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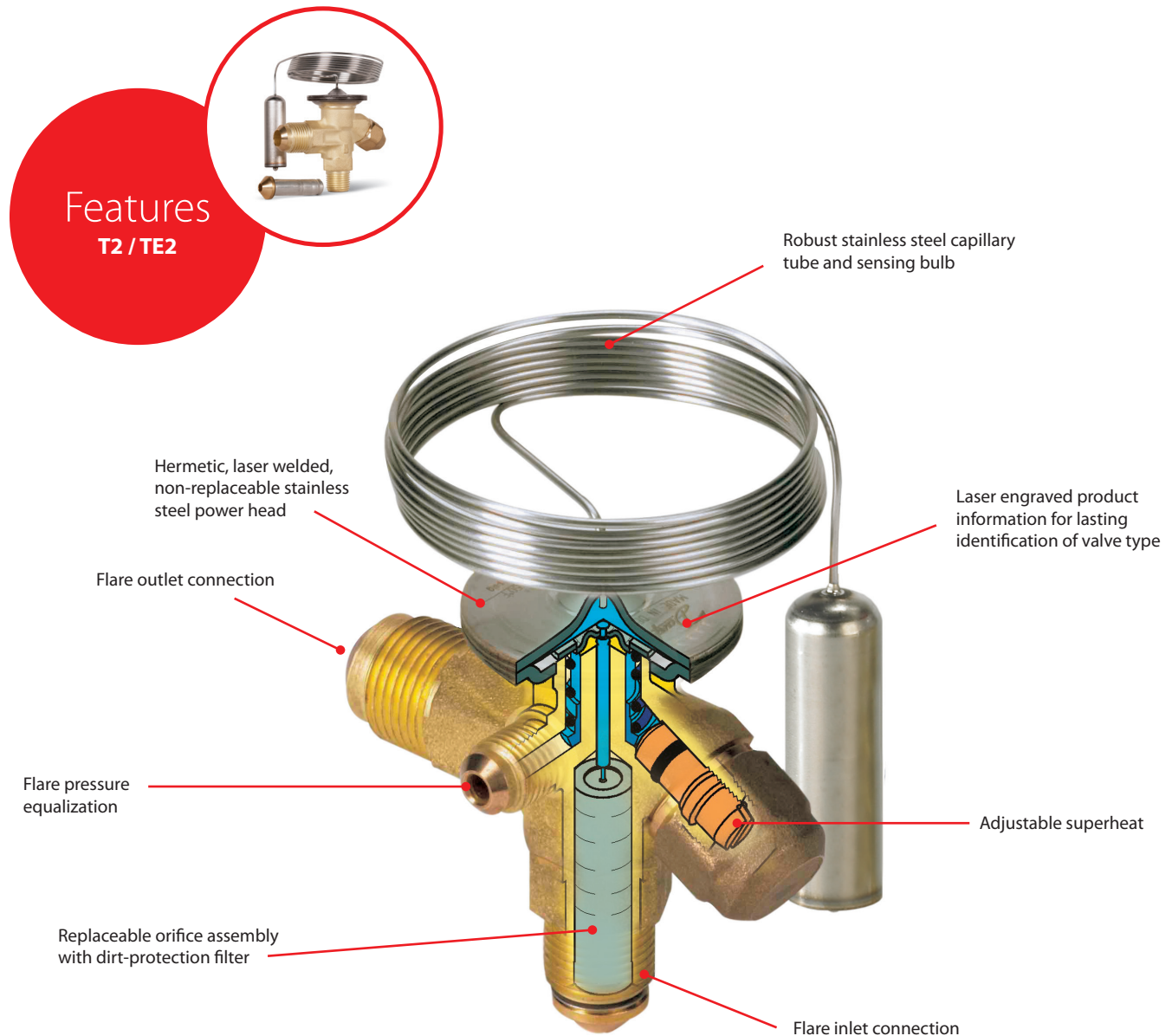
Table of Contents

Thermostatic Expansion Valves	5
T2 / TE2 - Thermostatic Expansion Valves and Kits	5
TUA/TUAE - Thermostatic Expansion Valves and Kits	8
TUA - Thermostatic Expansion Valves for Ice Machines	11
TR6 - Thermostatic Expansion Valves and Kits	13
TGE - Thermostatic Expansion Valves	15
Thermostats and Pressure Switches	17
ERC 213 - Electronic Temperature Control	17
Universal Service Thermostat	18
KPU 19 - Thermostats	20
KPU 60/70 - Thermostats	22
KPU - Pressure Switches	24
MP - Differential Pressure Switch / Lube Oil Protection Switch	26
Solenoid Valves	28
EVR Version 2 - Solenoid Valves	28
Coils for Solenoid Valves	28
Pressure Controlled Water Valves	30
WVFX - Pressure Controlled Water Valves	30
Pressure Regulators	32
KVP - Evaporating Pressure Regulators	32
KVL - Crankcase Pressure Regulators	32
KVR - Condensing Pressure Regulator	32
NRD - Differential Pressure Regulators	32
KVC - Hot Gas Bypass Pressure Regulators	32
CPCE - Hot Gas Bypass Pressure Regulators	32
Filter Driers	34
DCL - Liquid Line Filter Driers	34
DCB - Bi-flow Filter Driers	34
DAS - Suction Line Filter Driers	34
DCR - Filter Drier Cores	34
DCL with Schrader Valve - Filter Driers	36

Ball Valves	37
GBC - Ball Valves	37
Sight Glasses	38
SGP - Sight Glasses	38
Light Commercial Compressors	39
Light Commercial Compressors	39
Condensing Units	42
Optyma™ - Condensing Units	42
Optyma™ Slim - Outdoor Condensing Units	46
Reciprocating Compressors	51
MT / MTZ - Medium/High Temperature Reciprocating Compressors	51
NTZ - Low Temperature Reciprocating Compressors	54
Scroll Compressors	56
H Series - Residential and Light Commercial Scroll Compressors	56
S Series - Light Commercial and Commercial Scroll Compressors	59
Capacitors and Relays	62
Code Number Index	63

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 $+50^{\circ}\text{F}$ and from $\frac{1}{8}$ to $5\frac{3}{4}$ tons capacity (see capacity chart for specifics).



Facts

Applications:

- Traditional refrigeration
- Self-contained refrigerators
- Transport refrigeration
- Supermarket refrigeration
- Temperature range: -40°F to $+50^{\circ}\text{F}$
- Capacity range: $\frac{1}{8}$ to $5\frac{3}{4}$ tons (varies by refrigerant)
- Refrigerants: R-22, R-407C, R-134a, R-404A
- 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
Internal	068Z3206		068Z3400	068Z3346
External	068Z3209		068Z3403	068Z3348

All valves above have 3/8 in. x 1/2 in. flare connections and are designed for evaporator temperatures -40 °F to +50 °F (N charge). Other variations available, please contact your local Danfoss authorized wholesaler.

2. Select Orifice

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 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)										
0X	068-2002	1/4	1/5	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	
00	068-2003	1/2	1/4	1/3	1/3	1/3	1/3	1/3	1/2	1/2	1/2	1/2	
01	068-2010	1	1/3	1/2	1/2	1/2	1/2	3/4	3/4	3/4	1	1	
02	068-2015	1 1/2	1/3	1/2	1/2	3/4	3/4	1	1	1 1/4	1 1/2	1 1/2	
03	068-2006	2 1/2	3/4	3/4	1	1	1 1/2	1 1/2	1 3/4	2	2 1/4	2 1/2	
04	068-2007	3 1/2	1	1	1 1/2	1 3/4	2	2 1/2	2 3/4	3	3 1/2	3 1/2	
05	068-2008	5	1 1/2	1 3/4	2	2 1/2	2 3/4	3	3 3/4	4 1/4	4 3/4	5	
06	068-2009	5 1/2	1 1/2	2	2 1/2	2 3/4	3	3 3/4	4 1/2	5	5 1/2	5 3/4	

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	1/6	1/8	1/6	1/6	1/6	1/6	1/5	1/5	1/5	1/5	1/6
00	068-2003	1/3	1/5	1/5	1/4	1/4	1/3	1/3	1/3	1/3	1/3	1/3
01	068-2010	3/4	1/4	1/3	1/3	1/3	1/2	1/2	1/2	3/4	3/4	3/4
02	068-2015	1	1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1	1
03	068-2006	1 3/4	1/2	1/2	3/4	3/4	1	1 1/3	1 1/2	1 3/4	1 3/4	1 3/4
04	068-2007	2 3/4	3/4	3/4	1	1 1/2	1 1/2	2	2 1/2	2 1/2	3	3
05	068-2008	3 3/4	1	1	1 1/2	1 3/4	2	2 1/2	3	3 1/2	3 3/4	4
06	068-2009	4 1/2	1	1 1/3	1 3/4	2	2 1/2	3	3 3/4	4	4 1/2	4 1/2

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	1/5	1/8	1/6	1/6	1/6	1/6	1/5	1/5	1/5	1/5	1/5
00	068-2003	1/3	1/6	1/6	1/5	1/5	1/4	1/4	1/4	1/3	1/3	1/3
01	068-2010	1/2	1/5	1/4	1/4	1/3	1/3	1/3	1/2	1/2	1/2	1/2
02	068-2015	3/4	1/4	1/4	1/3	1/3	1/3	1/2	1/2	1/2	3/4	3/4
03	068-2006	1 1/2	1/3	1/3	1/2	1/2	3/4	3/4	1	1	1 1/4	1 1/2
04	068-2007	1 3/4	1/2	1/2	3/4	3/4	1	1 1/4	1 1/2	1 1/2	1 3/4	2
05	068-2008	2 1/2	3/4	3/4	1	1	1 1/3	1 1/2	1 3/4	2	2 1/3	2 1/2
06	068-2009	3	3/4	1	1 1/4	1 1/2	1 1/2	2	2 1/4	2 1/2	2 3/4	3

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

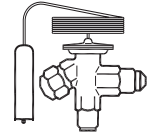
¹ Nominal capacity based on condensing temperature of 100 °F, an evaporator temperature of 40 °F, liquid temperature of 98 °F ahead of the valve.

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

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."



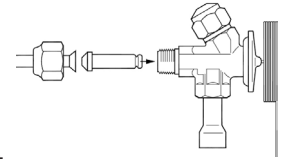
2. Select Orifice

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 and 4:00 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

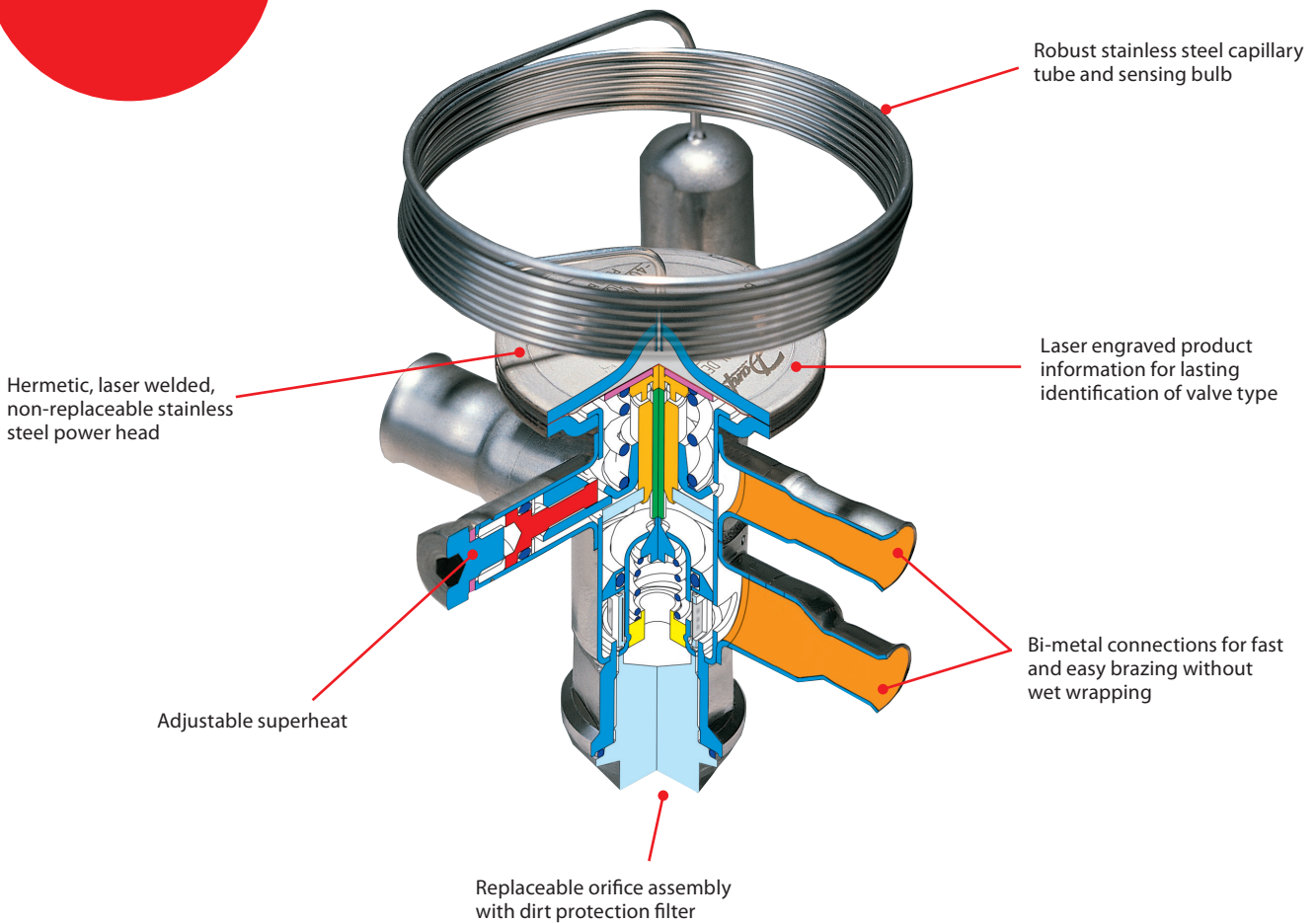
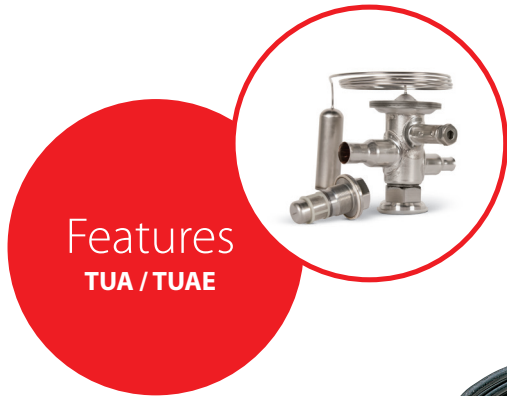
Kits are plastic cases with foam inserts, all valves and orifices, and instructions for selection and installation of the valves. Empty kits and foam available upon request.

Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	068U3507

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 $+50^{\circ}\text{F}$ and up to $4\frac{1}{2}$ tons capacity (see capacity chart for specifics).



Facts

Applications:

- Traditional refrigeration
- Self-contained refrigerators
- Transport refrigeration
- Supermarket refrigeration
- Temperature range: -40°F to $+50^{\circ}\text{F}$
- Capacity range: $\frac{1}{8}$ to $4\frac{1}{2}$ 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/TUInstall>



Product Selection

1. Select Valve Body

Equalization	R-22	R-407C	R-404A	R-134a
Internal	068U2235		068U2285	068U2205
External	068U2237		068U2287	068U2207

All valves above have 3/8 in. x 1/2 in. solder ODF connections and are designed for evaporator temperatures -40 °F to +50 °F (N charge). Other variations 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	1/8	1/15	1/15	1/15	1/10	1/8	1/8	1/6	1/6	1/6	1/5	
1	068U1031	1/5	1/10	1/8	1/8	1/6	1/6	1/5	1/5	1/5	1/4	1/4	
2	068U1032	1/4	1/10	1/8	1/8	1/6	1/5	1/4	1/4	1/4	1/3	1/3	
3	068U1033	1/3	1/8	1/6	1/5	1/4	1/4	1/3	1/3	1/3	1/3	1/3	
4	068U1034	1/2	1/4	1/4	1/4	1/3	1/3	1/2	1/2	1/2	3/4	3/4	
5	068U1035	3/4	1/3	1/3	1/3	1/2	1/2	3/4	3/4	3/4	1	1	
6	068U1036	1 1/2	1/2	1/2	1/2	3/4	3/4	1	1 1/4	1 1/2	1 1/2	1 1/2	
7	068U1037	2	1/2	3/4	3/4	1	1	1 1/2	1 1/2	1 3/4	2	2	
8	068U1038	2 3/4	1	1	1 1/2	1 1/2	1 3/4	2	2 1/2	2 1/2	3	3	
9	068U1039	4	1 1/2	1 1/2	1 3/4	2	2 1/2	2 3/4	3 1/4	3 1/2	4	4 1/2	

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	1/8	1/20	1/20	1/15	1/15	1/10	1/10	1/8	1/8	1/8	1/8
1	068U1031	1/5	1/15	1/15	1/10	1/8	1/8	1/6	1/6	1/5	1/5	1/5
2	068U1032	1/4	1/15	1/15	1/10	1/8	1/6	1/5	1/5	1/4	1/4	1/4
3	068U1033	1/3	1/10	1/8	1/8	1/6	1/5	1/4	1/4	1/3	1/3	1/3
4	068U1034	1/2	1/6	1/6	1/4	1/4	1/3	1/3	1/2	1/2	1/2	1/2
5	068U1035	3/4	1/5	1/4	1/3	1/3	1/2	1/2	1/2	3/4	3/4	3/4
6	068U1036	1 1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1	1	1 1/3
7	068U1037	1 1/2	1/3	1/2	1/2	3/4	1	1	1 1/2	1 1/2	1 1/2	1 3/4
8	068U1038	2 1/2	1/2	3/4	1	1	1 1/2	1 1/2	2	2	2 1/2	2 1/2
9	068U1039	3 1/2	3/4	1	1 1/2	1 1/2	2	2 1/4	2 1/2	3	3 1/2	3 3/4

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	1/8	1/30	1/20	1/20	1/20	1/15	1/15	1/10	1/10	1/8	1/8
1	068U1031	1/6	1/20	1/15	1/15	1/10	1/10	1/8	1/8	1/6	1/6	1/5
2	068U1032	1/5	1/15	1/15	1/15	1/10	1/8	1/6	1/6	1/5	1/5	1/5
3	068U1033	1/4	1/15	1/10	1/8	1/8	1/6	1/5	1/5	1/4	1/4	1/4
4	068U1034	1/3	1/6	1/6	1/5	1/5	1/4	1/4	1/3	1/3	1/3	1/2
5	068U1035	1/2	1/5	1/5	1/4	1/4	1/3	1/3	1/2	1/2	1/2	1/2
6	068U1036	3/4	1/4	1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1
7	068U1037	1 1/4	1/3	1/3	1/2	1/2	3/4	3/4	1	1	1 1/4	1 1/2
8	068U1038	1 3/4	1/2	1/2	3/4	3/4	1	1 1/4	1 1/2	1 3/4	2	2
9	068U1039	2 1/2	3/4	1	1	1 1/2	1 1/2	1 3/4	2	2 1/2	2 3/4	3

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

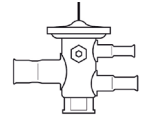
¹Nominal capacity based on condensing temperature of 100 °F, a vapor free liquid temperature of 98 °F ahead of the expansion valve and an evaporator temperature of 40 °F.

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

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."



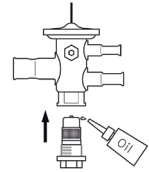
2. Select Orifice

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, recommended 15% 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 and 4:00 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 $\frac{5}{32}$ inch hex key.
 2. Make superheat adjustments $\frac{1}{4}$ turn at a time ($\frac{1}{4}$ turn ≈ 1 °F).
 - Turning clockwise increases superheat.
 - Turning counter-clockwise decreases superheat.
 3. Reinstall the cap.
- ▶ Expansion valves on low temperature systems may require more 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 upon request.

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

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

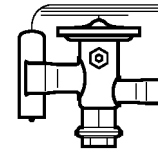
1. Determine the type of machine (cube, flake, or nugget), output of the machine in pounds of ice per 24 hours, and the number of expansion devices installed.
 2. Divide the output in pounds of ice by the number of expansion valves.
 3. Use the appropriate selection table below under Technical data and 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 1/4 turn at a time (1/4 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	068U4900¹
	3	151–350	201–500	
	5	351–600	501–950	
large	7	601–1200	951–1650	068U4901²
	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.

