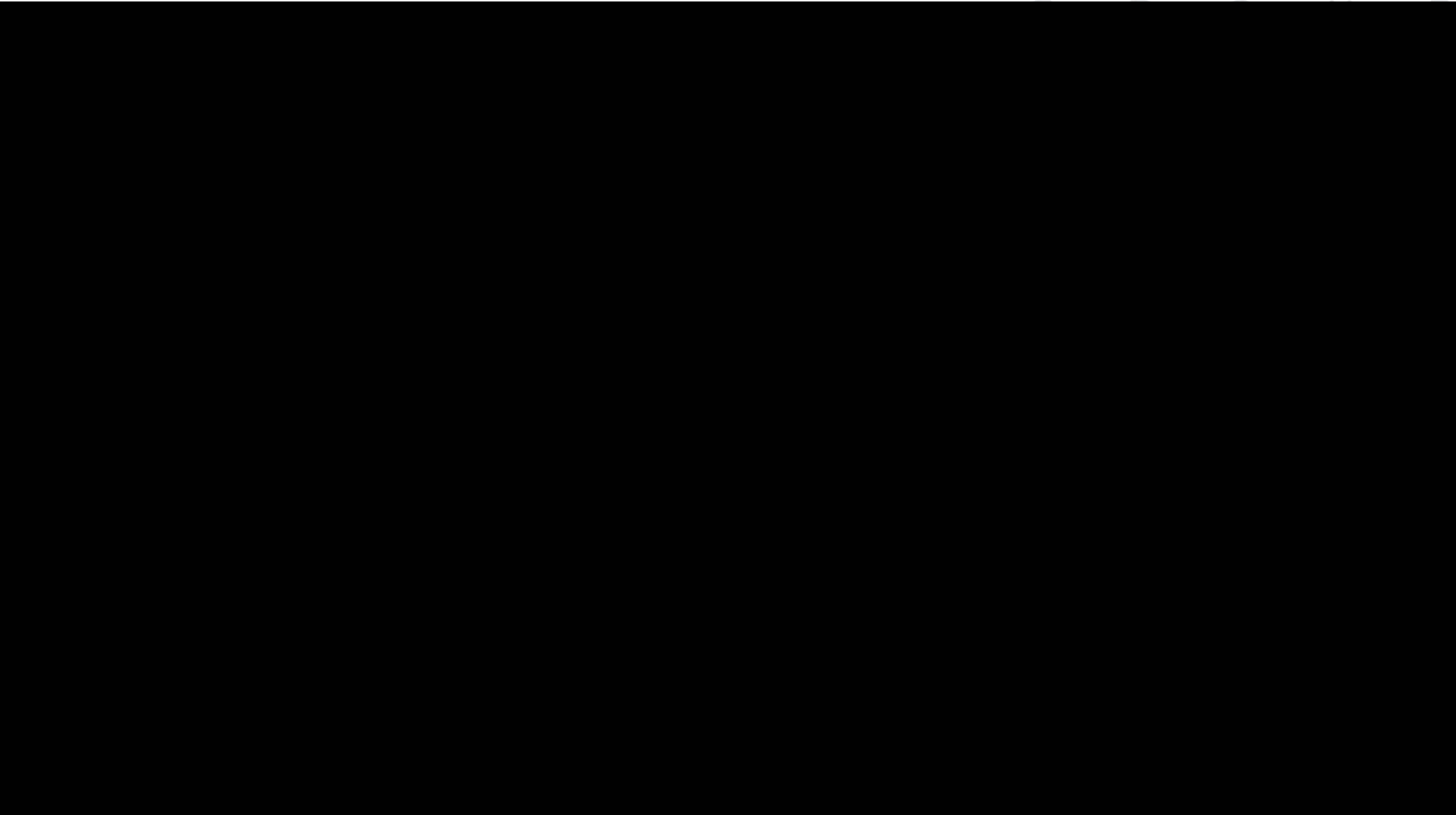


WE MAKE IT HAPPEN

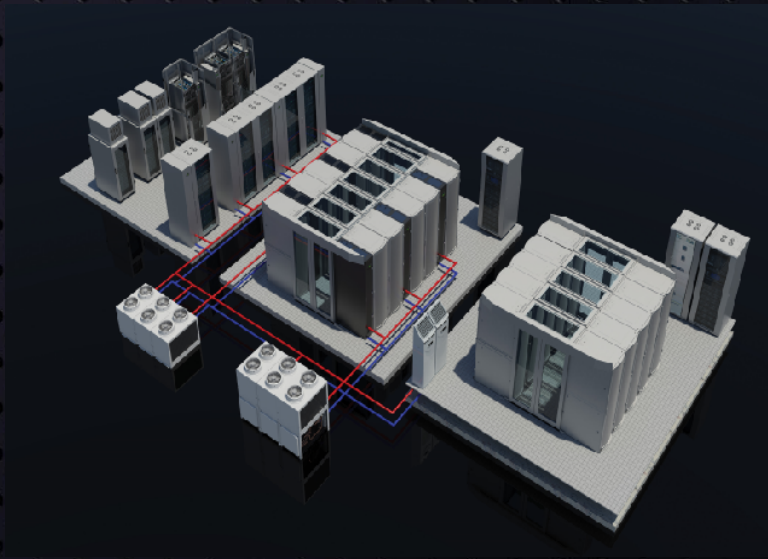
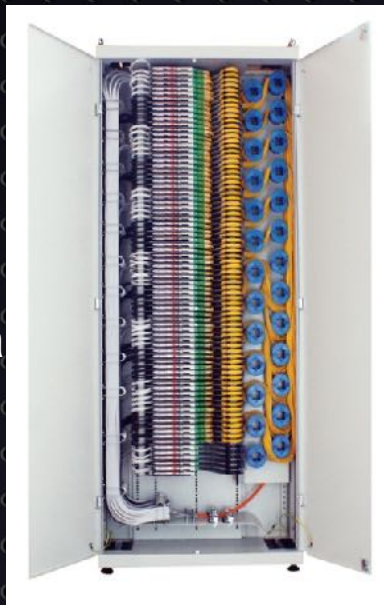
CANOVATE®



www.canovate.com

INTRODUCTION

- Products are manufactured in brand new facilities covering 26,000 m2 production area, formerly recognized as Alcatel-Turkey.
- %75 of production is exported to Europe, Russia, Asia Pacific Middle East, North & Sub-Saharan Africa, USA, CIS and Central America
- Branch offices in USA, Greece, Russia, Iran, Indonesia and UAE. 42 Distributors around the globe, coverage of 60 countries



GLOBAL REFERENCES

CANOVATE[®]
G R O U P

worldwide presence

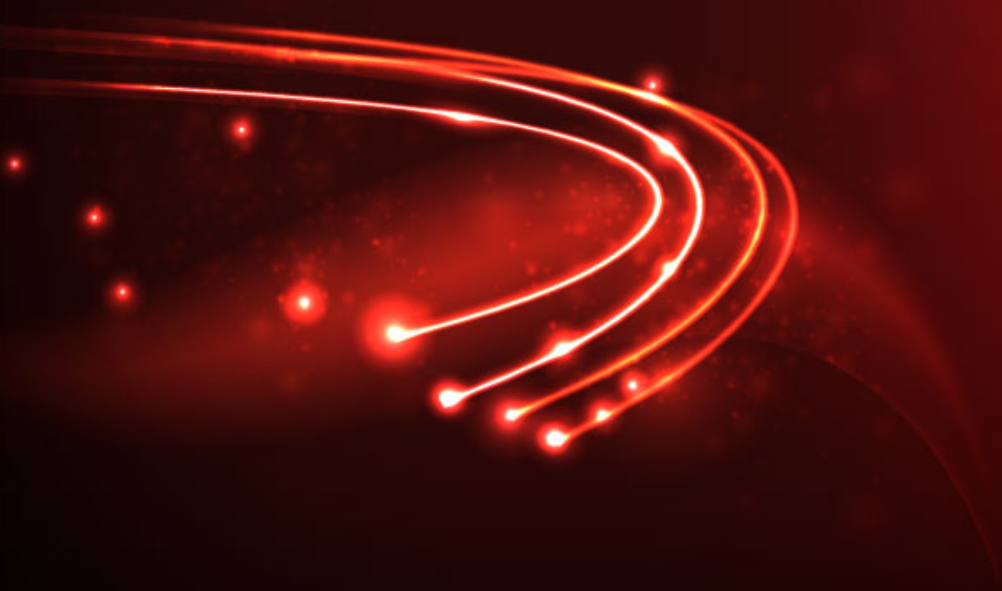
Logos and references include:

