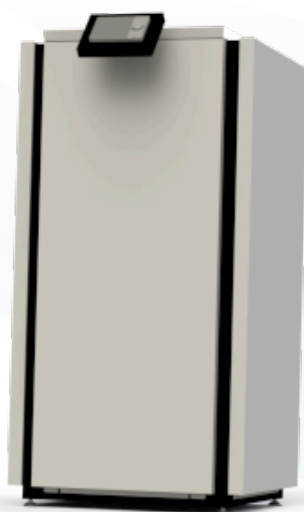




Tepelné čerpadlo



BW 14 EVI

WAMAK BW 14 EVI

Popis výrobku

Kompaktné tepelné čerpadlo pre vykurovanie a ohrev teplej úžitkovej vody s možnosťou riadenia pasívneho chladenia. Krátky uzavretý chladivový okruh s tichým Scroll kompresorom napomáha k dlhodobu stabilnej prevádzke.

Využitie pre rodinné domy a menšie budovy s potrebou tepelného výkonu do 20 kW. Rada COMFORT obsahuje robustné diely vnútorného chladivového okruhu tepelného čerpadla ako aj všetky meracie, distribučné a riadiace prvky, ktoré si dnešná moderná technológia klímy v rodinných domoch vyžaduje.

Ako primárny zdroj je využívaná tepelná energia slnka naakumulovaná v zemi cez horizontálny kolektor alebo geotermálna energia cez hĺbkový vrt. V kolektore alebo sonde prúdi nemrznúca zmes ktorá odoberie energiu zeme v nízkej teplote a tepelné čerpadlo túto teplotu zvýši na teplotu využiteľnú pre vykurovanie alebo ohrev teplej vody.

Technológia EVI (Enhanced Vapour Injection) umožňuje tepelnému čerpadlu dosahovať vyššie výstupné teploty aj pri nízkych teplotách média ktorému je teplo odoberané. Rovnako EVI vplýva na lepšiu životnosť kompresora a celkového systému nakoľko je teplota výtlačných plynov z kompresora nižšia.

Vlastnosti produktu

- Scroll kompresor pre tepelné čerpadlo
- EVI technológia
- Asymetrický tepelný výmenník
- Sled výpadku a rotácie fáz
- Snímač vysokého tlaku chladiva - analog
- Spínač prietoku strana spotreby - Zap/Vyp - (s príslušenstvom)
- Spínač prietoku strana zdroj - Zap/Vyp - (s príslušenstvom)
- ECM nízkoenergetické čerpadlo zdroj
- Riadenie priameho vykurovacieho / chladiaceho okruhu
- Riadenie čerpadla cirkulácie
- Snímač teploty pre ohrev TUV
- Možnosť pripojenia v kaskáde - (s príslušenstvom)
- Masívna rámová konštrukcia
- Uloženie na sylomerových podložkách
- Elektronický expanzný ventil - vykurovanie
- Soft štartér kompresoru
- Spínač maximálneho tlaku chladiva Zap/Vyp
- Snímač nízkeho tlaku chladiva - analog
- Snímač prietoku strana spotreby - analog
- ECM nízkoenergetické čerpadlo spotreby
- Riadenie miešaného vykurovacieho / chladiaceho okruhu
- Riadenie ventilu pre ohrev TUV
- Snímač vonkajšej teploty
- Snímač teploty pre akumuláciu zásobník
- ModBus spojenie - (s príslušenstvom)

Základné údaje o výkone - WAMAK BW 14 EVI

| Vykurovanie - EN 14511 | | |
|--|--------------------|--------------|
| Tepelný výkon [kW] | B0 / W35 (max) | 14.5 |
| | B0 / W35 (min) | 14.5 |
| | B0 / W34 | 14.4 |
| Elektrický príkon [kW] | B0 / W35 (max) | 3.1 |
| | B0 / W35 (min) | 3.1 |
| | B0 / W34 | 3.0 |
| Tepelná účinnosť [COP] | B0 / W35 (max) | 4.63 |
| | B0 / W35 (min) | 4.63 |
| | B0 / W34 | 4.74 |
| Sezónna tepelná účinnosť vykurovania - SCOP EN 14825 | | |
| Stredná klim. zóna / Nízka teplota [35 °C] | SCOP | 5.29 |
| | η [%] | 211.4 |
| | Label | A+++ |
| | Qhe [kWh] | 5627.5 |
| | Pdesignh [kW] | 14.5 |
| | Tbivalent [°C] | -10 |
| Chladenie | | |
| Chladiaci výkon - [kW] | A35 / W23-18 | 14.8 |
| | A25 / W23-18 | 15.8 |
| | A35 / W12-7 | 14.8 |
| | A25 / W12-7 | 14.8 |
| Sezónna účinnosť chladenia - SEER EN 14825 | | |
| [W 23 / 18 °C] | SEER | 5.58 |
| | Qce [kWh] | 1479.7 |
| | η_c [%] | 223.3 |
| Zvuk EN 12102 | | |
| Zvuk - výkon - Lw | dB(A) | 45.2 |
| Zvuk - tlak - Lp | 1 m dB(A) | 37.2 |
| | 5 m dB(A) | 23.2 |
| | 10 m dB(A) | 17.2 |
| Strojné a prevádzkové informácie | | |
| Typ kompresoru (3~ 400/50) | SCROLL / 1 / | Zap/Vyp |
| Chladivo | R410A (GWP - 2088) | 2.4 kg |
| Prevádzkové hraničné teploty vykurovania - (min / max) [°C] | | 25 / 65 |
| Prevádzkové hraničné teploty zdroja - (min / max) [°C] | | -10 (7) / 30 |
| Váha zariadenia | | 155 kg |

WAMAK BW 14 EVI

ErP (EU) No 811/2013: Technické parametre vykurovacích zariadení s tepelným čerpadlom

| Model | BW 14 EVI |
|---|-------------------------------|
| Tepelné čerpadlo vzduch-voda | nie |
| Tepelné čerpadlo soľanka-voda | áno |
| Tepelné čerpadlo voda-voda | nie |
| Nízkotepelné tepelné čerpadlo | nie |
| Vybavené prídavným ohrievačom | nie |
| Kombinované tepelné čerpadlo s ohrievačom | nie |
| Teplotné použitie | nízka teplota (35 °C - 30 °C) |
| Klimatická oblasť | priemerná |

| Položka | Symbol | Hodnota | mj | Položka | Symbol | Hodnota | mj |
|--|-----------------|---------|-----|---|------------|---------|-------------------|
| Menovitý tepelný výkon pri Tdesignh | Prated | 14.5 | kW | Sezónna energetická účinnosť vykurovania priestoru | η_s | 211.4 | % |
| Deklarovaný výkon vykurovania pri čiastočnom zaťažení pri vnútornej teplote 20 °C a vonkajšej teplote Tj | | | | Deklarovaný súčiniteľ výkonu alebo pomer primárnej energie pre čiastočné zaťaženie pri vnútornej teplote 20 °C a vonkajšej teplote Tj | | | |
| Tj = -7 °C | Pdh | 14.4 | kW | Tj = -7 °C | COPd | 4.74 | - |
| Tj = +2 °C | Pdh | 14.4 | kW | Tj = +2 °C | COPd | 5.2 | - |
| Tj = +7 °C | Pdh | 14.3 | kW | Tj = +7 °C | COPd | 5.6 | - |
| Tj = +12 °C | Pdh | 14.3 | kW | Tj = +12 °C | COPd | 6.1 | - |
| Tj = bivalentná teplota | Pdh | 14.5 | kW | Tj = bivalentná teplota | COPd | 4.6 | - |
| Tj = hraničná prevádzková teplota | Pdh | --- | kW | Tj = hraničná prevádzková teplota | COPd | --- | - |
| Bivalentná teplota | Tbiv | -10 | °C | Tj = hraničná prevádzková teplota | TOL | --- | °C |
| Spotreba energie v iných ako aktívnych režimoch | | | | Medzná prevádzková teplota vykurovacej vody | WTOL | 65 | °C |
| Vypnuté | Poff | 0.010 | kW | Prídavný ohrievač | | | |
| Režim vypnutia termostatu | Pto | 0.010 | kW | Menovitý tepelný výkon | Psup | 2.8 | kW |
| Pohotovostný režim | Psb | 0.010 | kW | Typ príkonu energie | elektrická | | |
| Režim ohrevu kľukovej skrine | Pck | 0.000 | kW | | | | |
| Ostatné položky | | | | | | | |
| Regulácia výkonu | pevná | | | Pre tepelné čerpadlá vzduch-voda: Menovitý prietok vzduchu, vonku | - | --- | m ³ /h |
| Úroveň akustického výkonu | | | | Pre tepelné čerpadlá voda-voda alebo soľanka-voda: Menovitý prietok soľanky alebo vody, vonkajší výmenník tepla | - | 3.44 | m ³ /h |
| v interiéri | Lwa | 45 | dB | | | | |
| vonku | Lwa | --- | dB | | | | |
| Ročná spotreba energie | Q _{HE} | 5627.5 | kWh | | | | |

Kontaktné údaje: WAMAK, s.r.o., Orovnica 252, 96652, Orovnica, Slovakia, info@wamak.sk

WAMAK BW 14 EVI

ErP (EU) No 811/2013: Technické parametre vykurovacích zariadení s tepelným čerpadlom

| Model | BW 14 EVI |
|---|-------------------------------|
| Tepelné čerpadlo vzduch-voda | nie |
| Tepelné čerpadlo soľanka-voda | áno |
| Tepelné čerpadlo voda-voda | nie |
| Nízkotepelné tepelné čerpadlo | nie |
| Vybavené prídavným ohrievačom | nie |
| Kombinované tepelné čerpadlo s ohrievačom | nie |
| Teplotné použitie | stredná teplota (55°C - 47°C) |
| Klimatická oblasť | priemerná |

| Položka | Symbol | Hodnota | mj | Položka | Symbol | Hodnota | mj |
|--|-----------------|---------|-----|---|------------|---------|-------------------|
| Menovitý tepelný výkon pri Tdesignh | Prated | 14.9 | kW | Sezónna energetická účinnosť vykurovania priestoru | η_s | 164.4 | % |
| Deklarovaný výkon vykurovania pri čiastočnom zaťažení pri vnútornej teplote 20 °C a vonkajšej teplote Tj | | | | Deklarovaný súčiniteľ výkonu alebo pomer primárnej energie pre čiastočné zaťaženie pri vnútornej teplote 20 °C a vonkajšej teplote Tj | | | |
| Tj = -7 °C | Pdh | 14.9 | kW | Tj = -7 °C | COPd | 3.29 | - |
| Tj = +2 °C | Pdh | 14.9 | kW | Tj = +2 °C | COPd | 4.3 | - |
| Tj = +7 °C | Pdh | 14.6 | kW | Tj = +7 °C | COPd | 4.8 | - |
| Tj = +12 °C | Pdh | 14.6 | kW | Tj = +12 °C | COPd | 5.3 | - |
| Tj = bivalentná teplota | Pdh | 14.9 | kW | Tj = bivalentná teplota | COPd | 2.9 | - |
| Tj = hraničná prevádzková teplota | Pdh | --- | kW | Tj = hraničná prevádzková teplota | COPd | --- | - |
| Bivalentná teplota | Tbiv | -10 | °C | Tj = hraničná prevádzková teplota | TOL | --- | °C |
| Spotreba energie v iných ako aktívnych režimoch | | | | Medzná prevádzková teplota vykurovacej vody | WTOL | 65 | °C |
| Vypnuté | Poff | 0.010 | kW | Prídavný ohrievač | | | |
| Režim vypnutia termostatu | Pto | 0.010 | kW | Menovitý tepelný výkon | Psup | 2.8 | kW |
| Pohotovostný režim | Psb | 0.010 | kW | Typ príkonu energie | elektrická | | |
| Režim ohrevu kľukovej skrine | Pck | 0.000 | kW | | | | |
| Ostatné položky | | | | | | | |
| Regulácia výkonu | pevná | | | Pre tepelné čerpadlá vzduch-voda: Menovitý prietok vzduchu, vonku | - | --- | m ³ /h |
| Úroveň akustického výkonu | | | | | | | |
| v interiéri | Lwa | 45 | dB | Pre tepelné čerpadlá voda-voda alebo soľanka-voda: Menovitý prietok soľanky alebo vody, vonkajší výmenník tepla | - | 3.44 | m ³ /h |
| vonku | Lwa | --- | dB | | | | |
| Ročná spotreba energie | Q _{HE} | 7448.8 | kWh | | | | |

Kontaktné údaje: WAMAK, s.r.o., Orovnica 252, 96652, Orovnica, Slovakia, info@wamak.sk



ENERG Y IIA
 енергия - ενεργεια IE IA



BW 14 EVI



55 °C

35 °C



A+++

A+++



45 dB



--- dB

■ 16
 ■ 15
 ■ 15
 kW

■ 15
 ■ 15
 ■ 14
 kW



2019

811/2013

BW 14 EVI

ErP Data

| | 55 °C | 35 °C |
|---------------------|-------|-------|
| Energy class | A+++ | A+++ |
| η [%] | 164.4 | 211.4 |
| P_{rated} [kW] | 15 | 15 |
| Q_{HE} [kWh/y] | 7449 | 5628 |
| SCOP [-] | 4.11 | 5.29 |
| $T_{bivalent}$ [°C] | -10 | -10 |

