ENERGY CLASS A

ENERGY OPTIMISATION

CIATCOOLER

Reversible water chiller for indoor installation

COMFORT • AIR QUALITY

MULTIPLE
HIGH EFFICIENCY PERFORMANCE

HIGH ENERGY EFFICIENCY

CIAT

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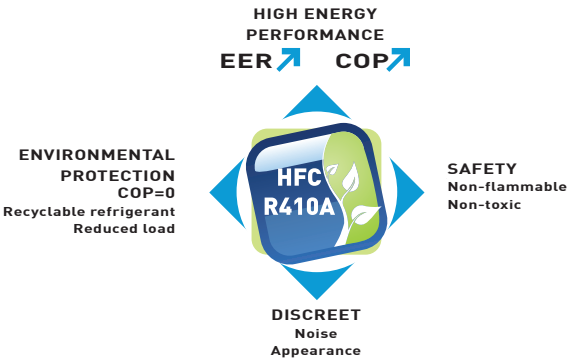
CIATCOOLER

For when outdoor installation is impossible

In city centres, classified sites, collective housing — anywhere where aesthetic and sound level requirements are particularly stringent — CIATCooler is the perfect solution, thanks to its installation indoors

- Compact equipment with a small footprint
- Standardised width of 860 mm up to model 360 STD, enabling access to most machine rooms.
- Autoadaptive CONNECT2 networked control
- Centrifugal fan or plug fan allowing the outdoor air circuit to be ducted for the evacuation of calories in summer and the recovery of heat from the air in the winter (down to -15°C)
- High energy performance and environmental protection using R410A refrigerant



Two versions of the CIATCooler are available to provide the perfect solution in accordance with requirements, the demands of the market and the economic situation:

Standard version

High Energy Efficiency version

Available in cooling only or reversible versions, CIATCooler meets the cooling and heating requirements of new or existing buildings in the tertiary sector, such as office buildings, hospitals, hotels, shopping centres... for surface areas up to 4000 m².

An environmentally-responsible company working towards a greener world

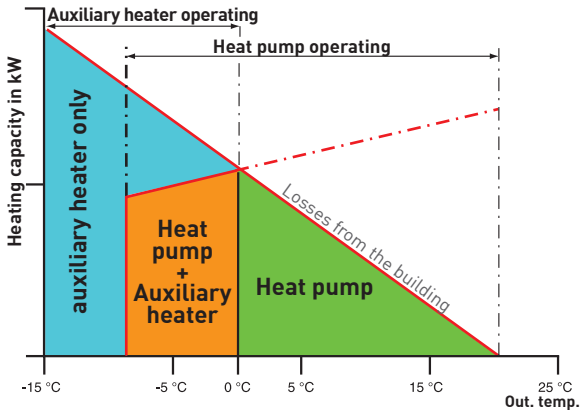
For many years, CIAT has been pursuing an industrial policy based on an ongoing strategy of continued sustainable development and eco-design in order to minimise the environmental impact of its equipment. The equipment integrated into Hysys system solutions benefits from this commitment.

CIATCOOLER

Simplified installation

Plug and Heat with the hydraulic version

CIATCooler has a complete hydraulic version with or without buffer tank, with a large choice of pumps, covering most hydraulic systems.
We select the very best hydraulic equipment and fit and test it in the factory, which limits the risks during installation and facilitates assembly on site.
The tank can be built into the unit (up to model 360 STD or 280 HEE) or provided in a separate casing, which facilitates transport and installation in the room.



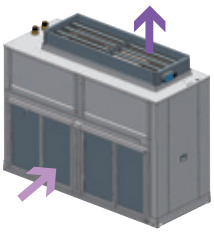
Perfectly managed control using CONNECT2

The available auxiliary heaters (up to 48 kW) built into the hydraulic module tank can provide additional heating or temporarily replace the thermodynamic technology, ensuring a constant level of comfort for the user.

