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- **HEAT PUMP OPTIMISED FOR HEATING: PRODUCTION OF HOT WATER UP TO 60°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**
- **INTERFACES WITH VARIABLE MULTIFLOW VMF SYSTEM**
- **EVAPORATING AND CONDENSING CONTROL STANDARD**
- **INVERTER PLUG FAN**
- **DOMESTIC HOT WATER (DHW) PRODUCTION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**

Characteristics

- Cooling only and heat pump models "H"
- Manufactured with refrigerant R410A
- Versions available:
 - "o" Standard
 - "HP" With pump, expansion tank and water filter
 - "HA" With pump, expansion tank, water filter and buffer tank
- All versions are available for the production of chilled water down to -6°C (see unit configuration option)
- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Compressor crank case heater standard
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors conforming to regulation EU 327/2011
- Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Plate heat exchanger anti-freeze electric heater "KR" standard on heat pump "H" models
- Condensate drain tray standard on heat pump "H" models
- Anti-freeze electric heater standard for the buffer tank

Accessories

- **AERSET:** The accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory:** AER485 or MODU-485A
 - **MODU-485BL:** RS-485 interface for supervising systems with MODBUS protocol. (accessory mandatory for the production of domestic hot water).
 - **DRE:** Electronic soft starter. Reduces starting current by about 30%. Factory fitted only.
 - **KR:** Plate heat exchanger anti-freeze electric heater (only available for cooling only versions)
Factory fitted only.
 - **PR3:** Simplified remote panel. Permits control of basic unit functions and alarm notification. Remote mounted with shielded cable up to 30 m distance.
 - **VT:** Anti-vibration mounts.
 - **CLPA:** Galvanised steel plenum to be installed on the condenser coil. Facilitates duct installations.
 - **GPCL:** Protective grille. Protects the external condenser coil from damage.
 - **KR B4/B5/B6:** Electric base heater to prevent the formation of ice (only available for heat pump versions).
 - **BSKW:** External electric heater kit of various capacities with single and three phase power supplies:
 - BS4KW230M (4kW, 230V/1/50Hz)
 - BS6KW230M (6kW, 230V/1/50Hz)
 - BS6KW400T (6kW, 400V/3/50Hz)
 - BS9KW400T (9kW, 400V/3/50Hz)
 - **MULTICONTROL:** can be used as a remote panel for a single unit or to simultaneously control several chillers or heat pumps (up to 4) installed in the same hydraulic system, fitted with our MODUCONTROL controller.
- For complete control the following accessories are available:
- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
 - **SDHW:** Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.
- **COMPATIBILITY with the VMF SYSTEM**
For more information on the system refer to the manual.

CL	ver.	25	30	40	50	70	80	90	100	150	200
MODU-485BL	(1) All	*	*	*	*	*	*	*	*	*	*
MULTICONTROL	All	*	*	*	*	*	*	*	*	*	*
SPLW	All	*	*	*	*	*	*	*	*	*	*
SDHW	All	*	*	*	*	*	*	*	*	*	*
PR3	All	*	*	*	*	*	*	*	*	*	*
AERSET	All	*	*	*	*	*	*	*	*	*	*
BS4KW230M	H	*	*	*	-	-	-	-	-	-	-
BS6KW230M	H	*	*	*	-	-	-	-	-	-	-
BS6KW400T	H	*	*	*	*	*	*	*	*	*	*
BS9KW400T	H	*	*	*	*	*	*	*	*	*	*
CLPA	(2) All	1	1	2	2	2	2	2	3	3	3
GPCL	All	1	1	2	2	2	2	2	3	3	3
VT	H / HP	9	9	9	9	9	9	9	15	15	15
	HA	15A	15A	15A	15A	15A	15A	15A	15	15	15
Accessori montati in fabbrica											
DRE	(3)	5	5	5	5	5	5	5	5 (x2)	5 (x2)	5 (x2)
KRB4	H	*	*	-	-	-	-	-	-	-	-
KRB5	H	-	-	*	*	*	*	*	-	-	-
KRB6	H	-	-	-	-	-	-	-	*	*	*

(1) Accessory mandatory for the production of domestic hot water

(2) Not available with accessory GPCL only for sizes 025 to 090

(3) Only 400V/3N/50Hz

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 particular of system requirements.

