

R410A



Aermec adheres to the EUROVENT Certification Programme: LCP
 The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **INSTALLATION VERSATILITY ALSO FOR GEOTHERMAL APPLICATIONS**
- **REVERSIBLE ON THE WATER IN HEAT PUMP**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**

Features

NXW is the range of water cooled that operate with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

Maximum energy efficiency

For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

Models available

NXW[®]: water side reversible heat pump

NXW E: Motoevaporating unit

All models are available in low noise version

Integrated hydronic module on system side/on geothermal side

The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the geothermal side.

Advanced controls

The NXW controller provides several functions:

- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

Construction details:

- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)
- High efficiency plate heat exchangers
- Compressors with high performance and low electrical input
- High and low pressure transducers as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
 The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- User-friendly remote mounted control panel with alarm notification.

Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with

integrated GPRS modem;

AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **MULTICHILLER NXW**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1**: In addition to the unit mounted controller on the NXW unit a remote mounted PGD1 panel can be supplied providing the

same functions (keyboard controls and display).

- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. **Factory fitted only.**
- **AVX**: spring anti-vibration mounts.
- **DRE**: Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only for 400V/3/50Hz. **Factory fitted only.**

Accessory Compatibility

| NXW | VERS. | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 | All | * | * | * | * | * | * | * | * | * | * | * | * | * |
| AERWEB300 | All | * | * | * | * | * | * | * | * | * | * | * | * | * |
| MULTICHILLER NXW | All | * | * | * | * | * | * | * | * | * | * | * | * | * |
| PGD1 | All | * | * | * | * | * | * | * | * | * | * | * | * | * |
| AVX | | | | | | | | | | | | | | |
| Water side reversible heat pump "oo" | ° | 319 | 319 | 301 | 301 | 301 | 303 | 310 | 314 | 316 | 316 | 315 | 330 | 330 |
| With n°1 pumps | ° | 320 | 320 | 320 | 320 | 320 | 312 | 651 | 665 | 653 | 654 | 654 | 334 | 337 |
| With n°2 pumps | ° | 320 | 320 | 309 | 309 | 309 | 312 | 651 | 665 | 653 | 654 | 654 | 337 | 335 |
| With n°3 pumps | ° | 320 | 320 | 309 | 309 | 309 | 312 | 651 | 665 | 653 | 654 | 654 | 340 | 335 |
| With n°4 pumps | ° | 309 | 309 | 310 | 310 | 310 | 312 | 651 | 665 | 653 | 654 | 654 | 335 | 339 |
| Water side reversible heat pump "L" | | 309 | 309 | 310 | 303 | 303 | 310 | 314 | 314 | 315 | 315 | 317 | 331 | 331 |
| With n°1 pumps | L | 321 | 321 | 311 | 311 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 335 | 338 |
| With n°2 pumps | L | 311 | 311 | 31 | 311 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 338 | 339 |
| With n°3 pumps | L | 311 | 311 | 312 | 312 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 339 | 341 |
| With n°4 pumps | L | 312 | 312 | 312 | 310 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 339 | 341 |
| Evaporating unit "E" | | 319 | 319 | 301 | 301 | 301 | 303 | 310 | 314 | 316 | 316 | 315 | 332 | 332 |
| With n°1 pumps | | 320 | 320 | 320 | 320 | 320 | 312 | 651 | 665 | 653 | 654 | 654 | 332 | 334 |
| With n°2 pumps | | 320 | 320 | 309 | 309 | 309 | 312 | 651 | 665 | 653 | 654 | 654 | 332 | 334 |
| With n°3 pumps | | 320 | 320 | 309 | 309 | 309 | 312 | 651 | 665 | 653 | 654 | 654 | 334 | 340 |
| With n°4 pumps | | 309 | 309 | 310 | 310 | 310 | 312 | 651 | 665 | 653 | 654 | 654 | 340 | 340 |
| Evaporating unit low nois versions "LE" | | 309 | 309 | 310 | 303 | 303 | 310 | 314 | 314 | 315 | 315 | 317 | 330 | 330 |
| With n°1 pumps | | 321 | 321 | 311 | 311 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 336 | 336 |
| With n°2 pumps | | 311 | 311 | 31 | 311 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 336 | 335 |
| With n°3 pumps | | 311 | 311 | 312 | 312 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 335 | 339 |
| With n°4 pumps | | 312 | 312 | 312 | 310 | 651 | 651 | 652 | 653 | 654 | 659 | 659 | 339 | 339 |
| Model with total heat recovery "T" | | 303 | 303 | 310 | 310 | 310 | 314 | 652 | 315 | 322 | 322 | 322 | 331 | 333 |
| Model with total heat recovery low nois versions "LT" | | 312 | 312 | 651 | 651 | 652 | 652 | 652 | 323 | 324 | 324 | 324 | 333 | 333 |
| RIF | All | 98 | 98 | 95 | 95 | 95 | 95 | 95 | 96 | 97 | 97 | 97 | * | * |
| DRE | All | 501 | 551 | 601 | 651 | 701 | 751 | 801 | 901 | 1001 | 1251 | 1401 | * | * |

* Contact us.

Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Code:

NXW

Size:

0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650

Field of use:

- ° - Thermostatic expansion valve with leaving water above +4 °C
- Y - Thermostatic expansion valve for low leaving liquid down to -8 °C (1)
- X - Electronic thermostatic valve, max. temp. of water produced: +4°C
(for lower temperatures please contact us)

Model:

- ° - water side reversible heat pump

Version:

- ° - Standard
- L - Low Noise

Evaporator:

- ° - Standard
- E - Evaporating unit (shipped with holding charge only)

Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)
- T - With total heat recovery

Power supply:

- ° - 400V 3~ 50Hz with circuit breakers
- 4 - 220V 3~ 50Hz with circuit breakers(3)
- 5 - 500V 3 50Hz with circuit breakers(4)

Evaporator side pumps

- ° - without pumps
- M - low head pump
- N - low head pump and standby pump
- O - high head pump
- P - high head pump and standby pump

Condenser side pumps

- ° - without pumps
- U - low head pump
- V - low head pump and standby pump
- W - high head pump
- Z - high head pump and standby pump
- J - low head inverter pump
- K - high head inverter pump

(1) Options Y it's not available whit options "D" e "T"

(2) Options T t's not available whit evaporating unit "E"; and with hydronic kit

(3) 220V/3/50Hz only available for sizes 0500-0700

(4) 500V/3/50Hz only available for sizes 0800-1400

Technical Data

| NXW - °L | | | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|-------------|---------------------------------|---------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | | V/ph/Hz | 400V/3/50Hz | | | | | | | | | | | | |
| 12°C / 7°C | Cooling capacity | (1) kW | 111,6 | 120,5 | 148,4 | 166,3 | 188,2 | 222,1 | 256,9 | 290,7 | 325,0 | 353,9 | 383,8 | 453,0 | 510,2 |
| | Total input power | (1) kW | 23,1 | 24,9 | 30,7 | 34,4 | 38,9 | 45,6 | 53,0 | 60,3 | 66,5 | 72,7 | 78,7 | 92,6 | 103,9 |
| | EER | (1) | 4,83 | 4,83 | 4,84 | 4,84 | 4,83 | 4,87 | 4,84 | 4,82 | 4,88 | 4,87 | 4,88 | 4,89 | 4,91 |
| | ESEER | (1) | 6,01 | 6,02 | 6,01 | 6,04 | 6,02 | 6,05 | 6,03 | 6,02 | 6,06 | 6,05 | 6,06 | 6,08 | 6,10 |
| | Cooling Energy Class Eurovent | (1) | B | B | B | B | B | B | B | B | B | B | B | B | B |
| | Water flow rate system side | (1) l/h | 19264 | 20812 | 25628 | 28724 | 32508 | 38356 | 44376 | 50224 | 56072 | 61060 | 66220 | 78030 | 87901 |
| | Pressure drop | (1) kPa | 30 | 35 | 32 | 40 | 43 | 47 | 49 | 55 | 35 | 36 | 36 | 36 | 40 |
| | Water flow rate geothermal side | (1) l/h | 22891 | 24717 | 30448 | 34100 | 38603 | 45480 | 52611 | 59669 | 66611 | 72547 | 78655 | 93387 | 105120 |
| 40°C / 45°C | Pressure drop | (1) kPa | 25 | 29 | 29 | 37 | 37 | 45 | 60 | 38 | 29 | 34 | 36 | 44 | 47 |
| | Heating capacity | (2) kW | 119 | 129 | 161 | 182 | 205 | 243 | 280 | 319 | 357 | 389 | 420 | 476 | 537 |
| | Total input power | (2) kW | 27,2 | 29,4 | 36,6 | 41,1 | 46,8 | 55,1 | 63,8 | 72,3 | 80,8 | 88,0 | 95,1 | 108 | 121 |
| | COP | (2) | 4,39 | 4,41 | 4,41 | 4,42 | 4,39 | 4,41 | 4,4 | 4,41 | 4,42 | 4,42 | 4,41 | 4,41 | 4,42 |
| | Water flow rate system side | (2) l/h | 20468 | 22188 | 27692 | 31215 | 35195 | 41624 | 47988 | 54696 | 61232 | 66736 | 72068 | 82535 | 93194 |
| | Pressure drop | (2) kPa | 20 | 23 | 24 | 31 | 31 | 38 | 50 | 32 | 25 | 29 | 30 | 39 | 41 |
| | Water flow rate geothermal side | (2) l/h | 16138 | 17515 | 21859 | 24596 | 27763 | 32882 | 37890 | 43143 | 48291 | 52651 | 56839 | 64249 | 72619 |
| | Pressure drop | (2) kPa | 21 | 25 | 23 | 29 | 31 | 34 | 36 | 41 | 26 | 27 | 27 | 23 | 26 |

