A new high efficiency solution for critical applications

FLEX INCDI



Modern electric enclosures and servers need a very accurate temperature control and a low energy consumption, even with variable heat loads. While in the past these two requirements were incompatible and only partially satisfied, they are now both available in the new FLEX IN CDI with Inverter technology.



Goal: flexibility

Cooling capacity

With three models, the Flex In covers a wide range of cooling capacity, from 1000W to 4200W.

Several installations for each need of space

The Flex In can be installed in external, semi-flush or flush configuration.

Wider range of power supply voltage

A code for whole monophase range: 110 ÷ 240 V, 50 ÷ 60Hz.

Wide operating range

Flex In can work in ambient with temperature from 10°C to 60°C, the largest range available on the market. Set point regulation from 20°C to 45°C.

Certifications

CE, UL Listed and EAC, ready for the export to all country in the world.

Connectivity 4.0

In a point of view of Industry 4.0, an Ethernet port is integrated on the controller of the air conditioner. It allows the monitoring of all relevant parameters of the unit (temperatures, working modes, alarms) by http. SNMP, Modbus TCP/IP protocols.

The power you need, when you need it

- higher EER, to allow energy and money saving
- inverter technology with compressor and fans speed regulation
- stepless variation of cooling capacity in according to the real heat load
- small temperature fluctuations inside the cabinet
- · reduction of on-off cycles frequency and a longer compressor life
- soft-start with the elimination of power peaks



Cooling capacity L35L35 DIN EN 14511	2000	2600	4200
Power consumption L35L35	625	860	1080
EER L35L35 DIN EN 14511	3,2	3,0	3.9
Cooling capacity L35L50 DIN EN 14511	1350	2100	3350
Power consumption L35L50	615	1060	1315
EER L35L50 DIN EN 14511	2,2	2,0	2,5
Height	1666	1666	1666
Width	454	496	496
Depth	294	294	393







Maximum efficiency

Micro channel 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

Heat Pipe

In addition to the traditional DX circuit, the unit can be optionally equipped with an indirect free cooling system. When external temperature conditions are favorable the heat pipe system limits the operation of the compressor, with relevant cut of the energy cost:

- in mix mode, as an integration of cooling capacity of the heat pipe system
- in complete DX mode when the external temperature is higher than internal one and the free cooling is not possible

Expansion electronic valve

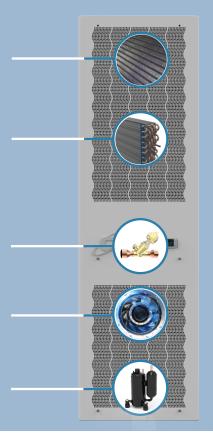
It optimizes the evaporation, also with relevant fluctuations of the heat load, increasing performance and efficiency of the refrigerant circuit, with remarkable energy and economic benefits.

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



Smart control

The brain of the Flex In is an electronic controller that optimizes the functioning in any working conditions, it allows:

- easy and fast start up and check of the components
- · display and management of several alarms
- · control of the temperature with control accurancy 0,2°C in conditions of stable load
- · read of the internal temperature mode by a probe in intake or supply air or with remote probe (optional)
- control of the state of the air conditioner by NO/NC contact alarm and by a remote enable/open door contact

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.

CDI20 CDI26 CDI40 61,5 dBA 62,5 dBA 66 dBA

EN ISO 9614, distance 1mt



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Installation

The new air conditioners Flex In offer several solutions to make easy the operation of installation and service:

- quick terminal connections
- easy access to electrical box
- no further obstruction for the electrical connection inside the enclosure
- \cdot $\,$ gasket already applied on the rear of the air conditioner

Safety

Condensate evaporator device to reduce or remove the output condensate water without power consumption

A protective treatment on the condenser coil is standard, to increase the protection against corrosive agents that can be present in the ambient in some industrial applications.

The IP54/Type12 protection degree between air conditioner and electrical enclosure allows protection against the entry of dust or splashing water.

Remote monitoring 24/7 thanks to connection by Ethernet port.

For more information please visit:

www.cosmotec.it

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