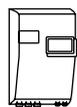


## next

The next family range include a series of 3-phase and single phase smart inverters-chargers, with or without built-in solar chargers. All models are 100% designed and manufactured in Switzerland, ensuring the swiss quality to have outstanding performances for both offgrid and ongrid applications. The new generation of smart inverter-chargers bring the battery-based systems to the next level.

# Technical data



next3

Inverter/charger

## Inverter

Continuous power @25°C	15 000 VA
Power 30 min. @25°C	16 000 VA
Power 3 sec. @25°C	NYA
* Nominal line to neutral output voltage	Pure sine wave 220/230/240 Vac (±1%)
* Nominal line to line output voltage	Pure sine wave 380/400/415 Vac (±1%)
* Nominal output frequency	50/60 Hz (±0.02%)
Loads cosφ range	0.1 - 1
Harmonic distortion (THD)	< 1%

## Battery charger

Nominal battery voltage	48 Vdc
Battery voltage range	38 - 68 Vdc
* Charge characteristic	6 steps: Bulk, Absorption, Floating, Equalization, reduced floating, periodic absorption Number of steps, thresholds, end current and times completely adjustable
* Maximum charging current	250 Adc
* Temperature compensation	with nx-tempSensor (included)

## Solar PV

Number of MPPT inputs	2
Maximum PV short circuit current per PV input	20 Adc
Maximum PV open voltage	900 Vdc
Start up voltage	350 Vdc
Shut off voltage	200 Vdc
Maximum solar power recommended (@STC)	2 x 8 000 W
MPP voltage range	300 - 700 Vdc

Solar

## AC source (\*Grid or Genset)

Maximum rated current	3 x 80 Aac
Operating line to neutral voltage range	176 - 276 Vac
* Nominal line to neutral voltage	220 / 230 / 240 Vac
* Nominal line to line voltage	380 / 400 / 415 Vac
* Nominal frequency	50 / 60 Hz
Overvoltage category (OVC)	III
* Grid code compliance	EU Commission Regulation 2016/631 (NC RfG), EN 50549-1:2019, VDE-AR-N 4105:2018, VDE 0126-1-1, IEC 62116, IEC 61727, ...

Transfer

## AC flex (\*Controlled 2<sup>nd</sup> AC load or Genset)

Maximum rated current	3 x 80 Aac
Operating line to neutral voltage range	176 - 276 Vac
* Nominal line to neutral voltage	220 / 230 / 240 Vac
* Nominal line to line voltage	380 / 400 / 415 Vac
* Nominal frequency	50 / 60 Hz

## General data

Dimensions h/w/l [mm]	320 / 450 / 760
Ingress Protection according to IEC60529	IP 30
Ventilation	Forced
Multifunction I/O contacts	2x Input and 2x Output, rating 16 A each
Safety conformity (CE marking)	EU Low Voltage Directive (LVD) 2014/35/EU -> EN/IEC 62109-1, 62109-2, 62477-1
EMC conformity (CE marking)	EU ElectroMagnetic Compliance (EMC) 2014/30/EU -> EN/IEC 61000-6-1, 61000-6-2, 61000-6-3, 61000-6-4, 62920, 61000-3-11, 61000-3-12

## Environment

Operating ambient temperature range	-20 to 55°C
Relative humidity range in operation	5 to 95% (Non condensing)
Mounting location	Indoor, unconditioned
Altitude range	0 to 3 000m

## An all-rounder matching any project requirement

- All-in-one compact and versatile solution customized according to project needs
- Outstanding performance and integration of every energy source: solar (other renewable), grid, generator
- 3-phase input (**AC source**), 3-phase output (**AC loads**) and 3-phase **AC flex**, configurable as a second input or second controlled output
- Smart energy management with AI models
- Smooth operation with all battery technologies. Lithium-ready, integrated CAN communication with lithium batteries BMS
- Unique modular hardware combination with optional solar and transfer modules
- Multiple combination possibilities: parallel operation with one internal transfer, multi-unit and multi-battery system with an external transfer

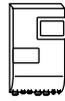
## Accessories

- next tempSensor (included): battery temperature compensation for lead-acid batteries
- next battSensor: advanced lead-acid battery processor
- next interface: Display, programming and data logging remote control (1 per system)

## Certifications & Warranty

100% manufactured and tested in Switzerland (Europe). ISO certified factory 9001:2020/14001:2020. All our products include a 12-year warranty (6+6).