- HUAWEI
- etisalat
- vodafone
- ANIXER
- FUJITSU
- Alcatel-Lucent
- STC
- verizon
- OTE
- ZTE中兴
- ERICSSON
- Telekom Srbija
- REXEL
- NORTEL NETWORKS
- P&T LUXEMBOURG
- TURKCELL SUPERONLINE
- GAZPROM
- mobily
- INTRACOM HOLDINGS
- TeliaSonera
- O2
- SAGEMCOM
- Cegelec
- Nokia Siemens Networks
- Virgin media
- TURK TELEKOM

Global presence locations marked on the globe:

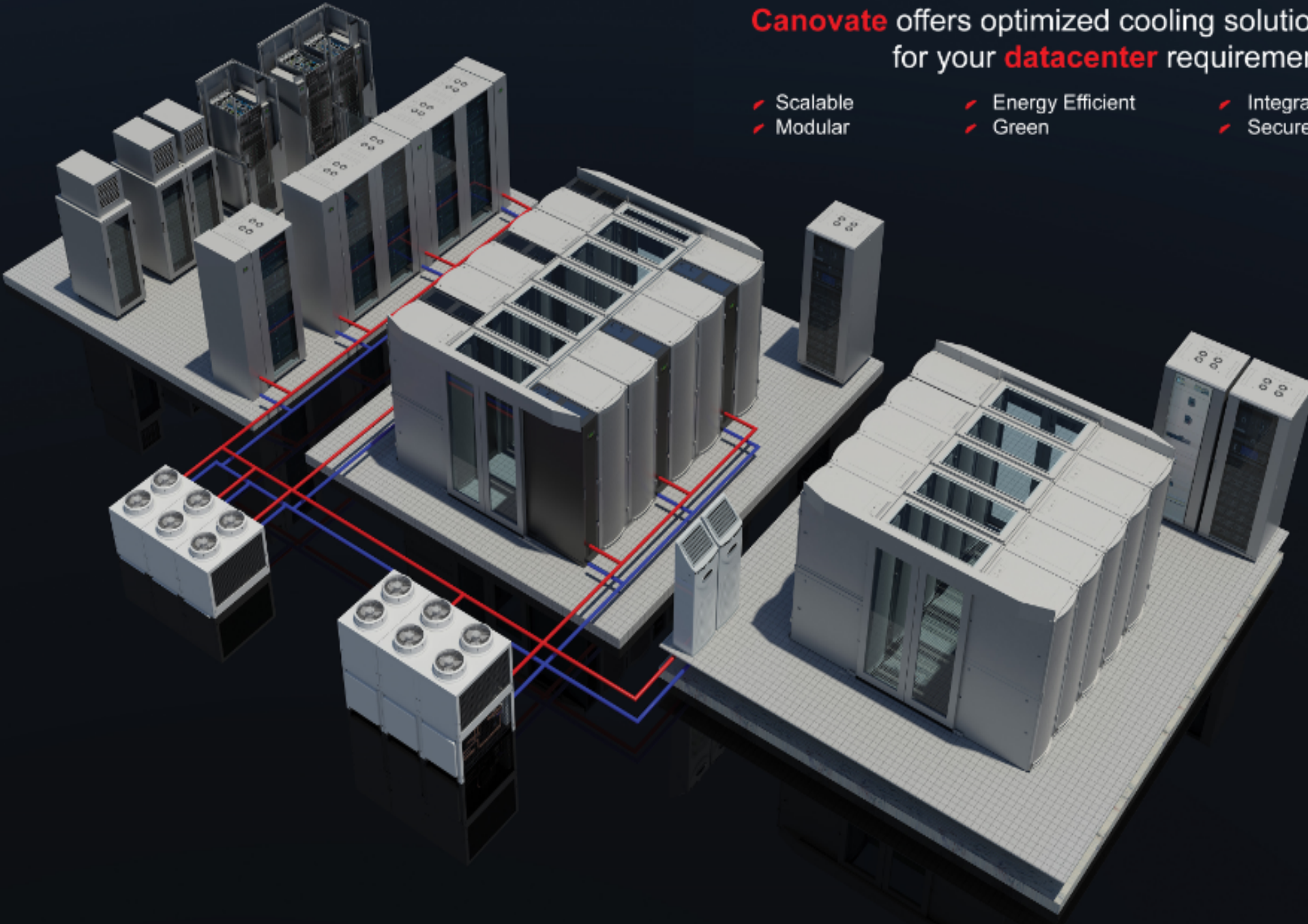
- U.K.
- Denmark
- Netherlands
- Germany
- Greece
- Headquarters
- Iran
- Saudi Arabia
- UAE-Dubai
- India
- China
- Australia
- South Africa
- Brazil
- United State

www.canovate.com



Canovate offers optimized cooling solutions for your **datacenter** requirements

- Scalable
- Modular
- Energy Efficient
- Green
- Integrated
- Secure



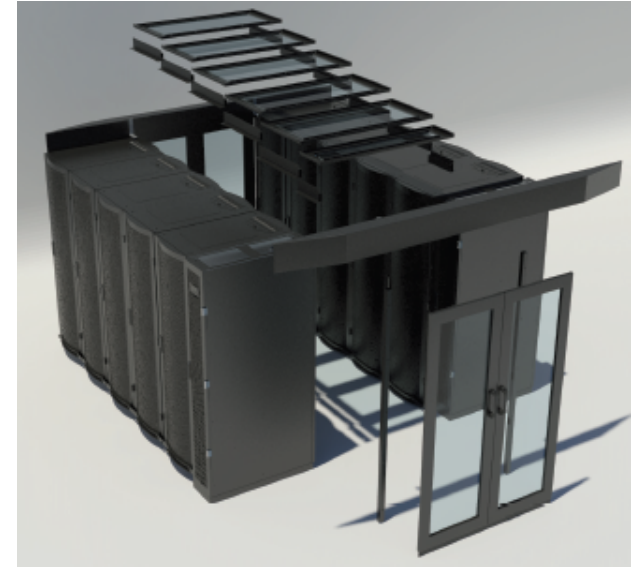
MICRO DC



MINI DC



aisle containment



CONTAINER DC



Why Canovate ?

