NPG 0800-2400

Air-water multipurpose

Cooling capacity 206,5 ÷ 657,8 kW
Heating capacity 212 ÷ 670,8 kW

- **Units designed for 2 or 4-pipe systems**
- **High efficiency also at partial loads**
- **Simultaneous and independent production of hot and chilled water**

DESCRIPTION

Multipurpose external units 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.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -15,00 °C outside air temperature in winter, and up to 49,0 °C in summer. Hot water production up to 60,0 °C (for more information refer to the the selection program Magellano or dedicated documentations).

Refrigerant HFC R32

Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).
The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Option integrated hydronic kit

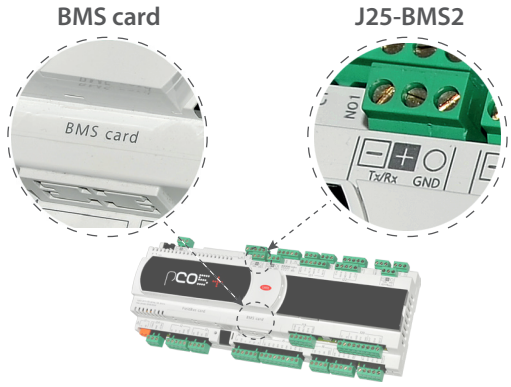
To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

■ *The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.*

CONTROL PCO^5

Microprocessor adjustment, with 7", touch screen keyboard which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the ad adjustment includes complete management of the alarms and their log.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **"EASYLOG" data logger as per standard:** allows all operating data read by the pCO5 to be stored on an SD card.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.



In the 'BMS card' port, the compatible accessories are:

— AER485P1
— AERBACP
— MULTICHILLER_EVO (if available) + AER485P1

In the 'J25-BMS2' port, the compatible accessories are:

— AERNET

Note:

— "BMS card" and "J25-BMS2" are two ports on the unit's control board. Only one accessory can be connected to each port.
— An 'EASYLOG' diagnostic device may be present in port 'J25-BMS2', possibly disconnect it to connect the accessory AERNET.
— **For other requirements, please contact the company.**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•
FL	A,E	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Version	System side - pumps	Recovery side - pumps	0800	0900	1000	1100	1200	1400
A	00	00	AVX1210	AVX1212	AVX1212	AVX1212	AVX1214	AVX1214
A	00	MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1211	AVX1213	AVX1213	AVX1213	AVX1215	AVX1215
A	DA,DB,DC,DD,DE,DF,DG,DH,DI,DJ,IA,IB,IC,ID,IE,IF,IG,IH,II,JA,JB,JC,JD,JE,JF,JG,JH,JI,PA,PB,PC,PD,PE,PF,PG,PH,PI,PJ	00,MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1211	AVX1213	AVX1213	AVX1213	AVX1215	AVX1215
E	00	00	AVX1212	AVX1214	AVX1214	AVX1214	AVX1217	AVX1217
E	00	MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1213	AVX1215	AVX1215	AVX1215	AVX1218	AVX1218
E	DA,DB,DC,DD,DE,DF,DG,DH,DI,DJ,IA,IB,IC,ID,IE,IF,IG,IH,II,JA,JB,JC,JD,JE,JF,JG,JH,JI,PA,PB,PC,PD,PE,PF,PG,PH,PI,PJ	00,MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1213	AVX1215	AVX1215	AVX1215	AVX1218	AVX1218