*Product currently under development, data may change without any notice, the specifications may vary in the final version.*



next1

	NX1-12	NX1-24	NX1-48
<b>Inverter</b>			
Continuous power @25°C	2 000 VA	3 000 VA	3 600 VA
Power 30 min. @25°C		NYA	
Power 3 sec. @25°C		NYA	
Nominal line to neutral output voltage	Pure sine wave 220/230/240 Vac (±1%)		
Nominal output frequency	50/60 Hz (±0.02%)		
Loads cosφ range	0.1 - 1		
Harmonic distortion (THD)	< 1%		
<b>Battery charger</b>			
Nominal battery voltage	12 Vdc	24 Vdc	48 Vdc
Battery voltage range	9.5 - 17 Vdc	19 - 34 Vdc	38 - 68 Vdc
Charge characteristic	6 steps: Bulk, Absorption, Floating, Equalization, reduced floating, periodic absorption Number of steps, thresholds, end current and times completely adjustable		
Maximum charging current	100 Adc	90 Adc	60 Adc
Temperature compensation	with nx-tempSensor		
<b>AC source (*Grid or Genset)</b>			
Maximum rated current	50 Aac		
Operating line to neutral voltage range	176 - 276 Vac		
Nominal line to neutral voltage	220 / 230 / 240 Vac		
Nominal frequency	50 / 60 Hz		
Overvoltage category (OVC)	III		
Grid code compliance	EU Commission Regulation 2016/631 (NC RfG), EN 50549-1:2019, VDE-AR-N 4105:2018, VDE 0126-1-1, IEC 62116, IEC 61727, ...		
<b>AC flex (*Controlled 2<sup>nd</sup> AC load or Genset)</b>			
Maximum rated current	50 Aac		
Operating line to neutral voltage range	176 - 276 Vac		
Nominal line to neutral voltage	220 / 230 / 240 Vac		
Nominal frequency	50 / 60 Hz		
<b>General data</b>			
Dimensions h/w/l [mm]	150 / 370 / 550		
Ingress Protection according to IEC60529	IP 30		
Ventilation	Forced		
Multifunction I/O contacts	2x Input and 2x Output		
Safety conformity (CE marking)	EU Low Voltage Directive (LVD) 2014/35/EU -> EN/IEC 62109-1, 62109-2, 62477-1		
EMC conformity (CE marking)	EU ElectroMagnetic Compliance (EMC) 2014/30/EU -> EN/IEC 61000-6-1, 61000-6-2, 61000-6-3, 61000-6-4, 62920, 61000-3-2, 61000-3-3		
<b>Environment</b>			
Operating ambient temperature range	-20 to 55°C		
Relative humidity range in operation	5 to 95% (Non condensing)		
Mounting location	Indoor, unconditioned		
Altitude range	0 to 3 000m		

## Versatility and outstanding performance

- A single-phase smart inverter-charger with low frequency topology ensuring the highest overload capability and the minimum standby consumption
- The unique **AC flex** interface can be configured as a second source or an extra controlled load
- The electronic elements come with standard coating and IP30 for a high hardware reliability
- Full interactive grid inverter including an AC source with double disconnection relay with the grid
- The next1 will consist of a full range of devices for 12, 24 and 48 V batteries and with a different range of power to fit every project requirement and application
- The Smart Boost2 function helps adapting to the source limitations with the battery in the most versatile way, facilitating for example phase balancing or peak-shaving
- System oriented, the new power flow dispatcher centralizes the power management of the complete system integrally

## Accessories

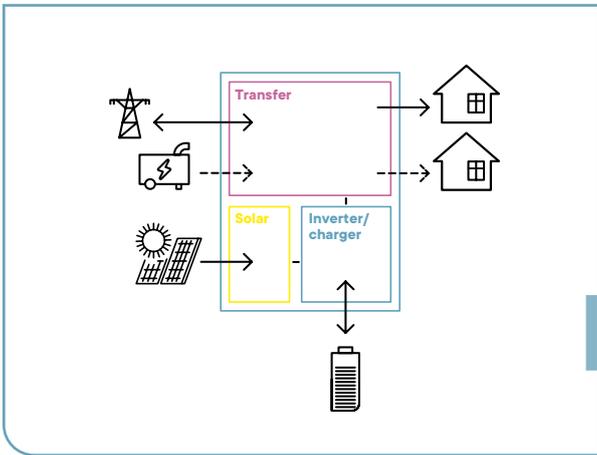
- next interface
- Easy connection kit simplifies the cabling and facilitates the right electrical protection architecture
- The next1 will be also available for 19" rack integration

