Vertiv™ NetSure™ Inverter System

Stand-Alone AC Power System

Benefits

- Leverage existing DC power infrastructure with easy to add subrack.
- 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.
- Manage the Netsure inverter system locally or remotely through the Vertiv™ NetSure™ Control Unit (NCU).

Service

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

The stand-alone Vertiv™ NetSure™ Inverter System allows you to support AC loads from existing DC power systems and batteries.

Improve reliability and save space

The stand-alone NetSure™ Inverter system delivers outstanding reliability, modularity and scalability. With market leading inverter module density, the system supports your AC 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 24 kVA and accommodate modular 1 kVA/1 kW AC inverters that allow you to add inverters as your loads increase. They are available with bulk distribution in 19" wide shelves or 15A NEMA outlets in 19" or 23" wide shelves. NetSure inverter systems can be used in conjunction with any brand or vintage of DC power system that has sufficient capacity to support the additional inverter load.

Integrated inverters systems are also available pre-wired in the factory with NetSure™ 5100 and NetSure™ 7100 power systems.

Minimize energy loss

The Vertiv NetSure Inverter Series is designed for efficient operation at any load condition. All models are supported by high-efficiency Vertiv™ eSure™ inverters that deliver up to 95.2% efficiency across a wide operating range. Powering your AC loads with eSure™ technology minimizes energy loss while keeping your network running with an extremely reliable backup system.

Technical Specifications

	5 kVA Bulk Output	6 kVA Bulk Output	10 kVA Bulk Output	12 kVA Bulk Output	15 kVA Bulk Output	20 kVA Bulk Output
	584130100 List 01	584130100 List 01E	584130100 List 03	584130100 List 03E	584130100 List 05	584130100 List 05E
AC Input						
Voltage, Nominal	100 VAC to 125 VAC	100 VAC to 125 VAC	100 VAC to 125 VAC	100 VAC to 125 VAC	-	-
Voltage Range	96 VAC to 140 VAC	96 VAC to 140 VAC	96 VAC to 140 VAC	96 VAC to 140 VAC	-	-
Single or Three-Phase	Single Phase	Single Phase	Single Phase	Single Phase	-	-
Frequency	50 Hz or 60 Hz	50 Hz or 60 Hz	50 Hz or 60 Hz	50 Hz or 60 Hz	-	-
Maximum Current	60 A	72A	120 A	144 A	-	-
Power Factor	>0.99 @ 100% linear load	>0.99 @ 100% linear load	>0.99 @ 100% linear load	>0.99 @ 100% linear load	-	-
Total Harmonic Distortion	< 5% @ 100% linear load	< 5% @ 100% linear load	< 5% @ 100% linear load	< 5% @ 100% linear load	-	-
DC Input						
Voltage, Nominal	40 to 58.5 VDC, 48 VDC (nominal)					
Voltage Range	50 VDC to 58.5 VDC					
Maximum Current	115 A	138 A	230 A	276 A	345 A	460 A
AC Output						
Voltage, Nominal	120 VAC					
Frequency	50 Hz or 60 Hz					
Maximum Power	5 kVA/ 5kW	6 kVA/6 kW	10 kVA/10 kW	12 kVA/12 kW	15 kVA/15 kW	20 kVA/20 kW
Maximum Current	42 A	50.4 A	84.5 A	100.8 A	126 A	168 A
Peak Efficiency	95.2% AC/AC, 92% DC/AC					
Temperature Performance	Full power up to +45 °C (+113 °F) at input voltage range of 100 VAC - 125 VAC					
Over Capacity (fault clearing)	105%-125% @40-48V (15 s), 125%-200% (1 s), >200% (120 ms)					
Load Outputs	Bulk Output(s)					
AC Load Distribution						
Circuit Breaker Type	Rocker Switch					
Circuit Breakers	1	1	2	2	4	4
Circuit Breaker Rating	70 A					
Monitoring						
Module Name	M830B					
Local Display	128 x 160 Pixels TFT LCD					
Communication	RS232, RS485, Ethernet, USB (for software upgrades)					
Protocols	IPv4, IPv6, HTTPS, RADIUS User Authentication, SNMPv2, SNMPv3, EEM, SocTpe, Rsoc, Modbus					
Analog Inputs	2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 2 temperatures, fuel level sensor and much more with additional interface boards					
Digital Inputs	1 input for status of surge protective device auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contactor status					
Outputs	3 LVDs, (2) bi-stable and (1) mono-stable					
Security	HTTPS, SNMPv3 encryption and RADIUS User Authentication					
IB2 Interface Board	8 relay outputs, 8 digital inputs, 2 temperatures					
IB4 Interface Board	Additional Ethernet port					
SMTEMP Board	Optional temperature concentrator with up to 8 temperature sensors					
Environmental						
Operating Temperature	-20°C to +65°C/-4˚F to +149˚F (full power up to +45°C/113˚F)					
Storage Temperature	-40°C to 70°C / -40°F to +158°F					
Relative Humidity	<95%					
Altitude	3000 m, 10000 ft. (2000 m, 6562 ft. at full power)					
Physical Characteristics						
Color	Grey					
Height	3.5" /88.9 mm	5.25"/133.4 mm	7"/177.8 mm	8.75"/222.3 mm	12.25"/311.2 mm	14"/355.6 mm
Width	17.5"/444.5 mm	17.5"/444.5 mm	17.5"/444.5 mm	17.5"/444.5 mm	17.5"/444.5 mm	17.5"/444.5 mm
Depth	16.6"/421.6 mm	16.6"/421.6 mm	16.6"/421.6 mm	17.4"/442.0 mm	17.4"/442.0 mm	17.4"/442.0 mm
Weight (Approximate)	21 lbs	32 lbs	32 lbs	54 lbs	53 lbs	63 lbs
Module Slots	5	10	10	15	15	20
Mounting Width	19"					
Access	Rear Cabling					
Standards Compliance						
Safety	UL 1778; 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					
Ingress Protection	IP20					
1 kVA/1 kW Inverter Module						
Part Number	1I120-100					
Warranty						
Standard Warranty	1 Year Warranty					