Version	System side - pumps	Recovery side - pumps	1600	1800	2000	2200	2400
A	00	00	AVX1216	AVX1217	AVX1217	AVX1219	AVX1219
A	00	MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1215	AVX1218	AVX1218	AVX1219	AVX1219
A	DA,DB,DC,DD,DE,DF,DG,DH,DI,DJ,IA,IB,IC,ID,IE,IF,IG,IH,II,JA,JB,JC,JD,JE,JF,JG,JH,JI,PA,PB,PC,PD,PE,PF,PG,PH,PI,PJ	00,MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1215	AVX1218	AVX1218	AVX1219	AVX1219
E	00	00	AVX1219	AVX1220	AVX1220	AVX1222	AVX1222
E	00	MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1219	AVX1221	AVX1221	AVX1222	AVX1222
E	DA,DB,DC,DD,DE,DF,DG,DH,DI,DJ,IA,IB,IC,ID,IE,IF,IG,IH,II,JA,JB,JC,JD,JE,JF,JG,JH,JI,PA,PB,PC,PD,PE,PF,PG,PH,PI,PJ	00,MA,MB,MC,MD,ME,MF,MG,MH,MI,NA,NB,NC,ND,NE,NF,NG,NH,NI,RA,RB,RC,RD,RE,RF,RG,RH,RI,RJ,SA,SB,SC,SD,SE,SF,SG,SH,SI,SJ	AVX1219	AVX1221	AVX1221	AVX1222	AVX1222

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
A,E	DRENPG0800	DRENPG0900	DRENPG1000	DRENPG1100	DRENPG1200	DRENPG1400	DRENPG1600	DRENPG1800	DRENPG2000	DRENPG2200	DRENPG2400

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
A,E	RIFNPG0800	RIFNPG0900	RIFNPG1000	RIFNPG1100	RIFNPG1200	RIFNPG1400	RIFNPG1600	RIFNPG1800	RIFNPG2000	RIFNPG2200	RIFNPG2400

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
A	GP2VN	GP3G	GP3G	GP3G	GP4GM	GP4GM	GP4GM	GP5G	GP5G	GP6G	GP6G
E	GP3G	GP4GM	GP4GM	GP4GM	GP5GM	GP5GM	GP6G	GP7G	GP7G	GP8G	GP8G

A grey background indicates the accessory must be assembled in the factory

GP2VN becomes GP2VNA if configured with a hydronic kit for size 0800 A

CONFIGURATOR

Configuration options

Field		Description
1,2,3		**NPG**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400
8		**Version**
	A	High efficiency
	E	Silenced high efficiency
9		**System type**
	2	2-pipe system
	4	4-pipe system
10		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Fans**
	°	Standard with DCPX
	J	Inverter
12		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
13,14		**System side - pumps**
	00	Without hydronic kit
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (1)
		Kit with n° 1 inverter pump to fixed speed
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed (2)
	IG	Pump G equipped with inverter device to work at fixed speed (2)
	IH	Pump H equipped with inverter device to work at fixed speed (2)
	II	Pump I equipped with inverter device to work at fixed speed (2)
		Kit with n° 1 inverter pump + stand-by pump to fixed speed
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed (2)
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed (3)
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed (3)
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed (3)
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed (3)
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (1)
15,16		**Recovery side - pumps**
	00	Without hydronic kit
		Kit with n° 1 inverter pump to fixed speed
	MA	Pump A equipped with inverter device to work at fixed speed
	MB	Pump B equipped with inverter device to work at fixed speed
	MC	Pump C equipped with inverter device to work at fixed speedr
	MD	Pump D equipped with inverter device to work at fixed speed
	ME	Pump E equipped with inverter device to work at fixed speed
	MF	Pump F equipped with inverter device to work at fixed speed (2)
	MG	Pump G equipped with inverter device to work at fixed speed (2)
	MH	Pump H equipped with inverter device to work at fixed speed (2)
	MI	Pump I equipped with inverter device to work at fixed speed (2)
		Kit with n° 1 inverter pump + stand-by pump to fixed speed
	NA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	NB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	NC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	ND	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	NE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed (2)
	NF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed (3)
	NG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed (3)
	NH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed (3)
	NI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed (3)
		Kit with n° 1 pump
	RA	Pump A
	RB	Pump B
	RC	Pump C
	RD	Pump D
	RE	Pump E
	RF	Pump F
	RG	Pump G
	RH	Pump H
	RI	Pump I
	RJ	Pump J (1)
		Pump n° 1 pump + stand-by pump
	SA	Pump A + stand-by pump
	SB	Pump B + stand-by pump
	SC	Pump C + stand-by pump
	SD	Pump D + stand-by pump
	SE	Pump E + stand-by pump
	SF	Pump F + stand-by pump
	SG	Pump G + stand-by pump
	SH	Pump H + stand-by pump
	SI	Pump I + stand-by pump
	SJ	Pump J + stand-by pump (1)