- Complete datacenter solutions including rack, cooling, power, monitoring and security solutions similar to APC, Emerson and Rittal
- High end aluminum frame racks (up to 2000 kg carrying capacity) and economy steel rack series
- In house produced CW -chilled water and DX based inrow cooling systems
- Innovative energy efficient adiabatic cooling systems
- Cold&Hot Aisle containment systems with inrow cooling
- Micro&Mini Datacenter solutions for SME's and branch offices
- Mobile Container Datacenter's
- Modular UPS systems
- Best price and performance ratio
- Fast manufacturing time
- Fast Customization capabilities



MICRO DATA CENTER

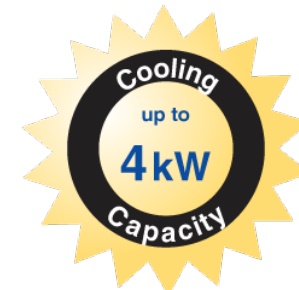
Micro Data Center with Top Mountable AC

CANOVATE[®]
G R O U P



Benefits:

- Cooling up to 4kw with top mountable AC unit.
- Eliminating external cooling unit and raised floor
- Compact datacenter with monitoring, UPS, IP PDU, cooling
- Ideal solution for branch offices (Banks, Police, Schools, Ministries etc.)



MICRO DATA CENTER

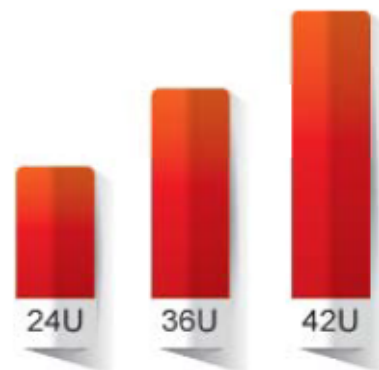
Applications





Applications

- Small and Medium Size Enterprises (SME's)
- Branch offices of financial institutions (Banks, Insurance companies)
- Branch offices of government institutions and utilities (Police, Army, Schools, Electricity, Water companies etc)
- Companies who wants to connect the cloud instead of investing in a big data center
- Exchange offices & Hubs of Telco's and GSM companies
- Remote locations where there is no dedicated IT personnel available
- Manufacturing companies for automation control and IT services



Micro Data Center Rack

- ✓ 24U-36U-42U height
- ✓ Steel&Glass front and rear doors
- ✓ Aluminum frame carrying capacity up to 2000 kg
- ✓ Portable design with wheels or fixed wall mountable
- ✓ Cable entrance from the bottom

CAN-BREEZE MICRO DATA CENTER

Micro Data Center with inrack mountable AC

CANOVATE[®]
G R O U P



Benefits:

- Cooling up to 8-14 KW within 800mm width rack
- Eliminating raised floor requirement
- Compact datacenter with monitoring, UPS, IP PDU, cooling

CAN-BREEZE MICRO DATA CENTER

CANOVATE[®]
G R O U P



Benefits:

- Plug&Play integrated datacenter
- Easy to maintain
- Ideal solution for SME's and branch offices (Banks, Police, Schools, Ministries etc.)

Benefits of Canovate Micro Datacenter Solutions

- **Accelerated Deployment:**
Deploy turnkey rack-level infrastructure in max 1 hour time
- **Lower CAPEX:**
Significantly lower initial investment and construction cost compared to classical Datacenters
- **Increased Energy Efficiency:**
Dramatically lower your cooling and power OPEX costs
- **Customizable:**
Can be customized easily according to your cooling and power requirements
- **Significant Energy Savings:**
You don't need to cool the entire IT room, just cool the Micro DC. **Green IT**
- **Modular:**
Additional Micro DC units can be added according to the growth of your IT requirements.
Pay-As-You-Grow!

Benefits of Canovate Micro Datacenter

➤ **Security:**

Keeps mission critical data in a secure environment, increases data and hardware protection and guarantees 24/7 business continuity via integrated fire suppression and EMS systems

➤ **Facility Maintenance:**

The ability to minimize IT infrastructure maintenance to lower overall Data Center maintenance labor costs.

➤ **Limited Operation Risk:**

The complete system is coming as factory tested and ready to install. **Plug and Play**

➤ **Standardization:**

Same standard solution in all your branch offices limits risks of human failure and lowers operating & maintenance costs

➤ **No need for skilled IT personnel :**

You don't need to maintain IT personal in every location , hundreds of Micro DC's can be controlled remotely from your Head Quarters.

