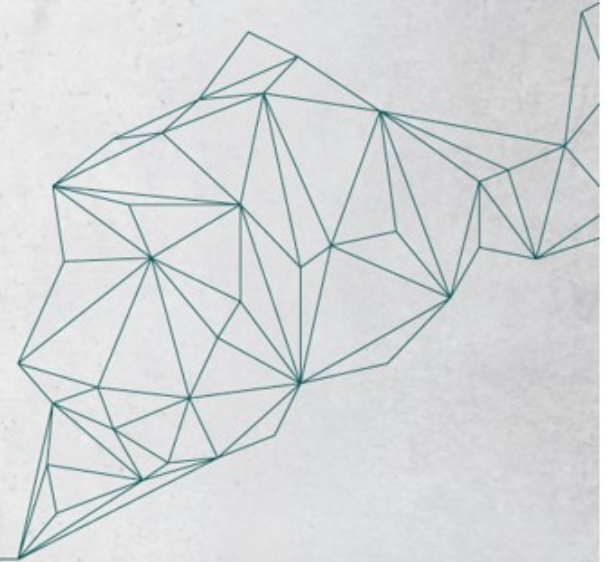


Secop New Solar Direct Drive Refrigeration

— *Safeguarding temperature sensitive deliveries globally*

CONNECTING
EXPERTS.



Technical Revolution

CHILLVENTA

SECOP

2004

First SDD-
BD35/50K



- reduce down-time = vaccine waste
- one robust solution for all AC & DC (SDD/ILR)
- Support new PQS-EMS (E006) data monitoring
- less complexity – improved TCO
- most efficient – green refrigerant solution

2024

NEW SDD2
MB3CKV



Solar Direct Drive

Standing on the shoulder of a tiny giant



Solar Direct Drive



Priority 1:

Keep the vaccines cold
Don't freeze, stay in control
of temperature

Priority 2:

Use PV Energy to release
tension from grid networks

Priority 3:

