoss Code No.
Capillary tube; 39 in. with ¼ in. flare coupling nuts on each end	MP with ¼ in. M flare	**060-017166**

EVR Version 2 - Solenoid Valves

EVR Version 2 solenoid valves are direct or servo-operated solenoid valves for liquid, suction, and hot gas lines. They are suitable for all refrigeration, freezing, and air conditioning applications and are compatible with fluorinated refrigerants. The valves can be delivered as normally open or closed as well as with or without manual operation.



Features
EVR Version 2



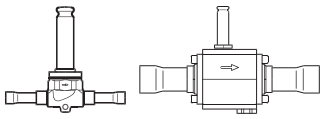
Facts

Applications:

- Commercial refrigeration
- Freezers
- Air conditioning units
- Commercial refrigeration
- Supermarket Refrigeration

- Refrigerants: Use with any fluorinated refrigerant
- Maximum working pressure:
  - EVR 2–EVR 8: 655 psig
  - EVR 10: 655 psig
  - EVR 15–EVR 40: 655 psig
- Temperature range: –40 °F to +220 °F
- Connections:
  - Flare connections up to ⅝ inch
  - Solder connections up to 2 ⅛ inch
- Available in normally open and normally closed
- Available with or without manual stem
- Coil available with junction box (NEMA 2) and conduit boss (NEMA 4)

Technical data and ordering



EVR Version 2 Solenoid valves

Danfoss Type	Rated capacity (liquid tons)			Solder ODF connection (in.)	Port size (in.)	Max. working pressure (psig)	Danfoss Code No.[1]	
	R-22 / R-407C	R-134a	R-404A / R-507A				with manual stem	without manual stem
EVR 3	1.66	1.54	1.07	¼	⅛	655		**032F1206**
EVR 3	1.66	1.54	1.07	⅜	⅛	655		**032F1204**
EVR 6	5.47	5.07	3.51	⅜	15⁄64	655	**032L7116**	**032L1212**
EVR 6	5.47	5.07	3.51	½	15⁄64	655	**032L7144**	**032L1209**
EVR 8	6.52	6.03	4.18	½	5⁄16	655	**032L7148**	**032L7121**
EVR 10	11.50	10.64	7.38	⅝	⅜	655	**032L7149**	**032L1214**
EVR 15	17.71	16.39	11.37	⅝	9⁄16	655		**032L1228**
EVR 18	23.18	21.46	14.88	⅞	19⁄32	655	**032L1004**	
EVR 20	36.76	34.04	23.60	⅞	⅞	655	**032L1254**	**032L1240**
EVR 22	41.93	38.82	26.92	1 ⅛	15⁄16	655	**032L7137**	**032L7145**
EVR 25	60.19	55.72	38.64	1 ⅜	1	655	**032L2207**	**032L2208**
EVR 32	102.85	95.23	66.03	1 ⅝	⅞	655	**032L1103**	**032L1104**

[1] Valve body is normally closed (NC) and excludes coil. Additional code nos. available in Coolselector or contact Danfoss.

Coils for Solenoid Valves

Voltage (V)	Freqency (Hz)	Power consumption (W)	Danfoss Type (junction box)[2]	Length of wire (in.)	Danfoss Code no.	Danfoss Type (conduit boss)[3]	Length of wire (in.)	Danfoss Code No.
24	50/60	14	BJ024CS	7	**018F4100**	BX024CS	18	**018F4102**
110	50/60	16	BJ120CS	7	**018F4110**	BX120CS	18	**018F4112**
120	60	15						
208–240	60	14	BJ240CS	7	**018F4120**	BX240CS	18	**018F4122**
230	50	17						

[2] Enclosure rating for BJ coils is NEMA 2 ~ IP 12-32 [3] Enclosure rating for BX coils is NEMA 4 ~ IP 54

Dual Voltage/Dual Frequency Coil

Coil Type	Voltage (V)	Freqency (Hz)	Power consumption (W)	Danfoss Type (junction box)[4]	Length of wire (in.)	Danfoss Code no.	Danfoss Type (conduit boss)[5]	Length of wire (in.)	Danfoss Code No.
EVR	110	50	12	BT240CS	7	**018F4180**	BU240CS	7	**018F4181**
	110-120	60							
	230	50							
	208-240	60							

[4] Enclosure rating for BT coils is NEMA 2 ~ IP 12-32 [5] Enclosure rating for BU coils is NEMA 4 ~ IP 54

Spare Parts and Accessories

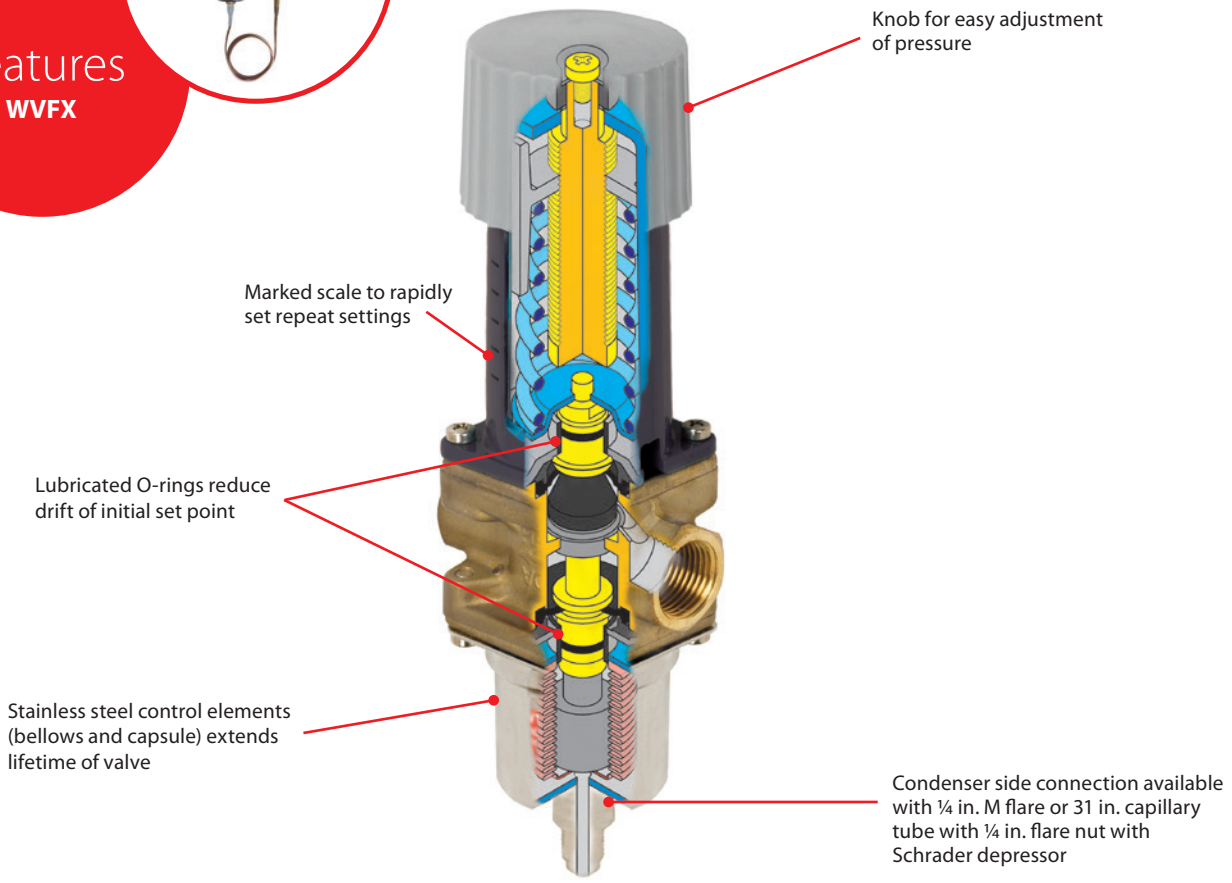
Description	Version(s) applied to	Type(s) applied to	Danfoss Code No.
Permanent magnet coil for servicing and testing	1, 2	all	**018F0091**
Service kit (NC); O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1, 2	EVR 3	**032F0181**
Seal kit (NC); O-ring for armature tube, rubber gasket, O-ring for steel cover, support ring	1	EVR 6, 8	**032F8165**
Service kit (NC); diaphragm assembly, O-ring for armature tube, (4) screws T20, (4) screws T15, armature assembly, rubber gasket, O-ring for steel cover, support ring, compression spring	1	EVR 6, 8	**032F8166**
Seal kit (NC/NO); O-ring for armature tube, rubber gasket, support ring	2	EVR 6, 8	**032L0548**
Service kit (NC); diaphragm assmbly, O-ring, (4) screws, armature assembly, rubber gasket, support ring, compression ring	2	EVR 6, 8	**032L0550**
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1	EVR 10	**032F0185**
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, compression spring	2	EVR 10	**032L0552**
Seal kit (NC/NO); O-ring for armature tube, (3) rubber gasket (1 ea. for EVR 10, 15, 20) (4) refrigeration gasket (2 ea. For EVR 15, 20)	1, 2	EVR 10, 15, 20	**032F8196**
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, (2) refrigeration gasket (flange connections), compression spring	2	EVR 15, 18, 20, 22	**032L0554**
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 15, 18	**032F0187**
Service kit (NC); diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 20, 22	**032F0189**
Manual spindle; spindle assembly	1	EVR 20, 22	**032F0193**
Seal kit (NC); (2) Al. gasket, (3) O-rings, rubber gasket	1, 2	EVR 25	**032F2326**
Piston service kit (NC); (2) O-ring, compression spring, piston assembly, insert block, rubber gasket, piston ring	1, 2	EVR 25	**032F3236**
Piston service kit (NC); (5) O-rings, Al. gasket, piston assembly, insert block, piston ring, compression spring, refrigeration gasket	1, 2	EVR 32	**042H0172**
Pilot service kit (NC); (2) Al. gaskets, O-ring, orifice, armature tube, armature assembly, compression spring	1, 2	EVR 25, 32	**042H0165**
Seal kit (NC); (4) O-rings, (2) Al. gaskets	1, 2	EVR 32	**032F2327**

To determine the version of EVR, read the code number engraved on the armature. Codes beginning with 032F, 032G and 042H are V1; codes beginning with 032L are V2. Kits for types not included in catalog may be available; contact Danfoss for more information.

WVFX - Pressure Controlled Water Valves

Pressure controlled water valves type WVFX are used for regulating the flow of water in refrigeration systems with water cooled condensers. Water valves regulate water flow and thereby maintain constant condensing pressure. At shut-down, cooling water flow is shut off automatically. WVFX valves are designed as wide-range, general purpose water valves, and are particularly popular among contractor customers for their easy to set scale and exceptional set point stability.

Features
WVFX



Facts

Applications:

- Refrigeration systems with water-cooled condensers

- Refrigerants: HCFC and HFC
- Connections
  - Water side: ⅜ inch to 1 inch (NPT)
  - Condenser side: ¼ inch M flare or 31 inch capillary tube with ¼ inch flare nut with Schrader depressor
- Max working/test pressure
  - Water side: 380/420 psig or 655/870 psig
  - Condenser side: 230/350 psig
- Opens on rising condensing pressure

Technical data and ordering

WVFX - Pressure Controlled Water Valves

Danfoss Type	Competitor Part No.	Connection		Range (psig)	Condenser side		Water side		Flow coefficient, Cv valve (gal/min)	Danfoss Code No.
		Water side (NPT)	Condenser side		Maximum working pressure (psig)	Maximum test pressure (psig)	Maximum working pressure (psig)	Maximum test pressure (psig)		
WVFX 10	V46AA-1C[1]	⅜	¼ in. M flare	60 to 333	380	420	230	350	1.6	**003N5006**
WVFX 10	V46AA-1C	⅜	31 in. capillary tube with ¼ in. flare nut [2]						1.6	**003N5025**
WVFX 15	V46AB-1C[1]	½	¼ in. M flare						2.2	**003N6006**
WVFX 15	V46AB-1C	½	31 in. capillary tube with ¼ in. flare nut [2]						2.2	**003N6025**
WVFX 20	V46AC-1C[1]	¾	¼ in. M flare						3.9	**003N7006**
WVFX 20	V46AC-1C	¾	31 in. capillary tube with ¼ in. flare nut [2]						3.9	**003N7025**
WVFX 25	V46AD-1C[1]	1	¼ in. M flare						6.4	**003N8006**
WVFX 25	V46AD-1C	1	31 in. capillary tube with ¼ in. flare nut [2]						6.4	**003N8025**

[1] Competitor valve equipped with capillary tube as in code no. directly below. See below for capillary tube spare part (code no. 060-017166) to attach to this code no.
[2] Schrader depressor installed at end of capillary tube.
Length of valve from top of knob to bottom of control element is 8.07 in. for WVFX 10, 15, 20, and 8.46 in. for WVFX 25.
Temperature range: –13 to +265 °F
Maximum differential pressure: 145 psig

WVFX – Pressure Controlled Water Valves for High Pressure Refrigerants

Danfoss Type	Competitor Part No.	Connection		Range (psig)	Condenser side		Water side		Flow coefficient, Cv valve (gal/min)	Danfoss Code No.
		Water side (NPT)	Condenser side		Maximum working pressure (psig)	Maximum test pressure (psig)	Maximum working pressure (psig)	Maximum test pressure (psig)		
WVFX 10	V246GA1-001C	⅜	¼ in· M flare	218 to 420	655	870	232	348	1.6	**003N1810**
WVFX 15	V246GB1-001C	½							2.2	**003N2810**
WVFX 20	V246GC1-001C	¾							3.9	**003N3810**
WVFX 25	V246GD1-001C	1							6.4	**003N4810**

Temperature range: –13 to 265 °F
Maximum differential pressure: 145 psig

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Rebuild kit; valve disc, (2) O-rings, (8) screws, (2) diaphragms, grease, and key	WVFX 10,15	**003N4006**
Rebuild kit; valve disc, (2) O-rings, (8) screws, (2) diaphragms, grease, and key	WVFX 20	**003N4007**
Rebuild kit; valve disc, (2) O-rings, (8) screws, (2) diaphragms, grease, and key	WVFX 25	**003N4008**
Capillary tube; 39 in. (1m) with ¼ in. (6mm) flare coupling nuts on each end	WVFX with ¼ M flare	**060-017166**
Bracket for WVFX 10–25	all	**003N0388**

KVP/KVL/KVR/NRD/KVC/CPCE - Pressure Regulators

Danfoss has a variety of pressure regulators to control the low and high pressure sides and efficient function of a refrigeration system under varying load conditions.

Pressure regulators include:

- Evaporator Pressure Regulator (KVP)
- Crankcase Pressure Regulator (KVL)
- Condensing Pressure Regulator (KVR)
- Differential Pressure Regulator (NRD)
- Hot Gas Bypass Valves (KVC/CPCE)

KVP/KVL/KVR/ NRD/KVC/CPCE

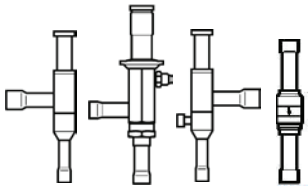
Facts

- All valves available for use with any CFC, HCFC, or HFC refrigerant, except R-410A
- Very stable and accurate pressure regulation
- Hermetic brazed construction 100% leak tested
- Available with flare and ODF solder connections
- Stainless steel bellows for extended lifetime
- Built-in valve seat dampening design
- Pressure regulation side

  KVP/KVR—opens on a rise in pressure

  KVC/KVL—opens on a fall in pressure

Technical data and ordering



KVP/KVL/KVR/NRD/KVC/CPCE - Pressure Regulators

Application	Danfoss Type	Rated capacity (tons)				Solder ODF connection (in.)	Setting range (psig)	Factory setting (psig)	Maximum working pressure (psig)	Maximum test pressure (psig)	Minimum temp. of medium (°F)	Maximum temp of medium (°F)	Danfoss Code No.
		R-22	R-134a	R-404A	R-407C								
Evaporating Pressure Regulator	KVP 12	1.30	0.90	1.20	1.20	½	0 to 80	29	260	286	–50	265	**034L0023**
	KVP 15	1.30	0.90	1.20	1.20	⅝	0 to 80	29	260	286	–50	265	**034L0029**
	KVP 22	1.30	0.90	1.20	1.20	⅞	0 to 80	29	260	286	–50	265	**034L0025**
	KVP 28	2.80	1.90	2.40	2.60	1 ⅛	0 to 80	29	260	286	–50	265	**034L0026**
	KVP 35	2.80	1.90	2.40	2.60	1 ⅜	0 to 80	29	260	286	–50	265	**034L0032**
Crankcase Pressure Regulator	KVL 12	1.20	0.80	1.00	1.10	½	3 to 87	29	260	286	–75	266	**034L0043**
	KVL 15	1.20	0.80	1.00	1.10	⅝	3 to 87	29	260	286	–75	266	**034L0049**
	KVL 22	1.20	0.80	1.00	1.10	⅞	3 to 87	29	260	286	–75	266	**034L0045**
	KVL 28	4.10	2.60	3.40	3.80	1 ⅛	3 to 87	29	260	286	–75	266	**034L0046**
	KVL 35	4.10	2.60	3.40	3.80	1 ⅜	3 to 87	29	260	286	–75	266	**034L0052**
Condensing Pressure Regulator	KVR 12	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	½	73 to 254	145	406	450	–50	266	**034L0093**
	KVR 15	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	⅝	73 to 254	145	406	450	–50	266	**034L0097**
	KVR 22	Liquid: 12.70 Hot gas: 4.13	Liquid: 11.80 Hot gas: 3.03	Liquid: 8.20 Hot gas: 3.27	Liquid: 13.80 Hot gas: 4.50	⅞	73 to 254	145	406	450	–50	266	**034L0094**
	KVR 28	Liquid: 32.60 Hot gas: 10.93	Liquid: 30.20 Hot gas: 8.04	Liquid: 20.90 Hot gas: 8.66	Liquid: 35.50 Hot gas: 11.91	1 ⅛	73 to 254	145	406	450	–50	266	**034L0095**
	KVR 35	Liquid: 32.60 Hot gas: 10.93	Liquid: 30.20 Hot gas: 8.04	Liquid: 20.90 Hot gas: 8.66	Liquid: 35.50 Hot gas: 11.91	1 ⅜	73 to 254	145	406	450	–50	266	**034L0100**
Differential Pressure Regulator	NRD 12s[1]					½	73 to 254	145	667	870	–50	266	**020-1132**
Hot Gas Bypass	KVC 12	2.14	1.36	2.02	2.31	½	3 to 87	29	406	450	–50	266	**034L0143**
	KVC 15	4.17	2.65	3.93	4.50	⅝	3 to 87	29	406	450	–50	266	**034L0147**
	KVC 22	5.35	3.41	5.04	5.78	⅞	3 to 87	29	406	450	–50	266	**034L0144**
	CPCE 12	6.20	4.30	6.30	6.70	½	0 to 87	5.8	406	450	–58	285	**034N0082**
	CPCE 15	9.20	6.30	9.10	9.90	⅝	0 to 87	5.8	406	450	–58	285	**034N0083**
	CPCE 22	12.20	8.40	12.10	12.20	⅞	0 to 87	5.8	406	450	–58	285	**034N0084**

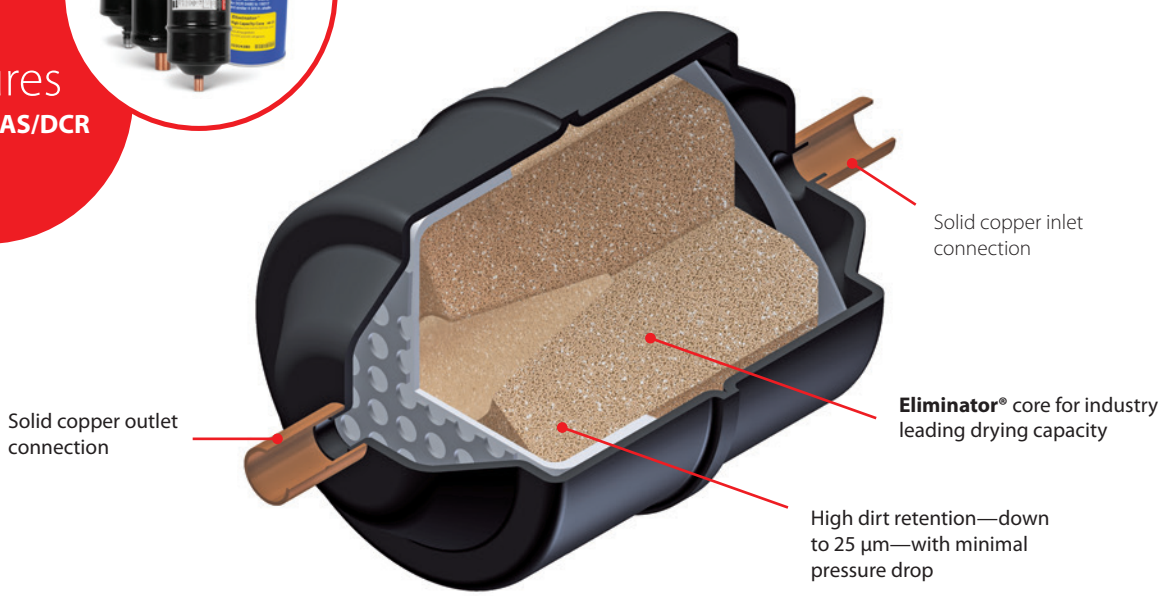
[1] NRD generally used in conjunction with a KVR to regulate the condensing pressure.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Schrader valve	all KVP, KVR	**034L0006**

DCL/DCB/DAS/DCR - Filter Driers

Danfoss filter driers function as simple drop-in replacements for most driers sold in the aftermarket or installed on equipment by manufacturers. All Danfoss filter driers are constructed with a solid core design to maximize moisture removal while minimizing pressure drop. These driers use a mixture of molecular sieve and activated alumina to both adsorb system moisture and capture acid and prevent solid contaminants from entering the system. The Danfoss 1.5 cubic inch hermetic filter drier can be used in hydrocarbon systems to provide exceptional protection while minimizing charge requirements.



Nomenclature / Model No.

D A S 16 4 s VV

Filter drier

Solid Core
A: Core with 30% molecular sieve/ 70% activated alumina (burn-out)
C: Core with 80% molecular sieve/ 20% activated alumina
M: Core with 100% molecular sieve

Application
B: Bi-flow
L: Liquid line
S: Suction line

Size (volume)
1.5: 1.5 in.^{3}
03: 3 in.^{3}
05: 5 in.^{3}
08: 8 in.^{3}
16: 16 in.^{3}
30: 30 in.^{3}
41: 41 in.^{3}
60: 60 in.^{3}
75: 75 in.^{3}

Connection
(filter connection in ⅛ in. increments)
2/CAP: ¼ in. inlet x cap tube outlet
2: ¼ in.
2.5: 5/16 in.
3: ⅜ in.
4: ½ in.
5: ⅝ in.
6: ¾ in.
7: ⅞ in.
9: 1 ⅛ in.