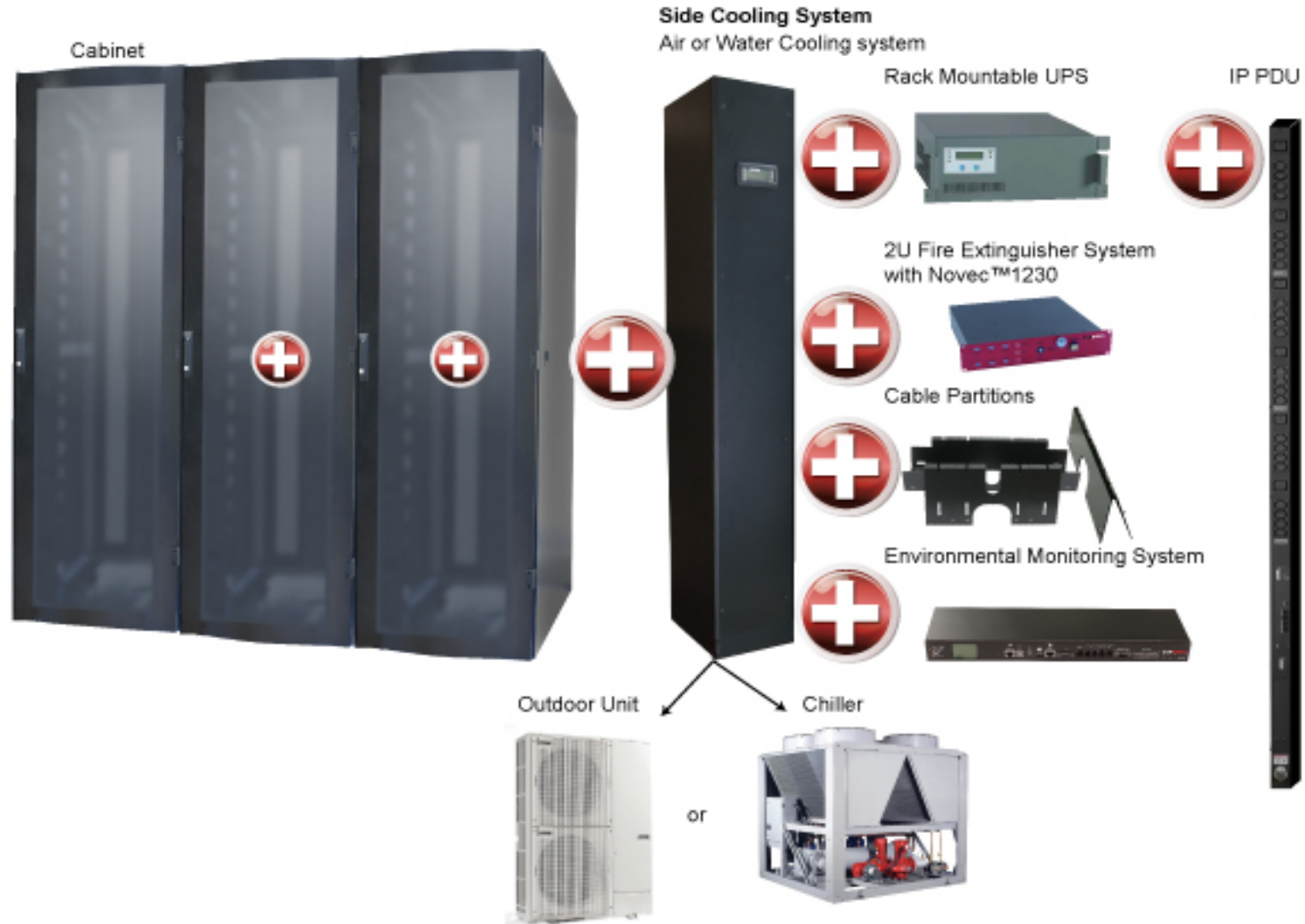
➤ **Affordable by Small Businesses:**

You don't need to worry for a complex DC design and installation work



MINI DATA CENTER

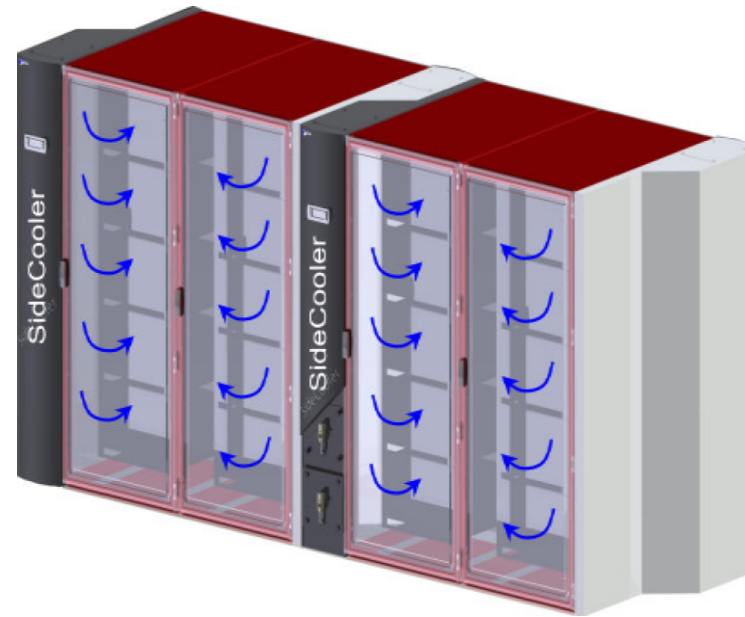
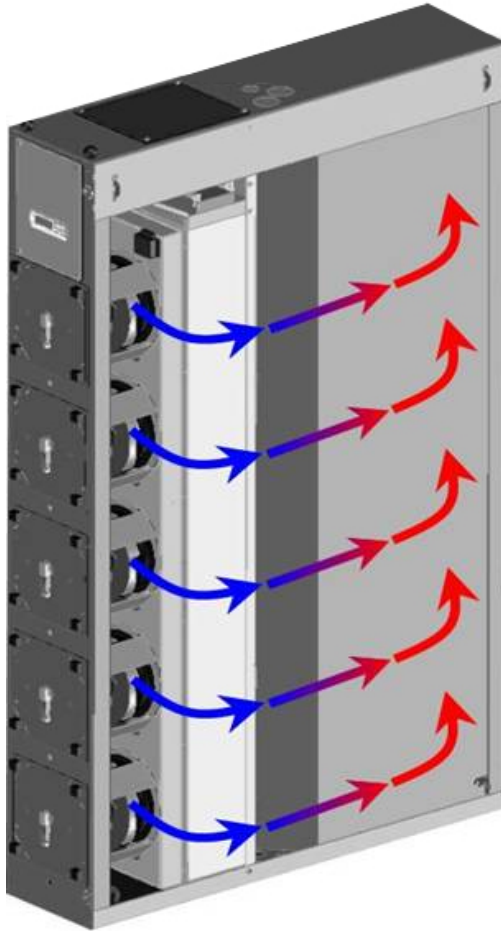




MINI DATA CENTER

DIRECT LIQUID BASED RACK COOLING SIDE COOLER

CANOVATE[®]
G R O U P



- High density hot spot cooling up to 30kW
- Patented modular and ergonomic design

MINI DATA CENTER

Ministry of Labour Data Center, Nürnberg Germany with Fujitsu

CANOVATE[®]
G R O U P



www.canovate.com

COLD & HOT AISLE SOLUTIONS



AISLE SOLUTION



Top Covers

Easily removable acrylic glass panel to maximize the available light and reduce fire risk.

Blanking Panels



Skirt Type Blanking Panel

Closes the gap between 19" mounting rails and side panels. Enables zero U patch panel fitting and cable management.



Raised Floor

Cold & Hot Aisle Containment System must be built on raised floor to maximize cold air intake efficiency.



Brush

Protection from dust



Hinged Doors



Sliding Doors

Hinged or Sliding Doors

Manual or electronic locking
Sliding Door systems for access management.

- Optimized for energy efficiency
- Cooling capacity up to 10 kW for each cabinet
- Modular construction
- Separation of cold and warm air
- Reduction of the gradient of temperature