| NXW - E/LE | | | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|------------|-----------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12°C / 7°C | Cooling capacity | (3) kW | 105,0 | 113,0 | 139,0 | 156,0 | 177,0 | 209,0 | 241,0 | 273,0 | 305,0 | 332,0 | 360,0 | 425,5 | 478,3 |
| | Total input power | (3) kW | 24,9 | 26,8 | 33,0 | 36,9 | 41,7 | 48,8 | 56,5 | 64,7 | 72,3 | 78,8 | 85,3 | 100,6 | 112,8 |
| | EER | (3) | 4,22 | 4,22 | 4,21 | 4,23 | 4,24 | 4,28 | 4,27 | 4,22 | 4,22 | 4,21 | 4,22 | 4,23 | 4,24 |
| 12°C / 7°C | Water flow rate system side | (3) l/h | 18031 | 19480 | 23988 | 26918 | 30381 | 35935 | 41488 | 46976 | 52463 | 57187 | 61909 | 73084 | 82141 |
| | Pressure drop | (3) kPa | 25 | 27 | 33 | 37 | 42 | 49 | 57 | 65 | 72 | 79 | 85 | 31 | 36 |

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- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

| | | | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|---|------------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electrical data | | | | | | | | | | | | | | | |
| Total input currente (cooling) | ° | (4) A | 48,3 | 50,6 | 58,4 | 63,0 | 86,0 | 94,0 | 102,0 | 120,0 | 138,0 | 140,0 | 143,0 | 159,6 | 177,5 |
| Total input currente (heating) | ° | (4) A | 53,3 | 56,2 | 66,0 | 72,0 | 94,0 | 105,0 | 115,0 | 135,0 | 154,0 | 160,0 | 165,0 | 182,6 | 204,9 |
| Total input currente (cooling) | E | (4) A | 54,1 | 56,7 | 65,4 | 70,6 | 96,3 | 105,3 | 114,2 | 134,4 | 154,6 | 156,8 | 160,2 | 175,2 | 195,4 |
| Maximum current (FLA) | | (4) A | 75 | 80 | 96 | 107 | 122 | 146 | 169 | 193 | 217 | 231 | 248 | 267,2 | 296,2 |
| Starting current (LRA) | | (4) A | 240 | 245 | 227 | 238 | 289 | 319 | 341 | 398 | 422 | 490 | 504 | 601,4 | 630,4 |
| Scroll Compressor | | | | | | | | | | | | | | | |
| Compressors / Circuit | n°/n° | | 3/2 | 3/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Refrigerant | Type | | R410A | | | | | | | | | | | | |
| Heat exchanger system side | | | | | | | | | | | | | | | |
| Exchanger | Type/n° | | Plate/1 | | | | | | | | | | | | |
| hydraulic connections (In/Out) | (4) Type/Ø | | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 3" | 3" | 3" | 3" | 3" |
| Heat exchanger source side | | | | | | | | | | | | | | | |
| Exchanger | Type/n° | | Plate/1 | | | | | | | | | | | | |
| hydraulic connections (In/Out) | (4) Type/Ø | | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 2"½ | 3" | 3" | 3" | 3" | 3" | 3" |
| Connection of Evaporating unit E | | | | | | | | | | | | | | | |
| Gas line (C1+C2) | Ø | | 28/22 | 28/22 | 28/28 | 28/28 | 28/28 | 28/28 | 28/28 | 35/28 | 35/35 | 35/42 | 42/42 | * | * |
| Liquid line (C1+C2) | Ø | | 28/22 | 28/22 | 28/28 | 28/28 | 28/28 | 28/28 | 28/28 | 35/28 | 35/35 | 35/35 | 35/35 | * | * |
| Sound data (cooling) | | | | | | | | | | | | | | | |
| Sound power level | ° | dB(A) | 78 | 79 | 79 | 80 | 82 | 86 | 88 | 88 | 88 | 90 | 90 | 93 | 95 |
| Sound pressure level | | dB(A) | 46 | 47 | 47 | 48 | 50 | 54 | 56 | 56 | 56 | 58 | 58 | 60 | 61 |
| Sound power level | L | dB(A) | 72 | 73 | 73 | 74 | 76 | 80 | 82 | 82 | 82 | 84 | 84 | 86 | 87 |
| Sound pressure level | | dB(A) | 40 | 41 | 41 | 42 | 44 | 48 | 50 | 50 | 50 | 52 | 52 | 53 | 54 |

