

ENGINEERING
TOMORROW

Danfoss

Danfoss Optyma™ condensing units for Europe

Match your application needs – every time

With the Danfoss Optyma™ outdoor and indoor condensing units for Europe, with MBP and LBP refrigeration, there is a solution for your exact application needs. Featuring multiple lower-GWP refrigerants, high energy performance ratios and trouble-free installation, they help reduce running costs and increase cooling quality for the safer protection of perishables.

Make the optimal choice from our extensive range of outdoor and indoor condensing units.

Optimal Efficiency

for high cooling quality while reducing system's life-cycle costs and downtime

cr.danfoss.com

EcoDesign

Optyma™
by Danfoss

Danfoss Optyma™ packaged/outdoor condensing units

Highly efficient and reliable plug and play condensing units designed with the contractor and end-user in mind. and providing unique benefits.



Benefits for the contractor

- Simple and fast selection and installation. reduced maintenance time
- Models compatible with multiple lower GWP refrigerants
- Reduced refrigerant costs thanks to microchannel condenser inside



Benefits for the end-user

- Increased food safety and longer products shelf life
- Units suitable for residential areas thanks to low sound level operation
- Reduced life cycle costs of refrigeration equipment thanks to highly efficient units

Optyma™ Slim Pack W05



Compact and cost effective. When space. quiet operation. efficiency and simple installation matter.

With microchannel condenser



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Optyma™ Slim Pack W09



Compact and cost effective. When space. quieter operation. efficiency. faster and safer installation and maintenance matter.

W05 base + fan speed controller and main switch included



Page 6

Optyma™ Plus P00/P02



Top performer. When quietness. high efficiency. connectivity and fastest installation and maintenance matter.

P00 version:
With electronic controller



P02 version:
P00 base + liquid injection with electronic expansion valve



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Optyma™ Plus INVERTER



Premium unit. When top efficiency. fastest installation and maintenance. tight temperature and humidity control matter.

With variable speed drive



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MBP and LBP applications



- ✓ Cold rooms. display cabinets in convenience stores. mini-markets. restaurants. fisheries. butcheries. bakeries. florists. laboratories
- ✓ Wine cellars
- ✓ Milk cooling
- ✓ Industrial processes
- ✓ Dairy and general food storage

Designation

OP - MSXM034 ML W05 G

1 2 3 4 5 6 7 8

OP = Optyma

| | |
|----------|--|
| 1 | Application: M = MBP ; L = LBP |
| 2 | Condensing unit family: S = Slim Pack / P = OP Plus. OP Plus INVERTER |
| 3 | Refrigerant: B = R404A/R507. R448A. R449A. R452A; G = R134a. R513A; H = R404A/R507; I = R404A/R507. R134a. R407A. R407F. R448A. R513A. R449A. R452A. R454C. R455A; K = R404A. R448A. R449A. R452A. R454C. R455A; O = R452A. R404A/R507. R448A. R449A; P = R448A/R449A. R407A/F. R404A/R507; Q = R452A. R404A/R507; S = R134a. R513A. R1234yf; T = R404A/R507.R455A.R454C.R448A/R449A.R452A; V = R454C. R455A. R452A. R404A/R507; X = R404A/R507. R134a. R407A. R407F. R448A. R513A. R449A. R452A; Y = R404A/R507. R449A |
| 4 | M = Microchannel condenser |
| 5 | Displacement in cm ³ : Example 034 = 34 cm ³ |
| 6 | Compressor platform: such as VVL = variable speed scroll VLZ DX/DP/DS/DY/SC/CS/NTZ = Fixed Speed Recip Compressor MLZ and LLZ = Fixed speed Scroll Compressor |
| 7 | W05: Optyma™ Slim Pack W09: Optyma™ Slim Pack with fan speed controller and main switch P00: Optyma™ Plus P02: Optyma™ Plus with liquid injection P01: Optyma™ Plus INVERTER |
| 8 | Electrical code: G = 230V/1-phase compressor & fan E = 400V/3-phase compressor & 230V/1-phase fan |

Feature overview:

| | Optyma™ Slim Pack | | Optyma™ Plus | | Optyma™ Plus INVERTER |
|---|---|-----|---|--|--|
| | W05 | W09 | P00 | P02 | |
| IP level | IP54 | | IP54 | | IP54 |
| Compressor technology | Scroll/Reciprocating | | Scroll/Reciprocating | Scroll | Variable speed scroll |
| Control box (pre-wired E-panel) | yes | | yes | | yes |
| Microchannel condenser | yes | | yes | | yes |
| Fan speed controller | - | yes | yes | | yes |
| Main switch (circuit breaker) | - | yes | yes | | yes |
| Filter drier (flare connections) | yes | | yes | | yes |
| Sight glass | yes | | yes | | yes |
| Crankcase heater | yes | | yes | | yes |
| HP/LP adjustable pressostat | Mechanical | | Electronic | | Electronic |
| Liquid injection kit | - | | - | yes | - |
| Fail safe mini-pressostat | - | | Mechanical | | Mechanical |
| Access door(s) | - | | yes | | yes |
| Acoustic insulation | - | | yes | | yes |
| Condensing unit electronic controller | - | | yes | | yes |
| Network connectivity | - | | yes | | yes |
| Stack mounting | - | | yes | | - |
| Oil separator | - | | - | | yes |
| Net weight in kg | B1 housing: from 50.4 to 53 B2 housing: from 61.5 to 77 B3 housing: from 76 to 79 | | H1 housing: from 49 to 53 H2 housing: from 80 to 94 H3 housing: from 101 to 107 H4 housing: 169 | H3 housing: 135 and 136 H4 housing: from 161 to 166 | 124 & 125 |
| Dimensions in mm (height x width x depth) | B1 housing: 530 x 910 x 364 B2 housing: 690 x 1087 x 464 B3 housing: 825 x 1105 x 464 | | H1 housing: 652 x 906 x 356 H2 housing: 813 x 1055 x 430 H3 housing: 967 x 1406 x 481 H4 housing: 966 x 1800 x 600 | H3 housing: 965 x 1441 x 531 H4 housing: 966 x 1835 x 650 | H3 housing: 965 x 1406 x 481 H3 housing: 965 x 1406 x 583 |

Overview by range and refrigerant:

| Min / Max Cooling capacity range [kW] | Optyma™ Slim Pack | Optyma™ Plus | Optyma™ Plus INVERTER |
|---------------------------------------|-------------------|--------------|-----------------------|
| Medium temperature (MBP) | | | |
| R448/R449A | 0.9 - 11.0 | 0.7 - 15.2 | 5.9-12.4 |
| R455A | 0.7 - 10.8 | 0.6 - 15.2 | - |
| R454C | 0.6 - 10.0 | 0.7 - 14.3 | - |
| R1234yf | 1.3 - 1.4 | 1.3 - 1.4 | - |
| R134a | 1.4 - 6.6 | 1.4 - 10.3 | - |
| R513A | 1.3 - 7.0 | 1.3 - 10.3 | - |
| R452A | 0.8 - 10.8 | 0.8 - 16.7 | - |
| R404A/507 | 0.8 - 10.4 | 0.8 - 16.1 | 5.4 - 12.7 |
| Low temperature (LBP) | | | |
| R448A/R449A | - | 2.6 - 6.6 | - |
| R452A | 0.4 - 3.5 | 0.6 - 8.0 | - |
| R404A/507 | 0.4 - 3.6 | 0.5 - 5.9 | - |

Rating conditions EN 13215 (dew point):

MBP: Ambient temp = 32°C; Evap temp = -10°C; Superheat = 10K; Subcooling = 0K / **LBP:** Ambient temp = 32°C; Evap temp = -35°C; Superheat = 10K; Subcooling = 0K

Selection examples for cold rooms

Make a precise selection with the Cold Room module in Coolselector 2 software.

| Range | Model and cooling capacity by cold room type | Meat | | Fish | | Laboratories | | Fruit & Vegetables +8°C - 18h | | Fruit & Vegetables 0°C - 18h | | Butter, Eggs, Cheese +5°C - 18h | | Freezers -18°C - 16h | |
|-----------------------------|--|------------|----------|------------|----------|--------------|----------|-------------------------------|----------|------------------------------|----------|---------------------------------|----------|----------------------|----------|
| | | +1°C - 18h | | +1°C - 18h | | +12°C - 18h | | +8°C - 18h | | 0°C - 18h | | +5°C - 18h | | -18°C - 16h | |
| | | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] | Cap. [W] | CR* [m³] |
| OP Slim Pack with R513A | OP-MSGM018 / 021 / 026 | 900 | 6 | 900 | 6 | 1270 | 8 | 1270 | 17 | 900 | 7 | 1030 | 9 | | |
| OP Plus with R449A | OP-MPBM018 / 024 | 1350 | 11 | 1350 | 11 | 1890 | 13 | 1890 | 30 | 1350 | 12 | 1530 | 16 | | |
| OP Plus INVERTER with R448A | OP-MPPM044 | 2500 | 20 | 2500 | 20 | 3400 | 20 | 3500 | 65 | 2500 | 20 | 2800 | 35 | | |
| OP Slim Pack with R452A | OP-LSQM034 | | | | | | | | | | | | | 680 | 2 |

Data relate to +32°C ambient temperature; please refer to Danfoss for other working conditions. Cold room data: Temperature - Daily working hours. * Volume of cold room.

Danfoss Optyma™ bare/indoor condensing units

Robust. efficient and reliable condensing units. saving on service and maintenance costs and reducing energy consumption.



Benefits for the contractor

- Broad working envelope
- Multi lower-GWP refrigerants
- Larger units with microchannel condenser reducing the refrigerant charge and smaller units with fine & tube condenser
- Likely the most reliable hermetic reciprocating compressor on the market
- Economical EUR/kW value



Benefits for the end-user

- Reliable solution
- Low energy consumption under changing working conditions
- Easy & simple condenser maintenance

Optyma™. Light Commercial up to ~1.5 kW

Complete line featuring a higher efficiency and a reduced footprint. also available with R290. making it the perfect choice for a greener installation. This solution is ideal for OEMs or end-users looking for compact products to fit in small systems. and optimal cooling performance and capacity.



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Optyma™. Commercial from ~1.5 kW and up

Highly efficient new line with microchannel condenser. multiple lower-GWP refrigerants. and working up to 46°C. Easy to install and service. Quieter by up to 3 dB(A) thanks to 6-pole fan motor instead of 4-pole fan.



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MBP and LBP applications



- ✓ Industrial processes
- ✓ Milk cooling
- ✓ Cold rooms in fisheries, florists, etc.
- ✓ Commercial fridge and freezers, display cases, bottle coolers, serving tables

Designation

OP - LCQN 048 MT A02 E

1 2 3 4 5 6 7 8

OP = Optyma

| | |
|----------|---|
| 1 | Application: M = MBP ; L = LBP |
| 2 | Platform: C: Air-cooled condensing unit with single fan G: Air-cooled condensing unit with dual fan |
| 3 | Refrigerant: R: R134a, R513A, R404A/R507, R407C, R407A, R407F, R448A, R449A, R452A G: R134a, R513A H: R404A/R507 Q: R452A, R404A/R507 N: R290 |
| 4 | Condenser design: C: Fin & Tube condenser. ambient temperature up to 43°C N: Microchannel condenser. ambient temperature up to 46°C |

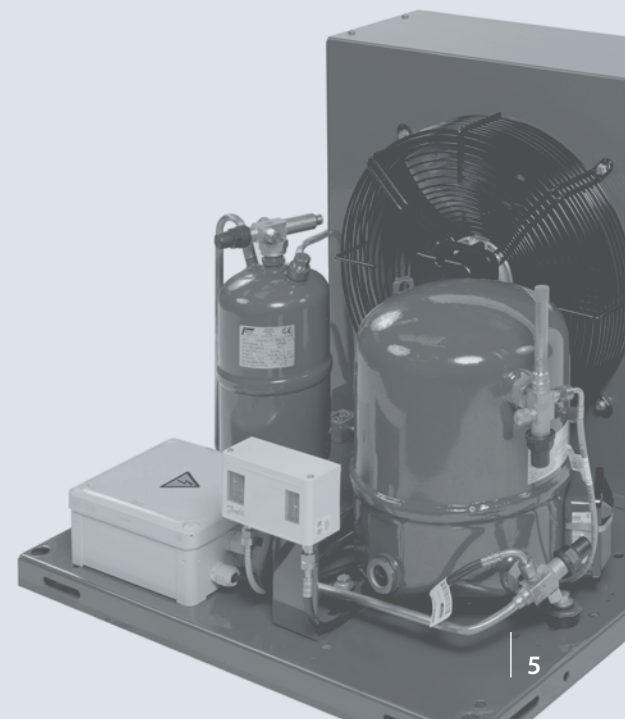
Feature overview:

| | Light Commercial | | | Light Commercial R290 | | | Commercial |
|---|---|-------|-------|--|------------------------|-----|--|
| | A00 | A01 | A04 | A09 | A10 | A11 | A02 |
| Ambient temperature | Up to 43°C | | | Up to 43°C | | | Up to 46°C |
| Hermetic reciprocating compressor | MPT. MLY. NL. SC. GS. FR. TL. NF | | | NLY. NBC. NPT. NS. NX | | | MTZ. NTZ |
| Unit base | Rails or base plate | | | | | | Base plate |
| Condenser type | Fin & Tube (painted) | | | | | | Microchannel |
| Fan | AC/EC | AC/EC | AC/EC | EC | EC | EC | AC 6 pole |
| Bracket & tube for pressostat mounting | - | yes | yes | yes | - | - | - |
| Dual KP pressure switch | - | - | yes | - | - | - | yes |
| Schrader valve | - | - | - | yes | yes | yes | - |
| Wired electrical box | yes | yes | yes | yes | yes | yes | yes |
| Mini HP/LP pressostat | - | - | - | - | yes | - | - |
| Power cord | - | - | yes | - | yes | - | - |
| Receiver | - | yes | yes | - | Combo drier + receiver | - | yes |
| Net weight in kg | 14 chassis: Lighter: 14 Bigger: 42 | | | 4 chassis: Lighter: 14 Bigger: 41 | | | 5 chassis: Lighter single fan: 62 Bigger single fan: 158 Lighter dual fan: 134 Bigger dual fan: 212 |
| Dimensions in mm (height x width x depth) | 14 chassis: Smaller: 205 x 289 x 424 Larger: 350 x 445 x 613 | | | 4 chassis: Smaller: 226 x 286 x 513 Larger: 350 x 442 x 480 | | | 5 chassis: Smaller single fan: 545 x 630 x 650 Larger single fan: 836.5 x 1200 x 800 Smaller dual fan: 693.5 x 1500 x 870 Larger dual fan: 836.5 x 1500 x 870 |

Overview by range and refrigerant:

| Min / Max cooling capacity (kW) | Light Commercial | Commercial |
|---------------------------------|------------------|------------|
| Medium temperature (MBP) | | |
| R290 | 0.2 - 1.4 | |
| R448A | | 2 - 20.5 |
| R449A | | 2 - 20.5 |
| R134a | 0.1 - 1.6 | 1.3 - 13.1 |
| R452A | | 2.2 - 20.6 |
| R407A | | 1.9 - 19.1 |
| R407C | | 1.8 - 19.1 |
| R407F | | 2 - 20.1 |
| R404A/507 | 0.3 - 1.7 | 2.2 - 21.7 |
| Low temperature (LBP) | | |
| R290 | 0.1 - 0.7 | |
| R452A | 0.1 - 0.3 | 0.8 - 6.1 |
| R404A/507 | 0.1 - 0.9 | 0.9 - 6.6 |

| | |
|----------|--|
| 5 | Compressor displacement: Example 048 = 48 cm ³ |
| 6 | Reciprocating compressor platform: FR = FR NF = NF SC = SC GS = GS NX = NX NB = NBC NS = NS NY = NLY NP = NPT MP = MPT MY = MLY MX = MX NT = NTZ MT = MTZ TL = TL NL = NL |
| 7 | Version: A00. A01. A02. A04. A09. A10. A11. See table above for features within each version. |
| 8 | Electrical code: A: Compressor 230V/1P/50-60Hz. fan 230V/1P/50-60Hz G: Compressor 230V/1P/50Hz. fan 230V/1P/50Hz E: Compressor 400V/3P/50Hz. fan 230V/1P/50Hz |



Optyma™ Slim Pack

Light on refrigerant. heavy on efficiency

Get it all with Optyma™ Slim Pack. It combines quiet operation and more value for money with an energy-efficient and compact solution.



Quick and safe installation and service

Enjoy fast and easy installation with the main switch, service valves, and quick connections. Additionally, the easy-to-clean Microchannel condenser saves you time and effort on servicing.



Suitable for residential areas

It operates up to 7 dB(A) lower than other packaged units of the same capacity and the fan-speed controller further reduces the sound level by up to 4 dB(A).



High SEPR

All models in the range are highly efficient and well above EcoDesign 2018 thresholds, contributing to a reduction in energy costs.

Annual energy savings based on cost of energy:
FRANCE: 0.18 € / 1 KWH = 2 391 x 0.18 = 430 €
UK: 0.21 € / 1 KWH = 2 391 x 0.21 = 502 €
GERMANY: 0.23 € / 1 KWH = 2 391 x 0.23 = 550 €



Optimized footprint for floor and wall mounting

Thanks to its slim design and low weight, it is easy to transport and handle during installation – particularly for wall mounting.

High SEPR/COP for

550 €

annual electricity savings*

W09 FEATURES

- Preset fan-speed controller for quieter operation
- Main switch for faster stand-alone installation and start-up, and safer maintenance



* Optyma™ Slim Pack MBP unit vs equivalent unit in the market. Savings by customer in Germany. Source Danfoss.

