



DATATECH LTD.
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Precision air conditioners with
inverter driven brushless DC
compressor

7÷100 kW

WESTERNTM
AIRCONDITIONING
WARMTEPOMPEN

BlueBoxTM
by Swegon

DATATECH BTD +

Exceptional efficiency at partial loads

Regulation of the inverter driven compressor between 30 and 120% of the rated value

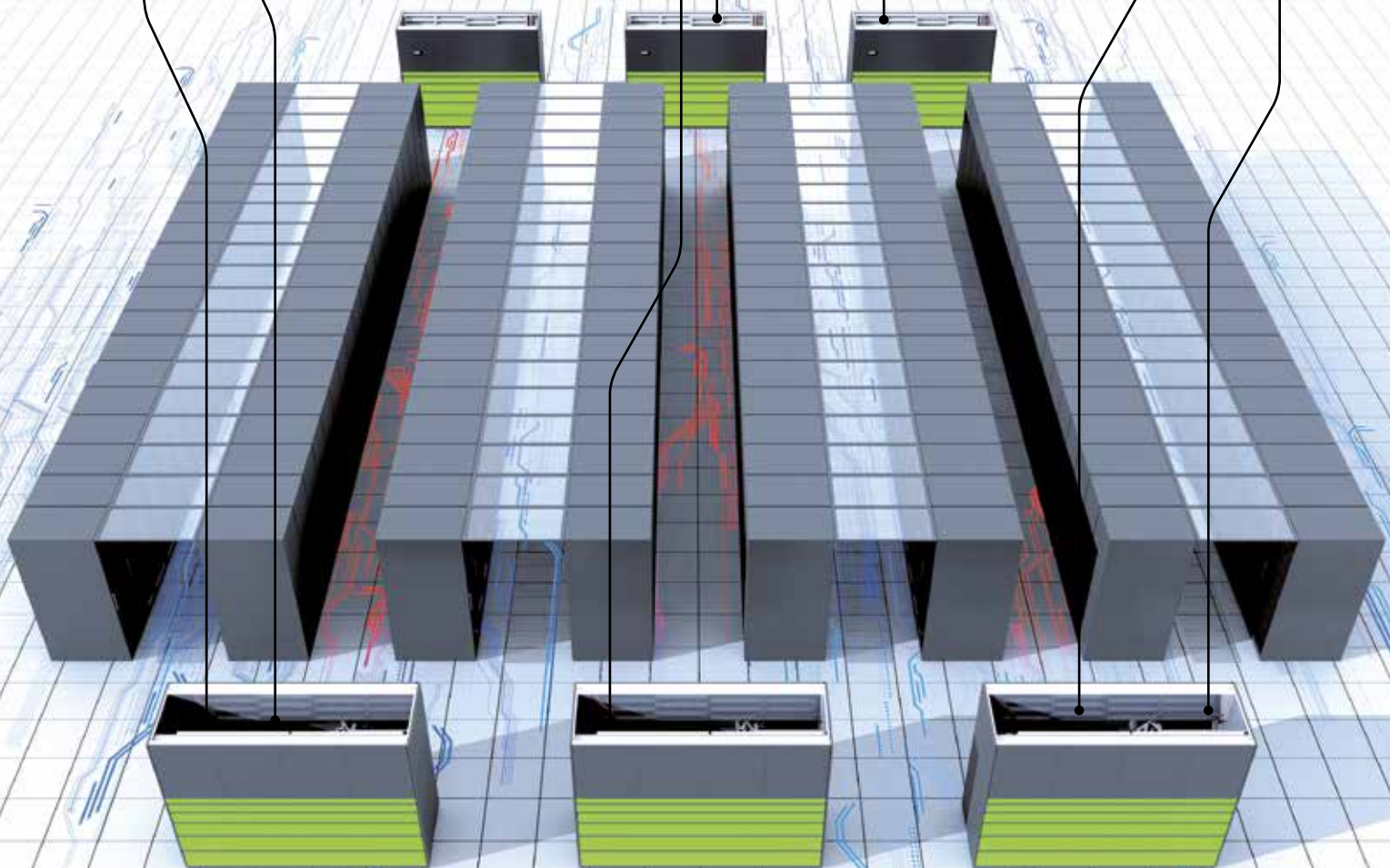
Dual power supply available as option

Wide capacity range

High sensible heat removal rate

Constant and precise of control of thermo-hygrometric variables

Hot gas re-heat available



WITH INVERTER

Redundancy means more efficiency

The higher efficiency of the refrigerant circuit at part load conditions grants the maximum benefit in (n+1) redundancy applications

