DATWYLER MICRO DATA CENTRE
CUTTING EDGE SOLUTIONS FOR DE-CENTRALISED DC ARCHITECTURE
DATWYLER

The world has become highly complex, globally connected and competitive. The amount of data required, produced and processed increases exponentially. To harness the opportunities of digitalization, organizations must rely on a smart and strategic IT infrastructure.

We are a global player that helps organizations stay at the forefront of progress, elevating their core business with a state-of-the-art IT infrastructure. Built on the best of two worlds: the top quality of a certified Swiss brand and the leading expertise of an internationally present team.

We bring a one-stop service to your doorstep, giving you direct access to the latest in technology and developing your infrastructure in line with your needs so you can focus on what you do best: growing your business and bringing value to people’s lives.

FROM THE SINGLE COMPONENT TO THE TURNKEY INFRASTRUCTURE

DATWYLER Cabling Solutions is a professional international partner for customised, turnkey infrastructure solutions and individual components - right from the start.

Our R&D departments are constantly working on innovative solutions, utilizing state-of-the-art technologies, to provide you with highly efficient, secure and sustainable IT networks.
WHY NEED “EDGE” DATA CENTRES?

“In 2017 about 10% of data were created and processed outside centralized data centre and cloud. By 2022 they predict this figure will reach 50%.”

--- GARTNER

CHARACTERISTICS OF AN EDGE DC

- Close proximity to the data source
- Supports distributed data processing
- Includes data from IoT devices
- Offers high-performance internet connection
- Equipment can be in just one box or in multiple racks
- Located in a strategic site close to the users and devices
- Supports any network protocols and one-hop connections, wirelessly and/or using copper or fibre optic cables
- Provides optimal physical & cyber security
- Tier level is not lower than cloud DC and centralized DC

DC ARCHITECTURE MOVING TO EDGE

IMPERATIVES IN EDGE DATA CENTRE

- Low latency
- High speed
- Robust security
- Reliable system
- Remote monitoring
- Reliable system self-contained system
- Data analytics

DATWYLER OFFERS IN EDGE DATA CENTRE

- Micro Data Centre
- DCIM
- Racks, Access Control
- UPS, RPS
- Cooling, Fire Suppression
- Energy Distribution
- FO, FTTH, GPON, POL
- Cabling up to 40 Gbps
DATWYLER MICRO DATA CENTRE: Cutting edge solutions for de-centralised DC architecture

TYPICAL INDUSTRY APPLICATIONS

A rapid maturing market:
- Retail
- Entertainment
- Healthcare
- Banking
- Education
- Logistics
- Government
- many others

Ease of use
- Pre-configured for various operational scenarios, therefore fast ordering
- Can be installed as a “plug-and-play” system by any IT technician
- Rapid deployment
- Touch-screen and user-friendly software

High reliability
- Quality of each MDC is tested prior to delivery
- The environment and security monitoring system protects the equipment
- All data are managed and stored redundantly on local storage media as well as in the cloud
- Can be monitored anywhere and anytime via the cloud
- Proactive alarm notification via app, email and/or SMS

Low TCO
- Real-time monitoring of the UPS and cooling unit help to save energy
- Cooling unit integrated in the fully enclosed rack ensures high power usage effectiveness (PUE)
- Small footprint and fast deployment

Fast maintenance
- Key components are of modular design throughout
- UPS has a maintenance bypass
- Remote management of all the equipment in the rack allows authorised personnel to be alerted so that faults can be rectified before they have serious consequences
- Software upgrades can be downloaded from the cloud
- Most of the environmental sensors support toolless magnetic installation
In a compact 42U rack Datwyler's Micro Data Centre contains a fully preassembled IT infrastructure solution including an energy distribution unit, UPS, cooling unit, a cloud-based environment and security monitoring system as well as the associated sensors.

Typical applications are Edge Computing, “smart facilities” deploying IoT devices and running AI, VR and automation, as well as computing nodes in remote and branch offices.

**42U Rack**
- Fully equipped with cable management, blanking panel & side brush for air gap sealing, LED lighting, door status sensor

**Touch Screen**

**Monitoring Server**
- Supports B/S architecture and app, monitoring for UPS/Cooling, T/H, smoke, water leak, door status etc.

**Energy Distribution Unit**
- 3U, compact design

**UPS & Battery Pack**
- High-efficient rack-mount UPS with capacity of 3 kVA, single-phase

**Rack-Mount Cooling Unit**
- 5U rack-mount air condition with split condenser, 3.5 kW

**Monitoring Server**
- 1U monitoring server, embedded WiFi, 4G
- Supports Modbus/RS232, dry contacts/output relays
- Real-time monitoring of physical devices, environments and security
- On premise & cloud base redundancy
- Supports B/S and app

**Energy Distribution Unit**
- 3U, compact design
- MCB for UPS, cooling unit, UPS bypass, PDUs

**UPS & Battery Pack**
- Single-phase
- 2U, compact design
- 3 kVA
- Modular battery pack

**Cooling Unit**
- Up to 3.5 kW
- 5U, compact design
- Split condenser
MONITORING SYSTEM FOR MICRO DATA CENTRE

The MDC monitoring system is an integrated solution for the IT infrastructure and the environmental conditions. It collects the data and organizes the information, alarms and captured images. The cloud based system enables you to monitor the MDC anytime and from anywhere.