Standard range (W05) and upgraded range (W09)

Micro-channel heat exchanger is light and easy to clean

Resistance to corrosion of the heat exchanger and housing prolongs the lifetime of the unit

W09 version: Main switch for faster standalone installation and start up, and safer maintenance

Quick connections accelerate installation: just mount, braze, and plug

Accessible fan and condenser for easy maintenance

W09 version: XGE fan speed controller for quieter & smoother operation

Filter drier and sight glass protect the unit from moisture, acids, and solid particles. Flare connections simplify maintenance

Accessible service ports on service valves (suction and liquid)

Thanks to the schrader valve the unit is compatible with various fan control devices

Dual KP17WB pressure control for enhanced safety

Receiver with shut-off valve makes servicing easier

Crankcase heater protects the compressor when operating under cold weather conditions

Multi refrigerant range (W05 and W09)



IP54, Sealed electrical box

Fan-timer for ventilation before compressor starts

Louvers and holes for compressor compartment ventilation

Factory machined flare connections approved for A2Ls

Multi A1/A2L refrigerants compressor

Electrical components approved for A2Ls

Optyma™ Slim Pack (W05)

Refrigerants with a GWP level below 150

R454 – MBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|--------|----------|-------------|--|-------------|------------|---------|
| | | | | | Rated COP | Rated SEPR | |
| OP-MSTM008 | 1 | 114X7226 | A1+A2L | 0.63 | 1.84 | - | B1 |
| OP-MSTM009 | 1 | 114X7229 | A1+A2L | 0.70 | 1.82 | - | B1 |
| OP-MSTM012 | 1 | 114X7230 | A1+A2L | 1.16 | 1.81 | - | B1 |
| OP-MSTM014 | 1 | 114X7231 | A1+A2L | 1.20 | 1.71 | - | B1 |
| OP-MSTM018 | 1 | 114X7232 | A1+A2L | 1.32 | 1.65 | - | B1 |
| OP-MSTM021 | 1 | 114X7325 | A1+A2L | 1.44 | 1.62 | - | B1 |
| OP-MSTM022 | 1 | 114X7233 | A1+A2L | 1.86 | 1.97 | - | B1 |
| OP-MSTM026 | 3 | 114X7235 | A1+A2L | 2.23 | 2.15 | - | B2 |
| | 1 | 114X7237 | | 2.45 | 2.20 | | |
| OP-MSIM034 | 3 | 114X7236 | A1+A2L | 2.46 | 1.67 | - | B2 |
| | 1 | 114X7266 | | 3.40 | 1.71 | | |
| OP-MSTM034 | 3 | 114X7267 | A1+A2L | 3.47 | 2.50 | - | B2 |
| OP-MSTM038 | 1 | 114X7326 | A1+A2L | 2.74 | 2.42 | - | B2 |
| | 1 | 114X7269 | | 4.21 | 1.70 | | |
| OP-MSIM044 | 3 | 114X7268 | A1+A2L | 4.31 | 2.29 | - | B2 |
| | 1 | 114X7271 | | 4.40 | 2.41 | | |
| OP-MSIM046 | 3 | 114X7270 | A1+A2L | 4.47 | 2.28 | - | B2 |
| | 1 | 114X7272 | | 5.21 | 2.40 | | |
| OP-MSIM057 | 3 | 114X7273 | A1+A2L | 5.22 | - | 3.73 | B2 |
| | 1 | 114X7312 | | 6.78 | - | 3.47 | B3 |
| OP-MSIM068 | 3 | 114X7311 | A1+A2L | 6.85 | - | 3.83 | B3 |
| | 1 | 114X7314 | | 7.66 | - | 4.27 | |
| OP-MSIM080 | 1 | 114X7314 | A1+A2L | 7.66 | - | 3.51 | B3 |
| | 3 | 114X7313 | | 7.91 | - | 4.24 | |
| OP-MSIM099 | 3 | 114X7315 | A1+A2L | 9.36 | - | 3.86 | B3 |
| OP-MSIM108 | 3 | 114X7316 | A1+A2L | 9.99 | - | 3.79 | B3 |

R455A – MBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|--------|----------|-------------|--|-------------|------------|---------|
| | | | | | Rated COP | Rated SEPR | |
| OP-MSTM008 | 1 | 114X7226 | A1+A2L | 0.68 | 1.88 | - | B1 |
| OP-MSTM009 | 1 | 114X7229 | A1+A2L | 0.82 | 1.89 | - | B1 |
| OP-MSTM012 | 1 | 114X7230 | A1+A2L | 1.24 | 1.88 | - | B1 |
| OP-MSTM014 | 1 | 114X7231 | A1+A2L | 1.31 | 1.80 | - | B1 |
| OP-MSTM018 | 1 | 114X7232 | A1+A2L | 1.46 | 1.70 | - | B1 |
| OP-MSTM021 | 1 | 114X7325 | A1+A2L | 1.61 | 1.61 | - | B1 |
| OP-MSTM022 | 1 | 114X7233 | A1+A2L | 1.99 | 1.89 | - | B1 |
| | 3 | 114X7234 | | 2.36 | 2.07 | | B2 |
| OP-MSTM026 | 1 | 114X7235 | A1+A2L | 2.43 | 1.95 | - | B2 |
| | 1 | 114X7237 | | 2.84 | 1.77 | | |
| OP-MSIM034 | 1 | 114X7236 | A1+A2L | 2.86 | 1.82 | - | B2 |
| | 3 | 114X7267 | | 3.72 | 2.46 | | |
| OP-MSTM034 | 3 | 114X7266 | A1+A2L | 3.72 | 2.54 | - | B2 |
| OP-MSIM038 | 1 | 114X7326 | A1+A2L | 3.09 | 1.72 | - | B2 |
| | 1 | 114X7269 | | 4.59 | 2.23 | | |
| OP-MSIM044 | 3 | 114X7268 | A1+A2L | 4.67 | 2.39 | - | B2 |
| | 1 | 114X7271 | | 4.77 | 2.22 | | |
| OP-MSIM046 | 3 | 114X7270 | A1+A2L | 4.82 | 2.37 | - | B2 |
| | 3 | 114X7272 | | 5.74 | - | | |
| OP-MSIM057 | 1 | 114X7273 | A1+A2L | 5.66 | - | 3.47 | B2 |
| | 3 | 114X7311 | | 7.42 | - | 4.17 | B3 |
| OP-MSIM068 | 1 | 114X7312 | A1+A2L | 7.53 | - | 4.04 | B3 |
| | 3 | 114X7313 | | 8.56 | - | 4.11 | |
| OP-MSIM080 | 1 | 114X7314 | A1+A2L | 8.41 | - | 3.67 | B3 |
| OP-MSIM099 | 3 | 114X7315 | A1+A2L | 9.36 | - | 3.70 | B3 |
| OP-MSIM108 | 3 | 114X7316 | A1/A2L | 9.99 | - | 3.77 | B3 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack (W09)

Refrigerants with a GWP level below 150

R454C – MBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|--------|----------|-------------|--|-------------|------------|---------|
| | | | | | Rated COP | Rated SEPR | |
| OP-MSTM008 | 1 | 114X7286 | A1+A2L | 0.63 | 1.84 | - | B1 |
| OP-MSTM009 | 1 | 114X7287 | A1+A2L | 0.70 | 1.82 | - | B1 |
| OP-MSTM012 | 1 | 114X7288 | A1+A2L | 1.16 | 1.81 | - | B1 |
| OP-MSTM014 | 1 | 114X7289 | A1+A2L | 1.20 | 1.71 | - | B1 |
| OP-MSTM018 | 1 | 114X7290 | A1+A2L | 1.32 | 1.65 | - | B1 |
| OP-MSTM021 | 1 | 114X7327 | A1+A2L | 1.44 | 1.62 | - | B1 |
| OP-MSTM022 | 1 | 114X7299 | A1+A2L | 1.86 | 1.97 | - | B2 |
| | 1 | 114X7300 | | 2.22 | 2.15 | | |
| OP-MSTM026 | 3 | 114X7301 | A1+A2L | 2.23 | 2.20 | - | B2 |
| | 1 | 114X7302 | | 2.45 | 1.67 | | |
| OP-MSIM034 | 3 | 114X7303 | A1+A2L | 2.46 | 1.71 | - | B2 |
| | 1 | 114X7274 | | 3.40 | 2.50 | | |
| OP-MSTM034 | 3 | 114X7275 | A1+A2L | 3.47 | 2.42 | - | B2 |
| OP-MSIM038 | 1 | 114X7328 | A1+A2L | 2.74 | 1.70 | - | B2 |
| | 1 | 114X7277 | | 4.21 | 2.29 | | |
| OP-MSIM044 | 3 | 114X7276 | A1+A2L | 4.31 | 2.41 | - | B2 |
| | 1 | 114X7279 | | 4.40 | 2.28 | | |
| OP-MSIM046 | 3 | 114X7278 | A1+A2L | 4.47 | 2.40 | - | B2 |
| | 1 | 114X7280 | | 5.21 | - | | |
| OP-MSIM057 | 3 | 114X7281 | A1+A2L | 5.22 | - | 3.47 | B3 |
| | 1 | 114X7318 | | 6.78 | - | 3.83 | |
| OP-MSIM068 | 3 | 114X7317 | A1+A2L | 6.85 | - | 4.27 | B3 |
| | 1 | 114X7320 | | 7.66 | - | 3.51 | |
| OP-MSIM080 | 3 | 114X7319 | A1+A2L | 7.91 | - | 4.24 | B3 |
| OP-MSIM099 | 3 | 114X7321 | A1+A2L | 9.36 | - | 3.86 | B3 |
| OP-MSIM108 | 3 | 114X7322 | A1+A2L | 9.99 | - | 3.79 | B3 |

R455A – MBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|--------|----------|-------------|--|-------------|------------|---------|
| | | | | | Rated COP | Rated SEPR | |
| OP-MSTM008 | 1 | 114X7286 | A1+A2L | 0.68 | 1.88 | - | B1 |
| OP-MSTM009 | 1 | 114X7287 | A1+A2L | 0.82 | 1.89 | - | B1 |
| OP-MSTM012 | 1 | 114X7288 | A1+A2L | 1.24 | 1.88 | - | B1 |
| OP-MSTM014 | 1 | 114X7289 | A1+A2L | 1.31 | 1.80 | - | B1 |
| OP-MSTM018 | 1 | 114X7290 | A1+A2L | 1.46 | 1.70 | - | B1 |
| OP-MSTM021 | 1 | 114X7327 | A1+A2L | 1.61 | 1.61 | - | B1 |
| OP-MSTM022 | 1 | 114X7299 | A1+A2L | 1.99 | 1.89 | - | B2 |
| | 1 | 114X7300 | | 2.36 | 2.07 | | |
| OP-MSTM026 | 3 | 114X7301 | A1+A2L | 2.43 | 1.95 | - | B2 |
| | 1 | 114X7302 | | 2.84 | 1.77 | | |
| OP-MSIM034 | 1 | 114X7303 | A1+A2L | 2.86 | 1.82 | - | B2 |
| | 3 | 114X7275 | | 3.72 | 2.46 | | |
| OP-MSTM034 | 3 | 114X7274 | A1+A2L | 3.72 | 2.54 | - | B2 |
| OP-MSIM038 | 1 | 114X7328 | A1+A2L | 3.09 | 1.72 | - | B2 |
| | 1 | 114X7277 | | 4.59 | 2.23 | | |
| OP-MSIM044 | 3 | 114X7276 | A1+A2L | 4.67 | 2.39 | - | B2 |
| | 1 | 114X7279 | | 4.77 | 2.22 | | |
| OP-MSIM046 | 3 | 114X7278 | A1+A2L | 4.82 | 2.37 | - | B2 |
| | 3 | 114X7280 | | 5.74 | - | | |
| OP-MSIM057 | 1 | 114X7281 | A1+A2L | 5.66 | - | 3.47 | B3 |
| | 3 | 114X7317 | | 7.42 | - | 4.17 | |
| OP-MSIM068 | 1 | 114X7318 | A1+A2L | 7.53 | - | 4.04 | B3 |
| | 3 | 114X7319 | | 8.56 | - | 4.11 | |
| OP-MSIM080 | 1 | 114X7320 | A1+A2L | 8.41 | - | 3.67 | B3 |
| OP-MSIM099 | 3 | 114X7321 | A1+A2L | 10.14 | - | 3.70 | B3 |
| OP-MSIM108 | 3 | 114X7322 | A1+A2L | 10.90 | - | 3.77 | B3 |

R1234yf – MBP

| Model | Version | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -10°C | Eco Design** | Housing |
|------------|---------|--------|----------|-------------|--|--------------|---------|
| | | | | | | COP | |
| OP-MSSM026 | W05 | 1 | 114X7248 | A1 + A2L | 1.31 | 1.95 | B1 |
| | W09 | | 114X7304 | | | | |
| OP-MSSM030 | W05 | 1 | 114X7249 | A1 + A2L | 1.42 | 1.83 | B1 |
| | W09 | | 114X7305 | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

For regular updates and detailed capacities, please refer to Coolselector®2 software
coolselector.danfoss.com



Optyma™ Slim Pack (W05)

Refrigerants with a GWP level below 150

R454C –LBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design** | |
|------------|--------|----------|-------------|--|--------------|---------|
| | | | | | COP | Housing |
| OP-LSVM014 | 1 | 114X7263 | A1+A2L | 0.34 | 0.88 | B1 |
| OP-LSVM016 | 1 | 114X7242 | A1+A2L | 0.35 | 0.87 | B1 |
| OP-LSVM026 | 1 | 114X7227 | A1+A2L | 0.52 | 0.87 | B2 |
| OP-LSVM034 | 1 | 114X7228 | A1+A2L | 0.83 | 0.96 | B2 |
| OP-LSVM048 | 3 | 114X7245 | A1+A2L | 0.76 | 0.90 | B2 |
| | 1 | 114X7244 | | 0.88 | 1.00 | |
| OP-LSVM068 | 3 | 114X7247 | A1+A2L | 1.22 | 0.89 | B2 |

R455A – LBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design** | |
|------------|--------|----------|-------------|--|--------------|---------|
| | | | | | COP | Housing |
| OP-LSVM014 | 1 | 114X7263 | A1+A2L | 0.38 | 0.89 | B1 |
| OP-LSVM016 | 1 | 114X7242 | A1+A2L | 0.43 | 0.90 | B1 |
| OP-LSVM026 | 1 | 114X7227 | A1+A2L | 0.58 | 0.93 | B2 |
| OP-LSVM034 | 1 | 114X7228 | A1+A2L | 0.90 | 0.98 | B2 |
| OP-LSVM048 | 1 | 114X7244 | A1+A2L | 0.94 | 0.98 | B2 |
| | 3 | 114X7245 | | 0.93 | 0.99 | |
| OP-LSVM068 | 3 | 114X7247 | A1+A2L | 1.45 | 0.98 | B2 |

Optyma™ Slim Pack (W09)

Refrigerants with a GWP level below 150

R454C –LBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design** | |
|------------|--------|----------|-------------|--|--------------|---------|
| | | | | | COP | Housing |
| OP-LSVM014 | 1 | 114X7295 | A1+A2L | 0.34 | 0.88 | B1 |
| OP-LSVM016 | 1 | 114X7296 | A1+A2L | 0.35 | 0.87 | B1 |
| OP-LSVM026 | 1 | 114X7297 | A1+A2L | 0.52 | 0.87 | B2 |
| OP-LSVM034 | 1 | 114X7298 | A1+A2L | 0.83 | 0.96 | B2 |
| OP-LSVM048 | 3 | 114X7283 | A1+A2L | 0.76 | 0.90 | B2 |
| | 1 | 114X7282 | | 0.88 | 1.00 | |
| OP-LSVM068 | 3 | 114X7285 | A1+A2L | 1.22 | 0.89 | B2 |

