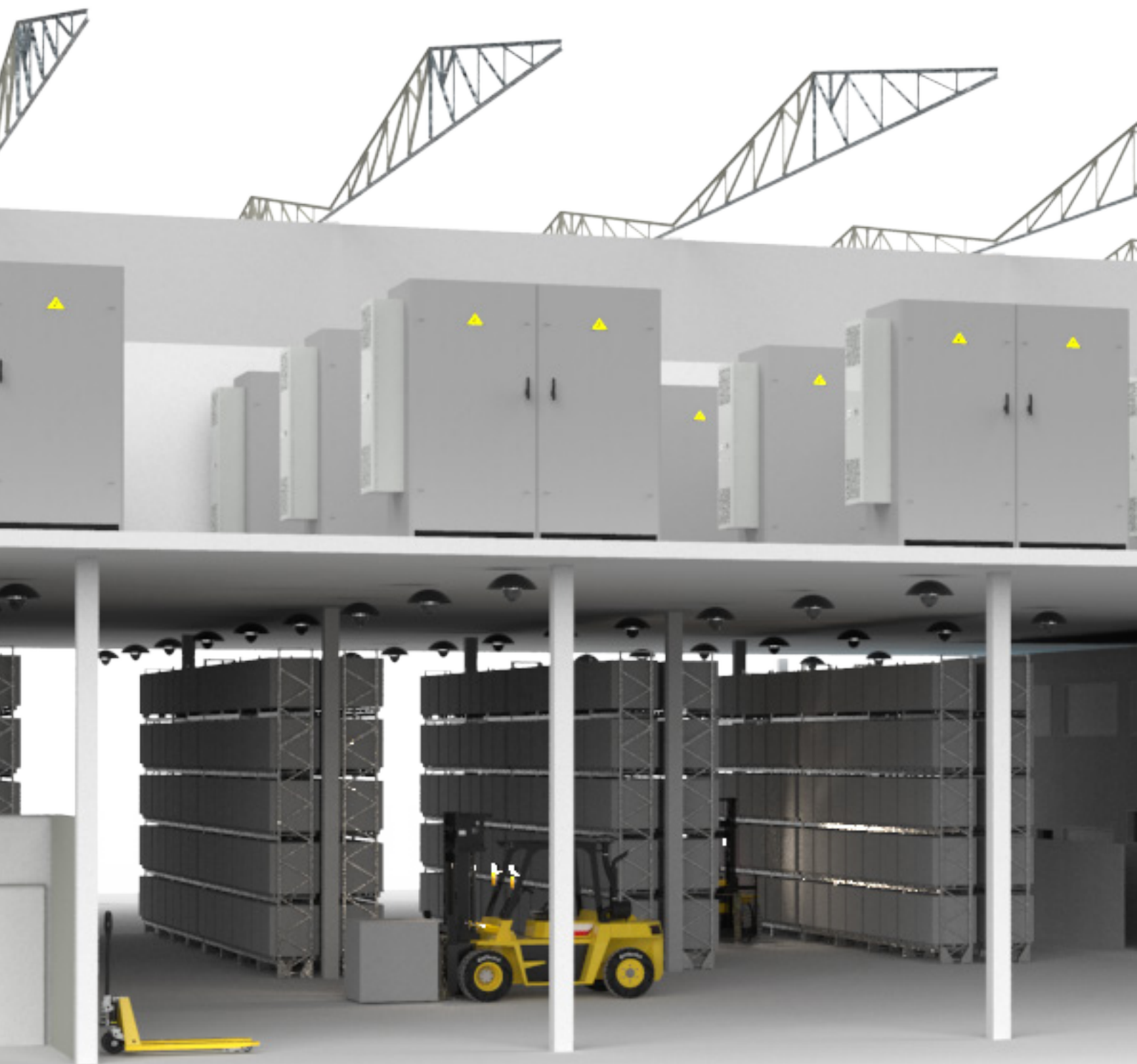


Flex In CDI

A new high efficiency solution for critical applications



Industrial Air Conditioner with Inverter Technology

Modern industrial enclosures and servers require more **accurate temperature control** and **low energy consumption**, even with variable heat loads. In the past, these two requirements were incompatible or only partially met, but now both are available in the new FLEX IN CDI electrical panels air conditioner with **inverter technology**.