(1) Contact the factory
(2) Hydronic kit not available with sizes 0800-1600 version A, 0800-1100 version E.
(3) Hydronic kit not available with sizes 0800-2000 version A, 0800-1400 version E.

PERFORMANCE SPECIFICATIONS

NPG - 2 TUBI - version A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °, J												
Cooling system side 2-pipe system												
Cooling capacity	kW	206,5	238,8	262,1	298,1	349,6	385,1	424,0	492,6	549,2	601,9	634,7
Input power	kW	72,5	78,2	87,8	105,5	116,8	134,0	151,5	172,2	199,9	209,9	227,0
Cooling total input current	A	128,0	142,0	158,0	184,0	203,0	228,0	254,0	292,0	337,0	355,0	381,0
EER	W/W	2,85	3,06	2,98	2,83	2,99	2,87	2,80	2,86	2,75	2,87	2,80
Water flow rate system side	l/h	35537	41084	45096	51279	60134	66248	72915	84728	94449	103520	109133
Pressure drop system side	kPa	30	41	37	43	47	48	38	47	51	50	36
Heating system side 2-pipe system												
Heating capacity	kW	212,0	246,3	270,7	308,5	363,1	401,6	436,7	507,2	565,1	617,3	654,9
Input power	kW	67,3	79,4	86,7	99,8	116,0	129,1	138,3	161,0	179,3	195,0	208,9
Heating total input current	A	121,0	143,0	156,0	175,0	201,0	221,0	235,0	276,0	308,0	335,0	355,0
COP	W/W	3,15	3,10	3,12	3,09	3,13	3,11	3,16	3,15	3,15	3,17	3,13
Water flow rate system side	l/h	36787	42745	46996	53553	63027	69719	75833	88058	98099	107197	113726
Pressure drop system side	kPa	26	35	35	45	56	39	35	47	61	37	42
Heating domestic hot water side 2-pipe system												
Heating capacity	kW	212,6	247,4	272,1	309,6	361,5	399,4	433,8	508,6	565,9	607,8	644,6
Input power	kW	64,9	76,7	83,1	95,4	110,8	123,0	132,9	156,0	175,8	186,5	198,8
Heating total input current	A	118,0	140,0	152,0	170,0	194,0	213,0	228,0	269,0	303,0	323,0	341,0
COP	W/W	3,28	3,22	3,28	3,25	3,26	3,25	3,26	3,26	3,22	3,26	3,24
Water flow rate domestic hot water side	l/h	36883	42934	47229	53737	62755	69347	75327	88302	98238	105551	111934
Pressure drop domestic hot water side	kPa	26	35	35	45	55	38	35	47	62	36	40
Simultaneous operation (heating + cooling), 2 pipes												
Cooling capacity	kW	203,7	225,7	253,7	292,1	337,7	374,2	424,7	483,4	547,9	592,0	631,0
Recovered heating power	kW	261,4	290,8	325,1	376,1	432,7	481,8	541,8	619,8	703,9	754,4	805,3
Input power	kW	61,2	69,7	76,2	90,0	102,1	115,2	125,0	146,2	167,7	173,9	186,2
Water flow rate system side	l/h	35537	41084	45096	51279	60134	66248	72915	84728	94449	103520	109133
Pressure drop system side	kPa	30	41	37	43	47	48	38	47	51	50	36
Water flow rate domestic hot water side	l/h	36883	42934	47229	53737	62755	69347	75327	88302	98238	105551	111934
Pressure drop domestic hot water side	kPa	26	35	35	45	55	38	35	47	62	36	40
TER	W/W	7,60	7,41	7,59	7,42	7,55	7,43	7,73	7,55	7,46	7,74	7,71

