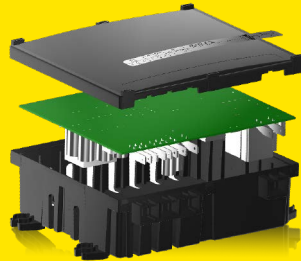


Tailored for Vaccine Refrigerators

SOLAR DIRECT DRIVE AND WEAK GRID POWER MANAGEMENT SYSTEM

SECCP



SDD 101N3110 Controller



Mobile
Cooling



Medical
Cooling



Weak Grid Protection
up to 510 V



Wide AC
Input Range



Solar Maximum
Power Point Tracking



Wide Photovoltaic
Panel Range
Supported



PV Direct
Input

- AC/DC solution optimized for photovoltaic solar panel supply and weak AC grid installations
- Increased maximum PV voltage to 55V to enable the use of widely used PV modules
- Power input management and peak power point tracking to ensure efficient and optimal use of PV energy
- Enhanced communication interface for operation and monitoring
- AC wide working range between 85V and 264V
- Additional 24V DC Output suitable for data loggers, monitoring devices, USB chargers, and external auxiliaries
- Designed for premium robustness and reliability: IP60 housing and robust against EMI
- Designed in combination with new BD Nano premium series of mobile compressor: premium cooling performances with the best efficiency
- Tailored to WHO PQS requirements and monitoring systems

The new Solar Direct Drive and Weak Grid Power Management System SDD designed by Secop is a new generation controller optimized for the new BD Nano compressor series.

It was specifically developed for applications operating with solar panels or in unstable and weak AC grids. The new power management system features a wide range AC input, to allow world-wide usage, as well as a DC input optimized for widely diffused PV panels up to 72 cells for effective installations. The PV input features a MPPT algorithm which optimizes the compressors speed to the available sunlight to gain the most cooling from the available PV energy.

A communication interface for master controllers and data loggers allows to take full control over the appliance. The controller can be easily monitored with the support of Secop Tool4Cool®.

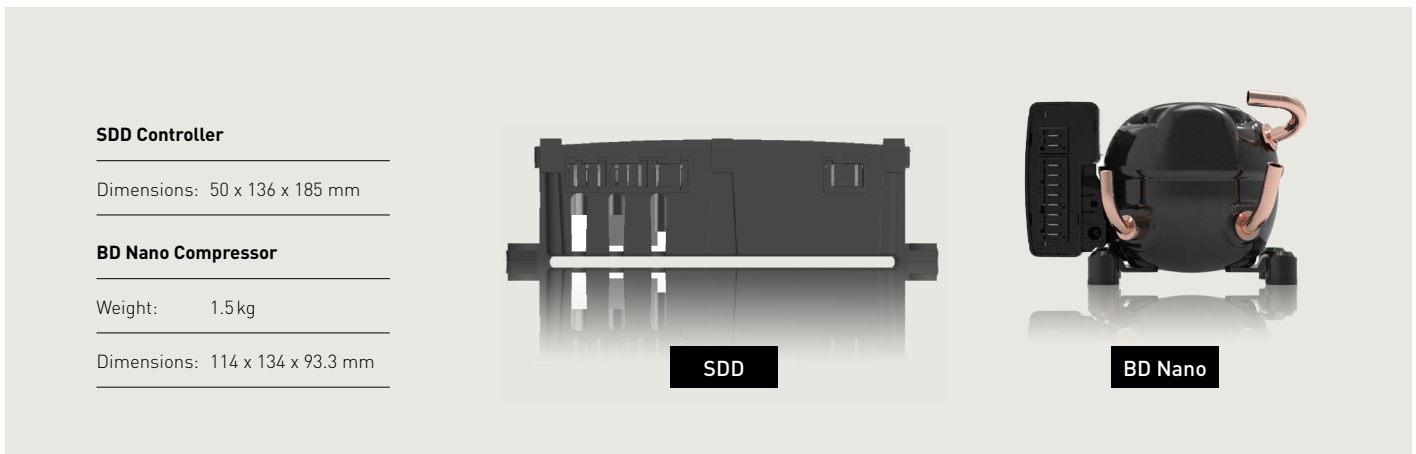
The design of the new controller offers a premium robustness for reliable applications, including an IP60 housing and certified EMI enhanced robustness.

The SDD controller is paired with the new BD Nano-Series compressors, to combine all the new features of the AC/DC controller with the new generation of mobile cooling compressors: compact size, high efficiency for low energy consumption, low noise and low vibration, low GWP green refrigerants.

The new SDD is the perfect choice for off-grid and weak-grid vaccine refrigerators, solar off-grid coolers and freezers, and ice bank refrigerators.

Secop collaborated with Global Health Labs on the requirements definition and development of the SDD controller. The SDD is tailored to the WHO PQS specifications and meets all demands for solar direct drive as well as wide range and unstable power grids and weak installations, to enable vaccine refrigerator manufacturers to satisfy the latest voltage stabilization requirements.

Features	Current: 101N0420	New: 101N3110
PV Input Range	10 V–45 V	25 V–57 V
AC Input Range	No AC Input	0 V–510 V, 40 Hz–65 Hz
AC Working Range	No AC Input	85V–264V
Communication	Modbus Communication	Modbus Communication
Suitable Compressors	BD P-Housing	BD Nano
PV Panel Requirement	4x 90 W	1x 160 W, 72 Cell recommended, 60 Cell supported
Needed Starting Power	70 W	40 W
Communication Port	Secop D/I Standard	Industry Standard LIN
Available Parameters	Main Switch, Compressor Speed, Fan Speed, AEO, Thermostat, Communication	Main Switch, Compressor and Fan Speed, MPPT operation, AC Boundaries, Communication Settings, AUX Settings, Thermostat settings. Log parameters to support vaccine refrigerators according WHO EMS standards.
MPPT	❌	✅
Wide Range AC Input	❌	0–510 V
AC Overvoltage Protection	❌	✅
Standard, Locking Connectors with Coding	❌	✅
Configurable 24 V Aux Output	❌	✅



Tool4Cool® Software Interface

Tool4Cool® is a unique PC software tool that enables you to precisely configure your Secop BD compressors to your cooling systems. Via microprocessor-based controllers, Tool4Cool® gives you easy access to all parameters. These can be changed, monitored, downloaded or uploaded to get the optimum performance out of your cooling system.

For more information about development and release date of the Solar Direct Drive and Weak Grid Power Management System controller and the BD Nano Compressor contact the Secop team and check our website.

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