DATASHEET
Contained Aisle

CONTEG

CONTAINED AISLE

Contained Aisle is the basic solution concept for the mechanical separation of hot and cold air in data centers, leading to higher performance and energy efficiency. The proper separation of these two zones helps achieve lower temperatures for computers and higher temperatures for cooling systems. For proper function, it is possible to combine **sliding doors** or **blind panels** with different types of **roof panels** and use them to build a contained cold or hot aisle.

Contained aisles can be freely combined with various sources of cool air, such as:
– in-row cooling units **CoolTeg Plus** (CW, DX, XC, DF)
– cooling units above racks **CoolTop** (CW, DX)
– cooling through the floor

MAIN ADVANTAGES

> Complete and fully configurable solution
> Wide range of build options
> Easy installation options

SLIDING DOORS AND BLIND PANELS FOR CONTAINED AISLES

The sliding door is used to close the aisle and allow access the operator. There are two door versions and two types of blind panels according to the width of the aisle.

Double-wing door
CA-SDU-120-MS

Single-wing door
CA-SDU-100-MS

Code	Description
CA-SDU-120-MS	Double-wing sliding door universal for aisle width 1 200 to 1 800 mm (1 200 mm is recommended), for two rack rows installation, height of the racks from 42 to 48U (racks with or without plinth), RAL 7035 or RAL 9005; Mechanical, double door opening system
CA-SDU-100-MS	Single-wing universal sliding door for aisle width 1 000 to 1 200 mm (1 000 mm is recommended), for wall-mount or two rack rows installation, height of the racks from 42 to 48U (racks with or without plinth), RAL 7035 or RAL 9005; Mechanical single door opening system

The doors are compatible with iSEVEN SERVER cabinets of height 42, 45 and 48U. For combinations with RF1 cabinets, the correct adapter must be selected.

Code	Description
CA-SDU-AD-W100-47	Adapter for covering the opening above the CA-SDU door 1 000 mm wide, for RF1 47U
CA-SDU-AD-W120-47	Adapter for covering the opening above the CA-SDU door 1 200 mm wide, for RF1 47U
CA-SDU-AD-W180-47	Adapter for covering the opening above the CA-SDU door 1 800 mm wide, for RF1 47U
CA-SDU-AD-W100-52	Adapter for covering the opening above the CA-SDU door 1 000 mm wide, for RF1 52U
CA-SDU-AD-W120-52	Adapter for covering the opening above the CA-SDU door 1 200 mm wide, for RF1 52U
CA-SDU-AD-W180-52	Adapter for covering the opening above the CA-SDU door 1 800 mm wide, for RF1 52U
CA-SDU-AD-RF1-42	Set of adapters for fixing CA-SDU doors to RF1 cabinets, height 42U
CA-SDU-AD-RF1-47	Set of adapters for fixing CA-SDU doors to RF1 cabinets, height 47U
CA-SDU-AD-RF1-52	Set of adapters for fixing CA-SDU doors to RF1 cabinets, height 52U

The double-wing door is basically mechanical; it is possible to fit it with an extension for more efficient operation.

Code	Description
CA-SDU-120-UPG-DS	Upgrade kit for modification of sliding door opening system from Mechanical to Dual Synchro door system
CA-SDU-120-UPG-SC	Upgrade kit for modification of sliding door opening system from Mechanical to Dual Synchro door system with self-closing
CA-SDU-120-UPG-AS	Upgrade kit for modification of sliding door opening system from Mechanical to Automatic door opening system
CA-SDU-120-UPG-AS-FL	Upgrade kit for modification of sliding door opening system from Mechanical to Automatic door opening system—with full logic

A blanking panel can be chosen instead of a door.

Code	Description
CA-SBU-120-RF1	Universal blank door section to close the aisle containment width 1 000 and 1 200 mm, compatible with RF1
CA-SBU-180-RF1	Universal blank door section to close the aisle containment width 1 800 mm, compatible with RF1
CA-SBU-120	Universal blank door section to close the aisle containment width 1 000 and 1 200 mm
CA-SBU-180	Universal blank door section to close the aisle containment width 1 800 mm

Blanking panel CA-SBU-120-RF1

ROOF PANELS FOR CONTAINED AISLES

The closing of the aisle can be done at the height of the cabinets, in combination with **CoolTop** units or possibly closed in the ceiling. The load-bearing part of the roof consists of these load-bearing elements, which are combined with the polycarbonate panel variants listed below:

Roof panel CA-RS-120/60-NR

- The package contains: 2x side panel, 1x longitudinal panel according to the width of the aisle.

Code	Aisle width [1] (mm)	Width of panels (mm)
CA-RS-120/40-NR	1 200	400
CA-RS-120/60-NR	1 200	600
CA-RS-120/80-NR	1 200	800
CA-RS-120/90-NR	1 200	900 [2]
CA-RS-120/110-NR	1 200	1 100 [2]

[1] The aisle width can be 1 000 or 1 800 mm.
[2] Suitable for the combination of a cabinet and a CoolTEG PLUS unit with a width of 300 mm.