¹Valve in 068U4900 kit above has straightway 1/4 in. × 3/8 in. ODF connections

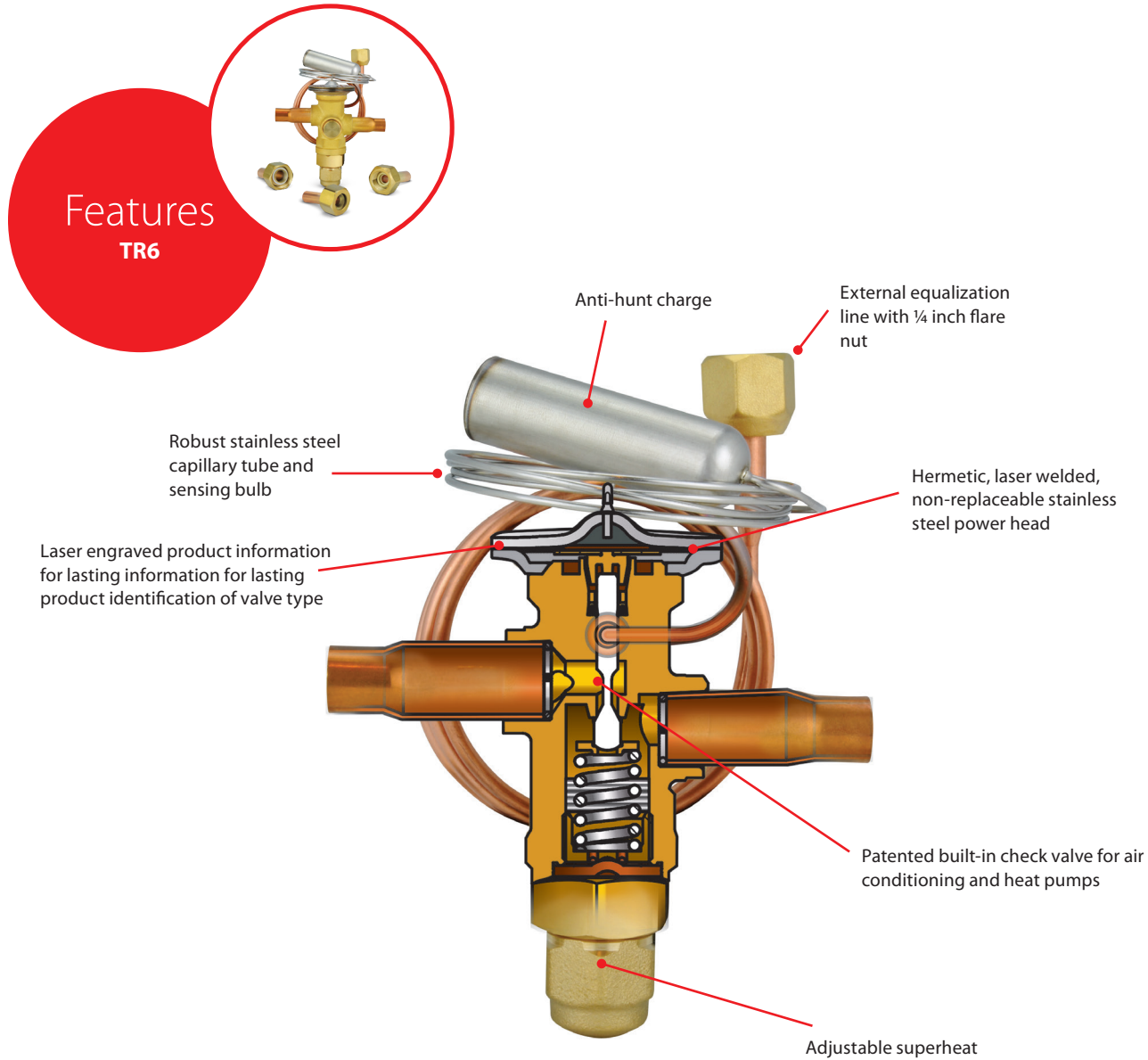
²Valve in 068U4901 kit above has straightway 3/8 in. × 1/2 in. ODF connections

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 3/8 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:

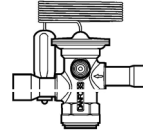
- Residential air conditioning
- Rooftops
- Heat pumps
- Light commercial air conditioning

- Refrigerants: R-22, R-407C, R-410A
- Capacity range: 1 1/2 to 6 Tons
- Temperature range: 14 °F to 59 °F

Kits Include:

- Thermostatic Expansion Valve
- Aeroquip, Chatleff, 3/8 inch flare fittings
- Insulating tape
- Bulb strap
- Installation guide

Technical data and ordering



TR6

Refrigerant	System capacity (tons)	Solder ODF connection (in.)	Temperature range (°F)	Danfoss Code No. ¹
R-410A	1 ½–3	¾ × ¾	14 to 59	067L5955
	3 ½–4			067L5956
	4 ½–5			067L5957
R-22 / R-407C	1 ½–2			067L5856
	2 ½–3			067L5857
	3 ½–4			067L5858
	5–6	067L5859		

¹The valve kits listed above are standard aftermarket valves and are built with straightway connections, internal check valve, 24 in. equalization line with ¼ in. flare nut, fixed orifice, and adjustable superheat spindle.



Easy to carry kits for truck stock

All (3) R-410A TR6 valve kit (pictured left) **067L7000**

All (4) R-22/R-407C TR6 valve kits **067L7001**

Spare Parts and Accessories

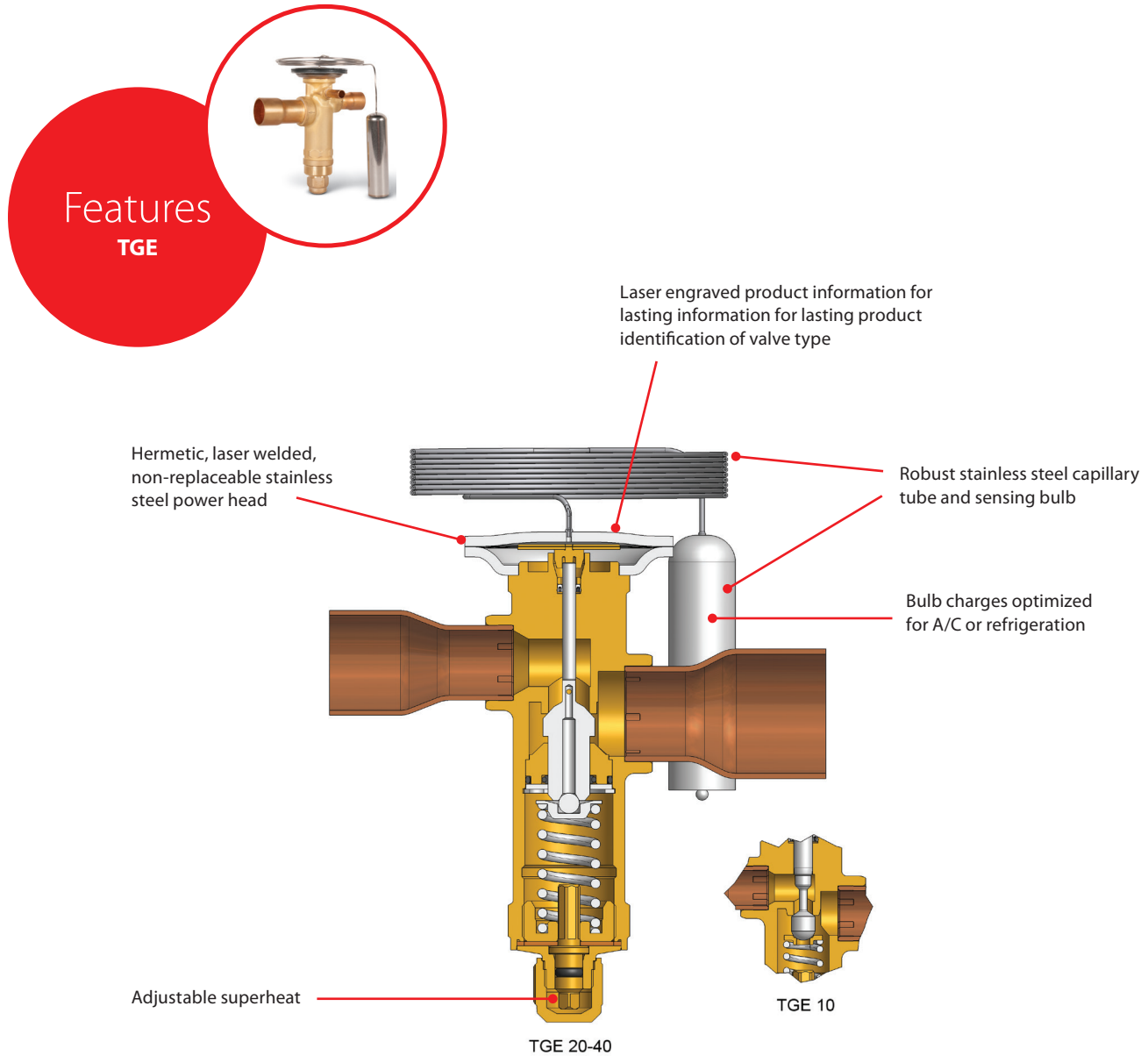
Description	Danfoss Code No.
Bulb strap	068U3507
Fitting ¾ in. ODM × Chatleff	119F3965
Fitting ¾ in. ODM × Aeroquip	119F3966

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.

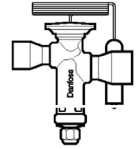


Facts

Applications:

- Traditional refrigeration
- Residential air conditioning
- Rooftops
- Commercial air conditioning
- 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 charge¹		R-407C, MAH charge¹		
TGEX 10	SVE-5, EVRE-5	6	½ × ⅝	067N9403
TGEX 10	SVE-5, EVRE-5	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	11	⅝ × ⅞	067N9407
TGEX 20	EBSVE 11, EVRE 12	12	⅝ × ⅞	067N9409
TGEX 20	EBSVE15, OVE 15	15	⅝ × 1 ⅛	067N9411
TGEX 20	EBSVE15, OVE 15	15	⅞ × 1 ⅛	067N9412
TGEX 20		18	⅞ × 1 ⅛	067N9413
TGEX 40	EBSVE 20, OVE 20	26	⅞ × 1 ⅜	067N9415
TGEX 40	OVE 30	30	1 ⅛ × 1 ⅜	067N9418
TGEX 40	OVE 40	38	2 ⅛ × 1 ⅜	067N9419
R-410A, MAH charge¹				
TGEL 10	ERZE-8	9	⅝ × ⅞	067N9206
TGEL 10	ERZE-12.5	13	⅝ × ⅞	067N9207
TGEL 20	ERZE-15	15	⅝ × ⅞	067N9209
TGEL 20	ERZE-15	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 charge²				
TGEN 10	SJE-5, SJE-6, EBSJE-5	7	⅝ × 1 ⅛	067N5158
TGEN 20	EBSJE-7	8	⅝ × ⅞	067N5159
TGEN 20	EBSJE-12, OJE-12	12	⅞ × 1 ⅛	067N5163
TGEN 40	OJE-16	17	1 ⅛ × 1 ⅛	067N5254
TGEN 40		20	1 ⅛ × 1 ⅛	067N5255
TGEN 40	OJE-23	25	1 ⅛ × 1 ⅜	067N5169
R-404A, N charge²		R-507A, N charge²		
TGES 10	SSE-3	4	½ × ⅞	067N6151
TGES 10	SSE-4	5	½ × ⅞	067N6166
TGES 10	SSE-4	5	⅝ × ⅞	067N6150
TGES 10	SSE-6, SSE-7, EBSSE-6	7 ½	⅝ × ⅞	067N6154
TGES 20	EBSSE-7.5	9	⅝ × ⅞	067N6158
TGES 20	EBSSE-10, OSE-9	11	⅝ × ⅞	067N6188
TGES 20	EBSSE-10, OSE-9	11	⅝ × 1 ⅛	067N6155
TGES 20	EBSSE-10, OSE-9	11	⅞ × 1 ⅛	067N6181
TGES 20	EBSSE-13, OSE-12	13	⅞ × 1 ⅛	067N6162
TGES 20	OSE-21	21	1 ⅛ × 1 ⅜	067N6186

¹MAH charge: -22 °F to 60 °F, Maximum operating temperature = 300 °F

²N charge: -40 °F to 50 °F, Maximum operating temperature = 210 °F

³Nominal capacity based on ARI standard: Evaporating temperature = 40 °F, Liquid temperature = 98 °F, Condensing temperature = 100 °F

Spare Parts and Accessories

Description	Danfoss Code No.
Bulb strap	067N0557

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.



Compatible with all common temperature sensors

Kitted with two temperature sensors

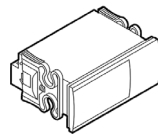


Easy to install (attachment clips included)

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

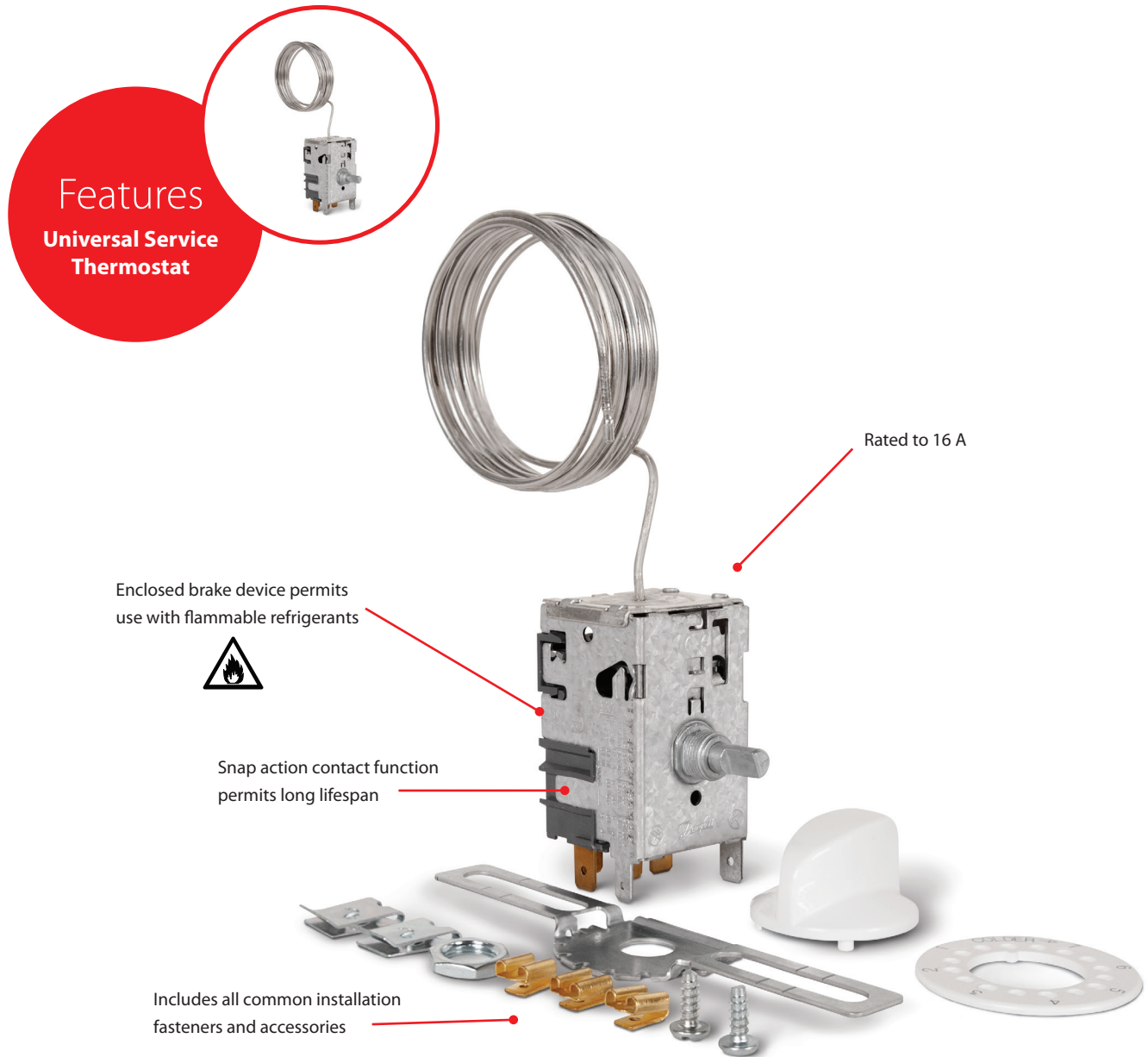
Facts

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.



Features
Universal Service
Thermostat

Rated to 16 A

Enclosed brake device permits use with flammable refrigerants



Snap action contact function permits long lifespan

Includes all common installation fasteners and accessories

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

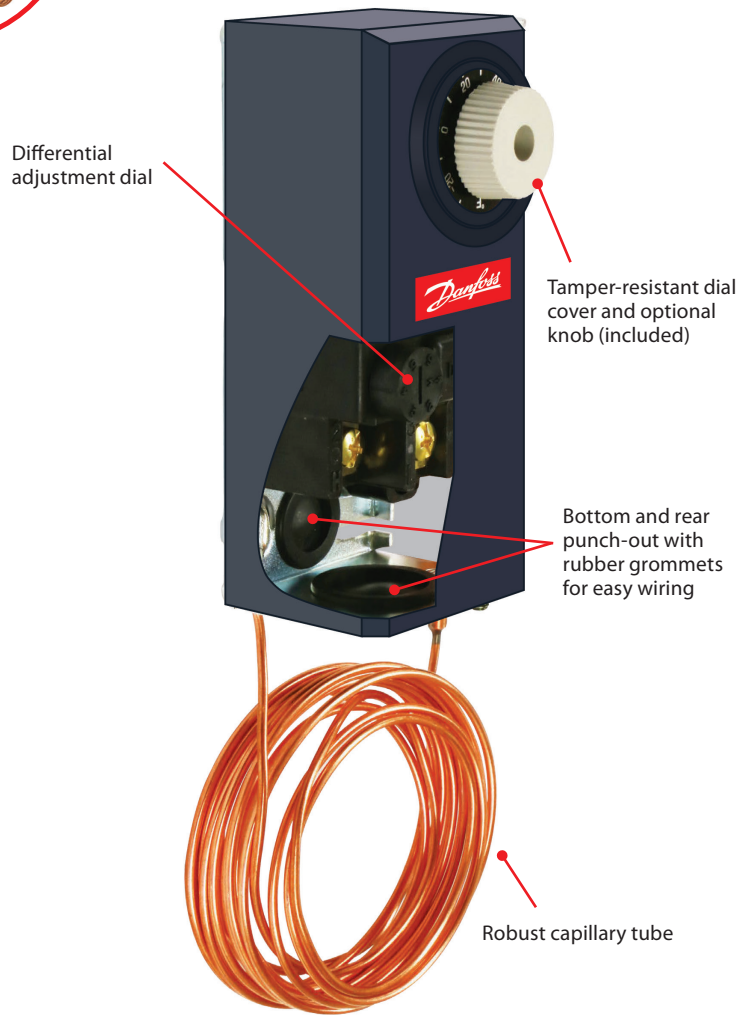
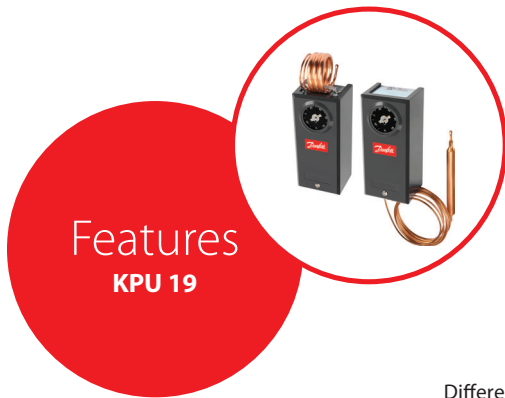
Application	Operation mode	Temperature Range (°F)			Sensor type	Capillary tube length (in.)	Competitor Model No.	Danfoss Code No.
		Warm pos. cut-in/cut-out	Middle pos. cut-in/cut-out	Cold pos. cut-in/cut-out				
Refrigerator	Constant Cut-in	38/28	38/19	38/9	Coiled Bulb	39	A12-1506 A12-710 A12-711	077Z7010
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 flammable 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.



