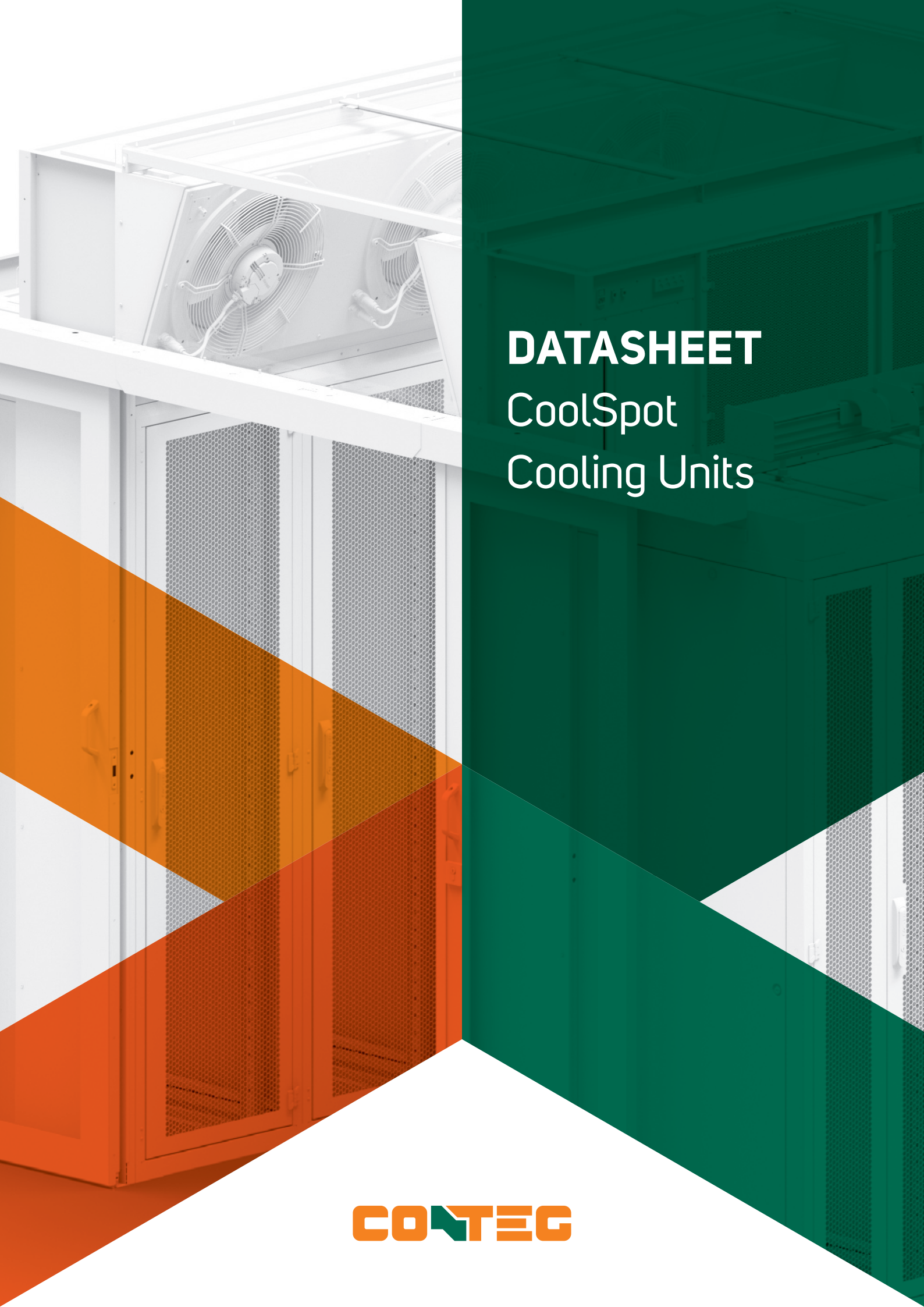




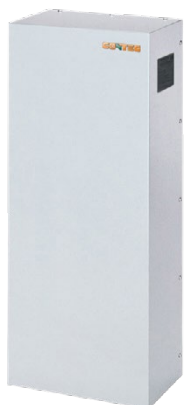
DATASHEET

CoolSpot Cooling Units

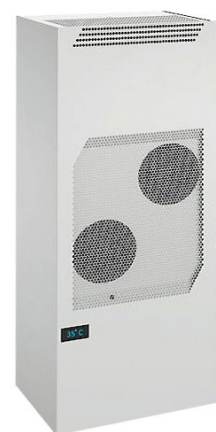
CONTEG

TARGETED COOLING AND AIRFLOW MANAGEMENT

COOLSPOT COOLING UNITS



CoolSpot CW



CoolSpot DX



➤ **CoolSpot** products are small cooling units designed for CONTEG PREMIUM Server RF1 racks to provide the desired environment inside the rack. In spite of the fluctuating ambient conditions in the room, CoolSpot keeps a set temperature for IT equipment installed in the rack, which should be protected against dust and outside humidity (IP 54).



MAIN ADVANTAGES

- Compatible with CONTEG PREMIUM Server RF1 racks
- No filters required
- Individual cooling control at the level of a single rack
- Cost effective cooling

SUITABLE FOR

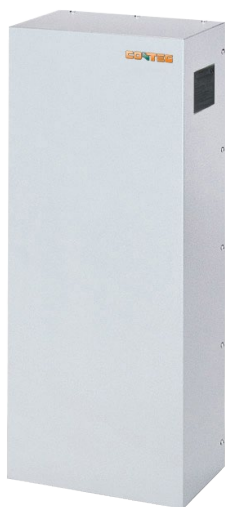
- Production, industrial and warehouse spaces
- Telecommunications closets
- Racks with no or insufficient air-conditioning
- Dusty space

DESCRIPTION

- Two different cooling principles—direct expansion with complete compressor circle inside (DX) and chilled water system (CW) connected to the building cold water piping system. Both cooling versions are produced in two basic designs for two different applications—Top Mount and Wall Mount.
- CoolSpot CW was developed for places where heat and noise from compressor could be disturbing in the room. It requires connection to the chilled water piping system of the building. Cooling capacity of the cooling unit is controlled by 2-way valve inside to keep the set temperature in the rack.
