# Vertiv<sup>™</sup> eSure<sup>™</sup> Inverter





### **Benefits**

- Optimally support fluctuating load requirements at 5G and edge sites over a wide operating temperature range
- Save precious space with market leading inverter power density (19 VA/in³)
- Minimize cost for energy with dual conversion functionality and high efficiency operation up to 95.2%
- Maximize site availability thanks to zero transfer time
- Ensure full control of site performance with NCU supervising complete back-up solution

If you're looking for a reliable AC and DC backup solution without sacrificing space and efficiency,  $Vertiv^{TM}$  eSure TM Inverter is the perfect choice.

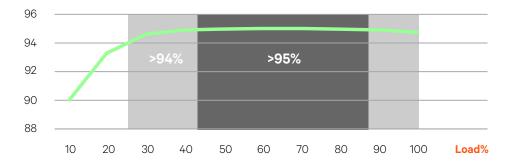
## **Description**

The eSure™ Inverter I120-1000 is based on Vertiv's long experience from both highly reliable DC power and UPS systems, combining the best technologies from two worlds. The result is a power dense dual input (AC and DC) inverter with zero transfer time to keep important equipment running at any time. With the dual conversion topology of this inverter we can ensure that the load is running in the most efficient way and the rectifier investment can be kept to a minimum – supporting only battery recharge and DC loads.

The eSure Inverter offers a highly reliable, modular AC back-up solution that can be paralleled in steps of 1000 watts / 1000 VA. In terms of back-up capability, it can provide many hours of reserve time by utilizing the same battery bank as the DC plant. eSure Inverters can be factory configured in integrated Vertiv<sup>™</sup> NetSure<sup>™</sup> Inverter systems together with eSure<sup>™</sup> rectifiers, where the entire system is controlled and monitored by a single NCU control unit. A stand-alone NetSure<sup>™</sup> Inverter system is also available that can be field-added to an existing DC power system from any vendor.



#### % Efficiency



1120-1000 AC/AC Peak Efficiency Curve at 120 VAC Nominal

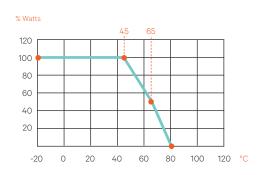
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## **Technical Specifications**

AC Input	1120-1000	
Voltage	96 VAC to 140 VAC, 100 VAC to 125 VAC (nominal)	
Frequency	50 Hz or 60 Hz	
Current	Maximum: 8.8 A @ 120 VAC (11 A @ 96 VAC)	
Power Factor	>0.99 @ 100% linear load	
THDi	< 5% @100% linear load	
DC Input		
Voltage	42 to 58 VDC, 48 VDC (nominal)	
Current	Maximum: 23.3 A @ -48 VDC (26.4 A @ -42 VDC)	
AC Output		
Voltage	120 VAC	
Frequency	50 Hz or 60 Hz	
Maximum Power	1000 W / 1000 VA	
Current	Maximum 8.4 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)	110% to 125% @ 42VDC to 48VDC (15s), 125% @ 96VAC to 140VAC (15s), max input current 3x (120ms), per inverter	
THD	< 3% @100% linear load	
<b>Control and Monitoring</b>		
Alarms and Signaling	Alarm and status reported via CAN bus to system controller	
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure	
Environmental		
Operating Temperature	-20°C to 80°C / -4°F to +176°F	
Storage Temperature	-40°C to 70°C / -40°F to +158°F	
Relative Humidity	0 to 95%	
Altitude	3000 m, 10000 ft. (2000 m, 6562 ft. at full power)	
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	
MTBF	750,000 hours (calculated) per Telcordia SR-332, Issue 2, Method 1	
Mechanics		
Dimensions (H x W x D)	41 × 84.5 × 252.5 mm / 1.61 × 3.3 × 9.9 inches	
Weight	1.15 kg / 2.54 lbs	

## **Figures**



Output Power vs. Temperature 96 VAC < Vin < 140 VAC

# **Ordering Information**

Part Number	Description
111201000	eSure™ Inverter module, single phase, 1.0 kVA, 120 VAC

Vertiv.com | Vertiv Headquarters, 505 N Cleveland Ave, Westerville, OH, 43082, USA

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