Follow official requirements
for data monitoring and
interfaces

AC-Optimized
for Weak AC Grid Installations



Weak Grid Protection
up to 510 V



Wide AC Input Range

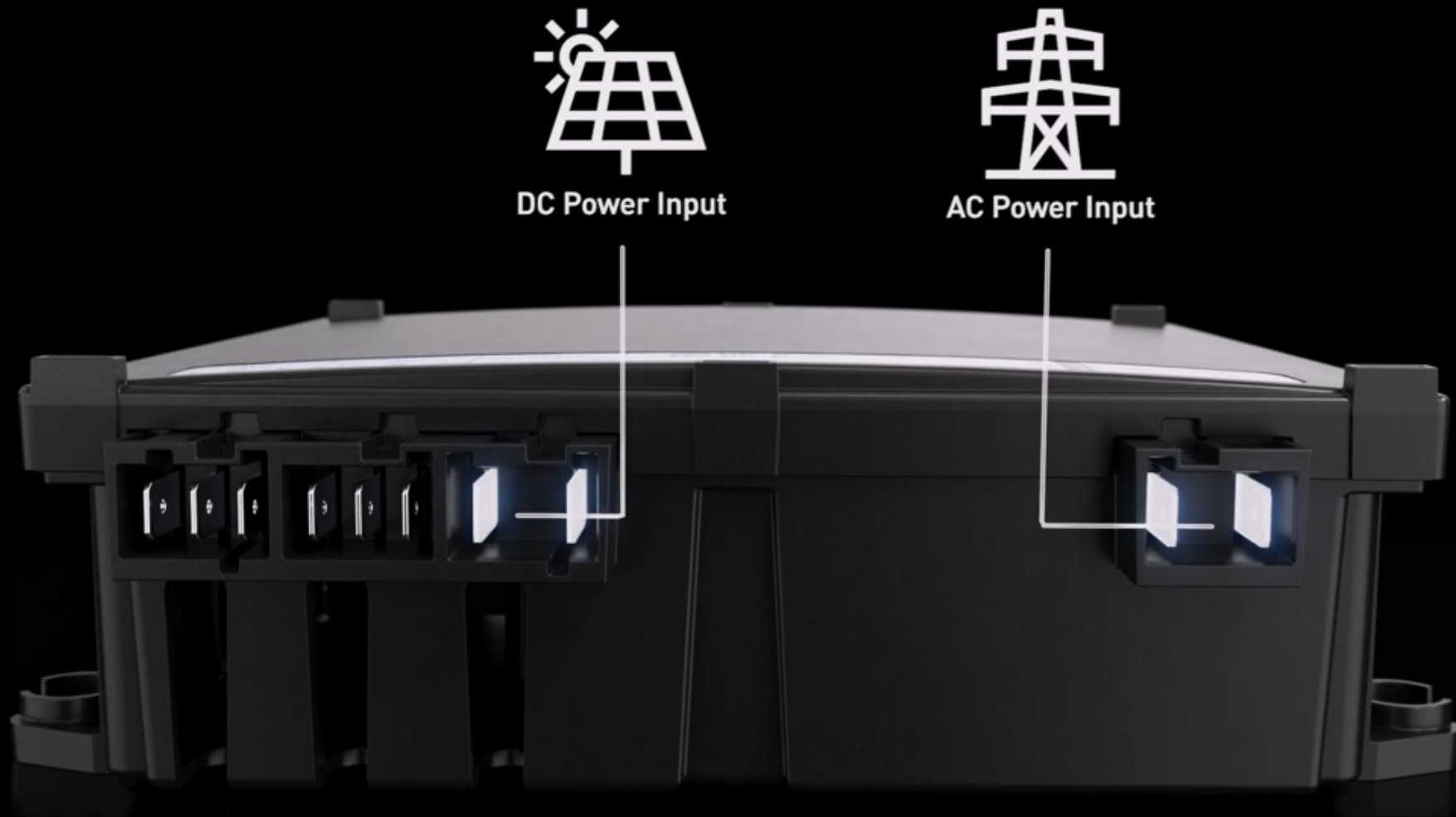
- Runs on any network, generator or inverter from 80V to 255V, at any frequency up to 65Hz
- Electronically protected up to 510V, auto-restart after overvoltage event gone
- Provides up to 120W, enough to operate the BD Nano Compressor + Auxiliary consumers
- UL Certified and WHO Pre-Qualified



