

# Vertiv™ NetSure™ Inverter System

Integrated AC and DC Power System



## Benefits

- Free up floor space by powering AC and DC loads in a single system with a common battery bank.
- Minimize energy consumption with 95.2% peak efficiency in normal AC-AC mode.
- Maximize site availability thanks to zero transfer time from grid to battery.
- Seamlessly manage your complete back-up solution locally or remotely through a single interface.
- Factory integrated with NetSure™ 5100 and NetSure™ 7100 power systems.

## Service

- Get the job done right by leveraging a professional team.
- Rest assured your AC/DC power plant is installed properly and configured optimally.
- Reduce risk of long-term damage and protect your warranty.
- Ensure system settings are optimized and meet your standards.

*The integrated Vertiv™ NetSure™ Inverter System powers AC and DC loads in a single factory configured-system with a common battery bank, freeing up floor space while minimizing energy loss and lowering energy consumption.*

### Improve reliability and save space

The integrated Vertiv™ NetSure™ Inverter AC and DC power system delivers outstanding reliability, modularity and scalability. With market leading power module density, the single system supports your AC and DC loads in a compact footprint. Rectifiers and inverters are connected to the same battery bank which not only facilitates zero second transfer time should commercial AC fail, but also saves space and reduces financial investment.

### Grow as you go

System sizes range from 5 kVA to 12kVA and accommodate modular 1kVA/1kW AC inverters that allow you to add inverters as your loads increase. They are available in 19" and 23" mounting widths with either 15A NEMA outlets or a bulk feed output. Factory installed inverter systems can be ordered as an option with NetSure™ 5100 or NetSure™ 7100 power systems and will be preconfigured with a common NetSure™ Control Unit (NCU) that provides a single interface for reporting and control of your AC inverter and DC rectifier modules.

### Minimize energy loss

The integrated Vertiv™ NetSure™ Inverter Series is designed for efficient operation at any load condition. All models are supported by high-efficiency Vertiv™ eSure™ rectifiers and inverters that deliver close to 95% efficiency across a wide operating range. Powering your AC and DC loads with eSure technology helps keep energy loss to a minimum and ensures your network is supported by an extremely reliable backup system.



# Vertiv™ NetSure™ Inverter Series, Integrated

## Technical Specifications for Vertiv™ NetSure™ 5100 Systems

| 19" 5 kVA Bulk Output | 19" 5 kVA NEMA Output | 23" 6 kVA Bulk Output | 23" 6 kVA NEMA Output | 19" 10 kVA Bulk Output | 19" 10 kVA NEMA Output | 23" 12 kVA Bulk Output | 23" 12 kVA NEMA Output |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| 582137100 List 50     | 582137100 List 51     | 582137100 List 52     | 582137100 List 53     | 582137100 List 54      | 582137100 List 55      | 582137100 List 56      | 582137100 List 57      |

### AC and DC Input

|                  |  |
|------------------|--|
| Voltage Range    | Single phase: 100 VAC to 125 VAC (Nominal: 120 VAC)<br>DC supply: 40 VDC to 58.5 VDC (Nominal: 48 VDC) |
| Line Frequency   | 50 Hz or 60 Hz   |
| Connections      | AC: Terminal Blocks - DC: Integrated bus bars  |
| Surge Protection | 1.2/50uS+8/20us wave, higher than 6kV/3kA, per IEC60664-1  |

### AC Output

|                      |   |                  |                          |  |                           |                  |                           |  |
|----------------------|---|------------------|--------------------------|--|---------------------------|------------------|---------------------------|--|
| Voltage              | Single phase: 120VAC                                |                  |                          |  |                           |                  |                           |  |
| Line Frequency       | 50 Hz or 60 Hz                                      |                  |                          |  |                           |                  |                           |  |
| Efficiency, Peak     | 94.8% (AC/AC mode); 92% (DC/AC mode)                |                  |                          |  |                           |                  |                           |  |
| Maximum System Power | 5 kVA/5 kW  | 5 kVA/5 kW       | 6 kVA/6 kW               | 5.76 kVA/5.76 kW<br><small>(per NEC breaker de-rating)</small> | 10 kVA/10 kW              | 10 kVA/10 kW     | 12 kVA/12 kW              | 11.5 kVA/11.5 kW<br><small>(per NEC breaker de-rating)</small> |
| Distribution         | 1 x Bulk Output Terminal                            | 4 x NEMA Outlets | 1 x Bulk Output Terminal | 4 x NEMA Outlets   | 2 x Bulk Output Terminals | 8 x NEMA Outlets | 2 x Bulk Output Terminals | 8 x NEMA Outlets   |
| Circuit Breakers     | 1 x 70A   | 4 x 15A          | 1 x 70A                  | 4 x 15A  | 2 x 70A                   | 8 x 15A          | 2 x 70A                   | 8 x 15A  |
| Transfer Time        | 0s from grid to battery and 0s from battery to grid |                  |                          |  |                           |                  |                           |  |
| Primary Input Modes  | AC or DC  |                  |                          |  |                           |                  |                           |  |