The power you need, when you need it

The Flex in range is designed to ensure the **greatest energy savings** thanks to inverter technology, which allows modulation of compressor and fans speed and variation of the cooling capacity according to the actual thermal load.

Reduced temperature fluctuations within the cabinet, reduced on-off cycles and elimination of inrush current ensure a significant **increase in compressor life**.



“High EER and
Energy savings up to 45%”



Safety

To increase the safety of your installations, Flex In air conditioners are equipped with a **condensate evaporator device**, which eliminates the phenomenon of condensation without current absorption.

The **degree of protection is IP54 Type 12**, to protect the cabinet against the entry of dust and water splashes, and the protective treatment on the condenser provides additional **protection against corrosive agents** that may be present in some industrial applications.

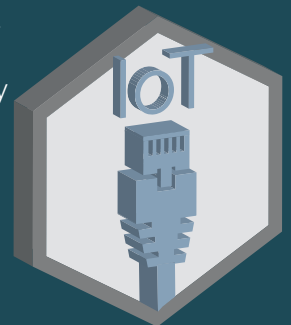
FOCUS - The new connected Industry

In Industry 4.0, systems must be designed to interface with each other, providing **integrated connectivity** to improve production processes. Industrial air conditioning has adapted to this growing demand and the units have been upgraded by introducing Ethernet connectivity.

4.0 Industrial Air Conditioning

Thanks to the **Ethernet port**, integrated in the electronic controller of the FLEX In Inverter CDI Cosmotec, the air conditioners can be monitored and controlled from any remote position 24 hours a day. Many parameters can be read and recorded, giving the possibility to increase the efficiency of the air conditioners and adopt the **predictive maintenance** and so the reliability, decreasing in this way possible faults of the air conditioner and of the whole system, without additional costs for interface devices.

With its **integrated Ethernet port**, that allows the direct connection to the air conditioner with the **most common industrial protocols** (HTTP, SNMP, Modbus TCP/IP), the air conditioner CDI is perfectly integrated into Industry 4.0 and Smart Factory, leading to **greater automation, real time production, efficiency and flexibility**.



Maximum efficiency

Microchannel Condenser

Thinner than the traditional coils. It reduces the air pressure drops and improves the air flow in the condenser side, reducing the consumption power

Electronic Expansion Valve

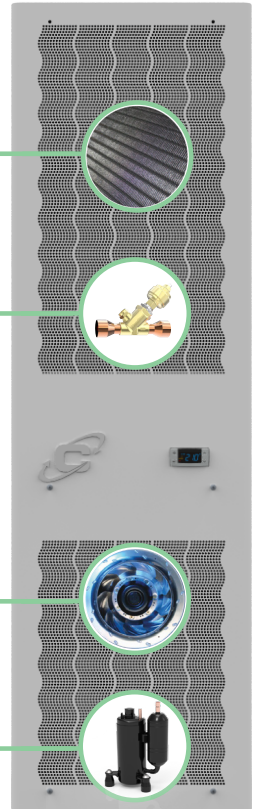
Optimizes the evaporation, also with relevant fluctuations of the heat load, increasing performance and efficiency of the refrigerant circuit, with remarkable energy and economic benefits

EC Fans

Air flow follows cooling capacity with the aim of maximizing energy efficiency of the whole system at all working conditions

BLDC Compressor

BLDC (Brushless Direct Current) rotary compressor with advantages for low noise, durability and energy savings



“Flexible installation: 3 types of mounting, voltage range covering every power supply in the world ”

The FlexIn range allows optimal adjustment of the cooling capacity for each operating condition and heat load, resulting in energy and cost savings.