\*nextUL, also available in 120Vac and UL compliant

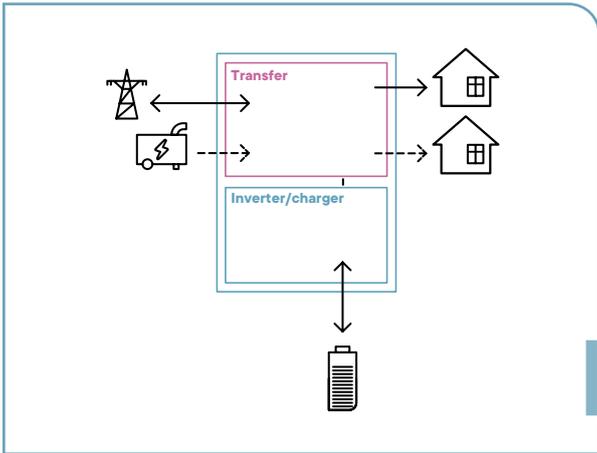
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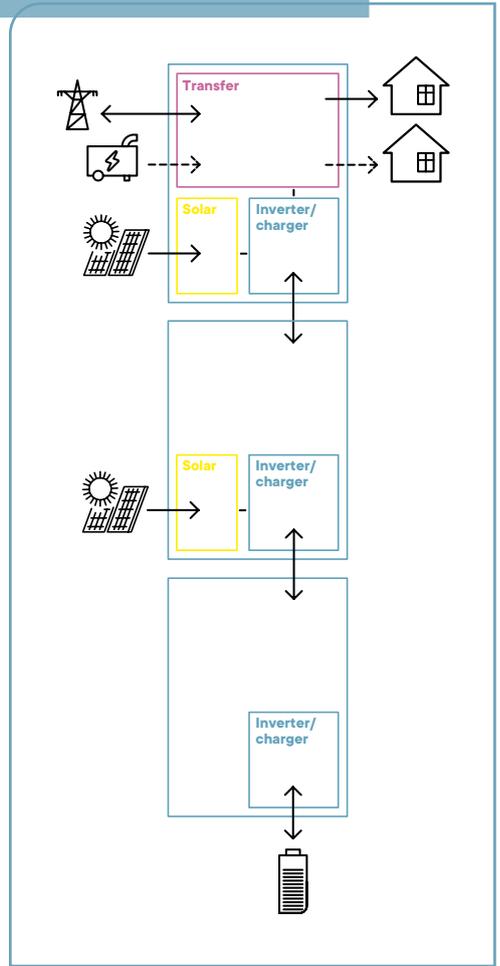


next3

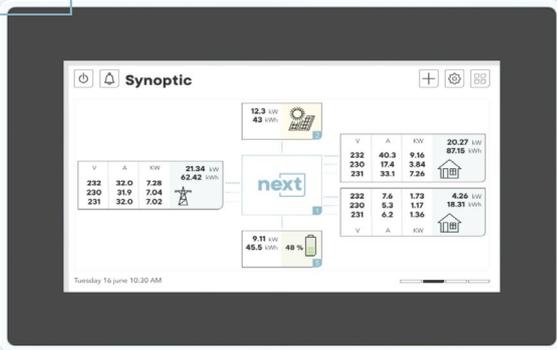


next1

next3: parallel operation



next<sup>os</sup>



next interface, the new gate to the next ecosystem using nextOS

With the inverter-charger, we have developed a new comprehensive interface. One single and central user interface per complete system. The next interface is the new gate to the next ecosystem using nextOS, an intuitive smart platform to configure, control and analyse your system. Making life easier for both professional installers and final users.

Call our specialists **+41 27 205 60 80** or visit **studer-innotec.com**.

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