Facts

Applications:

- Traditional refrigeration
- Air conditioning
- Ventilating systems
- Heating systems
- Ambient temperature: -30°F to $+158^{\circ}\text{F}$ (bulb sensor); -30°F to $+140^{\circ}\text{F}$ (room sensor)
- Switch: Single pole changeover switch (SPDT) and single pole non-changeover switch (SPST)
- Enclosure: NEMA 1
- Cable entry: $\frac{7}{8}$ inch cable entry for $\frac{1}{2}$ 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		
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



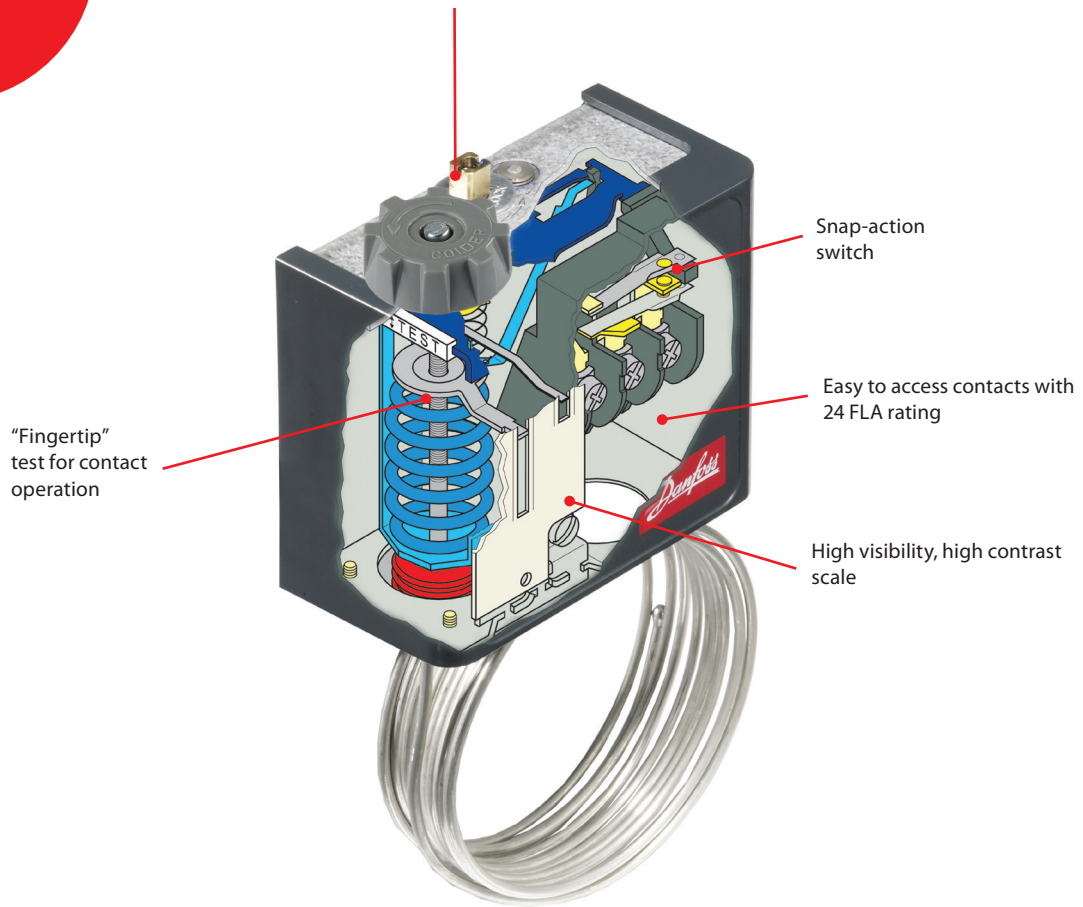
Scan the QR Code for a video of a KPU 19 temperature control replacement or visit http://bit.ly/KPU19_video

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 tests, and are easily adjustable using a standard refrigeration wrench.



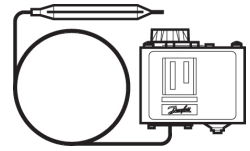
Easy adjustment of temperature setting with hand knob (all but models with manual reset). Differential setting adjusted with standard refrigeration wrench. A set screw prevents settings from migrating.



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 changeover switch (SPDT)
 - Enclosure: NEMA 1
 - Cable entry: 7/8 inch cable entry for 1/2 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	8 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.

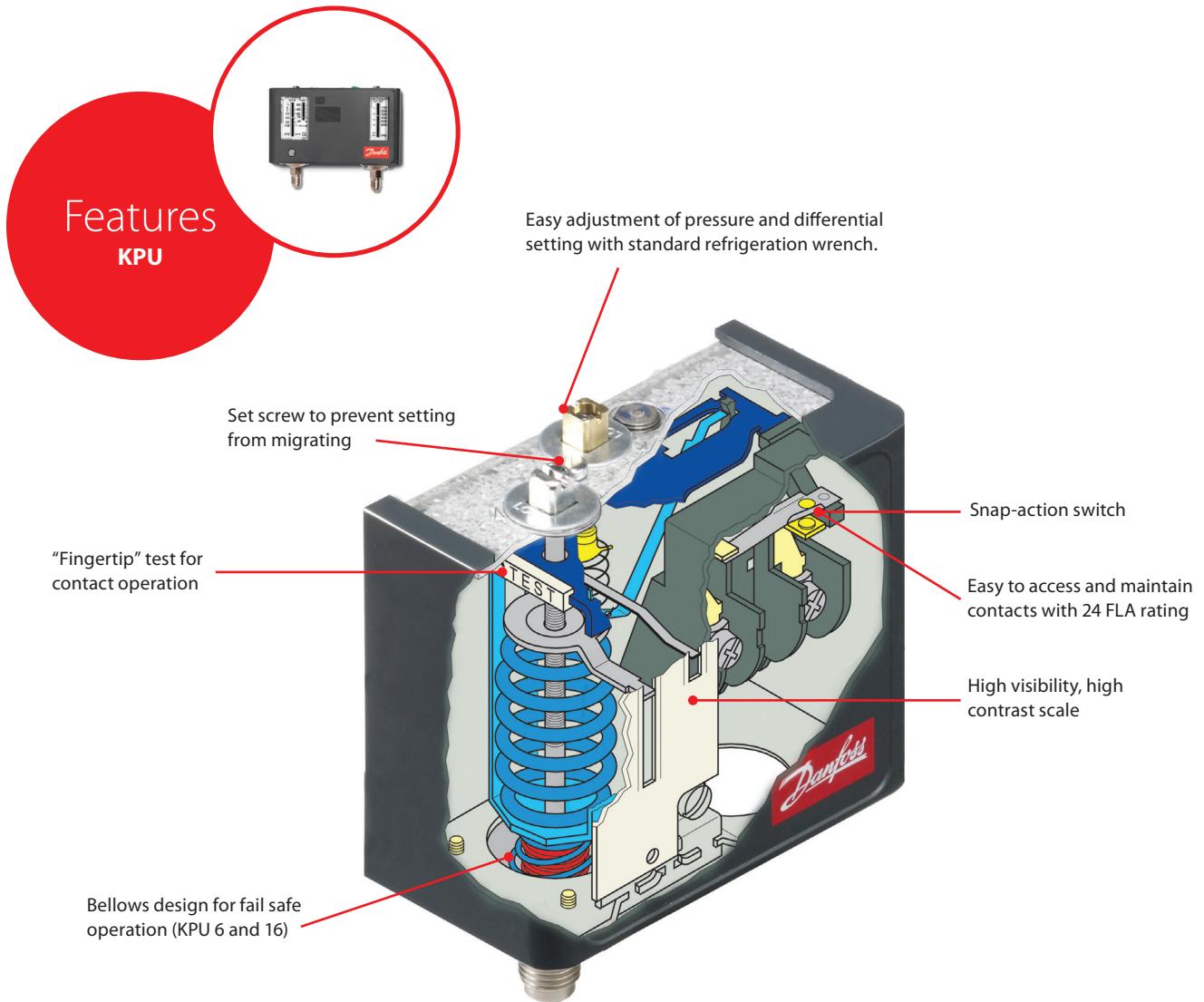
Contact Load	Resistive load		24A/120V AC 24A/240V AC
	Inductive load	Full load	24A/120V AC 24A/240V AC
		Locked rotor	144A/120V AC 144A/240V AC
	Pilot duty		12W/120V DC



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

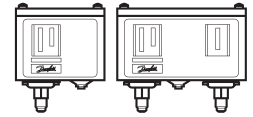
KPU pressure switches are designed to be contractor friendly and used in refrigeration and air-conditioning systems to protect the systems from excessively low suction or too high discharge pressure. They can also be applied to start and stop compressors and the fans of air-cooled condensers. KPU pressure 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.



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: 3/8 inch cable entry for 1/2 inch male pipe thread connection (conduit boss) or similar screwed cable entry
- Pressure connection: 1/4 inch M flare or 3/16 inch capillary tube with 1/4 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	10.2 to 58	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	26.1 to 87	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 temperature: -40 °F to +122 °F (175 °F for maximum 2 hours).

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

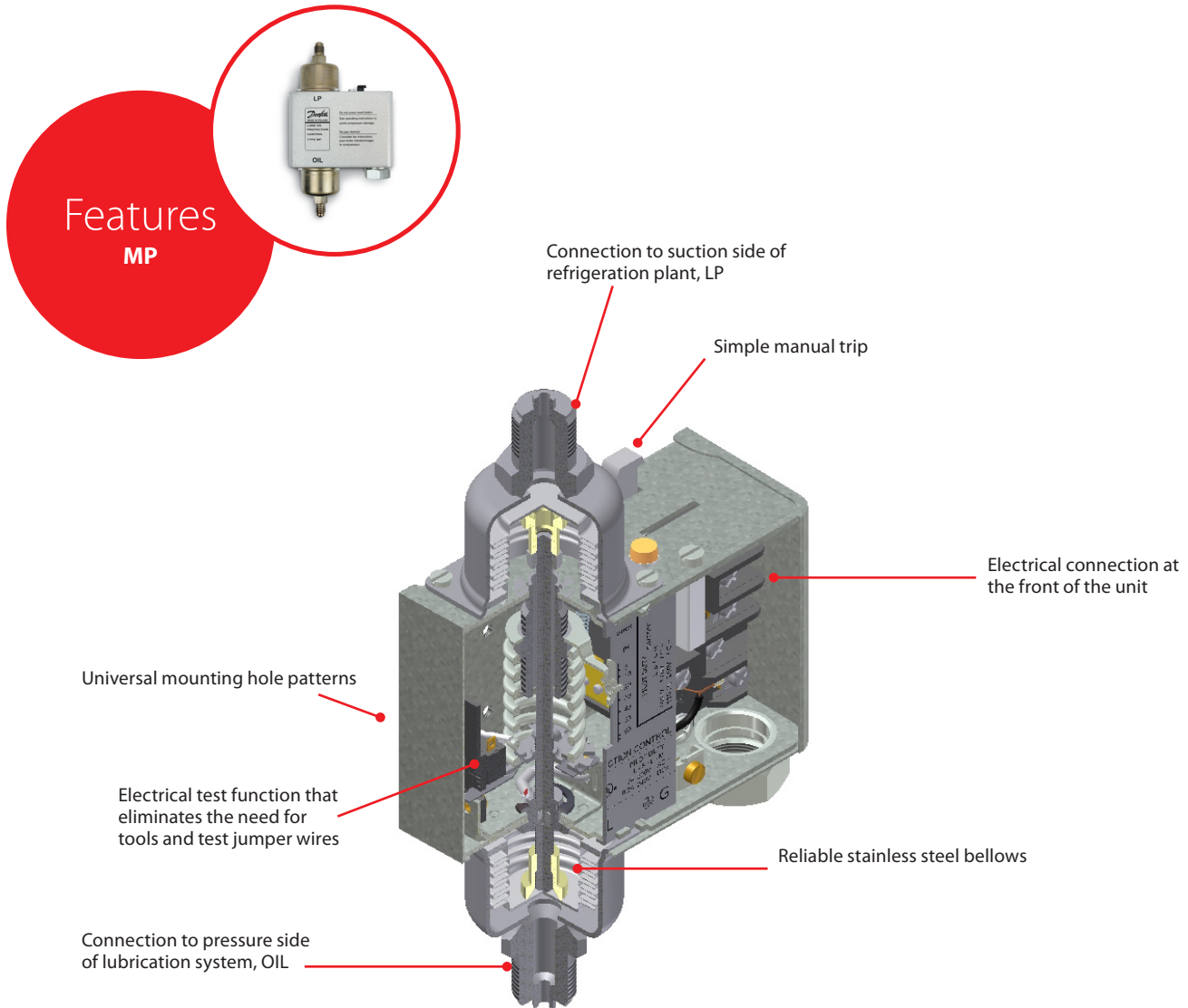
	120/240 VAC
Alternating Current	
Motor Full Load Amps (FLA)	24
Locked Rotor Amps (LRA)	144
Direct Current	240 V DC: 12W pilot duty

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.

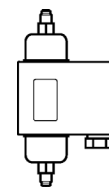


Facts

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	060B200866	P45NCA-82C 3321-009	060B205066
	9	29 to 175	90	3321-001	060B200266		
	9	29 to 175	120	P145NCA/B-12C P31-5827 3321-001	060B200366 ²	P45NCA-12C P30-5826 3321-010	060B205366 ²
MP55	4.3 to 65	29 to 175	45			P288AA-18/2C P30-3601 3321-014/5 ³	060B205466
	4.3 to 65	29 to 175	60	P128AA-2C	060B201266 ¹		
	4.3 to 65	29 to 175	120	P128AA-17C	060B200766	P28AA-17C P28NA-5C P30-3801 3321-014/5 ³	060B205766

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.

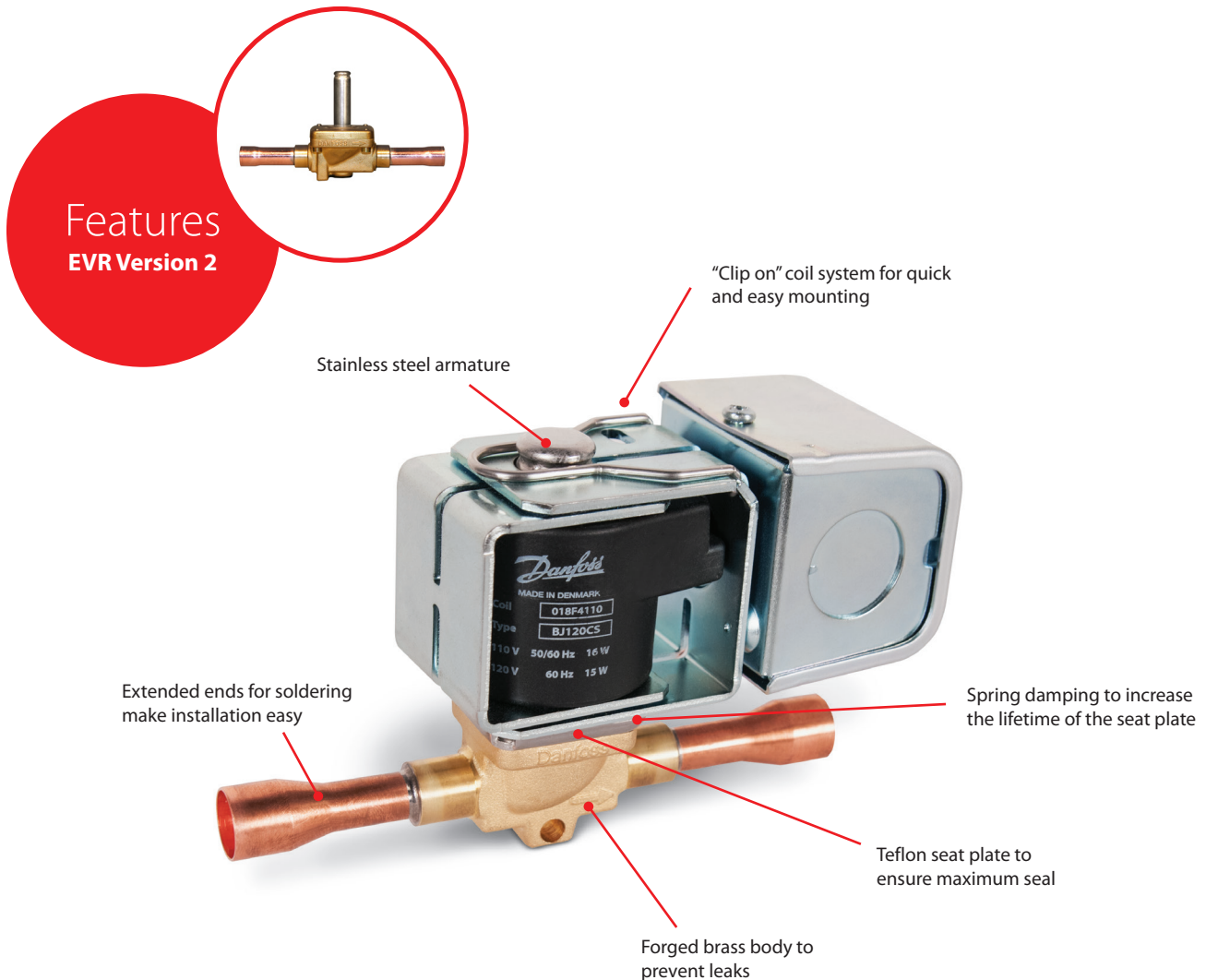
³ The 3321 series controls feature adjustable delay and fixed differential. The differential for 3321-014 controls is set at 15 psig and 3321-015 is at 30 psig. Select control with appropriate delay time.

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.



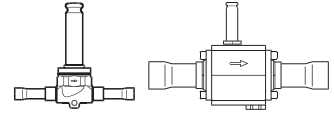
Facts

Applications:

- Traditional 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: 500 psig
 - EVR 15–EVR 40: 460 psig
- Temperature range: -40 °F to +220 °F
- Connections:
 - Flare connections up to 5/8 inch
 - Solder connections up to 2 1/8 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)

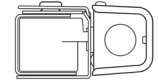
Technical data and ordering

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-134a	R-404A				with manual stem	without manual stem
	R-407C		R-507A					
EVR 3	1.66	1.54	1.07	¼	⅝	655		032F1206
EVR 3	1.66	1.54	1.07	⅜	⅝	655		032F1204
EVR 6	5.47	5.07	3.51	⅜	15/64	655	032L7116	032L7115
EVR 6	5.47	5.07	3.51	½	15/64	655	032L7144	032L1209
EVR 8	6.52	6.03	4.18	½	⅜	655	032L7148	032L7121
EVR 10	11.50	10.64	7.38	⅜	⅜	655	032L7149	032L1214
EVR 15	17.71	16.39	11.37	⅜	9/16	655		032L1228
EVR 18	23.18	21.46	14.88	7/8	19/32	655	032L1004	
EVR 20	36.76	34.04	23.60	7/8	7/8	655	032L1254	032L1240
EVR 22	41.93	38.82	26.92	1 ⅝	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	7/8	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)	Frequency (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 30

³ Enclosure rating for BX coils is NEMA 4/IP 54

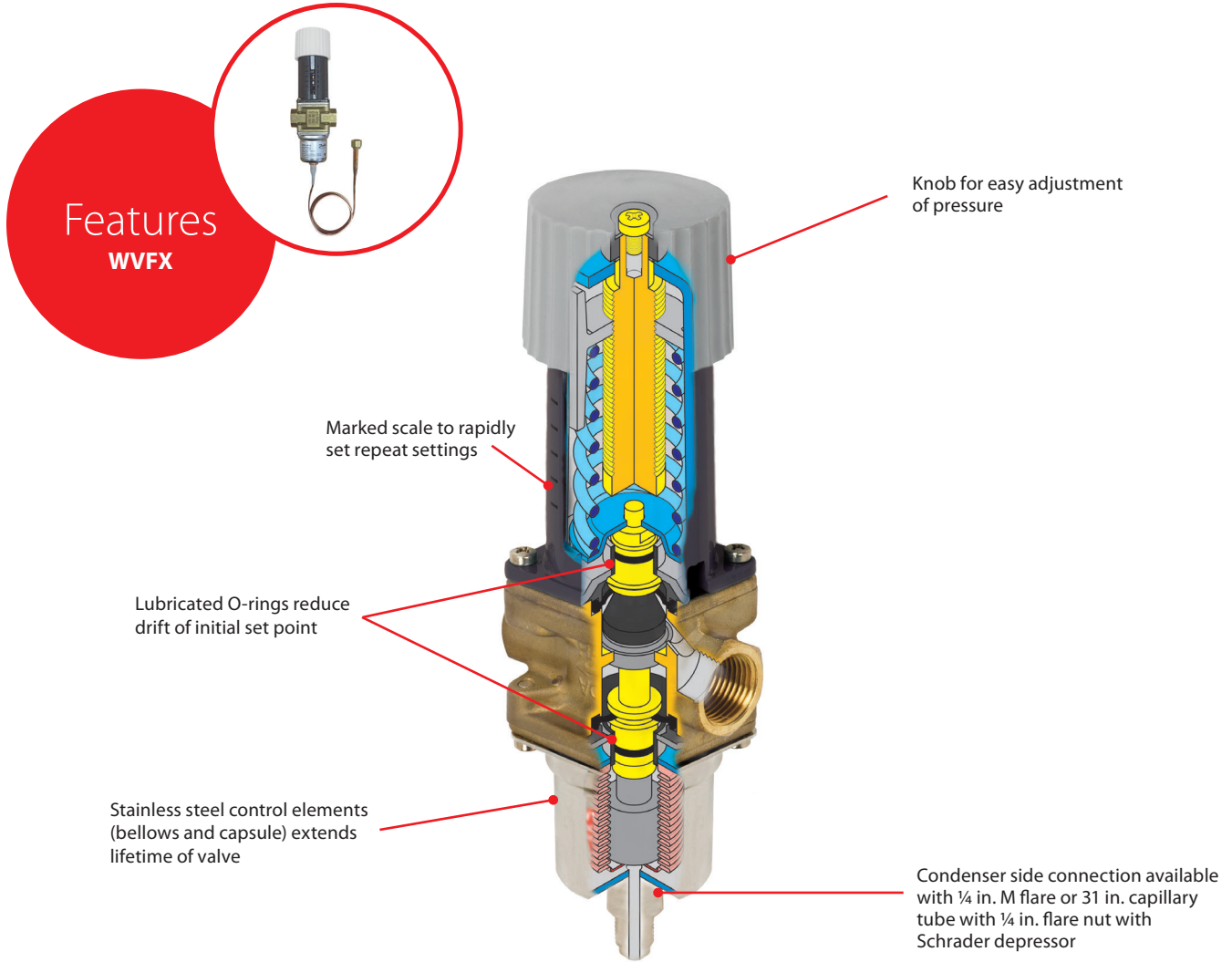
Spare Parts and Accessories

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; O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1, 2	EVR 3	032F0181
Seal kit; O-ring for armature tube, rubber gasket, O-ring for steel cover, support ring	1	EVR 6, 8	032F8165
Service kit; diaphragm, 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; O-ring, rubber gasket, support ring	2	EVR 6, 8	032L0548
Service kit; diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, support ring, compression ring	2	EVR 6, 8	032L0550
Service kit; diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, compression spring	1	EVR 10	032F0185
Service kit; diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, support ring, compression ring	2	EVR 10	032L0552
Seal kit; 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	EVR 10, 15, 20	032F8196
Service kit; diaphragm, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket (flange connections), compression ring	2	EVR 15, 18, 20, 22	032L0554
Service kit; diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 15, 18	032F0187
Service kit; diaphragm assembly, O-ring, (4) screws, armature assembly, rubber gasket, refrigeration gasket, compression spring	1	EVR 20, 22	032F0189
Manual spindle	1	EVR 20, 22	032F0193
Seal kit; (2) Al. gasket, (3) O-rings, rubber gasket	1, 2	EVR 25	032F2326
Piston service kit; (2) O-ring, compression spring, piston assembly, insert block, rubber gasket, piston ring	1, 2	EVR 25	032F3236
Piston service kit; (4) O-rings, Al. gasket, piston assembly, insert block, gasket, piston ring, compression spring, refrigeration gasket	1, 2	EVR 32	042H0172
Pilot service kit; (2) Al. gaskets, O-ring, orifice, armature tube assembly, armature, armature assembly, compression spring	1, 2	EVR 25, 32	042H0165
Seal kit; (3) 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.