Connection type
(blank): Flare connection
s: Solder connection

Access valves

	Inlet	Outlet
(blank)	none	none
V	Schrader valve	none
VV	Schrader valve	Schrader valve

Technical data and ordering

DCL/DCB Liquid Line/Bi-flow Filter Driers

Danfoss Type	Connection (in.)	Max. working pressure (psig)	Drying capacity (lbs. of refrigerant)[2]								Liquid capacity (tons)[2]				Danfoss Code No.
			R-134a		R-404A		R-22		R-410A		R-134a	R-404A	R-22	R-410A	
			75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F					
DCL 1.52/2.8mms	¼ solder	667	5.10	4.60	5.30	5.10	5.10	4.60	4.60	4.20	0.80	0.50	0.90	0.80	**023Z8255**
DCL 032s	¼ solder	667	8.50	8.00	9.10	8.70	8.60	8.00	7.80	7.20	1.90	1.42	2.12	2.11	**023Z5013**[1]
DCL 032	¼ flare	667	8.50	8.00	9.10	8.70	8.60	8.00	7.80	7.20	1.90	1.42	2.12	2.11	**023Z5000**[1]
DCL 052s	¼ solder	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	2.18	1.60	2.40	2.37	**023Z5018**
DCL 052	¼ flare	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	2.18	1.60	2.40	2.37	**023Z5002**
DCL 053s	⅜ solder	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	3.66	2.79	4.10	4.15	**023Z5019**
DCL 053	⅜ flare	667	13.60	12.80	14.60	13.80	13.80	12.70	12.40	11.40	3.66	2.79	4.10	4.15	**023Z5003**
DCL 082s	¼ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	2.18	1.55	2.37	2.28	**023Z5022**
DCL 082	¼ flare	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	2.18	1.55	2.37	2.28	**023Z5004**
DCL 083s	⅜ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	4.03	3.12	4.56	4.65	**023Z5023**
DCL 084s	½ solder	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	8.14	6.07	9.03	8.99	**023Z5026**
DCL 084	½ flare	667	21.70	20.50	23.30	22.10	22.00	20.30	19.80	18.20	8.14	6.07	9.03	8.99	**023Z5006**
DCL 162	¼ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	2.18	1.54	2.36	2.28	**023Z5007**
DCL 163s	⅜ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	4.64	3.18	4.95	4.67	**023Z5029**
DCL 163	⅜ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	4.64	3.18	4.95	4.67	**023Z5008**
DCL 164s	½ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	9.15	6.69	10.07	9.90	**023Z5032**
DCL 165s	⅝ solder	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	12.69	10.41	14.74	15.59	**023Z5033**
DCL 165	⅝ flare	667	47.70	45.10	51.30	48.60	48.30	44.70	43.50	40.10	12.69	10.41	14.74	15.59	**023Z5010**
DCL 303s	⅜ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	4.46	3.00	4.72	4.40	**023Z0030**
DCL 303	⅜ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	4.46	3.00	4.72	4.40	**023Z0012**
DCL 304s	½ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	9.24	7.11	10.41	10.58	**023Z0031**
DCL 304	½ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	9.24	7.11	10.41	10.58	**023Z0013**
DCL 305s	⅝ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	13.00	10.51	14.99	15.72	**023Z0032**
DCL 305	⅝ flare	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	13.00	10.51	14.99	15.72	**023Z0014**
DCL 307s	⅞ solder	667	100.50	95.00	108.00	102.40	101.80	94.10	91.60	84.40	18.27	15.34	21.44	23.05	**023Z0034**
DCL 415s	⅝ solder	667	139.50	131.90	150.00	142.20	141.30	130.70	127.30	117.30	15.78	11.9	17.61	17.66	**023Z0105**
DCL 417s	⅞ solder	500	139.50	131.90	150.00	142.20	141.30	130.70	127.30	117.30	18.98	16.01	22.32	24.08	**023Z0106**
DCL 607s	⅞ solder	667	200.90	189.90	216.00	204.80	203.50	188.20	183.30	168.90	19.93	19.94	25.16	30.71	**023Z0036**
DCB 083s	⅜ solder	667	15.60	14.70	16.70	15.80	15.60	14.50	14.10	13.00	2.10	1.50	2.30	2.30	**023Z1433**
DCB 163s	⅜ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	5.10	3.70	5.70	5.70	**023Z1437**
DCB 164s	½ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	8.00	5.70	9.10	9.10	**023Z1436**
DCB 165s	⅝ solder	667	29.30	27.70	31.50	29.90	29.70	27.50	26.80	24.60	10.60	8.30	11.40	11.40	**023Z1435**

[1] Wire mesh in filter drier outlet.

DAS Suction Line Filter Driers

Danfoss Type	Connection (in.)	Max. working pressure (psig)	Rated capacity (tons)[2]			Acid capacity (oz.)	Danfoss Code No.
			R-134a	R-404A	R-22 R-410A		
DAS 164sVV	½ solder	500	1.70	2.40	6.30	0.30	**023Z1009**
DAS 165sVV	⅝ solder		2.70	3.70	4.30	0.30	**023Z1010**
DAS 166sVV	¾ solder		3.40	4.90	5.70	0.30	**023Z1011**
DAS 167sVV	⅞ solder		3.90	5.40	6.30	0.30	**023Z1012**
DAS 306sVV	¾ solder		4.00	5.40	6.30	0.64	**023Z1014**
DAS 307sVV	⅞ solder		4.60	6.30	7.40	0.64	**023Z1015**
DAS 309sVV	1⅛ solder		5.70	7.70	8.90	0.64	**023Z1016**
DAS 419sVV	1⅛ solder		6.30	8.60	10.00	0.86	**023Z1018**

[2] For rated capacities for R-290, R-600, R-448A, R-449A, R-452A, and other HFO, HC, HFC, and HCFC refrigerants not listed, see Coolselector or contact Danfoss.

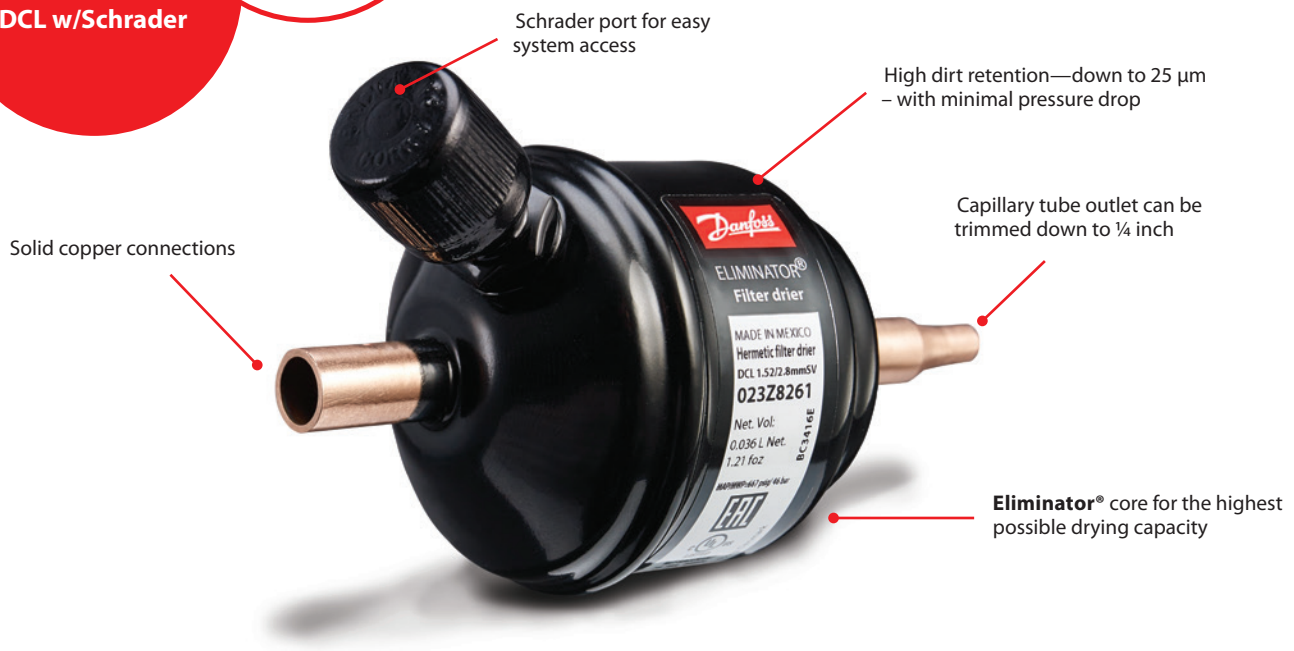
DCR Filter Drier Cores

Danfoss Type	Material	Danfoss Code No.
DCR core insert, type 48-DM solid core	100% molecular sieve	**023U1392**
DCR core insert, type 48-DC solid core	80% molecular sieve & 20% activated alumina	**023U4381**
DCR core insert, type 48-DA solid core	30% molecular sieve & 70% activated alumina	**023U5381**
DCR core insert, type 48-F strainer		**023U1921**

DCL with Schrader valve - Filter Driers

The Danfoss 1.5 hermetic filter driers include a Schrader valve, making servicing the system easy and convenient, and convertible outlet for fitting on capillary tube or ¼ inch system connection. Thanks to the solid core, Danfoss ELIMINATOR® filter driers offer exceptional drying capacity to protect the system against harmful acids and moisture. The DCL 1.5 cubic inch filter drier with Shrader makes an excellent upgrade in replacing loose bead driers due to superior drying and small internal volume.

Features
DCL w/Schrader



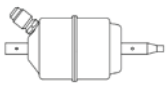
Facts

Applications:

- Traditional refrigeration
- Air conditioning units
- Transport refrigeration

- Connections:
  - Inlet: ¼ inch solder and ¼ inch service port
  - Outlet: Capillary tube outlet can be trimmed down to ¼ inch
- Refrigerants: R-22, R-32, R-134a, R-404A, R-410A, R-407C/F, R-23, R-1234yf, R-1234ze, R-452A, R-444B, R-449A, R-448A, R-450A, R-507. For other refrigerants, please contact Danfoss.
- Available with 1.5, 3, and 5 cubic inch solid core volumes
- 80% molecular sieve and 20% activated alumina core

Technical data and ordering

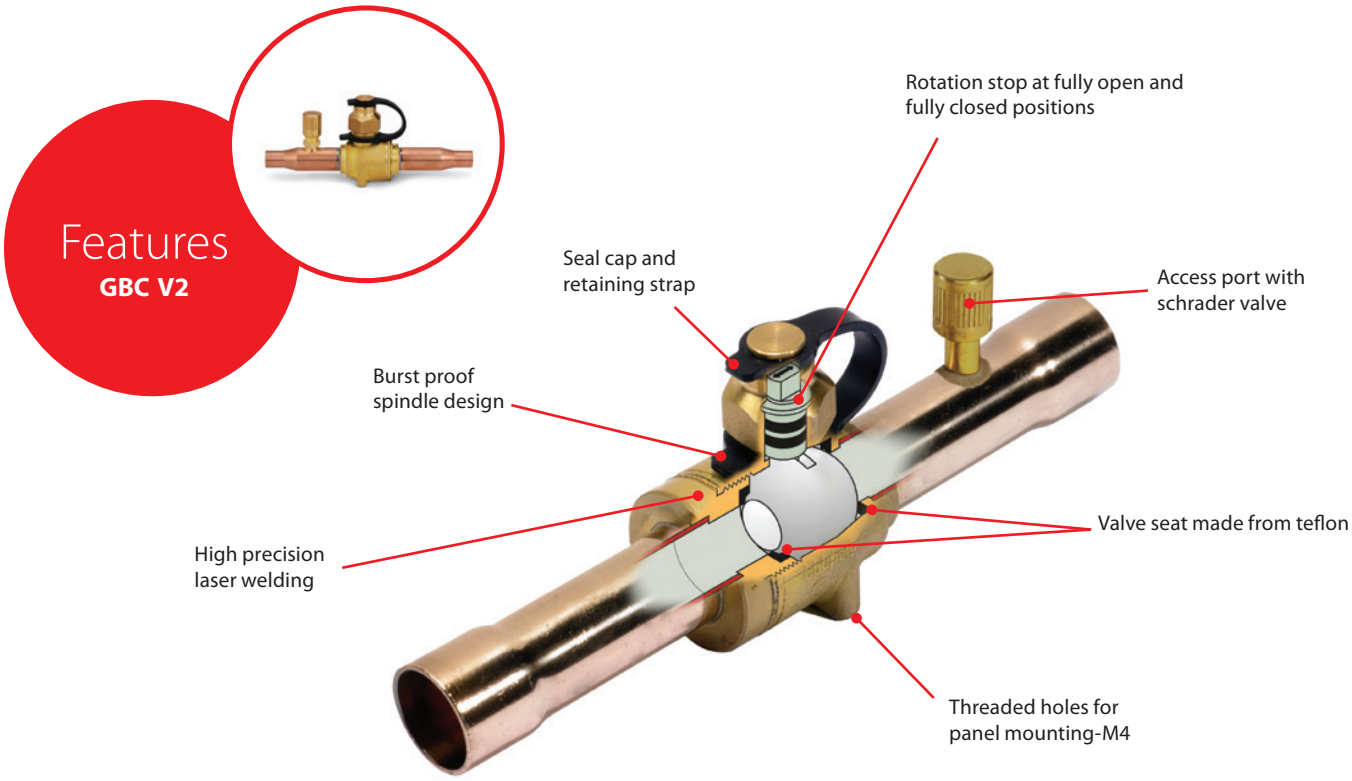


DCL with Schrader valve - Filter Drier

Danfoss Type	Connection inlet (in.)/ outlet	Max. working pressure (psig)	Drying capacity (lbs. of refrigerant)										Liquid capacity (tons)					Danfoss Code No.
			R-134a		R-404A		R-22		R-407C		R-410A		R-134a	R-404C	R-22	R-407C	R-410A	
			75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F	75 °F	125 °F						
DCL 1.52/ CAPsV	¼/capillary tube	667	5.2	4.8	5.5	5.2	5.3	4.9	5.1	4.7	4.7	4.2	1.0	0.7	1.1	1.0	1.0	**023Z8261**
DCL 032/ CAPsV	¼/capillary tube	667	8.4	7.7	8.8	8.3	8.5	7.8	8.2	7.6	7.6	6.8	1.2	0.8	1.3	1.2	1.2	**023Z5174**
DCL 052/ CAPsV	¼/capillary tube	667	13.5	12.4	14.1	13.4	13.6	12.5	13.1	12.1	12.3	10.9	1.2	0.8	1.3	1.2	1.2	**023Z5181**

GBC V2 - Ball Valves

Danfoss GBC ball valves are manually operated shut-off valves suitable for bi-directional flow. The design, weld, and choice of the sealing material enable these ball valves to meet the most demanding requirements and provide years of leak-free performance.



Product Selection

Danfoss Type	Solder ODF connection (in.)	Flow Coefficient, C_v value[1] (gal/min)	Working pressure (psig)	Danfoss Code No.[1]
GBC 6s	¼	2.12	650	**009L8050**
GBC 10s	⅜	9.29		**009L8051**
GBC 12s	½	15.22		**009L8052**
GBC 16s	⅝	18.10		**009L8053**
GBC 18s	¾	25.35		**009L8054**
GBC 22s	⅞	38.54		**009L8065**
GBC 28s	1 ⅛	71.96		**009L8066**
GBC 35s	1 ⅜	107.23		**009L8067**
GBC 42s	1 ⅝	155.78		**009L8068**
GBC 54s	2 ⅛	277.57		**009L8059**
GBC 67s	2 ⅝	424.69		**009L8069**

[1] All valves listed in table above are Full Port.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Ball valve service kit	GBC 6, 10, 12, 16, 18, 22	**009G7012**
Ball valve service kit	GBC 28, 35	**009G7014**
Ball valve service kit	GBC 42, 54, 67	**009G7016**

Codes listed above are for GBC V1; for GBC V2 spare parts and accessories, contact Danfoss.

Seal Cap Kit

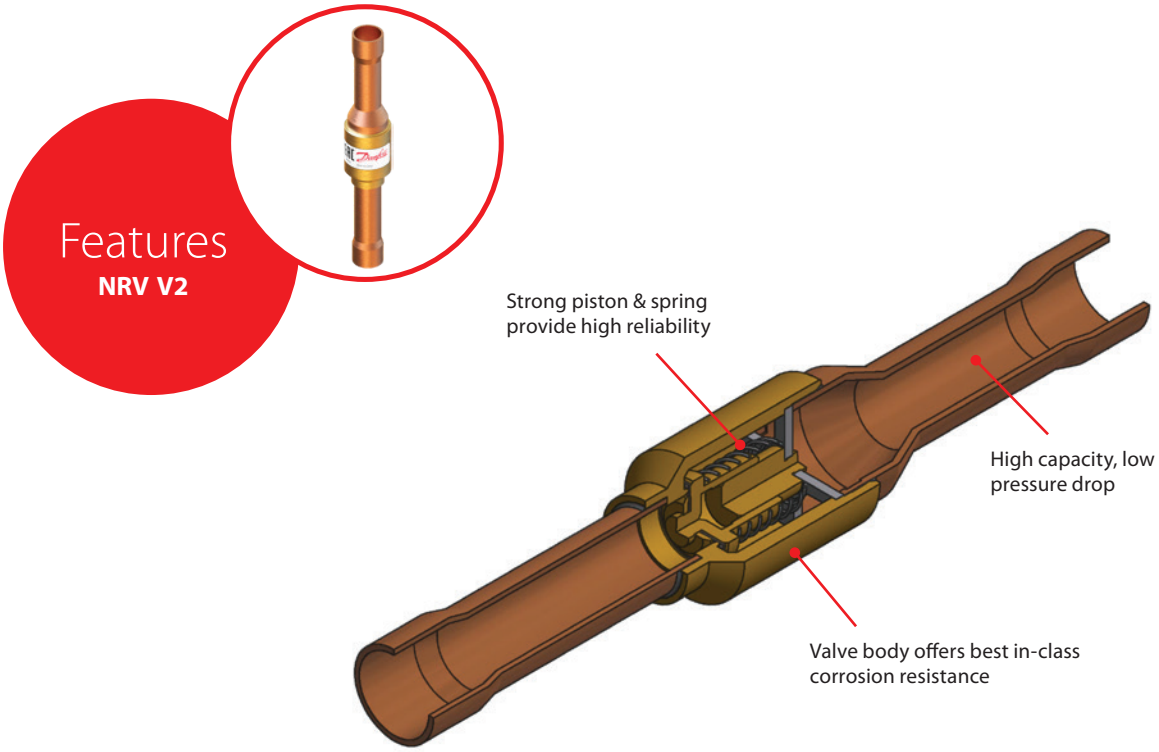
Type	Valve connection size in.	Industrial pack (no. of pcs)	Code no. for 009GXXXX series	Code no. for 009LXXXX 650 psig series
GBC 6s – GBC 12s	¼–½	6	**009G7210**	**009L7209**
GBC 16s – GBC 22s	⅝–⅞	6		**009L7210**
GBC 28s – GBC 35s	1 ⅛– 1 ⅜	4	**009G7211**	—
		3	—	**009L7211**
GBC 42s – GBC 79s	1 ⅝– 3 ⅛	4	**009G7212**	—
		3	—	**009L7212**

Bracket Kit

Type	Valve connection size in.	Industrial pack (no. of pcs)	Code no. for 009GXXXX series	Code no. for 009LXXXX 650 psig series
GBC 6s – GBC 12s	¼–½	12	**009G7084**	**009G7089**
GBC 16s	⅝	12		**009G7084**
GBC 18s – GBC 22s	¾–⅞	12	**009G7085**	
GBC 28s	1 ⅛	10	**009G7086**	
GBC 35s	1 ⅜	5	**009G7087**	
GBC 42s	1 ⅝	4	**009G7088**	

NRV V2 - Check Valves

NRV V2 one-piece check valves are used in liquid suction and hot gas lines in refrigeration and air conditioning applications. NRV valves ensure the correct flow direction and prevent back-condensation from a warm part of the system to the cold evaporator. The hermetic design of solder version meets environmental demands for today and the future. The built-in damping piston makes the valves suitable for installation in lines where pulsation can occur, e.g., in a compressor discharge line.



Product Selection

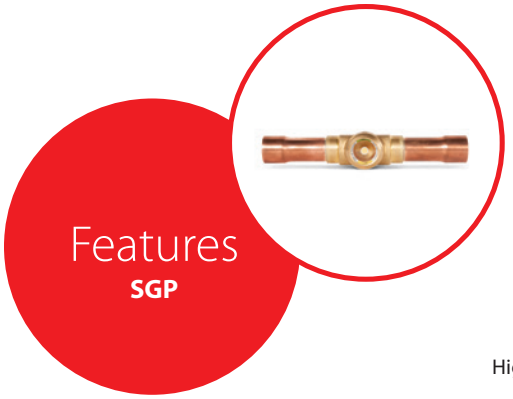
Valve Type	Connection Type	Connection	Min. OPD Δp[1]	C_v value[2]	Danfoss Code No.
		in.	psi	gal./min.	
NRV 6s V2	Straightway, solder	¼	0.58	0.77	**020B1010**
NRV 10s V2	Straightway, solder	⅜	0.58	1.90	**020B1011**
NRV 12s V2	Straightway, solder	½	0.29	2.89	**020B1012**
NRV 16s V2	Straightway, solder	⅝	0.29	4.62	**020B1018**

[1] Δp = Minimum Opening Pressure Differential

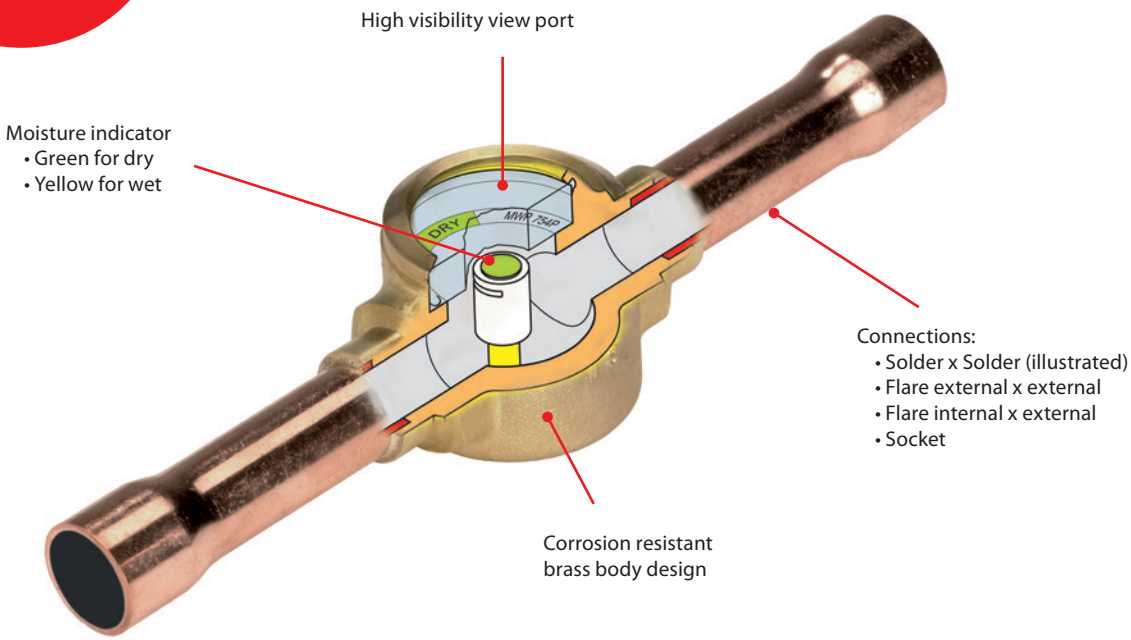
[2] The C_v value is the flow of water in gal./min. at a pressure drop across valve of 14.5 psi; ρ = 62.4 lbs./ft³ = 8.34 lbs./gal.

SGP - Sight Glasses

Danfoss sight glasses with hard crystal view ports are designed to accurately indicate the presence of moisture in refrigeration and air-conditioning systems. When system moisture content rises above permissible levels, the "dry/green" indicator will change to yellow indicating a "wet" system. The indication of dangerous moisture levels is essential in helping prevent the formation of harmful acids which are detrimental to the system. The SGP sight glass is simply the best-made sight glass available today.



Features
SGP



Product Selection

Danfoss Type	Version	Connection (in.)	Ambient temperature (°F)	Maximum working pressure (psig)	Danfoss Code No.
SGP 6 N	Flare int. x ext.[1]	¼ x ¼	–60 to 175	750	**014L0171**
SGP 10 N		⅜ x ⅜			**014L0172**
SGP 12 N		½ x ½			**014L0173**
SGP 6s N	ODF x ODF solder	¼ x ¼			**014L0181**
SGP 10s N		⅜ x ⅜			**014L0182**
SGP 12s N		½ x ½			**014L0183**
SGP 16s N		⅝ x ⅝			**014L0145**
SGP 22s N		⅞ x ⅞			**014L0186**
SGP ½ RN	NPT	½			**014L0006**

[1] Can be screwed directly onto Danfoss filter drier.

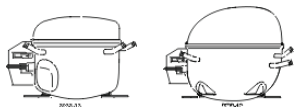
Light Commercial Compressors

Specially optimized for use in mobile, household, and light commercial applications, these hermetic reciprocating compressors provide high cooling capacity in an energy-saving design. Compressors are available for R-134a and R-404A.