NPG - 2 TUBI - version E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °, J												
Cooling system side 2-pipe system (1)												
Cooling capacity	kW	213,9	243,4	269,6	308,8	360,8	398,4	444,6	512,8	573,9	620,0	657,8
Input power	kW	68,7	76,3	85,4	101,5	114,3	130,4	142,5	165,0	189,3	201,0	217,2
Cooling total input current	A	121,0	136,0	151,0	174,0	194,0	218,0	236,0	275,0	316,0	335,0	359,0
EER	W/W	3,11	3,19	3,16	3,04	3,16	3,06	3,12	3,11	3,03	3,08	3,03
Water flow rate system side	l/h	36805	41878	46384	53119	62049	68513	76468	88195	98704	106600	113102
Pressure drop system side	kPa	33	33	36	41	38	34	42	44	53	34	33
Heating system side 2-pipe system (2)												
Heating capacity	kW	221,1	252,2	275,3	315,3	365,1	404,5	453,0	521,7	583,4	630,5	670,8
Input power	kW	68,9	79,7	87,0	99,8	112,1	124,1	140,1	160,5	179,3	196,0	207,7
Heating total input current	A	121,0	140,0	153,0	171,0	191,0	209,0	233,0	269,0	302,0	328,0	345,0
COP	W/W	3,21	3,16	3,16	3,16	3,26	3,26	3,23	3,25	3,25	3,22	3,23
Water flow rate system side	l/h	38375	43773	47791	54724	63379	70236	78653	90570	101283	109498	116479
Pressure drop system side	kPa	28	37	36	47	57	39	38	50	65	39	44
Heating domestic hot water side 2-pipe system (3)												
Heating capacity	kW	220,1	250,9	276,7	316,4	365,5	404,7	450,0	522,2	583,4	621,2	660,2
Input power	kW	66,3	77,1	83,5	96,3	110,8	123,1	136,1	158,5	178,5	188,1	200,4
Heating total input current	A	118,0	136,0	148,0	167,0	189,0	207,0	227,0	266,0	300,0	317,0	335,0
COP	W/W	3,32	3,25	3,31	3,28	3,30	3,29	3,31	3,29	3,27	3,30	3,29
Water flow rate domestic hot water side	l/h	38186	43543	48035	54917	63434	70267	78140	90658	101283	107870	114640
Pressure drop domestic hot water side	kPa	28	36	36	47	57	39	38	50	65	37	42
Simultaneous operation (heating + cooling), 2 pipes (4)												
Cooling capacity	kW	203,9	227,9	255,4	294,4	344,0	380,9	424,9	491,4	550,4	595,8	637,5
Recovered heating power	kW	261,2	292,9	326,5	378,1	438,7	488,2	541,4	627,4	705,8	757,3	811,0
Input power	kW	61,0	69,3	75,9	89,7	101,7	114,6	124,7	145,9	167,3	172,6	185,4
Water flow rate system side	l/h	36805	41878	46384	53119	62049	68513	76468	88195	98704	106600	113102
Pressure drop system side	kPa	33	33	36	41	38	34	42	44	53	34	33
Water flow rate domestic hot water side	l/h	38186	43543	48035	54917	63434	70267	78140	90658	101283	107870	114640
Pressure drop domestic hot water side	kPa	28	36	36	47	57	39	38	50	65	37	42
TER	W/W	7,63	7,51	7,66	7,49	7,70	7,59	7,75	7,67	7,51	7,84	7,81