- CoolSpot DX units include a complete refrigerant circuit with compressor, evaporator, condenser, and all necessary components and control systems. This air-condition is designed to deliver cooling capacity up to 6 kW for standalone racks. CoolSpot DX units are designed as Plug & Play cooling system easy to use that requires only power supply, and condensate drainage. Cooling capacity of the cooling unit is controlled by controller with a simply display to keep the set temperature in the rack.

TARGETED COOLING AND AIRFLOW MANAGEMENT

COOLSPOT CW



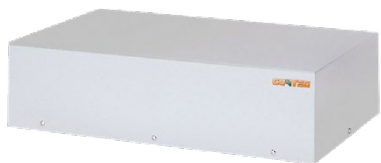
CoolSpot CW—
Wall Mount Version



CoolSpot CW cooling units are designed to be connected to any chilled water system. Temperature inside the rack is controlled by 2-way valve.

MAIN ADVANTAGES

- All heat load is transferred to the water out of the room
- Operation in unlimited room temperature
- No filters required
- Top and wall mount solution



CoolSpot CW—
Top Mount Version

CoolSpot CW—Top and Wall Mount Version							
		Top Mount		Wall Mount			
Chilled water	Unit	AC-TW-15	AC-TW-50	AC-WW-06	AC-WW-15	AC-WW-25	AC-WW-50
Cooling capacity (L35W10)	W	2 200	6 700	870	2 200	3 100	6 700
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Width	mm	772	905	306	402	402	503
Height	mm	189	255	403	916	916	1 091
Depth	mm	404	509	113	206	206	293
Maximum current	A	0,23	1,02	0,28	0,23	0,36	1,02
Prefuse	A	2	4	2	2	2	4
Power consumption	W	52	260	33	52	80	230
Rack airflow	m ³ /h	575	1 450	330	575	860	1 450
Rack temperature	°C	+10/+65	+10/+55	+10/+55	+10/+55	+10/+55	+10/+55
Pressure drop (water)	kPa	30	30	2	30	63	40
Max. pressure (water)	kPa	1 000	1 000	5 00	1 000	1 000	1 000
Waterflow	l/h	150	860	150	150	500	860
Water connection	"G	1/2	1/2	3/8	1/2	1/2	1/2
IP rating	IP	54	54	55	55	55	55
Noise level	dB(A)	58	58	58	58	58	58
Weight	kg	30	39	7	20	21	39
Rack compatibility							
Width	cm	60, 80	60, 80	all			
Height	U	all		42, 47, 52			
Depth	cm	80, 100, 120	100, 120	80, 100, 120	80, 100, 120	80, 100, 120	80, 100, 120