Features
Light Commercial Compressors

Technical data and ordering

Light Commercial Compressors
Low temperature

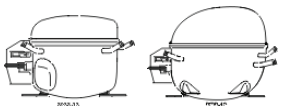


	Voltage/Phase/ Frequency	Horsepower rating (HP)[1]	HS/LS torque	Application	Competitor model nos.	OLD Danfoss Model No.	NEW Danfoss Model No.	Cooling capacity (Btu/h)[2] LBP evaporator temperature (°F) –31	–13	5	NEW Danfoss Single Packed Code No.[3]
R-134a	115/1/60	¼	HS	Freezer	FF8.5HBK FF10HBX FFI12HBX AEA2410YXA	NF7FX SC12G	GL99ADa	429	861	1,474	**123B1161**
	115/1/60	½+	HS	Freezer	AEA2413YXA	SC15FTX SC15G SC18G	GPY14RDa	698	1,353	2,369	**123B1311**
	220–240/1/60	½+	HS	Freezer	AKA4476YXD	SC18G SC21G	GPY14NGa	726	1,387	2,415	**123B1313**
	115/1/60	½	HS	Freezer	AEA2410YXA AKA4460YKA	SC15G	GP14FE	500	1,122	2,003	**123B1163**
	115/1/60	⅜	HS	Freezer	FFI10HBX TPA1380YXA	NF11FX	GLY12NRa	698	1,353	2,369	**123B1304**
R-404A	115/1/60	⅛	HS	Freezer	AEA2380ZXA AEA2411ZXA	TFS4.5CLX	ML60FR	459	883	1,435	**123B2143**
	115/1/60	⅛	HS	Freezer	AEA9415ZXA	TF4CLX	ML45FR	391	723	1,197	**123B2160**
	115/1/60	⅓	HS	Freezer	NEK2121GK NEK2125GK	NF5.5CLX	MLY60LDa	665	1,194	1,903	**123B2144**
	115/1/60	⅓+	HS	Freezer	NEK6181GK AEA2411ZXA AJA2419ZXA	NF7CLX SC10CL	ML80FR	751	1,364	2,219	**123B2146**
	115/1/60	½	HS	Freezer	NEK2150GK NT2168GKV NJ2192GK NJ2192GJ AJA2425ZXA	SC12CLX.2	MPT12LD	1,379	2,371	3,760	**123B2152**
	115/1/60	¾	HS	Freezer	NT2168GKV AJB2433ZXA	SC15CLX.2	MPT14LD	1,570	2,716	4,356	**123B2155**
	208–230/1/60	¾	HS	Freezer		—	MS26FF	1,862	4,186	7,123	**123B2201**
	200–230/1/ 50–60	¾	HS	Freezer	NT2180GKV AJB2433ZXD	SC18CLX.2	MX21FGa	1,732	3,387	5,658	**123B2186**
	208–230/1/60	1	HS	Freezer		—	MS34FF	2,396	5,603	10,028	**123B2211**

[1] Horsepower ratings are nominal. Danfoss recommends sizing compressors based on cooling capacity requirements.
[2] Capacity at ASHRAE conditions below. For other conditions and/or speeds, check Coolselector or contact Danfoss.
[3] Code no. contains compressor and required electrical and non-electrical accessories. For standard code no., change "B" to "F."
Full range of models (refrigerant, capacity, and voltage codes) available. Check Coolselector or contact Danfoss.

Technical data and ordering

Light Commercial Compressors
Medium temperature



	Voltage/Phase/ Frequency	Horsepower rating (HP)[1]	HS/LS torque	Application	Competitor model nos.	OLD Danfoss Model No.	NEW Danfoss Model No.	Cooling capacity (Btu/h)[2] MBP evaporator temperature (°F) 5	23	45	NEW Danfoss Single Packed Code No.[3]
R-134a	115/1/60	¼	HS	Cooler	FF8.5HBK FF10HBX AEA4430YXA AEA3430YXA	NF7FX	GLY80RDa	1,123	1,881	3,174	**123B1572**
	115/1/60	⅓	HS	Cooler	FF7.5HBK AEA1360YXA	NF5.5FX	GL80TE	932	1,580	2,647	**123B1575**
	115/1/60	⅜	HS	Cooler	NEK6210Z FFI12HBX AEA4448YXA	SC12G	GPY12RDa	1,799	2,889	4,682	**123B1580**
	115/1/60	⅓	HS	Cooler	FFI10HBX NEK6187Z AEA3440YXA AEA4440YXA	NF11FX	GLY12RRa	1,105	2,500	4,143	**123B1601**
	115/1/60	½	HS	Cooler	NEK6212Z AKA4460YXA	SC15G	GPY14RDa	1,932	3,302	5,821	**123B1584**
	115/1/60	½	HS	Cooler	AKA4476YXA	SC18G	GPY16RDa	2,301	3,765	6,190	**123B1588**
	220–240/1/ 50/60	½	HS	Cooler	NEK6212Z NEK6214Z NT6215Z AKA4406YXD AKA4476YXD	SC15GH	GP16TG	2,436	3,777	6,190	**123B1714**
	208–230/1/60	⅝	HS	Cooler		—	GX23TG	2,970	4,965	8,253	**123B1548**
	208–230/1/60	¾	HS	Cooler		—	GS26TG	3,091	5,736	9,920	**123B1622**
	208–230/1/60	⅞	HS	Cooler		—	GS30TG	3,451	6,575	11,825	**123B1625**
	208–230/1/60	1	HS	Cooler		—	GS34TF	4,678	8,156	13,571	**123B1627**
R-404A	115/1/60	¼	HS	Cooler	AEA9422ZXA AKA9427ZXA	NF5.5CLX	MLY60RDa	1,620	2,487	3,869	**123B2527**
	115/1/60	⅜	HS	Cooler	NEK6181GK NEK6210GK AKA9438ZXA	NF7CLX SC10CL	MLY80RDa	2,144	3,340	5,277	**123B2530**
	115/1/60	½	HS	Cooler	NEK6213GK AE4470Z-AA AKA9438ZXA	SC12MLX	MLT12RR	2,918	4,384	6,690	**123B2542**
	115/1/60	½	HS	Cooler	NT6220GKV AKA9455ZXA	SC15MLX.2	MPT14RD	3,754	5,632	8,698	**123B2544**
	230/1/60	½	HS	Cooler		SC15MLX.2	MPT14RF	3,686	5,502	8,571	**123B2543**
	208–230/1/60	⅞	HS	Cooler		—	MX18TGa	4,322	6,810	10,817	**123B2541**
	115/1/60	⅞	HS	Cooler	NT6222GKV AKA9462ZXA	SC18MLX	MX18TE	4,322	6,810	10,817	**123B2545**
	208–230/1/60	1	HS	Cooler		—	MX21TGa	4,801	7,546	12,003	**123B2714**

[1] Horsepower ratings are nominal. Danfoss recommends sizing compressors based on cooling capacity requirements.
[2] Capacity at ASHRAE conditions below. For other conditions and/or speeds, check Coolselector or contact Danfoss.
[3] Code no. contains compressor and required electrical and non-electrical accessories. For standard code no., change "B" to "F."
Full range of models (refrigerant, capacity, and voltage codes) available. Check Coolselector or contact Danfoss.

Full range of models (refrigerant, capacity and voltage codes) available. Check Coolselector or contact Danfoss.

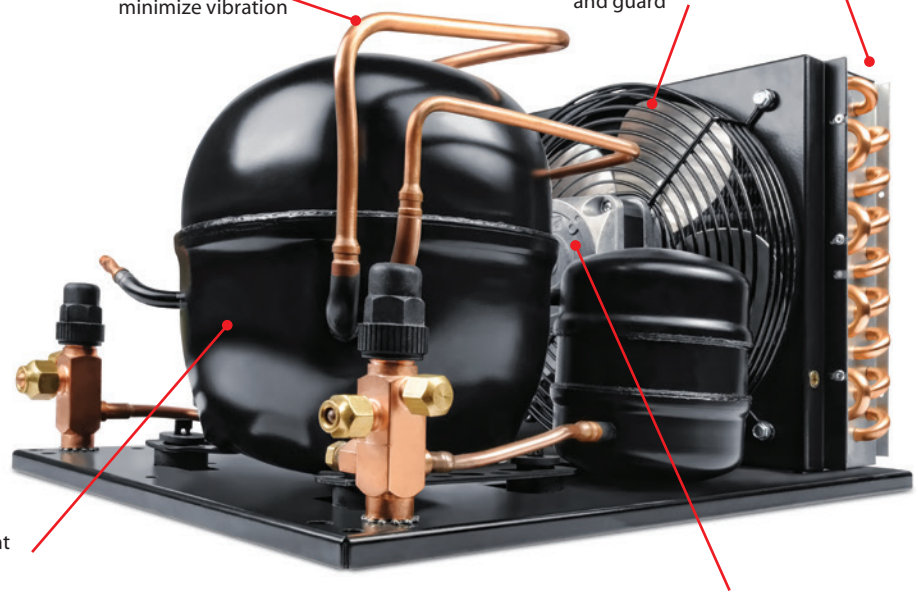
Test conditions	ASHRAE (LBP)	ASHRAE (MBP)
Condensing temperature	131 °F	131 °F
Evaporator temperature	–10 °F	45 °F
Ambient and suction gas temperature	90 °F	95 °F
Liquid temperature	90 °F	115 °F

Scan the QR Code for a video of a light commercial replacement or visit http://bit.ly/LightInstall

Optyma™ - Condensing Units

Danfoss Optyma™ line of light commercial condensing units is available with sizes ranging from ⅕ hp to 13 ½ hp for low and medium temperature applications for R-404A and R-134a. Its contractor-friendly design makes Optyma easy to install, quiet, and efficient.

Features
Optyma™



Nomenclature / Model No.

	Application	Design	Refrigerant	Condenser size	HP rating	Certification	Version	Electrical code
OP-	H	N	X	M	0300	U	WG000	Q

Application:
L: low
H: medium / high
U: universal low / medium / high

Design:
C: air cooled condenser, single fan, recip
J: air cooled condenser, slim design, recip
G: air cooled condenser, twin fan, recip
N: air cooled condenser, slim design, scroll
R: air cooled condenser, twin fan, scroll

Refrigerant:
G: R-134a
H: R-404A/R-507A/R-452A
M: R-22 relacement
Z: R-404A/R-507A/R-134a*/R-448A/R-449A/R-452A
X: R-448A/R-449A/R-404A/R-507A/R-134a/R-452A
Y: R-448A/R-449A/R-404A/R-507A/R-452A

Condenser type and rating:
C: fin and tube condenser size 110 °F ambient
M: microchannel condenser size 115 °F ambient

HP rating:
HP rating in hundreths of HP,
i.e.: 0033 = ⅓ HP, 0100 = 1 HP

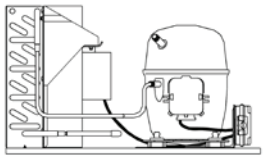
Certification:
R: UL recognized
U: UL listed

Version:
WA: power cord
WB: power cord, receiver
WC: electrical box, receiver
WD: electrical box, receiver, low pressure control
WE: electrical box, receiver, dual pressure control, fan cycling control, larger than 3 HP dual fan units use KPU fan cycling control
WF: WE and filter drier, sight glass, solenoid valve with coil
WG: electrical box, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure (MBP)
WH: electrical box, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure, suction accumulator (LBP)
WJ: electrical box, receiver, dual pressure control, fan cycling control, filter drier, sight glass

Electrical code:
B: compressor & fan(s), 115V, 1ph, 60 Hz
N: compressor & fan(s), 230V, 1ph, 60 Hz
Q: compressor 208-230V, 3ph, 60 Hz fan(s) 230V, 1ph, 60 Hz
R: compressor 460V, 3ph, 60 Hz fan(s) 460V, 1ph, 60 Hz

Scan the QR Code for a video of an Optyma condensing unit replacement or visit http://bit.ly/CUinstall

Technical data and ordering



Optyma™ - Condensing Units (1/5)

R-134a			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)											AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		0	5	10	15	20	25	30	35	40	45	50	
AEA3425 M2FH0020 M2FH0024	UCGC0020RWA000B	**114N2017**	90	1050	1200	1350	1500	1700	1850	2050	2250	2450	2700		N/A
			95	1000	1150	1300	1450	1600	1800	2000	2200	2400	2600		
			100	950	1100	1250	1400	1550	1750	1900	2100	2300	2500		
			110	900	1000	1150	1300	1450	1600	1800	1950	2150	2350		
AEA4430 M2FH0026	UCGC0025RWB000B	**114N2019**	90	1250	1400	1600	1750	1950	2150	2400	2600	2850	3100		N/A
			95	1200	1350	1550	1700	1900	2100	2300	2500	2750	3000		
			100	1150	1300	1450	1650	1800	2000	2200	2450	2650	2900		
			110	1050	1200	1350	1550	1700	1900	2050	2250	2450	2700		
AEA4440 AEA4448 M2FHA033	UCGC0033UWC000B	**114N2022**	90		2050	2300	2550	2850	3100	3450	3750	4100	4450		N/A
			95		1950	2200	2450	2750	3000	3300	3650	3950	4300		
			100		1900	2100	2350	2600	2900	3200	3500	3800	4150		
			110		1750	1950	2200	2450	2700	2950	3250	3550	3850		
AKA4460 AKA7437 M2FH0049	UCGC0050RWB000B	**114N2023**	90	2350	2700	3050	3450	3800	4250	4700	5150	5650	6150		
			95	2300	2600	2950	3300	3700	4100	4500	4950	5400	5900		
			100	2200	2500	2800	3200	3550	3950	4350	4750	5200	5650		
			110	2000	2300	2600	2900	3250	3600	4000	4400	4800	5200		
	HCGC0055RWB000B	**114N2025**	90		2900	3300	3800	4300	4850	5450	6100	6700	7350		N/A
			95		2800	3200	3650	4150	4650	5250	5850	6450	7050		
			100		2650	3050	3500	3950	4500	5050	5600	6150	6750		
			110				3250	3700	4150	4700					
AJA4492 AJA7465 FTAHA074 FTAHA075 FTAHB074 FTAMA074 FTAMA075	HCGC0075UWC000B HCGC0075UWC000N	**114N2027** **114N2028**	90		4350	4850	5550	6250	7150	8050	9100	10100	11200		N/A
			95		4100	4700	5350	6100	6950	7850	8800	9800	10850		
			100		3900	4500	5150	5900	6750	7600	8550	9500	10450		
			110				4850	5600	6400	7250	8100				
AJA4512 FTAHA100 FTAHA101	HCGC0100UWD000N	**114N2029**	90		6800	7450	8200	9050	9950	10950	12000	13050	14200		N/A
			95		6300	7000	7750	8550	9450	10400	11450	12450	13550		
			100			6550	7300	8100	8950	9900	10900	11850	12900		
			110				6500	7250	8100	9000					
	HCZC0150UWJ300N HCZC0150UWJ300Q HCZC0150UWJ300R	**114N3601** **114N3602** **114N3603**	90				5500	6305	7192	8163	9216	10350	11560	12840	
			95				5194	5975	6835	7775	8794	9889	11060	12290	
			100				4889	5645	6477	7386	8369	9426	10550	11740	6.62
			105				4585	5315	6118	6994	7942	8960	10040	11190	6.77
			110				4282	4985	5758	6601	7513	8491	9532	10630	6.77
	HCZC0200UWJ300N HCZC0200UWJ300Q HCZC0200UWJ300R	**114N3604** **114N3605** **114N3606**	90				7245	8343	9529	10800	12160	13590	15090	16660	
			95				6921	7981	9123	10350	11650	13020	14460	15960	7.15
			100				6592	7611	8708	9881	11130	12440	13820	15250	7.32
			105				6255	7232	8283	9404	10590	11850	13160	14530	7.32
			110				5912	6845	7847	8916	10050	11240	12490	13790	

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.

Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (1/5) *(continued)*

R-134a			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)										AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		0	5	10	15	20	25	30	35	40	45	50	
	HCZC0250UWJ300N HCZC0250UWJ300Q HCZC0250UWJ300R	**114N3607** **114N3608** **114N3609**	90				9583	10990	12480	14040	15680	17380	19140	20960	7.34 7.52 7.52
			95				9147	10520	11960	13470	15060	16700	18400	20140	
			100				8704	10030	11430	12900	14420	16000	17640	19310	
			105				8257	9544	10900	12310	13780	15300	16860	18470	
			110				7804	9049	10350	11710	13130	14580	16080	17610	
	HCZC0275UWJ300N HCZC0275UWJ300Q HCZC0275UWJ300R	**114N3610** **114N3611** **114N3612**	90				12470	14150	15930	17820	19800	21880	24030	26270	7.58 7.77 7.77
			95				11890	13520	15260	17090	19010	21010	23090	25240	
			100				11320	12900	14580	16350	18210	20140	22140	24210	
			105				10740	12280	13910	15620	17400	19260	21190	23170	
			110				10170	11660	13230	14880	16590	18380	20220	22110	
	HCZC0300UWJ300N HCZC0300UWJ300Q HCZC0300UWJ300R	**114N3614** **114N3615** **114N3616**	90				14490	16220	18070	20050	22140	24350	26680	29110	8.15 7.78 7.99
			95				13690	15400	17230	19170	21230	23410	25690	28080	
			100				12910	14600	16410	18320	20350	22940	24730	27070	
			105				12160	13830	15610	17500	19500	21600	23800	26090	
			110				11440	13090	14850	16710	18670	20740	22890	25130	
	HGZC0400UWJ300N HGZC0400UWJ300Q HGZC0400UWJ300R	**114N3617** **114N3618** **114N3619**	90				16350	19020	21910	25000	28280	31760	35410	39220	7.13
			95				15700	18300	21100	24090	27260	30610	34130	37800	
			100				15010	17540	20240	23130	26200	29430	32810	36340	
			105				14290	16730	19350	22140	25090	28200	31460	34840	
			110				13530	15900	18430	21120	23960	26940	30060	33310	
	HGZC0500UWJ300N HGZC0500UWJ300Q HGZC0500UWJ300R	**114N3621** **114N3622** **114N3623**	90				20950	24290	27860	31650	35630	39800	44130	48600	7.69 7.69 7.56
			95				20080	23320	26780	30440	34290	38310	42470	46770	
			100				19170	22320	25660	29200	32910	36780	40780	44910	
			105				18220	21270	24510	27930	31500	35220	39070	43020	
			110				17240	20200	23330	26620	30060	33630	37320	41110	
	HGZC0700UWJ300Q HGZC0700UWJ300R	**114N3626** **114N3627**	90				27750	31880	36300	41010	46000	51260	56750	62480	8.07 7.97
			95				26630	30630	34920	39480	44300	49370	54680	60200	
			100				25500	29380	33530	37930	42590	47480	52590	57900	
			105				24350	28110	32120	36370	40860	45570	50490	55590	
			110				23200	26830	30700	34800	39120	43650	48370	53270	
	HGZC0900UWJ300Q HGZC0900UWJ300R	**114N3628** **114N3629**	90				32220	37130	42390	48000	53940	60200	66750	73590	7.33
			95				30500	35270	40360	45790	51530	57560	63880	70460	
			100				28780	33400	38330	43560	49090	54900	60980	67300	
			105				27070	31530	36280	41320	46640	52220	58060	64120	
			110				25360	29660	34230	39070	44180	49530	55110	60910	
	HGZC1000UWJ300Q HGZC1000UWJ300R	**114N3631** **114N3632**	90				40340	46370	52830	59690	66930	74540	82480	90720	7.9
			95				38310	44150	50390	57010	63980	71300	78920	86820	
			100				36290	41930	47940	54300	61000	68020	75320	82880	
			105				34280	39710	45480	51580	58000	64700	71680	78890	
			110				32270	37480	43000	48840	54960	61350	68000	74860	
	HGZC1200UWJ300Q HGZC1200UWJ300R	**114N3633** **114N3634**	90				52460	59230	66410	73990	81940	90260	98920	107900	7.77
			95				50300	56870	63830	71160	78840	86860	95190	103800	
			100				48100	54470	61200	68270	75670	83390	91400	99680	
			105				45860	52020	58510	65320	72440	79850	87530	95470	
			110				43590	49530	55780	62320	69150	76250	83590	91170	
	HGZC1350UWJ300Q HGZC1350UWJ300R	**114N3636** **114N3637**	90				58110	65480	73290	81500	90100	99080	108400	118000	7.8
			95				55650	62820	70390	78350	86670	95340	104300	113600	
			100				53150	60110	67450	75140	83180	91540	100200	109100	
			105				50600	57350	64440	71880	79630	87670	96000	104600	
			110				48010	54540	61390	68550	76010	83750	91730	99950	

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (2/5)

R-404A LBP/ R-507 MBP			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)											AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		0	5	10	15	20	25	30	35	40	45	50	
AEA9415 M4FH0022	UCHC0020RWA000B	**114N2316**	90	1000	1100	1250	1400	1500	1650	1800	2000	2150	2300		N/A
			95	950	1050	1200	1300	1450	1600	1750	1900	2050	2200		
			100	900	1000	1100	1250	1350	1500	1650	1800				
			110	800	900	1000	1150	1250	1400	1500					
AEA9422 M4FH0025	UCHC0025RWB000B	**114N2318**	90	1650	1850	2050	2250	2450	2650	2900	3150	3400	3650		N/A
			95	1600	1750	1950	2150	2350	2550	2800	3000	3250	3500		
			100	1500	1650	1850	2050	2250	2450	2650	2900	3100	3350		
			110	1350	1550	1700	1850	2050	2250						
AKA9429 M4FHA036	UCHC0033RWC000B	**114N2321**	90	2050	2250	2500	2750	3000	3250	3550	3850	4100	4450		
			95	1950	2150	2400	2600	2850	3100	3400	3650	3950	4250		
			100	1850	2050	2250	2500	2700	2950	3200	3500	3750	4050		
			110	1650	1850	2050									
AKA9440 M4FH0050	UCHC0050UWC000B UCHC0050UWC000N	**114N2324 114N2325**	90	2450	2750	3100	3400	3750	4100	4500	4900	5250	5700		N/A
			95	2300	2600	2900	3200	3550	3850	4250	4600	4950	5350		
			100	2100	2400	2700	3000	3300	3600	3950	4300	4650	5000		
			110	1850	2100	2350	2600	2850	3150						
	HCHC0060UWC000B	**114N2328**	90	3400	3750	4200	4600	5050	5550	6050	6600	7100	7700		N/A
			95	3200	3550	3950	4350	4800	5250	5750	6250	6750	7300		
			100	3000	3350	3700	4100	4500	4950	5400	5900	6400	6900		
			110	2650	2950	3300	3700	4050	4450	4900					
	HCHC0075UWC000B HCHC0075UWC000N	**114N2330 114N2331**	90	4400	4950	5500	6150	6800	7500	8250	9000	9800	10650		N/A
			95	4150	4700	5250	5850	6500	7200	7900	8650	9400	10250		
			100	3900	4450	5000	5600	6200	6850	7550	8300	9050	9850		
			110	3500	4000	4550	5100	5700	6350	7000					
AJA7480 FJAMA100 FJAMA101 FJAMA106 FJAFA100	HCHC0100UWD000N	**114N2332**	90		5900	6650	7450	8200	9000	9850	10650	11450	12300		N/A
			95		5600	6350	7100	7800	8600	9350	10150	10950	11750		
			100			6000	6700	7400	8150	8900	9650	10400	11150		
			110				6100	6750	7400	8100	8800				
AWA7512 FJAMA125 FJAMA126 FJAMA150	HCZC0150UWJ300N HCZC0150UWJ300Q HCZC0150UWJ300R	**114N3601 114N3602 114N3603**	90				9989	11300	12670	14100	15590	17120	18700	20310	7.07
			95				9438	10690	12000	13370	14780	16240	17750	19280	
			100				8879	10080	11320	12620	13970	15360	16790	18250	
			105				8313	9451	10640	11870	13150	14470	15820	17200	
			110				7742	8822	9949	11120	12330	13580			
AWA7515 VJAF017H FJAMA200	HCZC0200UWJ300N HCZC0200UWJ300Q HCZC0200UWJ300R	**114N3604 114N3605 114N3606**	90				13320	14880	16510	18210	19960	21750	23590	25460	7.93
			95				12660	14140	15690	17290	18950	20650	22380	24150	
			100				11970	13380	14840	16360	17920	19520	21160	22820	
			105				11260	12590	13970	15400	16870	18380	19910	21470	
			110				10530	11780	13080	14420	15800	17210			
VJAF025H	HCZC0250UWJ300N HCZC0250UWJ300Q HCZC0250UWJ300R	**114N3607 114N3608 114N3609**	90				16910	18680	20500	22380	24310	26270	28260	30270	7.66
			95				16110	17790	19520	21310	23130	24980	26870	28760	
			100				15290	16880	18530	20210	21930	23680	25450	27240	
			105				14450	15960	17510	19100	20720	22370	24030	25700	
			110				13600	15020	16480	17970	19490	21040			