CDI air conditioners are available in **single-phase 110...240 V, 50...60Hz** and **three-phase 380...480 V, 50...60Hz** versions and can be installed in **external, semi-flush** or **flush configuration**.

Silent Revolution

Thanks to components with high performance installed on the air conditioner, the Flex In have **very low noise values**, not only with low external temperature but also at maximum working conditions.



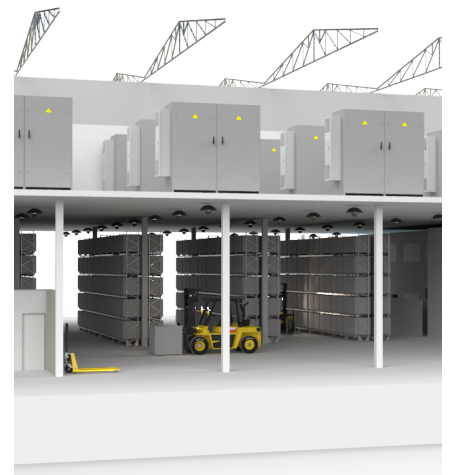
Application Practice

Cooling of electric panels in LOGISTICS

The logistic area of a company, deeply modified in the last years by the automation and the interconnection of the 4.0 industry, has to manage an extremely high amount of data throughout the day and the year, because it requires a fully digital management of:

- Thousands of suppliers all over the world in different locations;
- Thousands of customers to send finished products to;
- Several robots that perform internal logistics tasks.

All these data can be managed from control panels, that show low thermal loads individually. These electric panels require not only the cooling of internal components, but also high reliability, efficiency, flexibility and connectivity in order to work properly.



Technical Features

Main Features

- Integrated Inverter Technology
- High energy savings
- High efficiency
- External, semi-flush or flush mounting
- Cooling Capacity: 2000W/2600W/4200W
- Quick electrical connections
- Sequencing and Ethernet connections
- µchannel condenser with protective treatment
- Condensate evaporator device
- General alarm and remote enable contacts
- Gasket already installed on the air conditioner
- Functioning up to external temperature +60°C
- Low Noise units
- Certifications: CE, EAC, UL Listed

Options

- Special Color
- Stainless Steel AISI304-316 housing

Accessories

- Semi-flush mounting frame
- Air Filter
- Sequencing cable
- LAN doubler for sequencing
- Remote probe

Options for accessories

- Special colour for semi-flush mounting frame
- Special colour air filter (no stainless steel version)
- Stainless steel AISI304-316 semi-flush mounting frame



CODE	M.U.	CDI20		CDI26		CDI40	
Nominal Voltage	V, ~	110...240, 1	380...480, 3	110...240, 1	380...480, 3	110...240, 1	380...480, 3
Nominal Frequency	Hz	50...60	50...60	50...60	50...60	50...60	50...60
Height	mm	1666	1666	1666	1666	1666	1666
Width	mm	454	454	496	496	496	496
Depth	mm	294	294	294	294	393	393
Cooling Capacity L35L35 DIN EN 14511	W	2000	2000	2600	2600	4200	4200
Cooling Capacity L35L50 DIN EN 14511	W	1420	1420	2100	2100	3350	3350
Power Consumption L35L35	W	575	550	860	815	1180	1140
Power Consumption L35L50	W	610	575	1060	980	1385	1325
EER L35L35 DIN EN 14511		3.5	3.6	3.0	3.2	3.6	3.7
EER L35L50 DIN EN 14511		2.3	2.5	2.0	2.1	2.4	2.5
External Temperatures min/max	°C	-20...+60	-20...+60	-20...+60	-20...+60	-20...+60	-20...+60
Internal operating temperatures	°C	+20...+45	+20...+45	+20...+45	+20...+45	+20...+45	+20...+45
Internal circuit protection degree	IP Type	54 12	54 12	54 12	54 12	54 12	54 12
Sound Pressure EN ISO 3744, DISTANZA 1m	dB(A)	61,5	61,5	62,5	62,5	66	66