CONTROLLER



+ QAA55/75
 - QAA55/75

class VII
 class III

3.5% ↓
 1.5% ↓

Tepelný výkon - prevádzkové dáta

Version: v2024.004-BW-WW

Zdroj - soľanka [0°C] / Nízka teplota [35°C]

ZHI14K1P-TFM_R410A_1_BWW

| Prevádzkový bod | Qh | P | COP |
|-----------------------|------|-----|------|
| 1 B0 / W30-35 | 14.5 | 3.1 | 4.63 |
| 2 B0 / W30-35 (MIN) | 14.5 | 3.1 | 4.63 |
| A B0 / Wxx-34 | 14.4 | 3.0 | 4.74 |
| B B0 / Wxx-30 | 14.4 | 2.7 | 5.24 |
| C B0 / Wxx-27 | 14.3 | 2.5 | 5.65 |
| D B0 / Wxx-24 | 14.3 | 2.3 | 6.09 |
| E B0 / Wxx-35 | 14.5 | 3.1 | 4.63 |
| F B0 / Wxx-35 | 14.5 | 3.1 | 4.63 |

| SCOP DATA EN 14825:2018 | |
|--|--------|
| Zdroj - soľanka [0°C] / Nízka teplota [35°C] | |
| SCOPon | 5.32 |
| SCOPnet | 5.32 |
| SCOP | 5.29 |
| η [%] | 211.45 |
| Label | A+++ |
| Qh [kWh] | 29957 |
| Pdesignh [kW] | 14.5 |
| Tbivalent [°C] | -10 |

Zdroj - soľanka [0°C] / Stredná teplota [55°C]

| Prevádzkový bod | Qh | P | COP |
|-----------------------|------|-----|------|
| 1 B0 / W47-55 | 14.9 | 5.2 | 2.88 |
| 2 B0 / W47-55 (MIN) | 14.9 | 5.0 | 2.88 |
| A B0 / Wxx-52 | 14.9 | 4.7 | 3.29 |
| B B0 / Wxx-42 | 14.9 | 3.5 | 4.25 |
| C B0 / Wxx-36 | 14.6 | 3.1 | 4.75 |
| D B0 / Wxx-30 | 14.6 | 2.7 | 5.31 |
| E B0 / Wxx-55 | 14.9 | 5.2 | 2.88 |
| F B0 / Wxx-54 | 14.9 | 4.8 | 3.12 |

| SCOP DATA EN 14825:2018 | |
|--|--------|
| Zdroj - soľanka [0°C] / Stredná teplota [55°C] | |
| SCOPon | 4.13 |
| SCOPnet | 4.13 |
| SCOP | 4.11 |
| η [%] | 164.43 |
| Label | A+++ |
| Qh [kWh] | 30783 |
| Pdesignh [kW] | 14.9 |
| Tbivalent [°C] | -10 |

Zdroj - voda [10°C] / Nízka teplota [35°C]

| Prevádzkový bod | Qh | P | COP |
|------------------------|------|-----|------|
| 1 W10 / W30-35 | 18.4 | 3.0 | 6.08 |
| 2 W10 / W30-35 (MIN) | 18.4 | 3.0 | 6.08 |
| A W10 / Wxx-34 | 18.4 | 2.9 | 6.25 |
| B W10 / Wxx-30 | 18.5 | 2.6 | 6.99 |
| C W10 / Wxx-27 | 18.5 | 2.4 | 7.60 |
| D W10 / Wxx-24 | 18.5 | 2.2 | 8.26 |
| E W10 / Wxx-35 | 18.4 | 3.0 | 6.08 |
| F W10 / Wxx-35 | 18.4 | 3.0 | 6.08 |

| SCOP DATA EN 14825:2018 | |
|--|--------|
| Zdroj - voda [10°C] / Nízka teplota [35°C] | |
| SCOPon | 7.11 |
| SCOPnet | 7.11 |
| SCOP | 7.06 |
| η [%] | 282.51 |
| Label | A+++ |
| Qh [kWh] | 38014 |
| Pdesignh [kW] | 18.4 |
| Tbivalent [°C] | -10.00 |

Zdroj - voda [10°C] / Stredná teplota [55°C]

| | Prevádzkový bod | Qh | P | COP |
|---|----------------------|------|-----|------|
| 1 | W10 / W47-55 | 18.3 | 5.1 | 3.55 |
| 2 | W10 / W47-55 (MIN) | 18.3 | 5.1 | 3.55 |
| A | W10 / Wxx-52 | 18.5 | 4.6 | 3.99 |
| B | W10 / Wxx-42 | 18.6 | 3.5 | 5.37 |
| C | W10 / Wxx-36 | 18.6 | 3.0 | 6.26 |
| D | W10 / Wxx-30 | 18.7 | 2.6 | 7.09 |
| E | W10 / Wxx-55 | 18.3 | 5.1 | 3.55 |
| F | W10 / Wxx-55 | 18.3 | 5.1 | 3.55 |

| SCOP DATA EN 14825:2018 | |
|--|--------|
| Zdroj - voda [10°C] / Stredná teplota [55°C] | |
| SCOPon | 5.20 |
| SCOPnet | 5.20 |
| SCOP | 5.18 |
| η [%] | 207.03 |
| Label | A+++ |
| Qh [kWh] | 37808 |
| Pdesignh [kW] | 18.3 |
| Tbivalent [°C] | -10.00 |

Nízokteplotné chladenie W 12 / 7°C

| | Prevádzkový bod | Qc | P | EER |
|---|-----------------|------|-----|------|
| A | W30-35 / W12-7 | 11.4 | 3.4 | 3.37 |
| B | W26-xx / W12-7 | 11.6 | 3.0 | 3.81 |
| C | W22-xx / W12-7 | 11.8 | 2.7 | 4.30 |
| D | W18-xx / W12-7 | 11.9 | 2.6 | 4.57 |

| SEER DATA EN 14825:2018 [W 12 / 7°C] | |
|--|--------|
| SEERon | 4.15 |
| SEER | 4.13 |
| Qc [kWh] | 6600 |
| η [%] | 165.35 |

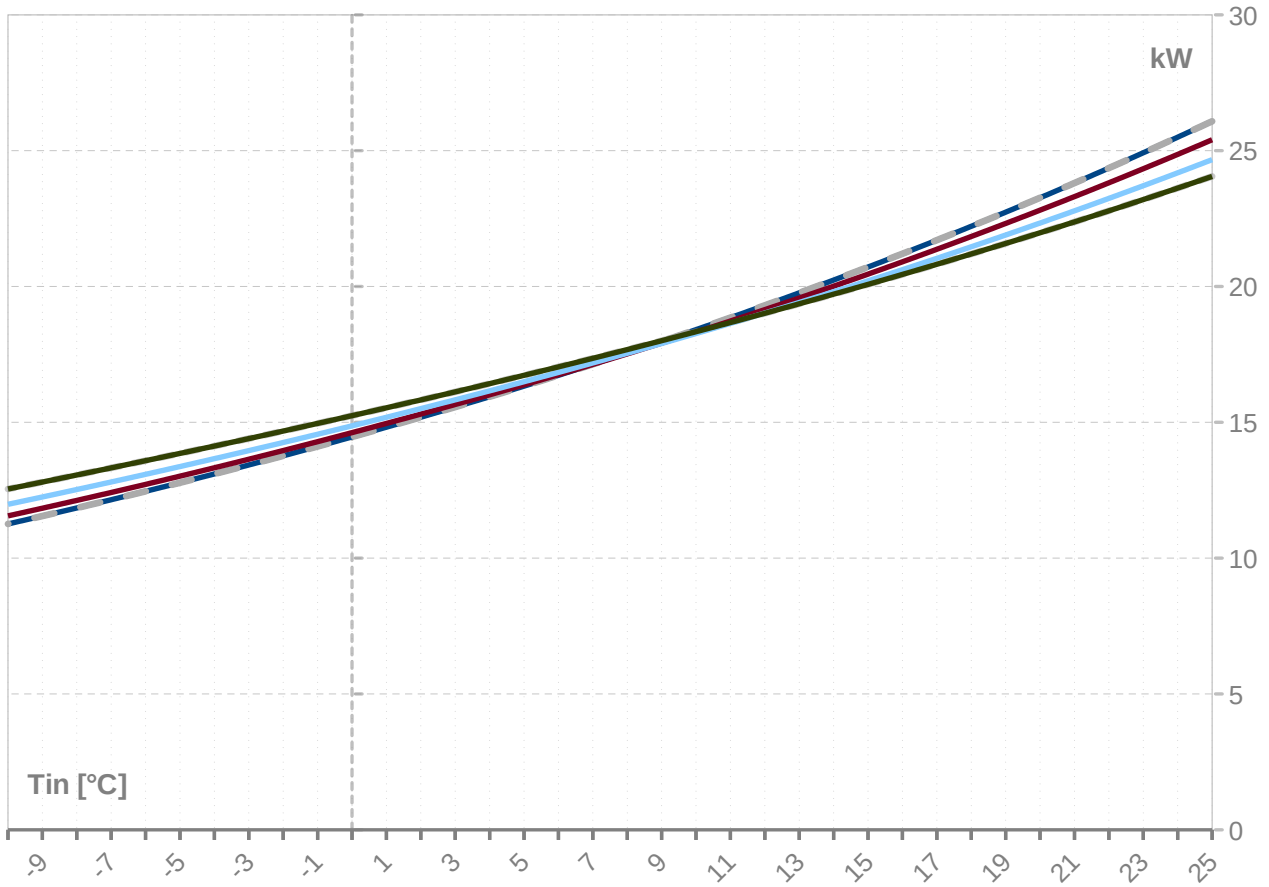
Plošné chladenie W 23 / 18°C

| | Prevádzkový bod | Qc | P | EER |
|---|-----------------|------|-----|------|
| A | W50-xx / W23-18 | 13.1 | 5.6 | 2.36 |
| B | W40-xx / W23-18 | 14.3 | 4.3 | 3.29 |
| C | W30-35 / W23-18 | 15.3 | 3.4 | 4.54 |
| D | W26-xx / W23-18 | 15.7 | 3.0 | 5.14 |

| SEER DATA EN 14825:2018 [W 23 / 18°C] | |
|---|--------|
| SEERon | 5.61 |
| SEER | 5.58 |
| Qc [kWh] | 6600 |
| η [%] | 223.30 |

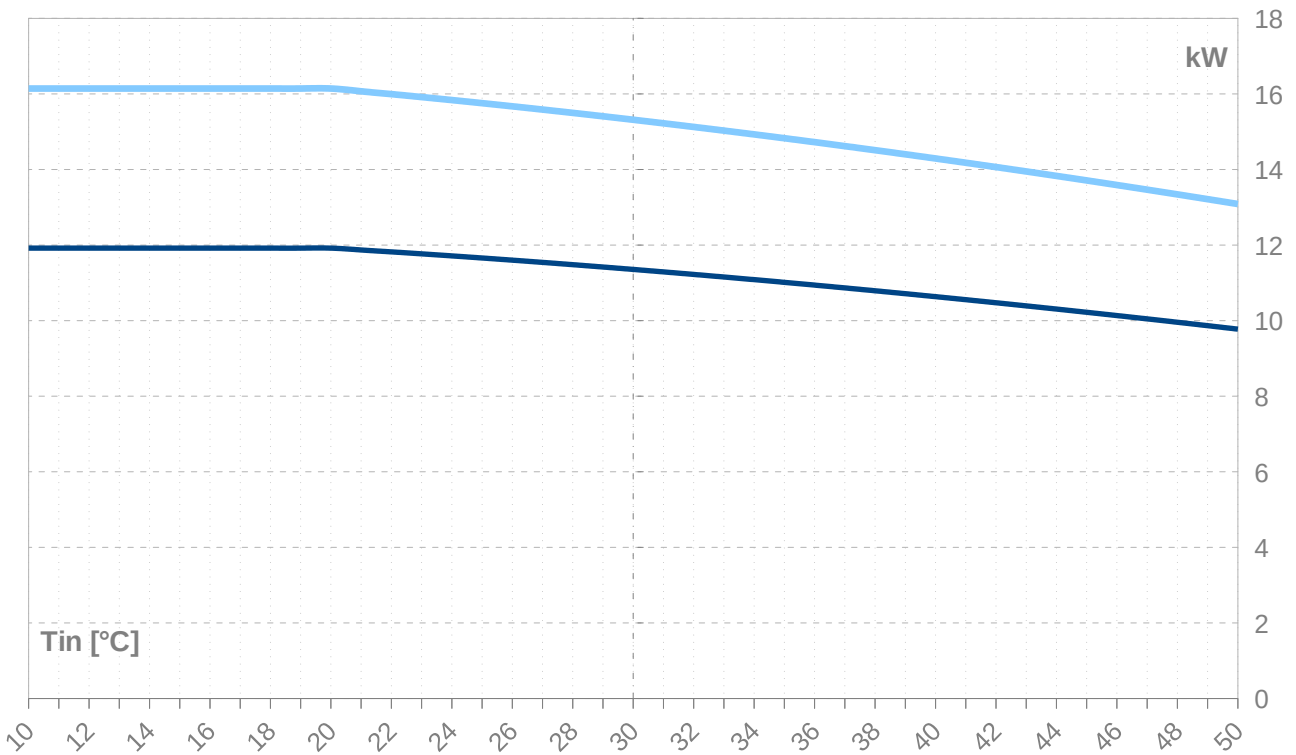
Výkonové kryvky - vykurovanie

— Qh-nom-35
 - - - Qh-min-35
 - - - - - Qh-max-65
 — Qh-nom-45
 — Qh-nom-55
— Qh-nom-65