Filed	Code	11	Field of use
1,2	CL		° Standard (leaving water temperature down to 4°C)
3,4,5	Size		Z Low temperature (Low leaving liquid from 4°C down to up to 0°C)
	025-030-040-050-070-080-090-100-150-200		Y Low temperature (Low leaving liquid from 0°C down to -6°C)
6	Model	12	Evaporator
	° Cooling Only		° Standatd
	H Heat pumps		C Condensing unit
7	Execution	13	Power supply
	° Standard		M 230V/1/50Hz (from 020 to 040)
	L Low noise (5)		° 400V/3N/50Hz
8	Version		
	° Standard		
	P With pump		
	A With pump and buffer tank (6)		
9	Heat recovery		
	° Without recovery		
	D With desuperheater (7)		
10	Coil		
	° Aluminium		
	R Copper		
	S Tinned copper		
	V Coated aluminium (epoxy paint)		

(5) No Heat pump versions

(6) The units CLH with integrated buffer tank, are not suitable for producing of hot water (DHW)

(7) for cooling only versions from size 050 to 200

Technical data

CL - H			025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,39	8,35	10,34	11,90	13,96	15,49	18,92	23,82	31,21
	Total input power	(1)	kW	2,69	3,13	3,89	4,27	4,93	5,73	6,91	8,36	11,17
	EER	(1)		2,38	2,67	2,66	2,79	2,83	2,70	2,74	2,85	2,79
	ESEER	(1)		2,61	2,93	2,92	3,07	3,11	2,97	3,01	4,12	4,04
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	5394
	Pressure drop	(1)	kPa	13	12	13	11	15	26	26	34	22
40°C / 45°C	Heating capacity	(2)	kW	7,92	9,79	12,52	14,47	15,95	18,61	21,06	27,98	34,92
	Total input power	(2)	kW	2,39	3,01	3,79	4,22	4,85	5,60	6,71	8,30	10,86
	COP	(2)		3,31	3,25	3,30	3,43	3,29	3,32	3,14	3,37	3,22
	Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597	4772	5971
	Pressure drop	(2)	kPa	19	16	18	17	21	32	34	49	30
	Pressure drop	(2)	kPa	19	16	18	17	21	32	34	49	30
Performance under average climatic conditions (Average)												
Pdesignh			(3)	7	8	10	11	13	15	18	22	27
SCOP			(3)	3,35	2,60	2,60	2,70	2,60	2,65	3,30	2,68	2,60
ηs			(3)	131	101	101	105	101	103	129	104	101
Efficiency Energy Class			(4)	A+	A+	A+	A+	A+	A+	A+	A+	A+
Cooling mode for low temperature												
ηsc			%	114,2	127,6	129,6	134,8	134,0	127,8	132,4	159,2	159,2
SEER				2,93	3,27	3,32	3,45	3,43	3,27	3,39	4,06	4,06

CL - HP/HA			025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,44	8,42	10,44	12,03	14,12	15,67	19,14	24,34	31,94
	Total input power	(1)	kW	2,72	3,14	3,88	4,27	4,91	5,68	6,84	8,43	11,43
	EER	(1)		2,37	2,68	2,69	2,82	2,88	2,76	2,80	2,89	2,79
	ESEER	(1)		2,61	2,95	2,96	3,10	3,16	3,03	3,08	4,18	4,04
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	5394
	Pressure drop	(1)	kPa	64	63	60	98	93	81	75	99	157
40°C / 45°C	Heating capacity	(2)	kW	7,85	9,70	12,39	14,30	15,76	18,39	20,81	27,41	34,14
	Total input power	(2)	kW	2,40	3,01	3,76	4,20	4,81	5,52	6,62	8,35	11,11
	COP*	(2)		3,27	3,22	3,30	3,40	3,28	3,33	3,14	3,28	3,07
	COP	(2)		3,48	3,40	3,62	3,71	3,52	3,56	3,35	3,5	3,29
	Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597	4772	5971
	Pressure drop	(2)	kPa	57	58	53	93	88	71	70	81	147
Performance under average climatic conditions (Average)												
Pdesignh			(3)	6	8	10	11	12	14	18	21	27
SCOP			(3)	2,63	2,60	2,60	2,68	2,58	2,65	3,35	2,60	2,58
ηs			(3)	102	101	101	104	100	103	131	101	100
Efficiency Energy Class			(4)	A+	A+	A+	A+	A+	A+	A+	A+	A+
Cooling mode for low temperature												
ηsc			%	121,4	135,9	138,0	141,9	141,7	135,3	141,0	159,5	150,8
SEER				3,11	3,47	3,53	3,62	3,62	3,46	3,60	4,06	3,85

			025	030	040	050	070	080	090	100	150	200	
Electrical data													
230V	Total input current (cooling)	(5)	A	12,7	15,4	16,0	/	/	/	/	/	/	
	Total input current (heating)	(5)	A	11,8	14,3	15,6	/	/	/	/	/	/	
	Maximum current (FLA)	(5)	A	18,8	23,7	24,0	/	/	/	/	/	/	
	Starting current (LRA)	(5)	A	86,1	95,5	96,1	/	/	/	/	/	/	
400V	Total input currente (cooling)	(5)	A	5,5	6,3	6,7	7,7	8,4	9,8	13,4	14,3	21,3	26,6
	Total input currente (heating)	(5)	A	5,5	6,2	6,5	7,6	8,2	9,3	12,7	14,3	19,5	26,5
	Maximum current (FLA)	(5)	A	11,0	12,0	11,9	13,5	14,7	15,2	20,4	27,0	30,3	40,8
	Starting current (LRA)	(5)	A	44,6	44,6	57,2	64,2	74,2	94,2	105,2	77,7	109,3	125,6
Scroll Compressor													
Compressor		Type/n°	1	1	1	1	1	1	1	2	2	2	
Circuit		n°	1	1	1	1	1	1	1	1	1	1	
Refrigerant		Type	R410A										
Heat exchanger system side													
Exchanger		Type/n°	Plate/1										
hvdraulic connections (In/Out)		Ø	1"1/4										