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (2/5) *(continued)*

R-404A LBP/ R-507 MBP			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)										AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		0	5	10	15	20	25	30	35	40	45	50	
	HCZC0275UWJ300N HCZC0275UWJ300Q HCZC0275UWJ300R	**114N3610** **114N3611** **114N3612**	90				20820	23050	25350	27690	30080	32500	34930	37360	7.66
			95				19740	21860	24050	26280	28540	30830	33130	35420	
			100				18660	20680	22750	24860	27000	29160	31330	33490	
			105				17580	19490	21450	23440	25460	27500	29540	31560	
			110				16500	18310	20150	22030	23930	25850			
	HCZC0300UWJ300N HCZC0300UWJ300Q HCZC0300UWJ300R	**114N3614** **114N3615** **114N3616**	90				23390	25810	28300	30830	33380	35950	38520	41060	8.23 8.23 8.18
			95				22180	24490	26850	29240	31660	34090	36510	38910	
			100				20980	23170	25400	27660	29940	32230	34510	36770	
			105				19780	21850	23950	26080	28230	30390	32530	34640	
			110				18590	20530	22510	24520	26540	28550			
	HGZC0400UWJ300N HGZC0400UWJ300Q HGZC0400UWJ300R	**114N3617** **114N3618** **114N3619**	90				31480	35020	38720	42580	46590	50730	54980	59340	8.68
			95				29880	33270	36820	40510	44330	48280	52330	56480	
			100				28260	31490	34880	38390	42040	45790	49650	53580	
			105				26600	29690	32910	36260	39720	43280	46940	50670	
			110				24930	27860	30920	34100	37380	40760			
AVA7523 FJAMA300 VJAF030H FJAMA325	HGZC0500UWJ300N HGZC0500UWJ300Q HGZC0500UWJ300R	**114N3621** **114N3622** **114N3623**	90				38340	42410	46630	50980	55440	59980	64600	69260	8.23 8.23 8.16
			95				36310	40200	44210	48350	52580	56900	61280	65700	
			100				34270	37970	41780	45700	49720	53810	51960	62130	
			105				32220	35720	39340	43050	46850	50710	54630	58570	
			110				30170	33480	36890	40390	43980	47620			
VJAF035Z VJA035H	HGZC0700UWJ300Q HGZC0700UWJ300R	**114N3626** **114N3627**	90				49600	54670	59940	65380	70990	76730	82580	88530	8.03 7.97
			95				47120	51940	56950	62120	67440	72890	78440	84070	
			100				44610	49190	53940	58840	63880	69030	74280	79600	
			105				42090	46420	50900	55530	60290	65160	70110	75130	
			110				39550	43630	47860	52220	56700	61280			
FJAMB400 VJAF040Z VJAF040H FJAMB500 VJAF050Z	HGZC0900UWJ300Q HGZC0900UWJ300R	**114N3628** **114N3629**	90				60260	67010	74070	81430	89080	97000	105200	113500	8.59
			95				57030	63470	70210	77230	84520	92050	99810	107800	
			100				53800	59940	66350	73030	79950	87110	94470	102000	
			105				50570	56400	62490	68820	73580	82160	89130	96270	
			110				47350	52870	58630	64620	70820	77230			
FJAH100Z	HGZC1000UWJ300Q HGZC1000UWJ300R	**114N3631** **114N3632**	90				75520	83250	91320	99710	108400	117400	126600	136000	8.32
			95				71710	79080	86780	94770	103000	111600	120300	129300	
			100				67860	74880	82210	89800	97660	105700	114000	122500	
			105				63980	70660	77610	84810	92250	99910	107700	115700	
			110				60090	66410	72990	79800	86830	94050			
CJDM1000	HGZC1200UWJ300Q HGZC1200UWJ300R	**114N3633** **114N3634**	90				87530	96260	105400	114800	124500	134500	144800	155200	8.04
			95				83140	91470	100100	109100	118400	127900	137600	147500	
			100				78710	86630	94860	103400	112200	121200	130400	139800	
			105				74230	81750	89550	97630	106000	114500	123200	132000	
			110				69730	76830	84210	91840	99690	107700			
FJAH120Z FJAM130Z	HGZC1350UWJ300Q HGZC1350UWJ300R	**114N3636** **114N3637**	90				94170	103400	112900	122900	133100	143600	154300	165200	7.9
			95				89460	98240	107400	116800	126500	136500	146700	157000	
			100				84750	93100	101800	110800	120000	129500	139100	148900	
			105				80020	87960	96190	104700	113400	122400	131500	140700	
							75300	82810	90600	98630	106900	115300			

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (3/5)

R-448A MBP/ R-449A MBP			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)								AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		15	20	25	30	35	40	45	50	
	HCZC0150UWJ300N HCZC0150UWJ300Q HCZC0150UWJ300R	**114N3601** **114N3602** **114N3603**	90	8586	9756	10990	12280	13620	15020	16460	17960	7.58
			95	8110	9234	10420	11650	12950	14290	15680	17110	
			100	7644	8723	9857	11040	12280	13570	14900	16270	
			105	7188	8222	9308	10440	11630	12860	14130	15450	
			110	6744	7732	8770	9857	10990	12160	13380	14630	
	HCZC0200UWJ300N HCZC0200UWJ300Q HCZC0200UWJ300R	**114N3604** **114N3605** **114N3606**	90	11590	12990	14490	16080	17750	19500	21320	23210	8.16
			95	11060	12390	13820	15330	16930	18600	20330	22130	
			100	10530	11800	13160	14590	16110	17700	19350	21060	
			105	10010	11210	12500	13860	15300	16810	18380	20000	
			110	9488	10630	11850	13140	14500	15930	17410	18950	
	HCZC0250UWJ300N HCZC0250UWJ300Q HCZC0250UWJ300R	**114N3607** **114N3608** **114N3609**	90	14170	15860	17660	19550	21540	23610	25750	27960	6.77 7.15 7.32
			95	13520	15130	16830	18640	20530	22500	24540	26650	
			100	12880	14400	16020	17730	19530	21400	23350	25350	
			105	12240	13680	15220	16840	18540	20320	22160	24060	
			110	11600	12970	14420	15950	17560	19240	20980	22780	
	HCZC0275UWJ300N HCZC0275UWJ300Q HCZC0275UWJ300R	**114N3610** **114N3611** **114N3612**	90	18050	20130	22290	24530	26830	29190	31570	33990	6.77 7.15 7.32
			95	17220	19200	21270	23400	25590	27830	30100	32390	
			100	16390	18270	20240	22270	24350	26470	28630	30800	
			105	15560	17350	19210	21130	23110	25120	27160	29220	
			110	14720	16420	18180	20000	21870	23770	25700	27640	
	HCZC0300UWJ300N HCZC0300UWJ300Q HCZC0300UWJ300R	**114N3614** **114N3615** **114N3616**	90	20390	22700	25090	27560	30080	32640	35230	37820	7.32 7.34 7.52
			95	19430	21630	23920	26260	28660	31090	33550	36020	
			100	18470	20570	22740	24970	27240	29550	31880	34210	
			105	17520	19510	21560	23670	25830	28010	30210	32420	
			110	16570	18450	20390	22380	24410	26480	28550	30630	
	HGZC0400UWJ300N HGZC0400UWJ300Q HGZC0400UWJ300R	**114N3617** **114N3618** **114N3619**	90	26130	29570	33220	37070	41100	45300	49670	54170	8.86
			95	24900	28200	31690	35380	39240	43270	47450	51770	
			100	23660	26820	30160	33690	37390	41240	45240	49370	
			105	22410	24530	28630	31990	35520	39210	43020	46970	
			110	21160	24040	27090	30300	33660	37170	40810	44570	
	HGZC0500UWJ300N HGZC0500UWJ300Q HGZC0500UWJ300R	**114N3621** **114N3622** **114N3623**	90	32200	36160	40310	44650	49160	53810	58600	63500	8.49 8.49 8.40
			95	30610	34410	38400	42570	46890	51360	55960	60660	
			100	29040	32680	36510	40500	44640	48920	53320	57820	
			105	27480	30970	34620	38440	42410	46500	50710	55010	
			110	25940	29270	32760	36400	40180	44090	48110	52210	
	HGZC0700UWJ300Q HGZC0700UWJ300R	**114N3626** **114N3627**	90	43870	48970	54330	59930	65750	71780	77980	84330	8.55 8.47
			95	41900	46800	51930	57300	62880	68650	74590	80670	
			100	39930	44610	49530	54660	60000	65520	71190	77000	
			105	37940	42420	47120	52020	57120	62380	67800	73340	
			110	35950	40220	44700	49380	54230	59250	64410	69690	
	HGZC0900UWJ300Q HGZC0900UWJ300R	**114N3628** **114N3629**	90	52540	59390	66680	74390	82510	91020	99900	109100	8.74
			95	49960	56530	63520	70920	78720	86890	95410	104300	
			100	47410	53700	60400	67490	74960	82790	90960	99450	
			105	44890	50900	57310	64090	71240	78730	86550	94680	
			110	42410	48140	54250	60720	67550	74710	82180	89940	
	HGZC1000UWJ300Q HGZC1000UWJ300R	**114N3631** **114N3632**	90	66450	74950	83960	93470	103400	113900	124700	135900	8.73
			95	63170	71330	79980	89100	98690	108700	119100	129900	
			100	59930	67740	76030	84770	93960	103600	113500	123900	
			105	56720	64190	72110	80480	89270	98470	108000	117900	
			110	53550	60670	68240	76230	84630	93410	102600	112000	
	HGZC1200UWJ300Q HGZC1200UWJ300R	**114N3633** **114N3634**	90	78110	86970	96280	106000	116200	126700	137500	148700	8.61
			95	74470	82980	91920	101300	111000	121100	131600	142300	
			100	70870	79040	87620	96590	105900	115600	125600	135900	
			105	67330	75150	83370	91970	100900	110200	119800	129600	
			110	63850	71320	79180	87400	95950	104800	114000	123400	
	HGZC1350UWJ300Q HGZC1350UWJ300R	**114N3636** **114N3637**	90	83580	92920	102700	112900	123500	134500	145800	157300	8.12
			95	79660	88630	98030	107800	118000	128500	139300	150400	
			100	75790	84400	93410	102800	112600	122600	133000	143600	
			105	71990	80220	88850	97840	107200	116800	126700	136800	
			110	68240	76110	84350	92930	101800	111000	120500	130100	

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (4/5)

R-452A MBP			Ambient temperature (°F)	Capacity range in btu/h ASHRAE[1] at evaporating temperature (°F)								AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		15	20	25	30	35	40	45	50	
	HCZC0150UWJ300N HCZC0150UWJ300Q HCZC0150UWJ300R	**114N3601** **114N3602** **114N3603**	90	9663	10850	12100	13400	14760	16170	17630	19120	7.64
			95	9109	10240	11430	12670	13970	15310	16690	18120	
			100	8558	9636	10770	11950	13180	14450	15770	17120	
			105	8010	9034	10110	11230	12400	13600	14850	16130	
			110	7466	8436	9453	10510	11620	12760	13940	15160	
	HCZC0200UWJ300N HCZC0200UWJ300Q HCZC0200UWJ300R	**114N3604** **114N3605** **114N3606**	90	12930	14340	15820	17360	18950	20580	22260	23970	8.24
			95	12260	13610	15010	16480	17990	19540	21140	22760	
			100	11590	12880	14210	15600	17040	18510	20030	21570	
			105	10930	12150	13420	14740	16100	17490	18920	20380	
			110	10280	11440	12640	13880	15160	16480	17830	19200	
	HCZC0250UWJ300N HCZC0250UWJ300Q HCZC0250UWJ300R	**114N3607** **114N3608** **114N3609**	90	15430	17050	18780	20610	22540	24540	26620	28760	7.60
			95	14650	16180	17810	19540	21350	23240	25210	27230	
			100	13860	15300	16830	18450	20160	21940	23790	25700	
			105	13070	14410	15840	17360	18960	20630	22370	24170	
			110	12260	13510	14850	16260	17760	19330	20960	22640	
	HCZC0275UWJ300N HCZC0275UWJ300Q HCZC0275UWJ300R	**114N3610** **114N3611** **114N3612**	90	19170	21110	23130	25230	27390	29600	31850	34130	7.60 7.73 7.73
			95	18200	20030	21940	23920	25960	28040	30160	32310	
			100	17220	18940	20740	22600	24510	26470	28470	30490	
			105	16220	17840	19520	21260	23060	24900	26770	28670	
			110	15210	16720	18290	19920	21600	23320	25070	26850	
	HCZC0300UWJ300N HCZC0300UWJ300Q HCZC0300UWJ300R	**114N3614** **114N3615** **114N3616**	90	22110	24310	26590	28930	31320	33740	36180	38630	7.73 7.73 7.73
			95	20990	23060	25200	27390	29640	31910	34200	36490	
			100	19840	21780	23790	25840	27940	30070	32210	34350	
			105	18680	20490	22360	24270	26230	28210	30210	32210	
			110	17490	19180	20910	22690	24510	26350	28210	30080	
	HGZC0400UWJ300N HGZC0400UWJ300Q HGZC0400UWJ300R	**114N3617** **114N3618** **114N3619**	90	29010	32460	36070	39840	43760	47800	51950	56200	8.27
			95	27590	30880	34320	37910	41630	45480	49430	53470	
			100	26140	29270	32540	35950	39480	43130	46880	50710	
			105	24670	27630	30730	33960	37310	40760	44310	47940	
			110	23170	25970	28900	31960	35120	38380	41730	45160	
	HGZC0500UWJ300N HGZC0500UWJ300Q HGZC0500UWJ300R	**114N3621** **114N3622** **114N3623**	90	35840	39770	43850	48080	52420	56870	61400	65990	8.19 8.19 8.11
			95	34010	37750	41640	45660	49800	54030	58340	62710	
			100	32160	35730	39430	43240	47170	51180	55270	59410	
			105	30320	33690	37200	40820	44530	48330	52200	56120	
			110	28460	31660	34970	38390	41900	45490	49140	52830	
	HGZC0700UWJ300Q HGZC0700UWJ300R	**114N3626** **114N3627**	90	45880	50630	55570	60700	65990	71430	76990	82650	8.01 7.94
			95	43730	48250	52960	57840	62870	68030	73310	78680	
			100	41550	45840	50310	54930	59700	64600	69590	74670	
			105	39330	43390	47620	52000	56500	61130	65850	70640	
			110	37070	40910	44900	49030	53280	57640	62080	66600	
	HGZC0900UWJ300Q HGZC0900UWJ300R	**114N3628** **114N3629**	90	58530	65320	72470	79950	87760	95870	104200	112900	8.80
			95	55620	62090	68900	76030	83460	91170	99140	107300	
			100	52700	58850	65320	72100	79150	86470	94040	101800	
			105	49770	55610	61740	68160	74850	81780	88940	96310	
			110	46820	52360	58160	64230	70550	77100	83870	90820	
	HGZC1000UWJ300Q HGZC1000UWJ300R	**114N3631** **114N3632**	90	72590	80820	89440	98420	107700	117400	127300	137400	8.75
			95	68910	76760	84970	93530	102400	111600	121000	130600	
			100	65210	72680	80490	88630	97060	105800	114700	123800	
			105	61510	68590	76000	83710	91700	99950	108400	117100	
			110	57790	64490	71500	78800	86350	94150	102200	110300	
	HGZC1200UWJ300Q HGZC1200UWJ300R	**114N3633** **114N3634**	90	81990	90110	98610	107500	116600	126100	135800	145800	8.51
			95	77940	85700	93810	102300	111000	120100	129400	138900	
			100	73890	81280	89010	97060	105400	114000	122900	132000	
			105	69850	76870	84210	91860	99800	108000	116400	125000	
			110	65810	72470	79430	86680	94210	102000	110000	118200	
	HGZC1350UWJ300Q HGZC1350UWJ300R	**114N3636** **114N3637**	90	91250	100200	109400	119000	129000	139200	149600	160300	8.19
			95	86730	95220	104100	113200	155700	132400	142400	152500	
			100	82200	90280	98690	107400	116400	125600	135100	144700	
			105	77670	85340	88850	101600	110100	118900	127800	136900	
			110	73140	80400	87960	95790	103900	112100	120600	129200	

[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ - Condensing Units (5/5)

R-404A MBP/ R-507 MBP			Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)											AWEF rating
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	
	UCHC0020RWA000B	**114N2316**	90	350	400	450	550	600	700	800	900	1000	1100	1250	N/A
			95	300	350	450	500	550	650	750	850	950	1050	1200	
			100	300	350	400	450	550	600	700	800	900	1000	1100	
			110	250	300	350	400	500	550	650	700	800	900		
AEA2410	UCHC0025RWB000B	**114N2318**	90	600	700	800	900	1050	1200	1350	1500	1650	1850	2050	N/A
			95	550	650	750	900	1000	1150	1250	1400	1600	1750	1950	
			100	550	600	700	850	950	1050	1200	1350	1500	1650	1850	
			110	450	550	650	750	850	950	1100	1250	1350	1550	1700	
AEA2413 M4FL0033	UCHC0033RWC000B	**114N2321**	90	750	850	1000	1100	1300	1450	1650	1800	2050	2250	2500	N/A
			95	700	800	950	1050	1200	1400	1550	1750	1950	2150	2400	
			100	650	750	850	1000	1150	1300	1450	1650	1850	2050	2250	
			110	550	650	750	900	1000	1150	1350	1500				
AKA2422 M4FL0040	UCHC0050UWC000B UCHC0050UWC000N	**114N2324** **114N2325**	90			1100	1300	1500	1700	1900	2150	2400	2700	2950	N/A
			95			1000	1200	1400	1600	1850	2050	2300	2550	2850	
			100			900	1100	1300	1500	1750	1950	2200	2450	2700	
			110			750	950	1150	1350	1550	1750	2000	2250	2500	
	LCHC0050RWB000B	**114N2389**	90	1050	1250	1450	1700	1950	2200	2500	2800	3150	3450	3850	
			95	950	1150	1350	1600	1850	2100	2400	2650	3000	3300	3650	
			100	850	1050	1250	1500	1700	2000	2250	2500	2800	3150	3450	
			110	700	900	1100	1300	1500	1750	2000	2300	2550	2850	3150	
AJA2429	LCHC0060UWC000B	**114N2335**	90	1350	1550	1850	2100	2400	2700	3050	3400	3800	4200	4600	N/A
			95	1250	1450	1700	1950	2250	2550	2900	3200	3600	3950	4350	
			100	1150	1350	1600	1850	2100	2400	2700	3050	3400	3750	4100	
				950	1150	1400	1600	1850	2150	2400	2700	3050	3350		
M4FL0067 FJAFA075	LCHC0075UWC000B LCHC0075UWC000N	**114N2337** **114N2338**	90	1450	1800	2150	2550	2950	3400	3900	4400	4950	5550	6200	N/A
			95	1400	1750	2100	2450	2900	3350	3800	4300	4850	5450	6100	
			100		1650	2000	2400	2800	3250	3750	4250	4800	5350	6000	
			110						3100	3600	4100	4650	5200		
AWA2448 FJALA100 FJALA101 FJALA103 FJALA102	LCHC0100UWD000N	**114N2339**	90	1700	2250	2800	3400	4000	4650	5350	6000	6800	7550	8400	N/A
			95	1550	2100	2650	3200	3850	4500	5150	5850	6600	7400	8250	
			100		1900	2500	3050	3650	4300	5000	5700	6450	7250	8100	
			110						4000	4700	5400	6150	7000		
	LCHC0150UWF000N LCHC0150UWF000Q LCZB0150UWF000R	**114N6725** **114N6726** **114N6727**	90	2911	3625	4394	5214	6082	6993	7944	8929				6.81 6.63
			95	2657	3342	4076	4858	5683	6547	7447	8378				
			100	2405	3060	3761	4504	5286	6104	6954	7831				
			105		2781	3448	4153	4893	5664	6464	7288				
			110			3138	3805	4503	5228	5979	6750				
AWA2479 AWA2490 AVA2510 FJALB200 FJALA225	LCHC0200UWF000N LCHC0200UWF000Q LCHC0200UWF000R	**114N6729** **114N6730** **114N6731**	90	4571	5324	6147	7041	8004	9036	10130	11290				3.61 3.50 3.51
			95	4227	4943	5724	6572	7486	8465	9505	10600				
			100	3898	4579	5320	6122	6987	7913	8898	9938				
			105		4230	4932	5690	6507	7381	8310	9292				
			110			4559	5275	6044	6866	7741	8665				
AVA2512 AVA2515 VJAL025V FJALB301 VJAL035Z	LCHC0300UWF300N LCHC0300UWF300Q LCZB0300UWF300R	**114N6733** **114N6734** **114N6735**	90	5850	7248	8720	10240	11800	13360	14910	16420				3.19
			95	5375	6708	8104	9544	11010	12470	13920	15320				
			100	4889	6158	7480	8837	10210	11580	12920	14220				
			105		5601	6849	8124	9406	10680	11920	13120				
			110			6213	7406	8600	9777	10920	12020				
VJAL040Z VJAL050Z	LCHC0400UWF000N LGHC0400UWF000Q LGHC0400UWF000R	**114N6737** **114N6738** **114N6739**	90	9106	11160	13370	15740	18250	20910	23700	26610				3.29
			95	8364	10340	12470	14740	17150	19690	22350	25120				
			100	7626	9529	11570	13750	16050	18470	21000	23640				
			105		8723	10680	12750	14950	17250	19660	22150				
			110			9791	11770	13850	16040	18320	20670				
CJDL0600	LGHC0600UWF000Q LGHC0600UWF000R	**114N6741** **114N6742**	90	14890	17940	21250	24820	28630	32690	36990	41500				3.66 3.63
			95	13630	16570	19760	23180	26830	30700	34800	39090				
			100	12340	15170	18230	12500	24980	28670	32560	36640				
			105		13750	16670	19790	23110	26610	30300	34160				
			110			15100	18060	21210	24530	28020	31660				
CPDK0600	LGHC0750UWF000Q LGHC0750UWF000R	**114N6744** **114N6745**	90	20210	24010	28100	32460	37070	41920	46960	52180				3.47 3.45
			95	18820	22450	26350	30500	34880	39470	44230	49160				
			100	17400	20870	24580	28520	32660	36990	41480	46110				
			105		19280	22800	26520	30430	34500	38710	43050				
			110			21010	24510	28180	31990	35930	39980				

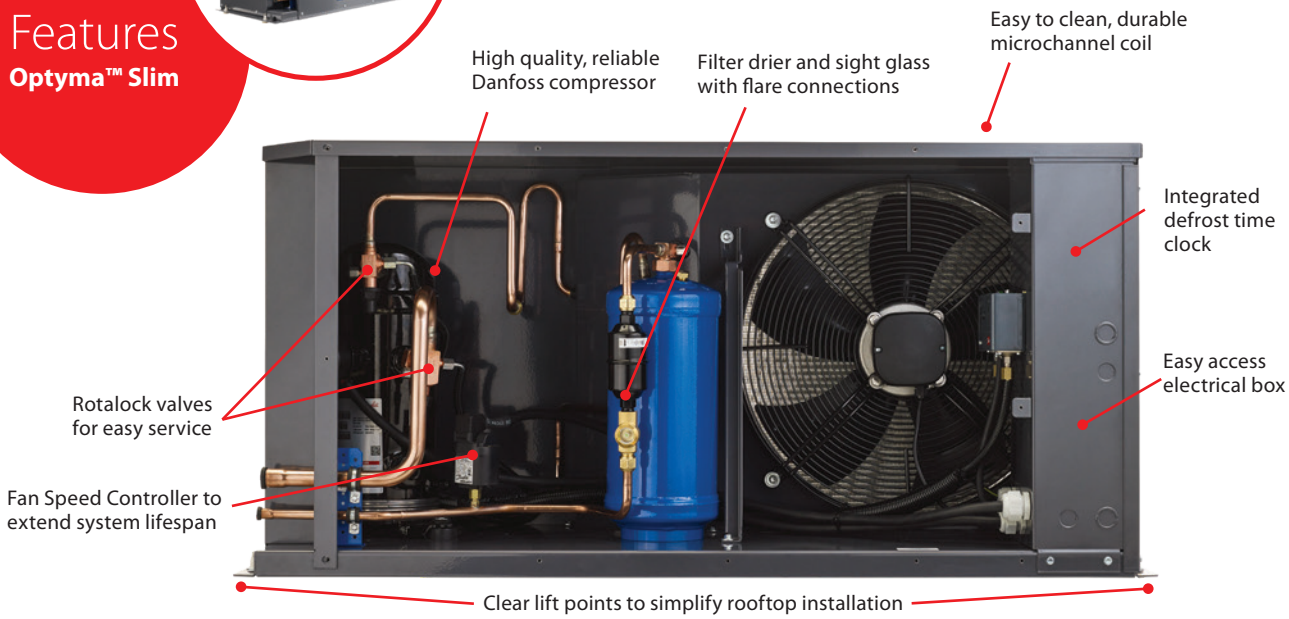
[1] Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units

The Danfoss Optyma™ Slim line of outdoor condensing units range in size from 1 to 10 hp for low and medium temperature applications for R-134a, R-404a, and R-507. With a contractor-friendly, open design the Optyma Slim is easy to install and service. Equipped with high quality Danfoss components, it provides reliable and efficient performance.

Features
Optyma™ Slim



Nomenclature / Model No.

