

# Modular Air-Conditioning Solutions



Air-Conditioning  
for  
Mobile Deployment

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As part of the ever-changing scenarios and locations of armies, it is essential to protect modern IT hardware components against external climatic influences.

In most cases, 19"-COTS products are used for mobile communication within the operations centre, that would usually only be deployed in stationary civilian data centres. This kind of hardware was not developed for usage under harsh climatic conditions in the field. Therefore, it must be cooled or heated to meet different mission scenarios.

As reliable and climate-resistant equipment, our CLION® air-conditioning modules were designed for outdoor deployment. They consist of single functional units which amount to a high-performance air-conditioning module, when assembled in the corresponding configuration.

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## Advantages of the CLION® air-conditioning modules:

1

Air-conditioning of 19" operation-, transport-, and storage containers

2

Can be customized according to client's requirements

3

Quickly replaceable, maintenance-free and user-friendly MES 1+2

4

Certified in acc. with MIL-STD 810 G, CE compliant, fulfils VG 95447-1

5

IP54 protection during operation, IP65 protection during transport

6

Refrigerant R134a (CFC-free)



# CLION® SK 25 "Micro"

The intelligent air-conditioning module CLION® SK25 "Micro" is currently the smallest modular air-conditioning unit with micro-compressor technology. This robust micro air-conditioning fulfils all requirements for smaller and lighter systems in deployment.

## Technical Specifications:

- For environmental temperatures from -30°C to +60°C
- Cooling capacity: 250 Watt
- Power supply: 24 V DC / 12.5 A
- Dimensions (WxDxH): 456x206x291 mm
- Weight: 12.3 kg



# CLION® SK 140 “Backpack”

The modular air-conditioning module CLION® SK 140 “Backpack” was designed for use in tropical regions for environmental temperatures of up to +60°C. It includes a powerful condenser ventilation as well as an evaporator-recuperator device for evaporation temperatures of up to +20°C. In doing so, it offers intelligent air-conditioning, heating and dehumidification of 19“-components starting at a height of 6 U.

## Technical Specifications:

- For environmental temperatures from -30°C to +60°C
- Cooling capacity at +60°C: 1.000 - 1.400 watt
- Optional: Approved for restricted data, approved for Zone1 by the Federal Office for Information Security (BSI)
- Power supply: 230 V AC, 5 A max.
- Dimensions (WxDxH): 516x687x338 mm
- Weight: approx. 53 kg without case



# CLION® SK 3 40 & 400 "Cooling Cube"

## CLION® SK 340 "Cooling Cube"

The air-conditioning module CLION® SK 340 "Cooling Cube" is a reliable and resilient air-conditioning unit which is used, among others, in the "Deployable Network". It offers intelligent cooling and heating of 19"-components in a dual-circuit system.

### Technical Specifications:

- For environmental temperatures from -30°C to +60°C
- Cooling capacity: 3000 watt
- Power supply: 230 V AC, 10 A max. restricted
- Dimensions (WxDxH): 510x1030x485 mm
- Weight: approx. 60 kg without case

## CLION® SK 400 "Cooling Cube"

The high-performance air-conditioning module CLION® SK 400 "Cooling Cube" is an advancement of the air-conditioning module CLION® SK 340. The air-conditioning unit offers intelligent cooling and heating of 19"-components in a dual-circuit system and ensures the operation within temperature ranges between -30°C and up to +60°C.

### Technical Specifications:

- Air distribution via an efficient tube system
- For environmental temperatures from -35°C to >+61°C
- Cooling capacity 4.000 - 4500 watt
- Power supply: 230 V AC, 18 A.
- Dimensions (WxDxH): 510x1030x485 mm
- Weight: approx. 75 kg without case



# CLION® CH 1.0 "Water Chiller"

CLION® CH 1.0 is the first water-based air-conditioning solution for mobile applications. It offers air-conditioning without compressor for up to + 20°C ambient temperature, thereby featuring low-noise operation. With this solution, the water chiller can also be located outside of the container, while being connected via thin water hoses.

## Technical Specifications:

- Allows for airtight 19" cases via small water couplings in cover
- Water chiller does not require case
- Offers cascading options for higher power requirements
- Cooling capacity: approx. 1.000 Watt
- Power supply: 230 V/ 1 Ph / 50 Hz oder direkt 24 V DC
- Water flow: approx. 1m<sup>3</sup>/ h
- IP 68 protection
- EMC-resistant to cooled components
- Cooling connection via water hoses with leakage-free quick couplings





# Mobile Air-Conditioning Container

Since the beginning of 2018 steep GmbH has been offering tests and certifications for components in an air-conditioning container. Tests cover the temperature range of military standards. The container is mobile and can therefore be used for on-site testing. The container can currently be used for pre-certification. Accreditation is planned for the end of 2018.





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