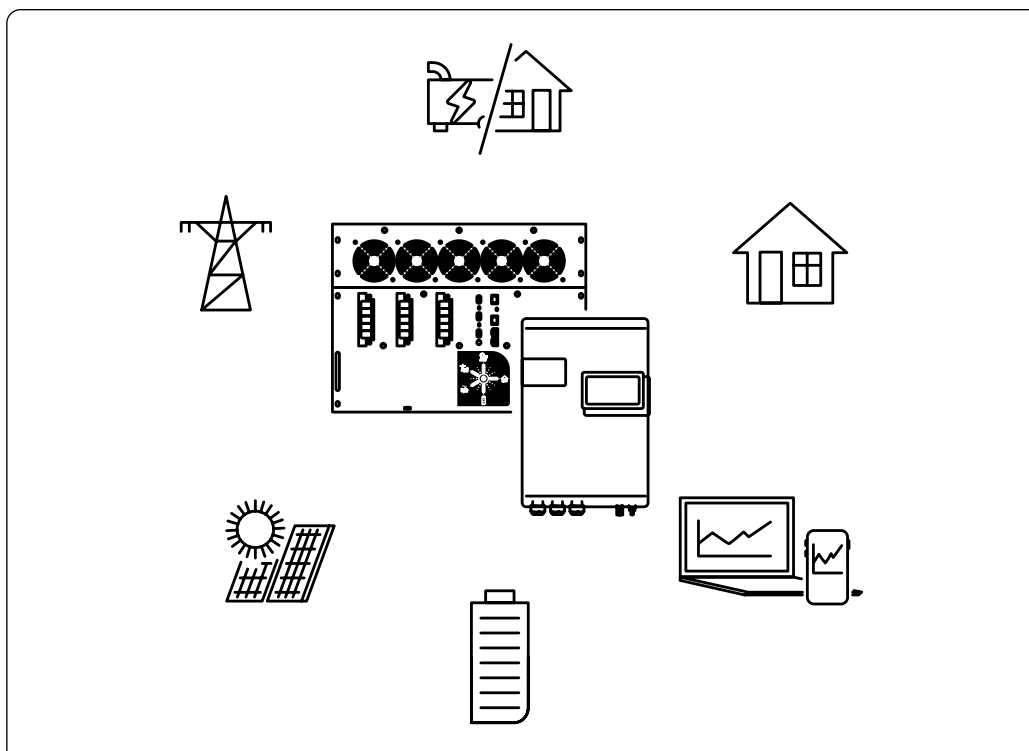


# next3

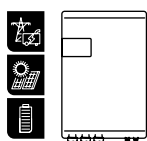
Our versatile 3-phase smart inverter charger with built-in solar MPPT inputs and a wide range of extraordinary features. Ensuring the swiss quality to have outstanding performances for both offgrid and ongrid applications, the next generation brings the battery-based systems to the next level.



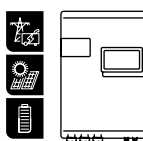
## An all-rounder matching any project requirement

- A grid-tied solution, 100% offgrid. Full backup capabilities with peak power supplying any type of loads.
- All-in-one compact and versatile solution customized according to project needs
- Outstanding performance and integration of every energy source: solar, 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
- Available in wall-mounted or 19" rack version for a smooth professional integration
- Smart energy management with AI models
- Smooth operation with all battery technologies. Lithium-ready, integrated CAN communication with lithium batteries BMS
- Multi-units system: Up to three next3 units can be used on the same battery bank or on 3 different battery banks to create a high power inverter-charger system with one internal transfer. (up to 48kVA of power)
- Remote monitoring and control with studer professional portal and easy monitoring App

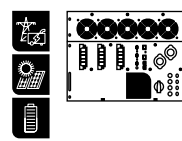
## Options & accessories



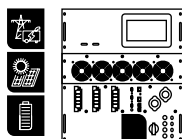
**next3 st**  
next3 full option  
(standard)



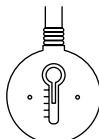
**next3 sti**  
next3 full option +  
interface



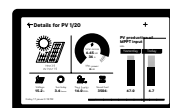
**next3 rack st**  
next3 full option  
(standard)



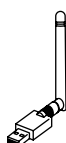
**next3 rack sti**  
next3 full option +  
interface



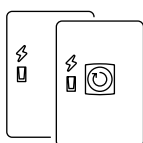
**nx tempSensor**  
battery temperature  
sensor (included)



**nx interface**  
next3 user interface



**nx wifidongle**  
dongle for wifi  
connection



**nx bypass box**  
AC cabinet with bypass  
25. 40. 60, 80A



See more about our warranty conditions on our website [studer-innotec.com/studer-care](https://studer-innotec.com/studer-care)

## Certifications

ISO certified factory  
9001:2015, 14001:2015.



