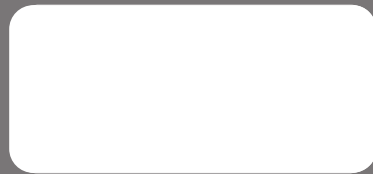


bi↔direx ENERGY STORAGE INVERTERS

The Superior Choice For Your Storage System



SIMPLE AND FLEXIBLE CUSTOMIZATION



SEAMLESS CONTROLS INTEGRATION



Eguana Technologies helps battery manufacturers, energy management system providers and system integrators deliver the highest energy storage value to their customers.

- **True Bidirectionality** – no separate AC/DC charging circuits or external conversion devices
- **Scalability** – accommodates systems from 2kW to more than 100kW
- **Universality** – works with lithium-ion as well as lead-acid batteries and other technologies
- **Durability** – field proven platform with integrated galvanic isolation designed for the harshest climates
- **Versatility** – supports grid connected, backup power and microgrid applications
- **Serviceability** – field swappable electronics for fast and easy servicing
- ◆ **HIGHEST ROUNDRIP EFFICIENCIES**
 - Bidirectional low voltage inverter architecture doesn't require additional conversion devices
 - Patented pulsed step technology guarantees highest efficiencies through full power range
- ◆ **SIMPLE INTEGRATION**
 - Open controls enable flexible implementation of advanced battery management techniques
 - Modular inverter topology enables flexible integration into battery cabinets
- ◆ **ATTRACTIVE ECONOMICS**
 - 'Engine' concept enables compact, low cost integration
 - Proven, industry standard components guarantee reliability and availability

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WITH HIGHER ROUNDRIP EFFICIENCIES, BI-DIREX CAN SAVE UP TO ONE MONTH OF ELECTRICITY EACH YEAR.

AC Specifications	B5048ES	B3542ES	B2524ES	B5048US	B3048JS
Voltage	230 V	230 V	230 V	120/240 V	100/200 V
Frequency	50 Hz	50 Hz	50 Hz	60 Hz	50/60 Hz
Rated AC Current	21.7 A	15.2 A	10.9 A	20.8 A	15.0 A
Continuous Power (up to 45° C)	5000 VA	3500 VA	2500 VA	5000 VA	3000 VA
Power Surge Capacity	120% for 30 minutes, 200% for 30 seconds				
Power Factor	Fixed or adjustable as permitted by regulatory requirements				
Efficiency	95% weighted average, 97% peak				
Galvanic Isolation	Integrated transformer				
DC Specifications					
Nominal Voltage	48 V	42 V	24 V	48 V	48 V
Operating Range	40 to 66 V	35 to 66 V	20 to 33 V	40 to 66 V	40 to 66 V
Max Charge Current	105 A	105 A	105 A	105 A	63 A
Battery Type	VRLA or Li-ion or other				
Charge Regulation	Temperature compensated or as controlled by external BMS				
Inverter Engine					
Communication	MODBus RS-485				
Operating Temperature	-40 to 50°C				
Enclosure Rating	IP-54, rain and dust protected / NEMA 4				
Dimensions	445 x 556 x 287 mm (17½" x 22" x 11¼")				
Weight	12 kg (26 lbs)				
Magnetics					
Dimensions *	310 x 410 x 115 mm (12¼" x 16¼" x 4½")				
Weight	34 kg (75 lbs)	34 kg (75 lbs)	30 kg (66 lbs)	34 kg (75 lbs)	30 kg (66 lbs)
AC Interface					
Dimensions *	375 x 130 x 70 mm (14¾" x 5¼" x 4½")				
Weight	1.5 kg (3.4 lbs)				
Standards / Certifications					
EMC	IEC 61000-6-3 (residential) IEC 61000-6-2 (industrial)	IEC 61000-6-3 (residential) IEC 61000-6-2 (industrial)	IEC 61000-6-3 (residential) IEC 61000-6-2 (industrial)	FCC Part 15	JET Compliant
Safety	EN 50178	EN 50178	EN 50178	UL1741 (pending)	JET Compliant
Utility Interface	VDE DIN-AR-4105: 2011-08	VDE DIN-AR-4105: 2011-08	VDE DIN-AR-4105: 2011-08	UL1741 (pending)	JET Compliant

* estimated physical space required for installation of this component

ABOUT EGUANA TECHNOLOGIES

Based in Calgary, Alberta, Canada, Eguana Technologies is a world leader in developing and manufacturing intelligent power electronics for distributed smart grid and micro grid applications. Its patented pulsed step power inverter platform meets the industry's need for a very efficient, highly reliable power electronics package that can be manufactured in high volumes at very low cost for multiple product applications. The electronics platform is in its third generation with more than 20MW of first and second generation units installed and operating in seven countries.

If you are interested in learning more about Eguana Technologies please contact our head office.