Vertiv™ NetSure™ Inverter Series, 19" Stand Alone - NEMA Output

Category	List 07	List 08
AC Input		
Voltage, Nominal	100 VAC to 125 VAC	
Voltage Range	96 VAC to 140 VAC	
Single or Three-Phase	Single Phase	
Frequency	50 Hz or 60 Hz	
Maximum Current	45A	90A
Power Factor	>0.99 @ 100% linear load	
Total Harmonic Distortion	<5% @ 100% linear load	
DC Input		
Voltage, Nominal	40 to 58.5 VDC, 48 VDC (nominal)	
Voltage Range	50 VDC to 58.5 VDC	
Maximum Current	115 A	230A
AC Output		
Voltage, Nominal	120 VAC	
Frequency	50 Hz or 60 Hz	
Maximum Power	5 kVA/ 5kW	10 kVA/10 kW
Maximum Current	42 A	84.5 A
Peak Efficiency	95.2% AC/AC, 92% DC/AC	
Temperature Performance	Full power up to +45 °C (+113 °F) at input voltage range of 100 VAC - 125 VAC	
Over Capacity (fault clearing)	105%-125% @40-48V (15 s), 125%-200% (1 s), >200% (120 ms)	
Load Outputs	5-15R NEMA Outlets	
AC Load Distribution		
Circuit Breaker Type	Toggle Switch	
Circuit Breakers	4	8
Circuit Breaker Rating	15 A	15 A
Monitoring		
Module Name	M830B	
Local Display	128 x 160 Pixels TFT LCD	
Communication	RS232, RS485, Ethernet, USB (for software upgrades)	
Protocols	"IPv4, IPv6, HTTPS, RADIUS User Authentication, SNMPv2, SNMPv3, EEM, SocTpe, Rsoc, Modbus"	
Analog Inputs	2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 2 temperatures, fuel level sensor and much more with additional interface boards	
Digital Inputs	1 input for status of surge protective device auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contactor status	
Outputs	3 LVDs, (2) bi-stable and (1) mono-stable	
Security	HTTPS, SNMPv3 encryption and RADIUS User Authentication	
IB2 Interface Board	8 relay outputs, 8 digital inputs, 2 temperatures	
IB4 Interface Board	Additional Ethernet port	
SMTEMP Board	Optional temperature concentrator with up to 8 temperature sensors	
Environmental		
Operating Temperature	-20°C to +65°C/-4˚F to +149˚F (full power up to +45°C/113˚F)	
Storage Temperature	-40°C to 70°C / -40°F to +158°F	
Relative Humidity	<95%	
Altitude	3000 m, 10000 ft. (2000 m, 6562 ft. at full power)	
Physical Characteristics		
Color		
Height	3.5" /88.9 mm	7"/177.8 mm
Width	17.5"/444.5 mm	17.5"/444.5 mm
Depth	16.6"/421.6 mm	16.6"/421.6 mm
Weight (Approximate)	21 lbs	32 lbs
Module Slots	5	10
Mounting Width	19"	19"
Access	Rear Cabling/Front Outlets	
Standards Compliance		
Safety	UL 1778; 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	
Ingress Protection	IP20	
1 kVA/1 kW Inverter Module		
Part Number	1I120-100	
Warranty		
Standard Warranty	1 Year Warranty	

