

R410A



Aermec adheres to the EUROVENT Certification Programme: LCP/W/P/C - LCP/W/P/R. The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **HEAT PUMP WITH REFRIGERANT SIDE REVERSING FOR GEOTHERMAL APPLICATIONS**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**
- **PRODUCTION OF HOT WATER UP TO 55 °C**

Characteristics

NXW is the range of water cooled heat pumps 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
NXWH: refrigerant side reversible heat pump

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 paint 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;
- **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. Must be request-

ed at time of order and is available factory fitted only.

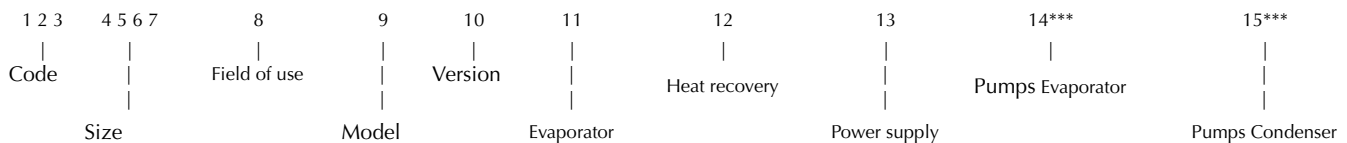
- **AVX**: spring anti-vibration mounts.
- **DRE**: Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only available for 400V-3-phase power supply. Factory fitted only.

Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400
AER485P1	Alls	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•
PGD1	Alls	•	•	•	•	•	•	•	•	•	•	•
AVX												
Water side reversible heat pump "H"	°	319	319	301	301	301	303	310	314	316	316	315
With n°1 pumps	°	320	320	320	320	320	320	312	651	665	653	654
With n°2 pumps	°	320	320	309	309	309	312	651	665	653	654	654
With n°3 pumps	°	320	320	309	309	309	312	651	665	653	654	654
With n°4 pumps	°	309	309	310	310	310	312	651	665	653	654	654
refrigerant side reversible heat pump "H"		319	319	301	301	302	310	310	314	316	315	317
With n°1 pumps	°	320	320	320	309	309	651	651	665	654	654	654
With n°2 pumps	°	320	320	303	309	311	651	651	665	654	654	654
With n°3 pumps	°	309	309	303	311	312	651	651	665	654	654	654
With n°4 pumps	°	309	309	312	312	312	651	651	665	654	654	654
Water side reversible heat pump "H"		309	309	310	303	303	310	314	314	315	315	317
With n°1 pumps	L	321	321	311	311	651	651	652	653	654	659	659
With n°2 pumps	L	311	311	31	311	651	651	652	653	654	659	659
With n°3 pumps	L	311	311	312	312	651	651	652	653	654	659	659
With n°4 pumps	L	312	312	312	310	651	651	652	653	654	659	659
refrigerant side reversible heat pump "H"		309	309	310	303	304	314	314	315	317	317	318
With n°1 pumps	L	311	311	311	311	651	652	665	653	659	659	659
With n°2 pumps	L	311	311	312	313	651	652	665	653	659	659	659
With n°3 pumps	L	312	312	312	313	651	652	665	653	659	659	659
With n°4 pumps	L	312	312	312	313	651	652	665	653	659	659	659
Evaporating unit "E"		319	319	301	301	301	303	310	314	316	316	315
With n°1 pumps		320	320	320	320	320	312	651	665	653	654	654
With n°2 pumps		320	320	309	309	309	312	651	665	653	654	654
With n°3 pumps		320	320	309	309	309	312	651	665	653	654	654
With n°4 pumps		309	309	310	310	310	312	651	665	653	654	654
Evaporating unit low nois versions "LE"		309	309	310	303	303	310	314	314	315	315	317
With n°1 pumps		321	321	311	311	651	651	652	653	654	659	659
With n°2 pumps		311	311	31	311	651	651	652	653	654	659	659
With n°3 pumps		311	311	312	312	651	651	652	653	654	659	659
With n°4 pumps		312	312	312	310	651	651	652	653	654	659	659
Model with total heat recovery "T"		303	303	310	310	310	314	314	315	322	322	322
Model with total heat recovery low nois versions "LT"		312	312	651	651	652	652	652	323	324	324	324
RIF	Alls	98	98	95	95	95	95	95	96	97	97	97
DRE	Alls	501	551	601	651	701	751	801	901	1001	1251	1401

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

Field of use:

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

Model:

- ° - water side reversible heat pump
- H - refrigerant 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*
- 5 - 500V 3 50Hz with circuit breakers**

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

Combinations not possible: YD, YT, HE, HT, ET, T with evaporator or condenser side pumps.