Výkonové kryvky - chladenie

— Qc-nom-12-7
 — Qc-nom-23-18



| Tv -VY | 35 | | | | | | | | | | |
|-----------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|-----------------|
| [°C] | Qh nom [kW] | Qh min [kW] | Qh max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | COP nom kW / kW | Qc nom [kW] | Qc min [kW] | Qc max [kW] | I nom [A] |
| 25 | 26.1 | 26.1 | 26.1 | 2.8 | 2.8 | 2.8 | 9.28 | 23.5 | 23.5 | 23.5 | 5.3 |
| 24 | 25.5 | 25.5 | 25.5 | 2.8 | 2.8 | 2.8 | 9.02 | 22.9 | 22.9 | 22.9 | 5.3 |
| 23 | 24.9 | 24.9 | 24.9 | 2.8 | 2.8 | 2.8 | 8.77 | 22.3 | 22.3 | 22.3 | 5.3 |
| 22 | 24.4 | 24.4 | 24.4 | 2.9 | 2.9 | 2.9 | 8.53 | 21.7 | 21.7 | 21.7 | 5.3 |
| 21 | 23.8 | 23.8 | 23.8 | 2.9 | 2.9 | 2.9 | 8.29 | 21.1 | 21.1 | 21.1 | 5.4 |
| 20 | 23.3 | 23.3 | 23.3 | 2.9 | 2.9 | 2.9 | 8.06 | 20.6 | 20.6 | 20.6 | 5.4 |
| 19 | 22.7 | 22.7 | 22.7 | 2.9 | 2.9 | 2.9 | 7.84 | 20.0 | 20.0 | 20.0 | 5.4 |
| 18 | 22.2 | 22.2 | 22.2 | 2.9 | 2.9 | 2.9 | 7.62 | 19.5 | 19.5 | 19.5 | 5.4 |
| 17 | 21.7 | 21.7 | 21.7 | 2.9 | 2.9 | 2.9 | 7.41 | 19.0 | 19.0 | 19.0 | 5.4 |
| 16 | 21.2 | 21.2 | 21.2 | 2.9 | 2.9 | 2.9 | 7.20 | 18.5 | 18.5 | 18.5 | 5.4 |
| 15 | 20.7 | 20.7 | 20.7 | 3.0 | 3.0 | 3.0 | 7.00 | 18.0 | 18.0 | 18.0 | 5.5 |
| 14 | 20.2 | 20.2 | 20.2 | 3.0 | 3.0 | 3.0 | 6.81 | 17.5 | 17.5 | 17.5 | 5.5 |
| 13 | 19.8 | 19.8 | 19.8 | 3.0 | 3.0 | 3.0 | 6.62 | 17.0 | 17.0 | 17.0 | 5.5 |
| 12 | 19.3 | 19.3 | 19.3 | 3.0 | 3.0 | 3.0 | 6.43 | 16.5 | 16.5 | 16.5 | 5.5 |
| 11 | 18.9 | 18.9 | 18.9 | 3.0 | 3.0 | 3.0 | 6.26 | 16.0 | 16.0 | 16.0 | 5.5 |
| 10 | 18.4 | 18.4 | 18.4 | 3.0 | 3.0 | 3.0 | 6.08 | 15.6 | 15.6 | 15.6 | 5.5 |
| 9 | 18.0 | 18.0 | 18.0 | 3.0 | 3.0 | 3.0 | 5.92 | 15.1 | 15.1 | 15.1 | 5.6 |
| 8 | 17.6 | 17.6 | 17.6 | 3.1 | 3.1 | 3.1 | 5.75 | 14.7 | 14.7 | 14.7 | 5.6 |
| 7 | 17.1 | 17.1 | 17.1 | 3.1 | 3.1 | 3.1 | 5.60 | 14.3 | 14.3 | 14.3 | 5.6 |
| 6 | 16.7 | 16.7 | 16.7 | 3.1 | 3.1 | 3.1 | 5.44 | 13.9 | 13.9 | 13.9 | 5.6 |
| 5 | 16.3 | 16.3 | 16.3 | 3.1 | 3.1 | 3.1 | 5.30 | 13.5 | 13.5 | 13.5 | 5.6 |
| 4 | 15.9 | 15.9 | 15.9 | 3.1 | 3.1 | 3.1 | 5.15 | 13.1 | 13.1 | 13.1 | 5.6 |
| 3 | 15.6 | 15.6 | 15.6 | 3.1 | 3.1 | 3.1 | 5.02 | 12.7 | 12.7 | 12.7 | 5.6 |
| 2 | 15.2 | 15.2 | 15.2 | 3.1 | 3.1 | 3.1 | 4.88 | 12.3 | 12.3 | 12.3 | 5.6 |
| 1 | 14.8 | 14.8 | 14.8 | 3.1 | 3.1 | 3.1 | 4.75 | 11.9 | 11.9 | 11.9 | 5.7 |
| 0 | 14.5 | 14.5 | 14.5 | 3.1 | 3.1 | 3.1 | 4.63 | 11.5 | 11.5 | 11.5 | 5.7 |
| -1 | 14.1 | 14.1 | 14.1 | 3.1 | 3.1 | 3.1 | 4.51 | 11.2 | 11.2 | 11.2 | 5.7 |
| -2 | 13.8 | 13.8 | 13.8 | 3.1 | 3.1 | 3.1 | 4.39 | 10.8 | 10.8 | 10.8 | 5.7 |
| -3 | 13.4 | 13.4 | 13.4 | 3.1 | 3.1 | 3.1 | 4.27 | 10.5 | 10.5 | 10.5 | 5.7 |
| -4 | 13.1 | 13.1 | 13.1 | 3.1 | 3.1 | 3.1 | 4.16 | 10.2 | 10.2 | 10.2 | 5.7 |
| -5 | 12.8 | 12.8 | 12.8 | 3.1 | 3.1 | 3.1 | 4.06 | 9.8 | 9.8 | 9.8 | 5.7 |
| -6 | 12.5 | 12.5 | 12.5 | 3.1 | 3.1 | 3.1 | 3.96 | 9.5 | 9.5 | 9.5 | 5.7 |
| -7 | 12.1 | 12.1 | 12.1 | 3.1 | 3.1 | 3.1 | 3.86 | 9.2 | 9.2 | 9.2 | 5.7 |
| -8 | 11.8 | 11.8 | 11.8 | 3.1 | 3.1 | 3.1 | 3.76 | 8.9 | 8.9 | 8.9 | 5.7 |
| -9 | 11.5 | 11.5 | 11.5 | 3.1 | 3.1 | 3.1 | 3.67 | 8.6 | 8.6 | 8.6 | 5.7 |
| -10 | 11.3 | 11.3 | 11.3 | 3.1 | 3.1 | 3.1 | 3.58 | 8.3 | 8.3 | 8.3 | 5.7 |
| -11 | 11.0 | 11.0 | 11.0 | 3.1 | 3.1 | 3.1 | 3.49 | 8.0 | 8.0 | 8.0 | 5.7 |
| -12 | 10.7 | 10.7 | 10.7 | 3.1 | 3.1 | 3.1 | 3.41 | 7.8 | 7.8 | 7.8 | 5.7 |
| -13 | 10.4 | 10.4 | 10.4 | 3.1 | 3.1 | 3.1 | 3.33 | 7.5 | 7.5 | 7.5 | 5.7 |
| -14 | 10.2 | 10.2 | 10.2 | 3.1 | 3.1 | 3.1 | 3.25 | 7.2 | 7.2 | 7.2 | 5.7 |
| -15 | 9.9 | 9.9 | 9.9 | 3.1 | 3.1 | 3.1 | 3.18 | 7.0 | 7.0 | 7.0 | 5.7 |

-- pozor: pracovný rozsah nie je zohľadnený v tabuľke

ZHI14K1P-TFM_R410A_1_BWW

| Tv -VY | 45 | | | | | | | | | | |
|-----------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|-----------------|
| [°C] | Qh nom [kW] | Qh min [kW] | Qh max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | COP nom kW / kW | Qc nom [kW] | Qc min [kW] | Qc max [kW] | I nom [A] |
| 25 | 25.4 | 25.4 | 25.4 | 3.7 | 3.7 | 3.7 | 6.91 | 22.0 | 22.0 | 22.0 | 6.3 |
| 24 | 24.9 | 24.9 | 24.9 | 3.7 | 3.7 | 3.7 | 6.73 | 21.4 | 21.4 | 21.4 | 6.3 |
| 23 | 24.3 | 24.3 | 24.3 | 3.7 | 3.7 | 3.7 | 6.56 | 20.9 | 20.9 | 20.9 | 6.4 |
| 22 | 23.8 | 23.8 | 23.8 | 3.7 | 3.7 | 3.7 | 6.39 | 20.3 | 20.3 | 20.3 | 6.4 |
| 21 | 23.3 | 23.3 | 23.3 | 3.7 | 3.7 | 3.7 | 6.22 | 19.8 | 19.8 | 19.8 | 6.4 |
| 20 | 22.8 | 22.8 | 22.8 | 3.8 | 3.8 | 3.8 | 6.06 | 19.3 | 19.3 | 19.3 | 6.4 |
| 19 | 22.3 | 22.3 | 22.3 | 3.8 | 3.8 | 3.8 | 5.91 | 18.8 | 18.8 | 18.8 | 6.4 |
| 18 | 21.8 | 21.8 | 21.8 | 3.8 | 3.8 | 3.8 | 5.75 | 18.3 | 18.3 | 18.3 | 6.5 |
| 17 | 21.4 | 21.4 | 21.4 | 3.8 | 3.8 | 3.8 | 5.61 | 17.8 | 17.8 | 17.8 | 6.5 |
| 16 | 20.9 | 20.9 | 20.9 | 3.8 | 3.8 | 3.8 | 5.46 | 17.3 | 17.3 | 17.3 | 6.5 |
| 15 | 20.5 | 20.5 | 20.5 | 3.8 | 3.8 | 3.8 | 5.33 | 16.9 | 16.9 | 16.9 | 6.5 |
| 14 | 20.0 | 20.0 | 20.0 | 3.9 | 3.9 | 3.9 | 5.19 | 16.4 | 16.4 | 16.4 | 6.5 |
| 13 | 19.6 | 19.6 | 19.6 | 3.9 | 3.9 | 3.9 | 5.06 | 16.0 | 16.0 | 16.0 | 6.6 |
| 12 | 19.1 | 19.1 | 19.1 | 3.9 | 3.9 | 3.9 | 4.93 | 15.5 | 15.5 | 15.5 | 6.6 |
| 11 | 18.7 | 18.7 | 18.7 | 3.9 | 3.9 | 3.9 | 4.81 | 15.1 | 15.1 | 15.1 | 6.6 |
| 10 | 18.3 | 18.3 | 18.3 | 3.9 | 3.9 | 3.9 | 4.69 | 14.7 | 14.7 | 14.7 | 6.6 |
| 9 | 17.9 | 17.9 | 17.9 | 3.9 | 3.9 | 3.9 | 4.57 | 14.3 | 14.3 | 14.3 | 6.6 |
| 8 | 17.5 | 17.5 | 17.5 | 3.9 | 3.9 | 3.9 | 4.46 | 13.9 | 13.9 | 13.9 | 6.6 |
| 7 | 17.1 | 17.1 | 17.1 | 3.9 | 3.9 | 3.9 | 4.35 | 13.5 | 13.5 | 13.5 | 6.6 |
| 6 | 16.8 | 16.8 | 16.8 | 3.9 | 3.9 | 3.9 | 4.25 | 13.1 | 13.1 | 13.1 | 6.7 |
| 5 | 16.4 | 16.4 | 16.4 | 4.0 | 4.0 | 4.0 | 4.14 | 12.7 | 12.7 | 12.7 | 6.7 |
| 4 | 16.0 | 16.0 | 16.0 | 4.0 | 4.0 | 4.0 | 4.04 | 12.3 | 12.3 | 12.3 | 6.7 |
| 3 | 15.7 | 15.7 | 15.7 | 4.0 | 4.0 | 4.0 | 3.95 | 12.0 | 12.0 | 12.0 | 6.7 |
| 2 | 15.3 | 15.3 | 15.3 | 4.0 | 4.0 | 4.0 | 3.85 | 11.6 | 11.6 | 11.6 | 6.7 |
| 1 | 15.0 | 15.0 | 15.0 | 4.0 | 4.0 | 4.0 | 3.76 | 11.2 | 11.2 | 11.2 | 6.7 |
| 0 | 14.6 | 14.6 | 14.6 | 4.0 | 4.0 | 4.0 | 3.67 | 10.9 | 10.9 | 10.9 | 6.7 |
| -1 | 14.3 | 14.3 | 14.3 | 4.0 | 4.0 | 4.0 | 3.59 | 10.6 | 10.6 | 10.6 | 6.7 |
| -2 | 14.0 | 14.0 | 14.0 | 4.0 | 4.0 | 4.0 | 3.51 | 10.2 | 10.2 | 10.2 | 6.7 |
| -3 | 13.6 | 13.6 | 13.6 | 4.0 | 4.0 | 4.0 | 3.43 | 9.9 | 9.9 | 9.9 | 6.7 |
| -4 | 13.3 | 13.3 | 13.3 | 4.0 | 4.0 | 4.0 | 3.35 | 9.6 | 9.6 | 9.6 | 6.7 |
| -5 | 13.0 | 13.0 | 13.0 | 4.0 | 4.0 | 4.0 | 3.27 | 9.3 | 9.3 | 9.3 | 6.7 |
| -6 | 12.7 | 12.7 | 12.7 | 4.0 | 4.0 | 4.0 | 3.20 | 9.0 | 9.0 | 9.0 | 6.7 |
| -7 | 12.4 | 12.4 | 12.4 | 4.0 | 4.0 | 4.0 | 3.13 | 8.7 | 8.7 | 8.7 | 6.7 |
| -8 | 12.1 | 12.1 | 12.1 | 4.0 | 4.0 | 4.0 | 3.06 | 8.4 | 8.4 | 8.4 | 6.7 |
| -9 | 11.8 | 11.8 | 11.8 | 4.0 | 4.0 | 4.0 | 2.99 | 8.1 | 8.1 | 8.1 | 6.7 |
| -10 | 11.6 | 11.6 | 11.6 | 3.9 | 3.9 | 3.9 | 2.93 | 7.9 | 7.9 | 7.9 | 6.7 |
| -11 | 11.3 | 11.3 | 11.3 | 3.9 | 3.9 | 3.9 | 2.87 | 7.6 | 7.6 | 7.6 | 6.6 |
| -12 | 11.0 | 11.0 | 11.0 | 3.9 | 3.9 | 3.9 | 2.81 | 7.3 | 7.3 | 7.3 | 6.6 |
| -13 | 10.7 | 10.7 | 10.7 | 3.9 | 3.9 | 3.9 | 2.75 | 7.1 | 7.1 | 7.1 | 6.6 |
| -14 | 10.5 | 10.5 | 10.5 | 3.9 | 3.9 | 3.9 | 2.69 | 6.8 | 6.8 | 6.8 | 6.6 |
| -15 | 10.2 | 10.2 | 10.2 | 3.9 | 3.9 | 3.9 | 2.64 | 6.6 | 6.6 | 6.6 | 6.6 |