AISLE SOLUTION



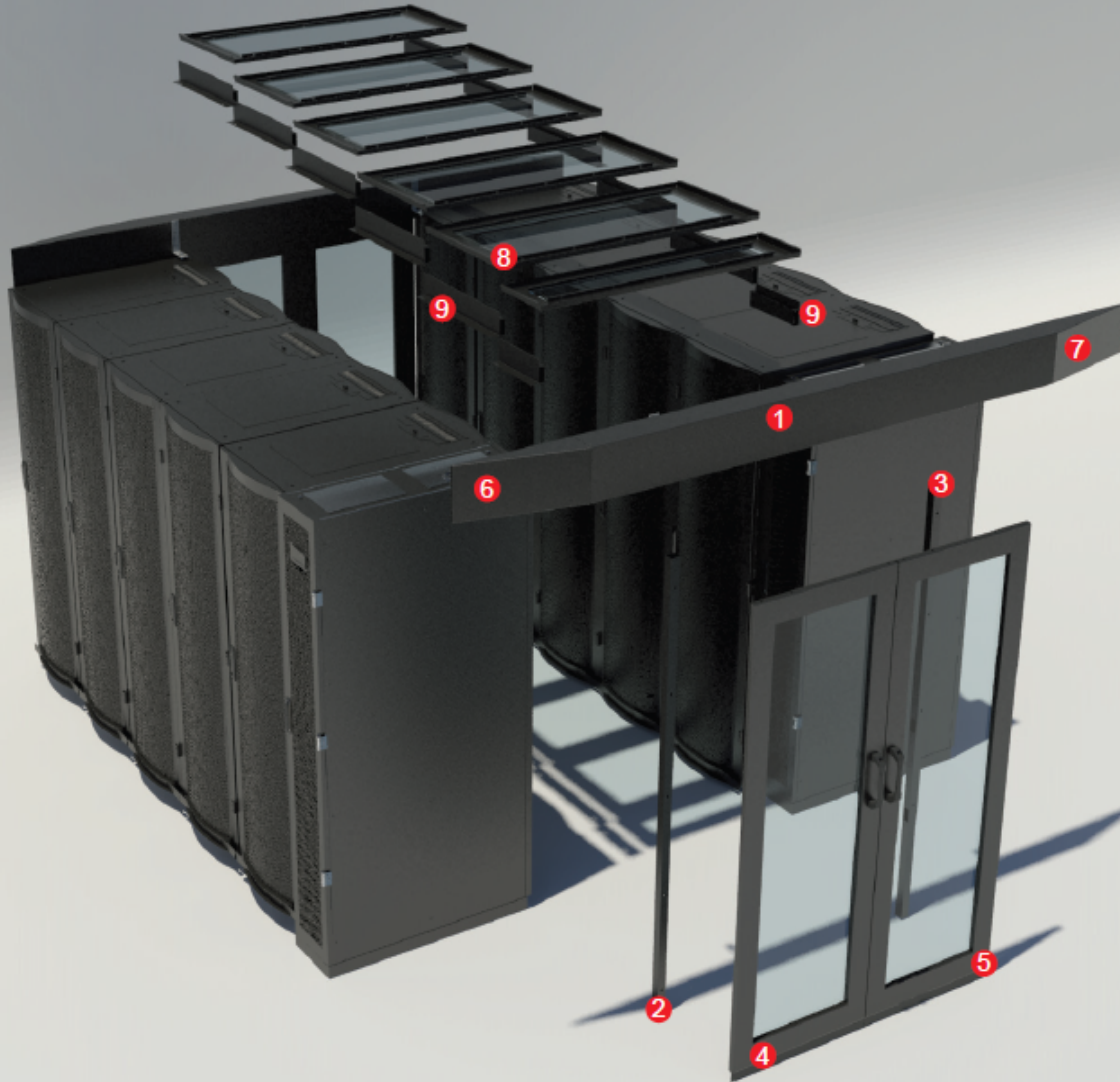
www.canovate.com

AISLE SOLUTION



AISLE SOLUTION

CANOVATE[®]
G R O U P



1	Automatic Door Upper Profile Kit
2	Sliding Door Vertical Support Profile (Right)
3	Sliding door vertical support profile (Left)
4	Sliding Door Assembly(Left)
5	Sliding Door Assembly(Right)
6	Door Upper Left Cover
7	Door Upper Right Cover
8	Top Cover Panels
9	Top Cover Panels Support

WATER BASED CW IN-RROW COOLER

CANOVATE[®]
G R O U P



- In-row technology
- No need for raised floor
- Width of 300 mm or 600 mm
- Height 2000 mm / depth 1000-1200 mm
- 30 kW or 60 kW cooling capacity alternatives
- Pressure controlled
- EC-technology
- No condensing water due to high inlet-water temperature of 14 °C
- Water-based and DX-Version
- Especially developed for aisle-cooling
- High efficiency in power management

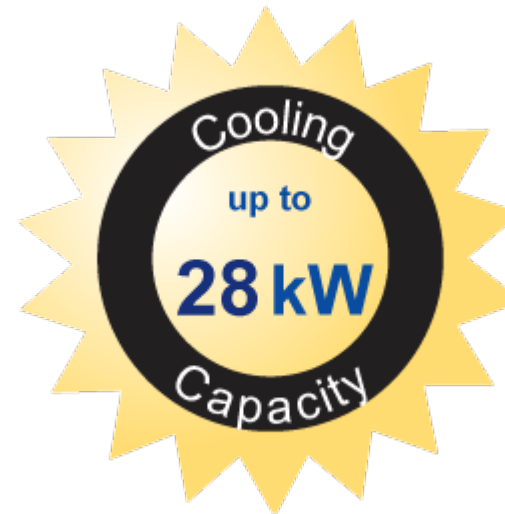
Gas Based-DX (Refrigerant R 410) Front Cooler

CANOVATE[®]
G R O U P

- 28 kW cooling capacity in 42U 300x1000 Cabinet
- Automatically controlled between 11 to 28 kW by inverter technology for maximum energy efficiency
- COP ratio is above 4 for maximum energy efficiency
- External Compressor unit to have better noise level
- Cooling units work 100% sensible (without condensed water)
- Specially developed for cold & hot aisle containment applications
- Modular construction
- In-Row cooling technology
- Eliminating raised floor requirement
- Variable speed fans: EC-Technology
- Modular design: Allowing capacity expansion
- Hot-swappable fans

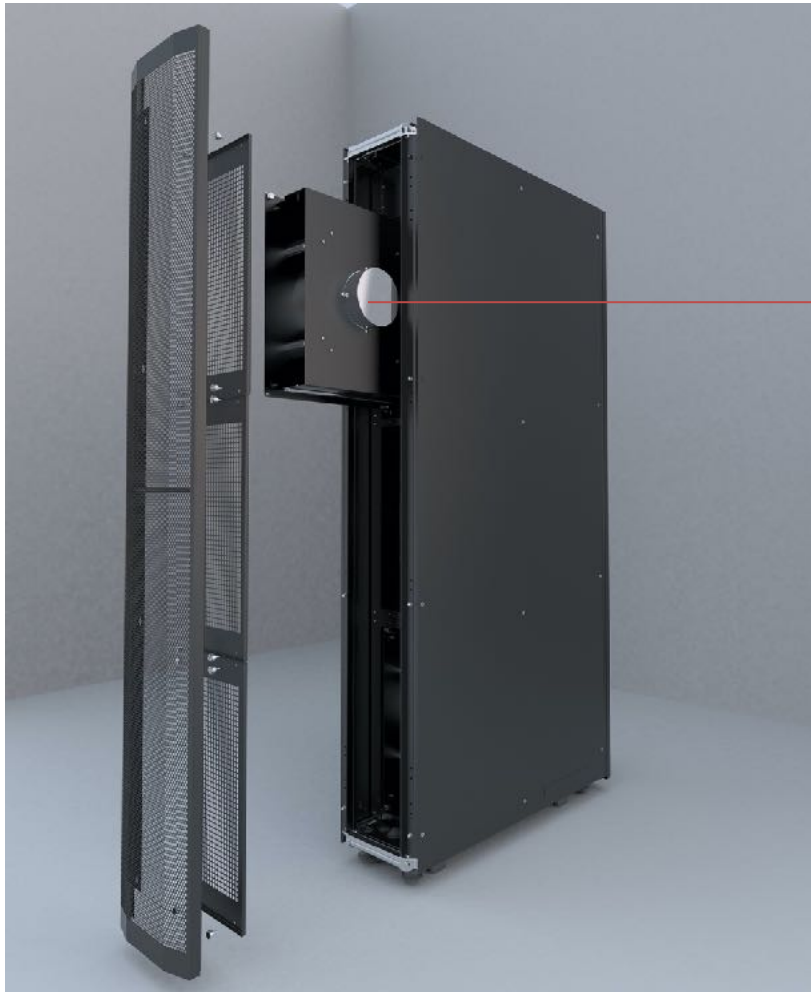


Pressure Controlled
Ziehl-Abegg / EBM
EC Fans

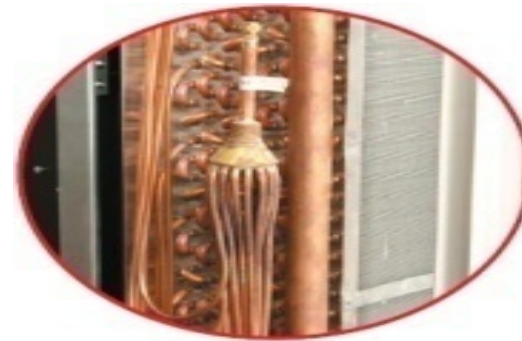


Gas Based-DX (Refrigerant R 410) Front Cooler

CANOVATE[®]
G R O U P



Hot-swappable
EC fan Drawer



Multipoint Injection System



Outdoor Unit-R410A
(Combined Compressor & Condenser)