WHO PQS
E007
certified



Solar Direct Drive

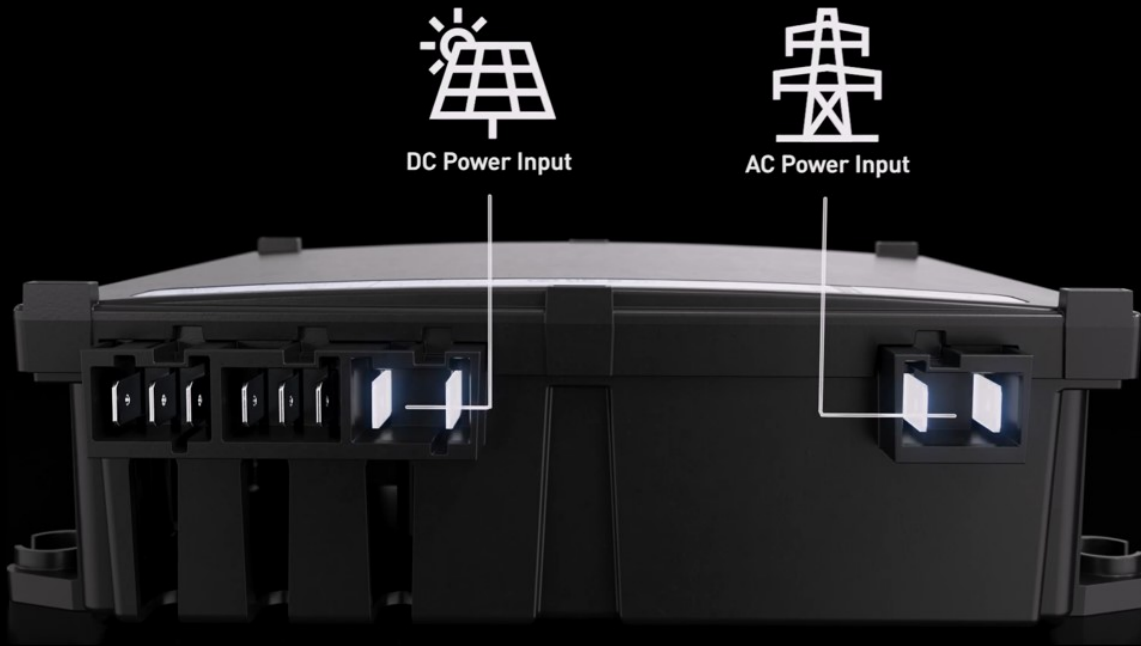


Solar Direct Drive

Auto-Source Switching

Use PV when available and enough energy can be verified

Use AC when no PV is available





e-Speed
ency

DC-Optimized for PV



PV Direct Input

controllers

Weak Grid Protection
up to 510 V



High Efficiency

MPPT – Maximum Power-Point Tracking

CHILLVENTA

SECCP

Ensuring compressor speed and refrigeration follows available sun energy

Alt.Prop.: „Constantly optimizing compressor speed and refrigeration to available sun energy“



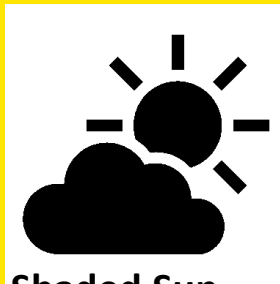
MPPT – Maximum Power-Point Tracking

CHILLVENTA

SECCP

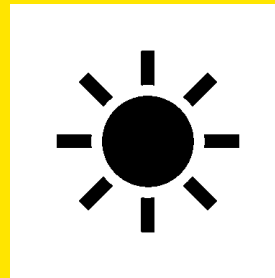
Ensuring compressor speed and refrigeration follows available sun energy