(1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2022; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NPG - 4 TUBI - version A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °, J												
Cooling system side 4-pipe system												
Cooling capacity	kW	206,5	238,8	262,1	298,1	349,6	385,1	424,0	492,6	549,2	601,9	634,7
Input power	kW	72,5	78,2	87,8	105,5	116,8	134,0	151,5	172,2	199,9	209,9	227,0
Cooling total input current	A	128,0	142,0	158,0	184,0	203,0	228,0	254,0	292,0	337,0	355,0	381,0
EER	W/W	2,85	3,06	2,98	2,83	2,99	2,87	2,80	2,86	2,75	2,87	2,80
Water flow rate system side	l/h	35537	41084	45096	51279	60134	66248	72915	84728	94449	103520	109133
Pressure drop system side	kPa	30	41	37	43	47	48	38	47	51	50	36
Heating system side 4-pipe system												
Heating capacity	kW	212,0	246,3	270,7	308,5	363,1	401,6	436,7	507,2	565,1	617,3	654,9
Input power	kW	67,3	79,4	86,7	99,8	116,0	129,1	138,3	161,0	179,3	195,0	208,9
Heating total input current	A	121,0	143,0	156,0	175,0	201,0	221,0	235,0	276,0	308,0	335,0	355,0
COP	W/W	3,15	3,10	3,12	3,09	3,13	3,11	3,16	3,15	3,15	3,17	3,13
Water flow rate system side	l/h	36787	42745	46996	53553	63027	69719	75833	88058	98099	107197	113726
Pressure drop system side	kPa	26	35	35	45	56	39	35	47	61	37	42
Simultaneous operation (heating + cooling), 4 pipes												
Cooling capacity	kW	203,7	225,7	253,7	292,1	337,7	374,2	424,7	483,4	547,9	592,0	631,0
Recovered heating power	kW	261,4	290,8	325,1	376,1	432,7	481,8	541,8	619,8	703,9	754,4	805,3
Input power	kW	61,2	69,7	76,2	90,0	102,1	115,2	125,0	146,2	167,7	173,9	186,2
Total input current	A	107	121	133	153	169	189	203	239	274	285	303
TER	W/W	7,60	7,41	7,59	7,42	7,55	7,43	7,73	7,55	7,46	7,74	7,71
Water flow rate cold side	l/h	35537	41084	45096	51279	60134	66248	72915	84728	94449	103520	109133
Pressure drop cold side	kPa	30	41	37	43	47	48	38	47	51	50	36
Water flow rate hot side	l/h	36883	42934	47229	53737	92755	69347	75327	88302	98238	105551	111934
Pressure drop hot side	kPa	26	35	35	45	55	38	35	47	62	36	40

NPG - 4 TUBI - version E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °, J												
Cooling system side 4-pipe system (1)												
Cooling capacity	kW	213,9	243,4	269,6	308,8	360,8	398,4	444,6	512,8	573,9	620,0	657,8
Input power	kW	68,7	76,3	85,4	101,5	114,3	130,4	142,5	165,0	189,3	201,0	217,2
Cooling total input current	A	121,0	136,0	151,0	174,0	194,0	218,0	236,0	275,0	316,0	335,0	359,0
EER	W/W	3,11	3,19	3,16	3,04	3,16	3,06	3,12	3,11	3,03	3,08	3,03
Water flow rate system side	l/h	36805	41878	46384	53119	62049	68513	76468	88195	98704	106600	113102
Pressure drop system side	kPa	33	33	36	41	38	34	42	44	53	34	33
Heating system side 4-pipe system (2)												
Heating capacity	kW	221,1	252,2	275,3	315,3	365,1	404,5	453,0	521,7	583,4	630,5	670,8
Input power	kW	68,9	79,7	87,0	99,8	112,1	124,1	140,1	160,5	179,3	196,0	207,7
Heating total input current	A	121,0	140,0	153,0	171,0	191,0	209,0	233,0	269,0	302,0	328,0	345,0
COP	W/W	3,21	3,16	3,16	3,16	3,26	3,26	3,23	3,25	3,25	3,22	3,23
Water flow rate system side	l/h	38375	43773	47791	54724	63379	70236	78653	90570	101283	109498	116479
Pressure drop system side	kPa	28	37	36	47	57	39	38	50	65	39	44
Simultaneous operation (heating + cooling), 4 pipes (3)												
Cooling capacity	kW	203,9	227,9	255,4	294,4	344,0	380,9	424,9	491,4	550,4	595,8	637,5
Recovered heating power	kW	261,2	292,9	326,5	378,1	438,7	488,2	541,4	627,4	705,8	757,3	811,0
Input power	kW	61,0	69,3	75,9	89,7	101,7	114,6	124,7	145,9	167,3	172,6	185,4
Total input current	A	107	121	133	153	170	189	203	239	275	285	303
TER	W/W	7,63	7,51	7,66	7,49	7,70	7,59	7,75	7,67	7,51	7,84	7,81
Water flow rate cold side	l/h	36805	41878	46384	53119	62049	68513	76468	88195	98704	106600	113102
Pressure drop cold side	kPa	33	33	36	41	38	34	42	44	53	34	33
Water flow rate hot side	l/h	38186	43543	48035	54917	63434	70267	78140	90658	101283	107870	114640
Pressure drop hot side	kPa	28	36	36	47	57	39	38	50	65	37	42