Designed and manufactured by studer in Switzerland

Inverter + battery charger Onduleur + chargeur de batterie | Wechselrichter + Batterielader | Inversor + Cargador de batería

|                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Continuous power 25°C</b><br>Puissance continue 25°C   Dauerleistung 25°C   Potencia continua 25°C                                                                                                                                   |                                                                                                                                                                                                                                      | 15000 VA                                                                                                                                                                                                                     |
| <b>Power 30 min. 25°C</b><br>Puissance 30 min. 25°C   Leistung 30 Min. 25°C   Potencia 30 min. 25°C                                                                                                                                     |                                                                                                                                                                                                                                      | 16000 VA                                                                                                                                                                                                                     |
| <b>Power 5 sec. 25°C with solar / inverter / 1-phase</b><br>Puissance 5 sec. 25°C avec solaire / onduleur / 1-phase   Leistung 5 Sek. 25°C mit PV / weschelrichter / 1-Phase   Potencia 5 seg. @25°C con solar / inversor / 1 fase      |                                                                                                                                                                                                                                      | 30000 / 24000 / 10000 VA                                                                                                                                                                                                     |
| <b>Nominal output voltage, line to neutral*</b><br>Tension sortie nominale, phase-neutre   Nennausgangsspannung - Phase zum Neutralleiter   Tensión nominal de salida, fase-neutro                                                      |                                                                                                                                                                                                                                      | pure sine wave 220/230/240 Vac (±1%)                                                                                                                                                                                         |
| <b>Nominal output voltage, line to line*</b><br>Tension sortie nominale, phase-phase   Nennausgangsspannung - Phase zum Phaseleiter   Tensión nominal de salida, fase-fase                                                              |                                                                                                                                                                                                                                      | pure sine wave 380/400/415 Vac (±1%)                                                                                                                                                                                         |
| <b>Nominal output frequency*</b><br>Fréquence sortie nominale   Nennausgangsfrequenz   Frecuencia nominal de salida                                                                                                                     |                                                                                                                                                                                                                                      | 50/60 Hz (±0.02%)                                                                                                                                                                                                            |
| <b>Nominal battery voltage (input range)</b><br>Tension nominale de la batterie (plage de tension)   Nominalspannung der Batterie (Spannungsbereich)   Tensión nominal de batería (rango de tensión)                                    |                                                                                                                                                                                                                                      | 48 Vdc (36 - 68 Vdc)                                                                                                                                                                                                         |
| <b>Maximum charging current / power*</b><br>Courant / puissance de charge maximum   Maximaler Ladestrom / Leistung   Corriente / potencia de carga máxima                                                                               |                                                                                                                                                                                                                                      | 300 Adc / 15000 W                                                                                                                                                                                                            |
| <b>Cos φ 0.1-1   Harmonic distortion &lt; 1 %   Charge characteristic* 6 steps: bulk, absorption, floating, equalization, reduced floating, periodic absorption   Temperature compensation* with nx tempensor (included)</b>            |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |
| <b>Cos φ 0.1-1   Distorsion harmonique &lt; 1 %   Caractéristique de charge* 6 étapes: bulk, absorption, maintien, égalisation, maintien réduit, absorption périodique   Compensation de la température* avec nx tempensor (inclus)</b> | <b>Cos φ 0.1-1   Klirrfaktor &lt; 1 %   Ladecharakteristik* 6 Stufen: Bulk, Absorption, Schwebeladung, Equalisierung, reduzierte Schwebeladung, periodische Absorption   Temperatur Kompensation* mit nx tempensor (inbegriffen)</b> | <b>Cos φ 0.1-1   Distorsión armónica &lt; 1 %   Características de carga* bulk, absorción, flotación, eequalización, flotación reducida, absorción periódica   Compensación por temperatura* con nx tempensor (incluido)</b> |