MODULAR UPS



Redundancy

N+1 Redundancy by adding extra module

High Efficiency

Steady operations at 96%

High Availability

Reach 99.9999% uptime, and more

Scalability

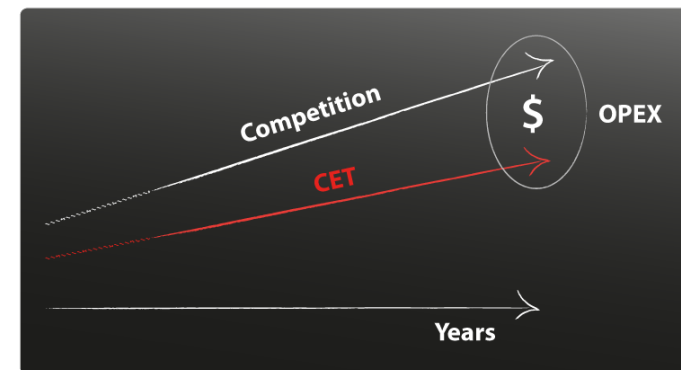
Expand as you grow

Easy handling

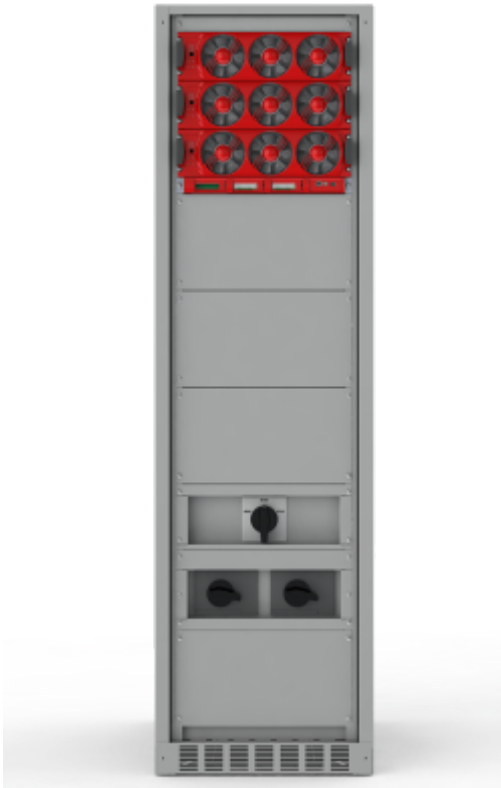
Hot swap, low MTTR, ...



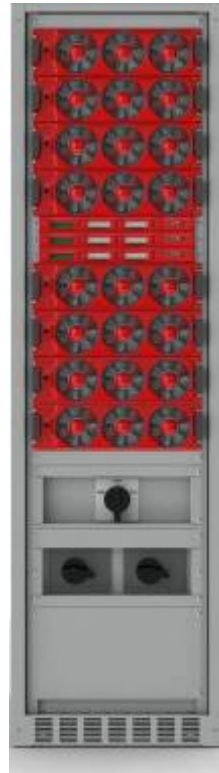
Optimized Financial Impact



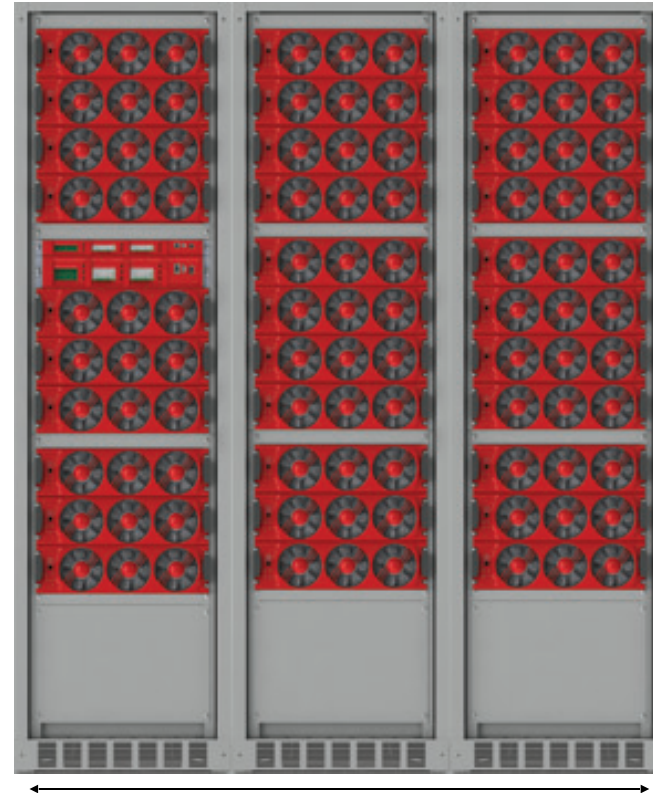
MODULAR UPS



Max 60kVA
600 x 800 x 2100mm
MBP included



Max 160kVA
600 x 800 x 2100mm
MBP optional



Max 640kVA
1800 x 800 x 2100mm
MBP optional and external





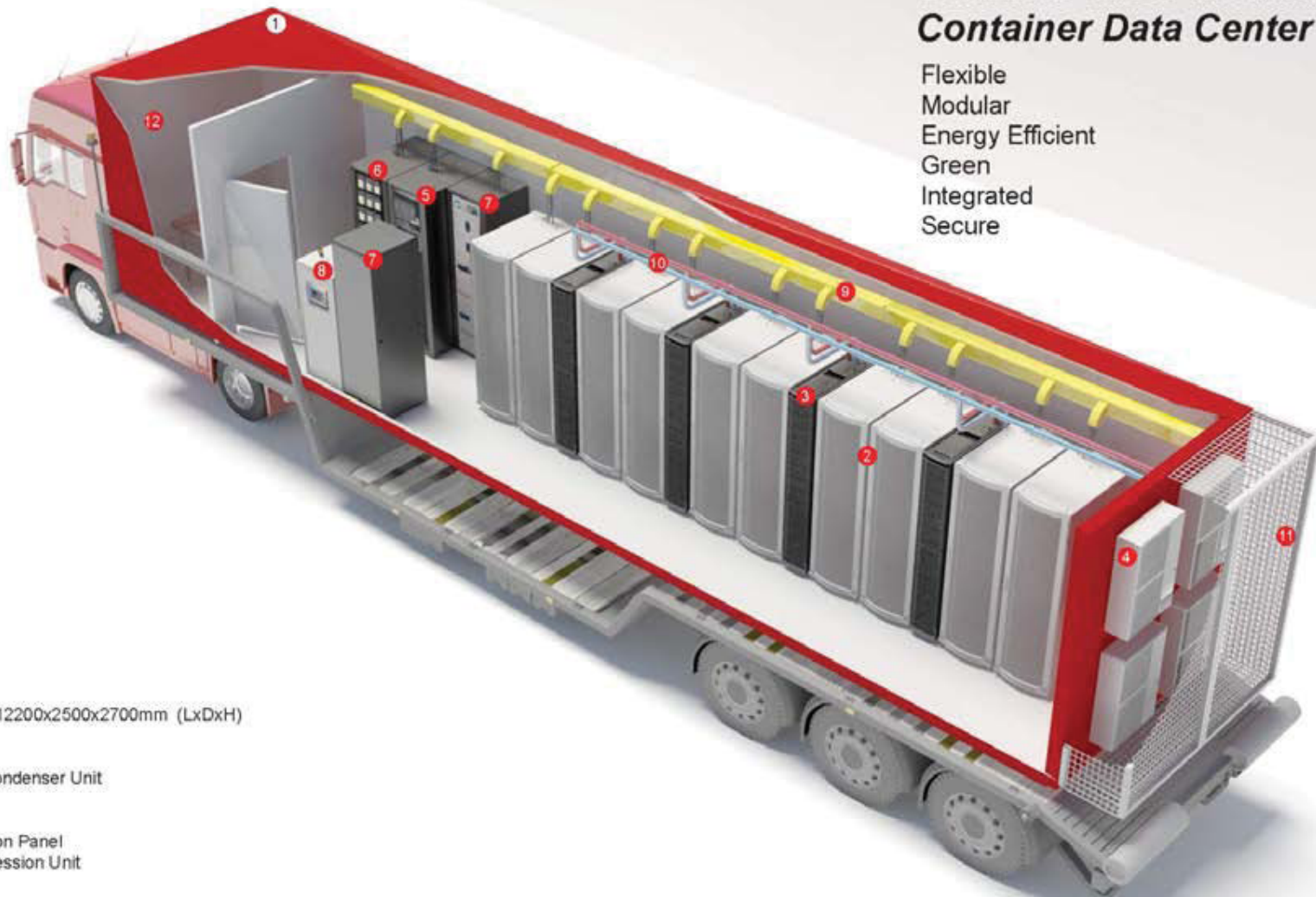
Container Data Center Solutions

CONTAINER DATA CENTER

CANOVATE[®]
G R O U P

Canovate offers modular and green
Container Data Center Solutions

Flexible
Modular
Energy Efficient
Green
Integrated
Secure



- 1- Container; Dimensions : 12200x2500x2700mm (LxDxH)
- 2- Server Rack
- 3- DX Based Inrow Cooler
- 4- Outside Compressor & Condenser Unit
- 5- Modular UPS System
- 6- Battery Rack
- 7- Modular Power Distribution Panel
- 8- Novec Based Fire Suppression Unit
- 9- Cable ducting
- 10- Piping
- 11- Protection Grill for Outdoor Units
- 12- Admin Room