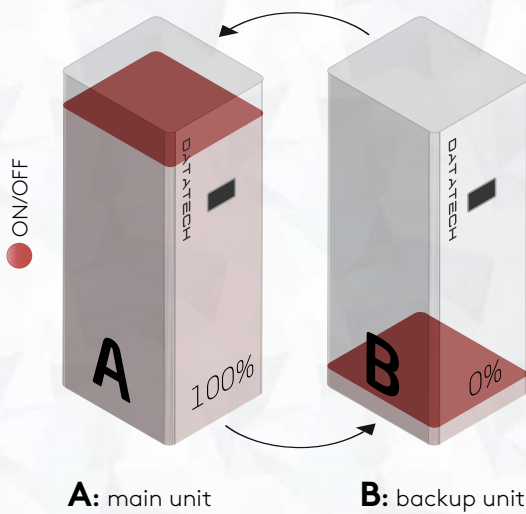
REDUNDANCY

The higher efficiency of the refrigerant circuit at part load conditions grants the maximum benefit in (n+1) redundancy applications: instead of keeping one or more units in standby as a backup, all of them will work together each one at lower capacity, obtaining in this way a lower initial investment and a lower operating cost.

RUNNING - STAND BY

primary with secondary unit used only as a backup

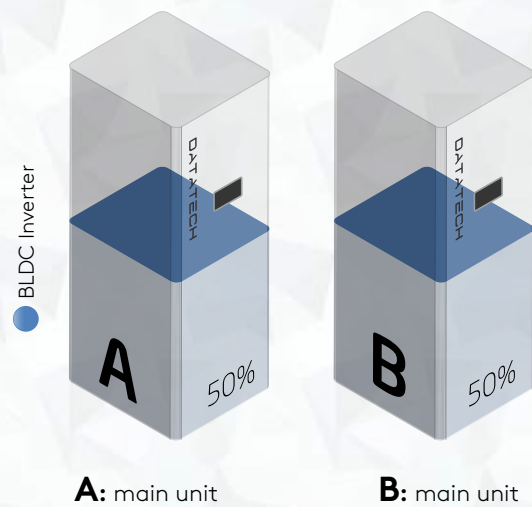
EER: 3*



SMART DUET

both units used at partial load

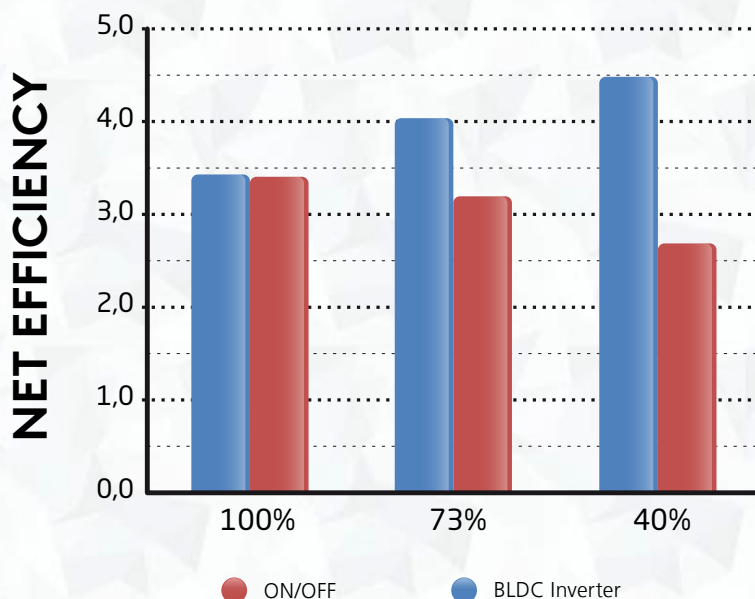
EER: 4*



*thermal load 23 kW at 24°C/50% rh internal conditions and 35° outdoor conditions

BRUSHLESS DC

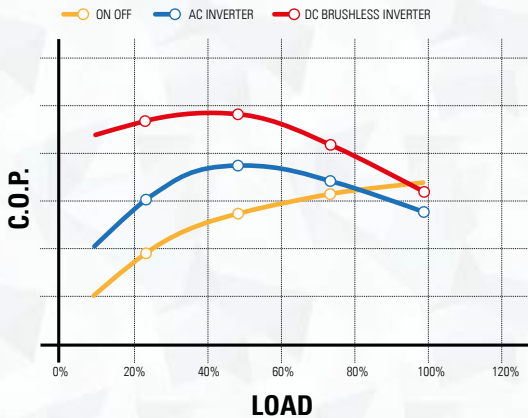
The brushless DC motor is inherently more efficient than an AC motor and is designed to be speed modulated.



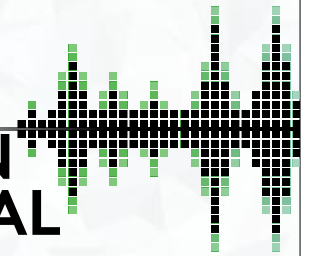
ACCURACY
+/- 0,5°C

THE COMPRESSOR CAN
MODULATE BETWEEN
30% AND **120%** OF
ITS NOMINAL SPEED

BLDC compressor is intrinsically more efficient of Digital Scroll® at reduced load.



