AERMEC

NEW

NXP

Multipurpose
Water/Water for indoor installation
scroll compressor plate exchanger
Cooling capacity 109÷501kW
Heating capacity 123÷560kW

R410A

• DESIGNED FOR 2 AND 4–PIPE SYSTEMS
• HIGH EFFICIENCY EVEN AT PART LOAD
• OPTION VERSION WITH BUILT–IN HYDRONIC KIT

Characteristics

NXP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems.** With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

Version
NXP_° Multipurpose standard
NXP_L Multipurpose Low noise

- **Operational limits (1)**
- Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High and low pressure transducers as standard
- The built-in hydronic module includes the main water circuit components; it is available in varius configurations with one or two pumps with high or low head both on the system side and the geothermal side. (jusqu'à un maximum de 4 pompes installées)
- Microprocessor controls
  - Control from the leaving water temperature
  - Automatic rotation of compressors and pumps based on operating hours
  - Programmable time-clock
  - Analog Inputs Multifunction 0-10V, or da 4-20mA
- Load limiting safety control
- Electrical panel with wires numbered all the main components of security and control
- Externally mounted user interface with display of all operating parameters in 4 languages
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)

(1) For more details on operating limits, refer to the technical documentation available on the website

Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
  AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;
  AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000..
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

Accessories factory fitted only

- **DRE**: Electronic soft starter which reduces starting current.
  Available only with 400V power supply.
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

Compatibility of accessories

Mod. NXP		Vers.	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
AER485P1		All	•	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300		All	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		All	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	All	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only															
DRE	(2)	All	501	551	601	651	701	751	801	901	1001	1251	1401	1401	1401
RIF		All	98	98	95	95	95	95	95	96	97	97	97	97	97

(1) Contact us for the compatibility
(2) Only available for 400V/3N/50Hz power supply

Unit Configurator

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

Field	Code
1,2,3	**NXP**
4,5,6,7	**Size**
	0500-0550-0600-0650-0700-0750-0800-0900-1000-1250-1400-1500-1650
8	**Field of use:**
	° standard thermostatic expansion valve (3)
9	**System type**
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	**Version**
	° Standard
	L Low noise
11	**Power supply**
	° 400V/3N/50Hz with circuit breakers
	4 220V/3/50Hz with circuit breakers (4)
	5 500V/3/50Hz with circuit breakers (5)
12	**System integrated hydronic module**
	° without pumps or buffer tank
	M n°1 low head pump
	N n°2 low head pumps
	O n°1 high head pump
	P n°2 high head pumps
13	**Heat recovery integrated hydronic module**
	° without pumps or buffer tank
	U n°1 low head pump
	V n°2 low head pumps
	W n°1 high head pump
	Z n°2 high head pumps

(3) leaving water above +4 °C
(4) Only size 0500÷0700
(5) Only size 0800÷1000

Technical Data

Mod. NXP Multipurpose for 2-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Heating system side														
Heating capacity	kW	123	131	159	176	211	240	289	321	353	384	434	491	551
Total input power	kW	29	32	38	43	51	59	70	78	83	91	102	117	130
COP	W/W	4,17	4,13	4,16	4,11	4,12	4,06	4,12	4,10	4,25	4,23	4,25	4,19	4,22
Water flow rate system side	l/h	21013	22491	27168	30160	36076	40998	49658	55144	60599	65943	74492	84108	94416
Total pressure drop	kPa	27	31	34	41	49	57	24	29	22	26	30	38	40
Water flow rate geothermal side	l/h	27248	29109	35220	38994	46709	52918	64027	71019	78774	85679	96918	109091	122810
Total pressure drop	kPa	36	40	39	47	51	56	40	48	36	44	50	63	67
Heating DHW side														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate DHW side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate system side	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate DHW side	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER (6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70	7,81

Cooling (14511:2011)
Evaporator water temperature (in/out) 12°C/7°C;
Condenser water temperature (in/out) 30°C/35°C

Heating (14511:2011)
Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

Heating mode with heat recovery
Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

Cooling mode with heat recovery
heat recovery water temperature (in/out) 40°C/45°C;
Evaporator water temperature (out) 7°C

Mod. NXP Multipurpose for 4-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
Heating system side														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate system side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Cooling with heat recovery														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate (cold side)	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop (cold side)	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate (hot side)	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop (hot side)	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER (6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70	7,81

Cooling (14511:2011)
Evaporator water temperature (in/out) 12°C/7°C;
Condenser water temperature (in/out) 30°C/35°C

Heating (14511:2011)
Condenser water temperature (in/out) 40°C/45°C;
Evaporator water temperature (in/out) 10°C/7°C

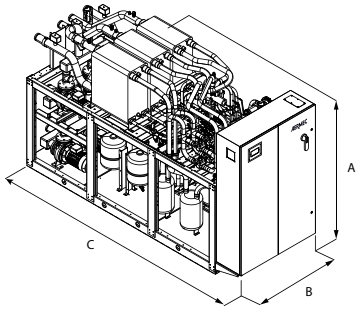
Cooling mode with heat recovery
heat recovery water temperature (in/out) 40°C/45°C;
Evaporator water temperature (out) 7°C

Technical Data

DATI GENERALI				500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data only cooling mode																
Total input current	(7)		A	47	50	58	65	83	90	92	100	106	135	149	169	188
only heating mode																
Total input current	(7)		A	54	58	68	76	95	103	112	123	130	154	173	196	217
only recovery mode																
Total input current	(7)		A	54	57	67	75	94	103	110	122	129	153	171	194	216
Cooling heat recovery mode																
Total input current	(7)		A	54	57	67	75	95	103	110	121	129	153	171	195	216
Maximum current (FLA)	(7)		A	71	77	91	102	124	135	163	179	195	208	237	266	295
Starting current (LRA)	(7)		A	214	220	206	216	267	323	332	340	356	459	488	600	629
Compressors																
Compressors			type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
			n°	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits			n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system																
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system																
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (geothermal)																
Exchanger			type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
			n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7)	(in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
System integrated hydronic module	For more information, refer to the selection program Magellan or the technical documentation available															
Dati sonori																
Sound pressure	(8)	°	dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	60
	(8)	L	dB(A)	40	41	41	42	44	48	50	50	50	52	52	54	54
Sound power	(8)	°	dB(A)	78	79	79	80	82	86	88	88	88	90	90	92	92
	(8)	L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	86
Power supply			V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

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).
(7)The technical data are versions without hydronic module integrated
(8) Calculated in cooling mode
Note: For more information, refer to the selection program Magellan or the technical documentation available on the website

Dimensions (mm)



Mod. NXP (without pumps)			Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm)	A	°	1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
			L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm)	B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm)	C		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600

Mod. NXP (with pumps)			Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm)	A	°	1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
			L	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm)	B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm)	C		3452	3452	3452	3452	3452	3452	3452	3452	3750	3750	3750	3750	3750

Cod.: SNXPUY.01 /1403

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