CONTAINER DATA CENTER

Cold Aisle

- Sealed Cold Aisle
- Removable Panels

- 10 Cabinets
- 42U 600 * 1000
- 4 In Row Coolers

- Single 80%
Perforation Doors



CERTIFICATE

ISO 9001-ISO 14001-OHSAS 18001

CANOVATE®

G R O U P

Certificate

Standard **TS EN ISO 9001:2008**

Certificate Registr. No. 01 100 9011956

Certificate Holder: **CANOVATE ELEKTRONİK ENDÜSTRİ TİCARET A.Ş.**
TÜV RHEINLAND Uluslararası Standartlar
Sertifikasyon ve Denetim A.Ş.
Certification Body certifies:

Ekşioglu Mah. Atabey Cad. No:12
34794 Çekmeköy - İstanbul- TURKEY

Scope: **DESIGN, MANUFACTURING, SALES AND AFTER SALES SUPPORT OF DATACENTER SOLUTIONS/SYSTEM ROOM HARDWARE, FIBER OPTIC TRANSMISSION AND ACCESS SYSTEMS, FTTX SOLUTIONS, FIBER OPTIC PATCH PANELS, OUTDOOR CABINETS, 19" FLOOR STANDING CABINETS, 19" WALL MOUNT CABINETS, 19" CABINET ACCESSORIES, SUBRACKS, SMART POWER DISTRIBUTION UNITS, COOLING SYSTEMS, ENVIRONMENTAL MONITORING SYSTEMS SALES AND AFTER SALES SUPPORT OF IP KVM SYSTEMS, STRUCTURED CABLING PRODUCTS, UPS, RF CABLE AND ACCESSORIES**

An audit was performed, Report No. 9011956 Proof has been furnished that the requirements according to ISO 9001:2008 are fulfilled.
The due date for all future audits is 04-07(dd.mm).

Validity: The certificate is valid from 2013-07-17 until 2016-07-04.
First certification 2010

2013-07-17

M. Özgen

TÜV Rheinland TURKEY
Certification Body



www.tuv.com

TÜVRheinland®
Precisely Right.

Certificate

Standard **ISO 14001:2004**

Certificate Registr. No. 01 104 1317765

TÜV Rheinland Cert GmbH certifies:

Certificate Holder: **CANOVATE®**

Canovate Elektronik Endüstri Ticaret A.Ş.
Ekşioglu Mah. Atabey Cad. No:12
Çekmeköy / İstanbul, TR 34794 TURKEY

Scope: **DESIGN, MANUFACTURING, SALES AND AFTER SALES SUPPORT OF DATACENTER SOLUTIONS/SYSTEM ROOM HARDWARE, FIBER OPTIC TRANSMISSION AND ACCESS SYSTEMS, FTTX SOLUTIONS, FIBER OPTIC PATCH PANELS, OUTDOOR CABINETS, 19" FLOOR STANDING CABINETS, 19" WALL MOUNT CABINETS, 19" CABINET ACCESSORIES, SUBRACKS, SMART POWER DISTRIBUTION UNITS, COOLING SYSTEMS, ENVIRONMENTAL MONITORING SYSTEMS SALES AND AFTER SALES SUPPORT OF IP KVM SYSTEMS, STRUCTURED CABLING PRODUCTS, UPS, RF CABLE AND ACCESSORIES**

An audit was performed, Report No. 1317765. Proof has been furnished that the requirements according to ISO 14001:2004 are fulfilled.
The due date for all future audits is 03-12 (dd.mm).

Validity: The certificate is valid from 2013-12-11 until 2016-12-10.
First certification 2013

2013-12-11

[Signature]
TÜV Rheinland Cert GmbH
Am Grauen Stein 1 - 51105 Köln



www.tuv.com

TÜVRheinland®
Precisely Right.

Certificate

Standard **BS OHSAS 18001:2007**

Certificate Registr. No. 01 90 000633

TÜV Rheinland TURKEY certifies:

Certificate Holder: **CANOVATE®**

Canovate Elektronik Endüstri Ticaret A.Ş.

Ekşioglu Mah. Atabey Cad. No:12
Çekmeköy / İstanbul, TR 34794 TURKEY

Scope: **DESIGN, MANUFACTURING, SALES AND AFTER SALES SUPPORT OF DATACENTER SOLUTIONS/SYSTEM ROOM HARDWARE, FIBER OPTIC TRANSMISSION AND ACCESS SYSTEMS, FTTX SOLUTIONS, FIBER OPTIC PATCH PANELS, OUTDOOR CABINETS, 19" FLOOR STANDING CABINETS, 19" WALL MOUNT CABINETS, 19" CABINET ACCESSORIES, SUBRACKS, SMART POWER DISTRIBUTION UNITS, COOLING SYSTEMS, ENVIRONMENTAL MONITORING SYSTEMS SALES AND AFTER SALES SUPPORT OF IP KVM SYSTEMS, STRUCTURED CABLING PRODUCTS, UPS, RF CABLE AND ACCESSORIES**

An audit was performed, Report No. 000533 Proof has been furnished that the requirements according to BS OHSAS 18001:2007 system are fulfilled.

Validity: The certificate is valid from 2013-12-11 until 2016-12-10

2013-12-11

[Signature]
TÜV RHEINLAND TURKEY

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Precisely Right.

www.canovate.com



TÜRK STANDARDLARI ENSTİTÜSÜ TÜRK STANDARDLARINA UYGUNLUK BELGESİ TURKISH STANDARDS INSTITUTION CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