-- pozor: pracovný rozsah nie je zohľadnený v tabuľke

| Tv -VY | | 55 | | | | | | | | | | |
|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|-----------------|--|
| Tz -VS [°C] | Qh nom [kW] | Qh min [kW] | Qh max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | COP nom kW / kW | Qc nom [kW] | Qc min [kW] | Qc max [kW] | I nom [A] | |
| 25 | 24.7 | 24.7 | 24.7 | 4.9 | 4.9 | 4.9 | 5.00 | 20.1 | 20.1 | 20.1 | 7.9 | |
| 24 | 24.2 | 24.2 | 24.2 | 5.0 | 5.0 | 5.0 | 4.88 | 19.6 | 19.6 | 19.6 | 8.0 | |
| 23 | 23.7 | 23.7 | 23.7 | 5.0 | 5.0 | 5.0 | 4.77 | 19.1 | 19.1 | 19.1 | 8.0 | |
| 22 | 23.2 | 23.2 | 23.2 | 5.0 | 5.0 | 5.0 | 4.66 | 18.6 | 18.6 | 18.6 | 8.0 | |
| 21 | 22.8 | 22.8 | 22.8 | 5.0 | 5.0 | 5.0 | 4.55 | 18.1 | 18.1 | 18.1 | 8.0 | |
| 20 | 22.3 | 22.3 | 22.3 | 5.0 | 5.0 | 5.0 | 4.45 | 17.6 | 17.6 | 17.6 | 8.1 | |
| 19 | 21.9 | 21.9 | 21.9 | 5.0 | 5.0 | 5.0 | 4.35 | 17.2 | 17.2 | 17.2 | 8.1 | |
| 18 | 21.5 | 21.5 | 21.5 | 5.1 | 5.1 | 5.1 | 4.25 | 16.7 | 16.7 | 16.7 | 8.1 | |
| 17 | 21.0 | 21.0 | 21.0 | 5.1 | 5.1 | 5.1 | 4.15 | 16.3 | 16.3 | 16.3 | 8.1 | |
| 16 | 20.6 | 20.6 | 20.6 | 5.1 | 5.1 | 5.1 | 4.06 | 15.9 | 15.9 | 15.9 | 8.1 | |
| 15 | 20.2 | 20.2 | 20.2 | 5.1 | 5.1 | 5.1 | 3.97 | 15.5 | 15.5 | 15.5 | 8.2 | |
| 14 | 19.8 | 19.8 | 19.8 | 5.1 | 5.1 | 5.1 | 3.88 | 15.0 | 15.0 | 15.0 | 8.2 | |
| 13 | 19.4 | 19.4 | 19.4 | 5.1 | 5.1 | 5.1 | 3.79 | 14.6 | 14.6 | 14.6 | 8.2 | |
| 12 | 19.0 | 19.0 | 19.0 | 5.1 | 5.1 | 5.1 | 3.71 | 14.2 | 14.2 | 14.2 | 8.2 | |
| 11 | 18.6 | 18.6 | 18.6 | 5.1 | 5.1 | 5.1 | 3.63 | 13.8 | 13.8 | 13.8 | 8.2 | |
| 10 | 18.3 | 18.3 | 18.3 | 5.1 | 5.1 | 5.1 | 3.55 | 13.5 | 13.5 | 13.5 | 8.2 | |
| 9 | 17.9 | 17.9 | 17.9 | 5.2 | 5.2 | 5.2 | 3.48 | 13.1 | 13.1 | 13.1 | 8.2 | |
| 8 | 17.5 | 17.5 | 17.5 | 5.2 | 5.2 | 5.2 | 3.40 | 12.7 | 12.7 | 12.7 | 8.2 | |
| 7 | 17.2 | 17.2 | 17.2 | 5.2 | 5.2 | 5.2 | 3.33 | 12.4 | 12.4 | 12.4 | 8.3 | |
| 6 | 16.8 | 16.8 | 16.8 | 5.2 | 5.2 | 5.2 | 3.26 | 12.0 | 12.0 | 12.0 | 8.3 | |
| 5 | 16.5 | 16.5 | 16.5 | 5.2 | 5.2 | 5.2 | 3.19 | 11.7 | 11.7 | 11.7 | 8.3 | |
| 4 | 16.2 | 16.2 | 16.2 | 5.2 | 5.2 | 5.2 | 3.13 | 11.3 | 11.3 | 11.3 | 8.3 | |
| 3 | 15.8 | 15.8 | 15.8 | 5.2 | 5.2 | 5.2 | 3.06 | 11.0 | 11.0 | 11.0 | 8.3 | |
| 2 | 15.5 | 15.5 | 15.5 | 5.2 | 5.2 | 5.2 | 3.00 | 10.7 | 10.7 | 10.7 | 8.3 | |
| 1 | 15.2 | 15.2 | 15.2 | 5.2 | 5.2 | 5.2 | 2.94 | 10.4 | 10.4 | 10.4 | 8.3 | |
| 0 | 14.9 | 14.9 | 14.9 | 5.2 | 5.2 | 5.2 | 2.88 | 10.0 | 10.0 | 10.0 | 8.3 | |
| -1 | 14.6 | 14.6 | 14.6 | 5.2 | 5.2 | 5.2 | 2.82 | 9.7 | 9.7 | 9.7 | 8.3 | |
| -2 | 14.3 | 14.3 | 14.3 | 5.2 | 5.2 | 5.2 | 2.77 | 9.4 | 9.4 | 9.4 | 8.2 | |
| -3 | 14.0 | 14.0 | 14.0 | 5.1 | 5.1 | 5.1 | 2.71 | 9.2 | 9.2 | 9.2 | 8.2 | |
| -4 | 13.7 | 13.7 | 13.7 | 5.1 | 5.1 | 5.1 | 2.66 | 8.9 | 8.9 | 8.9 | 8.2 | |
| -5 | 13.4 | 13.4 | 13.4 | 5.1 | 5.1 | 5.1 | 2.61 | 8.6 | 8.6 | 8.6 | 8.2 | |
| -6 | 13.1 | 13.1 | 13.1 | 5.1 | 5.1 | 5.1 | 2.56 | 8.3 | 8.3 | 8.3 | 8.2 | |
| -7 | 12.8 | 12.8 | 12.8 | 5.1 | 5.1 | 5.1 | 2.51 | 8.0 | 8.0 | 8.0 | 8.2 | |
| -8 | 12.5 | 12.5 | 12.5 | 5.1 | 5.1 | 5.1 | 2.46 | 7.8 | 7.8 | 7.8 | 8.2 | |
| -9 | 12.2 | 12.2 | 12.2 | 5.1 | 5.1 | 5.1 | 2.42 | 7.5 | 7.5 | 7.5 | 8.1 | |
| -10 | 12.0 | 12.0 | 12.0 | 5.0 | 5.0 | 5.0 | 2.37 | 7.3 | 7.3 | 7.3 | 8.1 | |
| -11 | 11.7 | 11.7 | 11.7 | 5.0 | 5.0 | 5.0 | 2.33 | 7.0 | 7.0 | 7.0 | 8.1 | |
| -12 | 11.4 | 11.4 | 11.4 | 5.0 | 5.0 | 5.0 | 2.29 | 6.8 | 6.8 | 6.8 | 8.0 | |
| -13 | 11.2 | 11.2 | 11.2 | 5.0 | 5.0 | 5.0 | 2.25 | 6.5 | 6.5 | 6.5 | 8.0 | |
| -14 | 10.9 | 10.9 | 10.9 | 4.9 | 4.9 | 4.9 | 2.21 | 6.3 | 6.3 | 6.3 | 8.0 | |
| -15 | 10.7 | 10.7 | 10.7 | 4.9 | 4.9 | 4.9 | 2.17 | 6.1 | 6.1 | 6.1 | 7.9 | |

-- pozor: pracovný rozsah nie je zohľadnený v tabuľke

| Tv -VY | 65 (T-max) | | | | | | | | | | |
|-----------|-------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-----------------------|-------------------|-------------------|-------------------|
| | [°C] | Qh nom [kW] | Qh min [kW] | Qh max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | COP nom kW / kW | Qc nom [kW] | Qc min [kW] | Qc max [kW] |
| 25 | 24.1 | 24.1 | 24.1 | 6.5 | 6.5 | 6.5 | 3.72 | 18.0 | 18.0 | 18.0 | 10.1 |
| 24 | 23.6 | 23.6 | 23.6 | 6.5 | 6.5 | 6.5 | 3.64 | 17.6 | 17.6 | 17.6 | 10.1 |
| 23 | 23.2 | 23.2 | 23.2 | 6.5 | 6.5 | 6.5 | 3.57 | 17.1 | 17.1 | 17.1 | 10.1 |
| 22 | 22.8 | 22.8 | 22.8 | 6.5 | 6.5 | 6.5 | 3.49 | 16.7 | 16.7 | 16.7 | 10.1 |
| 21 | 22.4 | 22.4 | 22.4 | 6.5 | 6.5 | 6.5 | 3.42 | 16.3 | 16.3 | 16.3 | 10.2 |
| 20 | 22.0 | 22.0 | 22.0 | 6.5 | 6.5 | 6.5 | 3.36 | 15.9 | 15.9 | 15.9 | 10.2 |
| 19 | 21.6 | 21.6 | 21.6 | 6.6 | 6.6 | 6.6 | 3.29 | 15.5 | 15.5 | 15.5 | 10.2 |
| 18 | 21.2 | 21.2 | 21.2 | 6.6 | 6.6 | 6.6 | 3.22 | 15.1 | 15.1 | 15.1 | 10.2 |
| 17 | 20.8 | 20.8 | 20.8 | 6.6 | 6.6 | 6.6 | 3.16 | 14.7 | 14.7 | 14.7 | 10.2 |
| 16 | 20.4 | 20.4 | 20.4 | 6.6 | 6.6 | 6.6 | 3.10 | 14.3 | 14.3 | 14.3 | 10.2 |
| 15 | 20.1 | 20.1 | 20.1 | 6.6 | 6.6 | 6.6 | 3.04 | 13.9 | 13.9 | 13.9 | 10.3 |
| 14 | 19.7 | 19.7 | 19.7 | 6.6 | 6.6 | 6.6 | 2.98 | 13.5 | 13.5 | 13.5 | 10.3 |
| 13 | 19.4 | 19.4 | 19.4 | 6.6 | 6.6 | 6.6 | 2.93 | 13.2 | 13.2 | 13.2 | 10.3 |
| 12 | 19.0 | 19.0 | 19.0 | 6.6 | 6.6 | 6.6 | 2.87 | 12.8 | 12.8 | 12.8 | 10.3 |
| 11 | 18.7 | 18.7 | 18.7 | 6.6 | 6.6 | 6.6 | 2.82 | 12.5 | 12.5 | 12.5 | 10.3 |
| 10 | 18.3 | 18.3 | 18.3 | 6.6 | 6.6 | 6.6 | 2.77 | 12.1 | 12.1 | 12.1 | 10.3 |
| 9 | 18.0 | 18.0 | 18.0 | 6.6 | 6.6 | 6.6 | 2.72 | 11.8 | 11.8 | 11.8 | 10.3 |
| 8 | 17.7 | 17.7 | 17.7 | 6.6 | 6.6 | 6.6 | 2.67 | 11.5 | 11.5 | 11.5 | 10.3 |
| 7 | 17.4 | 17.4 | 17.4 | 6.6 | 6.6 | 6.6 | 2.62 | 11.2 | 11.2 | 11.2 | 10.3 |
| 6 | 17.0 | 17.0 | 17.0 | 6.6 | 6.6 | 6.6 | 2.57 | 10.9 | 10.9 | 10.9 | 10.3 |
| 5 | 16.7 | 16.7 | 16.7 | 6.6 | 6.6 | 6.6 | 2.53 | 10.5 | 10.5 | 10.5 | 10.3 |
| 4 | 16.4 | 16.4 | 16.4 | 6.6 | 6.6 | 6.6 | 2.48 | 10.2 | 10.2 | 10.2 | 10.3 |
| 3 | 16.1 | 16.1 | 16.1 | 6.6 | 6.6 | 6.6 | 2.44 | 10.0 | 10.0 | 10.0 | 10.3 |
| 2 | 15.8 | 15.8 | 15.8 | 6.6 | 6.6 | 6.6 | 2.40 | 9.7 | 9.7 | 9.7 | 10.3 |
| 1 | 15.5 | 15.5 | 15.5 | 6.6 | 6.6 | 6.6 | 2.36 | 9.4 | 9.4 | 9.4 | 10.2 |
| 0 | 15.2 | 15.2 | 15.2 | 6.6 | 6.6 | 6.6 | 2.32 | 9.1 | 9.1 | 9.1 | 10.2 |
| -1 | 15.0 | 15.0 | 15.0 | 6.6 | 6.6 | 6.6 | 2.28 | 8.8 | 8.8 | 8.8 | 10.2 |
| -2 | 14.7 | 14.7 | 14.7 | 6.5 | 6.5 | 6.5 | 2.24 | 8.6 | 8.6 | 8.6 | 10.2 |
| -3 | 14.4 | 14.4 | 14.4 | 6.5 | 6.5 | 6.5 | 2.20 | 8.3 | 8.3 | 8.3 | 10.2 |
| -4 | 14.1 | 14.1 | 14.1 | 6.5 | 6.5 | 6.5 | 2.17 | 8.0 | 8.0 | 8.0 | 10.1 |
| -5 | 13.9 | 13.9 | 13.9 | 6.5 | 6.5 | 6.5 | 2.13 | 7.8 | 7.8 | 7.8 | 10.1 |
| -6 | 13.6 | 13.6 | 13.6 | 6.5 | 6.5 | 6.5 | 2.10 | 7.5 | 7.5 | 7.5 | 10.1 |
| -7 | 13.3 | 13.3 | 13.3 | 6.4 | 6.4 | 6.4 | 2.07 | 7.3 | 7.3 | 7.3 | 10.0 |
| -8 | 13.1 | 13.1 | 13.1 | 6.4 | 6.4 | 6.4 | 2.04 | 7.1 | 7.1 | 7.1 | 10.0 |
| -9 | 12.8 | 12.8 | 12.8 | 6.4 | 6.4 | 6.4 | 2.00 | 6.8 | 6.8 | 6.8 | 10.0 |
| -10 | 12.5 | 12.5 | 12.5 | 6.4 | 6.4 | 6.4 | 1.97 | 6.6 | 6.6 | 6.6 | 9.9 |
| -11 | 12.3 | 12.3 | 12.3 | 6.3 | 6.3 | 6.3 | 1.94 | 6.4 | 6.4 | 6.4 | 9.9 |
| -12 | 12.0 | 12.0 | 12.0 | 6.3 | 6.3 | 6.3 | 1.91 | 6.2 | 6.2 | 6.2 | 9.8 |
| -13 | 11.8 | 11.8 | 11.8 | 6.3 | 6.3 | 6.3 | 1.89 | 5.9 | 5.9 | 5.9 | 9.8 |
| -14 | 11.5 | 11.5 | 11.5 | 6.2 | 6.2 | 6.2 | 1.86 | 5.7 | 5.7 | 5.7 | 9.7 |
| -15 | 11.3 | 11.3 | 11.3 | 6.2 | 6.2 | 6.2 | 1.83 | 5.5 | 5.5 | 5.5 | 9.7 |