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C
(2) Data 14511:2022; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

ENERGY DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °													
SEER - 12/7 (EN14825: 2018) (1)													
SEER	A	W/W	3,91	4,19	4,10	4,02	4,24	4,11	4,20	4,23	4,17	- (2)	- (2)
	E	W/W	4,28	4,43	4,45	4,37	4,51	4,39	4,53	4,50	4,38	4,56	- (2)
Seasonal efficiency	A	%	153,42	164,55	160,94	157,62	166,50	161,53	165,09	166,23	163,91	- (2)	- (2)
	E	%	168,35	174,04	174,86	171,66	177,32	172,45	178,03	176,91	172,17	179,53	- (2)
SEER - 23/18 (EN14825: 2018) (3)													
SEER	A	W/W	4,55	4,79	4,75	4,59	4,77	4,67	4,76	4,80	4,74	4,79	4,83
	E	W/W	4,97	5,10	5,07	4,98	5,08	5,02	5,10	5,09	4,93	5,22	5,12
Seasonal efficiency	A	%	179,15	188,60	186,82	180,78	187,65	183,75	187,30	188,88	186,64	188,56	190,36
	E	%	195,67	201,20	199,97	196,33	200,32	197,97	200,81	200,73	194,03	205,60	201,99
Performance in average ambient conditions (average) - 35 °C (4)													
Pdesignh	A	kW	186	214	236	271	315	351	382	387	392	534	569
	E	kW	190	216	239	275	317	353	393	391	396	543	578
SCOP	A	W/W	3,75	3,52	3,68	3,66	3,60	3,75	3,86	3,82	3,87	3,90	3,94
	E	W/W	3,65	3,51	3,61	3,70	3,57	3,64	3,79	3,71	3,77	3,85	3,88
ηsh	A	%	147,08	137,96	144,14	143,49	141,02	146,85	151,49	149,87	151,80	153,02	154,74
	E	%	143,08	137,31	141,51	144,82	139,84	142,66	148,63	145,46	147,80	151,00	152,20
Performance in average ambient conditions (average) - 55 °C (5)													
Pdesignh	A	kW	186	213	236	272	314	350	382	387	392	532	568
	E	kW	189	215	237	274	314	351	388	391	396	538	574
SCOP	A	W/W	3,06	2,94	3,05	3,02	2,98	3,02	3,06	3,12	3,13	3,15	3,17
	E	W/W	3,03	2,94	3,01	3,06	2,99	2,96	3,04	3,05	3,07	3,14	3,15
ηsh	A	%	119,46	114,54	118,93	117,87	116,20	117,74	119,57	121,93	122,33	122,86	123,75
	E	%	118,39	114,59	117,24	119,51	116,46	115,34	118,58	119,01	119,81	122,48	123,02
Fans: J													
SEER - 12/7 (EN14825: 2018) (1)													
SEER	A	W/W	4,20	4,40	4,29	4,19	4,41	4,29	4,43	4,49	4,47	4,56	4,56
	E	W/W	4,57	4,65	4,63	4,55	4,70	4,60	4,71	4,73	4,68	4,76	4,67
