DATATECH BTD

Perimeter Computer Room Air Conditioners based on direct expansion or chilled water cooling technology
5÷220 kW

BlueBox
by Swegon

DATATECH BTD

DIRECT EXPANSION

CHILLED WATER

REDUNDANCY
double coooling source

DUAL COOLING SOLUTION

Chilled Water and Direct Expansion in one unit. With a designed allowing complete DX maitenance while CW is working.
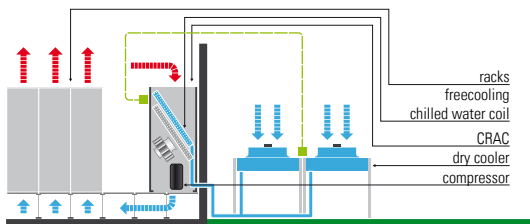
DUAL WATER SOLUTION

2 Indipendent water circuits with flexible control solutions (Alternate, Cascade, Parallel).
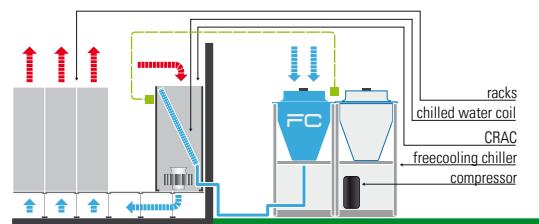
EFFICIENCY
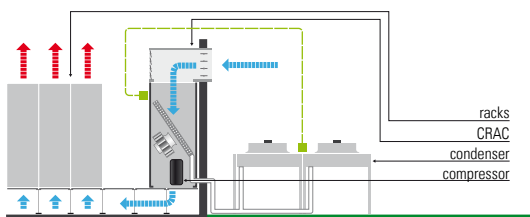#### Freecooling solutions

INDIRECT FREECOOLING

racks
freecooling
chilled water coil
CRAC
dry cooler
compressor

50% saving in Frankfurt with a **pay back of less then 2 years***
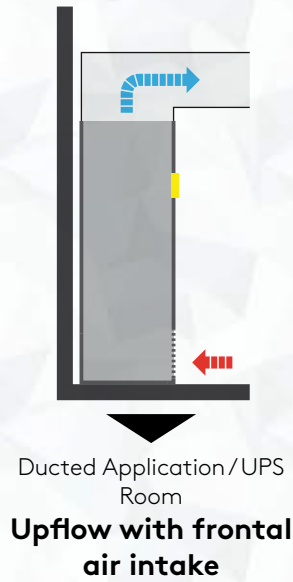
DIRECT FREECOOLING

racks
CRAC
condenser
compressor

60% saving in Madrid with a **pay back of less then 1,5 year***

INDIRECT FREECOOLING

racks
chilled water coil
CRAC
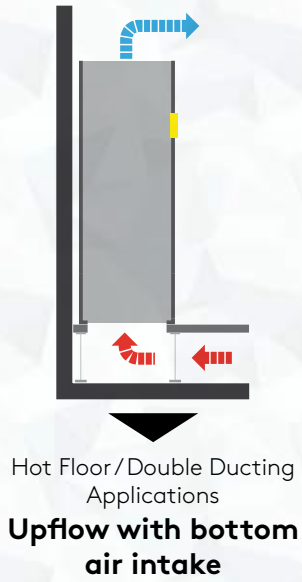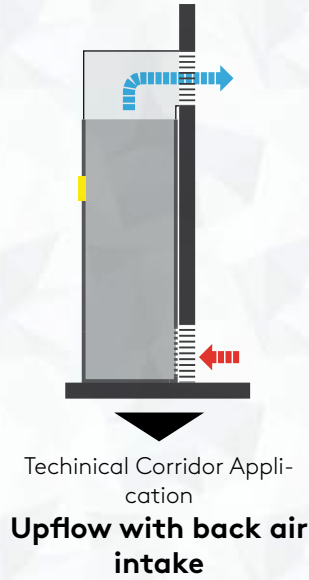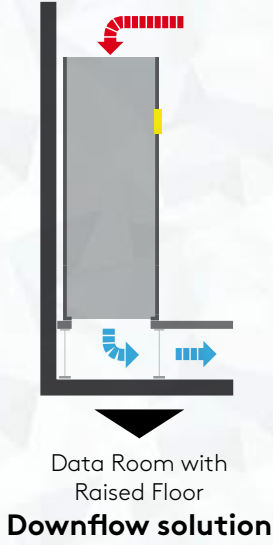freecooling chiller
compressor