Solar PV Solaire PV | Solar PV | Solar FV

|                                                                                                                                                                                                                                                                  |                                                                                                                                                                     |                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Number of MPPT inputs</b><br>Nombre des entrées MPPT   Anzahl der EingängeMPPT   Número de entradas MPPT                                                                                                                                                      |                                                                                                                                                                     | 2                                                                                                                                                                                   |
| <b>Max PV short circuit current per PV input / nominal current</b><br>Courant max de court circuit par entrée PV / courant nominal   Max PV-Strom pro PV-Eingang / Nennstorm   Corriente max de cortocircuito por entrada FV / corriente nominal 27 Adc / 20 Adc |                                                                                                                                                                     |                                                                                                                                                                                     |
| <b>Maximum PV open voltage (Voc)</b><br>Tension de circuit ouvert maximum   Max Spannung des PV-Generators   Tensión máxima de circuito abierto                                                                                                                  |                                                                                                                                                                     | 900 Vdc                                                                                                                                                                             |
| <b>Start up voltage / Shut off voltage</b><br>Tension de démarrage / Tension de coupure   Anlaufspannung / Abschaltspannung   Tensión de arranque / Tensión de apagado                                                                                           |                                                                                                                                                                     | 200 / 100 Vdc                                                                                                                                                                       |
| <b>Maximum solar power produced (electronic limitation)</b><br>Puissance solaire max. produite   Max. produzierte PV-Leistung   Potencia solar max. producida                                                                                                    |                                                                                                                                                                     | 2 x 8000 W                                                                                                                                                                          |
| <b>Maximum solar power recommended (@STC)</b><br>Puissance solaire max. recommandée (@STC)   Max. Leistung des PV-Generators (@STC)   Potencial solar máxima recomendada (@CEM)                                                                                  |                                                                                                                                                                     | 2 x 12000 W                                                                                                                                                                         |
| <b>MPP voltage range recommended</b><br>Plage de tension MPP   MPP-Spannungsbereich   Rango de tensión MPP                                                                                                                                                       |                                                                                                                                                                     | 300 - 700 Vdc                                                                                                                                                                       |
| <b>Maximum efficiency solar to grid / EU / CEC 97 / 92 / 93%   MPP efficiency static / dynamic &gt; 99 / 99%   Maximum efficiency solar to battery 95 %</b>                                                                                                      |                                                                                                                                                                     |                                                                                                                                                                                     |
| <b>Rendement de conversion max. solaire au réseau / EU / CEC 97 / 92 / 93%   Efficacité MPP statique / dynamique &gt; 99 / 99%   Rendement de conversion max. solaire à batterie 95 %</b>                                                                        | <b>Max. Effizienz von Solar zu Netz / EU / CEC 97 / 92 / 93%   MPP- Wirkungsgrad statisch / dynamisch &gt; 99 / 99%   Max. Effizienz von Solar zu Batterie 95 %</b> | <b>Rendimiento de conversión max. solar a red / EU / CEC 97 / 92 / 93%   Eficiencia MPP estática / dinámica &gt; 99 / 99%   Rendimiento de conversión max. solar a batería 95 %</b> |

Transfer Transfert | Transfer | Transferencia

|                                                                                                                                                                                                                                               |  |                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|
| <b>AC source (grid or genset) Source AC (réseau ou génératrice)   AC-Quelle (Netz oder Generator)   Entrada AC (red o generator)</b>                                                                                                          |  |                                                                                                            |
| <b>Maximum rated current</b><br>Courant nominal maximal   Maximaler Nennstrom   Corriente nominal máxima                                                                                                                                      |  | 3 x 80 Aac                                                                                                 |
| <b>Operating voltage range, line to neutral</b><br>Plage de tension, phase-neutre   Betriebsspannungsbereich, Phase zum Neutralleiter   Rango de tensión de funcionamiento, fase-neutro                                                       |  | 176 - 288 Vac                                                                                              |
| <b>Nominal voltage, line to neutral / line to line*</b><br>Tension nominale, phase-neutre / phase-phase   Nennspannung - Phase zum Neutralleiter / Phase zum Phaseleiter   Tensión nominal, fase-neutro / fase-fase                           |  | 220 - 230 - 240 / 380 - 400 - 415 Vac                                                                      |
| <b>Nominal frequency*</b><br>Fréquence nominale   Nennfrequenz   Frecuencia nominal                                                                                                                                                           |  | 50 / 60 Hz                                                                                                 |
| <b>Overvoltage category (OVC), Grid code compliance*</b><br>Catégorie de surtension, Conformité au règlement connexion réseau*   Überspannungskategorie, Einhaltung des Grid-Codes*   Categoría de sobretensión, Normativa de conexión a red* |  | III, EU Commission Regulation 2016/631 (NC RfG), EN 50549-1:2019, VDE-AR-N 4105:2018, IEC 62116, IEC 61727 |