-- pozor: pracovný rozsah nie je zohľadnený v tabuľke

| Tch -VY | | W 12 / 7 °C | | | | | | | | | |
|------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|----------------|-------------------|-------------------|-------------------|-----------------|
| [°C] | Qc nom [kW] | Qc min [kW] | Qc max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | EER kW / kW | Qh nom [kW] | Qh min [kW] | Qh max [kW] | I nom [A] |
| 40 | 10.6 | 10.6 | 10.6 | 4.3 | 4.3 | 4.3 | 2.45 | 14.7 | 14.7 | 14.7 | 7.2 |
| 39 | 10.7 | 10.7 | 10.7 | 4.2 | 4.2 | 4.2 | 2.53 | 14.7 | 14.7 | 14.7 | 7.0 |
| 38 | 10.8 | 10.8 | 10.8 | 4.1 | 4.1 | 4.1 | 2.61 | 14.6 | 14.6 | 14.6 | 6.9 |
| 37 | 10.9 | 10.9 | 10.9 | 4.0 | 4.0 | 4.0 | 2.70 | 14.6 | 14.6 | 14.6 | 6.8 |
| 36 | 10.9 | 10.9 | 10.9 | 3.9 | 3.9 | 3.9 | 2.79 | 14.6 | 14.6 | 14.6 | 6.6 |
| 35 | 11.0 | 11.0 | 11.0 | 3.8 | 3.8 | 3.8 | 2.88 | 14.6 | 14.6 | 14.6 | 6.5 |
| 34 | 11.1 | 11.1 | 11.1 | 3.7 | 3.7 | 3.7 | 2.97 | 14.6 | 14.6 | 14.6 | 6.4 |
| 33 | 11.2 | 11.2 | 11.2 | 3.6 | 3.6 | 3.6 | 3.06 | 14.6 | 14.6 | 14.6 | 6.3 |
| 32 | 11.2 | 11.2 | 11.2 | 3.6 | 3.6 | 3.6 | 3.16 | 14.5 | 14.5 | 14.5 | 6.2 |
| 31 | 11.3 | 11.3 | 11.3 | 3.5 | 3.5 | 3.5 | 3.26 | 14.5 | 14.5 | 14.5 | 6.1 |
| 30 | 11.4 | 11.4 | 11.4 | 3.4 | 3.4 | 3.4 | 3.37 | 14.5 | 14.5 | 14.5 | 6.0 |
| 29 | 11.4 | 11.4 | 11.4 | 3.3 | 3.3 | 3.3 | 3.47 | 14.5 | 14.5 | 14.5 | 5.9 |
| 28 | 11.5 | 11.5 | 11.5 | 3.2 | 3.2 | 3.2 | 3.58 | 14.5 | 14.5 | 14.5 | 5.8 |
| 27 | 11.5 | 11.5 | 11.5 | 3.1 | 3.1 | 3.1 | 3.69 | 14.5 | 14.5 | 14.5 | 5.7 |
| 26 | 11.6 | 11.6 | 11.6 | 3.0 | 3.0 | 3.0 | 3.81 | 14.4 | 14.4 | 14.4 | 5.6 |
| 25 | 11.7 | 11.7 | 11.7 | 3.0 | 3.0 | 3.0 | 3.93 | 14.4 | 14.4 | 14.4 | 5.5 |
| 24 | 11.7 | 11.7 | 11.7 | 2.9 | 2.9 | 2.9 | 4.05 | 14.4 | 14.4 | 14.4 | 5.4 |
| 23 | 11.8 | 11.8 | 11.8 | 2.8 | 2.8 | 2.8 | 4.17 | 14.4 | 14.4 | 14.4 | 5.3 |
| 22 | 11.8 | 11.8 | 11.8 | 2.7 | 2.7 | 2.7 | 4.30 | 14.4 | 14.4 | 14.4 | 5.2 |
| 21 | 11.9 | 11.9 | 11.9 | 2.7 | 2.7 | 2.7 | 4.44 | 14.4 | 14.4 | 14.4 | 5.1 |
| 20 | 11.9 | 11.9 | 11.9 | 2.6 | 2.6 | 2.6 | 4.57 | 14.4 | 14.4 | 14.4 | 5.1 |

| Tc [°C] | | W 23 / 18 °C | | | | | | | | | |
|---------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|----------------|-------------------|-------------------|-------------------|-----------------|
| [°C] | Qc nom [kW] | Qc min [kW] | Qc max [kW] | Pin nom [kW] | Pin min [kW] | Pin max [kW] | EER kW / kW | Qh nom [kW] | Qh min [kW] | Qh max [kW] | I nom [A] |
| 40 | 14.3 | 14.3 | 14.3 | 4.3 | 4.3 | 4.3 | 3.29 | 18.3 | 18.3 | 18.3 | 7.1 |
| 39 | 14.4 | 14.4 | 14.4 | 4.2 | 4.2 | 4.2 | 3.40 | 18.3 | 18.3 | 18.3 | 6.9 |
| 38 | 14.5 | 14.5 | 14.5 | 4.1 | 4.1 | 4.1 | 3.51 | 18.3 | 18.3 | 18.3 | 6.8 |
| 37 | 14.6 | 14.6 | 14.6 | 4.0 | 4.0 | 4.0 | 3.63 | 18.3 | 18.3 | 18.3 | 6.7 |
| 36 | 14.7 | 14.7 | 14.7 | 3.9 | 3.9 | 3.9 | 3.75 | 18.3 | 18.3 | 18.3 | 6.5 |
| 35 | 14.8 | 14.8 | 14.8 | 3.8 | 3.8 | 3.8 | 3.87 | 18.3 | 18.3 | 18.3 | 6.4 |
| 34 | 14.9 | 14.9 | 14.9 | 3.7 | 3.7 | 3.7 | 4.00 | 18.3 | 18.3 | 18.3 | 6.3 |
| 33 | 15.0 | 15.0 | 15.0 | 3.6 | 3.6 | 3.6 | 4.13 | 18.3 | 18.3 | 18.3 | 6.2 |
| 32 | 15.1 | 15.1 | 15.1 | 3.6 | 3.6 | 3.6 | 4.26 | 18.4 | 18.4 | 18.3 | 6.1 |
| 31 | 15.2 | 15.2 | 15.2 | 3.5 | 3.5 | 3.5 | 4.40 | 18.4 | 18.4 | 18.3 | 5.9 |
| 30 | 15.3 | 15.3 | 15.3 | 3.4 | 3.4 | 3.4 | 4.54 | 18.4 | 18.4 | 18.3 | 5.8 |
| 29 | 15.4 | 15.4 | 15.4 | 3.3 | 3.3 | 3.3 | 4.68 | 18.4 | 18.4 | 18.3 | 5.7 |
| 28 | 15.5 | 15.5 | 15.5 | 3.2 | 3.2 | 3.2 | 4.83 | 18.4 | 18.4 | 18.3 | 5.6 |
| 27 | 15.6 | 15.6 | 15.6 | 3.1 | 3.1 | 3.1 | 4.99 | 18.4 | 18.4 | 18.3 | 5.5 |
| 26 | 15.7 | 15.7 | 15.7 | 3.0 | 3.0 | 3.0 | 5.14 | 18.4 | 18.4 | 18.3 | 5.4 |
| 25 | 15.8 | 15.8 | 15.8 | 3.0 | 3.0 | 3.0 | 5.31 | 18.4 | 18.4 | 18.3 | 5.4 |
| 24 | 15.8 | 15.8 | 15.8 | 2.9 | 2.9 | 2.9 | 5.47 | 18.4 | 18.4 | 18.3 | 5.3 |
| 23 | 15.9 | 15.9 | 15.9 | 2.8 | 2.8 | 2.8 | 5.65 | 18.5 | 18.5 | 18.3 | 5.2 |
| 22 | 16.0 | 16.0 | 16.0 | 2.7 | 2.7 | 2.7 | 5.82 | 18.5 | 18.5 | 18.4 | 5.1 |
| 21 | 16.1 | 16.1 | 16.1 | 2.7 | 2.7 | 2.7 | 6.00 | 18.5 | 18.5 | 18.4 | 5.0 |
| 20 | 16.1 | 16.1 | 16.1 | 2.6 | 2.6 | 2.6 | 6.19 | 18.5 | 18.5 | 18.4 | 5.0 |

-- pozor: pracovný rozsah nie je zohľadnený v tabuľke

LEGENDA:

Tz-VS: Teplota zdroja - vstup [°C]

Tv-VY: Teplota vykurovania - výstup [°C]

Tch-VY: Teplota chladenia - výstup [°C]