R455A – LBP

| Model | Phases | Code no. | Refrigerant | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design** | |
|------------|--------|----------|-------------|--|--------------|---------|
| | | | | | COP | Housing |
| OP-LSVM014 | 1 | 114X7295 | A1+A2L | 0.38 | 0.89 | B1 |
| OP-LSVM016 | 1 | 114X7296 | A1+A2L | 0.43 | 0.90 | B1 |
| OP-LSVM026 | 1 | 114X7297 | A1+A2L | 0.58 | 0.93 | B2 |
| OP-LSVM034 | 1 | 114X7298 | A1+A2L | 0.90 | 0.98 | B2 |
| OP-LSVM048 | 1 | 114X7282 | A1+A2L | 0.94 | 0.98 | B2 |
| | 3 | 114X7283 | | 0.93 | 0.99 | |
| OP-LSVM068 | 3 | 114X7285 | A1+A2L | 1.45 | 0.98 | B2 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R449A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MSTM008 | W05 | 1 | 114X7226 | A1+A2L | 0.86 | 2.25 | - | B1 |
| | W09 | | 114X7286 | | | | | |
| OP-MSOM009 | W05 | 1 | 114X7108 | A1 | 0.97 | 2.04 | - | B1 |
| | W09 | | 114X7133 | | | | | |
| OP-MSTM009 | W05 | 1 | 114X7229 | A1+A2L | 0.97 | 2.04 | - | B1 |
| | W09 | | 114X7287 | | | | | |
| OP-MSOM012 | W05 | 1 | 114X7109 | A1 | 1.23 | 1.85 | - | B1 |
| | W09 | | 114X7134 | | | | | |
| OP-MSTM012 | W05 | 1 | 114X7230 | A1+A2L | 1.23 | 1.85 | - | B1 |
| | W09 | | 114X7288 | | | | | |
| OP-MSOM014 | W05 | 1 | 114X7110 | A1 | 1.30 | 1.78 | - | B1 |
| | W09 | | 114X7135 | | | | | |
| OP-MSTM014 | W05 | 1 | 114X7231 | A1+A2L | 1.30 | 1.78 | - | B1 |
| | W09 | | 114X7289 | | | | | |
| OP-MSTM018 | W05 | 1 | 114X7232 | A1+A2L | 1.36 | 1.65 | - | B1 |
| | W09 | | 114X7290 | | | | | |
| OP-MSTM021 | W05 | 1 | 114X7325 | A1+A2L | 1.71 | 1.91 | - | B2 |
| | W09 | | 114X7327 | | | | | |
| OP-MSTM022 | W05 | 1 | 114X7233 | A1+A2L | 2.01 | 1.91 | - | B2 |
| | W09 | | 114X7299 | | | | | |
| OP-MSTM026 | W05 | 1 | 114X7234 | A1+A2L | 2.40 | 2.01 | - | B2 |
| | W09 | | 114X7300 | | | | | |
| | W05 | 3 | 114X7235 | | 2.41 | 2.06 | | |
| | W09 | | 114X7301 | | | | | |
| OP-MSTM034 | W05 | 1 | 114X7237 | A1+A2L | 2.64 | 1.79 | - | B2 |
| | W09 | | 114X7302 | | | | | |
| | W05 | 3 | 114X7236 | | 2.69 | 1.84 | | |
| | W09 | | 114X7303 | | | | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 3.62 | 2.28 | - | B2 |
| | W09 | | 114X7195 | | | | | |
| | W05 | 3 | 114X7062 | | 3.61 | 2.22 | | |
| | W09 | | 114X7196 | | | | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 3.62 | 2.28 | - | B2 |
| | W09 | | 114X7275 | | | | | |
| | W05 | 3 | 114X7266 | | 3.61 | 2.22 | | |
| | W09 | | 114X7274 | | | | | |
| OP-MSTM038 | W05 | 1 | 114X7326 | A1 | 2.85 | 1.76 | - | B2 |
| | W09 | | 114X7328 | | | | | |
| OP-MSXM044 | W05 | 1 | 114X7161 | A1 | 4.45 | 1.98 | - | B2 |
| | W09 | | 114X7211 | | | | | |
| | W05 | 3 | 114X7162 | | 4.50 | 2.10 | | |
| | W09 | | 114X7212 | | | | | |
| OP-MSIM044 | W05 | 1 | 114X7269 | A1+A2L | 4.45 | 1.98 | - | B2 |
| | W09 | | 114X7277 | | | | | |
| | W05 | 3 | 114X7268 | | 4.50 | 2.10 | | |
| | W09 | | 114X7276 | | | | | |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MSXM046 | W05 | 1 | 114X7063 | A1 | 4.78 | 2.04 | - | B2 |
| | W09 | | 114X7197 | | | | | |
| | W05 | 3 | 114X7064 | | 4.74 | 2.12 | | |
| | W09 | | 114X7198 | | | | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+A2L | 4.78 | 2.04 | - | B2 |
| | W09 | | 114X7279 | | | | | |
| | W05 | 3 | 114X7270 | | 4.74 | 2.12 | | |
| | W09 | | 114X7278 | | | | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 5.73 | - | 3.12 | B2 |
| | W09 | | 114X7199 | | | | | |
| | W05 | 3 | 114X7066 | | 5.66 | | 3.33 | |
| | W09 | | 114X7200 | | | | | |
| OP-MSIM057 | W05 | 1 | 114X7273 | A1+A2L | 5.73 | - | 3.12 | B2 |
| | W09 | | 114X7281 | | | | | |
| | W05 | 3 | 114X7272 | | 5.66 | | 3.33 | |
| | W09 | | 114X7280 | | | | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 7.27 | - | 3.56 | B3 |
| | W09 | | 114X7201 | | | | | |
| | W05 | 3 | 114X7068 | | 7.29 | | 3.75 | |
| | W09 | | 114X7202 | | | | | |
| OP-MSIM068 | W05 | 1 | 114X7312 | A1+A2L | 7.27 | - | 3.64 | B3 |
| | W09 | | 114X7318 | | | | | |
| | W05 | 3 | 114X7311 | | 7.29 | | 3.84 | |
| | W09 | | 114X7317 | | | | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 8.32 | - | 3.30 | B3 |
| | W09 | | 114X7203 | | | | | |
| | W05 | 3 | 114X7070 | | 8.37 | | 3.67 | |
| | W09 | | 114X7204 | | | | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 8.32 | - | 3.35 | B3 |
| | W09 | | 114X7320 | | | | | |
| | W05 | 3 | 114X7313 | | 8.37 | | 3.79 | |
| | W09 | | 114X7319 | | | | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 10.27 | - | 3.68 | B3 |
| | W09 | | 114X7205 | | | | | |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 10.27 | - | 3.74 | B3 |
| | W09 | | 114X7321 | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 10.88 | - | 3.52 | B3 |
| | W09 | | 114X7206 | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 10.88 | - | 3.57 | B3 |
| | W09 | | 114X7322 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

For regular updates and detailed capacities, please refer to Coolselector®2 software
coolselector.danfoss.com



Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R448A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSTM008 | W05 | 1 | 114X7226 | A1+A2L | 0.87 | 2.26 | - | B1 |
| | W09 | | 114X7286 | | | | | |
| OP-MSTM009 | W05 | 1 | 114X7229 | A1+A2L | 0.98 | 2.05 | - | B1 |
| | W09 | | 114X7287 | | | | | |
| OP-MSOM009 | W05 | 1 | 114X7108 | A1 | 0.98 | 2.05 | - | B1 |
| | W09 | | 114X7133 | | | | | |
| OP-MSTM012 | W05 | 1 | 114X7230 | A1+A2L | 1.24 | 1.86 | - | B1 |
| | W09 | | 114X7288 | | | | | |
| OP-MSOM012 | W05 | 1 | 114X7109 | A1 | 1.24 | 1.86 | - | B1 |
| | W09 | | 114X7134 | | | | | |
| OP-MSTM014 | W05 | 1 | 114X7231 | A1+A2L | 1.32 | 1.79 | - | B1 |
| | W09 | | 114X7289 | | | | | |
| OP-MSOM014 | W05 | 1 | 114X7110 | A1 | 1.32 | 1.79 | - | B1 |
| | W09 | | 114X7135 | | | | | |
| OP-MSTM018 | W05 | 1 | 114X7232 | A1+A2L | 1.38 | 1.66 | - | B1 |
| | W09 | | 114X7290 | | | | | |
| OP-MSTM021 | W05 | 1 | 114X7325 | A1+A2L | 1.73 | 1.91 | - | B2 |
| | W09 | | 114X7327 | | | | | |
| OP-MSTM022 | W05 | 1 | 114X7233 | A1+A2L | 2.03 | 1.93 | - | B2 |
| | W09 | | 114X7299 | | | | | |
| OP-MSTM026 | W05 | 1 | 114X7234 | A1+A2L | 2.43 | 2.02 | - | B2 |
| | W09 | | 114X7300 | | | | | |
| | W05 | 3 | 114X7235 | | 2.44 | 2.07 | | |
| OP-MSTM034 | W05 | 1 | 114X7237 | A1+A2L | 2.68 | 1.81 | - | B2 |
| | W09 | | 114X7302 | | | | | |
| | W05 | 3 | 114X7236 | | 2.73 | 1.86 | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 3.67 | 2.30 | - | B2 |
| | W09 | | 114X7195 | | | | | |
| | W05 | 3 | 114X7062 | | 3.65 | 2.24 | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 3.67 | 2.30 | - | B2 |
| | W09 | | 114X7275 | | | | | |
| | W05 | 3 | 114X7266 | | 3.65 | 2.24 | | |
| OP-MSTM038 | W05 | 1 | 114X7326 | A1 | 2.89 | 1.78 | - | B2 |
| | W09 | | 114X7328 | | | | | |
| OP-MSXM044 | W05 | 1 | 114X7161 | A1 | 4.50 | 1.99 | - | B2 |
| | W09 | | 114X7211 | | | | | |
| | W05 | 3 | 114X7162 | | 4.56 | 2.11 | | |
| OP-MSIM044 | W05 | 1 | 114X7269 | A1+A2L | 4.50 | 1.99 | - | B2 |
| | W09 | | 114X7277 | | | | | |
| | W05 | 3 | 114X7268 | | 4.56 | 2.11 | | |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSXM046 | W05 | 1 | 114X7063 | A1 | 4.84 | 2.06 | - | B2 |
| | W09 | | 114X7197 | | | | | |
| | W05 | 3 | 114X7064 | | 4.80 | 2.14 | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+A2L | 4.84 | 2.06 | - | B2 |
| | W09 | | 114X7279 | | | | | |
| | W05 | 3 | 114X7270 | | 4.80 | 2.14 | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 5.80 | - | 3.15 | B2 |
| | W09 | | 114X7199 | | | | | |
| | W05 | 3 | 114X7066 | | 5.73 | 3.36 | | |
| OP-MSIM057 | W05 | 1 | 114X7273 | A1+A2L | 5.80 | - | 3.15 | B2 |
| | W09 | | 114X7281 | | | | | |
| | W05 | 3 | 114X7272 | | 5.73 | 3.36 | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 7.36 | - | 3.59 | B3 |
| | W09 | | 114X7201 | | | | | |
| | W05 | 3 | 114X7068 | | 7.37 | 3.78 | | |
| OP-MSIM068 | W05 | 1 | 114X7312 | A1+A2L | 7.36 | - | 3.67 | B3 |
| | W09 | | 114X7318 | | | | | |
| | W05 | 3 | 114X7311 | | 7.37 | 3.87 | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 8.42 | - | 3.32 | B3 |
| | W09 | | 114X7203 | | | | | |
| | W05 | 3 | 114X7070 | | 8.47 | 3.70 | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 8.42 | - | 3.38 | B3 |
| | W09 | | 114X7320 | | | | | |
| | W05 | 3 | 114X7313 | | 8.47 | 3.82 | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 10.39 | - | 3.71 | B3 |
| | W09 | | 114X7205 | | | | | |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 10.39 | - | 3.77 | B3 |
| | W09 | | 114X7321 | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 11.01 | - | 3.55 | B3 |
| | W09 | | 114X7206 | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 11.01 | - | 3.60 | B3 |
| | W09 | | 114X7322 | | | | | |

Refrigerants flexibility across our ranges:

OP-MSXM057: The "X" letter means that this model is also compatible with multiple refrigerants such as R134a or R407F. This simplifies stock and logistics and reduces costs. Check our designation for the options.

Did you know?

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R134a – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|----------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSSM026 | W05 | 1 | 114X7248 | A1+A2L | 1.44 | 1.98 | - | B2 |
| | W09 | | 114X7304 | | | | | |
| OP-MSSM030 | W05 | 1 | 114X7249 | A1+A2L | 1.60 | 1.86 | - | B2 |
| | W09 | | 114X7305 | | | | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 2.19 | 2.17 | - | B2 |
| | W09 | | 114X7195 | | | | | |
| | W05 | 114X7062 | 2.16 | | 2.25 | | | |
| | W09 | 114X7196 | | | | | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 2.19 | 2.17 | - | B2 |
| | W09 | 1 | 114X7275 | | | | | |
| | W09 | 3 | 114X7274 | | 2.16 | 2.25 | | |
| OP-MSXM044 | W05 | 1 | 114X7161 | A1 | 2.75 | 2.01 | - | B2 |
| | W09 | | 114X7211 | | | | | |
| | W05 | 3 | 114X7162 | | 2.74 | 2.23 | | |
| | W09 | 3 | 114X7212 | | | | | |
| OP-MSIM044 | W05 | 3 | 114X7268 | A1+A2L | 2.74 | 2.23 | - | B2 |
| | W09 | | 114X7276 | | | | | |
| | W05 | 1 | 114X7269 | | 2.75 | 2.01 | | |
| | W09 | 1 | 114X7277 | | | | | |
| OP-MSXM046 | W05 | 1 | 114X7063 | A1 | 2.93 | 2.07 | - | B2 |
| | W09 | | 114X7197 | | | | | |
| | W05 | 3 | 114X7064 | | 2.92 | 2.33 | | |
| | W09 | 3 | 114X7198 | | | | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+A2L | 2.93 | 2.07 | - | B2 |
| | W09 | | 114X7279 | | | | | |
| | W05 | 3 | 114X7270 | | 2.92 | 2.33 | | |
| | W09 | 3 | 114X7278 | | | | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 3.54 | 1.90 | - | B2 |
| | W09 | | 114X7199 | | | | | |
| | W05 | 3 | 114X7066 | | 3.54 | 2.28 | | |
| | W09 | 3 | 114X7200 | | | | | |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSIM057 | W05 | 3 | 114X7272 | A1+A2L | 3.54 | 2.28 | - | B2 |
| | W09 | | 114X7280 | | | | | |
| | W05 | | 1 | | | | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 4.43 | 2.11 | - | B3 |
| | W09 | | 114X7201 | | | | | |
| | W05 | 3 | 114X7068 | | 4.38 | 2.41 | | |
| | W09 | 3 | 114X7202 | | | | | |
| OP-MSIM068 | W05 | 1 | 114X7312 | A1+A2L | 4.43 | 2.16 | - | B3 |
| | W09 | | 114X7318 | | | | | |
| | W05 | 3 | 114X7311 | | 4.38 | 2.47 | | |
| | W09 | 3 | 114X7317 | | | | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 5.14 | - | 3.08 | B3 |
| | W09 | | 114X7203 | | | | | |
| | W05 | 3 | 114X7070 | | 5.09 | 3.43 | | |
| | W09 | 3 | 114X7204 | | | | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 5.14 | - | 3.17 | B3 |
| | W09 | | 114X7320 | | | | | |
| | W05 | 3 | 114X7313 | | 5.09 | 3.61 | | |
| | W09 | 3 | 114X7319 | | | | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 6.29 | - | 3.89 | B3 |
| | W09 | | 114X7205 | | | | | |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 6.29 | - | 4.01 | B3 |
| | W09 | | 114X7321 | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 6.64 | - | 3.80 | B3 |
| | W09 | | 114X7206 | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 6.64 | - | 3.90 | B3 |
| | W09 | | 114X7322 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R513a – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | Eco Design (3)** | | |
|------------|---------|----------|----------|-------------------|--|------------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MSSM026 | W05 | 1 | 114X7248 | A1+A2L | 1.29 | 1.99 | - | B2 |
| | W09 | | 114X7304 | | | | | |
| OP-MSSM030 | W05 | 1 | 114X7249 | A1+A2L | 1.59 | 1.86 | - | B2 |
| | W09 | | 114X7305 | | | | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 2.24 | 2.20 | - | B2 |
| | W09 | | 114X7195 | | | | | |
| | W05 | 114X7062 | 2.26 | | 2.25 | | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 2.24 | 2.20 | - | B2 |
| | W09 | | 114X7275 | | | | | |
| | W05 | 114X7266 | 2.26 | | 2.25 | | | |
| OP-MSXM044 | W05 | 1 | 114X7161 | A1 | 2.81 | 1.95 | - | B2 |
| | W09 | | 114X7211 | | | | | |
| | W05 | 114X7162 | 2.88 | | 2.32 | | | |
| OP-MSIM044 | W05 | 1 | 114X7269 | A1+A2L | 2.81 | 1.95 | - | B2 |
| | W09 | | 114X7277 | | | | | |
| | W05 | 114X7268 | 2.88 | | 2.32 | | | |
| OP-MSXM046 | W05 | 1 | 114X7064 | A1 | 3.04 | 2.32 | - | B2 |
| | W09 | | 114X7198 | | | | | |
| | W05 | 114X7063 | 2.98 | | 1.98 | | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+A2L | 2.98 | 1.98 | - | B2 |
| | W09 | | 114X7279 | | | | | |
| | W05 | 114X7270 | 3.04 | | 2.32 | | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 3.65 | 2.06 | - | B2 |
| | W09 | | 114X7199 | | | | | |
| | W05 | 114X7066 | 3.70 | | 2.30 | | | |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|----------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MSIM057 | W05 | 1 | 114X7273 | A1+A2L | 3.65 | 2.06 | - | B2 |
| | W09 | | 114X7281 | | | | | |
| | W05 | 114X7272 | 3.70 | | 2.30 | | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 4.55 | 2.30 | - | B3 |
| | W09 | | 114X7201 | | | | | |
| | W05 | 114X7068 | 4.64 | | 2.52 | | | |
| OP-MSIM068 | W05 | 1 | 114X7312 | A1+A2L | 4.55 | 2.36 | - | B3 |
| | W09 | | 114X7318 | | | | | |
| | W05 | 114X7311 | 4.64 | | 2.59 | | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 5.34 | - | 3.24 | B3 |
| | W09 | | 114X7203 | | | | | |
| | W05 | 114X7070 | 5.40 | | 3.82 | | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 5.34 | - | 3.33 | B3 |
| | W09 | | 114X7320 | | | | | |
| | W05 | 114X7313 | 5.40 | | 4.02 | | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 6.60 | - | 3.78 | B3 |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 6.60 | - | 3.88 | B3 |
| | W09 | | 114X7321 | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 7.00 | - | 3.79 | B3 |
| | W09 | | 114X7206 | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 7.00 | - | 3.88 | B3 |
| | W09 | | 114X7322 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R452A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Sound pressure level @ 10m dB(A) | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|----------------------------------|---------|
| | | | | | | COP | SEPR | | |
| OP-MSTM008 | W05 | 1 | 114X7226 | A1+A2L | 0.82 | 2.26 | - | 31 | B1 |
| | W09 | | 114X7286 | | | | | | |
| OP-MSTM009 | W05 | 1 | 114X7229 | A1+A2L | 0.92 | 2.01 | - | 32 | B1 |
| | W09 | | 114X7287 | | | | | | |
| OP-MSOM009 | W05 | 1 | 114X7108 | A1+A2L | 0.92 | 2.01 | - | 32 | B1 |
| | W09 | | 114X7133 | | | | | | |
| OP-MSOM012 | W05 | 1 | 114X7109 | A1+A2L | 1.25 | 1.98 | - | 32 | B1 |
| | W09 | | 114X7134 | | | | | | |
| OP-MSTM012 | W05 | 1 | 114X7230 | A1+A2L | 1.25 | 1.98 | - | 32 | B1 |
| | W09 | | 114X7288 | | | | | | |
| OP-MSOM014 | W05 | 1 | 114X7110 | A1+A2L | 1.30 | 1.88 | - | 33 | B1 |
| | W09 | | 114X7135 | | | | | | |
| OP-MSTM014 | W05 | 1 | 114X7231 | A1+A2L | 1.30 | 1.88 | - | 33 | B1 |
| | W09 | | 114X7289 | | | | | | |
| OP-MSTM018 | W05 | 1 | 114X7232 | A1+A2L | 1.39 | 1.71 | - | 39 | B1 |
| | W09 | | 114X7290 | | | | | | |
| OP-MSTM021 | W05 | 1 | 114X7325 | A1+A2L | 1.59 | 1.67 | - | 39 | B2 |
| | W09 | | 114X7327 | | | | | | |
| OP-MSTM022 | W05 | 1 | 114X7233 | A1+A2L | 2.04 | 1.99 | - | 39 | B2 |
| | W09 | | 114X7299 | | | | | | |
| OP-MSTM026 | W05 | 1 | 114X7234 | A1+A2L | 2.41 | 2.17 | - | 39 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7235 | A1+A2L | 2.37 | 1.94 | - | 39 | B2 |
| | | | W09 | | | | | | |
| OP-MSTM034 | W05 | 1 | 114X7237 | A1+A2L | 2.69 | 1.88 | - | 39 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7236 | A1+A2L | 2.74 | 1.93 | - | 39 | B2 |
| | | | W09 | | | | | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 3.54 | 2.11 | - | 40 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7062 | A1 | 3.51 | 2.11 | - | 40 | B2 |
| | | | W09 | | | | | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 3.54 | 2.11 | - | 40 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7266 | A1+A2L | 3.51 | 2.11 | - | 40 | B2 |
| | | | W09 | | | | | | |
| OP-MSTM038 | W05 | 1 | 114X7326 | A1+A2L | 2.90 | 1.84 | - | 39 | B2 |
| | W09 | | 114X7328 | | | | | | |
| OP-MSXM044 | W05 | 1 | 114X7161 | A1 | 4.50 | 2.04 | - | 41 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7162 | A1 | 4.47 | 2.12 | - | 41 | B2 |
| | | | W09 | | | | | | |
| OP-MSIM044 | W05 | 1 | 114X7269 | A1+A2L | 4.50 | 2.04 | - | 41 | B2 |
| | | | W09 | | | | | | |
| | W05 | 3 | 114X7268 | A1+A2L | 4.47 | 2.12 | - | 41 | B2 |
| | | | W09 | | | | | | |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Sound pressure level @ 10m dB(A) | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|----------------------------------|---------|
| | | | | | | COP | SEPR | | |
| OP-MSXM046 | W05 | 1 | 114X7063 | A1 | 4.73 | 2.04 | - | 41 | B2 |
| | W09 | | 114X7197 | | | | | | |
| | W05 | 3 | 114X7064 | A1 | 4.71 | 2.12 | - | 41 | B2 |
| | | | W09 | | | | | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+A2L | 4.73 | 2.04 | - | 41 | B2 |
| | W09 | | 114X7279 | | | | | | |
| | W05 | 3 | 114X7270 | A1+A2L | 4.71 | 2.12 | - | 41 | B2 |
| | | | W09 | | | | | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 5.85 | - | 3.31 | 42 | B2 |
| | W09 | | 114X7199 | | | | | | |
| | W05 | 3 | 114X7066 | A1 | 5.77 | - | 3.51 | 42 | B2 |
| | | | W09 | | | | | | |
| OP-MSIM057 | W05 | 1 | 114X7273 | A1+A2L | 5.85 | - | 3.31 | 42 | B2 |
| | W09 | | 114X7281 | | | | | | |
| | W05 | 3 | 114X7272 | A1+A2L | 5.77 | - | 3.51 | 42 | B2 |
| | | | W09 | | | | | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 7.09 | - | 3.40 | 43 | B3 |
| | W09 | | 114X7201 | | | | | | |
| | W05 | 3 | 114X7068 | A1 | 7.09 | - | 3.59 | 43 | B3 |
| | | | W09 | | | | | | |
| OP-MSIM068 | W05 | 1 | 114X7312 | A1+A2L | 7.09 | - | 3.47 | 43 | B3 |
| | W09 | | 114X7318 | | | | | | |
| | W05 | 3 | 114X7311 | A1+A2L | 7.09 | - | 3.67 | 43 | B3 |
| | | | W09 | | | | | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 8.23 | - | 3.32 | 44 | B3 |
| | W09 | | 114X7203 | | | | | | |
| | W05 | 3 | 114X7070 | A1 | 8.20 | - | 3.58 | 44 | B3 |
| | | | W09 | | | | | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 8.23 | - | 3.38 | 44 | B3 |
| | W09 | | 114X7320 | | | | | | |
| | W05 | 3 | 114X7313 | A1+A2L | 7.99 | - | 3.51 | 44 | B3 |
| | | | W09 | | | | | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 10.09 | - | 3.49 | 44 | B3 |
| | W09 | | 114X7205 | | | | | | |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 10.09 | - | 3.54 | 44 | B3 |
| | W09 | | 114X7321 | | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 10.88 | - | 3.55 | 46 | B3 |
| | W09 | | 114X7206 | | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 10.88 | - | 3.60 | 46 | B3 |
| | W09 | | 114X7322 | | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level below 2500