Seasonal efficiency	A	%	165,03	172,97	168,76	164,40	173,36	168,76	174,26	176,46	175,86	179,30	179,22
	E	%	179,65	183,16	182,27	179,15	185,06	181,08	185,47	186,03	184,37	187,25	183,96
SEER - 23/18 (EN14825: 2018) (3)													
SEER	A	W/W	4,89	5,03	4,96	4,79	4,97	4,86	5,01	5,07	5,08	5,13	5,19
	E	W/W	5,28	5,36	5,28	5,20	5,32	5,26	5,30	5,33	5,23	5,42	5,34
Seasonal efficiency	A	%	192,45	198,11	195,26	188,53	195,85	191,60	197,44	199,91	200,14	202,39	204,66
	E	%	208,28	211,38	208,24	205,01	209,61	207,42	208,88	210,16	203,23	213,78	210,79
Performance in average ambient conditions (average) - 35 °C (4)													
Pdesignh	A	kW	186	214	236	271	315	351	383	447	498	534	569
	E	kW	190	216	239	275	317	353	393	455	508	543	578
SCOP	A	W/W	3,87	3,63	3,78	3,76	3,69	3,83	3,95	3,93	3,94	4,00	4,04
	E	W/W	3,77	3,62	3,70	3,79	3,66	3,77	3,88	3,85	3,86	3,97	3,99
ηsh	A	%	151,87	142,21	148,35	147,20	144,52	150,05	154,81	154,14	154,62	157,05	158,56
	E	%	147,93	141,65	145,12	148,62	143,52	147,88	152,37	150,92	151,58	155,88	156,50
Performance in average ambient conditions (average) - 55 °C (5)													
Pdesignh	A	kW	186	213	236	272	314	350	382	387	392	532	568
	E	kW	189	215	237	274	314	351	388	391	396	538	574
SCOP	A	W/W	3,16	3,03	3,14	3,10	3,05	3,08	3,13	3,22	3,13	3,23	3,25
	E	W/W	3,14	3,03	3,08	3,14	3,07	3,07	3,12	3,18	3,07	3,24	3,24
ηsh	A	%	123,43	118,15	122,48	120,99	119,19	120,37	122,24	125,88	122,33	126,23	126,91
	E	%	122,51	118,32	120,32	122,74	119,65	119,67	121,63	124,10	119,81	126,61	126,64

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.
(4) Efficiencies for low temperature applications (35 °C)
(5) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

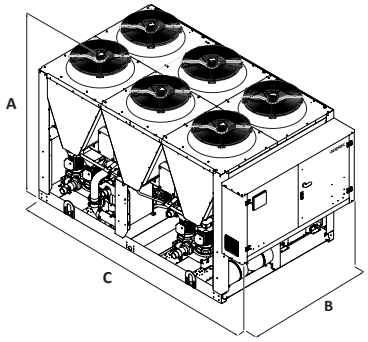
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Electric data													
Maximum current (FLA)	A	A	158,8	185,4	204,2	232,0	267,6	295,4	323,2	376,2	421,4	457,0	484,8
	E	A	166,6	193,2	212,0	239,8	275,4	303,2	338,8	391,8	437,0	472,6	500,4
Peak current (LRA)	A	A	363,0	427,2	446,0	695,0	730,6	758,4	786,2	839,2	884,4	920,0	947,8
	E	A	370,8	435,0	453,8	702,8	738,4	766,2	801,8	854,8	900,0	935,6	963,4