Top cover

CoolSpot units are installed on the roof or side wall of the rack. For rooftop installation, a top cover must be ordered with the unit. This cover is ready for modification—openings for the specific type of CoolSpot unit. For side mounted units, the RF1 side cover can be modified.

TOP COVER	
Code	Description
CO-T1-60/80-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 600 mm, depth 800 mm
CO-T1-60/100-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 600 mm, depth 1000 mm
CO-T1-60/120-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 600 mm, depth 1200 mm
CO-T1-80/80-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 800 mm, depth 800 mm
CO-T1-80/100-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 800 mm, depth 1000 mm
CO-T1-80/120-TM-CS	Top cover for installation of a AC-Tx unit, ready for modification—cutout by type of CoolSpot unit, for PREMIUM Server RF1 rack width 800 mm, depth 1200 mm

HOW TO ORDER

CoolSpot TM unit needs to be ordered together with the top cover and its modification code—"MODIFIKACE".

CoolSpot unit code	+	Panel/Cover code	+	Word "MODIFIKACE"
An example of a correct Code				
AC-TM4-21-4000	+	CO-T1-80/100-TM-CS	+	MODIFIKACE

TARGETED COOLING AND AIRFLOW MANAGEMENT

COOLSPOT DX



CoolSpot DX cooling unit is a standalone direct expansion solution with a compressor inside, which means that no additional plumbing or piping is required.

MAIN ADVANTAGES

- Complete refrigerant circuit is inside
- Built-in condensate evaporation
- Triple condensate protection
- Filterless
- Top and wall mount solution
- Plug and play equipment, only power supply is needed
- AC-TM4 and AC-WM5 are equipped with Modbus communication via RS485, Master/Slave and redundancy functionalities

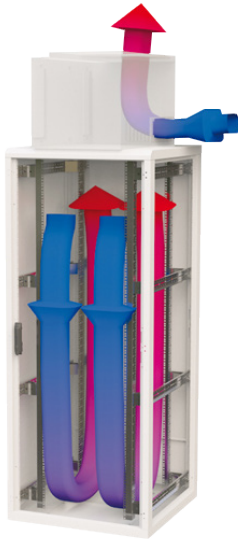
CoolSpot DX—Top Mount Version—cooling units AC-TM4

New PRO design. Microchannel condenser allows 50% less refrigerant charge resulting in a lower CO₂ equivalent.
Built-in electrical condensate evaporation.

[illegible]