AC flex (2<sup>nd</sup> source or load) AC flex (2<sup>ème</sup> entrée ou sortie) | AC flex (2. steueubare AC-eingang oder ausgang) | AC flex (2<sup>a</sup> entrada o salida)

|                                                                                                                                                                                                                     |  |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------|
| <b>Maximum rated current</b><br>Courant nominal maximal   Maximaler Nennstrom   Corriente nominal máxima                                                                                                            |  | 3 x 80 Aac                            |
| <b>Operating voltage range, line to neutral</b><br>Plage de tension, phase-neutre   Betriebsspannungsbereich, Phase zum Neutralleiter   Rango de tensión de funcionamiento, fase-neutro                             |  | 176 - 288 Vac                         |
| <b>Nominal voltage, line to neutral / line to line*</b><br>Tension nominale, phase-neutre / phase-phase   Nennspannung - Phase zum Neutralleiter / Phase zum Phaseleiter   Tensión nominal, fase-neutro / fase-fase |  | 220 - 230 - 240 / 380 - 400 - 415 Vac |
| <b>Nominal frequency*</b><br>Fréquence nominale   Nennfrequenz   Frecuencia nominal                                                                                                                                 |  | 50 / 60 Hz                            |

AC loads Sortie AC | AC-Ausgang | Salida AC

|                                                                                                               |  |             |
|---------------------------------------------------------------------------------------------------------------|--|-------------|
| <b>Maximum output current</b><br>Courant maximal sortie   Maximaler Ausgangstrom   Corriente máxima de salida |  | 3 x 102 Aac |
|---------------------------------------------------------------------------------------------------------------|--|-------------|

General data Données générales | Allgemeine Daten | Datos generales

|                                                                                                                                                                          |  |                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product dimensions h/w/l and weight</b><br>Dimensions h/L et poids du produit   Produktabmessungen H/B/L und Gewicht   Dimensiones A/a/l y peso del producto          |  | wall-mounted : 320 / 450 / 760 mm 58 kg<br>rack 19" : 350(8u) / 485 / 675 mm 58 kg                                                                                                   |
| <b>Transport dimensions h/w/l and weight</b><br>Dimension h/L/H et poids du transport   Transportabmessungen H/B/L und Gewicht   Dimensiones A/a/l y peso del transporte |  | 600 / 800 / 720 mm 72 kg                                                                                                                                                             |
| <b>Selfconsumption OFF / Standby / ON</b><br>Autoconsommation OFF / Standby / ON   Eigenverbrauch OFF / Standby / ON   autoconsumo OFF / Standby / ON                    |  | 6 / 7 / 41 W (+5 W with nx interface)                                                                                                                                                |
| <b>I/O Communications</b><br>I/O Communications   I/O Kommunikation   I/O Comunicación                                                                                   |  | 2 x nx communication bus RJ45/8, 1 x CAN BMS, 1 x RS485i (Modbus), 1 x nx tempSensor                                                                                                 |
| <b>Multifunction I/O contacts</b><br>Contacts multifonctions I/O   Multi-funktionskontakte I/O   Contactos multifuncionales I/O                                          |  | 2 x Input, 2 x Output, rating 16 A each<br>nx interface, datalogger USB 1-min resolution, 1 x RS485i, 1 x CANi, 1 x LAN, 4 x USB, nx wifidongle, studer portal + easy monitoring APP |
| <b>Interfaces</b><br>Interfaces   Interfaces   Interfaces                                                                                                                |  | EU Low Voltage Directive (LVD) 2014/35/EU, EU Electromagnetic Compliance (EMC) 2014/30/EU                                                                                            |
| <b>Safety+EMC conformity (CE marking)</b><br>Conformité sécurité+CEM (CE)   Sicherheits+Elektromagnetische Konformität (CE)   Conformidad seguridad+CEM (CE)             |  |                                                                                                                                                                                      |

|                                                                                                                                                                                                                 |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Ingress Protection according to IEC60529 IP20   Operating ambient temperature range -20 to 55°C   Relative humidity operation range 5 to 95 % (non condensing)   Mounting location Indoor, unconditioned</b> |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                                                                                                                                                                                                                      |                                                                                                                                                                                  |                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Indice de protection selon IEC60529 IP20   Plage de température de travail -20 to 55°C   Humidité relative de fonctionnement 5 - 95 % (sans condensation)   Emplacement de montage intérieur, non conditionné</b> | <b>Schutzart nach IEC60529 IP20   Betriebstemperatur -20 to 55°C   Relative Lüftfeuchtigkeit bei Betrieb 5 - 95 % (nicht Kondensierend)   Montageort Indoor, unkonditioniert</b> | <b>Índice de protección según IEC60529 IP20   Rango de temperatura de trabajo -20 to 55°C   Humedad relativa de funcionamiento 5 - 95 % (sin condensación)   Lugar de montaje interior, sin acondicionar</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|