Vertiv™ NetSure™ Inverter Series, 23" Stand Alone - NEMA Output

	6 kVA Outlet Output	6 kVA Outlet Output	12 kVA Outlet Output	12 kVA Outlet Output	18 kVA Outlet Output	24 kVA Outlet Output
	584130100 List 02	584130100 List 02E	584130100 List 04	584130100 List 04E	584130100 List 06	584130100 List 06E
AC and DC Input						
Voltage, Nominal	100 VAC to 125 VAC					
Voltage Range	96 VAC to 140 VAC					
Single or Three-Phase	Single Phase					
Frequency	50 Hz or 60 Hz					
Maximum Current	72 A	72 A	144 A	144 A	216 A	288 A
Power Factor	>0.99 @ 100% linear load					
Total Harmonic Distortion	< 5% @ 100% linear load					
DC Input						
Voltage, Nominal	40 to 58.5 VDC, 48 VDC (nominal)					
Voltage Range	50 VDC to 58.5 VDC					
Maximum Current	138 A	138 A	276 A	276 A	414 A	552 A
AC Output						
Voltage, Nominal	120 VAC					
Frequency	50 Hz or 60 Hz					
Maximum Power	5.76 kVA/5.76 kW (per NEC breaker de-rating)	5.76 kVA/5.76 kW (per NEC breaker de-rating)	11.5 kVA/11.5 kW (per NEC breaker de-rating)	11.5 kVA/11.5 kW (per NEC breaker de-rating)	18 kVA/18 kW (per NEC breaker de-rating)	23 kVA/23 kW (per NEC breaker de-rating)
Maximum Current	50.4 A	50.4 A	100.8 A	100.8 A	151.2 A	199.2 A
Peak Efficiency	95.2% AC/AC, 92% DC/AC					
Temperature Performance	Full power up to +45 °C (+113 °F) at input voltage range of 100 VAC - 125 VAC					
Over Capacity (fault clearing)	105%-125% @40-48V (15 s), 125%-200% (1 s), >200% (120 ms)					
Load Outputs	5-15R NEMA Outlets					
AC Load Distribution						
Circuit Breaker Type	Toggle Switch					
Circuit Breakers	4	4	8	8	16	16
Circuit Breaker Rating	15 A					
Monitoring						
Module Name	M830B					
Local Display	128 x 160 Pixels TFT LCD					
Communication	RS232, RS485, Ethernet, USB (for software upgrades)					
Protocols	IPv4, IPv6, HTTPS, RADIUS User Authentication, SNMPv2, SNMPv3, EEM, SocTpe, Rsoc, Modbus					
Analog Inputs	2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 2 temperatures, fuel level sensor and much more with additional interface boards					
Digital Inputs	1 input for status of surge protective device auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contactor status					
Outputs	3 LVDs, (2) bi-stable and (1) mono-stable					
Security	HTTPS, SNMPv3 encryption and RADIUS User Authentication					
IB2 Interface Board	8 relay outputs, 8 digital inputs, 2 temperatures					
IB4 Interface Board	Additional Ethernet port					
SMTEMP Board	Optional temperature concentrator with up to 8 temperature sensors					
Environmental						
Operating Temperature	-20°C to +65°C/-4˚F to +149˚F (full power up to +45°C/113˚F)					
Storage Temperature	-40°C to 70°C / -40°F to +158°F					
Relative Humidity	<95%					
Altitude	3000 m, 10000 ft. (2000 m, 6562 ft. at full power)					
Physical Characteristics						
Color	Grey					
Height	3.5" /88.9 mm	5.25"/133.4 mm	7"/177.8 mm	8.75"/222.3 mm	12.25"/311.2 mm	14"/355.6 mm
Width	21.1"/535.9 mm	21.1"/535.9 mm	21.1"/535.9 mm	21.1"/535.9 mm	21.1"/535.9 mm	21.1"/535.9 mm
Depth	16.6"/421.6 mm	16.6"/421.6 mm	16.6"/421.6 mm	18.0"/458.7 mm	18.0"/458.7 mm	18.0"/458.7 mm
Weight (Approximate)	24 lbs	37 lbs	37 lbs	61 lbs	61 lbs	73 lbs
Module Slots	6	12	12	18	18	24
Mounting Width	23"					
Access	Rear Cabling/Front Outlets					
Standards Compliance						
Safety	UL 1778; 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					
Ingress Protection	IP20					
1 kVA/1 kW Inverter Module						
Part Number	1I120-100					
Warranty						
Standard Warranty	1 Year Warranty					