40% saving in Frankfurt with a **pay back of less then 2 years****

* 20°C Supply to the servers, comparison versus aircooled system. Single circuit 30 kW unit.

** 22°C Supply to the servers, comparison versus chilled water system without FC. 500 kW Load; N+1 Redundancy.

DESIGNED TO SUIT ALL DATACENTER LAYOUTS / ROOMS

Data Room with
Raised Floor
Downflow solution

Hot Floor / Double Ducting
Applications
**Upflow with bottom
air intake**

Data Room without
Raised Floor / Technical
Room
Frontal air delivery

Techinical Corridor Appli-
cation
**Upflow with back air
intake**

Ducted Application / UPS
Room
**Upflow with frontal
air intake**
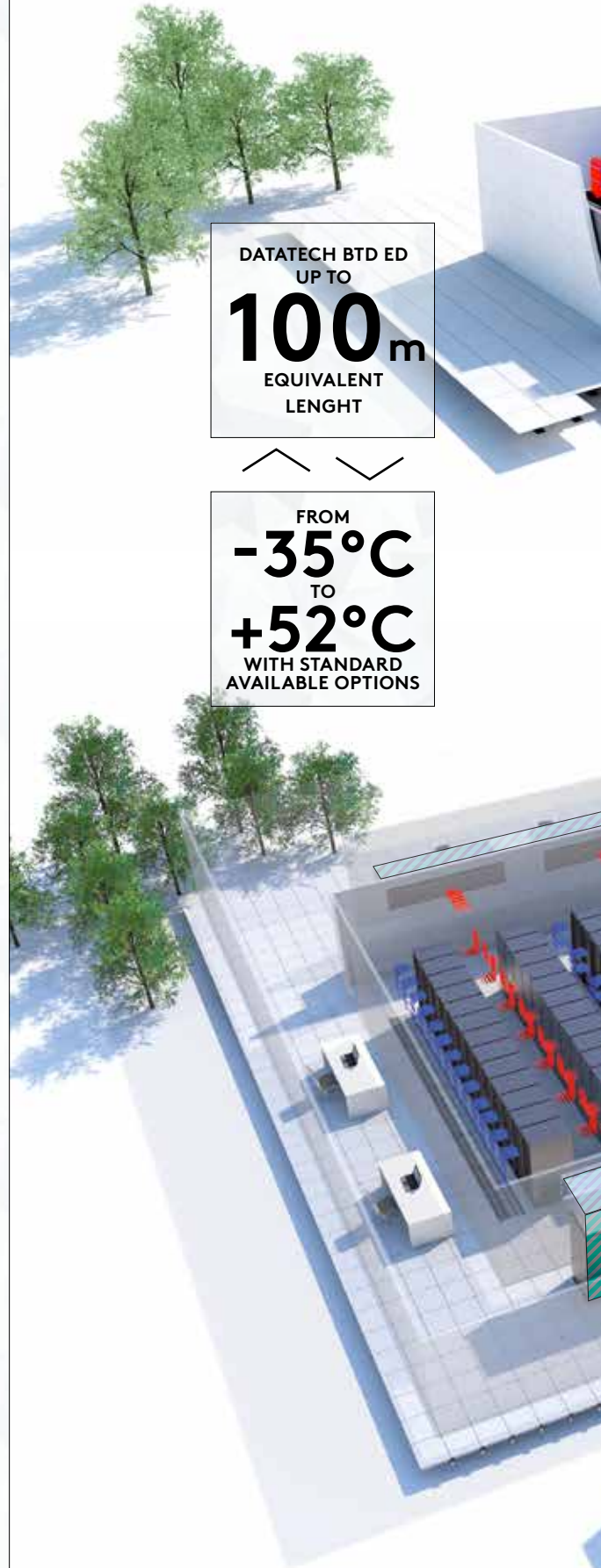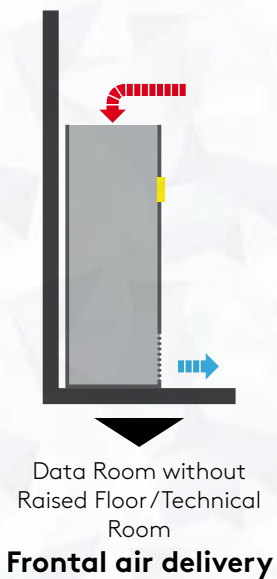
**DATATECH BTD ED
UP TO**
100 m
**EQUIVALENT
LENGHT**