R452A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-LSQM014 | W05 | 1 | 114X7106 | A1 | 0.40 | 0.98 | - | B1 |
| | W09 | | 114X7129 | | | | | |
| OP-LSVM014 | W05 | 1 | 114X7263 | A1+ A2L | 0.40 | 0.98 | - | B1 |
| | W09 | | 114X7295 | | | | | |
| OP-LSQM018 | W05 | 1 | 114X7107 | A1 | 0.43 | 1.00 | - | B1 |
| | W09 | | 114X7130 | | | | | |
| OP-LSVM016 | W05 | 1 | 114X7242 | A1 +A2L | 0.43 | 1.00 | - | B1 |
| | W09 | | 114X7296 | | | | | |
| OP-LSVM026 | W05 | 1 | 114X7227 | A1 +A2L | 0.63 | 0.98 | - | B2 |
| | W09 | | 114X7297 | | | | | |
| OP-LSVM034 | W05 | 1 | 114X7228 | A1 +A2L | 0.86 | 1.02 | - | B2 |
| | W09 | | 114X7298 | | | | | |
| OP-LSQM048 | W05 | 1 | 114X7087 | A1 | 1.02 | 1.14 | - | B2 |
| | W09 | | 114X7181 | | 0.99 | | | |
| | W05 | 3 | 114X7088 | | 1.09 | | | |
| | W09 | | 114X7182 | | | | | |
| OP-LSVM048 | W05 | 1 | 114X7244 | A1 +A2L | 1.02 | 1.14 | - | B2 |
| | W09 | | 114X7282 | | 0.99 | | | |
| | W05 | 3 | 114X7245 | | 1.09 | | | |
| | W09 | | 114X7283 | | | | | |
| OP-LSQM067 | W05 | 3 | 114X7091 | A1 | 2.44 | - | 1.69 | B3 |
| | W09 | | 114X7187 | | | | | |
| OP-LSQM068 | W05 | 1 | 114X7089 | A1 | 1.52 | 1.01 | - | B3 |
| | W09 | | 114X7183 | | 1.17 | | | |
| | W05 | 3 | 114X7090 | | 1.52 | | | |
| | W09 | | 114X7184 | | | | | |
| OP-LSVM068 | W05 | 3 | 114X7247 | A1+A2L | 1.52 | 1.17 | - | B3 |
| | W09 | | 114X7285 | | | | | |
| OP-LSQM084 | W05 | 3 | 114X7092 | A1 | 2.97 | - | 1.66 | B3 |
| | W09 | | 114X7188 | | | | | |
| OP-LSQM098 | W05 | 3 | 114X7075 | A1 | 3.46 | - | 1.67 | B3 |
| | W09 | | 114X7189 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level above 2500

R404A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSTM008 | W05 | 1 | 114X7226 | A1+A2L | 0.84 | 2.06 | - | B1 |
| | W09 | | 114X7286 | | | | | |
| OP-MSTM009 | W05 | 1 | 114X7108 | A1 | 0.92 | 2.01 | - | B1 |
| | W09 | | 114X7133 | | | | | |
| OP-MSOM009 | W05 | 1 | 114X7229 | A1+A2L | 0.92 | 2.01 | - | B1 |
| | W09 | | 114X7287 | | | | | |
| OP-MSOM012 | W05 | 1 | 114X7230 | A1+A2L | 1.22 | 1.83 | - | B1 |
| | W09 | | 114X7288 | | | | | |
| OP-MSTM012 | W05 | 1 | 114X7109 | A1 | 1.22 | 1.83 | - | B1 |
| | W09 | | 114X7134 | | | | | |
| OP-MSOM014 | W05 | 1 | 114X7231 | A1+A2L | 1.28 | 1.73 | - | B1 |
| | W09 | | 114X7289 | | | | | |
| OP-MSTM014 | W05 | 1 | 114X7110 | A1 | 1.28 | 1.73 | - | B1 |
| | W09 | | 114X7135 | | | | | |
| OP-MSTM018 | W05 | 1 | 114X7232 | A1+A2L | 1.35 | 1.64 | - | B1 |
| | W09 | | 114X7290 | | | | | |
| OP-MSTM021 | W05 | 1 | 114X7325 | A1+A2L | 1.56 | 1.64 | - | B2 |
| | W09 | | 114X7327 | | | | | |
| OP-MSTM022 | W05 | 1 | 114X7233 | A1+A2L | 2.02 | 1.87 | - | B2 |
| | W09 | | 114X7299 | | | | | |
| OP-MSTM026 | W05 | 1 | 114X7234 | A1+A2L | 2.35 | 1.97 | - | B2 |
| | W09 | | 114X7300 | | | | | |
| | W05 | 3 | 114X7235 | | 2.41 | 1.80 | | |
| | W09 | | 114X7301 | | | | | |
| OP-MSTM034 | W05 | 1 | 114X7237 | A1+A2L | 2.74 | 1.71 | - | B2 |
| | W09 | | 114X7302 | | | | | |
| | W05 | 3 | 114X7236 | | 2.79 | 1.76 | | |
| | W09 | | 114X7303 | | | | | |
| OP-MSXM034 | W05 | 1 | 114X7061 | A1 | 3.50 | 2.09 | - | B2 |
| | W09 | | 114X7195 | | | | | |
| | W05 | 3 | 114X7062 | | 3.42 | 2.13 | | |
| | W09 | | 114X7196 | | | | | |
| OP-MSIM034 | W05 | 1 | 114X7267 | A1+A2L | 3.50 | 2.09 | - | B2 |
| | W09 | | 114X7275 | | | | | |
| | W05 | 3 | 114X7266 | | 3.42 | 2.13 | | |
| | W09 | | 114X7274 | | | | | |
| OP-MSTM038 | W05 | 1 | 114X7326 | A1 | 2.97 | 1.69 | - | B2 |
| | W09 | | 114X7328 | | | | | |
| OP-MSXM044 | W05 | 1 | 114X7269 | A1+A2L | 4.39 | 2.05 | - | B2 |
| | W09 | | 114X7277 | | | | | |
| | W05 | 3 | 114X7268 | | 4.33 | 2.08 | | |
| | W09 | | 114X7276 | | | | | |
| OP-MSIM044 | W05 | 1 | 114X7161 | A1 | 4.39 | 2.05 | - | B2 |
| | W09 | | 114X7211 | | | | | |
| | W05 | 3 | 114X7162 | | 4.33 | 2.08 | | |
| | W09 | | 114X7212 | | | | | |

R404A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MSXM046 | W05 | 1 | 114X7063 | A1 | 4.60 | 2.00 | - | B2 |
| | W09 | | 114X7197 | | | | | |
| | W05 | 3 | 114X7064 | | 4.54 | 2.04 | | |
| | W09 | | 114X7198 | | | | | |
| OP-MSIM046 | W05 | 1 | 114X7271 | A1+2L | 4.60 | 2.00 | - | B2 |
| | W09 | | 114X7279 | | | | | |
| | W05 | 3 | 114X7270 | | 4.54 | 2.04 | | |
| | W09 | | 114X7278 | | | | | |
| OP-MSXM057 | W05 | 1 | 114X7065 | A1 | 5.31 | - | 2.95 | B2 |
| | W09 | | 114X7199 | | | | | |
| | W05 | 3 | 114X7066 | | 5.30 | 3.05 | | |
| | W09 | | 114X7200 | | | | | |
| OP-MSIM057 | W05 | 1 | 114X7273 | A1+A2L | 5.31 | - | 2.95 | B2 |
| | W09 | | 114X7281 | | | | | |
| | W05 | 3 | 114X7272 | | 5.30 | 3.05 | | |
| | W09 | | 114X7280 | | | | | |
| OP-MSXM068 | W05 | 1 | 114X7067 | A1 | 7.25 | - | 3.73 | B3 |
| | W09 | | 114X7201 | | | | | |
| | W05 | 3 | 114X7068 | | 7.24 | 3.81 | | |
| | W09 | | 114X7202 | | | | | |
| OP-MSIM068 | W05 | 1 | 114X7311 | A1+A2L | 7.24 | - | 3.89 | B3 |
| | W09 | | 114X7317 | | | | | |
| | W05 | 3 | 114X7312 | | 7.25 | 3.81 | | |
| | W09 | | 114X7318 | | | | | |
| OP-MSXM080 | W05 | 1 | 114X7069 | A1 | 8.32 | - | 3.38 | B3 |
| | W09 | | 114X7203 | | | | | |
| | W05 | 3 | 114X7070 | | 8.40 | 3.73 | | |
| | W09 | | 114X7204 | | | | | |
| OP-MSIM080 | W05 | 1 | 114X7314 | A1+A2L | 8.32 | - | 3.43 | B3 |
| | W09 | | 114X7320 | | | | | |
| | W05 | 3 | 114X7313 | | 8.40 | 3.85 | | |
| | W09 | | 114X7319 | | | | | |
| OP-MSXM099 | W05 | 3 | 114X7071 | A1 | 9.70 | - | 3.41 | B3 |
| | W09 | | 114X7205 | | | | | |
| OP-MSIM099 | W05 | 3 | 114X7315 | A1+A2L | 9.70 | - | 3.46 | B3 |
| | W09 | | 114X7321 | | | | | |
| OP-MSXM108 | W05 | 3 | 114X7072 | A1 | 10.37 | - | 3.35 | B3 |
| | W09 | | 114X7206 | | | | | |
| OP-MSIM108 | W05 | 3 | 114X7316 | A1+A2L | 10.37 | - | 3.40 | B3 |
| | W09 | | 114X7322 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Slim Pack

Refrigerants with a GWP level above 2500

R404A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-LSQM014 | W05 | 1 | 114X7106 | A1 | 0.45 | 1.04 | - | B1 |
| | W09 | | 114X7129 | | | | | |
| OP-LSVM014 | W05 | 1 | 114X7263 | A1 + A2L | 0.45 | 1.04 | - | B1 |
| | W09 | | 114X7295 | | | | | |
| OP-LSQM018 | W05 | 1 | 114X7242 | A1 + A2L | 0.49 | 1.08 | - | B2 |
| | W09 | | 114X7296 | | | | | |
| OP-LSVM016 | W05 | 1 | 114X7107 | A1 | 0.49 | 1.08 | - | B2 |
| | W09 | | 114X7130 | | | | | |
| OP-LSVM026 | W05 | 1 | 114X7227 | A1 + A2L | 0.64 | 0.97 | - | B2 |
| | W09 | | 114X7297 | | | | | |
| OP-LSVM034 | W05 | 1 | 114X7228 | A1 + A2L | 0.88 | 1.03 | - | B2 |
| | W09 | | 114X7298 | | | | | |
| OP-LSQM048 | W05 | 1 | 114X7087 | A1 | 1.00 | 1.02 | - | B2 |
| | W09 | | 114X7181 | | 1.02 | | | |
| | W05 | 3 | 114X7088 | | | 1.14 | | |
| | W09 | | 114X7182 | | | | | |
| OP-LSVM048 | W05 | 1 | 114X7244 | A1 + A2L | 1.00 | 1.02 | - | B2 |
| | W09 | | 114X7282 | | 1.02 | | | |
| | W05 | 3 | 114X7245 | | | 1.14 | | |
| | W09 | | 114X7283 | | | | | |
| OP-LSQM067 | W05 | 3 | 114X7091 | A1 | 2.62 | - | 1.66 | B3 |
| | W09 | | 114X7187 | | | | | |
| OP-LSQM068 | W05 | 1 | 114X7089 | A1 | 1.63 | 1.07 | - | B3 |
| | W09 | | 114X7183 | | 1.65 | | | |
| | W05 | 3 | 114X7090 | | | 1.16 | | |
| | W09 | | 114X7184 | | | | | |
| OP-LSVM068 | W05 | 3 | 114X7247 | A1 + A2L | 1.65 | 1.16 | - | B3 |
| | W09 | | 114X7285 | | | | | |
| OP-LSQM084 | W05 | 3 | 114X7092 | A1 | 3.14 | - | 1.69 | B3 |
| | W09 | | 114X7188 | | | | | |
| OP-LSQM098 | W05 | 3 | 114X7075 | A1 | 3.64 | - | 1.73 | B3 |
| | W09 | | 114X7189 | | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Plus

Equipped for **quietness** and **top performance**

The same robust quality with added technology and smarter design. That's a seriously cool combination.