	Application	Design	Refrigerant	Condenser size	HP rating	Certification	Version	Electrical code
OP-	H	N	X	M	0300	U	WG000	Q

Application:
L: low
H: medium / high
U: universal low / medium / high

Design:
C: air cooled condenser, single fan, recip
J: air cooled condenser, slim design, recip
G: air cooled condenser, twin fan, recip
N: air cooled condenser, slim design, scroll
R: air cooled condenser, twin fan, scroll

Refrigerant:
G: R-134a
H: R-404A/R-507A/R-452A
M: R-22 relacement
Z: R-404A/R-507A/R-134a*/R-448A/R-449A/R-452A
X: R-448A/R-449A/R-404A/R-507A/R-134a/R-452A
Y: R-448A/R-449A/R-404A/R-507A/R-452A

Condenser type and rating:
C: fin and tube condenser size 110 °F ambient
M: microchannel condenser size 115 °F ambient

HP rating:
HP rating in hundreths of HP,
i.e.: 0033 = ⅓ HP, 0100 = 1 HP

Certification:
R: UL recognized
U: UL listed

Version:
WA: power cord
WB: power cord, receiver
WC: electrical box, receiver
WD: electrical box, receiver, low pressure control
WE: electrical box, receiver, dual pressure control, fan cycling control, larger than 3 HP dual fan units use KPU fan cycling control
WF: WE and filter drier, sight glass, solenoid valve with coil
WG: electrical box, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure (MBP)
WH: electrical box, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure, suction accumulator (LBP)
WJ: electrical box, receiver, dual pressure control, fan cycling control, filter drier, sight glass

Electrical code:
B: compressor & fan(s), 115V, 1ph, 60 Hz
N: compressor & fan(s), 230V, 1ph, 60 Hz
Q: compressor 208-230V, 3ph, 60 Hz fan(s) 230V, 1ph, 60 Hz
R: compressor 460V, 3ph, 60 Hz fan(s) 460V, 1ph, 60 Hz

Technical data and ordering

Optyma™ Slim - Outdoor Condensing Units (1/7)

R-448A MBP/ R-449A MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HJZM0150UWG000N HJZM0150UWG000Q	**114N3485** **114N3486**	90	7668	8819	10040	11330	12680	14100	15590	8.72
		95	7224	8330	9503	10740	12040	13410	14830	
		100	6791	7852	8978	10170	11420	12720	14090	
		110		6929	7960	9049	10190	11390	12640	
		115		6484	7469	8508	9599	10740	11930	
HNXM0200UWG000N HNXM0200UWG000Q	**114N3487** **114N3488**	90	12910	14400	15990	17690	19490	21400	23430	8.98 9.37
		95	12460	13900	15430	17070	18810	20650	22610	
		100	12010	13390	14870	16450	18120	19900	21780	
		110		12370	13730	15190	16730	18370	20110	
		115		11850	13160	14550	16030	17600	19270	
HNXM0250UWG000N HNXM0250UWG000Q	**114N3489** **114N3490**	90	16790	18660	20650	22770	25020	27390	29900	9.17 9.60
		95	16240	18040	19960	22000	24170	26460	28870	
		100	15690	17420	19260	21230	23310	25510	27830	
		110		16140	17840	19640	21560	23580	25730	
		115		15480	17110	18840	20670	22610	24660	
HNXM0300UWG000N HNXM0300UWG000Q	**114N3491** **114N3492**	90	17760	19770	21910	24180	26580	29120	31800	9.28 9.61
		95	17130	19070	21130	23320	25630	28080	30660	
		100	16490	18360	20340	22440	24670	27030	29510	
		110		16900	18730	20660	22710	24880	27170	
		115		16160	17900	19750	21710	23790	25980	
HNXM0350UWG000N HNXM0350UWG000Q	**114N3493** **114N3494**	90	22170	24600	27190	29960	32890	35990	39270	9.98 10.63
		95	21400	23740	26230	28890	31700	34690	37840	
		100	20620	22860	25250	27800	30500	33360	36390	
		110		21060	23240	25560	28030	30650	33420	
		115		20140	22210	24420	26770	29260	31900	
HNXM0400UWG000N HNXM0400UWG000Q	**114N3495** **114N3496**	90	26300	29140	32180	35420	38860	42510	46370	10.13 10.59
		95	25260	28000	30920	34040	37360	40890	44610	
		100	24200	26830	29640	32640	35830	39220	42810	
		110		24410	26980	29730	32670	35800	39110	
		115		23180	25620	28240	31040	34030	37210	
HRXM0500UWG000N HRXM0500UWG000Q	**114N3497** **114N3498**	90	31640	32500	39050	43210	47670	52450	57540	9.47 10.01
		95	30560	33980	37700	41710	46020	50630	55560	
		100	29480	32760	36330	40180	44340	48790	53550	
		110		30290	33550	37090	40920	45040	49460	
		115		29050	32150	35530	39190	43140	47380	
HRXM0600UWG000Q	**114N3499**	90	38490	42850	47520	52510	57830	63480	69460	10.02
		95	37070	41280	45790	50610	55760	61220	67020	
		100	35650	39700	44050	48710	53670	58950	64550	
		110		36520	40550	44850	49450	54360	59570	
		115		34920	38780	42910	47320	52040	57060	
HRXM0600UWG000R	**114N3519**	90	38120	42410	46990	51880	51090	62610	68440	10.02
		95	36710	40840	45270	49990	55020	60350	66000	
		100	35280	39260	43530	48080	52930	58080	63540	
		110		36080	40020	44220	48710	53490	58560	
		115		34470	38240	42270	46580	51170	56040	
HNXM0700UWG000Q	**114N3500**	90	42340	47050	52070	57410	63070	69060	75370	9.83
		95	40720	45260	50110	55260	60720	66490	72580	
		100	39070	43440	48100	53060	58320	63880	69750	
		110		39700	43980	48540	53380	58510	63930	
		115		37770	41860	46120	50840	55760	60960	

[1] Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units (1/7) *continued*

R-448A MBP/ R-449A MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HRXM0700UWG000R	**114N3520**	90	41800	46410	51310	56510	62000	67800	73900	10.16
		95	40180	44620	49340	54340	59640	65230	71100	
		100	38520	42780	47320	52130	57230	62600	68260	
		110		39010	43170	47580	52260	57210	62420	
		115		37070	41040	45250	49710	54440	59430	
HNXM0750UWG000Q	**114N3501**	90	51070	56740	62810	69310	76240	83610	91420	10.28
		95	49310	54780	60640	66910	73590	80710	88260	
		100	47530	52790	58430	64470	70910	77770	85060	
		110		48720	53920	59480	65420	71770	78510	
		115		46650	51620	56940	62630	68700	75180	
HRXM0750UWG000R	**114N3521**	90	50680	56260	62240	68620	75410	82630	90260	10.78
		95	48910	54300	60060	66210	72760	79730	87100	
		100	47120	52300	57840	63760	70080	76780	83900	
		110		48230	53320	58770	64580	70770	77340	
		115		46150	51010	56220	61780	67700	74000	
HRXM1000UWG000Q	**114N3502**	90	62370	69580	77310	85550	94330	103600	113500	10.20
		95	59830	66820	74300	82280	90790	99810	109400	
		100	57230	63980	71210	78930	87150	95890	105200	
		110		58100	64800	71980	79630	87770	96420	
		115		55060	61490	68380	75740	83580	91920	
HRXM1000UWG000R	**114N3522**	90	61710	68800	76380	84460	93040	102100	111700	10.20
		95	59160	66020	73360	81170	89480	98290	107600	
		100	56540	63170	70250	77800	85830	94350	103400	
		110		57250	63810	70810	78270	86190	94580	
				54190	60470	67190	74360	81970	90060	

[1]Annual Walk-in Energy Factor
Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contract Danfoss.

Optyma™ Slim - Outdoor Condensing Units (2/7)

R-134a MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HJZM0150UWG000N HJZM0150UWG000Q	**114N3485** **114N3486**	90	4842	5722	6684	7725	8847	10050	11330	7.76 7.93
		95	4571	5415	6336	7334	8408	9558	10780	
		100	4297	5106	5987	6941	7968	9067	10240	
		110		4486	5288	6156	7088	8086	9147	
		115		4176	4940	5765	6651	7598	8606	
HNXM0200UWG000N HNXM0200UWG000Q	**114N3487** **114N3488**	90	8480	9651	10900	12220	13630	15140	16730	8.11 8.93
		95	8207	9349	10570	11860	13240	14710	16280	
		100	7932	9041	10230	11490	12840	14270	15800	
		110		8422	9532	10720	12000	13360	14810	
		115		8113	9183	10330	11560	12880	14290	
HNXM0250UWG000N HNXM0250UWG000Q	**114N3489** **114N3490**	90	10900	12380	13960	15640	17440	19350	21380	8.04 9.26
		95	10530	11980	13520	15170	16930	18800	20770	
		100	10160	11570	13070	14680	16400	18220	20150	
		110		10750	12170	13690	15310	17030	18850	
		115		10350	11720	13180	14750	16420	18180	
HNXM0300UWG000N HNXM0300UWG000Q	**114N3491** **114N3492**	90	11600	13160	14830	16600	18480	20480	22600	8.25 9.48
		95	11220	12740	14370	16100	17940	19890	21960	
		100	10830	12310	13890	15580	17370	19280	21300	
		110		11430	12910	14500	16190	18000	19920	
		115		10980	12420	13950	15590	17340	19200	
HNXM0350UWG000N HNXM0350UWG000Q	**114N3493** **114N3494**	90	14440	16380	18460	20690	23060	25580	28260	8.54 10.39
		95	13970	15870	17900	20070	22390	24860	27480	
		100	13500	15340	17320	19440	21700	24110	26660	
		110		14270	16130	18120	20250	22530	24950	
		115		13740	15520	17440	19500	21710	24050	
HNXM0400UWG000N HNXM0400UWG000Q	**114N3495** **114N3496**	90	17090	19430	21920	24550	27340	30300	33440	9.05 10.46
		95	16540	18820	21230	23800	26530	29420	32490	
		100	15980	18190	20540	20340	25690	28510	31500	
		110		16940	19130	21470	23960	26610	29430	
		115		16320	18420	20670	23070	25630	28360	
HRXM0500UWG000N HRXM0500UWG000Q	**114N3497** **114N3498**	90	20530	23340	26340	29530	32930	36540	40390	8.44 9.40
		95	19880	22620	25540	28660	31990	35530	39300	
		100	19210	21880	24730	27770	31020	34480	38170	
		110		20370	23050	25920	29000	32280	35790	
		115		19620	22200	24980	27950	31140	34540	
HRXM0600UWG000Q	**114N3499**	90	25440	28790	32430	36360	40560	45040	49790	9.77
		95	24570	27840	31390	35210	39310	43680	48300	
		100	23680	26860	30310	34034	38030	42280	46770	
		110		24830	28090	31610	35380	39390	43630	
		115		23800	26960	30370	34020	37910	42030	
HRXM0600UWG000R	**114N3519**	90	25360	28690	32310	36220	40400	44840	49550	10.43
		95	24490	27740	31270	35070	39140	43470	48060	
		100	23590	26760	30190	33890	37860	42070	46530	
		110		24730	27970	31460	35200	39180	43390	
		115		23700	26840	30220	33850	37700	41780	
HNXM0700UWG000Q	**114N3500**	90	26930	30440	34250	38340	42720	47380	52310	9.76
		95	26040	29450	33160	37150	41410	45950	50750	
		100	25120	28440	32050	35930	40070	44490	49160	
		110		26370	29750	33410	37320	41480	45880	
		115		25310	28590	32120	35910	39940	44210	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contract Danfoss.

Optyma™ Slim - Outdoor Condensing Units (2/7) *continued*

R-134a MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HRXM0700UWG000R	**114N3520**	90	26850	30340	34120	38190	42540	47160	52050	9.79
		95	25030	29350	33030	37000	41230	45730	50490	
		100	25030	28340	31920	35770	39890	44270	48900	
		110		26260	29620	33250	37130	41260	45620	
		115		25200	28460	31970	35720	39720	43950	
HNXM0750UWG000Q	**114N3501**	90	32660	36870	41410	46290	51500	57050	62950	9.66
		95	31670	35770	40190	44940	50020	55440	61200	
		100	30690	34660	38950	43570	48520	53800	59400	
		110		32410	36430	40770	45430	50410	55700	
		115		31280	35150	39340	43850	48670	53800	
HRXM0750UWG000R	**114N3521**	90	32600	36800	41330	46190	51380	56910	62790	9.73
		95	31620	35700	40110	44840	49910	55300	61030	
		100	30630	34590	38870	43470	48400	53650	59240	
		110		32350	36350	40670	45310	50260	55530	
		115		31210	35070	39240	43730	48520	53630	
HRXM1000UWG000Q	**114N3502**	90	41830	47000	52650	58760	65320	72310	79710	9.84
		95	40540	45600	51120	57090	63490	70290	77490	
		100	39210	44160	49550	55380	61610	68230	75220	
		110		41150	46280	51800	57700	63950	70540	
		115		39580	44580	49950	55680	61750	68130	
HRXM1000UWG000R	**114N3522**	90	41740	46890	52510	58600	65130	72080	79430	9.49
		95	40450	45490	50990	56930	63290	70060	77210	
		100	39120	44040	49410	55210	61410	67990	74940	
		110		41020	46130	51630	57500	63710	70250	
				39450	44430	49780	55470	61500	67840	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.

Check Coolselector or contract Danfoss.

Optyma™ Slim - Outdoor Condensing Units (3/7)

R-404A LBP/ R-507MBP		Ambient temperature (°F)								AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HJZM0150UWG000N HJZM0150UWG000Q	**114N3485** **114N3486**	90	9048	10350	11676	13124	14644	16232	17847	7.85 7.85
		95	8504	9749	11017	12399	13848	15363	16904	
		100	7957	9146	10355	11672	13052	14492	15960	
		110		8138	9249	10458	11723	13042	14388	
		115		7532	8585	9730	10927	12175	13449	
HNXM0200UWG000N HNXM0200UWG000Q	**114N3487** **114N3488**	90	14640	16250	17950	19740	21590	23520	25490	10.06 10.04
		95	13970	15520	17150	18870	20650	22490	24380	
		100	13290	14780	16340	17990	19700	21460	23260	
		110		13240	14680	16180	17750	19350	20990	
		115		12440	13820	15260	16750	18280	19850	
HNXM0250UWG000N HNXM0250UWG000Q	**114N3489** **114N3490**	90	19080	20970	22970	25090	27320	29670	32130	9.81 10.09
		95	18290	20100	22020	24040	26180	28430	30800	
		100	17490	19210	21040	22980	25030	27180	29450	
		110		17390	19050	20810	22670	24640	26710	
		115		16450	18020	19690	21470	23340	25320	
HNXM0300UWG000N HNXM0300UWG000Q	**114N3491** **114N3492**	90	20150	22110	24190	26400	28730	31190	33790	9.65 10
		95	19300	21180	23180	25290	27530	29890	32390	
		100	18420	20220	22140	24160	26310	28580	30970	
		110		18230	19980	21840	23800	25890	28090	
		115		17190	18860	20630	22510	24510	26630	
HNXM0350UWG000N HNXM0350UWG000Q	**114N3493** **114N3494**	90	25330	27850	30510	33300	36230	39270	42440	10.65 10.9
		95	24270	26680	29230	31910	34720	37640	40680	
		100	23170	25480	27930	30490	33180	35980	38900	
		110		22980	25210	27560	30020	32580	35250	
		115		21670	23800	26040	28390	30840	33400	
HNXM0400UWG000N HNXM0400UWG000Q	**114N3495** **114N3496**	90	28880	31820	34900	38120	41480	44960	48570	9.87 10.82
		95	27590	30400	33360	36450	39660	43010	46470	
		100	26270	28960	31790	34740	37820	41020	44340	
		110		25990	28570	31250	34060	36970	40000	
		115		24470	26910	29470	32140	34920	37800	
HRXM0500UWG000N HRXM0500UWG000Q	**114N3497** **114N3498**	90	35730	39530	43530	47720	52110	56690	61440	9.58 10.40
		95	34120	37770	41630	45690	49930	54360	58960	
		100	32480	35990	39700	43610	47700	51970	56420	
		110		32350	35750	39340	43110	47060	51190	
		115		30520	33750	37170	40770	44560	48510	
HRXM0600UWG000Q	**114N3499**	90	43050	47300	51790	56540	61520	66740	72210	10.41
		95	41250	45320	49630	54180	58960	63980	69220	
		100	39410	43310	47430	51780	46360	61170	66200	
		110		39140	42890	46860	51040	55430	60040	
		115		36980	40550	44320	48310	52500	56900	
HRXM0600UWG000R	**114N3519**	90	42760	46970	51400	56080	60990	66130	71500	10.94
		95	40970	44990	49420	53720	58430	63360	68520	
		100	39130	42970	47040	51330	55830	60560	65500	
		100		38790	42490	46400	50510	54830	59350	
		115		36630	40150	43860	47780	41900	56220	
HNXM0700UWG000Q	**114N3500**	90	46560	51140	55980	61060	66380	71930	77700	10.45
		95	44590	48980	53610	58470	63570	68890	74420	
		100	42570	46760	51180	55830	60700	65790	71080	
		110		42140	46150	50360	54790	59420	64250	
		115		39740	43540	47540	51750	56160	60760	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units (3/7) *continued*

R-404A MBP/ R-507MBP		Ambient temperature (°F)								AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HRXM0700UWG000R	**114N3520**	90	46220	50750	55520	60520	65760	71210	76870	10.76
		95	44250	48580	53140	57930	62940	68160	73590	
		100	42230	46360	50710	55290	60070	65070	70260	
		110		41730	45670	49820	54170	58710	63440	
		115		39320	43060	47000	51120	55450	59960	
HNXM0750UWG000Q	**114N3501**	90	56950	63010	69380	76050	83030	90340	97970	10.66
		95	54160	59960	66040	72410	79070	86030	93300	
		100	51290	56830	62620	68670	75010	81620	88520	
		110		50310	55510	60940	66610	72520	78690	
		115		46940	51840	56950	62280	67840	73640	
HRXM0750UWG000R	**114N3521**	90	56660	62700	69070	75750	82720	89980	97500	10.37
		95	53860	59640	65720	72100	78750	85670	92850	
		100	50980	56480	62270	68340	74680	81260	88090	
		110		49920	55110	60560	66240	72140	78260	
		115		46510	51400	56530	61880	67440	73210	
HRXM1000UWG000Q	**114N3502**	90	72760	79770	87190	95020	103300	111900	120900	10.12
		95	69610	76280	83330	90760	98580	106800	115400	
		100	66390	72700	79370	86410	93800	101600	109700	
		110		65300	71210	77440	84000	90890	98100	
		115		61460	67000	72830	78970	85420	92190	
HRXM01000UWG000R	**114N3522**	90	72440	79400	86750	94500	102600	111200	120100	10.05
		95	69300	75900	82880	90230	97960	106100	114500	
		100	66070	72330	78930	85880	93190	100900	108900	
		110		64910	70760	76920	83390	90190	97300	
		115		61080	66550	72310	78370	84730	91400	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units (4/7)

R-452A MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HJZM0150UWG000N HJZM0150UWG000Q	**114N3485** **114N3486**	90	8675	9829	11050	12340	13690	15100	16570	8.09 8.09
		95	8167	9269	10440	11660	12950	14290	15690	
		100	7662	8712	9822	10990	12210	13490	14820	
		110		7606	8606	9658	10760	11910	13100	
		115		7059	8005	8999	10040	11120	12250	
HNXM0200UWG000N HNXM0200UWG000Q	**114N3487** **114N3488**	90	14020	15500	17070	18730	20490	22340	24290	8.48 8.75
		95	13490	14900	16400	18000	19680	21450	23310	
		100	12930	14280	15720	17240	18850	20540	22320	
		110		13000	14300	15670	17120	18660	20270	
		115		12340	13560	14860	16240	17690	19230	
HNXM0250UWG000N HNXM0250UWG000Q	**114N3489** **114N3490**	90	17940	19830	21830	23940	26150	28740	30900	8.65 8.81
		95	17220	19030	20940	22960	25080	27300	29620	
		100	16470	18210	20030	21960	23980	26100	28320	
		110		16500	18150	19890	21720	23640	25650	
		115		15620	17190	18830	20560	22380	24290	
HNXM0300UWG000N HNXM0300UWG000Q	**114N3491** **114N3492**	90	18820	20800	22890	25100	27430	29870	32420	8.66 8.83
		95	18050	19940	21940	24060	26280	28620	31070	
		100	17250	19060	20970	22990	25110	27340	29680	
		110		17220	18940	20770	22690	24710	26840	
		115		16270	17900	19620	21450	23360	25380	
HNXM0350UWG000N HNXM0350UWG000Q	**114N3493** **114N3494**	90	23480	25980	28640	31450	34410	37530	40790	9.64 9.76
		95	22490	24900	27450	30150	32990	35980	39120	
		100	21490	23800	26240	28830	31550	34420	37430	
		110		21530	23760	26110	28600	31230	33980	
		115		20360	22480	24730	27100	29600	32240	
HNXM0400UWG000N HNXM0400UWG000Q	**114N3495** **114N3496**	90	27420	30250	33240	36400	39720	43200	46830	9.29 9.74
		95	26330	29040	31900	34920	38100	41430	44910	
		100	25210	27800	30530	33410	36440	39620	42950	
		110		25210	27670	30280	33020	35910	38940	
		115		23870	26200	28670	31270	34010	36890	
HRXM0500UWG000N HRXM0500UWG000Q	**114N3497** **114N3498**	90	33490	37040	40820	44840	49100	53590	58330	9.52 10.06
		95	32190	35580	39210	43050	47130	51440	55980	
		100	30850	34100	37560	41230	45130	49240	53580	
		110		31020	34150	37470	41000	44740	48690	
		115		29440	32390	35540	38890	42440	46190	
HRXM0600UWG000Q	**114N3499**	90	40810	44950	49360	54040	58980	64190	69670	9.53
		95	39180	43130	47340	51800	56510	61490	66730	
		100	37520	41280	45270	49520	54010	58750	63750	
		110		37480	41060	44860	48890	53170	57680	
		115		35540	38900	42480	46290	50330	54610	
HRXM0600UWG000R	**114N3519**	90	40670	44780	49150	53780	58670	63820	69230	9.89
		95	39040	42950	47120	51540	56200	61120	66290	
		100	37380	41100	45060	49260	53700	58380	63310	
		110		37290	40830	44580	48560	52770	57220	
		115		35340	38660	42190	45940	49910	54110	
HNXM0700UWG000Q	**114N3500**	90	44500	49090	53970	59130	64580	70310	76320	9.81
		95	42630	47020	51680	56620	61830	67320	73080	
		100	40720	44900	49350	54050	59030	64270	69780	
		110		40550	44550	48790	53280	58030	63050	
		115		38330	42090	46100	50350	54860	59620	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units (4/7) *continued*

R-452A MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)							AWEF[1] rating
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40	
HRXM0700UWG000R	**114N3520**	90	44160	48690	53480	58560	63900	69510	75390	10.52
		95	42290	46610	51190	56040	61150	66520	72150	
		100	40380	44490	48850	53470	58340	63470	68850	
		110		40130	44040	48180	52570	57200	62070	
		115		37880	41560	45470	49610	53990	58610	
HRXM0750UWG000Q	**114N3501**	90	53900	59650	65770	72280	79180	86470	94150	10.30
		95	51680	57210	63090	69350	75980	82990	90380	
		100	49420	54710	60350	66340	72700	79430	86520	
		110		49540	54670	60140	65940	72090	75600	
		115		46880	51750	56940	62470	68330	74550	
HRXM0750UWG000R	**114N3521**	90	53730	59450	65540	72000	78850	86080	93690	10.00
		95	51520	57010	62860	69070	75640	82590	89920	
		100	49250	54510	60110	66060	72370	79030	86060	
		110		49340	54430	59840	65590	71680	78110	
		115		46660	51490	56630	62100	67890	74030	
HRXM1000UWG000Q	**114N3502**	90	67150	74200	81650	89500	97760	106400	115500	9.95
		95	64380	71130	78720	85800	93710	102000	110700	
		100	61540	68000	74820	82020	89590	97530	105800	
		110		61520	67700	74220	81090	88310	95890	
		115		58180	64040	70220	76740	83600	90810	
HRXM1000UWG000R	**114N3522**	90	66860	73850	81230	89000	97170	105700	114600	9.69
		95	64080	70780	77850	85300	93120	101300	109900	
		100	61240	67640	74400	81510	88990	96820	105000	
		110		61140	67250	73680	80460	87560	95010	
		115		57790	63560	69650	76070	82810	89880	

[1]Annual Walk-in Energy Factor

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.

