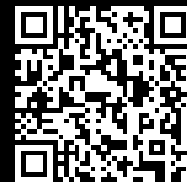


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DK 7999.009 Micro Data Center

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FRIEDHELM LOH GROUP



DK 7999.009 - Micro Data Center Level E

The IT Safe MDC Level E is a small data centre, perfectly tailored to your requirements, with an optimised footprint that expands as your IT develops, and can also be relocated to a different site when necessary.

Features

Model No.	DK 7999.009
Product description	The Micro Data Center Level E (MDC Level E) is a modular security safe with an operator door at the front and service door at the rear. The MDC Level E is supplied with one cable entry in each side element as standard and is available in a range of sizes.
Benefits	Suitable for installation at poorly accessible sites Expandability for graduated investment in line with IT growth. Prepared for the installation of various IT climate control solutions Systems may be dismantled and reassembled, for maximum investment security
Applications	A high level of protection against potential physical threats for IT Targeted configuration components transform the safe into a complete, compact data centre.
Material	Sheet steel, coated
Colour	Enclosure: RAL 7035 Service door: RAL 7035 Operator door: RAL 7035
Supply includes	Security safe with operator door and servicing door Cable entry in both side elements Both doors with key lock
Options	Different lock variants Different cable entry systems Cable entry in the top and base unit Twin-walled doors Choice of door hinges Supporting structure Supporting structure with fire protection

Features

Note	<p>The tests were performed as system tests and confirmed with test reports.</p> <p>Project planning on request</p>
Protection standards	<p>The safe was tested as a system.</p> <p>The single safe was tested as a system with one single-leaf door and one bifold door and mechanical lock</p> <p>Fire resistance class F 90 to DIN 4102 Part 2, compliance with limits $\Delta T < 50$ K, rel. humidity < 85% over 30 minutes</p> <p>Smoke protection based on DIN 18095-2: 1991-03</p> <p>Burglar resistance RC 2, tool attack analogous to DIN EN 1630:2011-09</p> <p>Burglar resistance RC 3 tool attack analogous to DIN EN 1630: 2011-09 (restricted configuration options)</p>
Clearances	Installation height for components: 47 U
Standard protection from	<p>Fire</p> <p>Extinguishing water</p> <p>Corrosive gases</p> <p>Vandalism</p> <p>Unauthorised access</p> <p>Dust</p> <p>Theft/burglary</p>
IP protection category to IEC 60529	IP 56
Packs of	1 pc(s).
Net weight	700
Gross weight	750
EAN	4028177717084
ETIM 9	EC002499
ECLASS 8.0	27180207

Tender text

Micro Data Center Level E

Item number: 7999.009

IT - SECURITY SAFE

Supply of a modular IT security safe.

Fire protection over 90 minutes, tested according to DIN 4102 / EN 13501 (ISO time-temperature curve) but 30 minutes within the limits of 50 K temperature increase and 85% relative humidity. Furthermore, proof of tested burglary protection RC 2, based on EN 1630, must be provided. According to EN 60529, the protection class of the housing (in the standard IP 56, fire protection flaps without connected cooling system IP 55) must be fulfilled.

All tests must be carried out as system tests.

The values achieved must be verified with test certificates.

The IT security safe is to be implemented in a modular form in a "steel-cassette-construction" for free-standing installation. A demountable, as well as expandable construction must be proven. Installation around existing, commissioned IT components must be possible. Decommissioning of the IT components during installation is not possible!

The IT security safe must have two security doors, one at the front and one at the back. These security doors must be equipped with an appropriate access control system.

The connections of the elements of the IT security safe are to be designed using form-fit connection techniques that can be released at any time.

The ingress of extinguishing water and moisture, as well as corrosive fumes into the modular IT security safe, must be prevented by constructive measures.