Quick and safe installation and service

It is another step forward in plug and play. It will not just save you valuable time in installation, set up and service, it will also reduce your customers' bill.



The best sound performance in the market

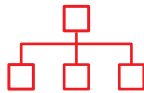
Due to its long-life compressor, acoustic insulation, component design as well as intelligent fan speed reduction during low capacity operation.



High SEPR

All models in the range are highly efficient and well above EcoDesign 2018 thresholds, contributing to a reduction in energy costs.

Annual energy savings based on cost of energy:
 FRANCE: 0.18 € / 1 KWH = 4 192 x 0.18 = 755 €
 UK: 0.21 € / 1 KWH = 4 192 x 0.21 = 880 €
 GERMANY: 0.23 € / 1 KWH = 4 192 x 0.23 = 964 €



Connectivity

Contributes to considerable energy savings, making the Optyma™ Plus up to 20% more economical than an equivalent product.



* Optyma™ Plus LBP unit vs equivalent unit in the market. Savings by customer in Germany. Source Danfoss.

High SEPR/COP for

964 €

annual electricity savings*

High efficiency to the top

In-field stacking cuts costs

With its unique load-bearing design, it's possible to stack units in the field. This cuts installation time, and saves on carpentry and brackets to reduce cost.

Compact cabinet speeds installation

New compact design makes it easier to handle when fitting in tight spaces, saving installation time.



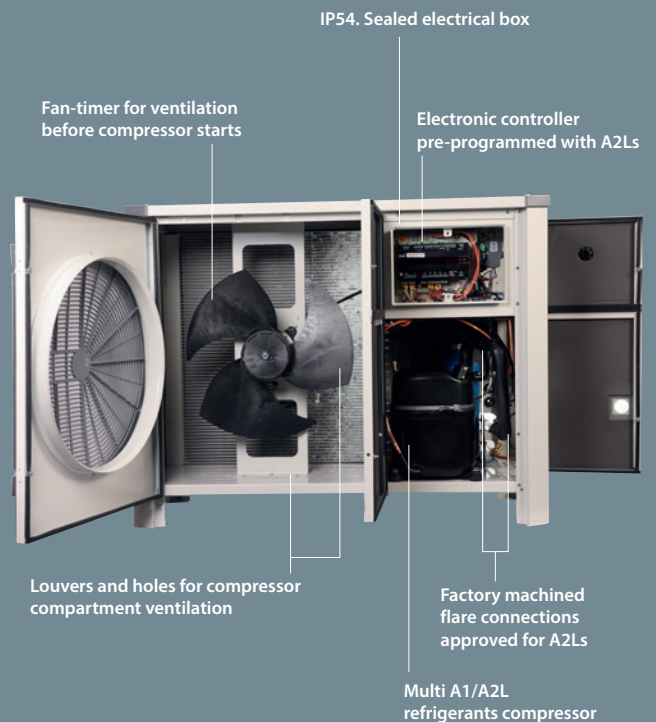
Accessibility to speed up service

Easier and quicker accessibility to all components with new double door design – saves time during servicing, maintenance and repair.

Intelligent technology speeds start-up and enhances reliability

Preset parameters make it easier to get it right from the start. Fewer mistakes reduce the risk of damage and save time and money on repairs.

Multi refrigerant range (P00) additional feature



Electrical components approved for A2Ls



Stacking up to 2 units

Optyma™ Plus with liquid injection

Inject a little simplicity and reliability into your installations

The introduction of electronic liquid injection technology on LBP models enables precise temperature control of the application with an extended operating envelope.



Avoid system breakdown at hot ambient temperatures

The electronic liquid injection helps manage higher discharge temperatures, maintaining best-in-class operating conditions at up to 43°C ambient temperature.



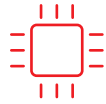
Streamline the refrigerant bottles

Choose one sustainable and economic refrigerant for positive and negative application temperatures: R448A or R449A.



Reliable over time

The electronic management ensures that the right quantity of liquid is injected into the compressor and increases the system's reliability.



Simple and pre-set safe modulation

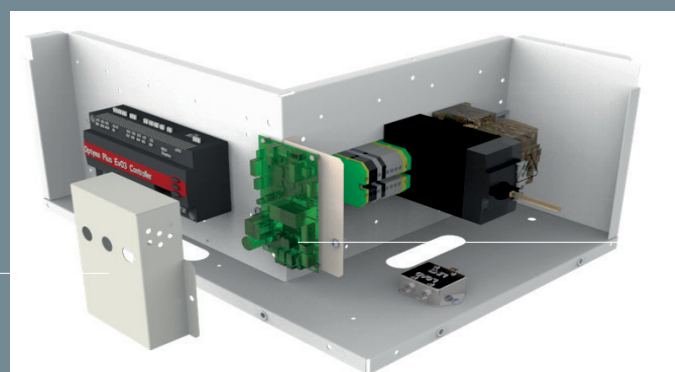
The electronic module is pre-programmed to protect the compressor against high discharge temperatures - increasing the system's lifespan.



Low temperature liquid injection



EEV: ETS6



Mounted touch protection cover

Self-managed module B+

Optyma™ Plus

Refrigerants with a GWP level below 150

R454C – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1+A2L | 0.63 | 1.84 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.70 | 1.82 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.16 | 1.81 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+A2L | 1.20 | 1.71 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.32 | 1.65 | - | H1 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.44 | 1.62 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 1.86 | 1.97 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+ A2L | 2.22 | 2.15 | - | H2 |
| | P00 | 3 | 114X4239 | | 2.23 | 2.20 | | |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+ A2L | 2.45 | 1.67 | - | H2 |
| | P00 | 3 | 114X4242 | | 2.46 | 1.71 | | |
| OP-MPIM034 | P00 | 3 | 114X4204 | A1+A2L | 3.40 | 2.50 | - | H2 |
| | P00 | 1 | 114X4205 | | 3.47 | 2.42 | | |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 2.74 | 1.70 | - | H2 |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.40 | 2.28 | - | H2 |
| | P00 | 3 | 114X4206 | | 4.47 | 2.40 | | |
| OP-MPIM057 | P00 | 3 | 114X4208 | A1+A2L | 5.21 | - | 3.73 | H2 |
| | P00 | 1 | 114X4209 | | 5.22 | 3.47 | | |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 6.78 | - | 3.83 | H3 |
| | P00 | 3 | 114X4306 | | 6.85 | 4.27 | | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 7.66 | - | 3.51 | H3 |
| | P00 | 3 | 114X4309 | | 7.91 | 4.24 | | |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 9.99 | - | 3.77 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 11.89 | - | 3.86 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1+A2L | 14.34 | - | 3.31 | H4 |

R455A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1+A2L | 0.68 | 1.88 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.82 | 1.89 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.24 | 1.88 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+A2L | 1.31 | 1.80 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.46 | 1.70 | - | H1 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.61 | 1.61 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 1.99 | 1.89 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+A2L | 2.36 | 2.07 | - | H2 |
| | P00 | 3 | 114X4239 | | 2.43 | 1.95 | | |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+ A2L | 2.84 | 1.77 | - | H2 |
| | P00 | 3 | 114X4242 | | 2.86 | 1.82 | | |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 3.72 | 2.46 | - | H2 |
| | P00 | 3 | 114X4204 | | 3.72 | 2.54 | | |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 3.09 | 1.72 | - | H2 |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.77 | 2.22 | - | H2 |
| | P00 | 3 | 114X4206 | | 4.82 | 2.37 | | |
| OP-MPIM057 | P00 | 3 | 114X4208 | A1+A2L | 5.74 | - | 3.60 | H2 |
| | P00 | 1 | 114X4209 | | 5.66 | 3.47 | | |
| OP-MPIM068 | P00 | 3 | 114X4306 | A1+A2L | 7.42 | - | 4.17 | H3 |
| | P00 | 1 | 114X4307 | | 7.53 | 4.04 | | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 8.41 | - | 3.67 | H3 |
| | P00 | 3 | 114X4309 | | 8.56 | 4.11 | | |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 10.90 | - | 3.62 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 13.49 | - | 3.94 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1+A2L | 15.22 | - | 3.05 | H4 |

R454C – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-LPVM016 | P00 | 1 | 114X3110 | A1+A2L | 0.35 | 0.87 | - | H1 |
| OP-LPVM026 | P00 | 1 | 114X3201 | A1+A2L | 0.52 | 0.87 | - | H2 |
| OP-LPVM034 | P00 | 1 | 114X3202 | A1+A2L | 0.83 | 0.96 | - | H2 |
| OP-LPVM048 | P00 | 3 | 114X3205 | A1+A2L | 0.76 | 0.90 | - | H2 |
| | | 1 | 114X3204 | A1+A2L | 0.88 | 1.00 | | |
| OP-LPVM068 | P00 | 3 | 114X3207 | A1+A2L | 1.22 | 0.89 | - | H2 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.23 | - | 1.68 | H3 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 2.76 | - | 1.66 | H3 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.16 | - | 1.61 | H3 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 3.89 | - | 1.66 | H3 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 5.01 | - | 1.68 | H4 |

R455A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-LPVM016 | P00 | 1 | 114X3110 | A1+A2L | 0.43 | 0.90 | - | H1 |
| OP-LPVM026 | P00 | 1 | 114X3201 | A1+A2L | 0.58 | 0.93 | - | H2 |
| OP-LPVM034 | P00 | 1 | 114X3202 | A1+A2L | 0.90 | 0.98 | - | H2 |
| OP-LPVM048 | P00 | 3 | 114X3205 | A1+A2L | 0.93 | 0.99 | - | H2 |
| | | 1 | 114X3204 | A1+A2L | 0.94 | 0.98 | | |
| OP-LPVM068 | P00 | 3 | 114X3207 | A1+A2L | 1.45 | 0.98 | - | H2 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.54 | - | 1.71 | H3 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 3.06 | - | 1.67 | H3 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.59 | - | 1.55 | H3 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 4.40 | - | 1.70 | H3 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 5.90 | - | 1.73 | H4 |

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design (3)** | | |
|------------|---------|--------|----------|-------------------|--|------------------|------|---------------------------------|
| | | | | | | COP | SEPR | Sound pressure level@ 10m dB(A) |
| OP-MPSM026 | P00 | 1 | 114X4243 | A1+A2L | 1.31 | 1.95 | - | 37 |
| OP-MPSM030 | P00 | 1 | 114X4244 | A1+A2L | 1.42 | 1.83 | - | 37 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

For regular updates and detailed capacities, please refer to Coolselector®2 software

coolselector.danfoss.com



Optyma™ Plus

Refrigerants with a GWP level below 2500

R449A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | |
|------------|---------|--------|----------|-------------------|--|-------------|------|
| | | | | | | COP | SEPR |
| OP-LPOM067 | P02 | 3 | 114X3371 | A1 | 2.57 | - | 1.60 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.54 | - | 1.63 |
| OP-LPOM084 | P02 | 3 | 114X3372 | A1 | 3.23 | - | 1.64 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 3.20 | - | 1.66 |
| OP-LPOM098 | P02 | 3 | 114X3373 | A1 | 3.58 | - | 1.63 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.53 | - | 1.63 |
| OP-LPOM120 | P02 | 3 | 114X3485 | A1 | 4.67 | - | 1.66 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 4.67 | - | 1.71 |
| OP-LPOM168 | P02 | 3 | 114X3486 | A1 | 6.59 | - | 1.81 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 6.59 | - | 1.86 |

OP-Plus – R448A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | EcoDesign** | |
|------------|---------|--------|----------|-------------------|--|-------------|------|
| | | | | | | COP | SEPR |
| OP-LPOM067 | P02 | 3 | 114X3371 | A1 | 2.61 | - | 1.62 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.58 | - | 1.64 |
| OP-LPOM084 | P02 | 3 | 114X3372 | A1 | 3.29 | - | 1.66 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 3.25 | - | 1.68 |
| OP-LPOM098 | P02 | 3 | 114X3373 | A1 | 3.63 | - | 1.64 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.71 | - | 1.68 |
| OP-LPOM120 | P02 | 3 | 114X3485 | A1 | 4.74 | - | 1.67 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 4.74 | - | 1.73 |
| OP-LPOM168 | P02 | 3 | 114X3486 | A1 | 6.28 | - | 1.65 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 6.28 | - | 1.87 |

OP-Plus – R449A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MPBM008 | P00 | 1 | 114X4119 | A1 | 0.86 | 2.25 | - | H1 |
| OP-MPBM009 | P00 | 1 | 114X4120 | A1 | 0.97 | 2.04 | - | H1 |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1+A2L | 0.86 | 2.25 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.97 | 2.04 | - | H1 |
| OP-MPBM012 | P00 | 1 | 114X4121 | A1 | 1.23 | 1.85 | - | H1 |
| OP-MPBM014 | P00 | 1 | 114X4122 | A1 | 1.30 | 1.78 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.23 | 1.85 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+A2L | 1.30 | 1.78 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.36 | 1.65 | - | H1 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.71 | 1.91 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 2.01 | 1.91 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+A2L | 2.40 | 2.01 | - | H2 |
| OP-MPTM026 | P00 | 3 | 114X4239 | A1+A2L | 2.41 | 2.06 | - | H2 |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+A2L | 2.64 | 1.79 | - | H2 |
| OP-MPTM034 | P00 | 3 | 114X4242 | A1+A2L | 2.69 | 1.84 | - | H2 |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 3.62 | 2.28 | - | H2 |
| OP-MPXM034 | P00 | 3 | 114X4264 | A1 | 3.61 | 2.22 | - | H2 |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 3.62 | 2.28 | - | H2 |
| OP-MPIM034 | P00 | 3 | 114X4204 | A1+A2L | 3.61 | 2.22 | - | H2 |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 2.85 | 1.76 | - | H2 |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 4.78 | 2.04 | - | H2 |
| OP-MPXM046 | P00 | 3 | 114X4284 | A1 | 4.74 | 2.12 | - | H2 |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.78 | 2.04 | - | H2 |
| OP-MPIM046 | P00 | 3 | 114X4206 | A1+A2L | 4.74 | 2.12 | - | H2 |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 5.73 | - | 3.12 | H2 |
| OP-MPXM057 | P00 | 3 | 114X4293 | A1 | 5.66 | - | 3.33 | H2 |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 5.73 | - | 3.12 | H2 |
| OP-MPIM057 | P00 | 3 | 114X4208 | A1+A2L | 5.66 | - | 3.33 | H2 |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 7.27 | - | 3.56 | H3 |
| OP-MPXM068 | P00 | 3 | 114X4311 | A1 | 7.29 | - | 3.75 | H3 |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 7.27 | - | 3.64 | H3 |
| OP-MPIM068 | P00 | 3 | 114X4306 | A1+A2L | 7.29 | - | 3.84 | H3 |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 8.32 | - | 3.30 | H3 |
| OP-MPXM080 | P00 | 3 | 114X4324 | A1 | 8.37 | - | 3.72 | H3 |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 8.32 | - | 3.35 | H3 |
| OP-MPIM080 | P00 | 3 | 114X4309 | A1+A2L | 8.37 | - | 3.79 | H3 |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 10.88 | - | 3.52 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 10.88 | - | 3.57 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 13.01 | - | 3.75 | H4 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1 | 13.01 | - | 3.61 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1+A2L | 16.04 | - | 3.41 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 16.04 | - | 3.32 | H4 |