Optyma™ Slim - Outdoor Condensing Units (5/7)

R-448A LBP/ R-449A LBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)								AWEF[2] rating
Danfoss Model No.	Danfoss Code No.		-25	-20	-15	-10	-5	0	5	10	
LNYM0400UWH000Q	**114N3652**	90	11030	12470	14030	15720	17550	19500	21590	23820	3.40
		95		12090	13590	15220	16970	18850	20850	22980	
		100			13140	14700	16380	18180	20100	22140	
		105				14170	15770	17490	19330	21270	
		110					15150	16790	18540	20400	
LNYM0500UWH000Q	**114N3653**	90	13550	15280	17170	19210	21420	23800	26350	29070	3.46
		95		14850	16660	18620	20730	23000	25430	28020	
		100			16140	18010	20020	22180	24500	26960	
		105				17380	19300	21350	23550	25890	
		110					18550	20500	22580	24790	
LNYM0600UWH000Q	**114N3654**	90	16310	18430	20730	23220	25930	28840	31960	35290	3.53
		95		17890	20110	22500	25090	27870	30860	34040	
		100			19460	21750	24230	26880	29730	32770	
		105				20970	23330	25860	28570	31460	
		110					22400	24810	27380	30120	
LRYM0800UWH000Q	**114N3655**	90	20080	22620	25360	28340	31540	34990	38670	42590	3.39
		95		21970	24620	27480	30560	33860	37390	41150	
		100			23850	26590	29540	32700	36080	39680	
		105				25660	28490	31510	34730	38170	
		110					27390	30270	33340	36610	

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.
[2] model is not US DOE AWEF compliant.

Optyma™ Slim - Outdoor Condensing Units (6/7)

R-404A LBP/ R-507LBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)								AWEF[2] rating
Danfoss Model No.	Danfoss Code No.		-25	-20	-15	-10	-5	0	5	10	
LJHM0150UWH000N LJHM0150UWH000Q	**114N3508** **114N3509**	90	5545	6509	7537	8627	9776	10980	12240	13550	3.55 3.37
		95		6092	7069	8104	9193	10340	11530	12770	
		100		5676	6603	7582	8612	9691	10820	11990	
		105			6138	7063	8034	9050	10110	11210	
		110				6547	7460	8413	9404	10430	
LJHM0200UWH000N LJHM0200UWH000Q	**114N3518** **114N3511**	90	7671	8785	9994	11300	12700	14190	15770	17430	3.68 3.57
		95		8211	9358	10600	11930	13350	14850	16430	
		100		7661	8746	9920	11180	12530	13950	14560	
		105			8159	9267	10460	11730	13090	14510	
		110				8638	9761	10960	12240	13590	
LNYM0400UWH000Q	**114N3652**	90	13650	15330	17130	19030	21050	23190	25440	27810	3.79
		95		14750	16460	18280	20200	22230	24370	26610	
		100			15780	17510	19330	21250	23270	25390	
		105				16720	18440	20250	22160	24150	
		110					17530	19230	21020	22880	
LNYM0500UWH000Q	**114N3653**	90	16480	18500	20670	23000	25500	28160	30980	33960	3.75
		95		17780	19850	22070	24440	26970	29650	32480	
		100			19010	21120	23370	25760	28300	30980	
		105				20150	22280	24540	26930	29460	
		110					21160	23290	25540	27920	
LNYM0600UWH000Q	**114N3654**	90	20030	22520	25230	28160	31310	34690	38300	42150	3.57
		95		21680	24270	27060	30060	33280	36720	40380	
		100			23280	25940	28790	31850	35110	38580	
		105				24790	27500	30390	33480	36770	
		110					26180	28910	31830	34930	
LRYM0600UWH000R	**114N3523**	90	19970	22450	25140	28050	31170	34520	34470	37920	3.84
		95		21600	24170	26940	29920	33110	33190	36500	
		100			23180	25820	28650	31670	31890	35060	
		105					26030	28740	29240	32150	
		110						27230	27900	30680	
LRYM0800UWH000Q	**14N3655**	90	24700	27740	31303	34560	38360	42410	46720	51290	3.72
		95		26680	29810	33190	36800	40650	44750	49090	
		100			28580	31780	35210	38870	42750	46870	
		105				30350	33600	37060	40730	44610	
		110					31950	35210	38670	42330	
LRYM0800UWH000R	**114N3524**	90	24600	27620	30880	34380	38130	42140	42070	46120	3.86
		95		26560	29670	33000	36580	40380	40450	44320	
		100			28403	31600	34990	38600	38800	42490	
		105					31730	34940	35420	38760	
		110						33060	33690	36860	

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.
[2] model is not US DOE AWEF compliant.

Optyma™ Slim - Outdoor Condensing Units (7/7)

R-452A LBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)					AWEF[2] rating
Danfoss Model No.	Danfoss Code No.		-20	-15	-10	-5	0	
LJHM0150UWH000N LJHM0150UWH000Q	**114N3508** **114N3509**	90	6103	7084	8152	9300	10520	3.45 3.48
		95		6653	7663	8750	9906	
		100			7174	8799	9290	
		110				7098	8058	
		115					7445	
LJHM0200UWH000N LJHM0200UWH000Q	**114N3518** **114N3511**	90	8460	9798	11200	12640	14120	3.29 3.37
		95		9220	10550	11920	13320	
		100			9905	11200	12520	
		110				9758	10920	
		115					10120	
LNYM0400UWH000Q	**14N3652**	90	13370	15000	16750	18620	20620	3.50
		95		14400	16080	17870	19780	
		100			15400	17110	18940	
		110				15550	17200	
		115					16320	
LNYM0500UWH000Q	**114N3653**	90	16540	18510	20630	22900	25320	3.65
		95		17760	19790	21960	24290	
		100			18940	21020	23240	
		110				19090	21100	
		115					20020	
LNYM0600UWH000Q	**114N3654**	90	19770	22140	24710	27470	30430	3.78
		95		21300	23750	26390	29220	
		100			22780	25300	28000	
		110				23060	25500	
		115					24220	
LRYM0600UWH000R	**114N3523**	90	19700	22070	24610	27350	30280	3.60
		95		21220	23660	26270	29070	
		100			22680	25180	27850	
		110				22930	25340	
		115					24060	
LRYM0800UWH000Q	**114N3655**	90	24420	27320	30440	33770	37320	3.44
		95		26290	29260	32430	35810	
		100			28050	31070	34270	
		110				28230	31100	
		115					29470	
LRYM0800UWH000R	**114N3524**	90	24300	27180	30260	33540	37030	3.58
		95		26140	29070	32200	35520	
		100			27860	30830	33980	
		110				27980	30790	
		115					29140	

Full range of models (refrigerants, capacities, and voltages codes), spare parts, and more available at https://bit.ly/CUCatalogNAM.
Check Coolselector or contact Danfoss.
[2] model is not US DOE AWEF compliant.

Scan the QR Code for the full range of condensing units or visit https://bit.ly/CUCatalogNAM.

Optyma™ Cooler - Walk-in Cooler and Freezer Unit Coolers

The Optyma™ Cooler is an efficient unit cooler for walk-in coolers and freezers, available in both US DOE AWEF and NRCan compliant models. This compact unit uses cross-rifled heat exchanger tubing with a corrugated fin design and comes equipped with a maintenance-free, factory-balanced variable-speed capable fan motor to ensure high efficiency. The ®Coolselector®2 app allows for quick optimization, enabling a full walk-in solution and providing peace of mind to contractors and end users.

OPTYMA DACC R X L 041 . 1 A 4 / A 1 H

Product Family:
Optyma

Model Type:
DACC – Cubic

Refrigerant Group:
R-R404A, R507A, R448A, R440A

Feed Type:
X = DX

Model Size:
L – Low Profile
M – Medium Profile
H – High Profile

Nominal Capacity:
BTU/hr / 100

Optimization:
H – for High Profile models and Medium Profile
Blank – Low Profile

Voltage:
1 – 1/230/50-60
2 – 3/380-430/50-60

Defrost Type:
A – Air
E – Electric

Fin Spacing:
4 – 4mm (6 FPI)
6 – 6mm (4 FPI)

Fin Material:
A – Aluminum

Version 1

Low Profile

Danfoss Code No.	6 FPI Air Defrost (Cooler)	Btu/hr	Inlet (in.)	Outlet (in.)
114U0000	Optyma DACC RX L050.1A4/A1	6,340	½	⅝
114U0001	Optyma DACC RX L070.1A4/A1	8,740	½	⅝
114U0002	Optyma DACC RX L100.1A4/A1	12,730	½	⅝
114U0003	Optyma DACC RX L141.1A4/A1	17,700	½	⅝
114U0004	Optyma DACC RX L150.1A4/A1	19,120	½	⅝
114U0005	Optyma DACC RX L210.1A4/A1	25,640	½	⅝
114U0006	Optyma DACC RX L282.1A4/A1	36,250	½	⅞
114U0007	Optyma DACC RX L305.1A4/A1	39,490	½	⅞
114U0008	Optyma DACC RX L354.1A4/A1	44,570	½	⅞
114U0009	Optyma DACC RX L380.1A4/A1	48,770	½	⅞
Danfoss Code No.	**6 FPI Electric Defrost (Freezer)**	**Btu/hr**	**Inlet (in.)**	**Outlet (in.)**
114U0010	Optyma DACC RX L041.1A4/E1	4,580	½	⅝
114U0011	Optyma DACC RX L063.1A4/E1	6,970	½	⅝
114U0012	Optyma DACC RX L084.1A4/E1	9,290	½	⅝
114U0013	Optyma DACC RX L123.1A4/E1	14,130	½	⅞
114U0014	Optyma DACC RX L127.1A4/E1	14,110	½	⅞
114U0015	Optyma DACC RX L186.1A4/E1	20,430	½	1 ⅛
114U0016	Optyma DACC RX L233.1A4/E1	25,330	½	1 ⅛
114U0017	Optyma DACC RX L260.1A4/E1	28,020	½	1 ⅛
114U0018	Optyma DACC RX L315.1A4/E1	35,230	½	1 ⅜

Medium Profile

Danfoss Code No.	6 FPI Air Defrost (Cooler)	Btu/hr	Inlet (in.)	Outlet (in.)
114U0019	Optyma DAAC RX M345.1A4/A1H	36,770	⅝	⅞
114U0020	Optyma DAAC RX M430.1A4/A1H	47,610	⅝	1 ⅛
114U0021	Optyma DACC RX M515.1A4/A1H	54,250	⅞	1 ⅛
114U0022	Optyma DACC RX M645.1A4/A1H	71,910	⅞	1 ⅛
114U0023	Optyma DACC RX M690.1A4/A1H	73,740	⅞	1 ⅜
114U0024	Optyma DACC RX M865.1A4/A1H	95,420	⅞	1 ⅜
Danfoss Code No.	**6 FPI Electric Defrost (Freezer)**	**Btu/hr**	**Inlet (in.)**	**Outlet (in.)**
114U0025	Optyma DACC RX M190.1A4/E1H	19,200	⅝	1 ⅛
114U0026	Optyma DACC RX M305.1A4/E1H	29,390	⅞	1 ⅜
114U0027	Optyma DACC RX M385.1A4/E1H	38,470	⅞	1 ⅜
114U0028	Optyma DACC RX M445.1A4/E1H	42,460	⅞	1 ⅝
114U0029	Optyma DACC RX M575.1A4/E1H	55,090	⅞	1 ⅝
114U0030	Optyma DACC RX M715.1A/E1H	70,040	⅞	2 ⅛
Danfoss Code No.	**4 FPI Electric Defrost (Freezer)**	**Btu/hr**	**Inlet (in.)**	**Outlet (in.)**
114U0031	Optyma DACC RX M250.1A6/E1H	25,020	⅞	1 ⅛
114U0032	Optyma DACC RX M340.1A6/E1H	32,850	⅞	1 ⅜
114U0033	Optyma DACC RX M375.1A6/E1H	36,000	⅞	1 ⅜
114U0034	Optyma DACC RX M505.1A6/E1H	49,360	⅞	1 ⅝
114U0035	Optyma DACC RX M645.1A6/E1H	63,320	⅞	2 ⅛

High Profile

Danfoss Code No.	6 FPI Air Defrost (Cooler)	Btu/hr	Inlet (in.)	Outlet (in.)
114U0036	Optyma DACC RX H0615.1A4/A2H	67,240	⅞	1 ⅛
114U0037	Optyma DACC RX H0750.1A4/A2H	87,230	⅞	1 ⅜
114U0038	Optyma DACC RX H0915.1A4/A2H	101,400	⅞	1 ⅜
114U0039	Optyma DACC RX H1110.1A4/A2H	130,000	⅞	1 ⅝
114U0040	Optyma DACC RX H1475.1A4/A2H	172,800	⅞	1 ⅝
Danfoss Code No.	**6 FPI Electric Defrost (Freezer)**	**Btu/hr**	**Inlet (in.)**	**Outlet (in.)**
114U0041	Optyma DACC RX H0695.1A4/E2H	69,750	⅞	2 ⅛
114U0042	Optyma DACC RX H1025.1A4/E2H	99,970	1 ⅛	2 ⅛
114U0043	Optyma DACC RX H1200.1A4/E2H	120,600	1 ⅛	2 ⅝
Danfoss Code No.	**4 FPI Electric Defrost (Freezer)**	**Btu/hr**	**Inlet (in.)**	**Outlet (in.)**
114U0044	Optyma DACC RX H0615.1A6/E2H	62,990	⅞	2 ⅛
114U0045	Optyma DACC RX H0920.1A6/E2H	91,190	⅞	2 ⅛
114U0046	Optyma DACC RX H1100.1A6/E2H	112,100	1 ⅛	2 ⅝

Cooler: 10 °F TD / 25 °F SST
Freezer: 10 °F TD / –20 °F SST

MT/MTZ - Medium/High Temperature Reciprocating Compressors

Known for their legendary durability, Maneurop® reciprocating compressors from Danfoss cover a wide range of operating conditions. Maneurop MT and MTZ series hermetic reciprocating compressors are designed for high and medium temperature applications. These compressors have a large internal free volume that protects against the risk of liquid hammering when liquid refrigerant enters the compressor.

MT/MTZ Reciprocating Compressors

Nomenclature / Model No.

MT Z 64 HM 4 B VE

Compressor type
MT: medium and high temperature reciprocating compressor

Refrigerant & oil
Blank: R-22, mineral oil
Z: R-134a, R-404A, R-407A/C/F, R-452A*, R-448A*, R449A*, R507A, POE oil (*not available for all model numbers)

Nominal Capacity
In thousand Btu/h at 60 Hz, ARI Conditions

Displacement code (in^3/rev)

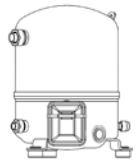
JA: 1.84 **HL:** 5.87
JC: 2.33 **HM:** 6.57
JE: 2.93 **HN:** 7.38
JF: 3.29 **HP:** 8.29
JG: 3.69 **HS:** 10.45
JH: 4.14 **HU:** 13.15
HJ: 4.65 **HV:** 14.76
HK: 5.23 **HW:** 16.57

Motor voltage code
1: 208-230 V / 1 ph / 60 Hz
3: 200-230 V / 3 ph / 60 Hz
4: 380-400 V / 3 ph / 50 Hz
460 V / 3 ph / 60 Hz
5: 230 V / 1 ph / 50 Hz
6: 230 V / 3 ph / 50 Hz
7: 500 V / 3 ph / 50 Hz
575 V / 3 ph / 60 Hz
9: 380 V / 3 ph / 60 Hz

Evolution index

Oil equalization port and sight glass

Technical data and ordering



MT/MTZ -Medium/High Temperature Reciprocating Compressors

Nominal capacity (Btu/h)[2]				Connection type Rotolock (in.)	Connection with supplied sleeve (in. ODF)	No. of cylinders	Weight (lbs.)	208–230/1/60		200–230/3/60		460/3/60	
R-22[3]	R-134a[3] R-513A	R-404A[4] R-507A[4]	R-448A R-449A					Danfoss Model No.[1]	Danfoss Code No.	Danfoss Model No.[1]	Danfoss Code No.	Danfoss Model No.[1]	Danfoss Code No.
15903				1 × 1	½ × ⅜	1	46	MT18JA1*VE	**MT18-1VI**	MT18JA3*VE	**MT18-3VI**	MT18JA4*VE	**MT18-4VI**
21975				1 × 1[5]	½ × ⅜[5]	1	46	MT22JC1*VE	**MT22-1VI**[5]	MT22JC3*VE	**MT22-3VI**	MT22JC4*VE	**MT22-4VI**
30231				1 × 1[5]	½ × ⅜[5]	1	51	MT28JE1*VE	**MT28-1VI**[5]	MT28JE3*VE	**MT28-3VI**	MT28JE4*VE	**MT28-4VI**
33044				1 ¼ × 1	⅝ × ½	1	53	MT32JF1*VE	**MT32-1VI**	MT32JF3*VE	**MT32-3VI**	MT32JF4*VE	**MT32-4VI**
37992				1 ¼ × 1	⅝ × ½	1	55	MT36JG1*VE	**MT36-1VI**	MT36JG3*VE	**MT36-3VI**	MT36JG4*VE	**MT36-4VI**
42930				1 ¼ × 1	⅝ × ½	1	57	MT40JH1*VE	**MT40-1VI**	MT40JH3*VE	**MT40-3VI**	MT40JH4*VE	**MT40-4VI**
43999				1 ¾ × 1 ¼	⅞ × ¾	2	82	MT44HJ1*VE	**MT44-1VI**	MT44HJ3*VE	**MT44-3VI**	MT44HJ4*VE	**MT44-4VI**
50160				1 ¾ × 1 ¼	⅞ × ¾	2	82	MT50HK1*VE	**MT50-1VI**	MT50HK3*VE	**MT50-3VI**	MT50HK4*VE	**MT50-4VI**
56420				1 ¾ × 1 ¼	⅞ × ¾	2	86	MT56HL1*VE	**MT56-1VI**	MT56HL3*VE	**MT56-3VI**	MT56HL4*VE	**MT56-4VI**
64366				1 ¾ × 1 ¼	⅞ × ¾	2	86	MT64HM1*VE	**MT64-1VI**	MT64HM3*VE	**MT64-3VI**	MT64HM4*VE	**MT64-4VI**
74561				1 ¾ × 1 ¼	⅞ × ¾	2	88			MT72HN3*VE	**MT72-3VI**	MT72HN4*VE	**MT72-4VI**
84977				1 ¾ × 1 ¼	1 ⅛ × ¾	2	88			MT80HP3*VE	**MT80-3VI**	MT80HP4*VE	**MT80-4VI**
95898				1 ¾ × 1 ¼	1 ⅛ × ¾	4	132			MT100HS3*VE	**MT100-3VI**	MT100HS4*VE	**MT100-4VI**
124678				1 ¾ × 1 ¼	1 ⅛ × ¾	4	141			MT125HU3*VE	**MT125-3VI**	MT125HU4*VE	**MT125-4VI**
140697				1 ¾ × 1 ¼	1 ⅛ × ¾	4	148			MT144HV3*VE	**MT144-3VI**	MT144HV4*VE	**MT144-4VI**
156820				1 ¾ × 1 ¼	1 ⅛ × ¾	4	152			MT160HW3*VE	**MT160-3VI**	MT160HW4*VE	**MT160-4VI**
	11200	8980	8980	1 × 1	½ × ⅜	1	46	MTZ18JA1*VE	**MTZ18-1VI**	MTZ18JA3*VE	**MTZ18-3VI**	MTZ18JA4*VE	**MTZ18-4VI**
	14849	12306	12306	1 × 1[5]	½ × ⅜[5]	1	46	MTZ22JC1*VE	**MTZ22-1VI**[5]	MTZ22JC3*VE	**MTZ22-3VI**	MTZ22JC4*VE	**MTZ22-4VI**
	19276	15986	15986	1 × 1[5]	½ × ⅜[5]	1	51	MTZ28JE1*VE	**MTZ28-1VI**[5]	MTZ28JE3*VE	**MTZ28-3VI**	MTZ28JE4*VE	**MTZ28-4VI**
	20949	17480	17480	1 ¼ × 1	⅝ × ½	1	53	MTZ32JF1*VE	**MTZ32-1VI**	MTZ32JF3*VE	**MTZ32-3VI**	MTZ32JF4*VE	**MTZ32-4VI**
	24482	20189	20189	1 ¼ × 1	⅝ × ½	1	55	MTZ36JG1*VE	**MTZ36-1VI**	MTZ36JG3*VE	**MTZ36-3VI**	MTZ36JG4*VE	**MTZ36-4VI**
	27864	23031	23031	1 ¼ × 1	⅝ × ½	1	57	MTZ40JH1*VE	**MTZ40-1VI**	MTZ40JH3*VE	**MTZ40-3VI**	MTZ40JH4*VE	**MTZ40-4VI**
	30110	24323	24323	1 ¾ × 1 ¼	⅞ × ¾	2	82	MTZ44HJ1*VE	**MTZ44-1VI**	MTZ44HJ3*VE	**MTZ44-3VI**	MTZ44HJ4*VE	**MTZ44-4VI**
	34538	28590	28590	1 ¾ × 1 ¼	⅞ × ¾	2	82	MTZ50HK1*VE	**MTZ50-1VI**	MTZ50HK3*VE	**MTZ50-3VI**	MTZ50HK4*VE	**MTZ50-4VI**
	38881	32451	32451	1 ¾ × 1 ¼	⅞ × ¾	2	86					MTZ56HL4*VE	**MTZ56-4VI**
	44404	36056	36056	1 ¾ × 1 ¼	⅞ × ¾	2	86	MTZ64HM1*VE	**MTZ64-1VI**	MTZ64HM3*VE	**MTZ64-3VI**	MTZ64HM4*VE	**MTZ64-4VI**
	50000	40894	40894	1 ¾ × 1 ¼	⅞ × ¾	2	88			MTZ72HN3*VE	**MTZ72-3VI**	MTZ72HN4*VE	**MTZ72-4VI**
	56336	46521	46521	1 ¾ × 1 ¼	1 ⅛ × ¾	2	88			MTZ80HP3*VE	**MTZ80-3VI**	MTZ80HP4*VE	**MTZ80-4VI**
	63963	52953	52953	1 ¾ × 1 ¼	1 ⅛ × ¾	4	132			MTZ100HS3*VE	**MTZ100-3VI**	MTZ100HS4*VE	**MTZ100-4VI**
	78906	68297	68297	1 ¾ × 1 ¼	1 ⅛ × ¾	4	141			MTZ125HU3*VE	**MTZ125-3VI**	MTZ125HU4*VE	**MTZ125-4VI**
	96936	80472	80472	1 ¾ × 1 ¼	1 ⅛ × ¾	4	148			MTZ144HV3*VE	**MTZ144-3VI**	MTZ144HV4*VE	**MTZ144-4VI**
	107631	87421	87421	1 ¾ × 1 ¼	1 ⅛ × ¾	4	152			MTZ160HW3*VE	**MTZ160-3VI**	MTZ160HW4*VE	**MTZ160-4VI**

[1] These compressor models have threaded sight glass and ⅜ in. flare oil equalization line.
[2] To determine the nominal capacity for R-407A/C/F, R-452A, R-448A, R-449A, check Coolselector.
[3] Evaporator temperature = 45 °F, condensing temperature = 130 °F, superheat = 20 °F, subcooling = 15 °F
[4] Evaporator temperature = 20 °F, condensing temperature = 120 °F, superheat = 20 °F, subcooling = 0 °F
[5] Actual connection for MT and MTZ 22–28 (208–230/1/60) is rotolock 1 ¼ in. × 1 in. and connection with supplied sleeve is ⅝ in. × ½ in. ODF.
Capacitor values and relays for 1 phase compressors are available on page 80.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Belt type crankcase heater; 54W, 230V	MT(Z) 018–040	**7773106**
Belt type crankcase heater; 65W, 110V	MT(Z) 044–081	**7773109**
Belt type crankcase heater; 65W, 230V		**7773107**
Belt type crankcase heater; 65W, 400V		**7773117**
Belt type crankcase heater; 65W, 460V		**120Z0466**
Belt type crankcase heater; 75W, 110V	MT(Z) 100–160	**7773110**
Belt type crankcase heater; 75W, 230V		**7773108**
Belt type crankcase heater; 75W, 400V		**7773118**
Belt type crankcase heater; 75W, 460V		**120Z0464**
PTC heater	all	**120Z0459**
Mounting kit 1 cyl high	MT(Z) 22–28 for 208–230/1/60; 32–40 for 200–230/3/60 and 460/3/60	**8156001**
Mounting kit 1 cyl low	MT(Z) 18 for 208–230/1/60; 22–28 for 200–230/3/60 and 460/3/60	**120Z0760**
Mounting kit 2 cyl HP	MT(Z) 80 for 200-230/3/60	**120Z0761**
Mounting kit 2 cyl except HP	MT(Z) 50–60 for 208–230/1/60	**120Z0762**
Mounting kit 2 cyl	MT(Z) 44 for 208–230/1/60; 4–72 for 200–230/3/60 and 460/3/60	**120Z0763**
Mounting kit 2 cyl HP	MT(Z) 80 for 460/3/60	**120Z0764**
Mounting kit—4 cylinder compressors	MT(Z) 100–160	**8156007**
Mineral oil, 160P; 2 liter can	all MT	**7754001**
Mineral oil, 160P; 5 liter can	all MT	**7754002**
POE lubricant, 160PZ; 1 liter can	all MTZ	**120Z0638**
Oil sight glass and gasket	all	**8156019**
Terminal box; include cover and clamp	MT(Z) 18–44 for 208–230/1/60 18–72 for 200–230/3/60 18–80 for 460/3/60	**8156134**
Terminal box; include cover and clamp	MT(Z) 50–64 for 208–230/1/60 80–160 for 200–230/3/60 100–160 for 460/3/60	**8156135**
Blue spray paint	all	**8154001**
Gasket Set; 1 of each size gasket for the MT(Z) line	all—need 2 for: MT(Z)18 for 208–230 and 460 MT(Z)22–28 for 208–230/3 and 460	**8156009**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	MT(Z)18 for 208–230 and 460 MT(Z)22–28 for 208–230/3 and 460	**7703004**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	MT(Z) 22–40 for 208–230/1 MT(Z) 32–40 for 208–230/3 and 460	**7703005**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	MT(Z) 44–64 for 208–230/1 MT(Z) 44–72 for 208–230/3 and 460	**7703006**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	MT(Z) 80–160 for 208–230/3 and 460	**7703009**
Solder Sleeve P02 (1 ¾ in. rotolock, 1 ⅛ in. ODF)	Suction: MT(Z) 80–160 for 208–230/3 and 460	**8153004**
Solder Sleeve P06 (1 in. rotolock, ½ in. ODF)	Suction: MT(Z) 18 for 208–230/1 MT(Z) 18–28 for 208–230/3 and460 Discharge: MT(Z) 22–40 for 208–230/1 MT(Z) 32–40 for 208–230/3 and 460	**8153007**
Solder Sleeve P04 (1 ¼ in. rotolock, ¾ in. ODF)	Discharge: MT(Z) 44–64 for 208–230/1 MT(Z) 44–160 for 208–230/3 and 460	**8153008**
Solder Sleeve P01 (1 in. rotolock, ⅜ in. ODF)	Discharge: MT(Z) 18 for 208–230/1 MT(Z) 18–28 for 208–230/3 and 460	**8153010**
Solder Sleeve P09 (1 ¼ in. rotolock, ⅝ in. ODF)	Suction: MT(Z) 22–40 for 208–230/1 MT(Z) 32–40 for 208–230/8 and 460	**8153011**
Solder Sleeve P02 (1 ¾ in. rotolock, ⅞ in. ODF)	Suction: MT(Z) 44–64 for 208–230/1 MT(Z) 44–72 for 208–230/3 and 460	**8153013**
Rotolock Nut, 1 in.	Suction: MT(Z) 18 for 208–230/1 MT(Z) 18–28 for 208–230/3 and 460 Discharge: MT(Z) 18–40 for 208–230/1 MT(Z) 18–40 for 208–230/3 and 460	**8153122**
Rotolock Nut, 1 ¼ in.	Suction: MT(Z) 22–40 for 208–230/1 MT(Z) 32–40 for 208–230/3 and 460 Discharge: MT(Z) 44–64 for 208–230/1 MT(Z) 44–160 for 208–230/3 and 460	**8153123**
Rotolock Nut, 1 ¾ in.	Suction: MT(Z) 44–64 for 208–230/1 MT(Z) 44–160 for 208–230/3 and 460	**8153124**

NTZ - Low Temperature Reciprocating Compressors

The Maneurop® NTZ series of reciprocating compressors from Danfoss Commercial Compressors are designed for low evaporating temperature applications with refrigerants R-404A, R-452A, and R-507A. The NTZ series is optimized at –30 °F with an extended evaporating temperature range from –50 °F to +15 °F. NTZ compressors have a large internal free volume that protects against the risk of liquid hammering when liquid refrigerant enters the compressor.