Ordering Information

19" Wide Systems with Bulk Distribution Output

58413010001	5 kVA system with 5 inverter slots and one (1) 70A distribution breaker
58413010001E	6 kVA system with 10 inverter slots and one (1) 70A distribution breaker
58413010003	10 kVA system with 10 inverter slots and two (2) 70A distribution breakers
58413010003E	12 kVA system with 15 inverter slots and two (2) 70A distribution breakers
58413010005	15 kVA system with 15 inverter slots and four (4) 70A distribution breakers (DC INPUT ONLY)
58413010005E	20 kVA system with 20 inverter slots and four (4) 70A distribution breakers (DC INPUT ONLY)

19" Wide Systems with NEMA Outlet Output

58413010007	5 kVA system with 5 inverter slots and four (4) NEMA outlets
58413010008	10 kVA system with 10 inverter slots and eight (8) NEMA outlets

23" Wide Systems with NEMA Outlet Output

58413010002	6 kVA system with 6 inverter slots and four (4) NEMA outlets
58413010002E	6 kVA system with 12 inverter slots and four (4) NEMA outlets
58413010004	12 kVA system with 12 inverter slots and eight (8) NEMA outlets
58413010004E	12 kVA system with 18 inverter slots and eight (8) NEMA outlets
58413010006	18 kVA system with 18 inverter slots and sixteen (16) NEMA outlets
58413010006E	24 kVA system with 24 inverter slots and sixteen (16) NEMA outlets

Modules and Accessories

1I120100	1 kVA/1 kW inverter module
SXA1100035/1	Blank inverter module slot cover
1M830BNA10034162	Stand-Alone Inverter System NCU with HTTPS Protocol *[1]
10150523	NCU Integration Kit **[1] (for use with NetSure 582136800, 582137200, 582137100 & 582127000 systems only)

* One NCU required per stand-alone inverter system (does not occupy an inverter slot). An NCU Integration Kit may be used in place of an NCU if all kit application requirements can be met.

** NCU in NetSure host power system must be loaded with V1.2.41B or higher and there must be an open DI position on the host power system IB2 board.

[1] When the inverter system is being connected to a NetSure DC Power System with an NCU, it is recommended to upgrade the host power system NCU to a Rev B version.