

CoolTeg DXSmall

CoolTeg equipment represents a family of precision cooling units specifically designed for easy integration between IT racks. These air conditioning units, which offer a variety of commonly used cooling principles, sizes and capacities are Conteg's main product line for effective targeted cooling of server rooms and large data centers.



The new generation of CoolTeg air conditioning units, called **CoolTeg DXSmall**, is designed mainly for small applications. These units with a controllable cooling capacity between 3 and 7 kW can be connected to one or more IT racks. This allows them to maintain the correct conditions inside IT cabinets with heat loads ranging from 1.5 kW to 7 kW per cabinet. The typical setup includes an opened or closed system cooling unit with one or two side-positioned IT racks.

CoolTeg units are built to precisely match Conteg's server rack series. They have the same design, material, color and dimensions. CoolTeg units work in unison with closed or open rack aisles. They can also be integrated within Conteg's Modular Closed Loop, which is a custom-built container type of cabinet where we can arrange a number of server racks and cooling equipment to perfectly fit any IT components. This product line focuses on energy savings and is easy to operate.

Thanks to the CoolTeg Plus product line, we are more flexible when it comes to particular business cases, as well as future developments and improvements.

The general features of CoolTeg Plus DXSmall:

- **High-efficiency centrifugal EC fans – 3 fans in each unit**
 - Up to 50% energy savings compared to AC motors
 - Perfect speed control
 - Efficiency meets the EU directive ErP 2015
- **Modern control system**
 - Conteg advanced software
 - Precise monitoring, intelligent control, friendly communication
 - TCP/IP communication via Ethernet connector
 - 4.3" color touch-screen display (for group of 16 units)
 - Web server remote control is standard
 - DC visualization for your project
 - USB flash disk for easy software upload and data download
 - Wide range of communication options – ModBus, SNMP, BACnet, etc.
- **Flexible cooling capacity**
 - Variable capacity from 3 to 7 kW according to the momentary IT heat load, thanks to high efficient inverter driven compressor
 - Transversal heat exchanger (evaporator for refrigerant R410A)
 - Very low pressure drop, low energy consumption
 - Aerodynamic internal design
- **Perfect project adaptability**
 - Different architecture (for open aisles, contained aisles or MCL)
 - Different heights (to match all rack sizes)
 - Different depths (1 m or 1.2 m)
 - Top and bottom connection
- **Outdoor unit compatibility**
 - CoolTeg DXSmall units are ready to be connected to outdoor moto-condensing unit AC-PUHZ-ZRP71 (made by Mitsubishi Electric)
 - or alternatively to FDC-71VN (made by Mitsubishi Heavy Industry)
- **Basic technical data**

Net cooling capacity (Tr = 35 °C)	kW	3.0 - 7.0
Power consumption of indoor unit	kW	0.04 - 0.48
Power supply	ph/V/Hz	1/230/50
Refrigerant	-	R410A
Air flow	m ³ /h	800 - 2850

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Direct Expansion (DX) CoolTeg units

CoolTeg DXSmall unit is a new member of the air conditioning unit's family based on direct expansion principles. The heat is transferred directly by refrigerant thanks to the compressor cycle. No water is used in this cooling system.

These CoolTeg DXSmall units are designed to be connected to first-rate outdoor Mitsubishi units with an inverter-driven compressor and an electronic expansion valve. The indoor unit is designed especially for AC-PUHZ-ZRP71 outdoor condensing units (marketed by Conteg, made by Mitsubishi Electric), but for special projects, we can adapt it to fit with the FDC-71VN condensing units (made by Mitsubishi Heavy Industry).

Indoor and outdoor units will be interconnected by refrigerant copper pipes. The cooling system design is limited by the distance between the indoor and outdoor units. The maximal one-way pipe length (distance between indoor and outdoor units) is 50 m. Maximal height difference between outdoor and indoor unit is 30 m. System works with ecological and high-effective refrigerant R410A. Operation is guaranteed for outdoor temperatures ranging from -15 to + 43 °C.

CoolTeg DXSmall units are suitable for contained rack systems or open server rooms with low thermal density. Ideal for racks with heat load between 1.5 and 7 kW. Minimal heat load per one cooling unit is 3 kW. When a higher cooling capacity is needed, we can recommend our CoolTeg Plus DX units with a cooling capacity up to 20 kW per unit. For bigger data centers, a water system with a CoolTeg Plus CW unit is probably more efficient.

All types and sizes of Conteg CoolTeg Plus air conditioners provide your server room with top-quality performance at a low initial cost, while reducing your annual energy consumption.