SYSTEM ARCHITECTURE

- **Real-time Monitoring**
- **Openness & Flexibility**
- **Alarm Notification**
- **Reports & Graphs**

**System Architecture**

- **Real-time Monitoring**
- **Openness & Flexibility**
- **Alarm Notification**
- **Reports & Graphs**

**High availability**
- Monitoring the MDC from anywhere, anytime
- One single platform to monitor infrastructure devices, environment and security
- Real-time alarm notification

**Improved efficiency**
- Easy on-boarding (server deployment, app-add the devices)
- Software upgrades via cloud, reduced the onsite time
- Online troubleshooting

**Note:** SNMP will be supported next version
<table>
<thead>
<tr>
<th>Physical property</th>
<th>Basic</th>
<th>Standard</th>
<th>Enterprise</th>
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<tbody>
<tr>
<td>P/N</td>
<td>MDC100</td>
<td>MDC200</td>
<td>MDC300</td>
</tr>
<tr>
<td>Dimension (W<em>D</em>H)</td>
<td>800 x 800 mm x 42U</td>
<td>800 x 1100 mm x 42U</td>
<td>800 x 1100 mm x 42U</td>
</tr>
<tr>
<td>Rack type</td>
<td>Sealed</td>
<td>Vented</td>
<td>Sealed</td>
</tr>
<tr>
<td></td>
<td>with glass front door and steel rear door</td>
<td>with vented doors front/rear</td>
<td>with glass front door and steel rear door</td>
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<tr>
<td>Usable space</td>
<td>41U</td>
<td>32U</td>
<td>27U</td>
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<tr>
<td>Floorprint</td>
<td>0.64 m²</td>
<td>0.88 m²</td>
<td>0.88 m²</td>
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<tr>
<td>Color</td>
<td>Black, RAL 9005</td>
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<tr>
<td>Power distribution</td>
<td>N/A</td>
<td>3U unit, 32 A input, single-phase, for internal equipment</td>
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<tr>
<td>PDU</td>
<td>2 intelligent PDUs (18 x C13 + 6 x C19)</td>
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</tr>
<tr>
<td>Surge suppression</td>
<td>N/A</td>
<td>Included</td>
<td></td>
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<tr>
<td>Maintenance bypass</td>
<td>N/A</td>
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<tr>
<td>UPS (capacity)</td>
<td>N/A</td>
<td>UPS (3 kVA)</td>
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<tr>
<td>UPS active power</td>
<td>N/A</td>
<td>2.4 kW</td>
<td></td>
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<tr>
<td>Input</td>
<td>N/A</td>
<td>L-N: 220 / 230 / 240 V AC</td>
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</tr>
<tr>
<td>Rated voltage</td>
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<td>110 ~ 280 V AC</td>
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<tr>
<td>Input voltage Hz</td>
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<td>40 - 70 Hz</td>
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<tr>
<td>Backup time</td>
<td>N/A</td>
<td>15/30 min. @50% load</td>
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<tr>
<td>Efficiency</td>
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<tr>
<td>Cooling unit</td>
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<td>3.5 kW</td>
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<tr>
<td>Cooling method</td>
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<td>DX</td>
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<tr>
<td>Condenser</td>
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<td>Split condenser</td>
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<tr>
<td>Emergency cooling</td>
<td>N/A</td>
<td>Rear door opens automatically in emergency</td>
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<td>Monitoring Server</td>
<td>N/A</td>
<td>1U unit, web-/app-based monitoring</td>
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<tr>
<td>Touch screen</td>
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<td>10.4” touch screen</td>
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<tr>
<td>Language</td>
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<tr>
<td>Temperature sensor</td>
<td>1</td>
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<td>1</td>
</tr>
<tr>
<td>Smoke sensor</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Door contact sensor</td>
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<td>2</td>
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<td>Water leak detection</td>
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<td>1 pc., 5 m long</td>
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<tr>
<td>UPS monitor</td>
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<tr>
<td>Cooling unit monitor</td>
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<td></td>
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<tr>
<td>Working temperature</td>
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<td>0 - 40 °C</td>
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<tr>
<td>Storage temperature</td>
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<td>-20 °C - 70 °C (Battery: -20 °C - 40 °C)</td>
<td></td>
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<tr>
<td>Altitude</td>
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<tr>
<td>Net weight</td>
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<tr>
<td>Warranty</td>
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*Subject to technical improvements/modifications*