Date (14511:2013)

* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

(5) Unit standar configuration without hydronic kit

Technical data

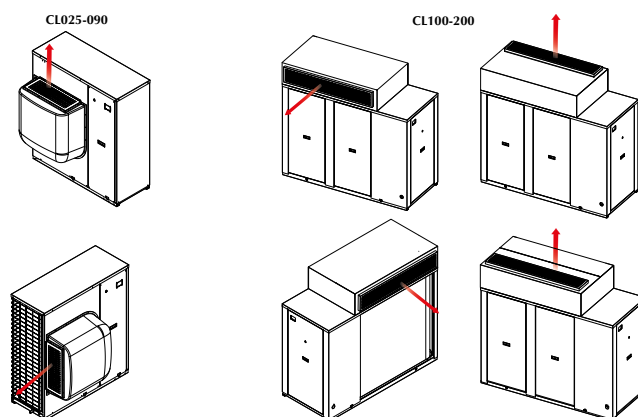
		025	030	040	050	070	080	090	100	150	200
Plug-fan											
Fans	Type/n°	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2
Air flow rate (cooling)	m³/h	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
Nominal high static pressure	Pa	50	50	50	80	80	80	80	80	100	100
Sound data chiller (cooling mode)											
Sound power level	dB(A)	78	78	73	73	73	73	76	74	79	80
Sound pressure level	dB(A)	46	46	41	41	41	41	44	42	47	48
Sound data Delivery (cooling mode)											
Sound power level	dB(A)	78	78	78	78	78	78	81	78	83	85
Sound pressure level	dB(A)	46	46	46	46	46	46	49	47	52	54

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.

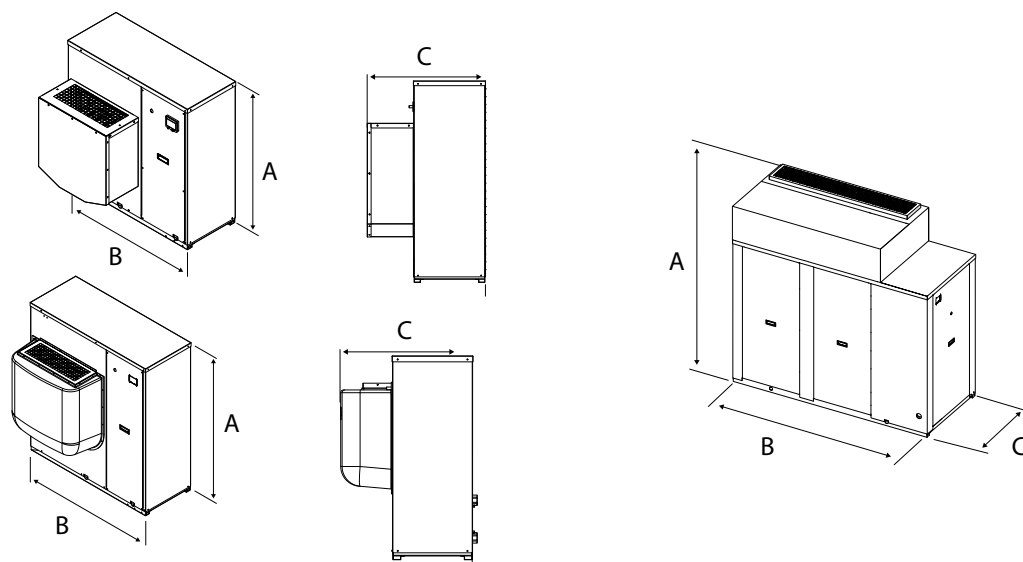
Sound pressure Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

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

Discharge hood possible configurations (site modified)



Dimensional data (mm)



CL standard and low noise			025	030	040	050	070	080	090	100	150	200
H (without hydronic kit)												
A	mm		1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm		1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
C	mm		702	702	798	798	798	798	798	801	801	801
HP (with pump)												
A	mm		1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm		1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
C	mm		702	702	798	798	798	798	798	801	801	801
HA (with Storage tank)												
A	mm		1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	mm		1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
C	mm		702	702	798	798	798	798	798	801	801	801
Weight												
CL - H	kg		142	142	229	229	240	240	234	504	527	515
CL - HP	kg		148	148	239	239	250	250	243	517	543	531
CL - HA	kg		172	172	274	274	284	284	279	567	593	581

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

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