Facts

Applications:

- Refrigeration systems with water-cooled condensers
- Refrigerants: HCFC and HFC
- Connections
 - Water side: 3/8 inch to 1 inch (NPT)
 - Condenser side: 1/4 inch M flare or 3/16 inch capillary tube with 1/4 inch flare nut with Schrader depressor
- Max working/test pressure
 - Water side: 380/420 psig
 - Condenser side: 230/350 psig
- No need for power—self acting
- Opens on rising condensing pressure
- Insensitive to dirt



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	3/8	1/4 in. M flare	60 to 333	380	420	230	350	1.6	003N5006
WVFX 10	V46AA-1C	3/8	31 in. capillary tube with 1/4 in. flare nut ²						1.6	003N5025
WVFX 15	V46AB-1C ¹	1/2	1/4 in. M flare						2.2	003N6006
WVFX 15	V46AB-1C	1/2	31 in. capillary tube with 1/4 in. flare nut ²						2.2	003N6025
WVFX 20	V46AC-1C ¹	3/4	1/4 in. M flare						3.9	003N7006
WVFX 20	V46AC-1C	3/4	31 in. capillary tube with 1/4 in. flare nut ²						3.9	003N7025
WVFX 25	V46AD-1C ¹	1	1/4 in. M flare						6.4	003N8006
WVFX 25	V46AD-1C	1	31 in. capillary tube with 1/4 in. flare nut ²						6.4	003N8025

¹ Competitor valve equipped with capillary tube as in code no. directly below. Else, 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

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. with 1/4 in. flare coupling nuts on each end	WVFX with 1/4 M flare	060-017166
Bracket	all	003N0388

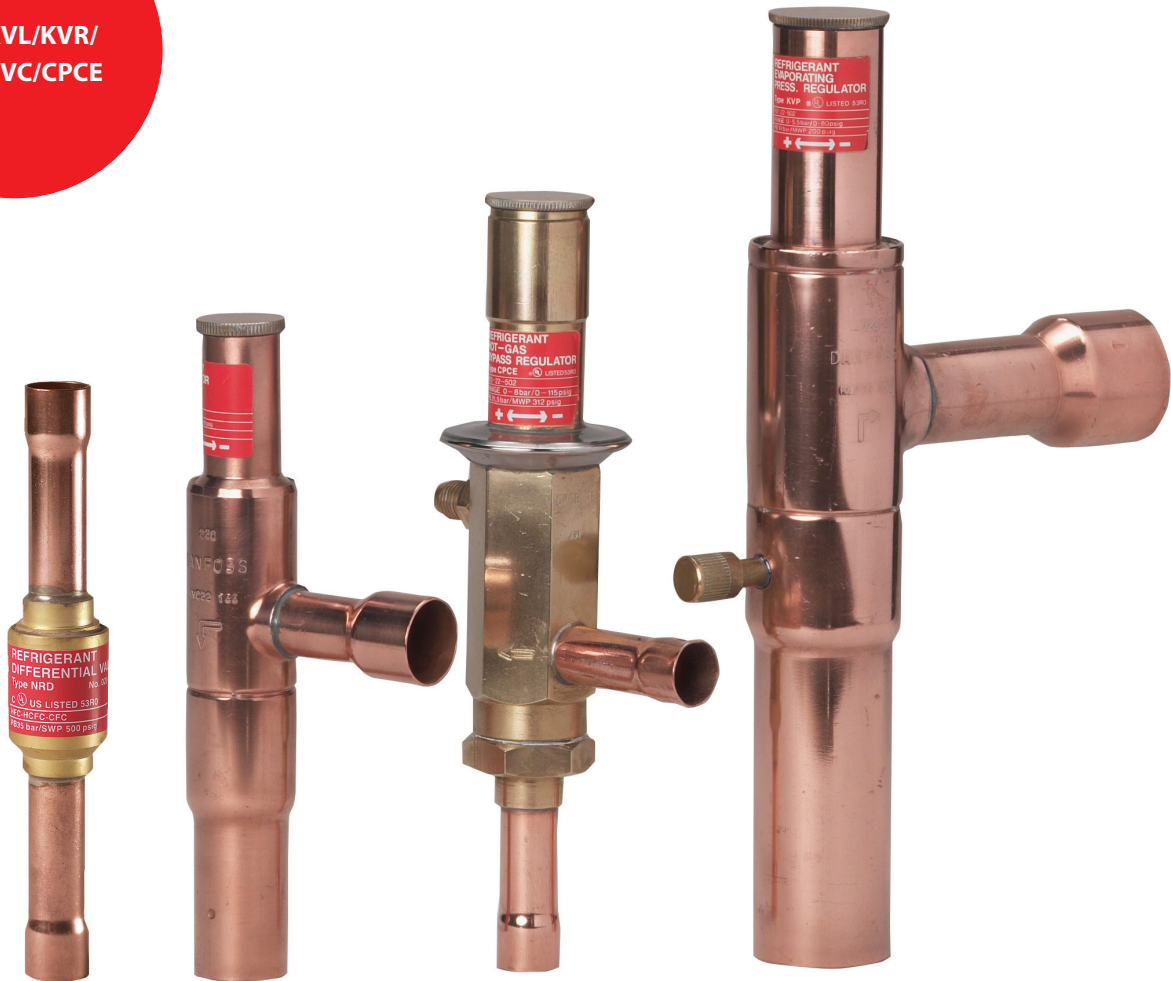
KVP/KVL/KVR/NRD/KVC/CPCE - Pressure Regulators

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)

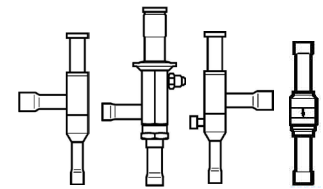
KVP/KVL/KVR/
NRD/KVC/CPCE



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 rising pressure
 - KVC/KVL—opens on a falling 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	¾	0 to 80	29	260	286	-50	265	034L0029
	KVP 22	1.30	0.90	1.20	1.20	¾	0 to 80	29	260	286	-50	265	034L0025
	KVP 28	2.80	1.90	2.40	2.60	1 ½	0 to 80	29	260	286	-50	265	034L0026
	KVP 35	2.80	1.90	2.40	2.60	1 ¾	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	¾	3 to 87	29	260	286	-75	266	034L0049
	KVL 22	1.20	0.80	1.00	1.10	¾	3 to 87	29	260	286	-75	266	034L0045
	KVL 28	4.10	2.60	3.40	3.80	1 ½	3 to 87	29	260	286	-75	266	034L0046
	KVL 35	4.10	2.60	3.40	3.80	1 ¾	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	¾	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	¾	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 ½	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 ¾	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	¾	3 to 87	29	406	450	-50	266	034L0147
	KVC 22	5.35	3.41	5.04	5.78	¾	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	¾	0 to 87	5.8	406	450	-58	285	034N0083
CPCE 22	12.20	8.40	12.10	12.20	¾	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.



Nomenclature / Model No.

D A S 16 4 s VV

Filter drier ———— **D**

Solid Core ———— **A**

Application ———— **S**

Size (volume) ———— **16**

Connection ———— **4**

Connection type ———— **s**

Access valves ———— **VV**

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

B: Bi-flow

L: Liquid line

S: Suction line

(blank): Flare connection

s: Solder connection

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

(filter connection in 1/8 in. increments)

2/CAP: 1/4 in. inlet x cap tube outlet

2: 1/4 in.

2.5: 5/16 in.

3: 3/8 in.

4: 1/2 in.

5: 5/8 in.

6: 3/4 in.

7: 7/8 in.

9: 1 1/8 in.

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	1½ solder		5.70	7.70	8.90	0.64	023Z1016
DAS 419sVV	1½ 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 capillary tube 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.



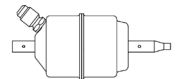
Facts

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

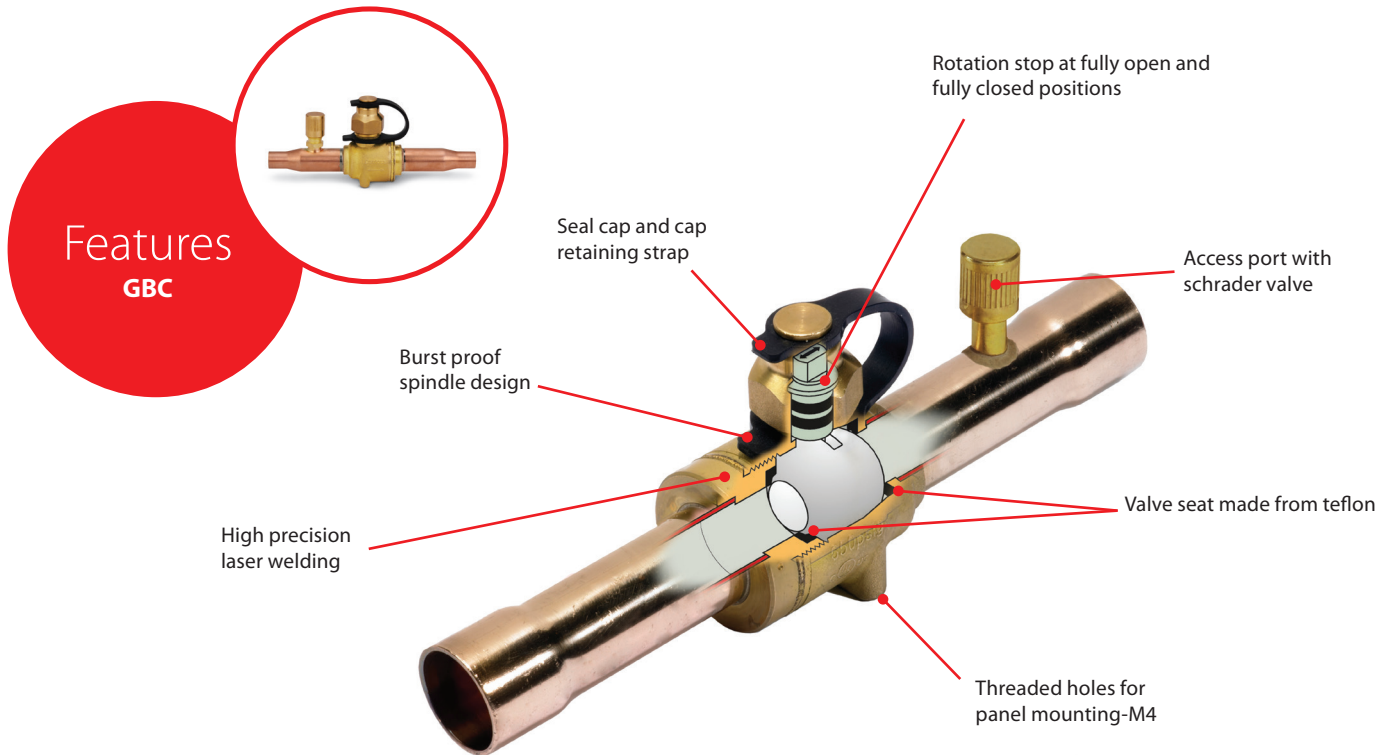
DCL with Schrader valve - Filter Drier



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 - 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.



Product Selection

Danfoss Type	Solder ODF connection (in.)	Flow Coefficient, C _v value (gal/min)	Working pressure (psig)	Test pressure (psig)	Danfoss Code No.
GBC 6s	¼	2.27	650	940	009G8050
GBC 10s	⅜	6.57		940	009G8051
GBC 12s	½	12.23		940	009G8052
GBC 16s	⅝	16.31		940	009G8053
GBC 18s	¾	23.61		940	009G8054
GBC 22s	⅞	32.56		940	009G8065
GBC 28s	1 ⅛	60.05		940	009G8066
GBC 35s	1 ⅜	93.51		940	009G8067
GBC 42s	1 ⅝	139.96		940	009G8068
GBC 54s	2 ⅛	260.05		940	009G8059
GBC 67s	2 ⅝	358.36		725	009G8069

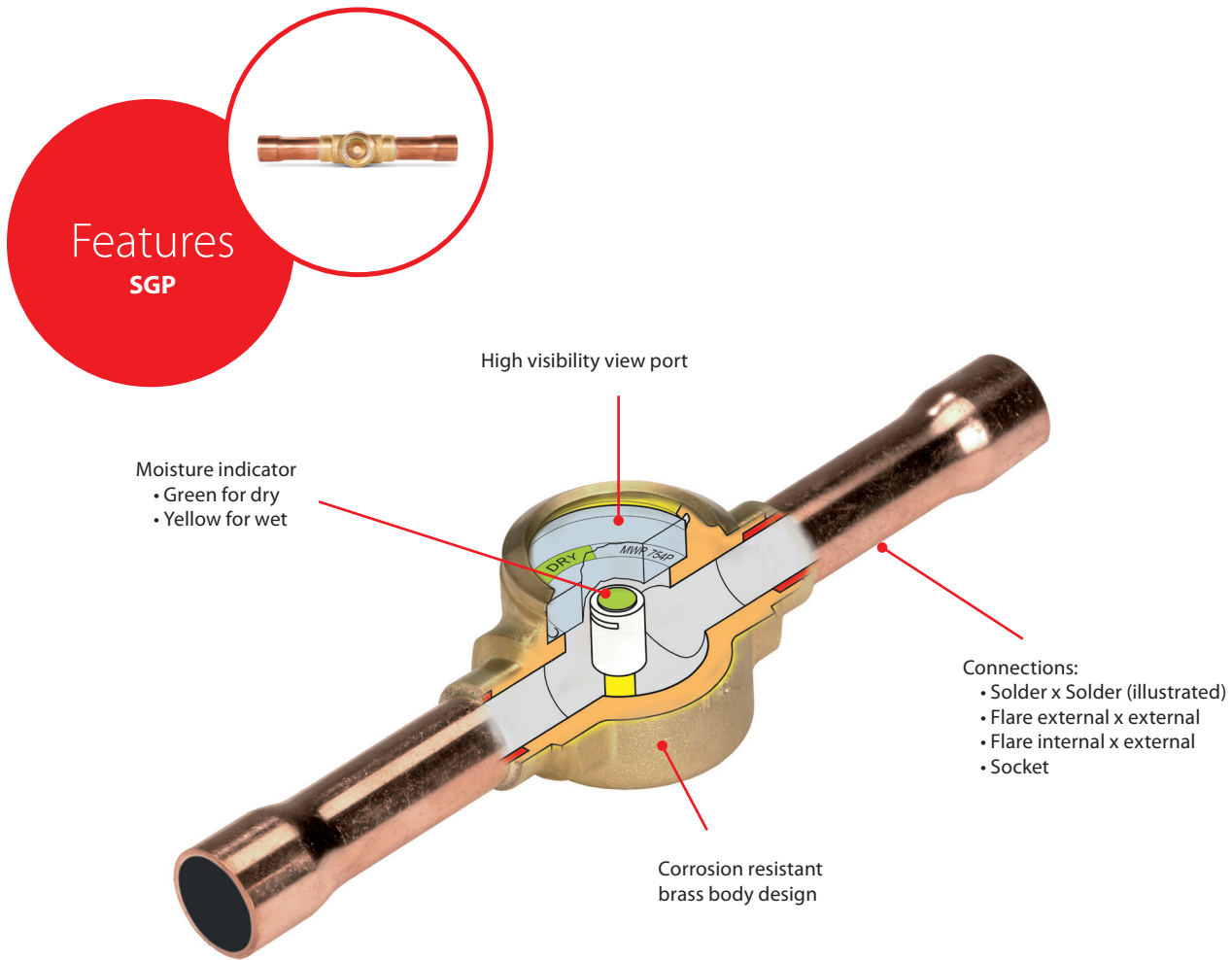
All valves listed in table above are Full Port.

Spare Parts and Accessories

Danfoss Type	Material	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
Ball valve replacement cap	GBC 6, 10, 12, 16, 18, 22	009G7210
Ball valve replacement cap	GBC 28, 35	009G7211
Ball valve replacement cap	GBC 42, 54, 67	009G7212

SGP - Sight Glasses

Danfoss sight glasses 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.



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		¾ x ¾			014L0172
SGP 12 N		½ x ½			014L0173
SGP 6s N	ODF x ODF solder	¼ x ¼			014L0181
SGP 10s N		¾ x ¾			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

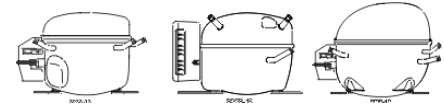
Specially optimized for use in mobile, household, and light commercial applications, these hermetic reciprocating compressors provide high cooling capacity in an energy-saving design. Compressors are available for R-134a and R-404A.

Features Light Commercial Compressors



Technical data and ordering

Light Commercial Compressors (R-134a)



Voltage/ Phase/ Frequency	Horsepower rating (HP) ¹	HS/ LS	Competitor Model Nos.	Danfoss Model No.	Danfoss Standard Code No. Alternate Code No.	Cooling Capacity (Btu/h) ²									Danfoss Single Packed Code No. ³
						LBP Evaporator Temperature (°F)			MBP Evaporator Temperature (°F)			HBP Evaporator Temperature (°F)			
						-30	-13	0	0	+20	+40	+25	+45	+50	
12-24 DC, 100-240/1/ 50/60	variable speed			BD35F	101Z0204 101Z0200	194	299	221	421						195B0746
12-24 DC, 100-240/1/ 50/60	variable speed			BD50F	101Z0203 101Z1220	242	370	305	545						195B0745
115/1/60	1/40	LS		TL2.5G	102G3257	226	340	249	495	860	575	970	1087	195B0592	
115/1/60	1/40+	HS	AZA0370YXA AEA3414YXA EMIS30HHR EM30HHR	TL4G	102G3460 102G3462	320	516	393	732	1225	840	1375	1530	195B0003	
115/1/60	1/4	HS	AFE05C4E-IAA ARE25C4E-IAA ARE25C3E-SAA ARE25C3E-IAA AEA1360YXA AEA3425YXA AE3425YAA1A FF7.5HBK	NF5.5FX	105G5623	374	701	10355	845	1442	2293	1633	2562	195B0259	
115/1/60	1/4	HS	AFE07C3E-IAA ARE27C3E-SAA AEA3430YXA AEA4430YXA AE3430YAA1A AE4430YAA1A FF8.5HBK FF10HBX	NF7FX	105G5723	465	830	1206	1022	1708	2700	1925	3006	195B0467	
115/1/60	1/2	HS	ARE37C3E-SAA ARE34C4E-IAA AFE10C3E-IAA AEA3440YXA AEA4440YXA AE3440YAA1A AE4440YAA1A FF10HBX NEK6187Z	NF11FX	105G5945 105G5941 195B0330 105G5946	553	1046	1568	1333	2279	3638	2575	4056	195B0388	
115/1/60	1/2+	HS	AFE12C3E-IAA ARE41C3E-IAA ARE40C4E-IAA ARE46C4E-IAA AEA4448YXA AEA2410YXA AE4450YAA1A FF112HBX NEK6210Z	SC12G	104G7250	499	1126	1769	1344	2536	4242	2908	4765	5333	195B0042
115/1/60	1/2+	HS	AFE12C4E-IAA AKA4460YXA NEK6212Z	SC15G	104G7550	1266	2059	1556	3040	4969	3473	5544	6162	195B0099	
115/1/60	1/2+	HS	ARE51C4E-CAA AEA2413YXA AKA4476YXA NEK6214Z NT6215Z	SC18G	104G7800 195B0276	1582	2462	1882	3479	5586	3950	6217	6896	195B0694	
220-240/1/60	1/2+	HS	AKA4460YXD NEK6214Z	SC18G	104G8820	1526	2386	2006	3554					195B0059	
220-240/1/60	3/4	HS		SC21G	104G8140	1723	2665	2064	3960					195B0636	
208-230/1/60	5/8	HS	AKA4476YXD	GX23TG	123B1548	2088	3237	2549	4617	7459	5255	8290	9168	123B1548	
208-230/1/60	3/4	HS	AJA4492YXD	GS26TG	123B1550	1909	3578	2521	5298	8942	6128	9987	11080	123B1550	
208-230/1/60	1	HS	AJA4512YXD	GS30TG	123B1553	2150	3874	2811	6030	10550	7039	11880	13300	123B1553	
208-230/1/60	3/4	HS	AJA7461YXD	GS34TF	123B1590	3198	5439	3921	7588	12310	8671	13660	15070	123B1590	

¹ Horsepower ratings are nominal. Danfoss recommends sizing compressors based on cooling capacity requirements.