OP-Plus – R448A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MPBM008 | P00 | 1 | 114X4119 | A1 | 0.87 | 2.26 | - | H1 |
| OP-MPBM009 | P00 | 1 | 114X4120 | A1+A2L | 0.87 | 2.26 | - | H1 |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1 | 0.98 | 2.05 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.98 | 2.05 | - | H1 |
| OP-MPBM012 | P00 | 1 | 114X4121 | A1 | 1.24 | 1.86 | - | H1 |
| OP-MPBM014 | P00 | 1 | 114X4122 | A1 | 1.32 | 1.79 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.24 | 1.86 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+A2L | 1.32 | 1.79 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.38 | 1.66 | - | H1 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.73 | 1.91 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 2.03 | 1.93 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+A2L | 2.43 | 2.02 | - | H2 |
| OP-MPTM026 | P00 | 3 | 114X4239 | A1+A2L | 2.44 | 2.07 | - | H2 |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+A2L | 2.68 | 1.81 | - | H2 |
| OP-MPTM034 | P00 | 3 | 114X4242 | A1+A2L | 2.73 | 1.86 | - | H2 |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 3.65 | 2.24 | - | H2 |
| OP-MPXM034 | P00 | 3 | 114X4264 | A1 | 3.67 | 2.30 | - | H2 |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 3.67 | 2.30 | - | H2 |
| OP-MPIM034 | P00 | 3 | 114X4204 | A1+A2L | 3.65 | 2.24 | - | H2 |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 2.89 | 1.78 | - | H2 |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 4.84 | 2.06 | - | H2 |
| OP-MPXM046 | P00 | 3 | 114X4284 | A1 | 4.80 | 2.14 | - | H2 |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.80 | 2.14 | - | H2 |
| OP-MPIM046 | P00 | 3 | 114X4206 | A1+A2L | 4.84 | 2.06 | - | H2 |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 5.80 | - | 3.15 | H2 |
| OP-MPXM057 | P00 | 3 | 114X4293 | A1 | 5.73 | - | 3.36 | H2 |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 5.80 | - | 3.15 | H2 |
| OP-MPIM057 | P00 | 3 | 114X4208 | A1+A2L | 5.73 | - | 3.36 | H2 |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 7.36 | - | 3.59 | H3 |
| OP-MPXM068 | P00 | 3 | 114X4311 | A1 | 7.37 | - | 3.78 | H3 |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 7.36 | - | 3.67 | H3 |
| OP-MPIM068 | P00 | 3 | 114X4306 | A1+A2L | 7.37 | - | 3.87 | H3 |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 8.42 | - | 3.32 | H3 |
| OP-MPXM080 | P00 | 3 | 114X4324 | A1 | 8.47 | - | 3.74 | H3 |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 8.42 | - | 3.38 | H3 |
| OP-MPIM080 | P00 | 3 | 114X4309 | A1+A2L | 8.47 | - | 3.82 | H3 |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 11.01 | - | 3.55 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 11.01 | - | 3.60 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 13.16 | - | 3.78 | H4 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1 | 13.16 | - | 3.63 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1+A2L | 16.24 | - | 3.44 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 16.24 | - | 3.35 | H4 |

* Conditions EN 13215 (mid point); +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Plus

Refrigerants with a GWP level below 2500

R134a – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MPSM026 | P00 | 1 | 114X4243 | A1+A2L | 1.44 | 1.98 | - | H2 |
| OP-MPSM030 | P00 | 1 | 114X4244 | A1+A2L | 1.60 | 1.86 | - | H2 |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 2.19 | 2.17 | - | H2 |
| | | 3 | 114X4264 | | 2.16 | 2.25 | | |
| OP-MPIM034 | P00 | 1 | 114X4205 | A+A2L | 2.19 | 2.17 | - | H2 |
| | | 3 | 114X4204 | | 2.16 | 2.25 | | |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 2.93 | 2.07 | - | H2 |
| | | 3 | 114X4284 | | 2.92 | 2.33 | | |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 2.93 | 2.07 | - | H2 |
| | | 3 | 114X4206 | | 2.92 | 2.33 | | |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 3.54 | 1.90 | - | H2 |
| | | 3 | 114X4293 | | 3.54 | 2.28 | | |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 3.54 | 1.90 | - | H2 |
| | | 3 | 114X4208 | | 3.54 | 2.28 | | |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 4.43 | 2.11 | - | H3 |
| | | 3 | 114X4311 | | 4.38 | 2.41 | | |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 4.43 | 2.16 | - | H3 |
| | | 3 | 114X4306 | | 4.38 | 2.47 | | |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 5.14 | - | 3.08 | H3 |
| | | 3 | 114X4324 | | 5.09 | 3.50 | | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 5.14 | - | 3.17 | H3 |
| | | 3 | 114X4309 | | 5.09 | 3.61 | | |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 6.64 | - | 3.80 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 6.64 | - | 3.90 | H3 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1 | 7.98 | - | 3.40 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 10.25 | - | 3.46 | H4 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 7.98 | - | 3.40 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1+A2L | 10.25 | - | 3.46 | H4 |

R513A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MPSM026 | P00 | 1 | 114X4243 | A1+A2L | 1.29 | 1.99 | - | H2 |
| OP-MPSM030 | P00 | 1 | 114X4244 | A1+A2L | 1.59 | 1.86 | - | H2 |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 2.24 | 2.20 | - | H2 |
| | | 3 | 114X4264 | | 2.26 | 2.25 | | |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 2.24 | 2.20 | - | H2 |
| | | 3 | 114X4204 | | 2.26 | 2.25 | | |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 2.98 | 1.98 | - | H2 |
| | | 3 | 114X4284 | | 3.04 | 2.32 | | |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 2.98 | 1.98 | - | H2 |
| | | 3 | 114X4206 | | 3.04 | 2.32 | | |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 3.65 | 2.06 | - | H2 |
| | | 3 | 114X4293 | | 3.70 | 2.30 | | |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 3.65 | 2.06 | - | H2 |
| | | 3 | 114X4208 | | 3.70 | 2.30 | | |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 4.55 | 2.30 | - | H3 |
| | | 3 | 114X4311 | | 4.64 | 2.52 | | |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 4.55 | 2.36 | - | H3 |
| | | 3 | 114X4306 | | 4.64 | 2.59 | | |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 5.34 | - | 3.24 | H3 |
| | | 3 | 114X4324 | | 5.40 | 3.89 | | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 5.34 | - | 3.33 | H3 |
| | | 3 | 114X4309 | | 5.40 | 4.02 | | |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 7.00 | - | 3.79 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 7.00 | - | 3.88 | H3 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1+A2L | 8.45 | - | 3.91 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 8.45 | - | 3.66 | H4 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1+A2L | 10.32 | - | 3.30 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1 | 10.32 | - | 3.16 | H4 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Plus

Refrigerants with a GWP level below 2500

R452A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|--|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1+A2L | 0.82 | 2.26 | - | H1 |
| OP-MPBM008 | P00 | 1 | 114X4119 | A1 | 0.82 | 2.26 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.92 | 2.01 | - | H1 |
| OP-MPBM009 | P00 | 1 | 114X4120 | A1 | 0.92 | 2.01 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.25 | 1.98 | - | H1 |
| OP-MPBM012 | P00 | 1 | 114X4121 | A1 | 1.25 | 1.98 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+2L | 1.30 | 1.88 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.39 | 1.71 | - | H1 |
| OP-MPBM014 | P00 | 1 | 114X4122 | A1 | 1.30 | 1.88 | - | H2 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.59 | 1.67 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 2.04 | 1.99 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+A2L | 2.41 | 2.17 | - | H2 |
| | | 3 | 114X4239 | | 2.37 | 1.94 | | |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+A2L | 2.69 | 1.88 | - | H2 |
| | | 3 | 114X4242 | | 2.74 | 1.93 | | |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 3.54 | 2.11 | - | H2 |
| | | 3 | 114X4264 | | 3.51 | 2.11 | | |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 3.54 | 2.11 | - | H2 |
| | | 3 | 114X4204 | | 3.51 | 2.11 | | |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 2.90 | 1.84 | - | H2 |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 4.73 | 2.04 | - | H2 |
| | | 3 | 114X4284 | | 4.71 | 2.12 | | |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.73 | 2.04 | - | H2 |
| | | 3 | 114X4206 | | 4.71 | 2.12 | | |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 5.85 | - | 3.31 | H2 |
| | | 3 | 114X4293 | | 5.77 | | 3.51 | |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 5.85 | - | 3.31 | H2 |
| | | 3 | 114X4208 | | 5.77 | | 3.51 | |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 7.09 | - | 3.40 | H3 |
| | | 3 | 114X4311 | | 7.09 | | 3.59 | |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 7.09 | - | 3.47 | H3 |
| | | 3 | 114X4306 | | 7.09 | | 3.67 | |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 8.23 | - | 3.32 | H3 |
| | | 3 | 114X4324 | | 8.20 | | 3.62 | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 8.23 | - | 3.38 | H3 |
| | | 3 | 114X4309 | | 8.20 | | 3.68 | |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 10.88 | - | 3.55 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 10.88 | - | 3.60 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1 | 13.27 | - | 3.77 | H4 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1 | 13.27 | - | 3.63 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1 | 16.17 | - | 3.34 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 16.17 | - | 3.25 | H4 |

R452A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity * in [kW] at evaporating temp. -35°C | EcoDesign** | | Housing |
|------------|---------|--------|----------|-------------------|---|-------------|------|---------|
| | | | | | | COP | SEPR | |
| OP-LPVM016 | P00 | 1 | 114X3110 | A1 A2L | 0.43 | 1.00 | - | H1 |
| OP-LPQM017 | P00 | 1 | 114X3118 | A1 | 0.43 | 1.00 | - | H1 |
| OP-LPVM026 | P00 | 1 | 114X3201 | A1+A2L | 0.63 | 0.98 | - | H2 |
| OP-LPVM034 | P00 | 1 | 114X3202 | A1+A2L | 0.86 | 1.02 | - | H2 |
| OP-LPQM048 | P00 | 1 | 114X3225 | A1 | 1.02 | 1.14 | - | H2 |
| | | 3 | 114X3233 | | 0.99 | 1.09 | | |
| OP-LPVM048 | P00 | 1 | 114X3204 | A1+A2L | 1.02 | 1.14 | - | H2 |
| | | 3 | 114X3205 | | 0.99 | 1.09 | | |
| OP-LPVM068 | P00 | 3 | 114X3207 | A1+A2L | 1.52 | 1.17 | - | H2 |
| OP-LPQM068 | P00 | 1 | 114X3241 | A1 | 1.52 | 1.01 | - | H2 |
| | | 3 | 114X3249 | | 1.52 | 1.17 | | |
| OP-LPQM096 | P00 | 3 | 114X3357 | A1 | 1.78 | - | 1.02 | H3 |
| OP-LPOM067 | P02 | 3 | 114X3371 | A1 | 2.44 | - | 1.72 | H3 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.42 | - | 1.75 | H3 |
| OP-LPOM084 | P02 | 3 | 114X3372 | A1 | 2.97 | - | 1.69 | H3 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 2.94 | - | 1.70 | H3 |
| OP-LPOM098 | P02 | 3 | 114X3373 | A1 | 3.46 | - | 1.69 | H3 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.41 | - | 1.70 | H3 |
| OP-LPOM120 | P02 | 3 | 114X3485 | A1 | 4.51 | - | 1.77 | H4 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 4.51 | - | 1.83 | H4 |
| OP-LPOM168 | P02 | 3 | 114X3486 | A1 | 6.39 | - | 1.83 | H4 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 6.39 | - | 1.87 | H4 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

Optyma™ Plus

Refrigerants with a GWP level above 2500

R404A – MBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -10°C | Eco Design (3)** | | |
|------------|---------|--------|----------|-------------------|--|------------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-MPTM008 | P00 | 1 | 114X4107 | A1+A2L | 0.84 | 2.06 | - | H1 |
| OP-MPBM008 | P00 | 1 | 114X4119 | A1 | 0.84 | 2.06 | - | H1 |
| OP-MPBM009 | P00 | 1 | 114X4120 | A1 | 0.92 | 2.01 | - | H1 |
| OP-MPTM009 | P00 | 1 | 114X4111 | A1+A2L | 0.92 | 2.01 | - | H1 |
| OP-MPTM012 | P00 | 1 | 114X4113 | A1+A2L | 1.22 | 1.83 | - | H1 |
| OP-MPBM012 | P00 | 1 | 114X4121 | A1 | 1.22 | 1.83 | - | H1 |
| OP-MPBM014 | P00 | 1 | 114X4122 | A1 | 1.28 | 1.73 | - | H1 |
| OP-MPTM014 | P00 | 1 | 114X4114 | A1+A2L | 1.28 | 1.73 | - | H1 |
| OP-MPTM018 | P00 | 1 | 114X4115 | A1+A2L | 1.35 | 1.64 | - | H1 |
| OP-MPTM021 | P00 | 1 | 114X4217 | A1+A2L | 1.56 | 1.64 | - | H2 |
| OP-MPTM022 | P00 | 1 | 114X4237 | A1+A2L | 2.02 | 1.87 | - | H2 |
| OP-MPTM026 | P00 | 1 | 114X4238 | A1+A2L | 2.39 | 1.75 | - | H2 |
| | | 3 | 114X4239 | | 2.41 | 1.80 | | |
| OP-MPTM034 | P00 | 1 | 114X4241 | A1+A2L | 2.74 | 1.71 | - | H2 |
| | | 3 | 114X4242 | | 2.79 | 1.76 | | |
| OP-MPXM034 | P00 | 1 | 114X4261 | A1 | 3.50 | 2.09 | - | H2 |
| | | 3 | 114X4264 | | 3.42 | 2.13 | | |
| OP-MPIM034 | P00 | 1 | 114X4205 | A1+A2L | 3.50 | 2.09 | - | H2 |
| | | 3 | 114X4204 | | 3.42 | 2.13 | | |
| OP-MPTM038 | P00 | 1 | 114X4218 | A1+A2L | 2.97 | 1.69 | - | H2 |
| OP-MPXM046 | P00 | 1 | 114X4281 | A1 | 4.60 | 2.00 | - | H2 |
| | | 3 | 114X4284 | | 4.54 | 2.04 | | |
| OP-MPIM046 | P00 | 1 | 114X4207 | A1+A2L | 4.60 | 2.00 | - | H2 |
| | | 3 | 114X4206 | | 4.54 | 2.04 | | |
| OP-MPXM057 | P00 | 1 | 114X4290 | A1 | 5.31 | - | 2.95 | H2 |
| | | 3 | 114X4293 | | 5.30 | 3.05 | | |
| OP-MPIM057 | P00 | 1 | 114X4209 | A1+A2L | 5.31 | - | 2.95 | H2 |
| | | 3 | 114X4208 | | 5.30 | 3.05 | | |
| OP-MPXM068 | P00 | 1 | 114X4308 | A1 | 7.25 | - | 3.73 | H3 |
| | | 3 | 114X4311 | | 7.24 | 3.81 | | |
| OP-MPIM068 | P00 | 1 | 114X4307 | A1+A2L | 7.25 | - | 3.81 | H3 |
| | | 3 | 114X4306 | | 7.24 | 3.89 | | |
| OP-MPXM080 | P00 | 1 | 114X4321 | A1 | 8.32 | - | 3.38 | H3 |
| | | 3 | 114X4324 | | 8.40 | 3.77 | | |
| OP-MPIM080 | P00 | 1 | 114X4312 | A1+A2L | 8.32 | - | 3.43 | H3 |
| | | 3 | 114X4309 | | 8.40 | 3.85 | | |
| OP-MPXM108 | P00 | 3 | 114X4344 | A1 | 10.37 | - | 3.35 | H3 |
| OP-MPIM108 | P00 | 3 | 114X4314 | A1+A2L | 10.37 | - | 3.40 | H3 |
| OP-MPIM125 | P00 | 3 | 114X4409 | A1 | 12.90 | - | 3.63 | H4 |
| OP-MPXM125 | P00 | 3 | 114X4414 | A1 | 12.90 | - | 3.50 | H4 |
| OP-MPIM162 | P00 | 3 | 114X4410 | A1 | 16.11 | - | 3.33 | H4 |
| OP-MPXM162 | P00 | 3 | 114X4434 | A1 | 16.11 | - | 3.24 | H4 |

R404A – LBP

| Model | Version | Phases | Code no. | Refrigerant group | Cooling capacity* in [kW] at evaporating temp. -35°C | Eco Design (3)** | | |
|------------|---------|--------|----------|-------------------|--|------------------|------|---------|
| | | | | | | COP | SEPR | Housing |
| OP-LPVM016 | P00 | 1 | 114X3110 | A1 A2L | 0.49 | 1.08 | - | H1 |
| OP-LPQM017 | P00 | 1 | 114X3118 | A1 | 0.49 | 1.08 | - | H1 |
| OP-LPVM026 | P00 | 1 | 114X3201 | A1+A2L | 0.64 | 0.97 | - | H2 |
| OP-LPVM034 | P00 | 1 | 114X3202 | A1+A2L | 0.88 | 1.03 | - | H2 |
| OP-LPQM048 | P00 | 1 | 114X3225 | A1 | 1.00 | 1.02 | - | H2 |
| | | 3 | 114X3233 | | 1.02 | 1.14 | | |
| OP-LPVM048 | P00 | 1 | 114X3204 | A1+A2L | 1.00 | 1.02 | - | H2 |
| | | 3 | 114X3205 | | 1.02 | 1.14 | | |
| OP-LPQM068 | P00 | 1 | 114X3241 | A1 | 1.63 | 1.07 | - | H2 |
| | | 3 | 114X3249 | | 1.65 | 1.16 | | |
| OP-LPVM068 | P00 | 3 | 114X3207 | A1+A2L | 1.65 | 1.16 | - | H2 |
| OP-LPQM096 | P00 | 3 | 114X3357 | A1 | 1.75 | 1.01 | - | H3 |
| OP-LPOM067 | P02 | 3 | 114X3371 | A1 | 2.62 | - | 1.69 | H3 |
| OP-LPKM067 | P02 | 3 | 114X3304 | A1+A2L | 2.62 | - | 1.73 | H3 |
| OP-LPOM084 | P02 | 3 | 114X3372 | A1 | 3.14 | - | 1.71 | H3 |
| OP-LPKM084 | P02 | 3 | 114X3305 | A1+A2L | 3.14 | - | 1.74 | H3 |
| OP-LPOM098 | P02 | 3 | 114X3373 | A1 | 3.64 | - | 1.75 | H3 |
| OP-LPKM098 | P02 | 3 | 114X3306 | A1+A2L | 3.64 | - | 1.79 | H3 |
| OP-LPOM120 | P02 | 3 | 114X3485 | A1 | 4.52 | - | 1.65 | H4 |
| OP-LPKM120 | P02 | 3 | 114X3405 | A1+A2L | 4.52 | - | 1.70 | H4 |
| OP-LPOM168 | P02 | 3 | 114X3486 | A1 | 5.88 | - | 1.68 | H4 |
| OP-LPKM168 | P02 | 3 | 114X3406 | A1+A2L | 5.88 | - | 1.72 | H4 |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling OK Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K. RGT20°C

For regular updates and detailed capacities, please refer to Coolselector®2 software

coolselector.danfoss.com



Optyma™ Plus INVERTER

Capacity modulation in a simple and adaptive package

Combines our market-leading expertise in condensing unit design with the unique benefits of stepless inverter scroll technology. The result is energy consumption reduced by up to 30% with better food preservation.