Qh nom: Nominálny tepelný výkon

Qh min: Minimálny tepelný výkon

Qh max: Maxmálny tepelný výkon

Pin nom: Príkion pri nominálnom tepelnom výkone

Pin min: Príkion pri minimálnom tepelnom výkone

Pin max: Príkion pri maximálnom tepelnom výkone

COP nom: Koeficient účinnosti pri nominálnom tepelnom výkone

Qc nom: Chladiaci výkon / odobrané teplo pri nominálnom tepelnom výkone

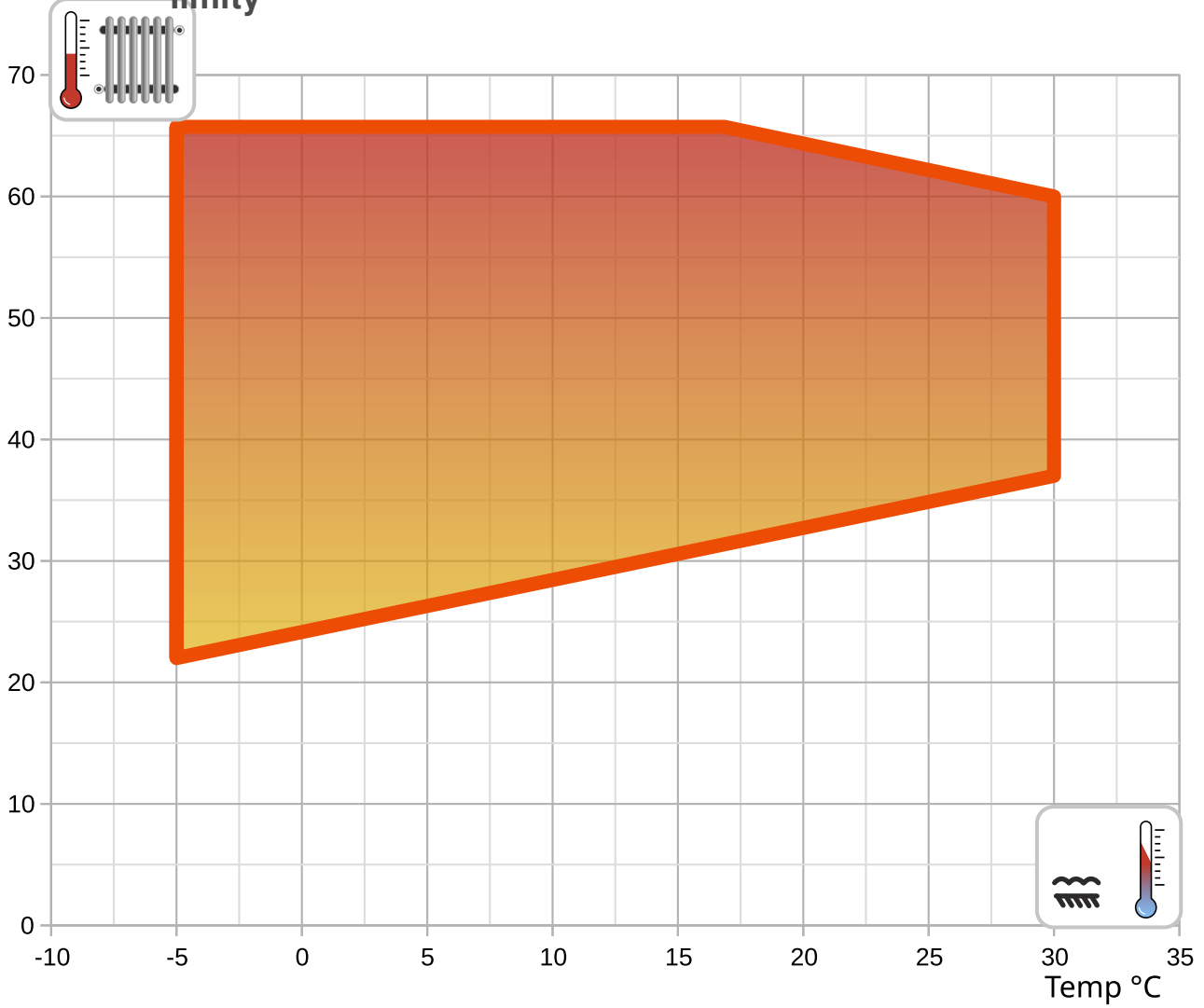
Qc min: Chladiaci výkon / odobrané teplo pri minimálnom tepelnom výkone

Qc max: Chladiaci výkon / odobrané teplo pri maximálnom tepelnom výkone

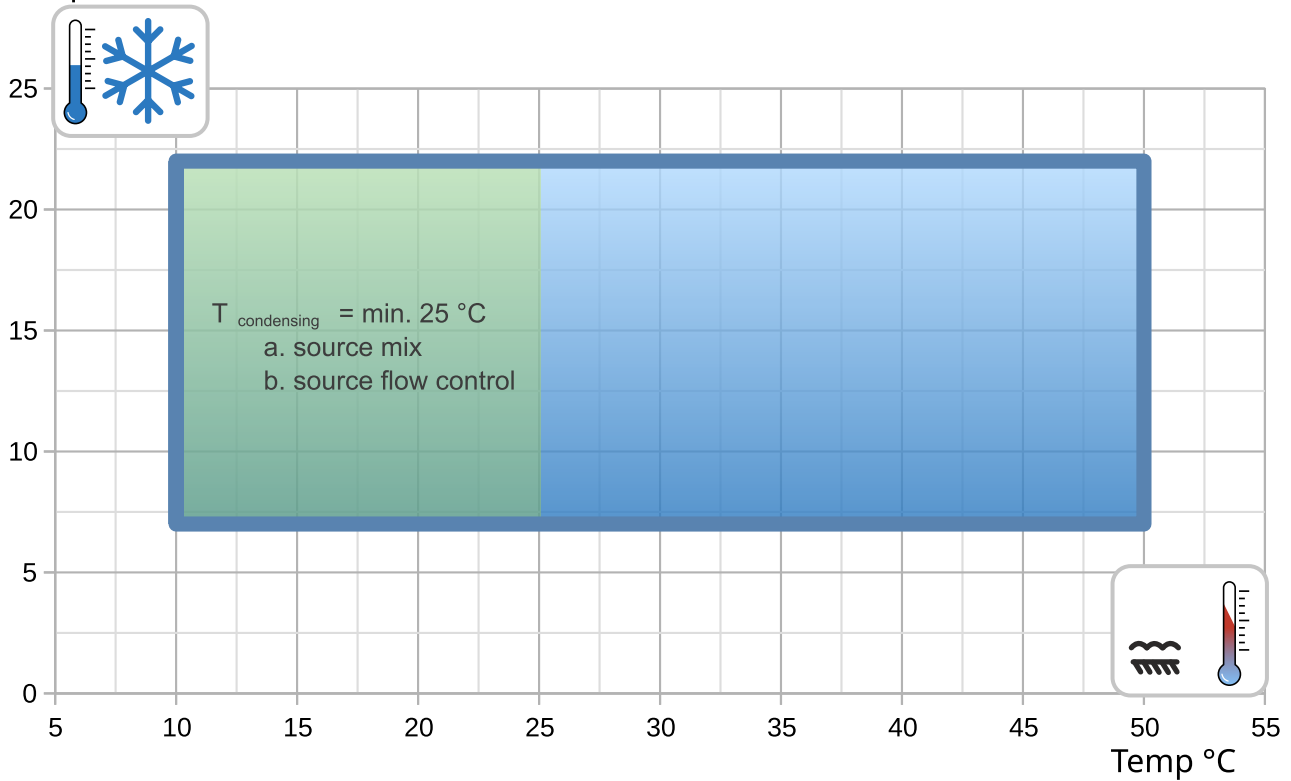
I nom: Prúd pri nominálnom tepelnom výkone

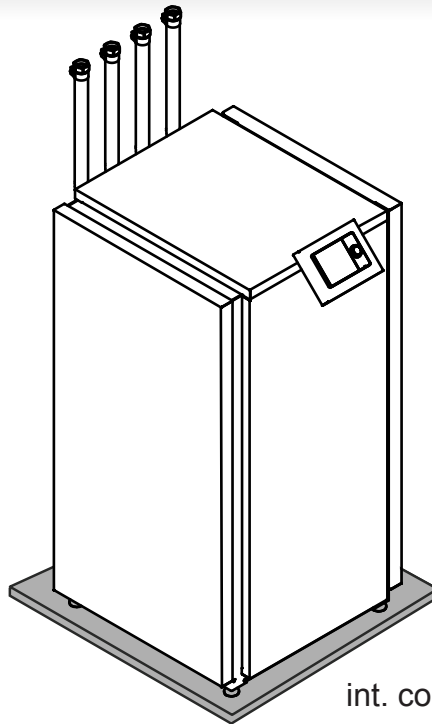
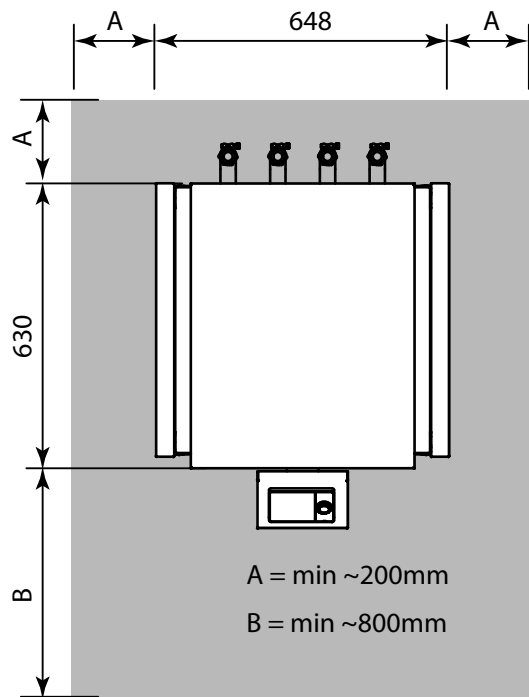
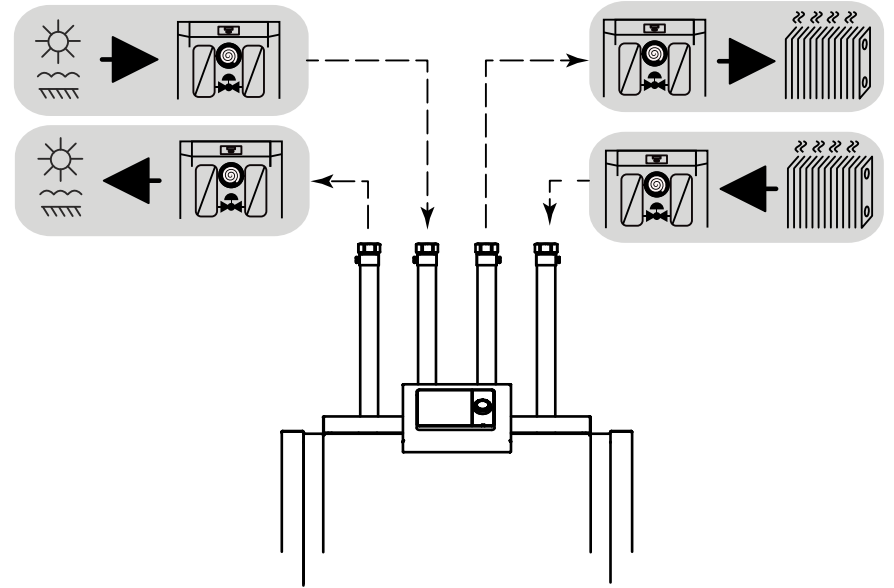
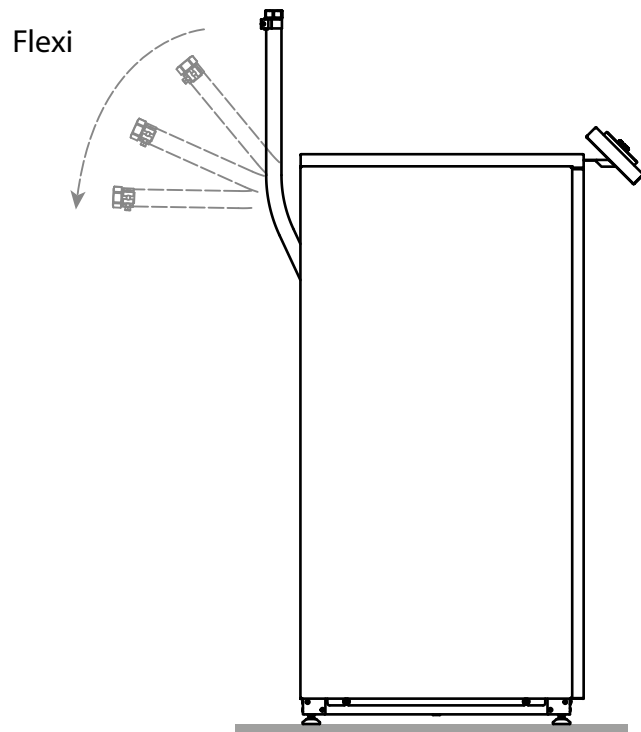
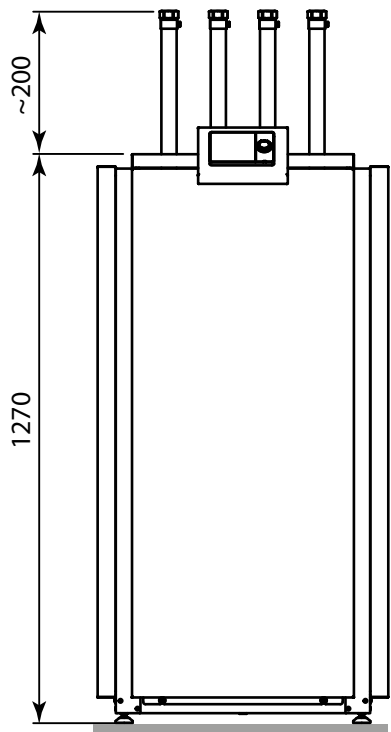
EER: Koeficient účinnosti pri nominálnom chladiacom výkone