(4) Unit standar configuration without hydronic kit

(C1+C2) Frigorific circuit;

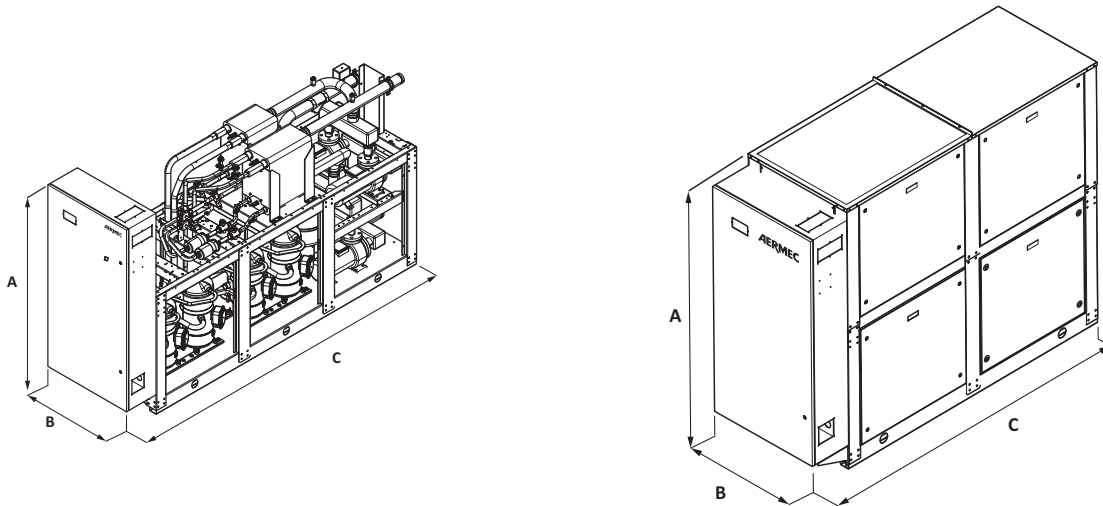
* Contact us

Sound power Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

Dimensions (mm)



| | | | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|-----------------------------|---|----|---|------|------|------|------|------|------|------|------|------|------|------|------|
| NXW ° / E | | | | | | | | | | | | | | | |
| Height | A | mm | 1835 | 1835 | 1835 | 1835 | 1835 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
| Width | B | mm | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Length | C | mm | 1795 | 1795 | 1795 | 1795 | 1795 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
| Weight - ° | | kg | 578 | 582 | 682 | 690 | 727 | 882 | 989 | 1180 | 1417 | 1461 | 1539 | * | * |
| Weight - E | | kg | 525 | 530 | 610 | 619 | 638 | 796 | 904 | 1044 | 1260 | 1304 | 1358 | * | * |
| NXW ° / E WITH PUMP | | | | | | | | | | | | | | | |
| Height | A | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
| Width | B | mm | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Length | C | mm | 3020 | 3020 | 3020 | 3020 | 3020 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3630 |
| Weight | | kg | The weight is variable depending on the chosen hydronic kit | | | | | | | | | | | | |
| NXW L / LE | | | | | | | | | | | | | | | |
| Height | A | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 |
| Width | B | mm | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Length | C | mm | 2090 | 2090 | 2090 | 2090 | 2090 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
| Weight - L | | kg | 750 | 755 | 854 | 863 | 900 | 1054 | 1187 | 1378 | 1615 | 1659 | 1737 | * | * |
| Weight - LE | | kg | 697 | 702 | 781 | 791 | 810 | 968 | 1104 | 1244 | 1460 | 1504 | 1558 | * | * |
| NXW L / LE WITH PUMP | | | | | | | | | | | | | | | |
| Height | A | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1820 |
| Width | B | mm | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Length | C | mm | 3020 | 3020 | 3020 | 3020 | 3020 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3630 |
| Weight | | kg | The weight is variable depending on the chosen hydronic kit | | | | | | | | | | | | |

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