FROM
-35°C
TO
+52°C
**WITH STANDARD
AVAILABLE OPTIONS**

# CONTROL OF **AIR-FLOW** OR **FLOOR PRESSURE**

Different solutions for different needs. Both ensuring efficiency improvements at part load, system optimization and reaction to the unpredictable.
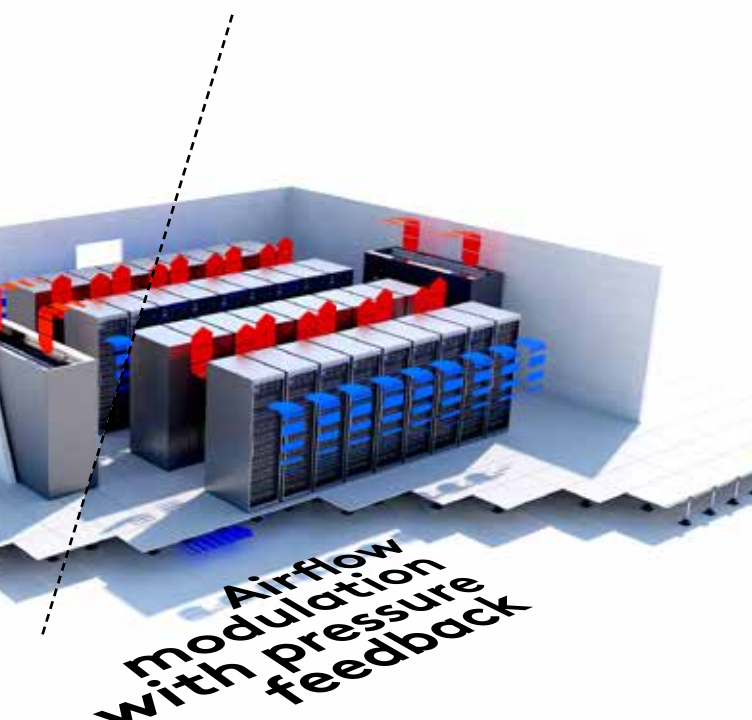
Airflow modulation with pressure feedback

DATALINK

The local network allows to manage redundancy, to balance the operation, to avoid conflicts and to monitor the operation of all units from a remote display.