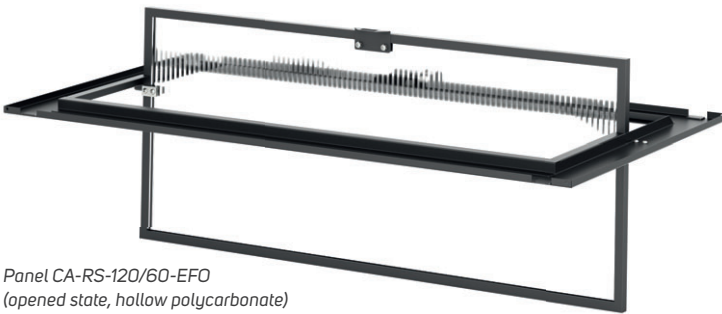## Variants of ceiling panels:

Full polycarbonate

- Material thickness: 6 mm
- Light transmission: 88 %
- Fire resistance according to EN 13501-1: B-s2, d0

Code	Aisle width [1] (mm)	Width of panels (mm)
CA-RS-120/40-C	1 200	400
CA-RS-120/60-C	1 200	600
CA-RS-120/80-C	1 200	800
CA-RS-120/90-C	1 200	900
CA-RS-120/110-C	1 200	1 100

[1] The aisle width can be 1 000 or 1 800 mm.

Hollow polycarbonate

- Material thickness: 6 mm
- Light transmission: 82 %
- Fire resistance according to EN 13501-1: B-s1, d0

Code	Aisle width [1] (mm)	Width of panels (mm)
CA-RS-120/40-M	1 200	400
CA-RS-120/60-M	1 200	600
CA-RS-120/80-M	1 200	800
CA-RS-120/90-M	1 200	900
CA-RS-120/110-M	1 200	1 100

[1] The aisle width can be 1 000 or 1 800 mm.

ROOF PANEL WITH ELECTRONIC CONTROL

The closing of the aisle can be done at the height of the cabinets, in combination with **CoolTop** units or possibly closed in the ceiling. The load-bearing part of the roof consists of these load-bearing elements, which are combined with the polycarbonate panel variants listed above:
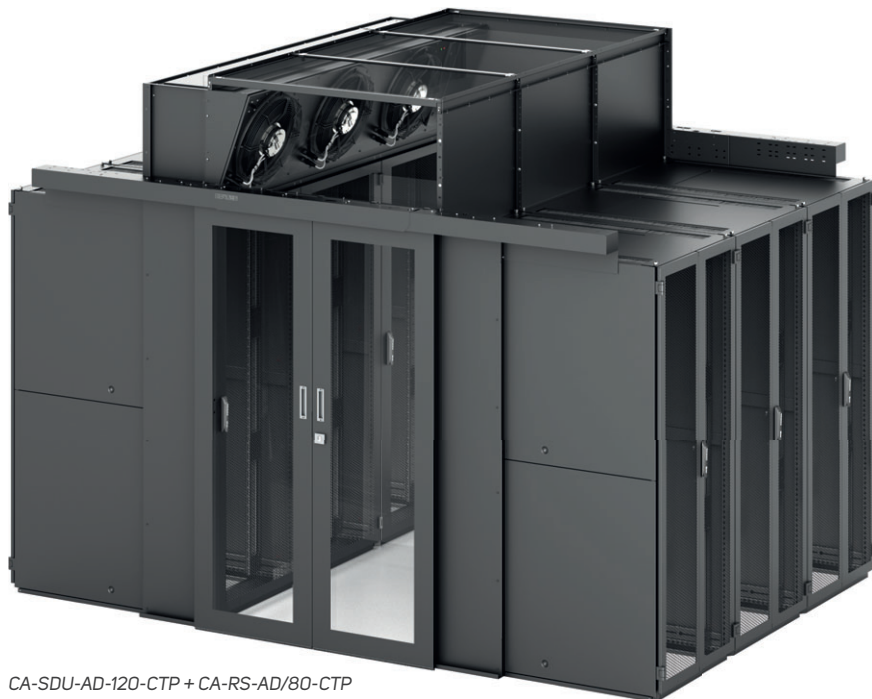

Panel CA-RS-120/60-EFO
(opened state, hollow polycarbonate)

Code	Aisle width (mm)	Width of panels (mm)
CA-RS-120/60-EFO	1 200	600

- The panel is used to open the roof in the event of a fire for ventilation and to allow fire extinguishers to enter the aisle area.
- The opening of the panel is ensured by an electronic lock and works on the principle of gravity.
- The lock can be connected to the RAMOS system with smoke sensors or to the object's FDAS (Fire Detection and fire Alarm Systems) or BMS.
- Power supply for the lock is not included in the delivery.
- Technical parameters of the lock:
  - Voltage: 12 VDC
  - Max. current: 1 A
  - Cable length: 1 m
  - Operating current: 200 mA
  - Input control current: 25 mA

ROOF SOLUTION IN COMBINATION WITH COOLTOP UNITS— COLD AISLE

In the case of a combination of cabinets with **CoolTop** units for a contained cold aisle, sliding doors and roof panels are used as in the case of a contained aisle, and in addition, it is necessary to fill the space above the sliding doors and possibly above the cabinets where CoolTop units are not installed.