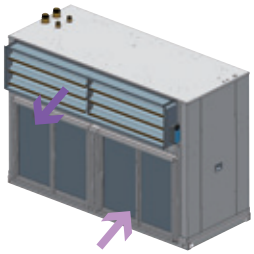
A range of connections to suit the installation constraints

- **Hydraulic connection** on top of the unit
- **Electrical connection** on the upper section or front panel
- **Air connection**: VERTICAL on all models (STD and HEE) or HORIZONTAL up to model 600 STD or 360 HEE

Vertical supply air



Horizontal supply



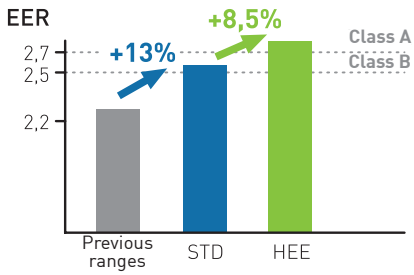
CIATCOOLER

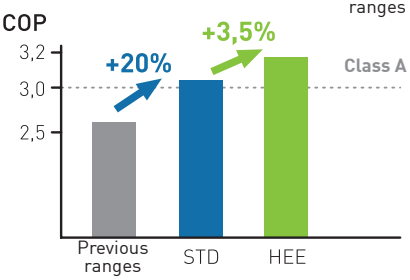
Boosting energy efficiency

For increased performance levels, CIATCooler is available in a High Energy Efficiency version

Reduced energy costs

EC technology allows the fan to adapt its performance levels to the specific requirements of the application. This enables it to reduce electricity consumption and improve the machine's average seasonal efficiency (ESEER).





Reliability of operation on-site

The electronically commutated motor runs without wear or noise, ensuring constant levels of performance and an extended service life. The fans are maintenance-free, which reduces costs in terms of both equipment and labour.

New function for process

Chilled water production down to outdoor temperatures of -15°C thanks to the EC motor which adjusts its speed to the required condensation pressure.

This function is available as standard on the HEE range and as an option on the standard range, in the form of a damper box placed on the fan discharge.

EC Plug Fan

CIATCOOLER

Networked control for greater adaptability and comfort

All the efficiency of the CONNECT2 control is implemented to meet requirements which vary significantly in the course of the day and throughout the different seasons

- **Flexible control:** control on water supply or return, water law based on the climate conditions, energy storage, management of two setpoints which can be switched remotely.
- **Remote communication:** with all types of Centralised Management System (CMS) via the RS 485 serial port and the MODBUS/JBUS RS 485 open communication protocol.
- **Numerous safety devices:** these ensure the complete protection and long service life of the installation, controlling the water flow rate, discharge temperature, high and low pressure protection, short cycle protection, etc.
- **Free output contacts:** these are used to access the general fault and full capacity operation information.
- **Multiple available inputs:** these allow the CIATCooler to be governed by an external control (timer, CMS, etc.); they also authorise switching of the setpoint and bypass.

An intuitive user interface for easy operation

- Operating readings on a single screen
- Reading of parameters
- Temperature, pressure and runtime values.

Integration in CIAT indoor climate systems

For work spaces, in combination with other CIAT solutions, such as comfort units (fan coil units, cassettes, ductable units), Floway dual-flow units and the intelligent Smart CIATControl module, CIATCooler plays a central role in the ongoing quest for increased comfort and energy efficiency.

Via the *Optimal Water*® function, CIATCooler optimises the building's restart time based on a learning calculation. Smart CIATControl also ensures automatic changeover of the main unit and the comfort units based on the building's requirements. The temperatures and the water consumption levels can also be consulted.