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Compressor													
Type	A,E	type						Scroll					
Compressor regulation	A,E	Type						On-Off					
Number	A,E	no.	4	4	4	4	4	4	4	5	6	6	6
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type						R32					
Refrigerant load circuit 1 (1)	A	kg	19,6	27,3	27,3	28,0	25,2	40,4	42,0	48,3	51,1	53,2	54,6
	E	kg	24,5	37,1	36,4	39,2	42,0	51,8	54,6	60,2	67,6	72,8	72,8
Refrigerant load circuit 2 (1)	A	kg	19,6	27,3	27,3	28,0	25,2	40,4	42,0	48,3	51,1	53,2	54,6
	E	kg	24,5	37,1	36,4	39,2	42,0	51,8	54,6	60,2	67,6	72,8	72,8
2-pipe system - System side heat exchanger (hot/cold)													
Type	A,E	type						Brazed plate					
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type						Grooved joints					
Sizes (in/out)	A	Ø	3''	3''	3''	3''	3''	4''	4''	4''	4''	5''	5''
	E	Ø	3''	3''	3''	3''	4''	4''	4''	4''	4''	5''	5''
2-pipe system - Recovery side heat exchanger (domestic hot water)													
Type	A,E	type						Brazed plate					
Number	A,E	no.	2	2	2	2	2	2	2	2	2	2	2
Connections (in/out)	A,E	Type						Grooved joints					
Sizes (in/out)	A,E	Ø	3''	3''	3''	3''	3''	4''	4''	4''	4''	5''	5''
4-pipe system - System side heat exchanger (cold side)													
Type	A,E	type						Brazed plate					
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type						Grooved joints					
Sizes (in/out)	A	Ø	3''	3''	3''	3''	3''	4''	4''	4''	4''	5''	5''
	E	Ø	3''	3''	3''	3''	4''	4''	4''	4''	4''	5''	5''
4-pipe system - Recovery side heat exchanger (hot side)													
Type	A,E	type						Brazed plate					
Number	A,E	no.	2	2	2	2	2	2	2	2	2	2	2
Connections (in/out)	A,E	Type						Grooved joints					
Sizes (in/out)	A,E	Ø	3''	3''	3''	3''	3''	4''	4''	4''	4''	5''	5''
Fan													
Type	A,E	type						Axial					
Fan motor	A,E	type						On-Off					
Number	A	no.	4	6	6	6	8	8	8	10	10	12	12
	E	no.	6	8	8	8	10	10	12	14	14	16	16
Air flow rate	A	m^3/h	82403	123609	123609	123605	164779	164779	164779	205996	205998	247152	247152
	E	m^3/h	102378	136491	136491	136491	170613	170613	204757	238871	238871	272982	272982
Sound data calculated in cooling mode (2)													
Sound power level	A	dB(A)	90,5	92,2	92,2	92,3	93,6	93,6	93,7	94,6	94,7	95,4	95,5
	E	dB(A)	85,2	86,2	86,2	87,0	88,3	88,8	89,7	90,1	90,2	90,9	91,2

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Dimensions and weights without hydronic kit													
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	3970	3970	3970	5160	5160	5160	6350	6350	7540	7540
	E	mm	3970	5160	5160	5160	6350	6350	7540	8730	8730	9920	9920
Empty weight	A	kg	2575	3120	3130	3325	4115	4305	4605	5400	5805	6640	6740
	E	kg	3085	3745	3755	3955	4690	4865	5565	6400	6780	7690	7825
Dimensions and weights with pump/s													
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	3970	3970	3970	3970	5160	5160	5160	6350	6350	7540	7540
	E	mm	3970	5160	5160	5160	6350	6350	7540	8730	8730	9920	9920
Empty weight	A	kg	3795	3920	3930	4125	4910	5155	5455	6250	6650	7530	7655
	E	kg	3880	4545	4555	4755	5490	5665	6385	7250	7625	8580	8740

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