Prevádzkové
Temp °C
limity

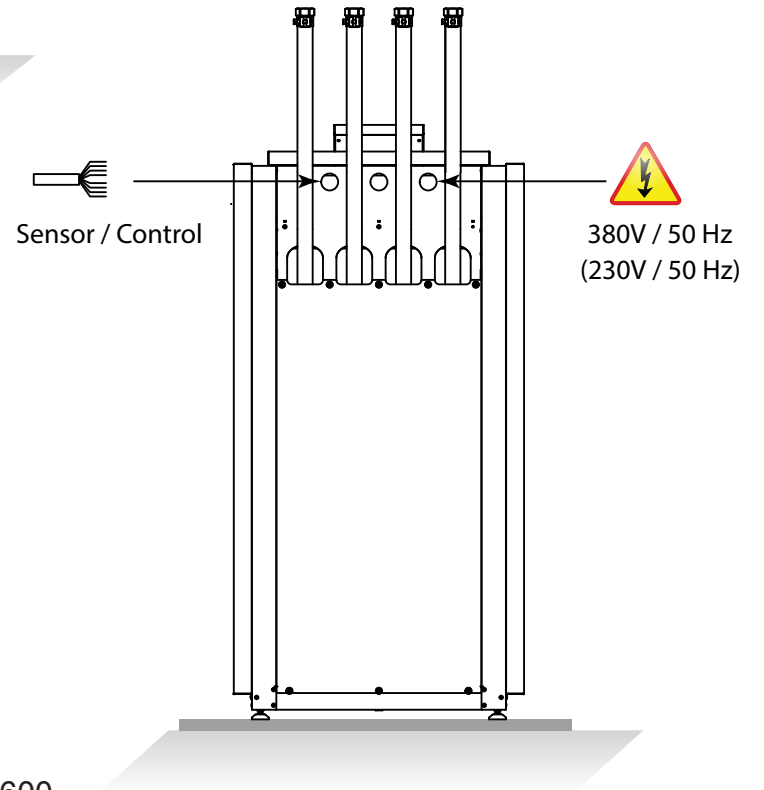


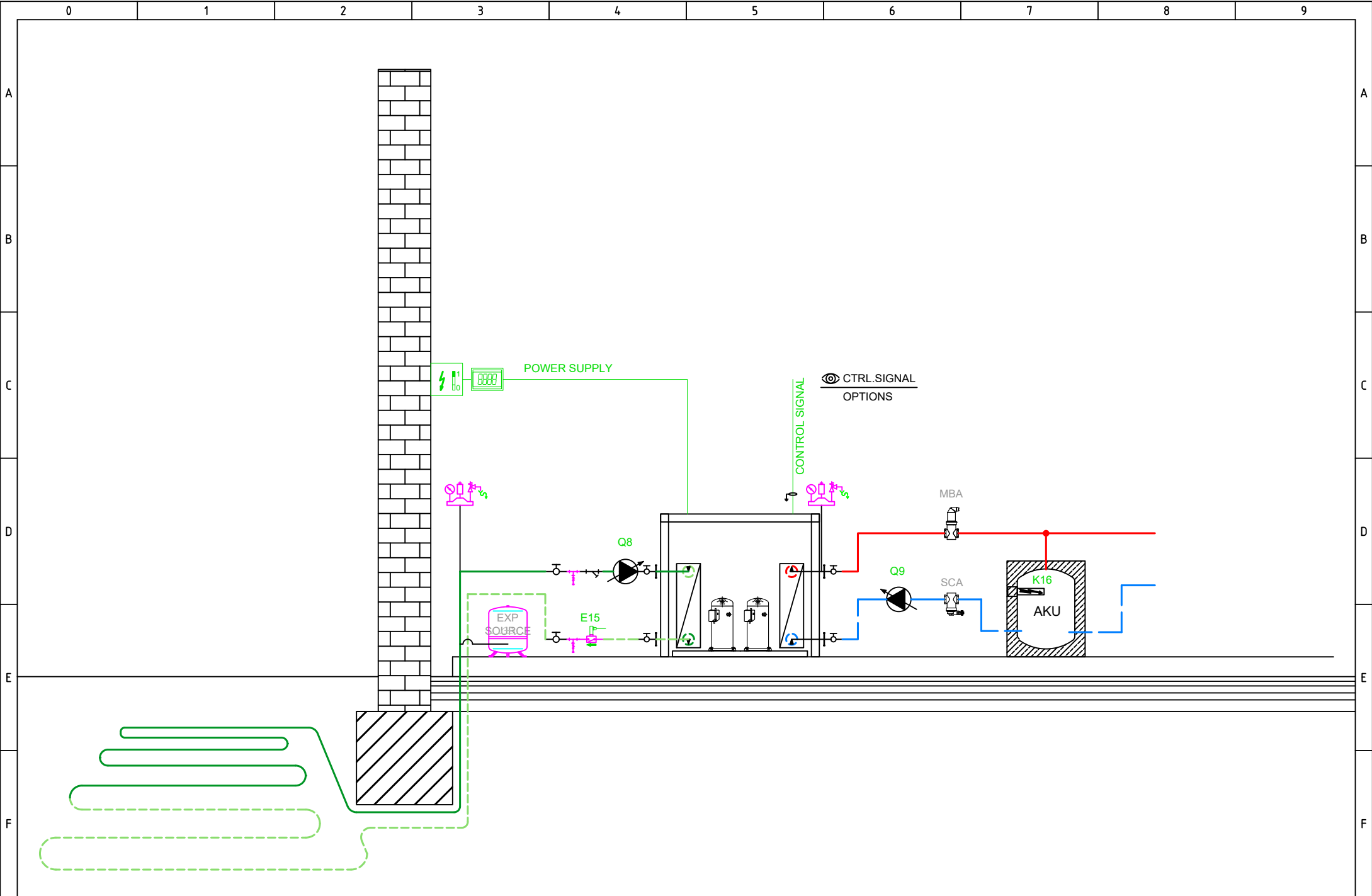
Temp °C



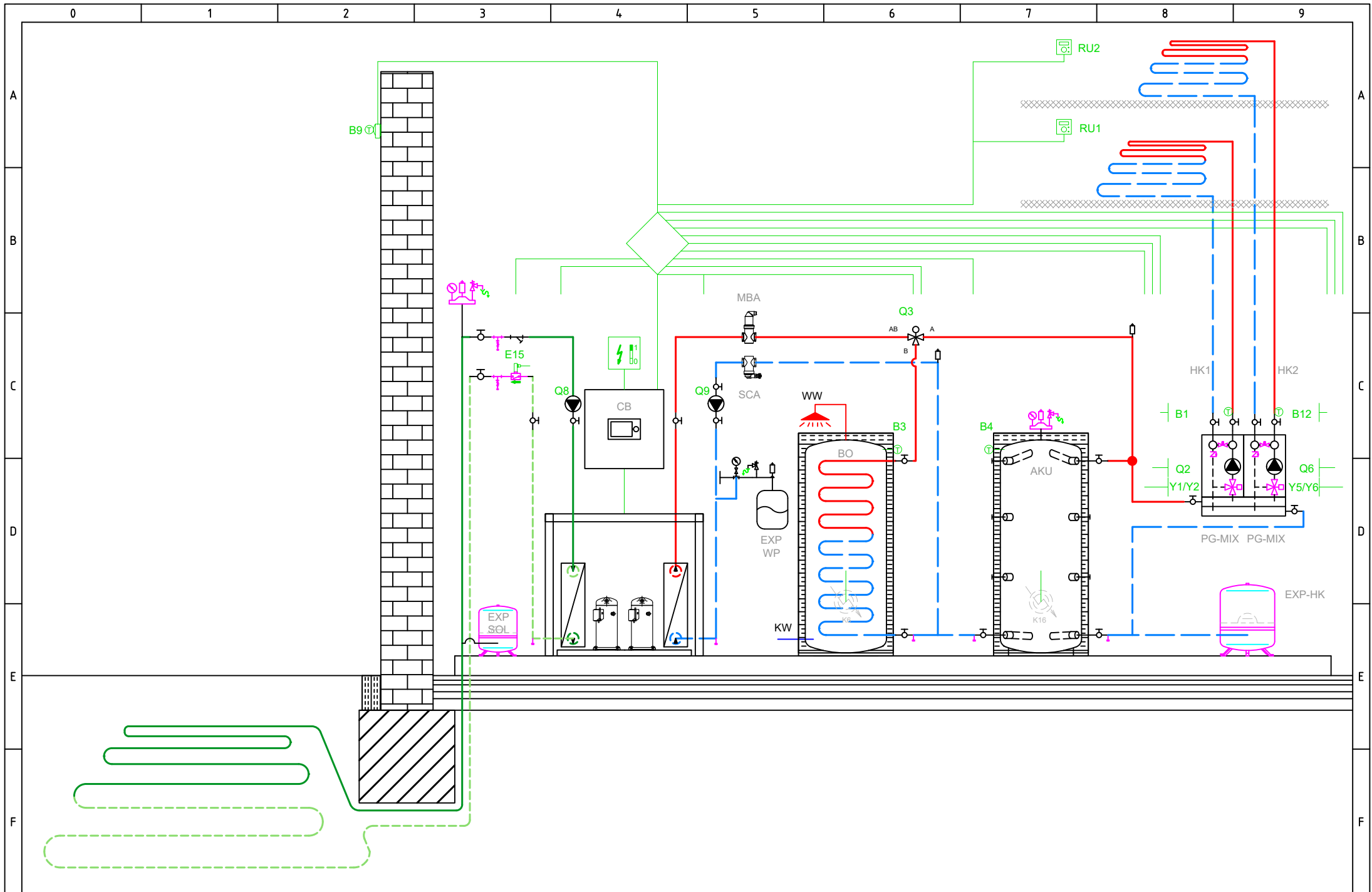


int. code: VN600

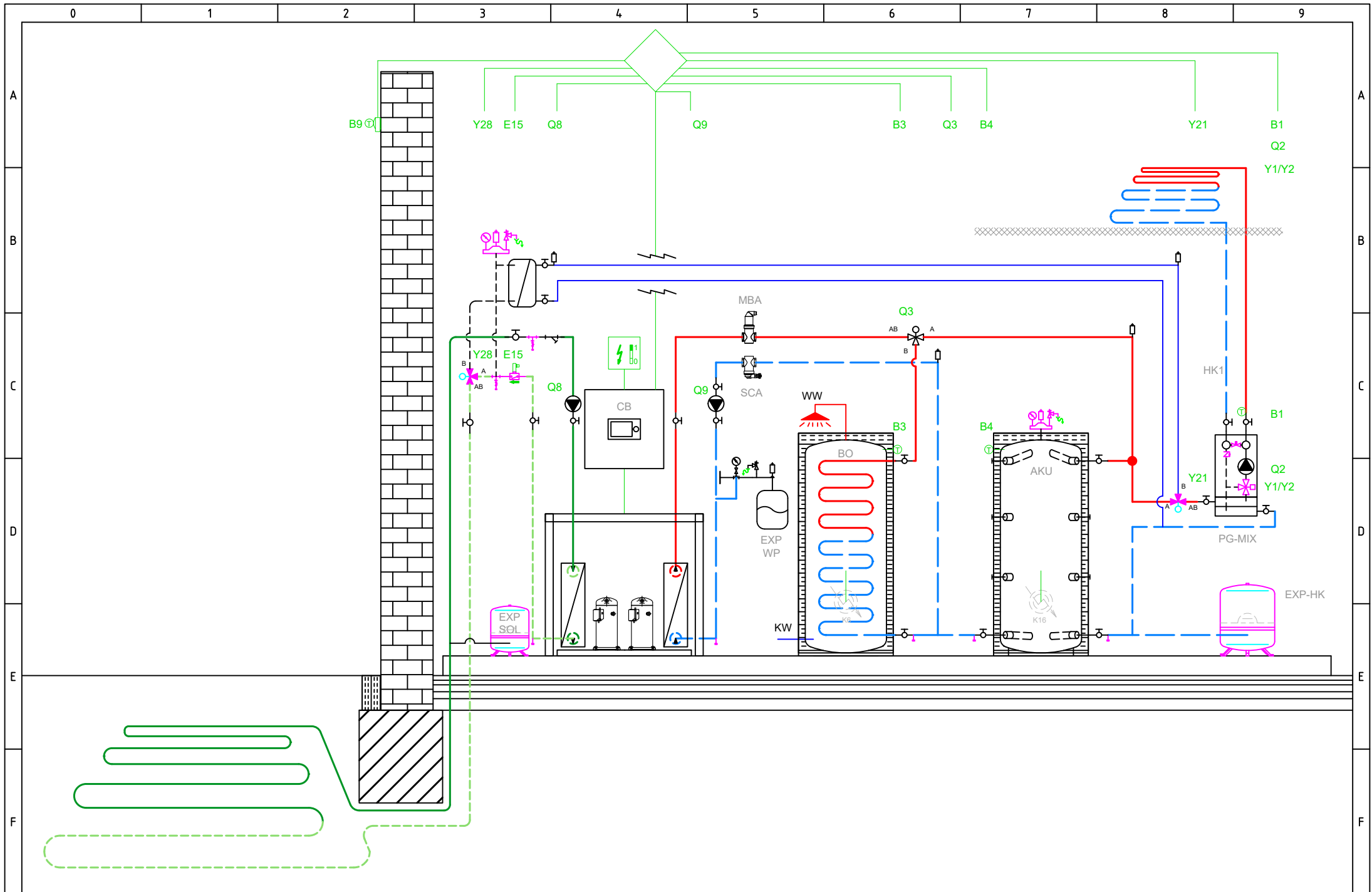




FACTORY SETTINGS



BASIC APPLICATION



OPTIONAL APPLICATION

Total: max 6A
1 x QX...: max 2A

Hlavné napájanie 230V / 50 Hz
Uzemnenie
Nulový vodič

| | |
|-----|-------------------------------|
| E9 | Spínač nízkeho tlaku E9 |
| E10 | Spínač vysokého tlaku E10 |
| E15 | Spínač prietoku zdroja E15 |
| E24 | Spínač prietoku spotreby E24 |
| E6 | Blokovanie vys. tarifa el. E6 |
| E12 | Preťaženie kompresora 2 E12 |
| E21 | Sled fáz E21 |
| E22 | Sled fáz E22 |
| E23 | Sled fáz E23 |
| E11 | Preťaženie kompresora E11 |
| K1 | Kompresor I. stupeň K1 |