Markanın Tanımı TSE	Description of the Mark TSE
BELGE NUMARASI REFERENCE NUMBER OF LICENCE	14.10.02/TSE-14072
BELGENİN İLK VERİŞİŞ TARİHİ DATE OF FIRST ISSUE OF LICENCE	12.01.2010
BELGENİN SON GEÇERLİLİK TARİHİ LICENCE VALID UNTIL	24.01.2015
BELGE SAHİBİ KURULUŞUN ADI NAME OF THE LICENCE HOLDER	CANOVATE ELEKTRONİK ENDÜSTRİ VE TİCARET ANONİM ŞİRKETİ
BELGE SAHİBİ KURULUŞUN ADRESİ ADDRESS OF THE LICENCE HOLDER	EKŞİOĞLU MAH. ATABEY CAD. NO:12 ÇEKMEKÖY İSTANBUL/TÜRKİYE
ÜRETİM YERİ ADI NAME OF THE MANUFACTURING PLACE	CANOVATE ELEKTRONİK ENDÜSTRİ VE TİCARET ANONİM ŞİRKETİ
ÜRETİM YERİ ADRESİ ADDRESS OF THE MANUFACTURING PLACE	EKŞİOĞLU MAH. ATABEY CAD. NO:12 ÇEKMEKÖY İSTANBUL/TÜRKİYE
İPTAL EDİLEN BELGE NUMARASI (Varsa) INDICATION OF SUPERSEDED LICENCE (If any)	
TESCİLLİ TİCARİ MARKASI REGISTERED TRADE MARK	CANOVATE
İLGİLİ TÜRK STANDARDI RELATED TURKISH STANDARD	TS EN 61587-1: Elektronik cihazlar için mekanik yapılar – IEC 60917 ve IEC 60297 için deneyler – Bölüm 1: Kabinler, raflar, alt raflar ve paso için deneysel deneyler, mekanik deneyler ve güvenilirlik için testler / 23.03.2010
BELGE KAPSAMI SCOPE OF LICENCE	
TS EN 61587-1 DİKİLİ TİP, TİCARİ MODEL: CAN-FSX, KLİMATİK SINIFI: C1, ENDÜSTRİYEL ORTAM SINIFI: A1, STATİK MEKANİK YÜK SINIFI: SL7, DİNAMİK YÜK SINIFI: D14, DAĞIBE SINIFI: R1, İP20, ELEKTRONİK DONANIMLAR İÇİN MEKANİK YAPILAR/KABİNLER	



4.10.2014

ZERRİN ÖZATAY
TSE İSTANBUL BELGELENDİRME
MÜDÜRÜ V.

Bu belge, aşağıdaki ürünlerin, hizmetlerin, süreçlerin ve tekniklerin belgelendiği geçerli bir belge olarak kabul edilir.
İSTANBUL BELGELENDİRME MÜDÜRLÜĞÜ/İstanbul TSE Kuruluşu YAPILAN/ANABELER 131 284222/231 FAKS: 284222/606 * www.tse.gov.tr
Bu belgeye bir ekleme yapılmamıştır, herhangi bir ekleme yapılmış ise belge geçersizdir ve iptal edilmiştir.

CERTIFICATE OF COMPLIANCE

Certificate Number	20140317-E303940
Report Reference	E303940-20060505
Issue Date	2014-MARCH-17

Issued to: CANOVATE ELEKTRONİK ENDÜSTRİ TİC A Ş
EKŞİOĞLU MAH. ATABEY CAD. NO:12
34794 TURKEY

This is to certify that representative samples of Audio/Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems Information Technology & Communication (ITC) Equipment Cabinet, Enclosure and Racks System Models CPN-X-YYYYY and CSN-X-YYYYY, where Y can be any alphanumeric character defining physical dimensions.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 60950-1 and CSA C22.2 No. 60950-1, Information Technology Equipment - Safety - Part 1: General Requirements.

Additional information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Listing Mark for the US and Canada should be considered as being covered by UL's Listing and Follow-Up Service meeting the appropriate requirements for US and Canada.

The UL Listing Mark for the US and Canada generally includes: the UL in a circle symbol with "C" and "US" identifiers, the word "LISTED", a control number (may be alphanumeric) assigned by UL, and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



William R. Conroy
UL
UL is a R. Conroy, Director, North American Certification Programs
UL LLC
Any information and data provided by UL, its subsidiaries and/or related entities, is the property of UL. For questions, please contact a local UL Group or UL Representative at www.ul.com

Page 1 of 1

CERTIFICATE WK4-RC4 (EN 1630) , IP PROTECTION (EN 60529)

PIV Institut Schlösser und Beschläge Velbert Wolfstraße 41 D-42551 Velbert Fax +49(0)2051/9506-5 Fax +49(0)2051/9506-69 piv.velbert@t-online.de www.pivvelbert.de



Prüfbescheinigung Verification certificate

Nr. / No. 45-66/12

Der Firma
We confirm, that the manufacturer

Fujitsu Technology Solutions GmbH
D-40472 Düsseldorf

wird bescheinigt, dass sie am
at the date of

20. September 2012

die Anforderungen analog DIN EN 1630:2011-09/WK 4 (RC4)
manueller Werkzeugangriff

meet the requirements in the style of DIN EN 1630:2011-09/ WK4 (RC4) , tool attack:

für das Produkt
for the product

Rack Typ 2

Angriffsseite
Site of attacking

Außenseite
Outside

erfüllt hat.

Verwendete Bauteile:
Used components:

Schrank/ set:

Bezeichnung/ Marking
Hersteller/ Manufacturer
Anzahl/ Quantity

Rack Typ 2
Canovate
1

Türe/ door:

Bezeichnung/ Marking
Hersteller/ Manufacturer
Anzahl/ Quantity

Türe/ door
Canovate
1

Wandbauteile/ wall components:

Bezeichnung/ Marking
Hersteller/ Manufacturer
Anzahl/ Quantity

Wandbauteil/ wall component
Canovate
3

Deckenbauteile/ ceiling components:

Bezeichnung/ Marking
Hersteller/ Manufacturer
Anzahl/ Quantity

Deckenbauteil/ ceiling component
Canovate
1

Griff/ Handle:

Bezeichnung/ Marking
Hersteller/ Manufacturer
Anzahl/ Quantity

Türgriff/ door handle
Canovate
1

Seite/ page 1 von/ of 2

Akkreditierte Prüfstelle nach DIN EN ISO/IEC 17025
Akkreditierte Zertifizierungsstelle nach DIN EN 45011 (PIV CERT)
PIV: Überwachungs- und Zertifizierungsstelle nach dem Bauproduktengesetz (BauPG)
RAL: Prüfstelle für Schlösser und Beschläge nach RAL-RG/DZ 607 / E
Überwachungs- und Zertifizierungsstelle nach Landesbauordnung (LBO)
Bau-BG: Prüfstelle für Fahrwerkzeuge - DIN CERTCO anerkannte Prüfstelle

Institutleitung: Rainer Ehrig, Dipl.-Ing.

Es gelten unsere Geschäftsbedingungen



TEST HOUSE CERTIFICATE

CERTIFICATE NUMBER: TH07001 CLIENT: Canovate Elektronik Endustri Ticaret A.S.
PROJECT NUMBER: 07P10004 Merkez Mahallesi, Turgut Ozal
CLIENT'S ORDER NUMBER: Order dated 15.01.2007 Cad. No:4, Alemdar - ISTANBUL

TEST ITEM Electric box
MANUFACTURER Canovate Elektronik Endustri Ticaret A.S.
Merkez Mahallesi, Turgut Ozal Cad. No:4, Alemdar - ISTANBUL
TEST LABORATORY ESIM Test Hizmetleri A.S.
Imes Sanayi Sitesi C Blok 308. Sok. No:46 Y.Dudullu ISTANBUL

MODELS CAN-FS-O-1264 12U (633,4mm), 600*450
(identical models are as attached)

ELECTRICAL RATINGS -
NUMBER OF ITEMS TESTED 1

SERIAL NUMBER Not serialised

TEST SPECIFICATION / ISSUE IP 6X test acc.to EN 60529 clause 13.4 and 13.6,
IP X5 test acc.to EN 60529 clause 14.2.5

DATE OF TEST 16.10.2008

RESULT OF TEST Assessment was based on review of testing carried by ESIM Test Hizmetleri A.S. All test results were compliant; refer to ESIM IP Test Report Number L06001-657-1-1 for full details.

Test item complies with IP65.

Approved by: Seyda Dagdelen
Technical Coordinator

Date of issued: 16.01.2007

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THANK YOU FOR YOUR ATTENTION
QUESTIONS?

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