

SolarEdge Home Backup Interface

For North America

BI-E / BI-N



Backup Interface for Flexible Backup

- Automatically provides backup power to home loads in the event of grid interruption
- Full flexibility in which loads to back up – the entire home or selected loads
- Scalable solution to support higher power and higher capacity
- Built-in Auto Transformer that supports 5kW of Phase Imbalance
- Built-in PCS certified* Energy Meter readies the Backup Interface to be part of the Busbar Current Management**
- Seamless integration with the SolarEdge Home Hub Inverter to manage and monitor both PV generation and energy storage
- Generator connection support

* Only applicable to Backup Interface with part number BI-xxxx-03. Backup Interface with part number BI-xxxx-02 includes a built-in Auto Transformer and Energy Meter that is NOT PCS certified.

** Only applicable to Backup Interface with part number BI-xxxx-03.

/ SolarEdge Home Backup Interface

For North America

BI-E / BI-N

Applicable to Backup Interface with Part Number	BI-xxxxxx-02 / BI-xxxxxx-03		Units
Model	BI-E	BI-N	
INPUT FROM GRID			
AC Current Input	200		A
AC Output Voltage (Nominal)	240		Vac
AC Output Voltage Range	211 – 264		Vac
AC Frequency (Nominal)	60		Hz
AC Frequency Range	59.3 – 60.5		Hz
Microgrid Interconnection Device Rated Current	200		A
Service Side AC Main Circuit Breaker Rated Current	200	N/A	A
Service Side AC Main Circuit Breaker Interrupt Current	10,000	N/A	A
Grid Disconnection Switchover Time	<100		ms
OUTPUT TO MAIN DISTRIBUTION PANEL			
Maximum AC Current Output	200		A
AC L-L Output Voltage (Nominal)	240		Vac
AC L-L Output Voltage Range	211 – 264		Vac
AC Frequency (Nominal)	60		Hz
AC Frequency Range	59.3 – 60.5		Hz
Maximum Inverters AC Current Output in Backup Operation	144		A
Imbalance Compensation in Backup Operation	5000		W
AC L-N Output Voltage in Backup (Nominal)	120		V
AC L-N Output Voltage Range in Backup	105 – 132		V
AC Frequency Range in Backup	55 – 65		Hz
INPUT FROM INVERTER			
Number of Inverter Inputs	Up to 3		
Maximum Rated AC Power in On-Grid and Backup Operation	11,400		W
Maximum Continuous Current in On-Grid and Backup Operation	48		A
Factory Installed Inverter Input AC Circuit Breaker	40/63 ⁽¹⁾		A
Upgradability	Up to 3 x 40A/63A ⁽²⁾ CB		
GENERATOR			
Maximum Rated AC Power	22,500		W
Maximum Continuous Input Current	94		Aac
Dry Contact Switch Voltage Rating	250 / 30		Vac / Vdc
Dry Contact Switch Current Rating	5		A
2-wire Start Switch	Yes		
ADDITIONAL FEATURES			
Installation Type	Suitable for use as service equipment	For main lug only	
Number of Communication Inputs	2		
Communication	RS485		
PCS Certified Energy Meter (for Import/Export) ⁽³⁾	1% accuracy		
Manual Control Over Microgrid Interconnection Device	Yes		

(1) Backup Interface with part number **BI-xxxxxx-03** includes one 63A circuit breaker. Backup Interface with part number **BI-xxxxxx-02** includes one 40A circuit breaker.

(2) 63A circuit breaker supports up to one 11.4kW inverter, and 40A circuit breaker supports up to one 7.6kW inverter. 20A, 30A, and 50A breakers can be used for inverters with lower power ratings (On-Grid and Backup Operation). The circuit breaker kits are available with the following part numbers:

- For 63A, CB-UPG-63-01
- For 40A, CB-UPG-40-01

(3) Backup Interface with part number **BI-xxxxxx-02** includes an Energy Meter that is NOT PCS certified.

/ SolarEdge Home Backup Interface

For North America

BI-E/ BI-N

Applicable to Backup Interface with Part Number	BI-xxxxx-02 / BI-xxxxx-03		Units
Model	BI-E	BI-N	
STANDARD COMPLIANCE			
Safety	UL1741; CSA 22.2 NO. 107		
Emissions	UL869A	N/A	
	FCC Part 15 Class B		
INSTALLATION SPECIFICATIONS			
Supported Inverters	SolarEdge Single Phase Inverter; SolarEdge Home Hub Inverter		
AC from Grid Conduit Size / AWG Range	2" conduit / 4 – 4/0 AWG		
AC to Loads Conduit Size / AWG Range	2" conduit / 4 – 4/0 AWG		
AC Inverter Conduit Size / AWG Range	1" conduit / 14 – 4 AWG		
AC Generator Input Conduit Size / AWG Range	1" conduit / 8 – 3 AWG		
Communication Conduit Size / AWG Range	3/4" conduit / 24 – 10 AWG		
Weight	73 / 33		lb / kg
Cooling	Fan (user replaceable)		
Noise	< 50		dBA
Operating Temperature Range	(-) 40 to (+) 122 / (-) 40 to (+) 50		°F / °C
Protection Rating	NEMA 3R; IP44		
Dimensions (H x W x D)	20.59 x 13.88 x 8.62 / 523.5 x 352.5 x 219		in / mm

SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

-  SolarEdge
-  @SolarEdgePV
-  @solaredge_us
-  SolarEdgeNorthAmerica
-  SolarEdge
-  www.solaredge.com/corporate/contact

solaredge.com

© SolarEdge Technologies, Ltd. All rights reserved. SOLAREEDGE, the SolarEdge logo, OPTIMIZED BY SOLAREEDGE are trademarks or registered trademarks of SolarEdge Technologies, Inc. All other trademarks mentioned herein are trademarks of their respective owners. Date: February 18, 2025 DS-000103-NAM Subject to change without notice.

Cautionary Note Regarding Market Data and Industry Forecasts: This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved. Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.