Patented technology



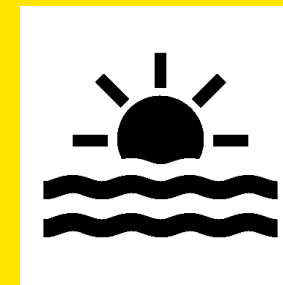
Shaded Sun

Adapt compressor speed frequently



Full Sun

Full Speed



Covered Sun

Keep alive as long as possible





Communication Interfaces

Communication Interfaces



Automotive Standard LIN
Hardware

&

Standard Modbus
Communication
=> Easy to implement

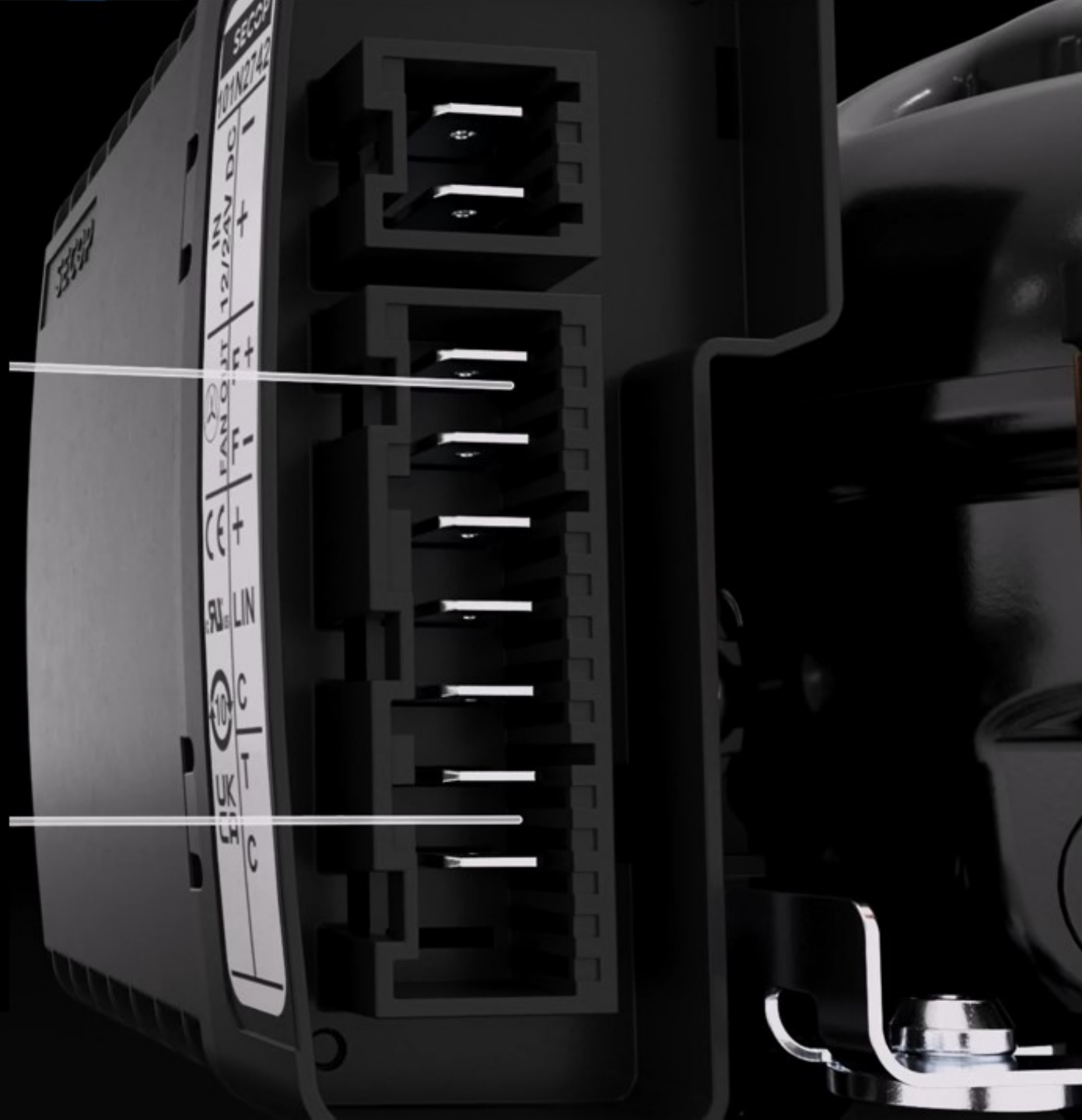


Compatible with
Tool4Cool® and
Tool4Cool® Mobile



Ready for
WHO PQS
E006

BD Nano Inverter



BD Nano Inverter

Solar Direct Drive Start Algorithm



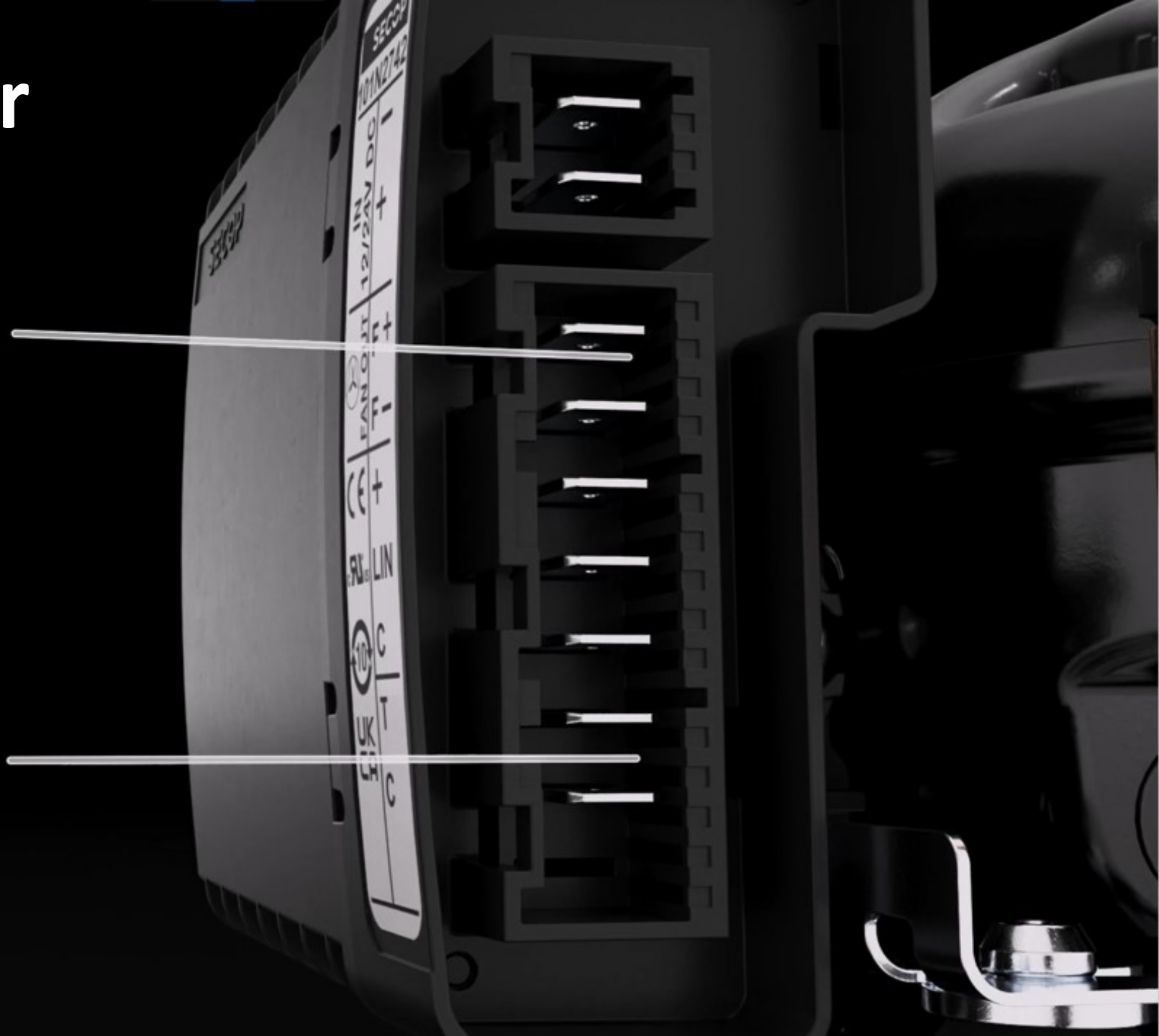
BD Nano Inverter



Fan



Thermostat or
NTC Resistor



**SDD Power Management
Module 101N3110**



Controller 101N2742



Compressor MB3CKV



Available now

Key Summary

CHILLVENTA

SECCP

First SDD – BD35/50K

NEW SDD2 – MB3CKV

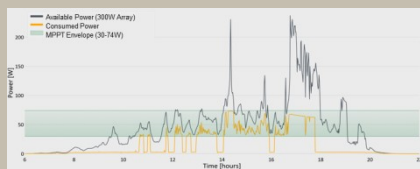


- reduce down-time = vaccine waste
- one robust solution for all AC & DC (SDD/ILR)
- support new PQS-EMS (E006) data monitoring
- less complexity – improved TCO