MASTER
MASTER
MASTER
MASTER
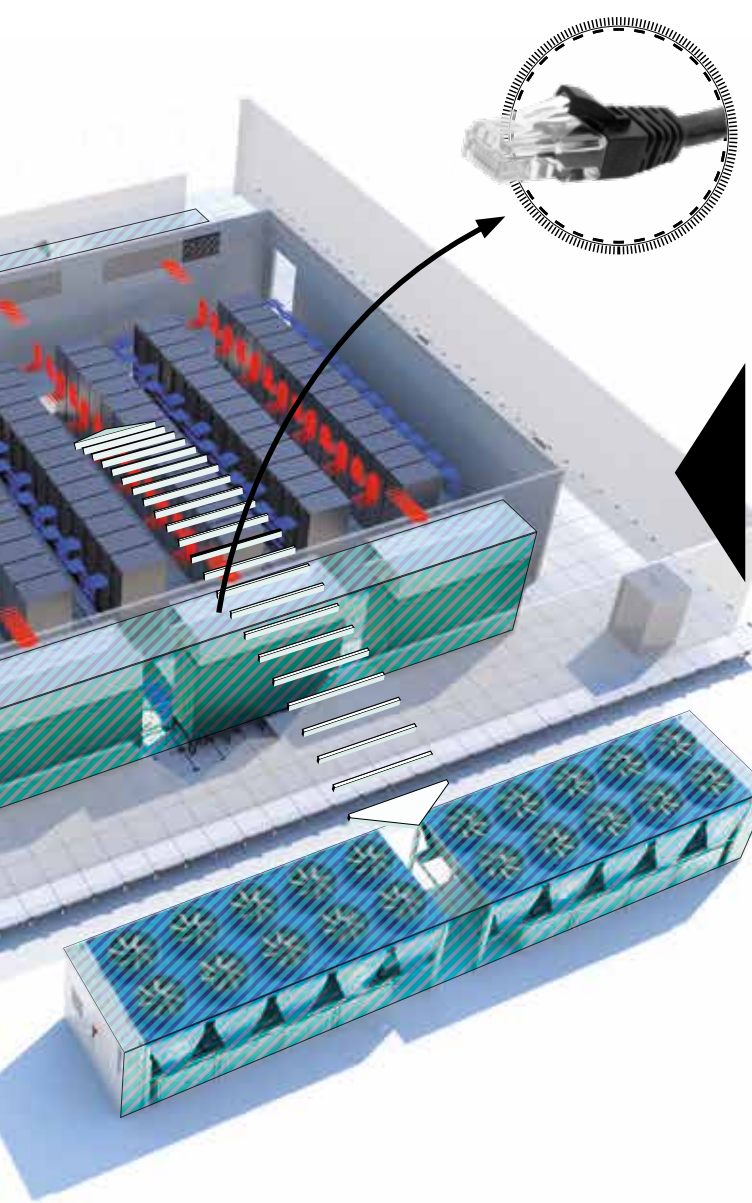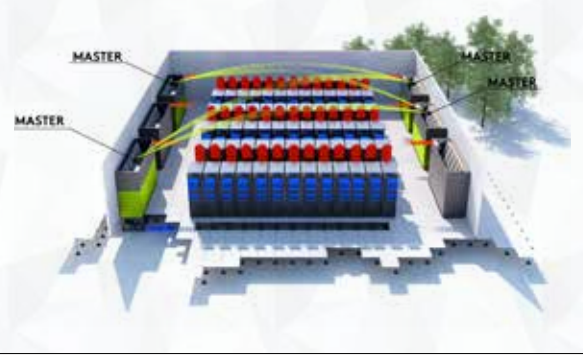
CWDS
(Chilled Water Dynamic set)

This solution allows to adapt the chilled water temperature supplied to Datatech BTD air conditioners to the actual thermal and hygrometric room load.

INSTALLATION
&
MAINTENANCE

A series of measures/solutions such as base module shipped preinstalled in the unit, damper embended on small plenum with fully frontal accessibility, separate compressor sectionsimplify operations and reduce installation time.

The control platform for IT cooling applications, based on webserver.