CoolSpot DX—Wall Mount Slim Line Pro Version—cooling units AC-WM5 (Table 2 of 3)										
Direct expansion	Unit	AC-WM5-12-4000	AC-WM5-12-3000	AC-WM5-12-6000	AC-WM5-15-4000	AC-WM5-15-3000	AC-WM5-15-6000	AC-WM5-20-4000	AC-WM5-20-3000	AC-WM5-20-6000
Cooling capacity (L35L35)	W	1200	1200	1200/1260	1500	1500	1500	2 000/2 100	2 000/2 100	2 000
Cooling capacity (L35L50)	W	900	900	900/1000	1300	1300	1300	1850	1850	1700/1750
EER L35L35		1,68	1,68	1,71	2,17	2,17	2,17	2	2	2
Power supply	V/ ph/Hz	230/ 1/50-60	120/ 1/50-60	380-415/ 3/50 400-460/ 3/60	230/ 1/50-60	120/ 1/50-60	380-415/ 3/50 400-460/ 3/60	230/ 1/50-60	120/ 1/50-60	380-415/ 3/50 400-460/ 3/60
Width	mm	305	305	305	395	395	395	395	395	395
Height	mm	950	950	950	1350	1350	1350	1350	1350	1350
Depth	mm	210	210	210	210	210	210	210	210	210
Cut out dimensions										
Current L35L35	A	3,3/3,6	6,6/7,2	1,6	2,9	1,6/1,8	1,5	4,4/5,6	8,8/11,2	1,9/2
Starting current	A	15	30	8,2	16	32	8,2	16	32	8
Maximum current	A	5	10	2	4,7	9,8	2	7,4	14,8	2,9
Prefuse	A	15 (T)								
Short-circuit current rating	kA	5								
Power consumption	W	715/830	715/830	700/875	690/700	690/700	710/890	1000/1250	1000/1250	970/1250
Rack airflow	m³/h	350/550	350/550	350/550	500/850	500/850	500/850	500/850	500/850	500/850
Rack temperature	°C	+20/+55								
Ambient temp. limit	°C	+10/+60								
IP rating	IP	55								
Weight	kg	30	33,5	33	41	44	44	46,2	49,5	48,7
Rack compatibility		PREMIUM Server RF1								
Heigth	U	27, 42, 47, 52								
Depth	cm	80, 100, 120								

CoolSpot DX—Wall Mount Slim Line Pro Version—cooling units AC-WM5 (Table 3 of 3)							
Direct expansion	Unit	AC-WM5-25-4000	AC-WM5-25-3000	AC-WM5-25-6000	AC-WM5-40-4000	AC-WM5-40-6000	AC-WM5-62-6000
Cooling capacity (L35L35)	W	2 500	2 500	2 500	4 000/4 200	4 000/4 200	6 000/6 200
Cooling capacity (L35L50)	W	2 100	2 100	2 100	3 500/3 900	3 500/3 900	5 000/5 500
EER L35L35		2,08	2,08	2,06	2,3	2,31	2
Power supply	V/ ph/Hz	230/1/50-60	120/1/50-60	380-415/ 3/50 400-460/ 3/60	230/1/50-60	380-415/ 3/50 400-460/ 3/60	380-415/ 3/50 400-460/ 3/60
Width	mm	395	395	395	455	455	455
Height	mm	1350	1350	1350	1550	1550	1630
Depth	mm	210	210	210	270	270	270
Cut out dimensions							
Current L35L35	A	5,4/6,6	10,8/13,2	2,7	8,5/11	3,5/3,7	6,2/6,3
Starting current	A	22,5	11	20	50	15	52
Maximum current	A	8,5	19,3	3,1	14,8	4,8	10,5
Prefuse	A	15 (T)	25 (T)	15 (T)	15 (T)	15 (T)	15 (T)
Short-circuit current rating	kA	5					
Power consumption	W	1200/1470	1200/1470	1200/1470	1900/2 500	1730/2 270	3 100/3 900
Rack airflow	m³/h	500/850	500/850	500/850	750/1200	750/1200	1050/1400
Rack temperature	°C	+20/+55					+10/+50
Ambient temp. limit	°C	+10/+60					+10/+55
IP rating	IP	55					
Weight	kg	47	46,5	45	62	62	86,5
Rack compatibility		PREMIUM Server RF1					
Heigh	U	27, 42, 47, 52			42, 47, 52		
Depth	cm	80, 100, 120					



Air flow through the rack —
CoolSpot DX TM version



Air flow through the rack —
CoolSpot DX WM version

CoolSpot DX

The CONTEG **CoolSpot DX** unit is a standalone direct expansion solution with a compressor inside, which means that no additional plumbing or piping is required. The condensate is removed thanks to a condensate dissipater (1.4 kW version and above) and water detection is guaranteed by a triple condensate protection system. This means that the condensation normally associated with air conditioning systems is reduced or eliminated, giving total flexibility for deployment. The special condenser coil design enables perfect operation without any air filter, which reduces maintenance costs.