NTZ Reciprocating Compressors

Nomenclature / Model No.

NT Z 048 A 4 L R1 A

- Compressor type
  NT: low temperature reciprocating compressor
- Refrigerant & oil
  Z: R-404A, R-452A*, R507A, POE oil (*Evolution B only)
- Displacement (cm^3/rev)
- UL index indicator
- Motor voltage code
  1: 208-230 V / 1 ph / 60 Hz
  3: 200-230 V / 3 ph / 60 Hz
  4: 380-400 V / 3 ph / 60 Hz
  460 V / 3 ph / 60 Hz
  5: 230 V / 1 ph / 50 Hz
  9: 380 V / 3 ph / 60 Hz
- Motor Protection
  L: Internal motor protection
- Equipment version
  R1: Rotolock connections, oil equalization, sight glass
- Evolution index

Technical data and ordering

NTZ - Low Temperature Reciprocating Compressors

Connection type Rotolock (in.)	Connection with supplied sleeve (in. ODF)	No. of cylinders	Weight (lbs.)	208–230/1/60			200–230/3/60			460/3/60		
				Danfoss Model No.	Nominal capacity[1] (Btu/h)	Danfoss Code No.[2]	Danfoss Model No.	Nominal capacity[1] (Btu/h)	Danfoss Code No.[2]	Danfoss Model No.	Nominal capacity[1] (Btu/h)	Danfoss Code No.[2]
1 ¼ × 1	⅝ × ½	1	46	NTZ048A1LR1B	4547	**120F0293**	NTZ048A3LR1B	4490	**120F0279**	NTZ048A4LR1B	4490	**120F0226**
1 ¼ × 1	⅝ × ½	1	51	NTZ068A1LR1B	6649	**120F0294**	NTZ068A3LR1B	7518	**120F0280**	NTZ068A4LR1B	7518	**120F0230**
1 ¾ × 1 ¼	⅞ × ¾	2	77	NTZ096A1LR1B	9155	**120F0295**	NTZ096A3LR1B	9110	**120F0281**	NTZ096A4LR1B	9110	**120F0234**
1 ¾ × 1 ¼	⅞ × ¾	2	77	NTZ108A1LR1B	10805	**120F0296**	NTZ108A3LR1B	10536	**120F0282**	NTZ108A4LR1B	10536	**120F0238**
1 ¾ × 1 ¼	1 ⅛ × ¾	2	77	NTZ136A1LR1B	10805	**120F0297**	NTZ136A3LR1B	13901	**120F0283**	NTZ136A4LR1B	13901	**120F0236**
1 ¾ × 1 ¼	1 ⅛ × ¾	4	137				NTZ215A3LR1B	21461	**120F0284**	NTZ215A4LR1B	21461	**120F0240**
1 ¾ × 1 ¼	1 ⅛ × ¾	4	141				NTZ271A3LR1B	29788	**120F0285**	NTZ271A4LR1B	29788	**120F0242**

[1] Evaporating temperature = –25 °F, condensing temperature = 105 °F, superheat = 20 °F, subcooling = 0 °F.
[2] Single compressor, threaded sight glass, ⅜ in. oil equalization connection.
Capacitor values and relays for 1 phase compressors are available on page 80.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Belt type crankcase heater; 54W, 230V	NTZ04–068	**7773106**
Belt type crankcase heater; 65W, 110V	NTZ096–136	**7773109**
Belt type crankcase heater; 65W, 230V		**7773107**
Belt type crankcase heater; 65W, 400V		**7773117**
Belt type crankcase heater; 65W, 460V		**120Z0466**
Belt type crankcase heater; 75W, 110V	NTZ215–271	**7773110**
Belt type crankcase heater; 75W, 230V		**7773108**
Belt type crankcase heater; 75W, 400V		**7773118**
Belt type crankcase heater; 75W, 460V		**120Z0464**
PTC heater	all	**120Z0459**
Mounting kit 1 cyl high	NTZ048-68	**8156001**
Mounting kit 2 cyl HP	NTZ136 for 208-230/1/60	**120Z0761**
Mounting kit 2 cyl	NT096-108	**120Z0763**
Mounting kit 2 cyl HP	NTZ136 for 200-230/1/60 and 460/3/60	**120Z0764**
Mounting kit—4 cylinder compressors	NTZ215–271	**8156007**
Oil sight glass and gasket	all	**8156019**
Terminal box; include cover and clamp	NTZ048–136 (except 136–1)	**8156134**
Terminal box; include cover and clamp	NTZ136–1, NTZ215–271	**8156135**
Blue spray paint	all	**8154001**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	NTZ048–068	**7703005**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	NTZ096–108	**7703006**
Rotolock Service Valve Set (no gaskets) Suction and Discharge	NTZ136–271	**7703009**
Solder Sleeve P02 (1 ¾ in. rotolock, 1 ⅛ in. ODF)	all	**8153004**
Solder Sleeve P06 (1 in. rotolock, ½ in. ODF)	Discharge: all	**8153007**
Solder Sleeve P04 (1 ¼ in. rotolock, ¾ in. ODF)	Discharge: all	**8153008**
Solder Sleeve P01 (1 in. rotolock, ⅜ in. ODF)	Discharge: all	**8153010**
Solder Sleeve P09 (1 ¼ in. rotolock, ⅝ in. ODF)	Suction: all	**8153011**
Solder Sleeve P02 (1 ¾ in. rotolock, ⅞ in. ODF)	Suction:all	**8153013**
Rotolock Nut, 1 in.	Discharge: all	**8153122**
Rotolock Nut, 1 ¼ in.	Discharge: all	**8153123**
Rotolock Nut, 1 ¾ in.	Suction: all	**8153124**

H Series - Residential and Light Commercial Scroll Compressors

Danfoss Residential and Light Commercial Air Conditioning Scroll Compressors install quickly and easily and feature a design that minimizes internal parts, decreasing the overall weight and significantly reducing noise during operation. With a bolt pattern and liquid and suction line connections that line up with those of other major scroll compressor manufacturers, Danfoss scroll compressors can be used to replace compressors made by nearly any company.

H Series Scroll Compressors

Nomenclature / Model No.

H R H 040 U 1 L P 6

Application
H: high temperature / air conditioning

Family
C: light commercial scroll
R: residential scroll (new platform)
L: light commercial scroll (new platform)

Refrigerant & oil
M: R-22, AB or PVE oil*
P: R-22 and R-407C, PVE oil
H: R-410A, PVE oil
J: R-410A, PVE oil

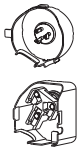
Nominal capacity
In thousand Btu/h at 60 Hz, ARI conditions

Model variation
T: design optimized for 45 °F / 130 °F
U: design optimized for 45 °F / 100 °F

Motor voltage code
1: 208-230 V / 1ph / 60 Hz
2: 200-220 V / 3 ph / 50Hz & 208–230 V /3 ph / 60 Hz
4: 380-400 V /3 ph / 50 Hz & 460 V / 3 ph / 60 Hz
5: 220-240 V / 1 ph / 50 Hz
7: 500 V / 3 ph / 50 Hz & 575 V / 3 ph / 60 Hz
9: 380 V / 3 ph / 60 Hz

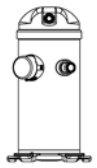
Motor protection
L: internal motor protection

Tubing and electrical connections
P: brazed connections, spade terminals
C: brazed connections, screw terminals



Other features
6: none
7: threaded oil sight glass
8: brazed oil and gas equalization connections

Technical data and ordering



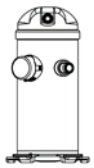
H Series - Residential and Light Commercial Scroll Compressors (R-22/R-407C)

Refrigerant		Voltage/Phase/ Frequency	Tons (approx.)	Competitor Model No.	Solder ODF connection (in.)	Weight (lbs.)	OLD Danfoss Model	NEW Danfoss Model	
								Danfoss Model No.	Danfoss Code No.
R-22	R-407C	1: 200–230V/1/60Hz	2	ZR25K-PFV	¾ × ½	73	HRM025T1LP6	HRP025TL1P6	**121L3086**
			2 ½	ZR28K*-PFV ZR32K*-PFV	¾ × ½	75	HRM032U1LP6	HRP032U1LP6	**121L3345**
			3	ZR34K*-PFV ZR36K*-PFV	¾ × ½	75	HRM038U1LP6	HRP038U1LP6	**121L3353**
			3 ½	ZR40K*-PFV ZR42K*-PFV	¾ × ½	75	HRM040U1LP6 HRM042U1LP6	HRP042T1LP6	**121L3094**
			4	ZR47K*-PFV	⅞ × ½	77	HRM047U1LP6	HRP047U1LP6	**121L3347**
			4 ½	ZR54K*-TF5	⅞ × ½	97	HRM054U1LP6	HRM054U1LP6	**121L3349**
			5	ZR57K*-PFV ZR61K*-PFV	⅞ × ½	97	HRM060U1LP6	HRP060T1LP6	**121L3070**
		2: 200–220V/3/50Hz & 208–230V/3/60Hz	3 ½	ZR42K*-TF5	¾ × ½	75	HRM042U2LP6	HRP042U2LP6	**121L1106**
			4	ZR47K*-TF5	⅞ × ½	71	HRM047U2LP6	HRP047T2LP6	**121L1126**
			4 ½	ZR54K*-TF5	⅞ × ½	93	HRM054U2LP6	HRP054U2LP6	**121L3351**
			5	ZR57K*-TF5 ZR61K*-TF5	⅞ × ½	93	HRM060U2LP6	HRP060T2LP6	**121L2297**
			5 ½		⅞ × ½	85		HLP068T2LC6	**121L3276**
			6	ZR72K*-TF5	⅞ × ½	95	HLM072T2LC6 HLM075T2LC6	HLP075T2LC6	**121L3098**
			7	ZR81KC-TF5	⅞ × ¾	91	HLM081T2LC6	HLP081T2LC6	**121L1916**
			8	ZR94KC-TF5	1 ⅛ × ⅞	108	HCM094T2LC6	HCP094T2LC6	**121L0906**
			10	ZR125KC-TF5 ZR12M3*-TWC	1 ⅛ × ⅞	106	HCM120T2LC6	HCP120T2LC6	**121L0766**
		4: 380–415V/3/50Hz & 460V/3/60Hz	4	ZR47K*-TFD	⅞ × ½	82	HRM047U4LP6	HRP047T4LP6	**121L1046**
			4 ½	ZR54K*-TFD	⅞ × ½	89	HRM054U4LP6	HRP054T4LP6	**121L1691**
			5	ZR57K*-TFD ZR61K*-TFD	⅞ × ½	88	HRM058U4LP6 HRM060U4LP6	HRP060T4LP6	**121L1726**
			5 ½		⅞ × ½	86		HLP068T4LC6	**121L2014**
			6	ZR72K*-TFD	⅞ × ½	58	HLM072T4LC6 HLM075T4LC6	HLP075T4LC6	**121L1766**
			7	ZR81KC-TFD	⅞ × ¾	94	HLM078T4LC6 HLM081T4LC6	HLP081T4LC6	**121L1781**
			8	ZR94KC-TFD	1 ⅛ × ⅞	101	HCM094T4LC6	HCP094T4LC6	**121L0601**
			9	ZR108KC-TFD ZR11M3-TWD	1 ⅛ × ⅞	108	HCM109T4LC6	HCP109T4LC6	**121L0376**
			10	ZR12M3-TWD	1 ⅛ × ⅞	109	HCM120T4LC6	HCP120T4LC6	**121L0401**

Additional models may be available upon request.
Full range of models (refrigerants, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.
Capacitor values and relays for 1 phase compressors are available on page 80.

Scan the QR code for the Danfoss Bulletin R-22 Compressors Replacements and HFC Retrofits or visit
http://bit.ly/DanfossR22CompressorsReplacementBulletin

Technical data and ordering



H Series - Residential and Light Commercial Scroll Compressors (R-410A)

Refrigerant	Motor Voltage	Tons (approx.)	Competitor Model No.	Solder ODF connection (in.)	Weight (lbs.)	OLD Danfoss Model	NEW Danfoss Model	
							Danfoss Model No.	Danfoss Code No.
R-410A	1: 200–230V/1/60Hz	2 ½	ZP29K*E-PFV ZP31K*E-PFV ZP32K*E-PFV	¾ × ½	70	HRH032U1LP6	HRH032U1LP6	**121L1141**
		3	ZP36K*E-PFV	¾ × ½	94	HRH038U1LP6	HRH036U1LP6	**121L1156**
		3 ¼	ZP41K*E-PFV	⅞ × ½	73	HRH040U1LP6	HRH040U1LP6	**121L1161**
		3 ¾	ZP44K*E-PFV	⅞ × ½	99		HRH044U1LP6	**121L1286**
		4	ZP49K*E-PFV	⅞ × ½	79	HRH048U1LP6	HRH048U1LP6	**121L2582**
		4 ½	ZP51K*E-PFV	⅞ × ½	82		HRH051U1LP6	**121L1296**
		5	ZP61K*E-PFV	⅞ × ½	90	HLH061T1LP6	HLH061T1LP6	**121L2042**
	2: 200–220/3/50Hz & 208–230V/3/60Hz	3 ¼	ZP36K*E-TF5 ZP38K*E-TF5 ZP41K*E-TF5	⅞ × ½	77	HRH040U2LP6	HRH040U2LP6	**121L1276**
		3 ¾	ZP44K*E-TF5	⅞ × ½	89		HRH044U2LP6	**121L1456**
		4	ZP51K*E-TF5	⅞ × ½	85		HRH051U2LP6	**121L1466**
		5		⅞ × ½	90	HLH061T2LC6	HLH061T2LC6	**121L2062**
		5 ½	ZP67KCE-TF5	⅞ × ½	89	HLH068T2LC6	HLH068T2LC6	**121L1481**
		6	ZP72KCE-TF5	⅞ × ½	96	HLJ072T2LC6	HLJ072T2LC6	**121L1486**
		7	ZP83KCE-TF5	⅞ × ½	96	HLJ083T2LC6	HLJ083T2LC6	**121L1491**
		7 ½	ZP90KCE-TF5	1 ⅛ × ⅞	102	HCJ090T2LC6	DCJ091T2LC6	**121L5003**
		8 ½	ZP103KCE-TF5	1 ⅛ × ⅞	104	HCJ105T2LC6	DCJ106T2LC6	**121L5011**
		10	ZP120KCE-TF5	1 ⅛ × ⅞	106	HCJ120T2LC6	DCJ121T2LC6	**121L5019**
	4: 380–415V/3/50Hz & 460V/3/60Hz	3 ¼	ZP36K*E-TFD ZP38K*E-TFD ZP41K*E-TFD	⅞ × ½	77	HRH036U4LP6 HRH038U4LP6 HRH040U4LP6	HRH040U4LP6	**121L1211**
		3 ¾	ZP44K*E-TFD	⅞ × ½	77		HRH044U4LP6	**121L1361**
		4	ZP51K*E-TFD	⅞ × ½	87		HRH051U4LP6	**121L1371**
		5	ZP61KCE-TFD	⅞ × ½	96	HLH061T4LC6	HLH061T4LC6	**121L2052**
		5 ½	ZP67KCE-TFD	⅞ × ½	96	HLH068T4LC6	HLH068T4LC6	**121L1391**
		6	ZP72KCE-TFD	⅞ × ½	97	HLJ072T4LC6	HLH072T4LC6	**121L1396**
		7	ZP83KCE-TFD	⅞ × ½	93	HLJ083T4LC6	HLJ083T4LC6	**121L1401**
		7 ½	ZP90K*E-TFD	1 ⅛ × ⅞	109	HCJ090T4LC6	DCJ091T4LC6	**121L5001**
		8 ½	ZP104KCE-TFD	1 ⅛ × ⅞	109	HCJ105T4LC6	DCJ106T4LC6	**121L5009**
		10	ZP120K*E-TFD	1 ⅛ × ⅞	164	HCJ120T4LC6	DCJ121T4LC6	**121L5017**

Additional models may be available upon request.
Full range of models (refrigerants, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.
Capacitor values and relays for 1 phase compressors are available on page 80.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Terminal cover, spade terminals (round)	all	**120Z5015**
Terminal cover, screw terminals (square)		**120Z5018**
Mounting kit for 1 compressor: 4 grommets, 4 sleeves, 4 bolts, 4 washers		**120Z5064**
PVE lubricant, 210HV (FVC68D); 1 liter can	all	**120Z5034**
Wire harness; 5 feet, for 200–230V scroll compressor	models with spade terminals	**120Z5056**
Wire harness; 5 feet, for 380–575V scroll compressor	models with spade terminals	**120Z5057**
Belt type crankcase heater: 40W, 230V	HRM032-047, HRH031-040	**120Z0055**
Belt type crankcase heater: 40W, 400V		**120Z0056**
Belt type crankcase heater: 50W, 230V	HRM048-060, HLM068-075, HRM044-056, HLH061-068, HLJ072-075	**120Z0057**
Belt type crankcase heater: 50W, 400V		**120Z0058**
Belt type crankcase heater: 65W, 230V	HLM078-081, HCM094-120, HLJ083, HCJ090-120	**120Z0059**
Belt type crankcase heater: 65W, 400V		**120Z0060**
Belt type crankcase heater: 70W, 230V		**120Z5040**
Belt type crankcase heater: 70W, 400/440V		**120Z5041**

S Series - Light Commercial and Commercial Scroll Compressors

Danfoss Performer® Universal Scroll Compressors are designed to serve as quick, easy replacements for most commercial air conditioning scroll compressors. These compressors come with a bolt pattern, suction and discharge lines, and performance characteristics that match up directly with some competitors' products.

S Series Scroll Compressors

Nomenclature / Model No.

SM 115 S 4 Q C
DSH 090 A 4 AL C

Refrigerant & oil
SM: R-22, mineral oil
SY: R-22, R-407C, R-134a, POE oil
SZ: R-407C, R-134a, R-404A / R-507A, POE oil
DSH: R-410A, POE oil

Nominal Capacity
In thousand Btu/h at 60 Hz, ARI Conditions

UL index

Motor voltage code
3: 200-230 V / 3 ph / 60 Hz
4: 380-400 V / 3 ph / 50 Hz & 460 V / 3 ph / 60 Hz
6: 230 V / 3 ph / 50 Hz
7: 500 V / 3 ph / 50 Hz & 575 V / 3 ph / 60 Hz
9: 380 V / 3 ph / 60 Hz

Evolution index

Version (for SM, SY, SZ)	Motor protection module	Connection	Module voltage	Applies to
V	Internal overload protector	brazed		084, 090, 100, 110, 120, 148, 161
A		brazed		112, 124, 147
C	Internal thermostat	brazed		115, 125, 160, 175, 185
Q		brazed		
R		rotolock		
P	Electronic protection module	brazed	24V AC	
X		brazed	230V	
S		rotolock	24V AC	
Y		rotolock	230V	
CA		brazed	24V AC	240, 300, 380
CB		brazed	115/230V	
PA		rotolock	24V AC	
PB		rotolock	115/230V	
AC	contact OEM			

Version (for SH)	Motor protection module	Connection	Module voltage	Applies to
AL	Internal overload protector	brazed		090, 105, 120, 140, 161, 175, 184
AA	Electronic protection module	brazed	24V AC	240, 295, 300, 380, 485
AB		brazed	115/230V	
AB		brazed	230V	180
AC	contact OEM			

Scan the QR code for the Danfoss Bulletin R-22 Compressors Replacements and HFC Retrofits or visit
http://bit.ly/DanfossR22CompressorsReplacementBulletin

Technical data and ordering

S Series - Scroll Compressors

Nominal tonnage	Voltage/ Phase/ Frequency	Competitor Part Nos.[1]		Net weight (lbs.)	Connection size/type (suction x discharge)	Solder sleeve adapter set for Rotolock connectors	R-22		R-407C	
							Danfoss Model No.	Danfoss Code No.[2]	Danfoss Model No.	Danfoss Code No.[2]
7 ½	200-230/3/60		ZR94KC-TF5	143	1 ⅜ x ¾ Brazed	**7765005**	SM090S3VC	**SM090-3VI**	SZ090S3VC	**SZ090-3VI**
	460/3/60 400/3/50		ZR94KC-TFD				SM090S4VC	**SM090-4VI**	SZ090S4VC	**SZ090-4VI**
9 ⅓	200-230/3/60	CSHA-093R-0*00 or 0A	ZR108KC-TF5 ZR11M3-TWC	172	1 ⅜ x ⅞ Brazed	**120Z0405**	SM115S3QC	**SM115-3QAI**	SZ115S3QC	**SZ115-3QAI**
	460/3/60 400/3/50	CSHA-093K-0*00 or 0A	ZR108KC-TFD ZR11M3-TWD				SM115S4QC	**SM115-4QAI**	SZ115S4QC	**SZ115-4QAI**
10	200-230/3/60	CSHA-100R-0*00 or 0A	ZR125KC-TF5 ZR12M3-TWC				SM125S3QC	**SM125-3QAI**	SZ125S3QC	**SZ125-3QAI**
	460/3/60 400/3/50	CSHA-100K-0*00 or 0A	ZR125KC-TFD ZR12M3-TWD				SM125S4QC	**SM125-4QAI**	SZ125S4QC	**SZ125-4QAI**
12 ½	200-230/3/60	CSHA-125R-0*00 or 0A	ZR16M3-TWC	198	1 ⅝ x 1 ⅛ Brazed	**7765028**	SM160T3CC	**SM160-3CBI**	SZ160T3CC	**SZ160-3CBI**
	460/3/60 400/3/50	CSHA-125K-0*00 or 0A	ZR16M3-TWD				SM160T4CC	**SM160-4CBI**	SZ160T4CC	**SZ160-4CBI**
14	200-230/3/60	CSHA-140R-0*00 or 0A		220			SM175S3QC	**SM175-3QAI**	SZ175S3QC	**SZ175-3QAI**
	460/3/60 400/3/50	CSHA-140K-0*00 or 0A					SM175S4QC	**SM175-4QAI**	SZ175S4QC	**SZ175-4QAI**
15	200-230/3/60	CSHA-150R-0*00 or 0A	ZR190KC-TW5 ZR19M3-TWC				SM185S3QC	**SM185-3QAI**	SZ185S3QC	**SZ185-3QAI**
	460/3/60 400/3/50	CSHA-150K-0*00 or 0A	ZR190KC-TWD ZR19M3-TWD				SM185S4QC	**SM185-4QAI**	SZ185S4QC	**SZ185-4QAI**