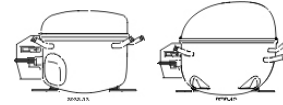
² Capacity at ASHRAE conditions below. For other conditions and/or speeds, check Coolselector or contact Danfoss.

³ Code no. contains compressor and required electrical and non-electrical accessories.

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

Technical data and ordering

Light Commercial Compressors (R-404A)



Voltage/ Phase/ Frequency	Horsepower rating (HP) ¹	HS/ LS	Competitor Model Nos.	Danfoss Model No.	Danfoss Standard Code No. Alternate Code No.	Cooling Capacity (Btu/h) ²									Danfoss Single Packed Code No. ³			
						LBP Evaporator Temperature (°F)			MBP Evaporator Temperature (°F)			HBP Evaporator Temperature (°F)						
						-30	-13	0	0	+20	+40	+25	+45	+50				
115/1/60	½	HS	AFE06C4E-IAA ASE12C4E-IAA AEA9415ZXAX	TF4CLX	102U2114 102U2102 195B0468	421	714	1008	791	1285	1953							195B0666
115/1/60	¼	HS	ASE14C4E-IAA AFE08C4E-IAA AEA2380ZXAX	TFS4.5CLX	102U2115	569	933	1297										195B0667
115/1/60	½	HS	AE4430ZAA1A AEA9422ZXAX AKA9427ZXAX NEK2121GK NEK2125GK	NF5.5CLX	105F1621	789	1276	1759	1384	2209	3334							195B0348
115/1/60	⅓+	HS	AFE13C4E-IAA ASE20C4E-IAA AEA2411ZXAX AE4440ZAA1A AE2410ZAA1A AE2415ZAA1A NEK6181GK NEK2134GK	NF7CLX	105F1721	960	1587	2209	1727	2789	4237							195B0304
115/1/60	½	HS	ASE26C4E-CAA AJA2419ZXAX AKA9438ZXAX NEK6210GK	SC10CL	104L1503	776	1683	2562	1742	3111	5012	3532	5585					195B0147
115/1/60	½+	HS	AJA2425ZXAX NEK2150GK AFE17C4E-IAA	SC12CLX.2	104L1696 104L1603 195B0061	1419	2496	3525										195B0491
115/1/60	¾	HS	AFE17C4E-CAA RST45C1E-IAA RST45C1E-CAA AE4470Z-AA NEK6213GK	SC12MLX	104L1606				2640	4391	6865	4962	7654					195B0510
115/1/60	¾	HS	NT2168GKV	SC15CLX.2	104L1853 195B0237	1834	3118	4391										195B0701
115/1/60	¾	HS	AKA9455ZXAX	SC15MLX.2	104L1807				3156	5120	7897							195B0447
115/1/60	¾	HS	AKA9462ZXAX NT6222GKV	SC18MLX	104L2105			5025	3894	6296	9691	7082	10776					195B0702
115/1/60	¾	HS	AJB2433ZXAX NT2180GKV	SC18CLX.2	104L2198	2198	3611	4873	3942	5929								195B0464
208-230/1/60	¾	HS	RST61C1E-CAV RST64C1E-IAV RST64C1E-CAV AJB2433ZXD NT2180GKV	SC18CLX.2	104L2195		3741	5050	4084									195B0428
208-230/1/60	¾	HS	AKA9455ZXD	MX18TGa	123B2541	1963	3415	4973	3777	6363	9825	7147	10817	11887				123B2541
208-230/1/60	¾+	HS	AKA9462ZXD	MX21TGa	123B2714	2210	3769	5494	4204	7052	10900	7920	12018	13199				123B2714
208-230/1/60	1	HS	AWA2440ZXD	MX21FG	123B2131	2340	4101	5747	4262									123B2131
208-230/1/60	1 ¼	HS	AJB2444ZXD AWA2450ZXD	MS26FF	123B2157	2808	5281	7467	5373									123B2157
208-230/1/60	1 ½	HS	AWA2460ZXD	MS34FF	123B2174	3331	6438	9545	7473	12563	18925	14034	25715	22583				123B2174

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.

Full range of models (refrigerants, capacities, and voltage codes) are available. Check Coolselector or contact Danfoss.

Full range of models (refrigerant, capacity and voltage codes) available.

Check Coolselector or contact Danfoss.

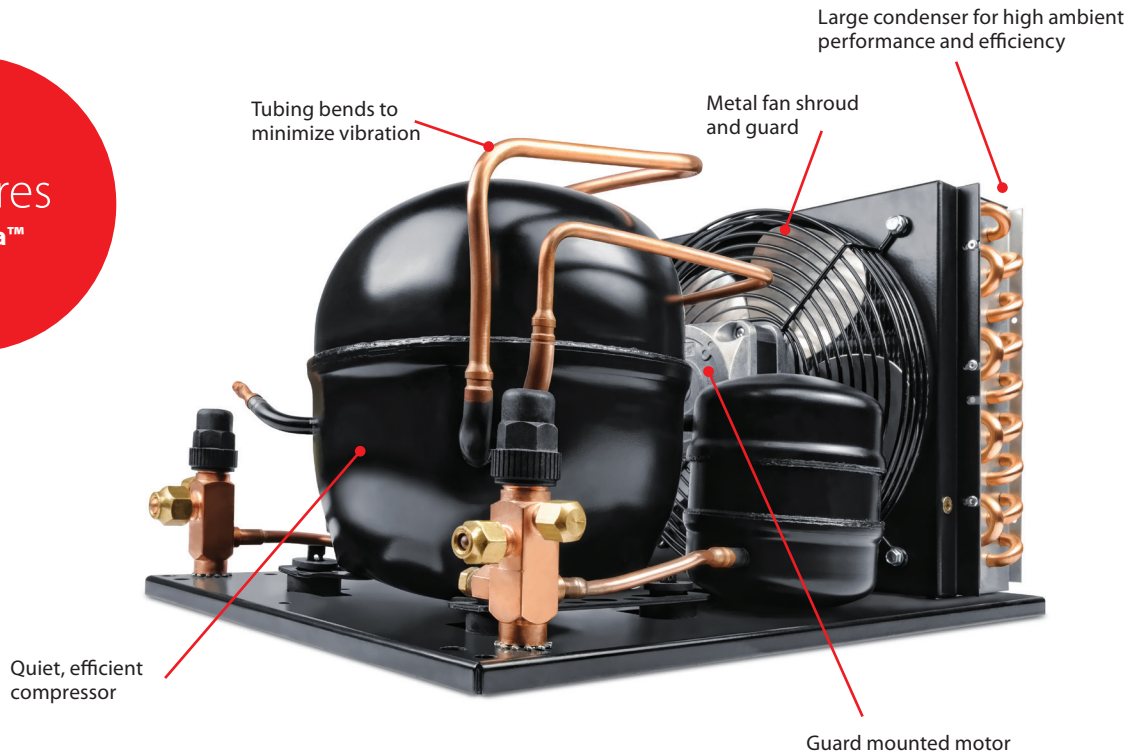
Test conditions	ASHRAE (LBP)	ASHRAE (BBP)	ASHRAE (HBP)
Condensing temperature	110 °F	130 °F	130 °F
Ambient and suction gas temperature	90 °F	95 °F	95 °F
Liquid temperature	90 °F	115 °F	115 °F
Speed	3500	3500	



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

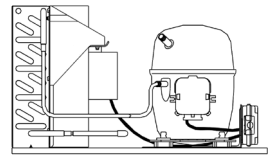
Optyma™ - Condensing Units

Danfoss Optyma™ line of light commercial condensing units is available with sizes ranging from 1/8 hp to 13 1/2 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.



Nomenclature / Model No.

	Application	Design	Refrigerant	Condenser size	HP rating	Certification	Version	Electrical code
OP-	H	N	U	M	0300	U	WG000	Q
Application:	Design:		Refrigerant:	Condenser size:	HP rating:	Certification:	Version:	Electrical code:
L: low H: medium / high U: universal low / medium / high	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		G: R-134a H: R-404A/R-507 M: R-22 replacement Z: R-134a/R-404A/R-507 (R-134a in MBP only) U: R-22/R-134a/R-404A/R-507 X: R-134a/R-404A/R-507/R-448A/R-449A Y: R-404A/R-507/R-448A/R-449A	C: fin and tube condenser size 110 °F ambient M: microchannel condenser size 115 °F ambient	HP rating in hundredths of HP, i.e.: 0033 = 1/8 HP, 0100 = 1 HP	R: UL recognized U: UL listed	WA: power cord WB: power cord, receiver WC: BX, receiver WD: BX, receiver, low pressure control WE: BX, 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: BX, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure (MBP) WH: BX, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure, suction accumulator (LBP)	B: compressor & fan(s), 115V, 1 ph, 60 Hz N: compressor & fan(s), 230V, 1 ph, 60 Hz Q: compressor 208-230V, 3ph, 60 Hz fan(s) 230V, 1 ph, 60 Hz R: compressor 460V, 3ph, 60 Hz fan(s) 460V, 1 ph, 60 Hz



Technical data and ordering

Optyma™ - Condensing Units (1/3)

R-134a			Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)									
Competitor Model Nos.	Danfoss Model No.	Danfoss Code No.		0	5	10	15	20	25	30	35	40	45
AEA3425 M2FH0020 M2FH0024	UCGC0020RWA000B	114N2017	90	1050	1200	1350	1500	1700	1850	2050	2250	2450	2700
			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
			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	HCGC0033RWB000B	114N2022	90		2050	2300	2550	2850	3100	3450	3750	4100	4450
			95		1950	2200	2450	2750	3000	3300	2650	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	UCGC0050RWC000B	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
	HCGC0055UWC000B	114N2026	90		2900	3300	3800	4300	4850	5450	6100	6700	7350
			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	114N2027 114N2028	90		4350	4850	5550	6250	7150	8050	9100	10100	11200
			95		1400	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
			95		6300	7000	7750	8550	9450	10400	11450	12450	13550
			100			6550	7300	8100	8950	9900	10900	11850	12900
			110				6500	7250	8100	9000			

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

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at <http://bit.ly/NAMCUCatalog>.

Check Coolselector or contact Danfoss.



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

Optyma™ - Condensing Units (3/3)

R-404A LBP			Ambient temperature (°F)	Capacity range in btu/h											
R-507 LBP				at evaporating temperature (°F)											
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	
			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	
			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	UCHC0033RWB000B	114N2321	90	750	850	1000	1100	1300	1450	1650	1800	2050	2250	2500	
			95	700	800	950	1050	1200	1400	1550	1750	1950	2150	2400	
			100	650	750	850	1000	1150	1300	1450	1650	1850	2050	2250	
AKA2422 M4FL0040	UCHC0050RWB000B UCHC0050UWC000N	114N2324 114N2325	90			1100	1300	1500	1700	1900	2150	2400	2700	2950	
			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	220	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 M4FL0051	LCHC0060UWC000B LCHC0060UWC000N	114N2335 114N2336	90	1350	1550	1850	2100	2400	2700	3050	3400	3800	4200	4600	
			95	1250	1450	1700	1950	2250	2550	2900	3200	3600	3950	4350	
			100	1150	1350	1600	1850	2100	2400	2700	3050	3400	3750	4100	
			110	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	
			95	1400	1750	2100	2450	2900	3350	3800	4300	4850	5450	6100	
			100		1650	2000	2400	2800	3250	3750	4250	4800	5350	6000	
AWA2448 FJALA100 FJALA101 FJALA103 FJALA102	LCHC0100UWD000N	114N2339	90	1700	2250	2800	3400	4000	4650	5350	6000	6800	7550	8400	
			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		
AWA2479 AWA2490 AWA2510 FJALB200 FJALA225	LCZC0200UWF300N LCZC0201UWF300Q LCZC0201UWF300R	114N6729 114N6730 114N6731	90	4950	5950	7000	8050	9250	10450	11750	13050	14400	15800	17200	
			95	4600	5500	6550	7550	8650	9850	11050	12250	13550	14850	16200	
			100	4250	5150	6100	7050	8100	9200	10350	11500	12700	13950	15200	
			110	3600	4400	5250	6100	7050	8050	9050	10050	11100	12200	13300	
AVA2512 AVA2515 VJAL025V FJALB301 VJAL035Z	LCZC0301UWF300Q	114N6734	90	6100	7600	9250	10900	12700	14600	16550	18400	20350	22300	24250	
			95	5650	7050	8600	10200	11900	13650	15450	17200	19050	20850	22650	
			100	5150	6500	8000	9450	11050	12700	14400	16050	17750	19400	21050	
			110	4150	5400	6700	8000	9400	10800	12250	13650	15100	16550	17900	
VJAL040Z VJAL050Z	LGZC0400UWF300N LGZC0401UWF300Q LGZC0401UWF300R	114N6737 114N6738 114N6739	90	8900	10950	13100	15350	17850	20500	23250	26050	29000	32100	35300	
			95	8150	10100	12200	14350	16750	19250	21900	24550	27400	30300	33300	
			100	7450	9300	11300	13400	15650	18050	20550	23050	25750	28500	31350	
			110	6000	7750	9550	11400	13450	15600	17850	20100	22500	24950	27450	
CJDL0600	LGZC0600UWF300Q LGZC0600UWF300R	114N6741 114N6742	90	14100	16950	20100	23300	26850	30550	34500	38450	42650	47050	51500	
			95	12850	15600	18600	21650	25050	28600	32300	36050	40050	44200	48400	
			100	11600	14250	17100	20050	23250	26600	30150	33650	37450	41300	45300	
			110	9100	11500	14100	16700	19600	22600	25750	28850	32200	35600	39050	
CPDK0600	LGZC0751UWF300Q LGZC0750UWF300R	114N6744 114N6745	90	19050	22600	26400	30250	34450	38800	43300	47700	52350	57050	61700	
			95	17650	21050	24650	28300	32250	36400	40600	44750	49100	53450	57850	
			100	16300	19500	22900	26400	30100	33950	37900	41800	45850	49900	53950	
			110	13550	16400	19450	22500	25750	29100	32550	35850	39350	42800	46200	

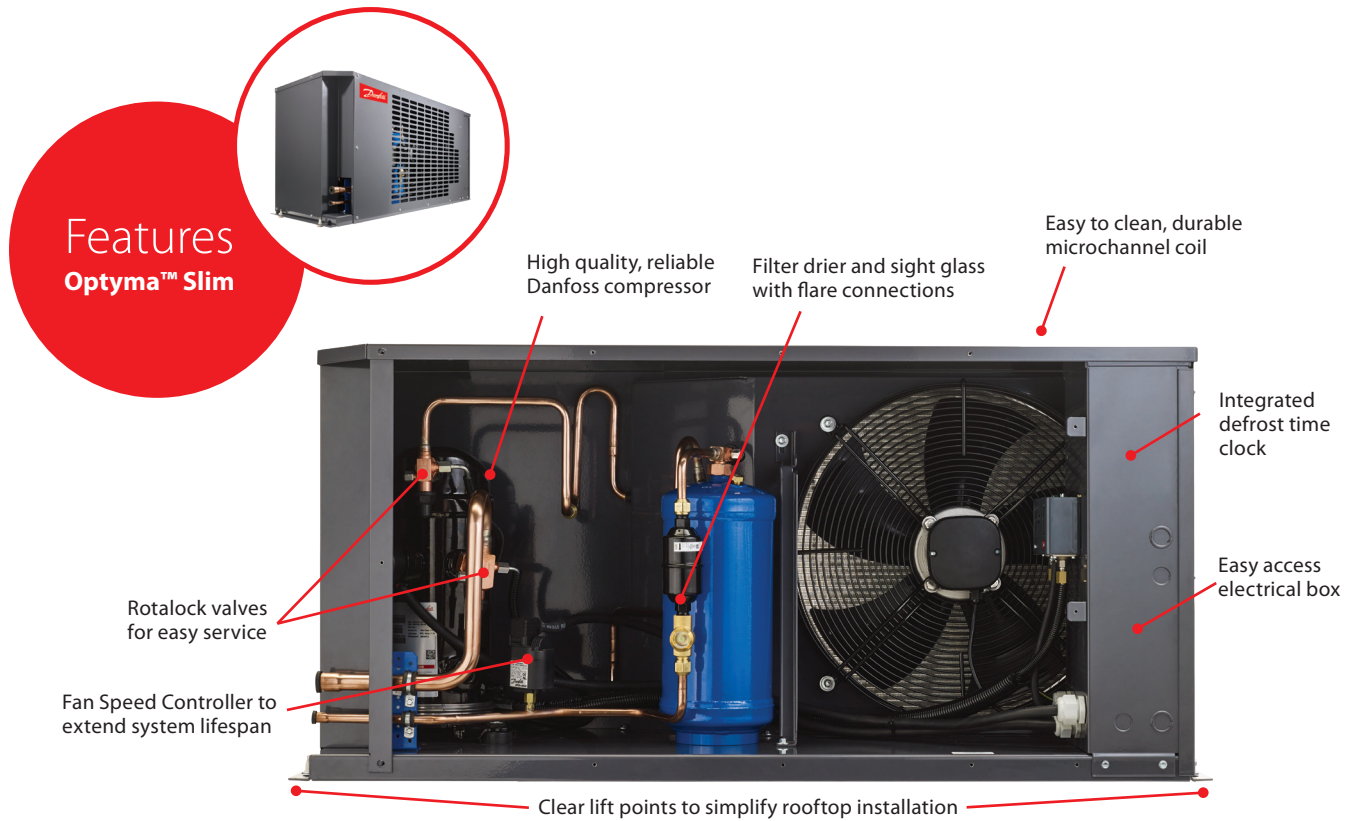
¹ Ambient temperature = 90 °F, Return gas = 65 °F, Subcooling = 5 °F

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at <http://bit.ly/NAMCUCatalog>.

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.



Nomenclature / Model No.