- most efficient – green refrigerant solution



Achieved Benefits

Increased runtime: 2 to 6 hrs/d



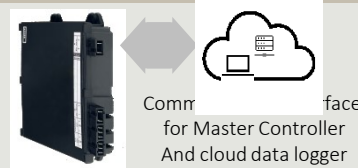
New, optimized MPPT control
Lower starting power needed

„one for all“: AC & DC (SDD + ILR)



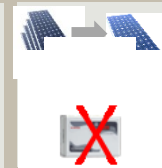
Reduced number of appliance variants

WHO-PQS/EMS: data interface integrated



WHO-PQS compliant – new EMS:
E006/DL01 + E006/DS01

„less complexity“:



Less components & variants / integrated
solutions / shorter time to market / lower TCO

„most efficient AC/DC – green R600a“:



- Highest efficient VSD AC/DC compressor
- Lowest footprint (1.5kg)
- R600a refrigerant

R600a / highest efficiency

Visit Secop Booth to Explore More

CHILLVENTA

SECOOP

Check the working device on our booth at 7A- 228

Contact person :



secop.com/sdd



secop toolkit app



Marc Fischer

Global Application
Expert for DC and Solar



Helmut Greiner

Business Development

Chillventa Specialist Forums 2024

Chillventa Fachforen 2024

**CONNECTING
EXPERTS.**