CoolSpot DX units feature electronic control boards as standard, which allows for superior control of the air conditioner over standard electromechanical types. The electronic control board ensures that the CONTEG air conditioning units are running at optimal efficiency and not overcooling the cabinet.

When installing these units into closed areas always make sure that the room has sufficient clearance and adequate ventilation so that environmental operating conditions (up to 55 °C) are not exceeded.

CoolSpot cooling units are easily Integrated with the monitoring system RAMOS to provide remote notification about the temperature inside the rack.

CoolSpot DX — Top Mount (AC-TM4-xx)

Delivers exceptional cooling capacity without needing additional floor area required for a rack. The CONTEG **CoolSpot DX TM** solution is available in capacities ranging from 0,65 kW to 4 kW to provide required cooling of the rack. The air conditioning unit is delivered with a special rack top-mount plate adapted to perfectly fit the selected size of the CoolSpot unit. These CoolSpot TM cooling units are compatible with the free-standing PREMIUM Server RF1 rack series.

CoolSpot DX — Wall Mount (AC-WM4-xx and AC-WM5-xx))

Ideally suited for spaces where there is insufficient clearance to install a roof-mount solution. CONTEG **CoolSpot DX WM** solutions are available with capacities ranging from 0,3 kW to 6 kW per one cooling unit. Up to two CoolSpot WM cooling units can be fitted to one rack for desired redundancy and safety. The air-conditioning unit is delivered with a special rack side panel adapted to perfectly fit the selected CoolSpot unit size. These CoolSpot WM cooling units are compatible with the free-standing PREMIUM Server RF1 rack series.



The standard warranty period is 12 months.
For more information visit www.conteg.com



Air flow through the rack—
CoolSpot CW TW version



Air flow through the rack—
CoolSpot CW WW version

CoolSpot CW

The CoolSpot CW unit can be installed in rooms where people are working since it makes little noise, and there is no heat load coming out of the unit. When installing these units into closed areas, always make sure that the room has sufficient space above or to the side of the cabinet.

The CoolSpot CW includes a 2-way solenoid valve with a gas-loaded mechanical thermostat in return air. Temperature set point can be adjusted from 20 to 46 °C. Cooling control band is 4K. If high condensate level is detected, it closes solenoid valve while fans keep running.

CoolSpot cooling units are easily integrated with the RAMOS monitoring system to provide remote notification about the temperature inside the rack.

CoolSpot CW — Top Mount (AC-TW-xx)

CoolSpot units have an exceptional cooling capacity and do not need additional rack floor area. The **CoolSpot AC-TW-xx** solution is available in nominal cooling capacities, ranging from 2.2 kW to 6.7 kW (cooling capacity depends on the water, air temperature and water flow). Since it is mounted on the roof of the rack, some overhead clearance will be necessary. CoolSpot AC-TW-xx cooling units are compatible with the free-standing PREMIUM Server RF1 rack series.

The big advantage of this top-mount model is that it perfectly matches the CONTEG racks that's fitted with a separation frame and blanking panels. This arrangement ensures that the cold zone is in the front of the IT components in the rack. The air from the hot zone in the rear part of the cabinet is sucked into the CoolSpot cooler.

CoolSpot CW — Wall Mount (AC-WW-xx)

The solution is available in nominal cooling capacities, ranging from 0.9 kW to 6.7 kW (cooling capacity depends on the water, air temperature and water flow). Since **CoolSpot AC-WW-xx** cooling units are installed instead of one of the rack's side panels, there is no need for overhead clearance. CoolSpot AC-WW-xx cooling units are compatible with the free-standing PREMIUM Server RF1 rack series.

It is recommended for projects with insufficient clearance to install a top-mount solution and cold water is present. Hot air is sucked from the top of the rack, and the cold air is delivered to the bottom. The advantage of this wall-mount model is that it makes it possible to connect two CoolSpot AC-WW-xx cooling units to one rack. This way the required redundancy of the cooling source is ensured.



The standard warranty period is 12 months.
For more information visit www.conteg.com



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