	Application	Design	Refrigerant	Condenser size	HP rating	Certification	Version	Electrical code
OP-	H	N	U	M	0300	U	WG000	Q
Application:	<ul style="list-style-type: none"> L: low H: medium / high U: universal low / medium / high 						Electrical code:	<ul style="list-style-type: none"> 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
Design:	<ul style="list-style-type: none"> 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 						Version:	<ul style="list-style-type: none"> WA: power cord WB: power cord, receiver WC: BX, receiver WD: BX, receiver, low pressure control WE: BX, 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: BX, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure (MBP) WH: BX, receiver, dual pressure control, fan speed controller, defrost timer, outdoor enclosure, suction accumulator (LBP)
Refrigerant:	<ul style="list-style-type: none"> G: R-134a H: R-404A/R-507 M: R-22 relacement Z: R-134a/R-404A/R-507 (R-134a in MBP only) U: R-22/R-134a/R-404A/R-507 X: R-134a/R-404A/R-507/R-448A/R-449A Y: R-404A/R-507/R-448A/R-449A 							
Condenser size:	<ul style="list-style-type: none"> C: fin and tube condenser size 110 °F ambient M: microchannel condenser size 115 °F ambient 							
HP rating:	<ul style="list-style-type: none"> HP rating in hundredths of HP, i.e.: 0033 = 1/3 HP, 0100 = 1 HP 							
Certification:	<ul style="list-style-type: none"> R: UL recognized U: UL listed 							

Technical data and ordering

Optyma™ Slim - Outdoor Condensing Units (1/4)

R-448A MBP/ R-449A MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)						
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40
HJXM0150UWG000N HJXM0150UWG000Q	114N3485 114N3486	90	8365	9639	11000	12440	13960	15560	17240
		95	7883	9109	10410	11800	13260	14800	16420
		100	7413	8590	9843	11170	12580	14060	15610
		110		7587	8736	9956	11240	12600	14020
		115		7104	8202	9366	10600	11890	13250
HNXM0200UWG000N HNXM0200UWG000Q	114N3487 114N3488	90	13280	14850	16540	18340	20270	22330	24520
		95	12830	14350	15970	17720	19580	21570	23690
		100	12380	13840	15410	17090	18890	20810	22850
		110		12820	14270	15830	17490	19270	21170
		115		12300	13700	15190	16790	18500	20320
HNXM0250UWG000N HNXM0250UWG000Q	114N3489 114N3490	90	17220	19160	21230	23450	25810	28310	30960
		95	16630	18500	20490	22620	24890	27310	29860
		100	16030	17820	19740	21790	23970	26280	28740
		110		16440	18200	20070	22070	24190	26450
		115		15740	17410	19190	21100	23130	25280
HNXM0300UWG000N HNXM0300UWG000Q	114N3491 114N3492	90	18200	20240	22430	24770	27260	29910	32710
		95	17560	19530	21640	23890	26290	28840	31540
		100	16920	18810	20830	23000	25300	27760	30360
		110		17330	19180	21160	23280	25530	27930
		115		16580	18340	20230	22240	24400	26690
HNXM0350UWG000N HNXM0350UWG000Q	114N3493 114N3494	90	23480	26130	28960	32000	35230	38670	42320
		95	22680	25220	27950	30870	33980	37290	40800
		100	21850	24290	26910	29700	32690	35860	39240
		110		22350	24730	27280	30000	32900	35990
		115		21350	23600	26020	28610	31370	34320
HNXM0400UWG000N HNXM0400UWG000Q	114N3495 114N3496	90	27880	30990	34310	37860	41640	45650	49900
		95	26940	29940	33140	36560	40210	44080	48180
		100	25970	28850	31940	35230	38730	42460	46410
		110		26600	29430	32450	35680	39110	42750
		115		25430	28130	31010	34100	37380	40870
HRXM0500UWG000N HRXM0500UWG000Q	114N3497 114N3498	90	32800	36510	40500	44790	49390	54310	59560
		95	31640	35210	39060	43210	47650	52410	57480
		100	30460	33890	37600	41600	45880	50470	55370
		110		31200	34610	38290	42240	46480	51020
		115		29820	33080	36590	40380	44440	48800
HRXM0600UWG000Q	114N3499	90	39170	43670	48500	53680	59210	65110	71370
		95	37760	42100	46770	51780	57130	62840	68910
		100	36330	40520	45030	49870	55040	60560	66440
		110		37350	41520	46010	50820	55950	61430
		115		35740	39750	44060	48680	53630	58910
HRXM0700UWG000Q	114N3500	90	43020	47860	53040	58560	64430	70660	77250
		95	41410	46090	51090	56420	62090	68100	74470
		100	39770	44280	49090	54230	59700	65500	71640
		110		40550	44990	49730	54780	60140	65830
		115		38640	42890	47420	52250	57400	62850
HNXM0750UWG000Q	114N3501	90	52200	58100	64460	71280	78590	86390	94710
		95	50450	56150	62290	68880	75950	83500	91550
		100	48670	54170	60090	66450	73270	80560	88340
		110		50120	55590	61480	67790	74560	81780
		115		48060	53300	58940	6500	71490	78440
HRXM1000UWG000Q	114N3502	90	63520	70950	78930	87460	96570	106300	116600
		95	61010	68210	75940	84220	93060	102500	112500
		100	58430	65400	72880	80890	89450	98570	108300
		110		59570	66530	73990	81980	90500	99580
		115		56550	63240	70420	78120	86330	95090

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

Optyma™ Slim - Outdoor Condensing Units (2/4)

R-134a MBP		Ambient temperature (°F)	Capacity range in btu/h at evaporating temperature (°F)						
Danfoss Model No.	Danfoss Code No.		10	15	20	25	30	35	40
HJXM0150UWG000N HJXM0150UWG000Q	114N3485 114N3486	90	5200	6050	6950	7950	9100	10350	11700
		95	4900	5700	6600	7600	8700	9900	11200
		100	4600	5400	6250	7200	8250	9450	10750
		110		4750	5550	6450	7450	8550	9750
		115		4400	5200	6050	7000	8100	9250
HNXM0200UWG000N HNXM0200UWG000Q	114N3487 114N3488	90	8700	9900	11200	12600	14100	15750	17450
		95	8450	9600	10900	12300	13750	15350	17000
		100	8200	9350	10600	11950	13400	14950	16550
		110		8750	9950	11200	12600	14050	15650
		115		8450	9600	10850	12200	13650	15150
HNXM0250UWG000N HNXM0250UWG000Q	114N3489 114N3490	90	11050	12600	14250	16000	17900	19900	22050
		95	10700	12200	13850	15550	17400	19400	21500
		100	10350	11850	13400	15100	16900	17750	19700
		110		11050	12550	14200	15900	17750	19700
		115		10650	12100	13700	15400	17150	19050
HNXM0300UWG000N HNXM0300UWG000Q	114N3491 114N3492	90	11700	13350	15100	17000	18950	21100	23300
		95	11300	12950	14700	16550	18500	20500	22700
		100	10950	12550	14250	16050	17950	20000	22100
		110		11700	13350	15100	16900	18800	20850
		115		11250	12850	14550	16350	18200	20150
HNXM0350UWG000N HNXM0350UWG000Q	114N3493 114N3494	90	14700	16700	18900	21250	23800	26550	29400
		95	14250	16200	18400	20700	23200	25850	28650
		100	13800	15750	17850	20100	22550	25150	27900
		110		14700	16700	18900	21200	23700	26300
		115		14150	16150	18250	20550	22950	25500
HNXM0400UWG000N HNXM0400UWG000Q	114N3495 114N3496	90	17550	19950	22550	25350	28350	31500	34900
		95	17000	19350	21900	24650	27600	30700	34000
		100	16450	18750	21250	23950	26800	29850	33100
		110		17500	19900	22500	25200	28100	31150
		115		16850	19200	21700	24350	27200	30150
HRXM0500UWG000N HRXM0500UWG000Q	114N3497 114N3498	90	20800	23600	26700	30050	33650	37500	41600
		95	20200	22950	25950	29250	32750	36550	40550
		100	19600	22250	25200	28400	31850	35550	39500
		110		20900	23700	26700	30000	33500	37250
		115		20200	22900	25850	29000	32450	36050
HRXM0600UWG000Q	114N3499	90	25500	28850	32550	36500	40700	45200	50000
		95	24650	27900	31500	35350	39450	43850	48500
		100	23750	26950	30400	34150	38200	42450	47000
		110		24900	28200	31750	35550	39550	43850
		115		23900	27050	30500	34150	38100	42250
HRXM0700UWG000Q	114N3500	90	27000	30500	34350	38450	42850	47500	52450
		95	26100	29500	33250	37250	41550	46100	50900
		100	25150	28500	32150	36000	40200	44600	49300
		110		26450	29850	33500	37450	41600	46050
		115		25400	28650	32200	36000	40100	44350
HNXM0750UWG000Q	114N3501	90	32750	37000	41600	46500	51750	57350	63300
		95	31800	35900	40350	45150	50300	55750	61550
		100	30800	34800	39150	43800	48750	54100	59750
		110		32550	36600	41000	45700	50700	56050
		115		31400	35350	39550	44100	48950	54150
HRXM1000UWG000Q	114N3502	90	41900	47100	52750	58900	65500	72500	79950
		95	40650	45700	51250	57250	63650	70500	77750
		100	39300	44250	49650	55500	61800	68450	75450
		110		41250	46400	51950	57900	64150	70800
		115		39700	44700	50100	55850	61950	68400

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

Optyma™ Slim - Outdoor Condensing Units (3/4)

R-404A MBP R-507MBP		Ambient	Capacity range in btu/h							
Danfoss Model No.	Danfoss Code No.	temperature (°F)	at evaporating temperature (°F)							
			10	15	20	25	30	35	40	45
HJXM0150UWG000N HJXM0150UWG000Q	114N3485 114N3486	90	8900	10200	11550	13000	14450	16050	17650	19300
		95	8400	9650	10950	12300	13750	15200	16750	18350
		100	7900	9100	10350	11650	13000	14400	15850	17350
		110		7950	9050	10250	11450	12750	14050	15400
		115		7350	8400	9550	10700	11900	13150	14400
HNXM0200UWG000N HNXM0200UWG000Q	114N3487 114N3488	90	14550	16100	17750	19450	21300	23200	25250	27350
		95	13900	15400	16950	18600	20350	22200	24150	26200
		100	13250	14650	16150	17750	19400	21150	23000	24950
		110		13150	14500	15950	17450	19050	20750	22500
		115		12350	13650	15000	16450	17950	19550	21250
HNXM0250UWG000N HNXM0250UWG000Q	114N3489 114N3490	90	18900	20750	22700	24750	26900	29200	31550	34050
		95	18100	19850	21700	23700	25750	27950	30250	32650
		100	17250	18950	20750	22650	24600	26700	28900	31250
		110		17100	18750	20450	22300	24200	26200	28350
		115		16150	17700	19350	21100	22900	24850	26900
HNXM0300UWG000N HNXM0300UWG000Q	114N3491 114N3492	90	20000	21950	24000	26150	28400	30800	33250	35800
		95	19150	21000	23000	25050	27250	29500	31900	34350
		100	18250	20050	21950	23950	26050	28200	30500	32850
		110		18100	19850	21650	23550	25550	27650	29850
		115		17100	18750	20500	22300	24250	26250	28350
HNXM0350UWG000N HNXM0350UWG000Q	114N3493 114N3494	90	25550	28150	30850	33750	36750	39950	43250	46700
		95	24500	26950	29600	32350	35250	38300	41500	44800
		100	23450	25800	28300	30900	33700	36650	39700	42900
		110		23300	25600	28000	30550	33250	36050	39000
		115		22050	24250	26550	28950	31500	34200	37000
HNXM0400UWG000N HNXM0400UWG000Q	114N3495 114N3496	90	29500	32400	35500	38750	42150	45750	49450	53350
		95	28250	31050	34000	37100	40400	43800	47400	51150
		100	26950	29650	32450	32450	38600	41900	45300	48900
		110		26750	29300	32050	34900	37900	41050	44350
		115		25250	27700	30250	33000	35900	38900	42050
HRXM0500UWG000N HRXM0500UWG000Q	114N3497 114N3498	90	36100	39700	43500	47500	51700	56150	60850	65750
		95	34650	38100	41750	45600	49650	53900	58350	63050
		100	33200	36500	39950	43650	47500	51550	55850	60350
		110		33050	36250	39600	43100	46800	50700	54850
		115		31300	34300	37500	40850	44400	48100	52000
HRXM0600UWG000Q	114N3499	90	42700	46900	51350	56000	60900	66050	71400	76950
		95	40900	44950	49200	53650	58350	63250	68400	73750
		100	39100	42900	47000	51250	55750	60450	65400	70550
		110		38750	42450	46300	50400	54750	59250	63950
		115		36550	40100	43800	47700	51800	56100	60650
HRXM0700UWG000Q	114N3500	90	46100	50600	55350	60300	65500	70950	76550	82400
		95	44150	48450	52950	57750	62700	67900	73300	78850
		100	42100	46200	50550	55100	59850	64800	69950	75300
		110		41600	45500	49600	53950	58450	63150	68050
		115		39150	42900	46800	50900	55200	59650	64350
HNXM0750UWG000Q	114N3501	90	56650	62650	68950	75550	82450	89650	97200	105000
		95	53850	59600	65600	71900	78500	85350	92500	99950
		100	51000	56450	62200	68200	74450	80950	87750	94850
		110		49950	55100	60450	66050	71850	77950	84250
		115		46600	51400	56450	61700	67200	72900	78850
HRXM1000UWG000Q	114N3502	90	72050	78900	86200	93800	101900	110300	119000	128100
		95	68900	75400	82300	89550	97150	105100	113500	122100
		100	65650	71850	78350	85200	92400	99950	107800	116000
		110		64400	70200	76250	82600	89300	96300	103600
		115		60600	66000	71650	77600	83850	90400	97250

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

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

R-404A LBP R-507LBP		Ambient	Capacity range in btu/h					
Danfoss Model No.	Danfoss Code No.	temperature (°F)	at evaporating temperature (°F)					
			-25	-20	-15	-10	-5	0
LJZM0150UWH000N LJZM0150UWH000Q	114N3477 114N3478	90	5450	6400	7450	8500	9650	10850
		95		6000	6950	8000	9050	10200
		100		5600	6500	7450	8500	9550
		110				6450	7350	8300
		115					6750	7650
LJZM0200UWH000N LJZM0200UWH000Q	114N3479 114N3480	90	8400	9600	10900	12250	13650	15100
		95		9050	10250	11550	12850	14200
		100		8500	9650	10850	12100	13400
		110				9500	10650	11750
		115					9900	10950
LNZM0400UWH000Q	114N3481	90	13800	15500	17300	19300	21350	23550
		95		14900	16650	18550	20500	22600
		100		14300	16000	17750	19650	21600
		110				16150	17850	19600
		115					16900	18550
LNZM0500UWH000Q	114N3482	90	16600	18650	20900	23250	25850	28550
		95		17950	20050	22350	24800	27400
		100		17200	19250	21400	23700	26150
		110				19450	21500	23700
		115					20350	22450
LRZM0600UWH000Q	114N3483	90	20050	22550	25250	28200	31350	34750
		95		21700	24300	27100	30100	33350
		100		20850	23300	26000	28850	31900
		110				23650	26250	28950
		115					24900	27450
LRZM0800UWH000Q	114N3484	90	24650	27650	30950	34450	38250	42250
		95		26600	29750	33100	36650	40500
		100		25500	28500	31700	35100	38700
		110				28800	31800	35050
		115					30150	33150

Full range of models (refrigerants, capacities, and voltage codes), spare parts, and more available at <http://bit.ly/NAMCUCatalog>.

Check Coolselector or contact Danfoss.

R-452A models of the Optyma Slim Outdoor Condensing Unit will be released in 2018.

Scan the QR Code for the full range of condensing units or visit <http://bit.ly/NAMCUCatalog>

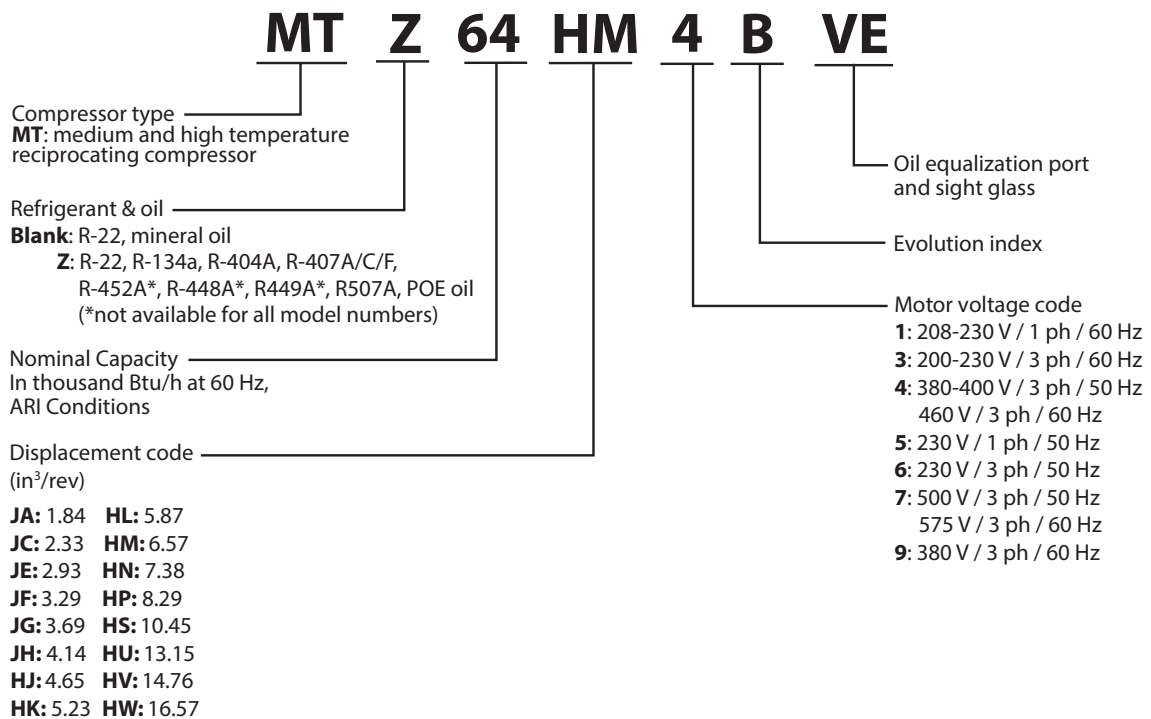


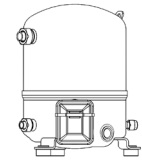
MT/MTZ - Medium/High Temperature Reciprocating Compressors

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.



Nomenclature / Model No.





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-404A ⁴ R-507A ⁴					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 × ¾	1	46	MT18JA1*VE	MT18-1VI	MT18JA3*VE	MT18-3VI	MT18JA4*VE	MT18-4VI
21975			1 × 1 ⁽⁵⁾	½ × ¾ ⁽⁵⁾	1	46	MT22JC1*VE	MT22-1VI⁵	MT22JC3*VE	MT22-3VI	MT22JC4*VE	MT22-4VI
30231			1 × 1 ⁽⁵⁾	½ × ¾ ⁽⁵⁾	1	51	MT28JE1*VE	MT28-1VI⁵	MT28JE3*VE	MT28-3VI	MT28JE4*VE	MT28-4VI
33044			1 ¼ × 1	¾ × ½	1	53	MT32JF1*VE	MT32-1VI	MT32JF3*VE	MT32-3VI	MT32JF4*VE	MT32-4VI
37992			1 ¼ × 1	¾ × ½	1	55	MT36JG1*VE	MT36-1VI	MT36JG3*VE	MT36-3VI	MT36JG4*VE	MT36-4VI
42930			1 ¼ × 1	¾ × ½	1	57	MT40JH1*VE	MT40-1VI	MT40JH3*VE	MT40-3VI	MT40JH4*VE	MT40-4VI
43999			1 ¾ × 1 ¼	¾ × ¾	2	82	MT44HJ1*VE	MT44-1VI	MT44HJ3*VE	MT44-3VI	MT44HJ4*VE	MT44-4VI
50160			1 ¾ × 1 ¼	¾ × ¾	2	82	MT50HK1*VE	MT50-1VI	MT50HK3*VE	MT50-3VI	MT50HK4*VE	MT50-4VI
56420			1 ¾ × 1 ¼	¾ × ¾	2	86	MT56HL1*VE	MT56-1VI	MT56HL3*VE	MT56-3VI	MT56HL4*VE	MT56-4VI
64366			1 ¾ × 1 ¼	¾ × ¾	2	86	MT64HM1*VE	MT64-1VI	MT64HM3*VE	MT64-3VI	MT64HM4*VE	MT64-4VI
74561			1 ¾ × 1 ¼	¾ × 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			MT144HV*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		1 × 1	½ × ¾	1	46	MTZ18JA1*VE	MTZ18-1VI	MTZ18JA3*VE	MTZ18-3VI	MTZ18JA4*VE	MTZ18-4VI
14849	12306		1 × 1 ⁽⁵⁾	½ × ¾ ⁽⁵⁾	1	46	MTZ22JC1*VE	MTZ22-1VI⁵	MTZ22JC3*VE	MTZ22-3VI	MTZ22JC4*VE	MTZ22-4VI
19276	15986		1 × 1 ⁽⁵⁾	½ × ¾ ⁽⁵⁾	1	51	MTZ28JE1*VE	MTZ28-1VI⁵	MTZ28JE3*VE	MTZ28-3VI	MTZ28JE4*VE	MTZ28-4VI
20949	17480		1 ¼ × 1	¾ × ½	1	53	MTZ32JF1*VE	MTZ32-1VI	MTZ32JF3*VE	MTZ32-3VI	MTZ32JF4*VE	MTZ32-4VI
24482	20189		1 ¼ × 1	¾ × ½	1	55	MTZ36JG1*VE	MTZ36-1VI	MTZ36JG3*VE	MTZ36-3VI	MTZ36JG4*VE	MTZ36-4VI
27864	23031		1 ¼ × 1	¾ × ½	1	57	MTZ40JH1*VE	MTZ40-1VI	MTZ40JH3*VE	MTZ40-3VI	MTZ40JH4*VE	MTZ40-4VI
30110	24323		1 ¾ × 1 ¼	¾ × ¾	2	82	MTZ44HJ1*VE	MTZ44-1VI	MTZ44HJ3*VE	MTZ44-3VI	MTZ44HJ4*VE	MTZ44-4VI
34538	28590		1 ¾ × 1 ¼	¾ × ¾	2	82	MTZ50HK1*VE	MTZ50-1VI	MTZ50HK3*VE	MTZ50-3VI	MTZ50HK4*VE	MTZ50-4VI
38881	32451		1 ¾ × 1 ¼	¾ × ¾	2	86					MTZ56HL4*VE	MTZ56-4VI
44404	36056		1 ¾ × 1 ¼	¾ × ¾	2	86	MTZ64HM1*VE	MTZ64-1VI	MTZ64HM3*VE	MTZ64-3VI	MTZ64HM4*VE	MTZ64-4VI
50000	40894		1 ¾ × 1 ¼	¾ × ¾	2	88			MTZ72HN3*VE	MTZ72-3VI	MTZ72HN4*VE	MTZ72-4VI
56336	46521		1 ¾ × 1 ¼	1 ⅛ × ¾	2	88			MTZ80HP3*VE	MTZ80-3VI	MTZ80HP4*VE	MTZ80-4VI
63963	52953		1 ¾ × 1 ¼	1 ⅛ × ¾	4	132			MTZ100HS*VE	MTZ100-3VI	MTZ100HS4*VE	MTZ100-4VI
78906	68297		1 ¾ × 1 ¼	1 ⅛ × ¾	4	141			MTZ125HU*VE	MTZ125-3VI	MTZ125HU4*VE	MTZ125-4VI
96936	80472		1 ¾ × 1 ¼	1 ⅛ × ¾	4	148			MTZ144HV*VE	MTZ144-3VI	MTZ144HV4*VE	MTZ144-4VI
107631	87421		1 ¾ × 1 ¼	1 ⅛ × ¾	4	152			MTZ160HW*VE	MTZ160-3VI	MTZ160HW4*VE	MTZ160-4VI

¹ These compressor models have threaded sight glass and ¾ in. flare oil equalization line.