Simple & Immediate Human Machine Interface

More than 20 years Experience within Data Cooling Requirements

Unique Software Features

A Control Continuously Evolving following the Latest Industry Requirements

SERVER LEVEL

ROOM LEVEL

AUTOMATIC AIR FLOW MODULATION BASED ON:

REMOTE TEMPERATURE
push the freash air where is needed & control it with smooth and continuous adjustment

REMOTE DELTA PRESSURE
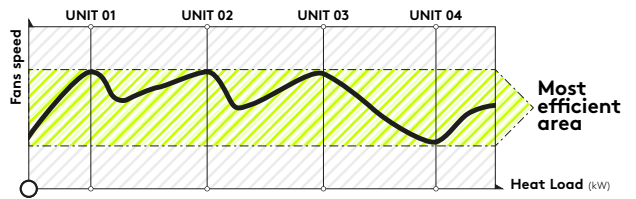avoid any risk of hot spot optimizing the fan energy consumption

DELTA TEMPERATURE
treat, move and cool only the server's needed amount of air without any waste

SYSTEM LEVEL

CONTINUOUS DYNAMIC OPTIMIZATION

UNIT 01   UNIT 02   UNIT 03   UNIT 04

Fans speed

Most efficient area

Heat Load (kW)

WORK ALWAYS WITH THE
RIGHT NUMBER OF NEEDED UNITS
IN THEIR
MOST EFFICIENCY WORKING POINT

CHILLED WATER SYSTEM
ONE TO ONE MULTISYSTEM
- direct high level communication
- scalable solution (**TIER III / TIER IV** design)
- variable water flow

INDIRECT FC SYSTEM
FLOATING WATER SET POINT
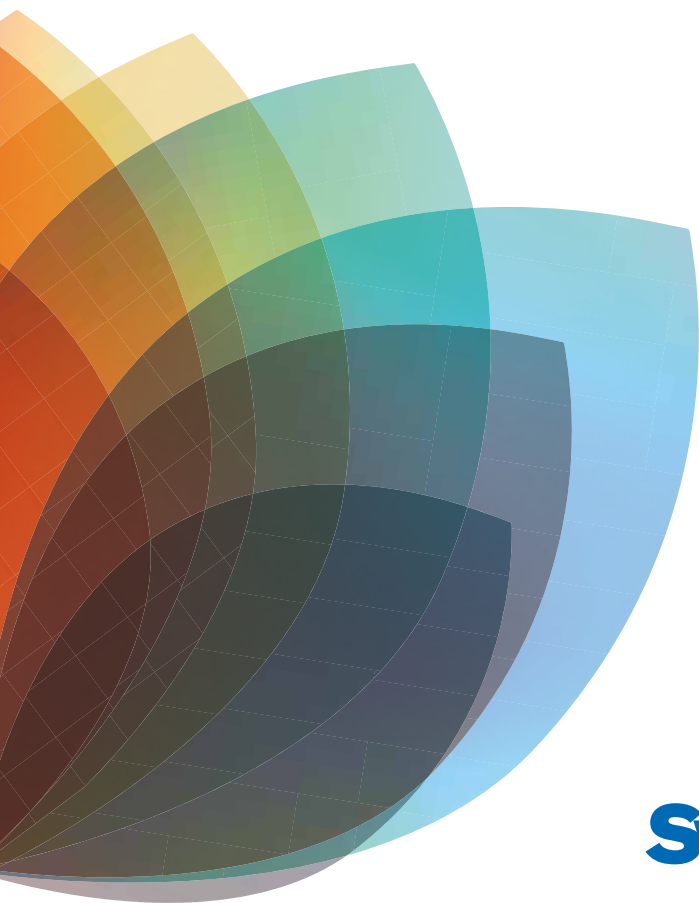minimize the overall system consumtion

DIRECT EXPANSION SYSTEM
internal unit drive countinuously condenser based on application requirements
- homogeneous control
- easier site operations
- adapt to site noise requirements

Feel good **inside**

Swegon