[1] Competitor Model Nos. beginning "ZR" may have different footprint, suction, discharge or height compared to Danfoss Model No.
[2] Code Nos. ending "QAI" include threaded sight glass, ⅜ in. flare SAE oil equalization connection, brazed suction and discharge connections and mounting bracket. Code Nos. ending "VI" and "CBI" have threaded sight glass, ⅜ in. flare SAE oil equalization connection and brazed suction and discharge connections. Use compressor beginning with SM when system will use R-22; use compressor beginning with SZ when retrofitting system to R-407C. For additional information, see Danfoss Literature No. DKRCC.PE.000.H1.02 (http://bit.ly/RefrigerantRetrofits)
Full range of models (refrigerants, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Solder sleeve adapter set (1 ¾ in. rotolock, 1 ⅛ in. ODF), (1 ¼ in. rotolock, ⅞ in. ODF)	SH090	**120Z0125**
Solder sleeve adapter set (1 ¾ in. rotolock, 1 ⅜ in. ODF), (1 ¼ in. rotolock, ⅞ in. ODF) *diameter restrictor	SM115, 125, 160, DSH105, 120, 140, 161, 184	**7765006**
Solder sleeve adapter set (1 ¾ in. rotolock, 1 ⅜ in. ODF), (1 ¼ in. rotolock, ⅞ in. ODF)	SM115, 125, SZ115, 125, DSH105, 120, 140, 161, 184	**120Z0405**
Solder sleeve adapter set (2 ¾ in. rotolock, 1 ⅝ in. ODF), (1 ¾ rotolock, ⅞ in. ODF)	SM160, 175, 185, SZ160, 175, 185, DSH240, 295, 380, 381	**7765028**
Motor protection module, 24V AC	SM115, 125, 160, 185	**120Z0584**
Electrical module 115/230V	DSH 240, 295, 380	**120Z0585**
Belt type crankcase heater; 65W, 460V	SM115, 125, 160, DSH090, 105, 120, 140, 161, 175, 184	**120Z0466**
Belt type crankcase heater; 65W, 110V		**7773109**
Belt type crankcase heater; 65W, 230V		**7773107**
Belt type crankcase heater; 65W, 400V		**7773117**
Belt type crankcase heater; 65W, 400V		**120Z0039**
Belt type crankcase heater; 75W, 110V	SM175, 185, DSH240, 295	**7773110**
Belt type crankcase heater, 75W, 230V		**7773108**
Belt type crankcase heater, 75W, 400V		**7773118**
Belt type crankcase heater, 75W, 460V		**120Z0464**
Belt type crankcase heater, 130W, 110V	DSH380	**7773121**
Belt type crankcase heater, 130W, 230V		**7773122**
Belt type crankcase heater, 130W, 400V		**7773123**
Service kit for terminal box; includes cover, clamp, terminal block connector	DSH090, 105, 120, 140, 161	**8156135**
Terminal box, including cover	SM115, 125, 160, 175, 185	**8156139**
Terminal box cover	DSH140–3, 161–3, 184, 175	**120Z0413**
Terminal box, including cover	DSH240, 295, 380	**120Z0458**
Oil sight glass with gaskets	SM090, 115, 125, 160, 175, 185	**8156019**
Mounting kit for 1 compressor: 4 grommets, 4 sleeves, 4 bolts, 4 washers	SM115–185	**8156138**
Mounting kit for 1 compressor: 4 grommets, 4 sleeves, 4 bolts, 4 washers	DSH090, 105, 120, 140, 161, 175, 184	**120Z0066**
Mounting kit for 1 compressor: 4 rigid grommets, 4 sleeves, 4 bolts, 4 washers	DSH240, 295, 380	**7777045**
Mineral oil, 160P; 2 liter can	all SM, SZ	**7754001**
Mineral oil, 160P; 5 liter can	all SM, SZ	**7754002**
Blue spray paint	all	**8154001**
Oil equalization adaptor. To connect ⅞ in. tube on 22mm oil sight glass connection; includes (1) 22mm to ⅞ in., (2) gaskets.	all SM, SZ, DSH	**120Z0164**
Oil equalization adaptor. To connect ½ in. tube on 22mm oil sight glass connection; includes (1) 22mm to ½ in., (2) gaskets.	all SM, SZ, DSH	**120Z0165**
Oil equalization adaptor kit for trio mounting; oil fittings, gasket and adaptors (copper pipes not included)	SM 160, 185	**7773112**

DSH Series - Light Commercial and Commercial Scroll Compressors with Intermediate Discharge Valves

Refrigerant	Nominal tonnage	Voltage/ phase/ frequency	Competitor model no.[1]		Motor protection	Net weight (lbs.)	Solder ODF connection (in.)	Solder sleeve adaptor set to Rotolock connections	OLD Danfoss Model No.	OLD Danfoss Code No.[2]	NEW Danfoss Model No.[3]	NEW Danfoss Code No.[2]
R-410A	7 ½	200–230/3/60	CCSHD-089J CSHD-092J	ZP90KCE-TF5 ZP91KCE-TF5	Internal Overload Protector	128	1 ⅛ × ⅞	**120Z0125**	SH090A3AL*	**120H0001**	DSH090A3AL*	**120H1180**
		460/3/60	CSHD-089K CSHD-092K	ZP90KCE-TFD					SH090A4AL*	**120H0003**	DSH090A4AL*	**120H1182**
	8 ¾	200–230/3/60	CSHD-105J	ZP103KCE-TF5		141	1 ⅜ × ⅞	**120Z0405**	SH105A3AL*	**120H0209**	DSH105A3AL*	**120H1188**
		460/3/60	CSHD-105K	ZP103KCE-TFD					SH105A4AL*	**120H0211**	DSH105A4AL*	**120H1190**
	10	200–230/3/60	CSHD-125J	ZP120KCE-TF5					SH120A3AL*	**120H0011**	DSH120A3AL*	**120H1196**
		460/3/60	CSHD-125K	ZP120KCE-TFD					SH120A4AL*	**120H0013**	DSH120A4AL*	**120H1198**
	11 ⅓	200–230/3/60	CSHD-142J	ZP137KCE-TF5		148			SH140A3AL*	**120H0199**	DSH140A3AL*	**120H1204**
		460/3/60	CSHD-142K	ZP137KCE-TFD					SH140A4AL*	**120H0201**	DSH140A4AL*	**120H1206**
	13 ½	200–230/3/60	CSHD-161J	ZP154KCE-TF5		152			SH161A3AL*	**120H0021**	DSH161A3AL*	**120H1212**
		460/3/60	CSHD-161K	ZP154KCE-TFD					SH161A4AL*	**120H0023**	DSH161A4AL*	**120H1214**
	15	200–230/3/60	CSHD-183J	ZP182KCE-TF5		158			SH184A3AL*	**120H0359**	DSH184A3AL*	**120H1220**
		460/3/60	CSHD-183K	ZP182KCE-TFD					SH184A4AL*	**120H0361**	DSH184A4AL*	**120H1222**
	20	200–230/3/60	CSHN-176J	ZP236KCE-TW5[2]	24V AC 115/230V	251			SH240A3AA*/ DSH240A3AAA SH240A3AB*/ DSH240A3ABA	**120H0289/ 120H1159 120H0297/ 120H1161**	DSH240A3AA* DSH240A3AB*	**120H1291 120H1289**
		460/3/60	CSHN-176K	ZP236KCE-TWD[2]	24V AC 115/230V				SH240A4AA*/ DSH240A4AAA SH240A4AB*/ DSH240A4ABA	**120H0291/ 120H1119 120H0299/ 120H1121**	DSH240A4AA* DSH240A4AB*	**120H1331 120H1329**
	25	200–230/3/60	CSHN-250J	ZP295KCE-TW5[2]	24V AC 115/230V	258	1 ⅝ × 1 ⅛	**7765028**	SH295A3AA*/ DSH295A3AAA SH295A3AB*/ DSH295A3ABA	**120H0851/ 120H1163 120H0853/ 120H1165**	DSH295A3AA* DSH295A3AB*	**120H1287 120H1285**
		460/3/60	CSHN-250K	ZP295KCE-TWD[2]	24V AC 115/230V				SH295A4AA*/ DSH295A4AAA SH295A4AB*/ DSH295A4ABA	**120H0825/ 120H1123 120H0827/ 120H1125**	DSH295A4AA* DSH295A4AB*	**120H1327 120H1325**
	30	200–230/3/60	CSHN-315J	ZP385KCE-TW5[2]	24V AC 115/230V	357			SH380A3AA*/ DSH381A3AAA SH380A3AB*/ DSH381A3ABA	**120H0151/ 120H1167 120H0152/ 120H1169**	DSH381A3AA* DSH381A3AB*	**120H1283 120H1281**
		460/3/60	CSHN-315K	ZP385KCE-TWD[2]	24V AC 115/230V				SH380A4AA*/ DSH381A4AAA SH380A4AB*/ DSH381A4ABA	**120H0253/ 120H1127 120H0255/ 120H1129**	DSH381A4AA* DSH381A4AB*	**120H1323 120H1321**
	40	200–230/3/60			24V AC 115/230V	388	1 ⅝ × 1 ⅜	**120Z0504**	DSH485A3AAA	**120H1105**	DSH485A3AA* DSH485A3AB*	**120H1344 120H1460**
		460/3/60			24V AC 115/230V				DSH485A4AAA DSH485A4ABA	**120H1131 120H1133**	DSH485A4AA* DSH485A4AB*	**120H1319 120H1317**
	50	460/3/60			24V AC 115/230V	474	2 ⅛ × 1 ⅜	**N/A**			DSH600A4AA* DSH600A4AB*	**120H1380 120H1378**

[1] Competitor Model Nos. beginning "ZP" may have different footprint, suction, discharge or height compared to Danfoss Model No.

[2] Control voltage of external motor protection module must be checked before crossing to Danfoss Model No with 24V ac or 115/230V motor protection module.

[3] Intermediate Discharge Valves (IDVs) are mechanical valves that improve the partload efficiency of air conditioning systems. The Danfoss scroll range with IDVs is backwards compatible with existing Danfoss scrolls to reduce complexity and save time during installation.

Full range of models (refrigerant, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.

Visit http://bit.ly/DSHappguide for the application guideline.

MLZ - Medium Temperature Reciprocating Compressors

Danfoss MLZ scroll compressors for medium temperature applications are dedicated to commercial and light commercial refrigeration applications.

Nomenclature / Model No.

Type	Size	Motor			Features		Evolution
MLZ	021	T	4	L	P	9	A

Application
M: Medium temperature refrigeration

Family, Refrigerant
LZ(A): R404A - R507 - R22 - R134a - R407A - R407F - R448A - R449A - R452A - R513A

Nominal capacity
In thousand Btu/h at 60Hz, ARI, MBP conditions

Model variation
T: Design optimised for refrigeration

Index
- with PVE oil
A with POE oil

Other features

	Oil sight glass	Oil equalisation	Oil drain	LP gauge port	Gas equalisation port
9	Threaded	None	Schrader	None	None

Tubing and electrical connections
P: Brazed connections, spade terminals
C: Brazed connections, screw terminals
T: Rotolock connections, spade terminals
Q: Rotolock connections, screws terminals


Spade terminals


Screw terminals

Motor protection
L: Internal motor protection

Motor voltage code
1: 208-230V/1~/60Hz
2: 200-220V/3~/50Hz & 208-230V/3~/60Hz
4: 380-415V/3~/50Hz & 460V/3~/60Hz

Technical data and ordering

MLZ - Medium Temperature Scroll Compressors

Refrigerant	Voltage/Phase/ Frequency	Tons (approx.)	Nominal capacity (BTU/h)		Connection type Rotolock (in.)	Rotalock connection (in.)	Weight (lbs.)	OLD Danfoss Model	Danfoss Model (brazed)		Danfoss Model (Rotalock)	
			R-404A	R-448A R-449A				Danfoss Model No.	Danfoss Model No.	Danfoss Code No.	Danfoss Model No.	Danfoss Code No.
R-134a, R-404A, R-448A, R-449A, R-452A	1: 208–230V/1/60Hz	2	13720	13990	¾ × ½	1 ¼ × 1	68	MLZ015T1L*9	MLZ015T1LP9A	**121L8659**	MLZ015T1LT9A	**121L8709**
		2.5	18420	18340				MLZ019T1L*9	MLZ019T1LP9A	**121L8717**	MLZ019T1LT9A	**121L8719**
		3	19720	19510				MLZ021T1L*9	MLZ021T1LP9A	**121L8661**	MLZ021T1LT9A	**121L8737**
		3.5	24420	24390				MLZ026T1L*9	MLZ026T1LP9A	**121L8663**	MLZ026T1LT9A	**121L8751**
		4	28700	29650	⅞ × ½		81	MLZ030T1L*9	MLZ030T1LC9A	**121L8665**	MLZ030T1LQ9A	**121L8763**
		5	34540	34080				MLZ038T1L*9	MLZ038T1LC9A	**121L8667**	MLZ038T1LQ9A	**121L8775**
	2: 200–220/3/50Hz & 208–230V/3/60Hz	2	13720	13900	¾ × ½		68	MLZ015T2L*9	MLZ015T2LP9A	**121L8669**	MLZ015T2LT9A	**121L8711**
		2.5	18420	18340				MLZ019T2L*9	MLZ019T2LP9A	**121L8721**	MLZ019T2LT9A	**121L8723**
		3	19720	19510				MLZ021T2L*9	MLZ021T2LP9A	**121L8671**	MLZ021T2LT9A	**121L8739**
		3.5	24420	24390				MLZ026T2L*9	MLZ026T2LP9A	**121L8673**	MLZ026T2LT9A	**121L8753**
		4	28700	29650	⅞ × ½		81	MLZ030T2L*9	MLZ030T2LC9A	**121L8675**	MLZ030T2LQ9A	**121L8765**
		5	34540	34080				MLZ038T2L*9	MLZ038T2LC9A	**121L8677**	MLZ038T2LQ9A	**121L8777**
		6	41780	41960				MLZ045T2L*9	MLZ045T2LC9A	**121L8679**	MLZ045T2LQ9A	**121L8797**
		7	45660	46300	⅞ × ¾	1 ¼ × 1 ¼		MLZ048T2L*9	MLZ048T2LC9A	**121L8681**	MLZ048T2LQ9A	**121L8807**
		7.5	52500	54360	1 ⅛ × ⅞	1 ¾ × 1 ¼	97	MLZ058T2L*9	MLZ058T2LC9A	**121L8683**	MLZ058T2LQ9A	**121L8817**
		9	61980	62730			99	MLZ066T2L*9	MLZ066T2LC9A	**121L8685**	MLZ066T2LQ9A	**121L8827**
		10	69970	67600				MLZ076T2L*9	MLZ076T2LC9A	**121L8687**	MLZ076T2LQ9A	**121L8835**
	4: 380–415V/3/50Hz & 460V/3/60Hz	2	13720	13900	¾ × ½	1 ¼ × 1	68	MLZ015T4L*9	MLZ015T4LP9A	**121L8629**	MLZ015T4LT9A	**121L8713**
		2.5	18420	18340				MLZ019T4L*9	MLZ019T4LP9A	**121L8725**	MLZ019T4LT9A	**121L8727**
		3	19720	19510				MLZ021T4L*9	MLZ021T4LP9A	**121L8633**	MLZ021T4LT9A	**121L8741**
		3.5	24420	24390				MLZ026T4L*9	MLZ026T4LP9a	**121L8637**	MLZ026T4LT9A	**121L8755**
		4	28700	29650	⅞ × ½		81	MLZ030T4L*9	MLZ030T4LC9A	**121L8641**	MLZ030T4LQ9A	**121L8767**
		5	34540	34080				MLZ038T4L*9	MLZ038T4LC9A	**121L8645**	MLZ038T4LQ9A	**121L8779**
		6	41780	41960				MLZ045T4L*9	MLZ045T4LC9A	**121L8649**	MLZ045T4LQ9A	**121L8799**
		7	45660	46300	⅞ × ¾	1 ¼ × 1 ¼		MLZ048T4L*9	MLZ048T4LC9A	**121L8651**	MLZ048T4LQ9A	**121L8809**
		7.5	52500	54360	1 ⅛ × ⅞	1 ¾ × 1 ¼	97	MLZ058T4L*9	MLZ058T4LC9A	**121L8653**	MLZ058T4LQ9A	**121L8819**
		9	61980	62730			99	MLZ066T4L*9	MLZ066T4LC9A	**121L8657**	MLZ066T4LQ9A	**121L8829**
		10	69970	67600				MLZ076T4*L9	MLZ076T4LC9A	**121L8655**	MLZ076T4LQ9A	**121L8837**

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Terminal cover, spade terminals (round)	All	**120Z5015**
Terminal cover, screw terminals (square)		**120Z5018**
Mounting kit for 1 compressor: 4 grommets, 4 sleeves, 4 bolts, 4 washers		**120Z0661**
Discharge thermostat kit		**7750009**
POE lubricant, 215 PZ (RL46HB); 1 liter can		**120Z0648**
Belt type crankcase heater: 65W, 230V	MLZ015–026	**120Z5040**
Belt type crankcase heater: 55/70W, 460V		**120Z5041**
Belt type crankcase heater: 65W, 230V	MLZ030–076	**120Z0059**
Belt type crankcase heater: 70W, 460V		**120Z5012**

LLZ - Low Temperature Reciprocating Compressors

Danfoss LLZ scroll compressors for low temperature applications are dedicated to commercial and light commercial refrigeration applications.

LLZ Reciprocating Compressors

Nomenclature / Model No.

Type	Size	Motor			Features		Evolution
LLZ	013	T	4	L	Q	9	A

Application
L: low temperature refrigeration

Family, Refrigerant
LZ: R404A, R507, R452A, R448A, R449A

Nominal capacity
In thousand Btu/h at 60 Hz, ARI, LBP conditions of R404A

Model variation
T: design optimised for refrigeration

Motor voltage code
2: 200-220V/3~/50Hz & 208-230V/3~/60Hz
4: 380-415V/3~/50 Hz & 460V/3~/60 Hz
9: 380V/3~60Hz

Motor protection
L: internal motor protection

Tubing and electrical connections
Q: rotolock connections, screw terminals

- with PVE Oil
A with POE Oil

Other features

	Oil sight glass	Oil equalisation	Oil drain	LP gauge port	Gas equalisation port
9	Threaded	None	Schrader	None	None

Technical data and ordering

LLZ - Medium Temperature Scroll Compressors

Refrigerant	Voltage/Phase/ Frequency	Tons (approx.)	Nominal capacity (BTU/h)		Solder ODF connection (in.)	Weight (lbs.)	OLD Danfoss Model	Danfoss Model (Rotalock)	
			R-404A	R-448A R-449A			Danfoss Model No.	Danfoss Model No.	Danfoss Code No.
R-404A, R-448A, R-449A, R-452A	2: 200–220V/3/50Hz & 208-230V/3/60Hz	4	12650	10680	1 x 1	92	LLZ013T2Q9	LLZ013T2TQ9A	**121L9545**
		5	15470	13210		92	LLZ015T2Q9	LLZ015T2TQ9A	**121L9547**
		6	18420	15790		95	LLZ018T2Q9	LLZ018T2TQ9A	**121L9549**
		8	22990	19490	1 ¼ x 1	101	LLZ024T2Q9	LLZ024T2TQ9A	**121L9551**
		10	32110	27500		112	LLZ034T2Q9	LLZ034T2TQ9A	**121L9553**
	4: 380–415V/3/50Hz & 460V/3/60Hz	4	12650	10680	1 x 1	92	LLZ013T2Q9	LLZ013T4TQ9A	**121L9535**
		5	15470	13210		92	LLZ015T2Q9	LLZ015T4TQ9A	**121L9537**
		6	18420	15790		95	LLZ018T2Q9	LLZ018T4TQ9A	**121L9539**
		8	22990	19490	1 ¼ x 1	101	LLZ024T2Q9	LLZ024T4TQ9A	**121L9541**
		10	32110	27500		112	LLZ034T2Q9	LLZ034T4TQ9A	**121L9543**

[1] Evaporating temperature = –25 °F, Condensing temperature = 105 °F, Superheat = 20 °F, Subcooling = 0 °F

Spare Parts and Accessories

Description	Type(s) applied to	Danfoss Code No.
Terminal cover, screw terminals (square)	All	**120Z5018**
Discharge thermostat kit		**7750009**
POE lubricant, 215 PZ (RL46HB); 1 liter can		**120Z0648**
Belt crankcase heater: 70W, 230V		**120Z5040**
Belt crankcase heater: 70W, 460V		**120Z5041**
Mounting kit for 1 compressor: (4) grommets, (4) sleeves, (4) bolts, (4) washers	LLZ013–018	**120Z0662**
Mounting kit for 1 compressor: (4) grommets, (4) sleeves, (4) bolts, (4) washers	LLZ024–034	**120Z0663**

Capacitors and Relays

Danfoss Models	Start capacitor (µF)	Start capacitor voltage (V)	Run capacitor (µF)	Run capacitor voltage (V)	Start relay Model No.	Start relay Code No.
MT/MTZ18 JA-1	100	330	25	440	RVA 6AMKL (Electrica)	**8173022**
MT/MTZ22 JC-1	100		45			
MT/MTZ28 JE-1	135		50			
MT/MTZ32 JF-1	100		45			
MT/MTZ36 JG-1	100					
MT/MTZ40 JH-1	100		55			
MT/MTZ44 HJ-1	135		45			
MT/MTZ50 HK-1	135					
MT/MTZ56 HL-1	200		55			
MT/MTZ64 HM-1	235					
NTZ048A1LR1A	100		25			
NTZ068A1LR1A	135		50			
NTZ096A1LR1A	135		45		RVA 6AMKL (Electrica)	**8173022**
NTZ108A1LR1A	135					
NTZ136A1LR1A	135					
HRM025	145–175			370	RVA 2ACKO (Electrica)	**120Z0396**
HRM032-034	145–175	250				
HRM038	88–108	330	55		RVA 2ABKO (Electrica)	**120Z0397**
HRM040-045	88–108		60			
HRM047	88–108	250			RVA 2AB3D (Electrica)	**120Z0397**
HRM048	161–193				RVA 2ABKO (Electrica)	**120Z0397**
HRM051-054	161–193		70		RVA 2AB3D (Electrica)	**120Z0397**
HRM058T1-060T1	88–108		55	440	RVA A4IKL (Electrica)	**120Z0398**
HRM058U1-060U1, HLM068-081	189–227	330	80	370	RVA 2ABKO (Electrica)	**120Z0397**
HRP051	161–193	250	70			
HLP068-081	189–227	330	80			
HRH031	145–175	250	45		RVA 2ACKO (Electrica)	**120Z0396**
HRH032-034	88–108	330	50		RVA 2ABKO (Electrica)	**120Z0397**
HRH036	88–108		55		RVA 9CKO (Electrica)	**120Z0393**
HRH038-040	88–108		60		RVA 2ABKO (Electrica)	**120Z0397**
HRH041-051	161–193	250	70			
HRH054-056, HLH068, HLJ072-083	189–227	330	80			
MLZ015	145–175		45	440	RVA2ACKL (Electirca)	**120Z0396**
MLZ019	145–175	250		370		
MLZ021	145–175					
MLZ026	88–108	330	60		RVA2ABKL (Electrica)	**120Z0396**
MLZ030	161–193	250	70			
MLZ038	88–108		55		RVAA4IKL (Electrica)	**120Z0398**

Code Number Index

ENGINEERING
TOMORROW

REFRIGERATION & AIR CONDITIONING

Automatic Controls | Condensing Units | Compressors

80 years

The industry's widest expertise at your disposal. We've been looking ahead since 1933.

Danfoss can accept no responsibility for possible errors in catalogs, brochures, and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

AF299171046140en-010401

©Danfoss | MB | 2023.02