² To determine the nominal capacity for R-407A/C/F, R-452A, R-448A, R-449A, check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.

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

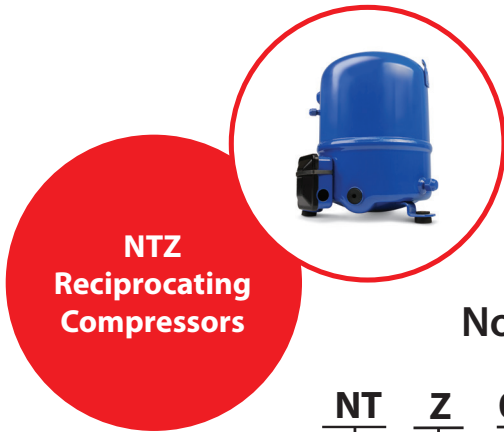
⁵ Actual connection for MT and MTZ 22-28 (208-230/1/60) is rotolock 1 ¼ in. × 1 in. and connection with supplied sleeve is ¾ in. × ½ in. ODF. Capacitor values and relays for 1 phase compressors are available on page 62.

Spare Parts and Accessories

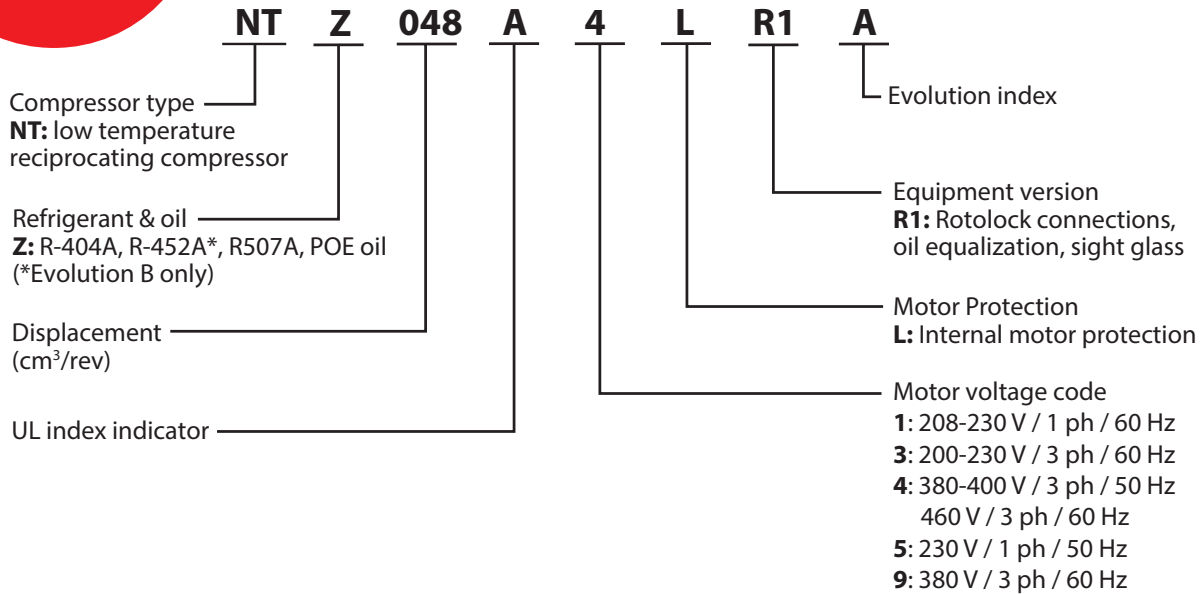
Description	Type(s) applied to	Danfoss Code No.
Belt type crankcase heater; 54W, 230V	MT(Z) 018–040	7773106
Belt type crankcase heater; 65W, 110V		7773109
Belt type crankcase heater; 65W, 230V		7773107
Belt type crankcase heater; 65W, 400V	MT(Z) 044–081	7773117
Belt type crankcase heater; 65W, 460V		120Z0466
Belt type crankcase heater; 75W, 110V		7773110
Belt type crankcase heater; 75W, 230V		7773108
Belt type crankcase heater; 75W, 400V	MT(Z) 100–160	7773118
Belt type crankcase heater; 75W, 460V		120Z0464
PTC heater	all	PTC
Mounting kit—1 and 2 cylinder compressors	MT(Z) 18–81	8156001
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	7754019
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 ½ 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 and 460 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, ⅝ 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 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.



Nomenclature / Model No.



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	¾ × ½	1	46	NTZ048A1LR1A	4547	120F0072	NTZ048A3LR1A	4490	120F0026	NTZ048A4LR1B	4490	120F0226
1 ¼ × 1	¾ × ½	1	51	NTZ068A1LR1A	6649	120F0073	NTZ068A3LR1A	7518	120F0027	NTZ068A4LR1A	7518	120F0002
1 ¾ × 1 ¼	7/8 × ¾	2	77	NTZ096A1LR1A	9155	120F0074	NTZ096A3LR1A	9110	120F0028	NTZ096A4LR1A	9110	120F0003
1 ¾ × 1 ¼	7/8 × ¾	2	77	NTZ108A1LR1A	10805	120F0075	NTZ108A3LR1A	10536	120F0029	NTZ108A4LR1A	10536	120F0004
1 ¾ × 1 ¼	1 ½ × ¾	2	77	NTZ136A1LR1A	13901	120F0076	NTZ136A3LR1A	13901	120F0030	NTZ136A4LR1A	13901	120F0005
1 ¾ × 1 ¼	1 ½ × ¾	4	137				NTZ215A3LR1A	21461	120F0031	NTZ215A4LR1A	21461	120F0006
1 ¾ × 1 ¼	1 ½ × ¾	4	141				NTZ271A3LR1A	29788	120F0032	NTZ271A4LR1A	29788	120F0007

¹ Evaporating temperature = -25 °F, condensing temperature = 105 °F, superheat = 20 °F, subcooling = 0 °F.

² Single compressor, threaded sight glass, 3/8 in. oil equalization connection. Capacitor values and relays for 1 phase compressors are available on page 62.

Spare Parts and Accessories

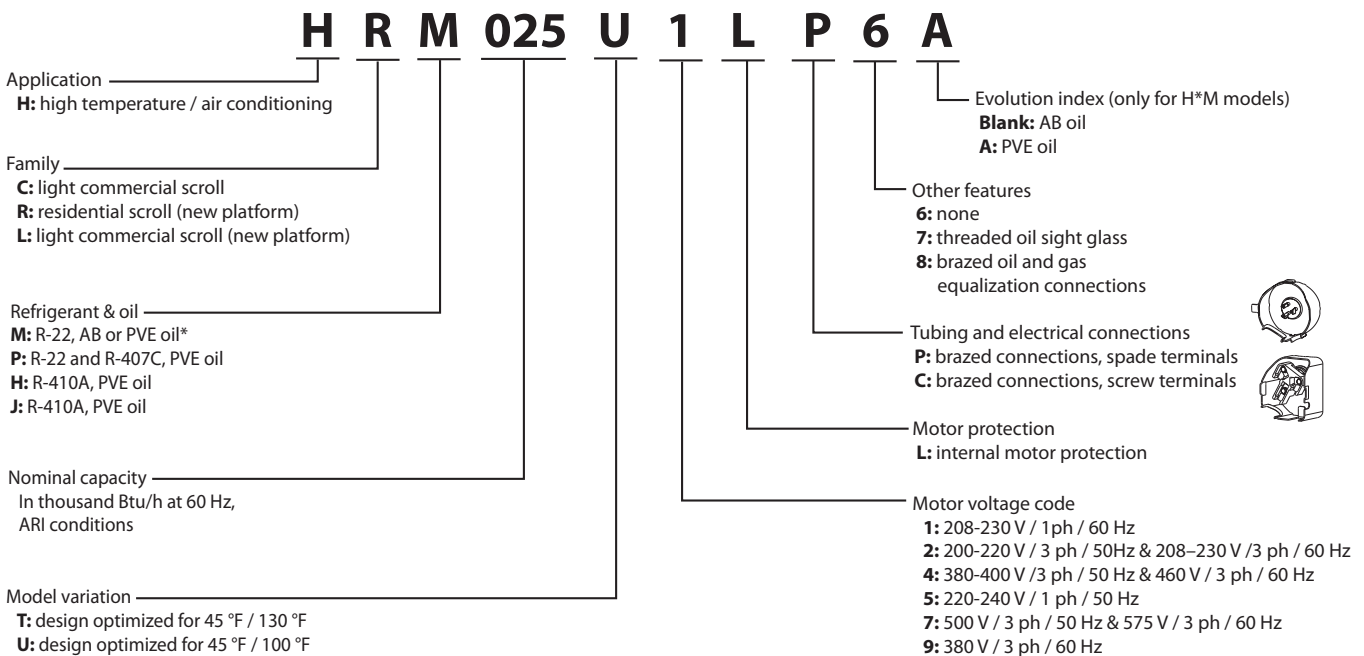
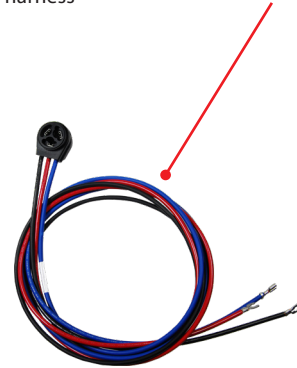
Description	Type(s) applied to	Danfoss Code No.
Belt type crankcase heater; 54W, 230V	NTZ04-068	7773106
Belt type crankcase heater; 65W, 110V	NTZ096-136	7773109
Belt type crankcase heater; 65W, 230V		7773107
Belt type crankcase heater; 65W, 400V		7773117
Belt type crankcase heater; 65W, 460V		120Z0466
Belt type crankcase heater; 75W, 110V		7773110
Belt type crankcase heater; 75W, 230V		7773108
Belt type crankcase heater; 75W, 400V	NTZ215-271	7773118
Belt type crankcase heater; 75W, 460V		120Z0464
PTC heater	all	PTC
Mounting kit—1 and 2 cylinder compressors	NTZ048-136	8156001
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 ¼ in. rotolock, 1 ½ 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, ⅝ 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

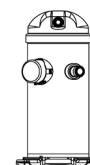
H Series - Residential and Light Commercial Scroll Compressors

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.



Models with spade terminals include wire harness





Technical data and ordering

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

Refrigerant	Motor Voltage	Tons (approx.)	Competitor Model No.	Solder ODF connection (in.)	Weight (lbs.)	OLD Danfoss Model	NEW Danfoss Model		
						Danfoss Model No.	Danfoss Model No.	Danfoss Code No.	
R-22	R-407C	1: 200-230V/1/60Hz	2	ZR25K*-PFV	3/4 x 1/2	73	HRM025T1LP6	HRP025T1LP6	120U3307¹
			2 1/2	ZR28K*-PFV ZR32K*-PFV	3/4 x 1/2	75	HRM032U1LP6	HRM032U1LP6A	120U3308¹
			3	ZR34K*-PFV ZR36K*-PFV	3/4 x 1/2	75	HRM038U1LP6	HRM038U1LP6A	120U3309¹
			3 1/2	ZR40K*-PFV ZR42K*-PFV	3/4 x 1/2	75	HRM040U1LP6 HRM042U1LP6	HRP042T1LP6	120U3310¹
			4	ZR47K*-PFV	7/8 x 1/2	77	HRM047U1LP6	HRM047U1LP6A	120U3311¹
			4 1/2	ZR54K*-TF5	7/8 x 1/2	97	HRM054U1LP6	HRM054U1LP6A	120U3312¹
			5	ZR57K*-PFV ZR61K*-PFV	7/8 x 1/2	97	HRM060U1LP6	HRP060T1LP6	120U3313¹
		2: 200-220V/3/50Hz & 208-230V/3/60Hz	3 1/2	ZR42K*-TF5	3/4 x 1/2	75	HRM042U2LP6	HRM042U2LP6A	120U3314¹
			4	ZR47K*-TF5	7/8 x 1/2	71	HRM047U2LP6	HRP047T2LP6	120U3315¹
			4 1/2	ZR54K*-TF5	7/8 x 1/2	93	HRM054U2LP6	HRM054U2LP6A	120U3316¹
			5	ZR57K*-TF5 ZR61K*-TF5	7/8 x 1/2	93	HRM060U2LP6	HRP060T2LP6	120U3317¹
			5 1/2		7/8 x 1/2	85		HLM068T2LC6A	120U3276
			6	ZR72K*-TF5	7/8 x 1/2	95	HLM072T2LC6 HLM075T2LC6	HLP075T2LC6	120U3098
			7	ZR81KC*-TF5	7/8 x 3/4	91	HLM081T2LC6	HLP081T2LC6	120U1916
		4: 380-415V/3/50Hz & 460V/3/60Hz	8	ZR94KC*-TF5	1 1/8 x 7/8	108	HCM094T2LC6	HCP094T2LC6	120U0906
			10	ZR125KC*-TF5 ZR12M3*-TWC	1 1/8 x 7/8	106	HCM120T2LC6	HCP120T2LC6	120U0766
			4	ZR47K*-TFD	7/8 x 1/2	82	HRM047U4LP6	HRP047T4LP6	120U3318²
			4 1/2	ZR54K*-TFD	7/8 x 1/2	89	HRM054U4LP6	HRP054T4LP6	120U3319²
			5	ZR57K*-TFD ZR61K*-TFD	7/8 x 1/2	88	HRM058U4LP6 HRM060U4LP6	HRP060T4LP6	120U3320²
			5 1/2		7/8 x 1/2	86		HLP068T4LC6	120U2014
			6	ZR72K*-TFD	7/8 x 1/2	58	HLM072T4LC6 HLM075T4LC6	HLP075T4LC6	120U1766
			7	ZR81KC*-TFD	7/8 x 3/4	94	HLM078T4LC6 HLM081T4LC6	HLP081T4LC6	120U1781
			8	ZR94KC*-TFD	1 1/8 x 7/8	101	HCM094T4LC6	HCP094T4LC6	120U0601
			9	ZR108KC*-TFD ZR11M3*-TWD	1 1/8 x 7/8	108	HCM109T4LC6	HCP109T4LC6	120U0376
		10	ZR12M3*-TWD	1 1/8 x 7/8	109	HCM120T4LC6	HCP120T4LC6	120U0401	

¹ Compressor comes kitted with wire harness (Danfoss Code No. 120Z5056)

² Compressor comes kitted with wire harness (Danfoss Code No. 120Z5057)

Additional models may be available upon request.

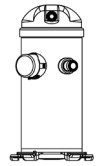
Full range of models (refrigerants, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg. Capacitor values and relays for 1 phase compressors are available on pages 62.



Scan the QR code for the Danfoss Bulletin R-22 Compressors Replacements and HFC Retrofits or visit <http://bit.ly/DanfossR22CompressorReplacementBulletin>

Scan the QR Code for a video of an H-series scroll compressor replacement or visit <http://bit.ly/hscrollinst>





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 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	120U3321 ¹
		3		¾ × ½	94	HRH038U1LP6	HRH036U1LP6	120U3322 ¹
		3 ¼		7⁄8 × ½	73	HRH040U1LP6	HRH040U1LP6	120U3323 ¹
		3 ¾		7⁄8 × ½	99		HRH044U1LP6	120U3324 ¹
		4		7⁄8 × ½	79	HRH048U1LP6	HRH048U1LP6	120U3325 ¹
		4 ½		7⁄8 × ½	82		HRH051U1LP6	120U3326 ¹
		5		7⁄8 × ½	90	HLH061T1LP6	HLH061T1LP6	120U3327 ¹
	2: 200–220/3/50Hz & 208–230V/3/60Hz	3 ¼	ZP36K*E-TF5 ZP38K*E-TF5 ZP41K*E-TF5	7⁄8 × ½	77	HRH040U2LP6	HRH040U2LP6	120U3328 ¹
		3 ¾	ZP44K*E-TF5	7⁄8 × ½	89		HRH044U2LP6	120U3329 ¹
		4	ZP51K*E-TF5	7⁄8 × ½	85		HRH051U2LP6	120U3330 ¹
		5		7⁄8 × ½	90	HLH061T2LC6	HLH061T2LC6	120U2062
		5 ½	ZP67KCE-TF5	7⁄8 × ½	89	HLH068T2LC6	HLH068T2LC6	120U1481
		6	ZP72KCE-TF5	7⁄8 × ½	96	HLJ072T2LC6	HLJ072T2LC6	120U1486
		7	ZP83KCE-TF5	7⁄8 × ½	96	HLJ083T2LC6	HLJ083T2LC6	120U1491
		7 ½	ZP90KCE-TF5	1 ½ × ¾	102	H CJ090T2LC6	H CJ090T2LC6	120U2307
	4: 380–415V/3/50Hz & 460V/3/60Hz	8 ½	ZP103KCE-TF5	1 ½ × ¾	104	H CJ105T2LC6	H CJ105T2LC6	120U2327
		10	ZP120KCE-TF5	1 ½ × ¾	106	H CJ120T2LC6	H CJ120T2LC6	120U2347
		3 ¼	ZP36K*E-TFD ZP38K*E-TFD ZP41K*E-TFD	7⁄8 × ½	77	HRH036U4LP6 HRH038U4LP6 HRH040U4LP6	HRH040U4LP6	120U3331 ²
		3 ¾	ZP44K*E-TFD	7⁄8 × ½	77		HRH044U4LP6	120U3332 ²
		4	ZP51K*E-TFD	7⁄8 × ½	87		HRH051U4LP6	120U3333 ²
		5	ZP61KCE-TFD	7⁄8 × ½	96	HLH061T4LC6	HLH061T4LC6	120U2052
		5 ½	ZP67KCE-TFD	7⁄8 × ½	96	HLH068T4LC6	HLH068T4LC6	120U1391
		6	ZP72KCE-TFD	7⁄8 × ½	97	HLJ072T4LC6	HLJ072T4LC6	120U1396
	7	ZP83KCE-TFD	7⁄8 × ½	93	HLJ083T4LC6	HLJ083T4LC6	120U1401	
	7 ½	ZP90K*E-TFD	1 ½ × ¾	109	H CJ090T4LC6	H CJ090T4LC6	120U2302	
	8 ½	ZP104KCE-TFD	1 ½ × ¾	109	H CJ105T4LC6	H CJ105T4LC6	120U2322	
	10	ZP120K*E-TFD	1 ½ × ¾	164	H CJ120T4LC6	H CJ120T4LC6	120U2342	

¹ Compressor comes kitted with wire harness (Danfoss Code No. 120Z5056)

² Compressor comes kitted with wire harness (Danfoss Code No. 120Z5057)

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 62.

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
POE lubricant; 1 liter can	HRH, HLH except HLH061	120Z5033
PVE lubricant, 210HV (FVC68D); 1 liter can	HRH, HLH, HLJ, H CJ	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, H CJ090-120	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.



Nomenclature / Model No.

SM 115 S 4 Q C
SH 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
SH: 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

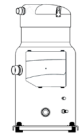
Evolution index

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	240, 300, 380
X		brazed	230V	
S		rotolock	24V AC	
Y		rotolock	230V	
CA		brazed	24V AC	
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	
AC	contact OEM			



Scan the QR code for the Danfoss Bulletin R-22 Compressors Replacements and HFC Retrofits or visit <http://bit.ly/DanfossR22CompressorReplacementBulletin>



Technical data and ordering

S Series - Scroll Compressors (1/2)

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 ¾ 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 ½	200-230/3/60	CSHA-093R-0*00 or 0A	ZR108KC-TF5 ZR11M3-TWC	172	1 ¾ x ¾ 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	198	1 ¾ x ¾ Brazed	120Z0405	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 ¾ x ¾ 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	1 ¾ x 1 ¾ Brazed	7765028	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	220	1 ¾ x 1 ¾ Brazed	7765028	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, ¾ in. flare SAE oil equalization connection, brazed suction and discharge connections and mounting bracket.