Best SEPR with stepless modulation reduces energy consumption by up to **30%**



Quick and safe installation and service

Preset parameters and Modbus communication makes start-up and maintenance of the condensing unit effortlessly quick and easy.



High SEPR: 3.97 – certified by ASERCOM

All models in the range are highly efficient and well above EcoDesign 2018 thresholds, contributing to a reduction in energy costs.



Accurate temperature control

Accurate temperature control and low in-rush current result in a more stable storage temperature and longer product shelf life.



Extended capacity

Stepless compressor modulation - able to slow down and speed up from 30 to 100 RPS to save energy and match load fluctuations very accurately. The inverter drive incorporates smart logic to increase reliability during operation.



Designed for ultimate efficiency

Stepless capacity modulation

From 30 to 100 rps modulation leads to 20-30% higher energy efficiency compared to fixed-speed condensing units.

Simple commissioning

Preset drive parameters with dedicated refrigeration software.

Future-proof

Working with lower GWP refrigerants such as R448A and R449. Also compatible with R407A/F and R404A.



Danfoss compressor and drive package

Dedicated to refrigeration with years of market application and validation.

Simple plug-and-play installation

Safe, simple and hassle-free installation with tried-and-tested components.

Full intelligent control through the Optyma™ Plus Controller

Control, alarm management, day & night operation, can connect to ADAP-KOOL® software, etc.

High SEPR/COP cuts energy costs

E.g. in a cold room where meat is stored and with 9 kW of cooling capacity.

Optyma™ Plus INVERTER MBP unit vs mechanically modulated technology*

Cooling cap.: 9 kW
Refrigerant: R407F



| UNIT | Danfoss | Market |
|-------|--------------|--------------|
| SEPR | 3.97 | 2.50 |
| USAGE | ~ 14 000 kWh | ~ 21 600 kWh |

Annual energy consumption saved: 7 600 kWh

Savings based on cost of energy:

FRANCE: 0.18 € / 1 KWH = 7 600 x 0.18 = 1 368 €
UK: 0.21 € / 1 KWH = 7 600 x 0.21 = 1 596 €
GERMANY: 0.23 € / 1 KWH = 7 600 x 0.23 = 1 748 €

1 748€ annual electricity savings made by your customer in Germany

* Source: Danfoss

Optyma™ Plus INVERTER

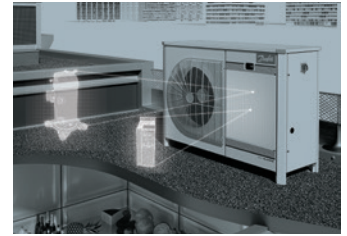
| Model | Code no. | Rotation per second (RPS) | Cooling capacity* in [kW] at evaporating temperature -10°C | | | EcoDesign** | | | Housing |
|---------------|----------|---------------------------|--|-------|-------|-------------|------------|------------|---------|
| | | | R448A | R449A | R404A | SEPR R447A | SEPR R449A | SEPR R404A | |
| OP-MPPM028VVL | 114X4302 | 30 | 1.92 | 1.90 | 1.87 | 3.81 | 3.76 | 3.51 | H3 |
| | | 75 | 4.70 | 4.65 | 4.61 | | | - | |
| | | 100 | 5.98 | 5.92 | 6.00 | | | - | |
| OP-MPPM035VVL | 114X4316 | 30 | 2.40 | 2.37 | 2.36 | 3.68 | 3.64 | 3.80 | H3 |
| | | 75 | 5.76 | 5.70 | 5.71 | | | | |
| | | 100 | 7.33 | 7.26 | 7.29 | | | | |
| OP-MPPM044VVL | 114X4334 | 30 | 3.07 | 3.04 | 3.03 | 4.14 | 4.10 | 3.80 | H3 |
| | | 75 | 7.19 | 7.11 | 7.18 | | | | |
| | | 100 | 9.14 | 9.04 | 9.13 | | | | |
| OP-MPPM065VVL | 114X4317 | 30 | 4.24 | 4.17 | 4.31 | 4.17 | 4.14 | 3.97 | H3+ |
| | | 75 | 9.81 | 9.65 | 9.92 | | | | |
| | | 100 | 12.56 | 12.37 | 12.71 | | | | |

* Conditions EN 13215 (mid point): +32°C ambient temp. superheat 10K. Subcooling 0K Rated

** COP/ SEPR (SEPR for higher cooling cap. than 5kW) at EcoDesign rating conditions: +32°C ambient. Subcooling 0 K, RGT20°C



For regular updates and detailed capacities, please refer to Coolselector®2 software coolselector.danfoss.com



About Variable Speed technology

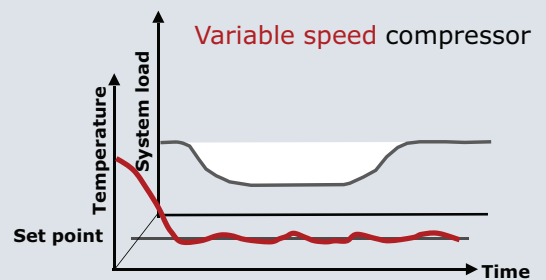
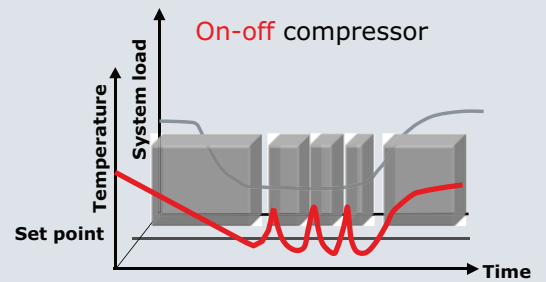
Refrigeration systems are usually designed for peak demand, which represents only a small percentage of actual operational time. Such oversizing leads to efficiency losses and extra costs for oversized equipment. Capacity modulation is a way to match cooling capacity to cooling demand.

There are several ways to modulate the cooling capacity in refrigeration systems. The most commonly used are on-off cycling, hot gas bypass, manifold configurations of multiple compressors, mechanical modulation and variable speed technology.

The variable speed method varies refrigerant flow by actually changing the speed of the compressor. An inverter compressor uses a variable frequency drive – also known as an inverter drive– to slow down or speed up the motor that drives the compressor. This is where inverter compressors bring most savings compared to alternative technologies.

Currently, three different market trends are converging to create growing demand for efficient and sustainable solutions:

- Application requirements (accurate temperature and humidity levels)
- Energy efficiency & environmental impact
- Intelligent systems and reliability



Optyma™. Light Commercial – up to ~1.5 kW

Specially designed for key commercial applications such as glass door merchandisers, bottle coolers, chilled food or ice cream cabinets. To meet the latest guidelines while satisfying tomorrow's consumer needs, Danfoss compressors use the environmentally friendly R290 propane as a refrigerant.



Faster and safer installation and maintenance

Schrader valve for easy charging of refrigerant, pre-wired e-box, ACB mini pressostat and ATEX class N fan motor for enhanced safety.



Serviceability and compactness

Combo of drier and receiver in one piece, making it the ideal fit for compact systems and providing higher serviceability.



R290 natural refrigerant

The major environmental benefits are obtained combining the use of the R290 with the design criteria of highly efficient compressors and EC fan motor.



Universal

Most units are designed with rail concept, allowing easy condensed water evacuation, high airflow, and reduced height to fit display cabinets. Suited for high ambient temperatures thanks to EC fan ATEX class N.



R290 unit



Energy efficient, environmentally friendly and safe hydrocarbons

Hydrocarbons such as propane R290 have excellent thermodynamic properties, and in this respect they are as good as or better than HFC or HCFC refrigerants in most applications. When they are used responsibly and relevant norms are followed, hydrocarbons can be employed in a variety of refrigeration and air conditioning applications. Hydrocarbons can deliver high energy efficiency and have zero Ozone Depletion Potential (ODP) and negligible Global Warming Potential (GWP).



Relevant norms & standards when working with hydrocarbon refrigerants:

ATEX 94/9/EC Directive

Specifies the requirements for equipment intended for use in potentially explosive atmospheres (both electrical and mechanical). Organizations in EU must follow the directive to protect employees from explosion risk in areas with an explosive atmosphere.

Pressure Equipment Directive 97/23/EC (PED)

The directive provides a legislative framework for pressurized equipment and assemblies.

EN378 1-4

EN378 defines "best practice" for design, operation and maintenance. It is a harmonised standard, which ensures that all essential requirements in the PED are fulfilled.

ISO 5149 1-4

The international safety standard defines "best practices" very similarly to EN378, but without referring to EU law.

IEC 60335: International Standard

Specifies all requirements for small hermetically sealed household appliances (supports the EU Low Voltage Directive (2006/95/EC)). It deals with the safety of electrical appliances for household and similar purposes.

Optyma™. Light Commercial – up to ~1.5 kW

Refrigerants with a GWP level below 2500

R290 – MBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-MCNC003 | A09 | 1 | 114F1202 | 0.24 | 1.88 |
| | A10 | 1 | 114F1203 | | |
| | A11 | 1 | 114F1201 | | |
| OP-MCNC004 | A09 | 1 | 114F1205 | 0.34 | 1.88 |
| | A10 | 1 | 114F1206 | | |
| | A11 | 1 | 114F1204 | | |
| OP-MCNC006 | A09 | 1 | 114F1308 | 0.46 | 1.94 |
| | A10 | 1 | 114F1309 | | |
| | A11 | 1 | 114F1307 | | |
| OP-MCNC008 | A09 | 1 | 114F1411 | 0.64 | 2.03 |
| | A10 | 1 | 114F1412 | | |
| | A11 | 1 | 114F1410 | | |
| OP-MCNC009 | A09 | 1 | 114F1414 | 0.72 | 2.02 |
| | A10 | 1 | 114F1415 | | |
| | A11 | 1 | 114F1413 | | |
| OP-MCNC011 | A09 | 1 | 114F1417 | 0.83 | 1.93 |
| | A10 | 1 | 114F1418 | | |
| | A11 | 1 | 114F1416 | | |
| OP-MCNC014 | A09 | 1 | 114F1420 | 0.95 | 1.66 |
| | A10 | 1 | 114F1421 | | |
| | A11 | 1 | 114F1419 | | |
| OP-MCNC016 | A09 | 1 | 114F1623 | 1.11 | 1.79 |
| | A10 | 1 | 114F1624 | | |
| | A11 | 1 | 114F1622 | | |
| OP-MCNC018 | A09 | 1 | 114F1626 | 1.30 | 1.84 |
| | A10 | 1 | 114F1627 | | |
| | A11 | 1 | 114F1625 | | |
| OP-MCNC020 | A09 | 1 | 114F1629 | 1.45 | 1.79 |
| | A10 | 1 | 114F1630 | | |
| | A11 | 1 | 114F1628 | | |

R452A – LBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -35°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-LCQC004 | A01 | 1 | 114X1221 | 0.12 | 0.81 |
| OP-LCQC006 | A01 | 1 | 114X1337 | 0.13 | 0.84 |
| OP-LCQC008 | A01 | 1 | 114X1341 | 0.19 | 0.88 |
| OP-LCQC012 | A01 | 1 | 114X1449 | 0.28 | 0.96 |
| OP-LCQC012 | A01 | 1 | 114X1569 | 0.33 | 0.98 |
| OP-LCQC014 | A01 | 1 | 114X1573 | 0.37 | 0.95 |

*Conditions EN 13215 (dew point): +32°C ambient temp., superheat 10K, subcooling 0K
Rated COP & SEPR at EcoDesign rating conditions: +32°C ambient, subcooling 0 K, RGT20°C



For regular updates and detailed capacities, please refer to Coolselector®2 software
coolselector.danfoss.com

R290 – LBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -35°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-LCNC004 | A09 | 1 | 114F0202 | 0.12 | 1.04 |
| | A10 | 1 | 114F0203 | | |
| | A11 | 1 | 114F0201 | | |
| OP-LCNC006 | A09 | 1 | 114F0205 | 0.15 | 1.06 |
| | A10 | 1 | 114F0206 | | |
| | A11 | 1 | 114F0204 | | |
| OP-LCNC008 | A09 | 1 | 114F0308 | 0.20 | 1.08 |
| | A10 | 1 | 114F0309 | | |
| | A11 | 1 | 114F0307 | | |
| OP-LCNC011 | A09 | 1 | 114F0411 | 0.31 | 1.15 |
| | A10 | 1 | 114F0412 | | |
| | A11 | 1 | 114F0410 | | |
| OP-LCNC016 | A09 | 1 | 114F0414 | 0.42 | 1.15 |
| | A10 | 1 | 114F0415 | | |
| | A11 | 1 | 114F0413 | | |
| OP-LCNC023 | A09 | 1 | 114F0417 | 0.52 | 1.03 |
| | A10 | 1 | 114F0418 | | |
| | A11 | 1 | 114F0416 | | |
| OP-LCNC034 | A09 | 1 | 114F0620 | 0.69 | 1.18 |
| | A10 | 1 | 114F0621 | | |
| | A11 | 1 | 114F0619 | | |

R513A – MBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-MCGC003 | A00 | 1 | 114X0104 | 0.13 | 1.08 |
| | A01 | 1 | 114X0105 | | |
| | A04 | 1 | 114X0107 | | |
| OP-MCGC004 | A00 | 1 | 114X0108 | 0.15 | 1 |
| | A01 | 1 | 114X0109 | | |
| | A04 | 1 | 114X0111 | | |
| OP-MCGC005 | A00 | 1 | 114X0112 | 0.18 | 1.11 |
| | A01 | 1 | 114X0113 | | |
| | A04 | 1 | 114X0115 | | |
| OP-MCGC006 | A00 | 1 | 114X0200 | 0.28 | 1.51 |
| | A01 | 1 | 114X0201 | | |
| | A04 | 1 | 114X0203 | | |
| OP-MCGC006 | A00 | 1 | 114X0228 | 0.29 | 1.49 |
| | A01 | 1 | 114X0216 | | |
| OP-MCGC007 | A00 | 1 | 114X0217 | 0.30 | 1.43 |
| | A01 | 1 | 114X0217 | | |
| OP-MCGC008 | A00 | 1 | 114X0224 | 0.35 | 1.45 |
| | A01 | 1 | 114X0225 | | |
| | A04 | 1 | 114X0227 | | |
| OP-MCGC007 | A00 | 1 | 114X0244 | 0.35 | 1.48 |
| | A01 | 1 | 114X0204 | | |
| OP-MCGC008 | A00 | 1 | 114X0205 | 0.39 | 1.56 |
| | A01 | 1 | 114X0205 | | |
| OP-MCGC010 | A04 | 1 | 114X0223 | 0.41 | 1.41 |
| | A00 | 1 | 114X0352 | | |
| OP-MCGC008 | A00 | 1 | 114X0352 | 0.41 | 1.48 |
| | A00 | 1 | 114X0336 | | |
| | A01 | 1 | 114X0337 | | |
| OP-MCGC011 | A00 | 1 | 114X0337 | 0.46 | 1.41 |
| | A01 | 1 | 114X0337 | | |
| | A04 | 1 | 114X0339 | | |
| OP-MCGC012 | A00 | 1 | 114X0340 | 0.52 | 1.41 |
| | A01 | 1 | 114X0341 | | |
| | A04 | 1 | 114X0343 | | |
| OP-MCGC015 | A00 | 1 | 114X0448 | 0.65 | 1.45 |
| | A01 | 1 | 114X0449 | | |
| | A04 | 1 | 114X0451 | | |
| OP-MCGC021 | A00 | 1 | 114X0568 | 0.88 | 1.41 |
| | A00 | 1 | 114X0564 | | |
| OP-MCGC021 | A01 | 1 | 114X0565 | 0.86 | 1.41 |
| | A01 | 1 | 114X0565 | | |
| | A04 | 1 | 114X0567 | | |
| OP-MCGC026 | A01 | 1 | 114X0773 | 1.32 | 1.77 |
| | A01 | 1 | 114X0781 | | |
| OP-MCGC034 | A01 | 1 | 114X0781 | 1.65 | 1.73 |

Optyma™. Light Commercial – up to ~1.5 kW

Refrigerants with a GWP level below 2500 Refrigerants with a GWP level above 2500