* only available for sizes 0500-0700

** only available for sizes 0800-1400

*** "evaporator" is the heat exchanger that works as such in cooling; "condenser" is the heat exchanger that works as such in heating

Technical Data

Model NXW ° - NXW L

Size		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity (E)	400V/3 kW	112	120	148	166	188	222	257	291	325	354	384
Total input power (E)	400V/3 kW	23.08	24.93	30.65	34.36	38.93	45.59	53.00	60.28	66.51	72.63	78.66
E.E.R. (E)	400V/3 W/W	4.83	4.83	4.84	4.84	4.83	4.87	4.85	4.82	4.89	4.87	4.88
E.S.E.E.R.	400V/3 -	6,01	6,02	6,01	6,04	6,02	6,05	6,03	6,02	6,06	6,05	6,06
Total current input	400V/3 A	48.30	50.60	58.40	63.00	86.00	94.00	102.00	120.00	138.00	140.00	143.00
Evaporator water flow rate	400V/3 l/h	19264	20812	25628	28724	32508	38356	44376	50224	56072	61060	66220
Pressure drops user side	400V/3 kPa	30	35	32	40	43	47	49	55	35	36	36
Condenser water flow rate	400V/3 l/h	22891	24717	30448	34100	38603	45480	52611	59669	66611	72547	78655
Pressure drops source side	400V/3 kPa	25	29	29	37	37	45	60	38	29	34	36
Heating capacity	400V/3 kW	119	129	161	182	205	243	280	319	357	389	420
Total input power	400V/3 kW	27.16	29.37	36.59	41.13	46.75	55.09	63.75	72.25	80.80	87.98	95.11
COP	400V/3 W/W	4.39	4.41	4.41	4.42	4.39	4.41	4.40	4.41	4.42	4.42	4.41
Total current input	400V/3 A	53.3	56.2	66	72.0	94.0	105.0	115.0	135.0	154.0	160.0	165.0
Condenser water flow rate	400V/3 l/h	20468	22188	27692	31215	35195	41624	47988	54696	61232	66736	72068
Pressure drops user side	400V/3 kPa	20	23	24	31	31	38	50	32	25	29	30
Evaporator water flow rate	400V/3 l/h	16138	17515	21859	24596	27763	32882	37890	43143	48291	52651	56839
Pressure drops source side	400V/3 kPa	21	25	23	29	31	34	36	41	26	27	27
ELECTRICAL DATA												
Maximum current (FLA)	400V/3 A	75	80	96	107	122	146	169	193	217	231	248
Starting current (LRA)	400V/3 A	240	245	227	238	289	319	341	398	422	490	504

Data declared in accordance with EN 14511:2011 - (E) EUROVENT for reversible units on the water side certifies the sun made cold (12-7°C - 30-35°C)

Cooling:

- User side water temperatures (in/out)
- Source side water temperatures (in/out)

12°C/7°C
30°C/35°C

Heating:

- User side water temperatures (in/out)
- Source side water temperatures (in/out)

40°C/45°C
10°C/5°C

Modello NXW H - NXW HL

Size		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity	400V/3 kW	105.71	113.66	140.62	159.52	180.47	211.33	242.12	277.29	313.35	341.23	369.14
Total input power	400V/3 kW	23.92	25.84	31.24	35.39	40.20	47.13	54.23	62.17	70.41	76.61	82.74
E.E.R.	400V/3 W/W	4.42	4.40	4.50	4.51	4.49	4.48	4.46	4.46	4.45	4.45	4.46
E.S.E.E.R.	400V/3 -	5,73	5,71	5,76	5,85	5,76	5,79	5,64	5,72	5,85	5,77	5,80
Total current input	400V/3 A	49	52	60	65	87	95	104	122	140	144	147
Evaporator water flow rate	400V/3 l/h	18232	19608	24252	27520	31132	36464	41796	47816	54008	58824	63640
Pressure drops user side	400V/3 kPa	17	20	19	24	24	29	38	24	19	22	24
Condenser water flow rate	400V/3 l/h	22023	23693	29203	33108	37488	43899	50293	57865	65250	71030	76810
Pressure drops source side	400V/3 kPa	25	29	28	35	35	42	55	36	28	32	34
Heating capacity	400V/3 kW	125.61	136.04	166.09	187.97	210.77	270.08*	310.89*	325.88	366.17	400.48	434.77
Total input power	400V/3 kW	27.96	30.32	36.86	41.75	46.94	55.60*	64.58*	72.55	80.76	88.67	96.49
COP	400V/3 -	4.49	4.49	4.51	4.50	4.49	4.86	4.81	4.49	4.53	4.52	4.51
Total current input	400V/3 A	53.3	56.2	65.1	71.0	92.7	105.01	115.01	133.1	151.9	157.8	162.7
Condenser water flow rate	400V/3 l/h	21536	23316	28478	32216	36130	37475	43059	55886	62828	68702	74576
Pressure drops user side	400V/3 kPa	24	28	26	33	32	31	40	33	26	30	32
Evaporator water flow rate	400V/3 l/h	28589	30965	37822	42843	47999	46267	53207	74186	83446	91221	99023
Pressure drops source side	400V/3 kPa	43	49	46	58	58	46	61	58	46	52	58
ELECTRICAL DATA												
Maximum current (FLA)	400V/3 A	75	80	75	107	122	146	169	193	217	231	248
Starting current (LRA)	400V/3 A	240	245	240	238	289	319	341	398	422	490	504