Code Nos. ending "VI" and "CBI" have threaded sight glass, ¾ 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 ½ in. ODF), (1 ¼ in. rotolock, ¾ in. ODF)	SH090	120Z0125
Solder sleeve adapter set (1 ¾ in. rotolock, 1 ¾ in. ODF), (1 ¼ in. rotolock, ¾ in. ODF) *diameter restrictor	SM115, 125, 160, SH105, 120, 140, 161, 184	7765006
Solder sleeve adapter set (1 ¾ in. rotolock, 1 ¾ in. ODF), (1 ¼ in. rotolock, ¾ in. ODF)	SM115, 160, SH105, 120, 140, 161, 184	120Z0405
Solder sleeve adapter set (2 ¾ in. rotolock, 1 ¾ in. ODF), (1 ¾ in. rotolock, ¾ in. ODF)	SM175, 185, SH240, 380	7765028
Motor protection module, 24V AC	SM115, 125, 160, 185	120Z0584
Electrical module 115/230V	SH 240, 295, 380	120Z0585
Belt type crankcase heater; 65W, 460V	SM115, 125, 160, SH090, 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		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		7773121
Belt type crankcase heater; 130W, 230V	SH380	7773122
Belt type crankcase heater; 130W, 400V		7773123
Service kit for terminal box; includes cover, clamp, terminal block connector	SH090, 105, 120, 140, 161	8156135
Terminal box, including cover	SM115, 125, 160, 175, 185	8156139
Terminal box cover	SH140-3, 161-3, 184, 175	120Z0413
Terminal box, including cover	SH240, 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	SH090, 105, 120, 140, 161, 175, 184	120Z0066
Mounting kit for 1 compressor: 4 rigid grommets, 4 sleeves, 4 bolts, 4 washers	SH240, 295, 380	7777045
Mineral oil, 160P; 2 liter can	all SM	7754001
Mineral oil, 160P; 5 liter can	all SM	7754002
Blue spray paint	all	8154001
Oil equalization adaptor. To connect ¾ in. tube on 22mm oil sight glass connection; includes (1) 22mm to ¾ in., (2) gaskets.	all SM, SH	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, SH	120Z0165
Oil equalization adaptor kit for trio mounting; oil fittings, gasket and adaptors (copper pipes not included)	SM 160, 185	7773112

S Series - Scroll Compressors (2/2)

Refrigerant	Nominal tonnage	Voltage/Phase/Frequency	Competitor Part Numbers ¹	Motor module voltage	Net weight (lbs.)	Connection size/type (suction x discharge)	Solder sleeve adapter set for Rotolock connectors	Danfoss Model No.	Danfoss Part No.			
R-410A	7 1/2	200-230/3/60	CSHD089J0A0M CSHD092J0A0M	ZP90KCE-TF5	128	1 1/2 x 7/8 Brazed	120Z0405	SH090A3AL*	120H0001			
		460/3/60	CSHD089K0A0M CSHD092K0A0M	ZP90KCE-TFD				SH090A4AL*	120H0003			
	9	200-230/3/60	CSHD105J0A0M CSHD110J0A0M	ZP103KCE-TF5	141			SH105A3AL*	120H0209			
		460/3/60	CSHD105K0A0M CSHD110K0A0M	ZP103KCE-TFD				SH105A4AL*	120H0211			
	10	200-230/3/60	CSHD120J0A0M CSHD125J0A0M	ZP120KCE-TF5	141			SH120A3AL*	120H0011			
		460/3/60	CSHD120K0A0M CSHD125K0A0M	ZP120KCE-TFD				SH120A4AL*	120H0013			
	12	200-230/3/60	CSHD136J0A0M CSHD142J0A0M	ZP137KCE-TF5	148			SH140A3AL*	120H0199			
		460/3/60	CSHD136K0A0M CSHD142K0A0M	ZP137KCE-TFD				SH140A4AL*	120H0201			
	13	200-230/3/60	CSHD155J0A0M CSHD161J0A0M	ZP154KCE-TF5	152			SH161A3AL*	120H0021			
		460/3/60	CSHD155K0A0M CSHD161K0A0M	ZP154KCE-TFD				SH161A4AL*	120H0023			
	15	200-230/3/60	CSHD175J0A0M CSHD183J0A0M	ZP182KCE-TW5	158	SH184A3AL*	120H0359					
		460/3/60	CSHD175K0A0M CSHD183K0A0M	ZP182KCE-TWD		SH184A4AL*	120H0361					
	20	200-230/3/60	CSHN240J0AHM CSHN250J0AHM	ZP235KCE-TW5 ²	24VAC 115/230VAC	238	1 3/8 x 1 1/8 Brazed	7765028	SH240A3AA*	120H0289		
		460/3/60	CSHN240J0AKM CSHN250J0AKM	ZP235KCE-TWD ²	24VAC 115/230VAC				SH240A4AA*	120H0291		
	25	200-230/3/60	CSHN315J0AHM CSHN315J0AKM	ZP295KCE-TW5 ²	24VAC 115/230VAC	337			SH295A3AA*	120H0851		
		460/3/60	CSHN315K0AHM CSHN315K0AKM	ZP295KCE-TWD ²	24VAC 115/230VAC				SH295A4AA*	120H0825		
	30	200-230/3/60	CSHN374J0AHM CSHN374J0AKM	ZP385KCE-TW5 ²	24VAC 115/230VAC	362			SH380A3AA*	120H0151		
		460/3/60	CSHN374K0AHM CSHN374K0AKM	ZP385KCE-TWD ²	24VAC 115/230VAC				SH380A4AA*	120H0253		
											SH380A4AB*	120H0255

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

²Control voltage of external motor protection module must be checked before crossing to Danfoss Model No with 24V ac or 115/230V motor protection module. Full range of models (refrigerants, tons, and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at www.danfoss.com/odsg.

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	330	45	440		
MT/MTZ28 JE-1	135	330	50	440		
MT/MTZ32 JF-1	100	330	45	440		
MT/MTZ36 JG-1	100	330	45	440		
MT/MTZ40 JH-1	100	330	55	440		
MT/MTZ44 HJ-1	135	330	45	440		
MT/MTZ50 HK-1	135	330	45	440		
MT/MTZ56 HL-1	200	330	55	440		
MT/MTZ64 HM-1	235	330	55	440		
NTZ048A1LR1A	100	330	25	440	RVA 6AMKL (Electrica)	8173022
NTZ068A1LR1A	135	330	50	440		
NTZ096A1LR1A	135	330	45	440		
NTZ108A1LR1A	135	330	45	440		
NTZ136A1LR1A	135	330	45	440		
HRM025	145–175	330	45	370	RVA 2ACKO (Electrica)	120Z0396
HRM032-034	145–175	250	45	370	RVA 2ACKO (Electrica)	120Z0396
HRM038	88–108	330	55	370	RVA 2ABKO (Electrica)	120Z0397
HRM040-045	88–108	330	60	370	RVA 2ABKO (Electrica)	120Z0397
HRM047	88–108	250	60	370	RVA 2ABKO (Electrica)	120Z0397
HRM048	161–193	250	60	370	RVA 2ABKO (Electrica)	120Z0397
HRM051-054	161–193	250	70	370	RVA 2ABKO (Electrica)	120Z0397
HRM058T1-060T1	88–108	250	55	440	RVA A4IKL (Electrica)	120Z0398
HRM058U1-060U1, HLM068-081	189–227	330	80	370	RVA 2ABKO (Electrica)	120Z0397
HRP051	161–193	250	70	370	RVA 2ABKO (Electrica)	120Z0397
HLP068-081	189–227	330	80	370	RVA 2ABKO (Electrica)	120Z0397
HRH031	145–175	250	45	370	RVA 2ACKO (Electrica)	120Z0396
HRH032-034	88–108	330	50	370	RVA 2ABKO (Electrica)	120Z0397
HRH036	88–108	330	55	370	RVA 9CKO (Electrica)	120Z0393
HRH038-040	88–108	330	60	370	RVA 2ABKO (Electrica)	120Z0397
HRH041-051	161–193	250	70	370	RVA 2ABKO (Electrica)	120Z0397
HRH054-056, HLH068, HLJ072-083	189–227	330	80	370	RVA 2ABKO (Electrica)	120Z0397

Code Number Index

Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)
7703004	53	003N5025	31	023Z0013	35	032F2326	29
7703005	53, 55	003N6006	31	023Z0014	35	032F2327	29
7703006	53, 55	003N6025	31	023Z0030	35	032F3236	29
7703009	53, 55	003N7006	31	023Z0031	35	032F8165	29
7754001	53, 60	003N7025	31	023Z0032	35	032F8166	29
7754002	53, 60	003N8006	31	023Z0034	35	032F8196	29
7754019	53	003N8025	31	023Z0036	35	032L0548	29
7765006	60, 61	009G7012	37	023Z0105	35	032L0550	29
7765028	60	009G7014	37	023Z0106	35	032L0552	29
7773106	53, 55	009G7016	37	023Z1009	35	032L0554	29
7773107	53, 55, 60	009G7210	37	023Z1010	35	032L1004	29
7773108	53, 55, 60	009G7211	37	023Z1011	35	032L1103	29
7773109	53, 55, 60	009G7212	37	023Z1012	35	032L1204	29
7773110	53, 55, 60	009G8050	37	023Z1014	35	032L1206	29
7773112	60	009G8051	37	023Z1015	35	032L1209	29
7773117	53, 55, 60	009G8052	37	023Z1016	35	032L1214	29
7773118	53, 55, 60	009G8053	37	023Z1018	35	032L1228	29
7773121	60	009G8054	37	023Z1433	35	032L1240	29
7773122	60	009G8059	37	023Z1435	35	032L1244	29
7773123	60	009G8065	37	023Z1436	35	032L1254	29
7777045	60	009G8066	37	023Z1437	35	032L2207	29
8153004	53, 55	009G8067	37	023Z5000	35	032L2208	29
8153007	53, 55	009G8068	37	023Z5002	35	032L7115	29
8153008	53, 55	009G8069	37	023Z5003	35	032L7116	29
8153010	53, 55	014L0006	38	023Z5004	35	032L7121	29
8153011	53, 55	014L0145	38	023Z5006	35	032L7137	29
8153013	53, 55	014L0171	38	023Z5007	35	032L7144	29
8153122	53, 55	014L0172	38	023Z5008	35	032L7145	29
8153123	53, 55	014L0173	38	023Z5010	35	032L7148	29
8153124	53, 55	014L0181	38	023Z5018	35	032L7149	29
8154001	53, 55, 60	014L0182	38	023Z5019	35	032Z5013	35
8156001	53, 55	014L0183	38	023Z5022	35	034L0006	33
8156007	53, 55	014L0186	38	023Z5023	35	034L0023	33
8156009	53	018F0091	29	023Z5026	35	034L0025	33
8156019	53, 55, 60	018F4100	29	023Z5029	35	034L0026	33
8156134	53, 55	018F4102	29	023Z5032	35	034L0029	33
8156135	53, 55, 60	018F4110	29	023Z5033	35	034L0032	33
8156138	60	018F4112	29	023Z5174	36	034L0043	33
8156139	60	018F4120	29	023Z5181	36	034L0045	33
8169015	60	018F4122	29	023Z8255	35	034L0046	33
8173022	62	020-1132	33	023Z8261	36	034L0049	33
003N0388	31	023U1392	35	032F0181	29	034L0052	33
003N4006	31	023U1921	35	032F0185	29	034L0093	33
003N4007	31	023U4381	35	032F0187	29	034L0094	33
003N4008	31	023U5381	35	032F0189	29	034L0095	33
003N5006	31	023Z0012	35	032F0193	29	034L0097	33

Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)
034L0100	33	060L5218	23	067N9418	16	077Z7015	19
034L0143	33	060L5223	23	067N9419	16	077Z7016	19
034L0144	33	067L5856	14	067N9483	16	077Z7017	19
034L0147	33	067L5857	14	068-2002	6	080G3411	17
034N0082	33	067L5858	14	068-2003	6	080G3412	17
034N0083	33	067L5859	14	068-2006	6	114N2017	43
034N0084	33	067L5955	14	068-2007	6	114N2019	43
042H0165	29	067L5956	14	068-2008	6	114N2022	43
042H0172	29	067L5957	14	068-2009	6	114N2023	43
060-017166	25, 27, 31	067L7000	14	068-2010	6	114N2026	43
060-5231	25	067L7001	14	068-2015	6	114N2027	43
060-5232	25	067N0557	16	068U0015	10	114N2028	43
060-5233	25	067N5158	16	068U0016	10	114N2029	43
060-5234	25	067N5159	16	068U1030	9	114N2316	44–45
060-5235	25	067N5163	16	068U1031	9	114N2318	44–45
060-5237	25	067N5169	16	068U1032	9	114N2321	44–45
060-5239	25	067N5254	16	068U1033	9	114N2324	44–45
060-5240	25	067N5255	16	068U1034	9	114N2325	44–45
060-5241	25	067N6150	16	068U1035	9	114N2330	44
060-5242	25	067N6151	16	068U1036	9	114N2331	44
060-5243	25	067N6154	16	068U1037	9	114N2332	44
060-5244	25	067N6155	16	068U1038	9	114N2335	45
060-5245	25	067N6158	16	068U1039	9	114N2336	45
060-5246	25	067N6162	16	068U1706	10	114N2337	45
060-5247	25	067N6166	16	068U2205	9	114N2338	45
060-5248	25	067N6181	16	068U2207	9	114N2339	45
060-5249	25	067N6186	16	068U2235	9	114N2389	45
060-5250	25	067N6188	16	068U2237	9	114N3477	50
060-5253	25	067N9206	16	068U2285	9	114N3478	50
060-5254	25	067N9207	16	068U2287	9	114N3479	50
060B200266	27	067N9209	16	068U3507	7, 10, 14	114N3480	50
060B200366	27	067N9210	16	068U4900	12	114N3481	50
060B200766	27	067N9213	16	068U4901	12	114N3482	50
060B200866	27	067N9215	16	068U7000	10	114N3483	50
060B201266	27	067N9218	16	068U7001	7, 10	114N3484	50
060B205066	27	067N9219	16	068Z3206	6	114N3485	47–49
060B205366	27	067N9284	16	068Z3209	6	114N3486	47–49
060B205466	27	067N9285	16	068Z3346	6	114N3487	47–49
060B205766	27	067N9403	16	068Z3348	6	114N3488	47–49
060L2150	21	067N9404	16	068Z3400	6	114N3489	47–49
060L2151	21	067N9406	16	068Z3403	6	114N3490	47–49
060L2152	21	067N9407	16	068Z7100	7	114N3491	47–49
060L5201	23	067N9409	16	077Z7010	19	114N3492	47–49
060L5203	23	067N9411	16	077Z7011	19	114N3493	47–49
060L5206	23	067N9412	16	077Z7012	19	114N3494	47–49
060L5208	23	067N9413	16	077Z7013	19	114N3495	47–49
060L5215	23	067N9415	16	077Z7014	19	114N3496	47–49

Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)	Danfoss Code No.	Page(s)
114N3497	47-49	120F0072	54	120U1766	57	120Z0060	58
114N3498	47-49	120F0073	54	120U1781	57	120Z0066	60
114N3499	47-49	120F0074	54	120U1916	57	120Z0125	60
114N3500	47-49	120F0075	54	120U2014	57	120Z0164	60
114N3501	47-49	120F0076	54	120U2052	58	120Z0165	60
114N3502	47-49	120F0226	54	120U2062	58	120Z0393	62
114N6352	44	120F0230	54	120U2302	58	120Z0396	62
114N6402	44	120F0234	54	120U2307	58	120Z0397	62
114N6403	44	120F0236	54	120U2322	58	120Z0398	62
114N6404	44	120F0238	54	120U2327	58	120Z0405	60, 61
114N6405	44	120F0240	54	120U2342	58	120Z0413	60
114N6406	44	120F0242	54	120U2347	58	120Z0458	60
114N6408	44	120H0001	61	120U3098	57	120Z0464	53, 55, 60
114N6409	44	120H0003	61	120U3276	57	120Z0466	53, 55, 60
114N6420	44	120H0011	61	120U3307	57	120Z0584	60
114N6421	44	120H0013	61	120U3308	57	120Z0585	60
114N6422	44	120H0021	61	120U3309	57	120Z5015	58
114N6427	44	120H0023	61	120U3310	57	120Z5018	58
114N6428	44	120H0151	61	120U3311	57	120Z5033	58
114N6429	44	120H0152	61	120U3312	57	120Z5034	58
114N6435	44	120H0199	61	120U3313	57	120Z5040	58
114N6436	44	120H0201	61	120U3314	57	120Z5041	58
114N6437	44	120H0209	61	120U3315	57	120Z5056	58
114N6445	44	120H0211	61	120U3316	57	120Z5057	58
114N6446	44	120H0253	61	120U3317	57	120Z5064	58
114N6449	44	120H0255	61	120U3318	57	123B1548	40
114N6452	44	120H0289	61	120U3319	57	123B1550	40
114N6729	45	120H0291	61	120U3320	57	123B1553	40
114N6730	45	120H0297	61	120U3321	58	123B1590	40
114N6731	45	120H0299	61	120U3322	58	123B2131	41
114N6734	45	120H0359	61	120U3323	57	123B2157	41
114N6737	45	120H0361	61	120U3324	57	123B2174	41
114N6738	45	120H0825	61	120U3325	57	123B2541	41
114N6739	45	120H0827	61	120U3326	57	123B2714	41
114N6741	45	120H0851	61	120U3327	57	195B0003	40
114N6742	45	120H0853	61	120U3328	57	195B0042	40
114N6744	45	120U0376	57	120U3329	57	195B0059	40
114N6745	45	120U0401	57	120U3330	57	195B0099	40
119F3965	14	120U0601	57	120U3331	57	195B0147	41
119F3966	14	120U0766	57	120U3332	57	195B0259	40
120F0026	54	120U0906	57	120U3333	57	195B0304	41
120F0027	54	120U1391	58	120Z0039	60	195B0348	41
120F0028	54	120U1396	58	120Z0055	58	195B0388	40
120F0029	54	120U1401	58	120Z0056	58	195B0428	41
120F0030	54	120U1481	58	120Z0057	58	195B0447	41
120F0031	54	120U1486	58	120Z0058	58	195B0464	41
120F0032	54	120U1491	58	120Z0059	58	195B0467	40

Danfoss Code No.	Page(s)
195B0491	41
195B0510	41
195B0592	40
195B0636	40
195B0666	41
195B0667	41
195B0694	40
195B0701	41
195B0702	41
195B0745	40
195B0746	40
MT100-3VI	52
MT100-4VI	52
MT125-3VI	52
MT125-4VI	52
MT144-3VI	52
MT144-4VI	52
MT160-3VI	52
MT160-4VI	52
MT18-1VI	52
MT18-3VI	52
MT18-4VI	52
MT22-1VI	52
MT22-3VI	52
MT22-4VI	52
MT28-1VI	52
MT28-3VI	52
MT28-4VI	52
MT32-1VI	52
MT32-3VI	52
MT32-4VI	52
MT36-1VI	52
MT36-3VI	52
MT36-4VI	52
MT40-1VI	52
MT40-3VI	52
MT40-4VI	52
MT44-1VI	52
MT44-3VI	52
MT44-4VI	52
MT50-1VI	52
MT50-3VI	52
MT50-4VI	52
MT56-1VI	52
MT56-3VI	52
MT56-4VI	52
MT64-1VI	52

Danfoss Code No.	Page(s)
MT64-3VI	52
MT64-4VI	52
MT72-3VI	52
MT72-4VI	52
MT80-3VI	52
MT80-4VI	52
MTZ100-3VI	52
MTZ100-4VI	52
MTZ125-3VI	52
MTZ125-4VI	52
MTZ144-3VI	52
MTZ144-4VI	52
MTZ160-3VI	52
MTZ160-4VI	52
MTZ18-1VI	52
MTZ18-3VI	52
MTZ18-4VI	52
MTZ22-1VI	52
MTZ22-3VI	52
MTZ22-4VI	52
MTZ28-1VI	52
MTZ28-3VI	52
MTZ28-4VI	52
MTZ32-1VI	52
MTZ32-3VI	52
MTZ32-4VI	52
MTZ36-1VI	52
MTZ36-3VI	52
MTZ36-4VI	52
MTZ40-1VI	52
MTZ40-3VI	52
MTZ40-4VI	52
MTZ44-1VI	52
MTZ44-3VI	52
MTZ44-4VI	52
MTZ50-1VI	52
MTZ50-3VI	52
MTZ50-4VI	52
MTZ56-4VI	52
MTZ64-3VI	52
MTZ64-4VI	52
MTZ72-3VI	52
MTZ72-4VI	52
MTZ80-3VI	52
MTZ80-4VI	52
PTC	53, 55
SM090-3VI	60

Danfoss Code No.	Page(s)
SM090-4VI	60
SM115-3QAI	60
SM115-4QAI	60
SM125-3QAI	60
SM125-4QAI	60
SM160-3CBI	60
SM160-4CBI	60
SM175-3QAI	60
SM175-4QAI	60
SM185-3QAI	60
SM185-4QAI	60
SZ090-3VI	60
SZ090-4VI	60
SZ115-3QAI	60
SZ115-4QAI	60
SZ125-3QAI	60
SZ125-4QAI	60
SZ160-3CBI	60
SZ160-4CBI	60
SZ175-3QAI	60
SZ175-4QAI	60
SZ185-3QAI	60
SZ185-4QAI	60

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