CA-SDU-AD-120-CTP + CA-RS-AD/80-CTP

Code	Description
CA-SDU-AD-120-CTP	Adapter above the door section for aisle width 1 200 mm for CoolTop installation
CA-RS-AD/60-CTP	Vertical blanking panel for aisle with CoolTop units above rack width 600 mm
CA-RS-AD/80-CTP	Vertical blanking panel for aisle with CoolTop units above rack width 800 mm

ROOF SOLUTION IN COMBINATION WITH COOLTOP UNITS— HOT AISLE

In the case of a combination of cabinets with **CoolTop** units for a contained hot aisle, the solution is to enclose the hot zone in the ceiling. Sliding doors and roof panels are used as in the case of a contained alley, and in addition, it is necessary to fill the space above the sliding doors and possibly above the cabinets where CoolTop units are not installed. Available panels with a height of 1112 to 1312 mm above the height of the cabinet.
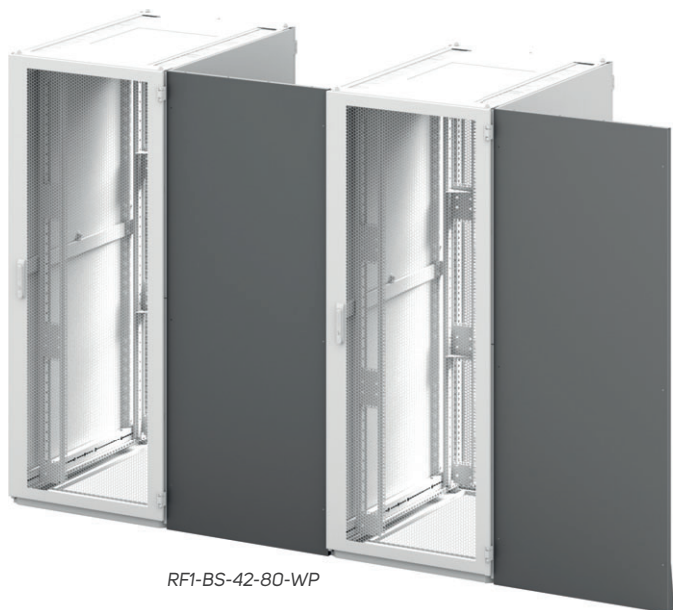

Code	Description
CA-RS-CHA/100-SDU-S3	Adapter over the 1 000 mm door section when installing CoolTop units for chimney aisle *
CA-RS-CHA/120-SDU-S3	Adapter above the 1 200 mm door section when installing CoolTop units for chimney aisle *
CA-RS-CHA/40-S3	Covering panel for chimney aisle with CoolTop units above the cabinet, width 400 mm, size S3 *
CA-RS-CHA/60-S3	Covering panel for chimney aisle with CoolTop units above the 600 mm width rack, size S3 *
CA-RS-CHA/80-S3	Covering panel for chimney aisle with CoolTop units above the 800 mm width rack, size S3 *
CA-RS-CHA/100-S3	Covering panel for chimney aisle with CoolTop units above the 1000 mm depth rack, size S3 *
CA-RS-CHA/120-R-S3	Covering panel for chimney aisle with CoolTop units above the 1 200 mm depth rack, right position, size S3 *
CA-RS-CHA/120-L-S3	Covering panel for chimney aisle with CoolTop units above the 1200 mm depth rack, left position, size S3 *
CA-RS-CHA/240-S3	Cover of top aisle with CoolTop units above the CoolTop unit (height 312–512 mm), width 2 400mm above CoolTop

* Panel height 1 112–1 312 mm.

BLIND PANELS FOR CONTAINED AISLES

Serves to fill the space in a contained aisle instead of a missing cabinet or **CoolTeg Plus** cooling unit.

RF1-BS-42-80-WP

Code	Compatibility with cabinets line	Height of cabinet in U	Width of panel (mm)
RF1-BS-42[1]-30-WP[2]	PREMIUM Server RF1	42 [1]	300
RF1-BS-42[1]-40-WP[2]	PREMIUM Server RF1	42 [1]	400
RF1-BS-42[1]-60-WP[2]	PREMIUM Server RF1	42 [1]	600
RF1-BS-42[1]-80-WP[2]	PREMIUM Server RF1	42 [1]	800
ROF-BS-42[3]-30-WP[2]	iSEVEN Server	42 [3]	300
ROF-BS-42[3]-40-WP[2]	iSEVEN Server	42 [3]	400
ROF-BS-42[3]-60-WP[2]	iSEVEN Server	42 [3]	600
ROF-BS-42[3]-80-WP[2]	iSEVEN Server	42 [3]	800

[1] Can be changed to 47 or 52U.

[2] In the case of use a cabinet without plinth use suffix -WP (= without plinth), in case a cabinet with plinth use without suffix -WP.

[3] Can be changed to 45 or 48U.

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