Q8 Čerpadlo zdroja Q8

Q9 Čerpadlo kondenzátora Q9

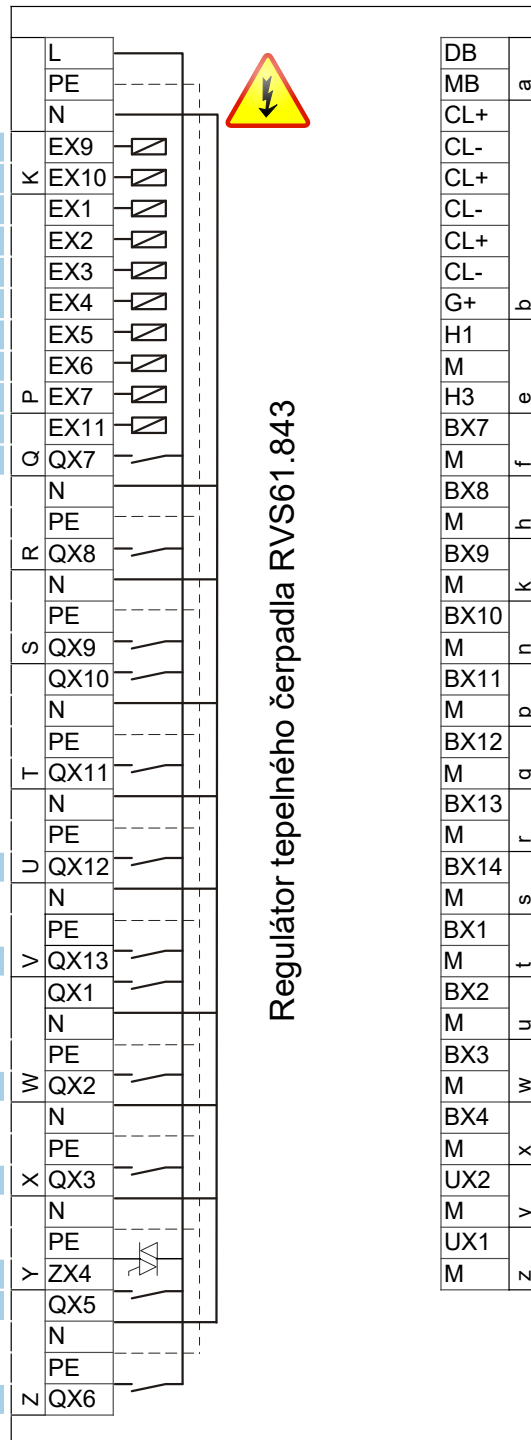
K10 Alarmový výstup K10

K40 Ohrev oleja K40

K81 Ventil výparníka K81

K82 Ventil EVI K82

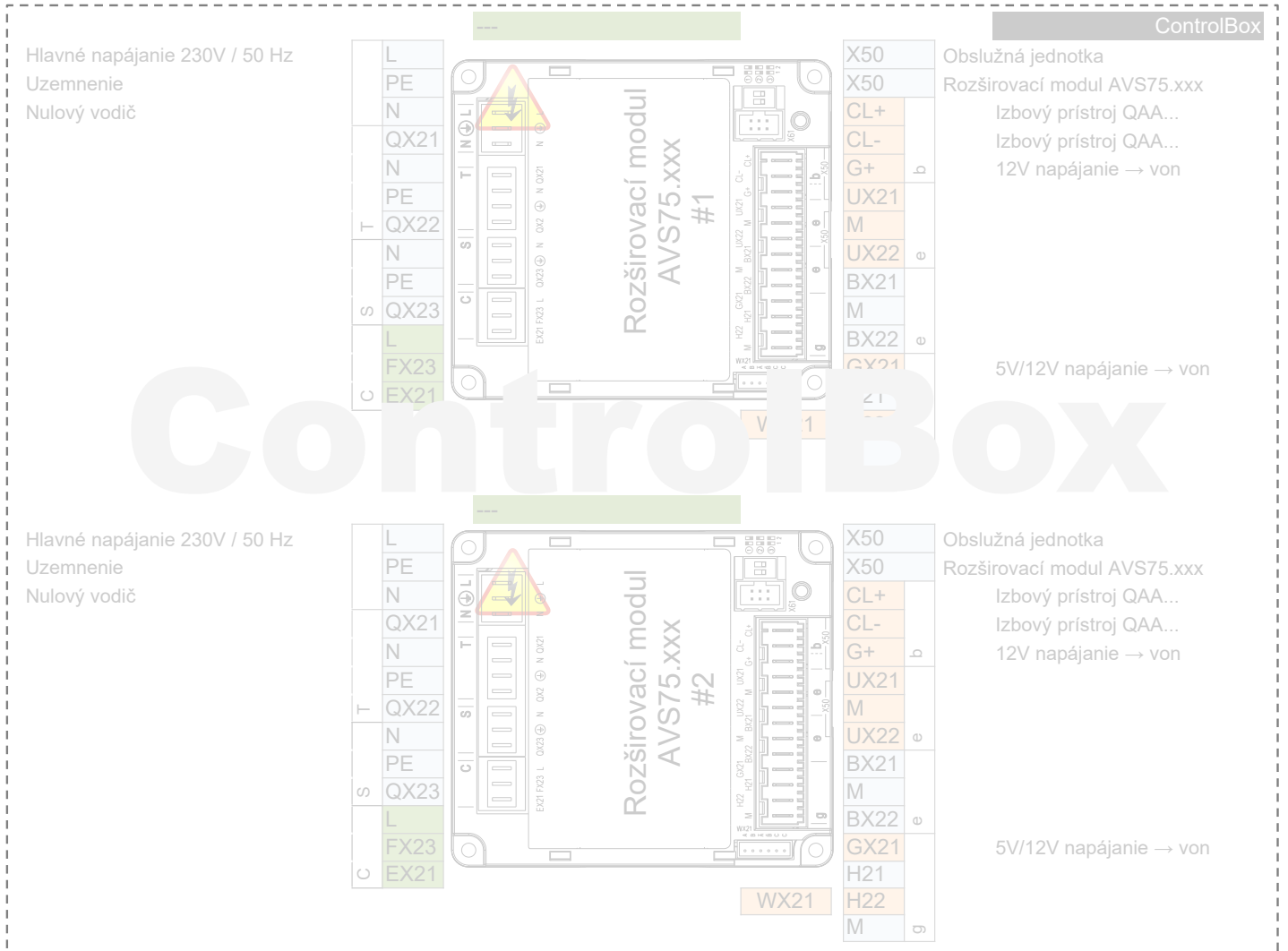
K2 Kompresor 2. stupeň K2

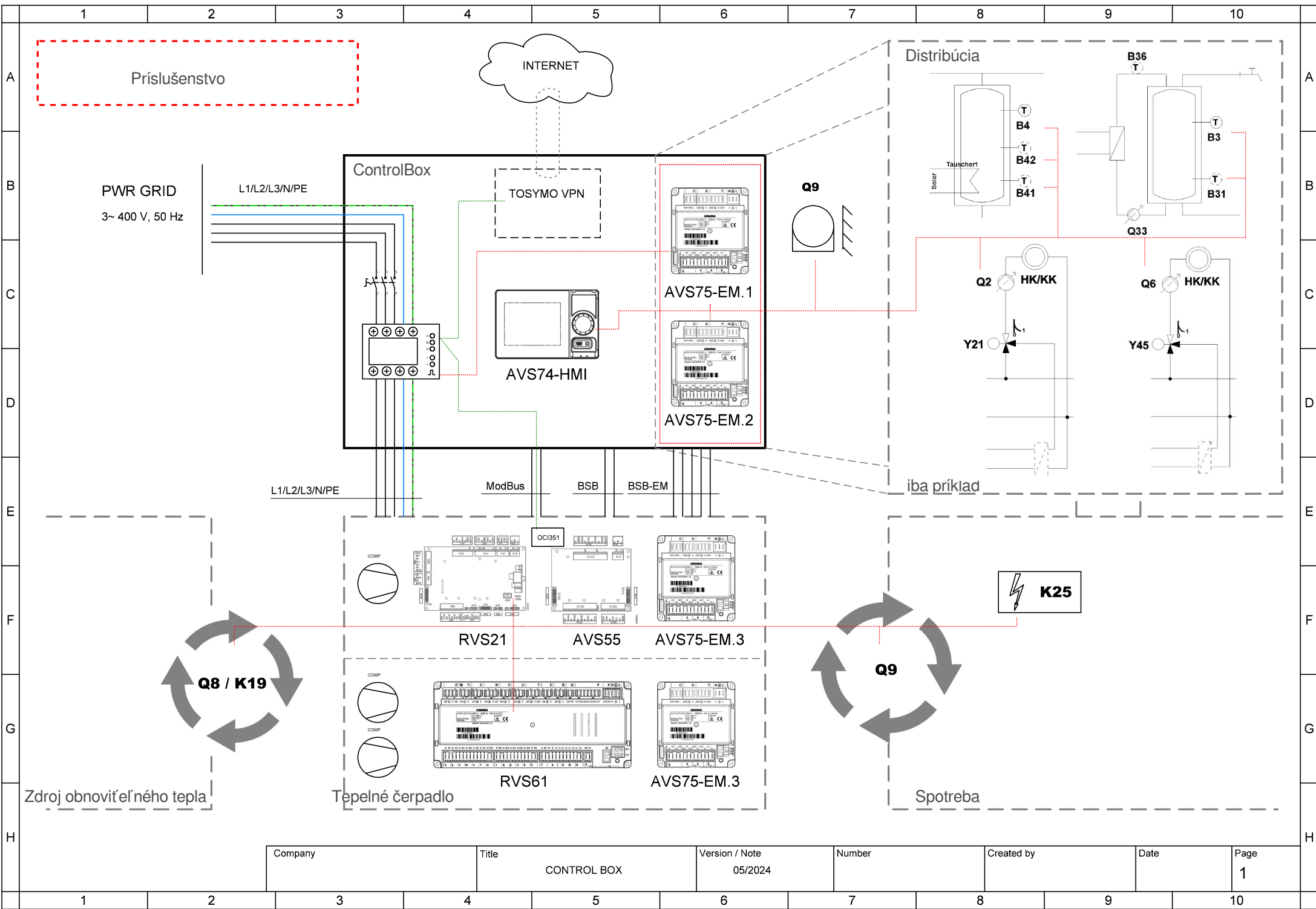


Regulátor tepelného čerpadla RVS61.843

| | |
|------|-------------------------------------|
| DB | LPB Bus dáta |
| MB | LPB Bus zem |
| CL+ | Izbový prístroj QAA... |
| CL- | Izbový prístroj QAA... |
| CL+ | Izbový prístroj QAA... 2. |
| CL- | Izbový prístroj QAA... 2. |
| CL+ | Izbový prístroj QAA... 3. |
| CL- | Izbový prístroj QAA... 3. |
| G+ | 12V napájanie → von |
| H1 | |
| M | |
| H3 | Požiadavka spotrebiča VK1 |
| BX7 | B81 Snímač horúcich plynov K1 B81 |
| M | |
| BX8 | |
| M | |
| BX9 | |
| M | |
| BX10 | B21 Snímač teploty výstupu TČ B21 |
| M | |
| BX11 | |
| M | |
| BX12 | B71 Snímač teploty spiatocky TČ B71 |
| M | |
| BX13 | B91 Snímač vstupu zdroja B91 |
| M | |
| BX14 | B84 Snímač výstupu zdroja B92/B84 |
| M | |
| BX1 | |
| M | |
| BX2 | |
| M | |
| BX3 | B83 Snímač chladiaceho média B83 |
| M | |
| BX4 | B82 Snímač horúcich plynov K2 B82 |
| M | |
| UX2 | Čerpadlo kondenzátora Q9 |
| M | 0..10V analógový signál |
| UX1 | Čerpadlo zdroja Q8 |
| M | 0..10V analógový signál |

- AVS75.390
- AVS75.391
- AVS75.370





| | | | | | | |
|---------|-------------|----------------|--------|------------|------|------|
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| | | | | | | |
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1 ControlBox

ControlBox s dvoma zabudovanými rozširujúcimi modulmi umožňuje početné možnosti ovládania aplikácie na strane spotrebiča za tepelným čerpadlom. Viac informácií nájdete v schéme ControlBoxu a v hárku s aplikačnými schémami.

2 Fixná žiadaná teplota výstupu - Zap / Vyp bezpotenciálny kontakt

2-vodičový tienený kábel 2 x 0,5 mm² - Nastavená hodnota = 45 °C (upraviteľné parametrom 1859)

Pripojovacia svorka - pozri schému zapojenia

3 Analógová regulácia žiadanej teploty výstupu 0..10V

2-vodičový tienený kábel 2 x 0,5 mm² - Nastavená hodnota: 0V = 16°C ~ 10V = 60°C (možnosť úpravy v nastavení parametrov)

Pripojovacia svorka - pozri schému zapojenia

4 ModBus RTU komunikačný príkaz

3 žilový tienený kábel min. 3 x 0,25 mm²

Pre tabuľku mapovania ModBus kontaktujte technickú podporu

5 MQTT IoT komunikačný protokol

Pre viac informácií kontaktujte technickú podporu