OPTIMAL WATER®

Wide range of power levels

CIATCOOLER HIGH EFFICIENCY HEE VERSION

Sizes		90V	100V	120V	160V	180V	200V	240V	280V	320V	360V	420V	480V	600V	640V	720V
Net cooling capacity (1)	kW	18.4	21.0	25.5	31.4	35.7	42.3	52.3	58.1	67.5	76.8	89.9	99.2	122.7	134.5	154.1
Net power input (1)	kW	7.2	7.9	9.1	11.5	13.6	15.5	18.2	21.2	24.1	28.2	31.9	36.4	46.1	48.5	56.7
Net EER		2.55	2.64	2.81	2.74	2.62	2.73	2.87	2.74	2.81	2.72	2.82	2.73	2.66	2.77	2.72
Energy class		B	B	A	A	B	A	A	A	A	A	A	A	B	A	A
Net heating capacity (1)	kW	21.4	23.9	29.3	36.4	42.5	48.6	56.6	65.0	75.4	86.3	99.6	109.3	133.6	150.8	172.0
Net power input (1)	kW	7.1	7.9	9.5	11.9	13.9	15.8	18.8	21.6	24.5	28.5	32.1	36.0	44.8	48.5	55.7
Net COP		3.03	3.03	3.08	3.05	3.05	3.08	3.01	3.01	3.08	3.03	3.11	3.03	2.98	3.11	3.09
Energy class		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Dimensions (mm)	L	1117	1398		2113		2673			3400		3600			4500	
	W	860								900		1150			1200	
	H	1447	1727		1447		1727			1970						
Weight	kg	294	351	368	450	455	633	656	662	942	948	1263	1339	1420	1713	1724

CIATCOOLER STANDARD VERSION

Sizes		90V	100V	120V	160V	180V	200V	240V	280V	320V	360V	420V	480V	600V	640V	720V	840V	960V
Net cooling capacity (1)	kW	17.7	21.1	25.2	32.7	36.0	43.7	49.3	55.8	68.1	74.3	88.8	97.0	119.0	134.6	152.3	177.3	193.5
Net power input (1)	kW	7.8	9.1	10.0	12.6	14.4	18.8	19.7	22.4	24.9	28.7	33.1	37.4	48.1	50.5	60.1	66.8	76.2
Net EER		2.29	2.31	2.51	2.6	2.49	2.32	2.51	2.49	2.73	2.59	2.68	2.59	2.48	2.66	2.53	2.65	2.54
Energy class		D	C	B	B	C	C	B	C	A	B	B	B	C	B	B	B	B
Net heating capacity (1)	kW	21.8	26.1	29.7	38.3	42.6	51.6	58.5	66.9	76.6	84.8	98.7	108.7	132.3	143.4	163.5	196.1	214.1
Net power input (1)	kW	7.3	8.9	9.9	12.9	14.2	18.4	19.6	22.4	24.8	28.2	34.4	38.4	48.8	50.2	57.4	67.2	74.8
Net COP		2.97	2.94	3	2.97	3.01	2.8	2.99	2.98	3.08	3.01	2.87	2.83	2.71	2.86	2.85	2.92	2.86
Energy class		B	B	A	B	A	B	B	B	A	A	B	B	C	B	B	B	B
Dimensions (mm)	L	1117		1398			2113	2673				3400			3600		4500	
	W	860										900			1150		1200	
	H	1447		1727			1447	1727				1970			1970		1970	
Weight	kg	302	310	372	390	388	564	644	676	710	716	1046	1122	1211	1461	1472	1949	2101

(1) EN 14511-2013-EUROVENT standardised conditions; Chilled water: 12/7°C, Air 35°C - Hot water 40/45°C, Air 7°C.

MAIN EQUIPMENT	
Hydraulic module	Version C
Wide selection of single and dual pumps **	Version C
Tank with heaters included	Version C option
Anti-vibration mount kit	Option
Flexible connections kit	Option
Air intake filter	Option
Sleeves for intake and discharge duct	Option
Antifreeze protection	Option
SOFT START	Option
800 micron screen filter	Version C, standard - Basic version option
All-season operation	STD version option, HEE version standard
Operation with low temperature glycol/water mix	Option
Blygold or polyurethane coil protection	Option
Partial heat recovery	Option

**Depending on the model

CONNECT2* autoadaptative electronic control	
Multilingual LCD	Standard
Water law depending on the outdoor temperature	Standard
Master/Slave control on water return	Standard
4-stage auxiliary heater management board kit	Option
Remote control	Option
MODBUS-JBUS open communication protocol	Standard
ETHERNET gateway	Standard
LONWORKS/BACNET gateway kit	Option
Multi-unit management - MULTICONNECT	Option
POWER'CONTROL/CRISTO'CONTROL Energy Hub management	Option

*90-180 STD option - 200 -960 STD and standard HEE range

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

CIAT participates in the following ECC certification programmes:
FCU - AHU - LCP - RT
To check the validity of the certificate, visit:
www.eurovent-certification.com or
www.certiflash.com

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