### Physical Characteristics

|   |   |   |   |   |  |  |  |  |
|---|---|---|---|---|--|--|--|--|
| Dimensions (w/o mounting ears)<br>(H x W x D) | 3.5" x 17.5" x 16.6"<br>88.9 x 444.5 x 421.6 mm | 3.5" x 17.5" x 16.6"<br>88.9 x 444.5 x 421.6 mm | 3.5" x 21.1" x 16.6"<br>88.9 x 535.9 x 421.6 mm | 3.5" x 21.1" x 16.6"<br>88.9 x 535.9 x 421.6 mm | 7" x 17.5" x 16.6"<br>177.8 x 444.5 x 421.6 mm | 7" x 17.5" x 16.6"<br>177.8 x 444.5 x 421.6 mm | 7" x 21.1" x 16.6"<br>177.8 x 535.9 x 421.6 mm | 7" x 21.1" x 16.6"<br>177.8 x 535.9 x 421.6 mm |
| Weight (excluding modules)                    | 21 lbs. / 9.5 kg                                | 21 lbs. / 9.5 kg                                | 24 lbs. / 10.9 kg                               | 24 lbs. / 10.9 kg                               | 31 lbs. / 14.1 kg                              | 31 lbs. / 14.1 kg                              | 36 lbs. / 16.3 kg                              | 36 lbs. / 16.3 kg                              |
| Inverter Slots                                | 5   | 5   | 6   | 6   | 10   | 10   | 12   | 12   |

### Environmental

|                              |  |
|------------------------------|--|
| Temperature Range, Operating | -20°C to +65°C/-4°F to +149°F (full power up to +45°C/113°F) |
| Relative Humidity, Operating | <95%   |
| Altitude                     | 3000 m, 10000 ft. (2000 m, 6562 ft. at full power)           |

### Standards Compliance

|               |   |
|---------------|---|
| Safety        | UL1778; CUL:CSA C22.2 NO.107.3  |
| EMC           | IEC/EN 61000-4-2; IEC/EN 61000-4-5; GR-1089; FCC Part 15 (CFR47); Conducted Emission: Class A; Radiated Emission: Class B |
| Environmental | REACH: Material Composition Declaration/ROHS: R10   |

### 1 kVA/1 kW Inverter

|             |           |
|-------------|-----------|
| Part Number | 1120-1000 |
|-------------|-----------|

## Technical Specifications for Vertiv™ NetSure™ 7100 Systems

|  | 23" 6 kVA<br>Bulk Output<br>582127000 List 50   | 23" 6 kVA<br>NEMA Output<br>582127000 List 51   | 23" 12 kVA<br>Bulk Output<br>582127000 List 52 | 23" 12 kVA<br>NEMA Output<br>582127000 List 53  |
|--|---|---|--|---|
| <b>AC and DC Input</b>                           |   |   |  |   |
| Voltage Range                                    | Single phase: 100 VAC to 125 VAC (Nominal: 120 VAC)<br>DC supply: 40 VDC to 58.5 VDC (Nominal: 48 VDC)                    |   |  |   |
| Line Frequency                                   | 50 Hz or 60 Hz  |   |  |   |
| Connections                                      | AC: Terminal Blocks - DC: Integrated bus bars   |   |  |   |
| Surge Protection                                 | 1.2/50uS+8/20uS wave, higher than 6kV/3kA, per IEC60664-1   |   |  |   |
| <b>AC Output</b>                                 |   |   |  |   |
| Voltage  | Single phase: 120VAC  |   |  |   |
| Line Frequency                                   | 50 Hz or 60 Hz  |   |  |   |
| Efficiency, Peak                                 | 94.8% (AC/AC mode); 92% (DC/AC mode)  |   |  |   |
| Maximum System Power                             | 6 kVA/6 kW  | 5.76 kVA/5.76 kW<br>(per NEC breaker de-rating) | 12 kVA/12 kW                                   | 11.5 kVA/11.5 kW<br>(per NEC breaker de-rating) |
| Distribution                                     | 1 x Bulk Output Terminal  | 4 x NEMA Outlets                                | 2 x Bulk Output Terminals                      | 8 x NEMA Outlets                                |
| Circuit Breakers                                 | 1 x 70A   | 4 x 15A   | 2 x 70A  | 8 x 15A   |
| Transfer Time                                    | 0s from grid to battery and 0s from battery to grid   |   |  |   |
| Primary Input Modes                              | AC or DC  |   |  |   |
| <b>Physical Characteristics</b>                  |   |   |  |   |
| Dimensions<br>(w/o mounting ears)<br>(H x W x D) | 3.5" x 21.1" x 16.6"<br>88.9 x 535.9 x 421.6 mm   | 3.5" x 21.1" x 16.6"<br>88.9 x 535.9 x 421.6 mm | 7" x 21.1" x 16.6"<br>177.8 x 535.9 x 421.6 mm | 7" x 21.1" x 16.6"<br>177.8 x 535.9 x 421.6 mm  |
| Weight<br>(excluding modules)                    | 24 lbs. / 10.9 kg   | 24 lbs. / 10.9 kg                               | 36 lbs. / 16.3 kg                              | 36 lbs. / 16.3 kg                               |
| Inverter Slots                                   | 6   | 6   | 12   | 12  |
| <b>Environmental</b>                             |   |   |  |   |
| Temperature Range,<br>Operating                  | -20°C to +65°C/-4°F to +149°F (full power up to +45°C/113°F)  |   |  |   |
| Relative Humidity,<br>Operating                  | <95%  |   |  |   |
| Altitude   | 3000 m, 10000 ft. (2000 m, 6562 ft. at full power)  |   |  |   |
| <b>Standards Compliance</b>                      |   |   |  |   |
| Safety   | UL1778; CUL:CSA C22.2 NO.107.3  |   |  |   |
| EMC  | IEC/EN 61000-4-2; IEC/EN 61000-4-5; GR-1089; FCC Part 15 (CFR47); Conducted Emission: Class A; Radiated Emission: Class B |   |  |   |
| Environmental                                    | REACH: Material Composition Declaration/ROHS: R10   |   |  |   |
| <b>1 kVA/1 kW Inverter</b>                       |   |   |  |   |
| Part Number                                      | 11120-1000  |   |  |   |