R134a – MBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-MCGC003 | A00 | 1 | 114X0104 | 0.13 | 1.08 |
| | A01 | 1 | 114X0105 | | |
| | A04 | 1 | 114X0107 | | |
| OP-MCGC004 | A00 | 1 | 114X0108 | 0.15 | 1 |
| | A01 | 1 | 114X0109 | | |
| | A04 | 1 | 114X0111 | | |
| OP-MCGC005 | A00 | 1 | 114X0112 | 0.18 | 1.11 |
| | A01 | 1 | 114X0113 | | |
| | A04 | 1 | 114X0115 | | |
| OP-MCGC006 | A00 | 1 | 114X0200 | 0.28 | 1.51 |
| | A01 | 1 | 114X0201 | | |
| | A04 | 1 | 114X0203 | | |
| OP-MCGC006 | A00 | 1 | 114X0228 | 0.29 | 1.49 |
| OP-MCGC007 | A00 | 1 | 114X0216 | 0.30 | 1.43 |
| | A01 | 1 | 114X0217 | | |
| OP-MCGC008 | A00 | 1 | 114X0224 | 0.35 | 1.45 |
| | A01 | 1 | 114X0225 | | |
| | A04 | 1 | 114X0227 | | |
| OP-MCGC007 | A00 | 1 | 114X0244 | 0.35 | 1.48 |
| OP-MCGC008 | A00 | 1 | 114X0204 | 0.39 | 1.56 |
| | A01 | 1 | 114X0205 | | |
| OP-MCGC010 | A04 | 1 | 114X0223 | 0.41 | 1.41 |
| OP-MCGC008 | A00 | 1 | 114X0352 | 0.41 | 1.48 |
| OP-MCGC011 | A00 | 1 | 114X0336 | 0.46 | 1.41 |
| | A01 | 1 | 114X0337 | | |
| | A04 | 1 | 114X0339 | | |
| OP-MCGC012 | A00 | 1 | 114X0340 | 0.52 | 1.41 |
| | A01 | 1 | 114X0341 | | |
| | A04 | 1 | 114X0343 | | |
| OP-MCGC015 | A00 | 1 | 114X0448 | 0.65 | 1.45 |
| | A01 | 1 | 114X0449 | | |
| | A04 | 1 | 114X0451 | | |
| OP-MCGC021 | A00 | 1 | 114X0568 | 0.88 | 1.41 |
| OP-MCGC021 | A00 | 1 | 114X0564 | 0.86 | 1.41 |
| | A01 | 1 | 114X0565 | | |
| | A04 | 1 | 114X0567 | | |
| OP-MCGC026 | A01 | 1 | 114X0773 | 1.32 | 1.77 |
| OP-MCGC034 | A01 | 1 | 114X0781 | 1.65 | 1.73 |

R404A – MBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-MCHC004 | A00 | 1 | 114X0301 | 0.32 | 1.60 |
| | A01 | 1 | 114X0302 | | |
| | A04 | 1 | 114X0303 | | |
| OP-MCHC006 | A00 | 1 | 114X2316 | 0.50 | 1.41 |
| | A01 | 1 | 114X2317 | | |
| | A04 | 1 | 114X2319 | | |
| OP-MCHC007 | A00 | 1 | 114X2424 | 0.66 | 1.55 |
| | A01 | 1 | 114X2425 | | |
| | A04 | 1 | 114X2427 | | |
| OP-MCHC010 | A00 | 1 | 114X0403 | 0.85 | 1.74 |
| | A01 | 1 | 114X0404 | | |
| | A04 | 1 | 114X0405 | | |
| OP-MCHC013 | A00 | 1 | 114X0406 | 1.00 | 1.70 |
| | A01 | 1 | 114X0407 | | |
| OP-MCHC015 | A01 | 1 | 114X0408 | 1.27 | 1.60 |
| | A04 | 1 | 114X2651 | | |
| OP-MCHC018 | A01 | 1 | 114X2649 | 1.45 | 1.76 |
| | A04 | 1 | 114X2765 | | |
| OP-MCHC021 | A01 | 1 | 114X0702 | 1.72 | 1.74 |
| | A04 | 1 | 114X0703 | | |
| OP-MCHC021 | A01 | 1 | 114X2765 | 1.72 | 1.74 |
| | A04 | 1 | 114X2767 | | |

R404A – LBP

| Model | Version | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -35°C | Rated COP |
|------------|---------|-------|----------|--|-----------|
| OP-LCHC004 | A00 | 1 | 114X1208 | 0.09 | 0.80 |
| | A01 | 1 | 114X1209 | | |
| | A04 | 1 | 114X1211 | | |
| OP-LQC004 | A01 | 1 | 114X1221 | 0.12 | 0.89 |
| OP-LCHC006 | A00 | 1 | 114X1216 | 0.15 | 0.80 |
| | A01 | 1 | 114X1217 | | |
| | A04 | 1 | 114X1219 | | |
| OP-LQC006 | A01 | 1 | 114X1337 | 0.18 | 0.93 |
| OP-LCHC007 | A00 | 1 | 114X1328 | 0.19 | 0.89 |
| | A01 | 1 | 114X1329 | | |
| | A04 | 1 | 114X1331 | | |
| OP-LQC008 | A01 | 1 | 114X1341 | 0.20 | 0.89 |
| OP-LCHC008 | A00 | 1 | 114X1304 | 0.20 | 0.87 |
| | A01 | 1 | 114X1301 | | |
| | A04 | 1 | 114X1302 | | |
| OP-LCHC012 | A00 | 1 | 114X1440 | 0.28 | 0.84 |
| | A01 | 1 | 114X1441 | | |
| | A04 | 1 | 114X1443 | | |
| OP-LCHC012 | A00 | 1 | 114X1444 | 0.31 | 0.83 |
| OP-LQC012 | A01 | 1 | 114X1449 | 0.29 | 0.94 |
| OP-LCHC015 | A00 | 1 | 114X1548 | 0.34 | 0.81 |
| | A01 | 1 | 114X1549 | | |
| | A04 | 1 | 114X1551 | | |
| OP-LQC012 | A01 | 1 | 114X1569 | 0.35 | 0.97 |
| OP-LQC014 | A01 | 1 | 114X1573 | 0.40 | 0.95 |
| OP-LCHC018 | A00 | 1 | 114X1556 | 0.42 | 0.95 |
| | A01 | 1 | 114X1557 | | |
| | A04 | 1 | 114X1559 | | |
| OP-LCHC021 | A00 | 1 | 114X1600 | 0.47 | 0.97 |
| | A01 | 1 | 114X1601 | | |
| | A04 | 1 | 114X1602 | | |
| OP-LCHC026 | A01 | 1 | 114X1673 | 0.63 | 0.95 |
| OP-LCHC034 | A01 | 1 | 114X1781 | 0.89 | 1 |
| | A04 | 1 | 114X1783 | | |

*Conditions EN 13215 (dew point): +32°C ambient temp. superheat 10K, subcooling 0K
Rated COP & SEPR at EcoDesign rating conditions: +32°C ambient, subcooling 0 K, RGT20°C

For regular updates and detailed capacities,
please refer to Coolselector®2 software
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Optyma™. Commercial – from ~1.5 kW

Refrigerants with a GWP level below 2500

R449A – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 2.06 | 1.93 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.68 | 1.93 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 3.57 | 2.09 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.06 | 2.13 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.58 | 1.96 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.27 | 1.96 | 2.79 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 6.32 | 2.17 | 3.20 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 6.92 | 2.15 | 3.16 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 7.83 | 2.13 | 3.01 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 7.83 | 2.17 | 3.08 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 8.77 | 2.05 | 2.89 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 8.77 | 2.08 | 2.95 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 10.01 | 1.97 | 2.74 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 10.01 | 2 | 2.79 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 12.78 | 2.06 | 3.01 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 16.45 | 2.09 | 2.99 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 18.43 | 2.04 | 2.86 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 20.56 | 1.99 | 2.74 | 53 |

R448A – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 2.06 | 1.93 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.68 | 1.93 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 3.57 | 2.09 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.06 | 2.13 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.58 | 1.96 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.27 | 1.96 | 2.79 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 6.32 | 2.16 | 3.19 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 6.92 | 2.15 | 3.16 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 7.83 | 2.13 | 3.01 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 7.83 | 2.17 | 3.08 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 8.77 | 2.05 | 2.89 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 8.77 | 2.08 | 2.95 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 10.01 | 1.97 | 2.74 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 10.01 | 1.99 | 2.78 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 12.78 | 2.06 | 3.01 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 16.45 | 2.09 | 2.99 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 18.43 | 2.03 | 2.86 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 20.56 | 1.98 | 2.74 | 53 |

R134a – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 1.29 | 1.82 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 1.62 | 1.94 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 2.01 | 1.85 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 2.34 | 1.77 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 3.01 | 1.92 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 3.43 | 2.03 | | 45 |
| OP-MCRN086 | 3 | 114X5737 | 4.05 | 2.13 | | 53 |
| OP-MCRN096 | 3 | 114X5739 | 4.09 | 2.04 | | 52 |
| OP-MCRN108 | 3 | 114X5740 | 4.73 | 2.09 | | 52 |
| OP-MGRN108 | 3 | 114X5743 | 4.73 | 2.16 | | 52 |
| OP-MCRN121 | 3 | 114X5744 | 5.33 | 2.08 | 2.71 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 5.33 | 2.14 | 2.80 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 6.74 | 2.31 | 2.55 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 6.37 | 2.20 | 2.55 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 7.82 | 1.90 | 2.68 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 9.74 | 2.08 | 2.91 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 12.06 | 2.08 | 2.76 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 13.13 | 2.11 | 2.79 | 53 |

R407C – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 1.84 | 1.89 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.44 | 1.90 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 3.29 | 2.05 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 3.85 | 2.12 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.39 | 1.97 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.10 | 1.98 | 2.71 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 5.96 | 2.14 | 2.89 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 6.42 | 2.15 | 3 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 7.40 | 2.15 | 3.01 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 7.40 | 2.19 | 3.08 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 8.23 | 2.02 | 2.79 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 8.23 | 2.06 | 2.84 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 9.21 | 1.94 | 2.67 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 9.21 | 1.97 | 2.72 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 11.62 | 1.96 | 2.81 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 15.42 | 2.08 | 2.90 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 16.67 | 1.99 | 2.76 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 19.14 | 1.97 | 2.71 | 53 |

*Conditions EN 13215 (dew point): +32°C ambient temp. superheat 10K. subcooling 0K
 Rated COP & SEPR at EcoDesign rating conditions: +32°C ambient. subcooling 0 K. RGT20°C
 Values refer to 3-phase units

Optyma™. Commercial – from ~1.5 kW

Refrigerants with a GWP level below 2500

R407A – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 1.94 | 1.84 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.55 | 1.98 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5728 | 3.56 | 2.06 | | 43 |
| | 1 | 114X5726 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.05 | 2.13 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.61 | 2 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.28 | 2.03 | 2.57 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 6.40 | 2.27 | 3.08 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 6.76 | 2.20 | 2.94 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 7.79 | 2.13 | 2.81 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 7.79 | 2.17 | 2.87 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 8.53 | 2.09 | 2.76 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 8.53 | 2.13 | 2.82 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 9.64 | 2.01 | 2.64 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 9.64 | 2.01 | 2.64 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 12.59 | 2.05 | 2.83 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 15.64 | 2.05 | 2.83 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 17.84 | 2.03 | 2.74 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 19.19 | 1.94 | 2.58 | 53 |

R407F – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 2.04 | 1.82 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.67 | 1.94 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 3.76 | 2.05 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.27 | 2.11 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.84 | 1.97 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.53 | 2 | 2.80 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 6.72 | 2.25 | 3.27 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 7.09 | 2.17 | 3.16 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 8.17 | 2.10 | 2.99 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 8.17 | 2.13 | 3.05 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 8.93 | 2.06 | 2.87 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 8.93 | 2.09 | 2.92 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 10.11 | 1.94 | 2.67 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 10.11 | 1.97 | 2.71 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 13.26 | 2.03 | 3.13 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 16.41 | 2.03 | 2.99 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 18.70 | 2 | 2.86 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 20.11 | 1.91 | 2.67 | 53 |

R452A – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 2.28 | 2 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.98 | 2.01 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 3.71 | 2.04 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.27 | 2.10 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 4.69 | 1.89 | | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 5.58 | 1.95 | 2.75 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 6.89 | 2.22 | 2.88 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 7.54 | 2.21 | 2.90 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 8.53 | 2.19 | 2.84 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 8.53 | 2.22 | 2.90 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 9.56 | 2.11 | 2.77 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 9.56 | 2.14 | 2.81 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 10.20 | 1.99 | 2.58 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 10.03 | 1.97 | 2.57 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 14.02 | 2.15 | 3.10 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 17.57 | 2.12 | 3.10 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 19.03 | 1.98 | 3.01 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 20.60 | 1.89 | 2.71 | 53 |

R452A – LBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -35°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-LCQN048 | 3 | 114X5758 | 0.87 | 1.03 | | 42 |
| | 1 | 114X5759 | | | | |
| OP-LCQN068 | 3 | 114X5761 | 1.48 | 1.14 | | 40 |
| | 1 | 114X5762 | | | | |
| OP-LCQN096 | 3 | 114X5764 | 1.73 | 1.04 | | 51 |
| OP-LGQN096 | 3 | 114X5766 | 2.14 | 1.30 | 1.70 | 51 |
| OP-LCQN108 | 3 | 114X5768 | 2.66 | 1.32 | 1.88 | 47 |
| OP-LGQN108 | 3 | 114X5769 | 2.66 | 1.37 | 1.95 | 47 |
| OP-LGQN136 | 3 | 114X5771 | 3.28 | 1.26 | 1.69 | 47 |
| OP-LCQN136 | 3 | 114X5772 | 3.28 | 1.23 | 1.65 | 47 |
| OP-LGQN215 | 3 | 114X5774 | 4.73 | 1.11 | 1.63 | 55 |
| OP-LGQN271 | 3 | 114X5776 | 6.14 | 1.17 | 1.66 | 55 |

*Conditions EN 13215 (dew point): +32°C ambient temp. superheat 10K. subcooling 0K
 Rated COP & SEPR at EcoDesign rating conditions: +32°C ambient. subcooling 0 K. RGT20°C
 Values refer to 3-phase units

For regular updates and detailed capacities,
 please refer to Coolselector®2 software
coolselector.danfoss.com



Optyma™. Commercial – from ~1.5 kW

Refrigerants with a GWP level above 2500

R404A – MBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -10°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-MCRN030 | 3 | 114X5721 | 2.22 | 1.88 | | 45 |
| | 1 | 114X5722 | | | | |
| OP-MCRN038 | 3 | 114X5724 | 2.92 | 2.02 | | 43 |
| | 1 | 114X5723 | | | | |
| OP-MCRN048 | 3 | 114X5726 | 4.02 | 2.08 | | 43 |
| | 1 | 114X5728 | | | | |
| OP-MCRN054 | 3 | 114X5729 | 4.56 | 2.15 | | 43 |
| | 1 | 114X5731 | | | | |
| OP-MCRN060 | 3 | 114X5732 | 5.17 | 2.01 | 2.85 | 43 |
| | 1 | 114X5734 | | | | |
| OP-MCRN068 | 3 | 114X5735 | 6.15 | 2.15 | 2.77 | 45 |
| OP-MCRN086 | 3 | 114X5737 | 7.39 | 2.36 | 3.34 | 53 |
| OP-MCRN096 | 3 | 114X5739 | 7.81 | 2.29 | 3.14 | 52 |
| OP-MCRN108 | 3 | 114X5740 | 9.03 | 2.22 | 3.07 | 52 |
| OP-MGRN108 | 3 | 114X5743 | 9.03 | 2.25 | 3.13 | 52 |
| OP-MCRN121 | 3 | 114X5744 | 9.91 | 2.18 | 3.03 | 51 |
| OP-MGRN121 | 3 | 114X5746 | 9.91 | 2.21 | 3.08 | 51 |
| OP-MCRN136 | 3 | 114X5747 | 11.21 | 2.07 | 2.83 | 51 |
| OP-MGRN136 | 3 | 114X5749 | 11.21 | 2.09 | 2.87 | 51 |
| OP-MGRN171 | 3 | 114X5750 | 14.25 | 2.09 | 3.02 | 56 |
| OP-MGRN215 | 3 | 114X5753 | 17.73 | 2.09 | 3.03 | 55 |
| OP-MGRN242 | 3 | 114X5754 | 20.20 | 2.07 | 2.91 | 54 |
| OP-MGRN271 | 3 | 114X5757 | 21.72 | 1.97 | 2.74 | 53 |

R404A – LBP

| Model | Phase | Code no. | Cooling capacity* in kW at evaporating temp. -35°C | Rated COP | SEPR | Sound pressure level @10m dB(A) |
|------------|-------|----------|--|-----------|------|---------------------------------|
| OP-LCQN048 | 3 | 114X5758 | 0.92 | 1.09 | | 42 |
| | 1 | 114X5759 | | | | |
| OP-LCQN068 | 3 | 114X5761 | 1.54 | 1.04 | | 40 |
| | 1 | 114X5762 | | | | |
| OP-LCQN096 | 3 | 114X5764 | 1.72 | 1 | | 51 |
| OP-LGQN096 | 3 | 114X5766 | 2.07 | 1.21 | 1.6 | 51 |
| OP-LCQN108 | 3 | 114X5768 | 2.50 | 1.21 | 1.68 | 47 |
| OP-LGQN108 | 3 | 114X5769 | 2.50 | 1.25 | 1.74 | 47 |
| OP-LGQN136 | 3 | 114X5771 | 3.14 | 1.16 | 1.70 | 47 |
| OP-LCQN136 | 3 | 114X5772 | 3.14 | 1.13 | 1.66 | 47 |
| OP-LGQN215 | 3 | 114X5774 | 4.98 | 1.12 | 1.62 | 55 |
| OP-LGQN271 | 3 | 114X5776 | 6.66 | 1.17 | 1.62 | 55 |

*Conditions EN 13215 (dew point): +32°C ambient temp. superheat 10K. subcooling 0K
 Rated COP & SEPR at EcoDesign rating conditions: +32°C ambient. subcooling 0 K. RGT20°C
 Values refer to 3-phase units



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