Technical features

The following features must be provided:

Housing dimensions outside:

Height: 2210 mm / 2410 mm

Width: 1100 mm (single safe, without attachments)
Width: 2200 mm (linkage of 2 safes, without attachments)
Width: 3300 mm (linkage of 3 safes, without attachments)
Width: 4400 mm (linkage of 4 safes, without attachments)
Depth: 1204 mm / 1404 mm (without attachments)

Housing dimensions inside:

Height: 2030 mm / 2230 mm (42 U / 47 U)
Width: 920 mm (single safe)
Width: 1840 mm (linkage of 2 safes)
Width: 2760 mm (linkage of 3 safes)
Width: 3680 mm (linkage of 4 safes)
Depth: 1000 mm / 1200 mm

The IT security safe must have the possibility of linking together multiple safes. The modules arranged in relation to each other must have large inspection openings for the cabling of the network racks located in the interior. Test certificates must be provided for the buying of the security safes.

The IT security safe must be designed in such a way that it is also possible to add further modules at a later date.

It must be ensured that the existing network or server rack does not have to be relocated as part of the expansion, unless the conditions on site require this.

The expandability of the existing system must be guaranteed for at least 5 years.

The IT security safe must have a cable entry system at several positions of the safe. The cable duct systems must be designed in an "open construction", suitable for installation with already installed IT components. The cable duct systems have to be fireproof, waterproof and gas-resistant for the introduction of data, control and supply cables into the modular IT security safe.

A duct material that allows later retrofitting to data and supply lines is to be used as sealing material.

Cable entry

Standard (this version is already included)

Cable entry arranged in the rear area of the side elements, designed as soft duct.

Variant 1

Cable entry arranged in the rear area of the side elements, designed as hard duct.

Variant 2a

Cable entry arranged in the head element, designed as a hard duct (in addition to the standard)

Variant 2b

Cable entry arranged in the bottom element, designed as a hard duct (in addition to the standard).

Variant 3a

Cable entry arranged in the rear area of the side panels, designed as a cable box with two assignable fields. The cable box must be suitable for the insertion of flexible chilled water hoses.

Variant 3b

Two diagonally positioned cable boxes for ventilation through the use of valves with a breathable membrane, which allows up to 80 lead gel batteries of 9 Ah to be accommodated in the IT security safe.

The unoccupied fields of the cable box must be suitable for cable entry.

Variant 4

Cable entry arranged in the rear area of the side panels, as a fire protection sleeve for subsequent insertion of cables by the user.
Protection class IP 54.

Cooling

To provide an adapted process climate on the inside of the IT security safe, a cooling unit is to be provided.

Standard a

A solution with cold water cooling must be provided for an already existing chilled water system.

Standard b

A solution with cold water cooling as well as a suitable cold water generation (Chiller) must be provided.

Variant 1a

Cooling via an on-site air conditioning / ventilation ductwork system.

The IT security safe must have fire protection flaps that close it in the event of a fire. The fire protection flaps must be tested for use in the safe wall.. The existing ductwork system is to be connected to the fire protection flaps which need to have nominal diameter of 250 mm.

Variant 1b

Cooling by an air conditioning system mounted on the side wall with the option of free cooling operation at suitable ambient temperatures. The IT security safe must have fire protection flaps that close it in the event of a fire. The fire protection flaps must be tested for use in the safe wall.

Variant 1c

Cooling by enclosures with filter fans attached to the side wall. The IT security safe must have fire protection flaps that close it in the event of a fire. The fire protection flaps must be tested for use in the safe wall.

Closure version

Standard (This version is already included)

The locking mechanism is designed as a safety lock with 2 keys each. The locks of the operator and service door are not same-locking.

Variant 1

The locking mechanism (operator and/or service door) is designed as an electronic key combination lock with mechanical revision opening by means of an emergency key.

Variant 2

The locking mechanism (operator and/or service door) is designed as an electronic lock which must be controlled by means of an access control system provided by the customer.

Operator and service door version

Standard (This design is already included in item 1.1)

Door in single-leaf design.

Variant 1

Door in double-leaf design

Burglary protection

Modular security safe with tested burglary protection in accordance with EN 1627. A system test must be verified.

Standard (This version is already included)

Burglary protection RC 2 in accordance with EN 1630

Optional

Burglary protection RC 3 following EN 1630 (reduced configuration)

Errors and technical modifications excepted.