Data declared in accordance with EN 14511:2011

Cooling:

- User side water temperatures (in/out)
- Source side water temperatures (in/out)

12°C/7°C
30°C/35°C

(*) Heating:

- User side water temperatures (in/out)
- Source side water temperatures (in/out)

40°C/45°C
10°C/5°C

Heating:

- User side water temperatures (in/out)
- Source side water temperatures (in/out)

40°C/45°C
10°C/7°C

Model NXW E - NXW EL

Size		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Cooling capacity	400V/3 kW	105	113	139	156	177	209	241	273	305	332	360
Total input power	400V/3 kW	24.9	26.8	33.0	36.9	41.7	48.8	56.5	64.7	72.3	78.8	85.3
E.E.R.	400V/3 W/W	4.22	4.23	4.22	4.24	4.23	4.28	4.27	4.22	4.22	4.22	4.22
Total current input	400V/3 A	54.1	56.7	65.4	70.6	96.3	105.3	114.2	134.4	154.6	156.8	160.2
Evaporator water flow rate	400V/3 l/h	18031	19480	23988	26918	30381	35935	41488	46976	52463	57187	61909
Pressure drops user side	400V/3 kPa	26	31	28	35	38	41	43	48	31	32	32
ELECTRICAL DATA												
Maximum current (FLA)	A	75	80	96	107	122	146	169	193	217	231	248
Starting current (LRA)	A	240	245	227	238	289	319	341	398	422	490	504
COOLING LINES (0 - 10 m.)												
Delivery line (C1+C2)	400V/3 Ø mm	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)	400V/3 Ø mm	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/35	35/35

Cooling:

- User side water temperatures (in/out)
- Condensing temperature
- Δt

12°C/7°C
45°C
5°C

Technical Data

Size		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400	
compressors							Scroll						
N° compressors/ N° circuits	n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	
Evaporator							Plate						
Hydraulic connection "OH"	∅	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	
Hydraulic connection "H"	∅	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	
Quantity	n°							1					
Condenser							Plate						
Hydraulic connection "OH"	∅	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	
Hydraulic connection "H"	∅	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	
Quantity	n°							1					
Expansion vessel													
n°/capacity	n°/l	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	1/25	
Calibration	bar	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Sound data													
Sound power	dB(A)	°/H	78	79	79	80	82	86	88	88	88	90	90
		L/HL	72	73	73	74	76	80	82	82	82	84	84
Sound pressure	dB(A)	°/H	46	47	47	48	50	54	56	56	56	58	58
		L/HL	40	41	41	42	44	48	50	50	50	52	52

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)

Dimensions (mm)

Mod. NXW ° / H / E		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400	
Height	A	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	
	B	mm	800	800	800	800	800	800	800	800	800	800	
Length	C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	
	°		578	582	682	690	727	882	989	1180	1417	1461	1539
Weight	H	kg	628	633	734	743	791	948	1042	1275	1545	1577	1657
	E		525	530	610	619	638	796	904	1044	1260	1304	1358

Mod. NXW L / HL / EL		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400	
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	
	B	mm	800	800	800	800	800	800	800	800	800	800	
Length	C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	
	L		750	755	854	863	900	1054	1187	1378	1615	1659	1737
Weight	HL	kg	801	805	907	915	963	1121	1240	1473	1743	1774	1855
	EL		697	702	781	791	810	968	1104	1244	1460	1504	1558

Mod. NXW ° / NXW H POMPE		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	mm	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820
	B	mm	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480
	Weight	kg	The weight is variable depending on the chosen hydronic kit									

Mod. NXW L / NXW HL POMPE		0500	0550	0600	0650	0700	750	800	900	1000	1250	1400
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
	B	mm	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480
	Weight	kg	The weight is variable depending on the chosen hydronic kit									