LOW NOISE EMISSION AT PARTIAL LOAD



At reduced load, compressor and fan operate at lower speed, ensuring lower sound emission 120 rps. Extra capacity is available for temporary peaks.

PEAK LOAD MANAGEMENT

Inverter units are designed at 90 rps when maximum is 120 rps. Extra capacity is available for temporary peaks.

EFFICIENCY DC INVERTER SCROLL COMPRESSOR

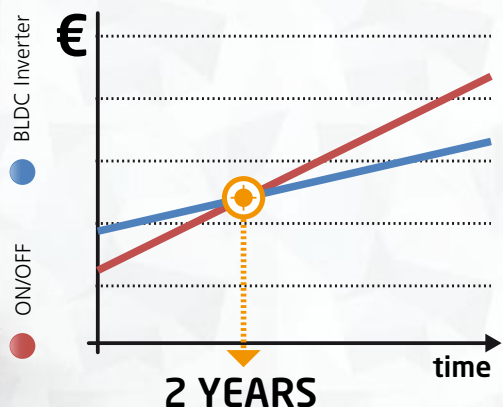
- Higher efficiency at part load
- Continuous modulation according to the load
- Accurate temperature control and stability
- Minimum water volume

energy saving

up to 12% per year

(compared with standard scroll compressor)

RETURN OF INVESTMENT



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



AUTOMATIC AIR FLOW MODULATION BASED ON:



REMOTE TEMPERATURE

push the fresh 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

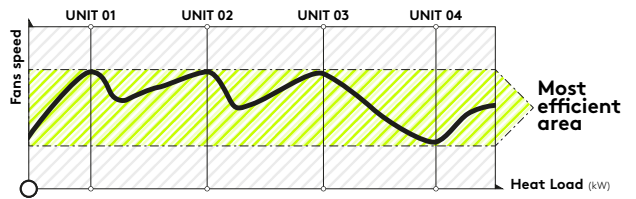


DELTA TEMPERATURE

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



CONTINUOUS DYNAMIC OPTIMIZATION



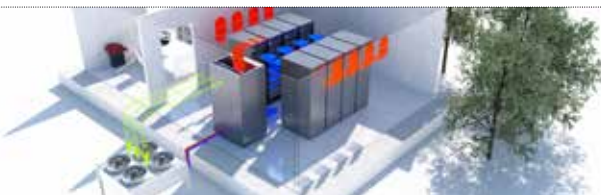
WORK ALWAYS WITH THE
RIGHT NUMBER OF NEEDED UNITS
IN THEIR
MOST EFFICIENCY WORKING POINT



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 consumption

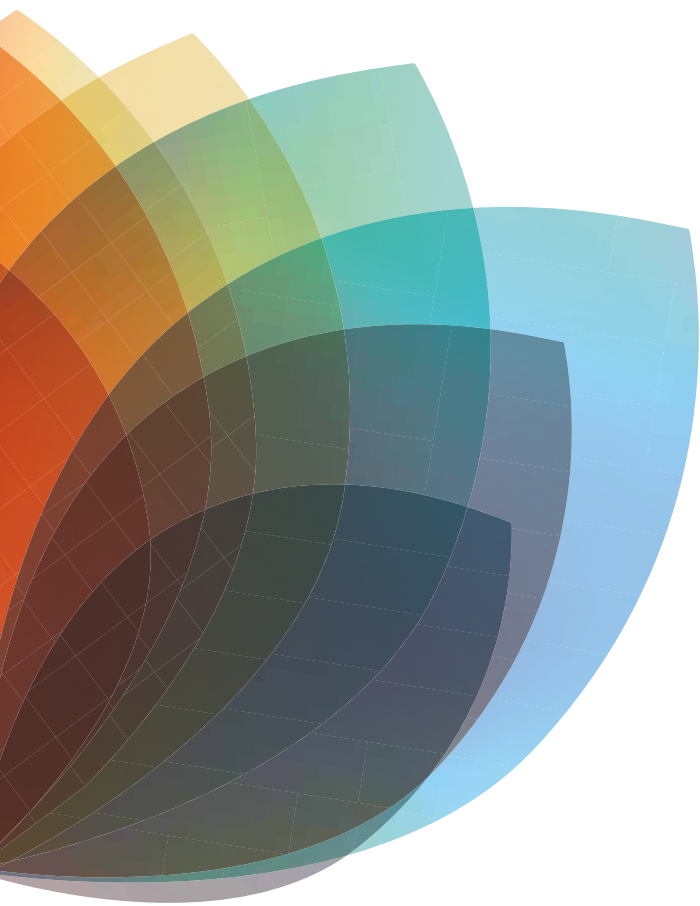


DIRECT EXPANSION SYSTEM

internal unit drive continuously condenser based on application requirements

- homogeneous control
- easier site operations
- adapt to site noise requirements

Feel good **inside**



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