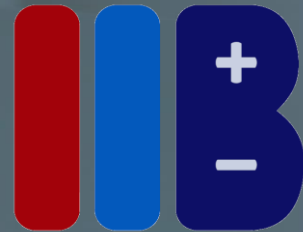


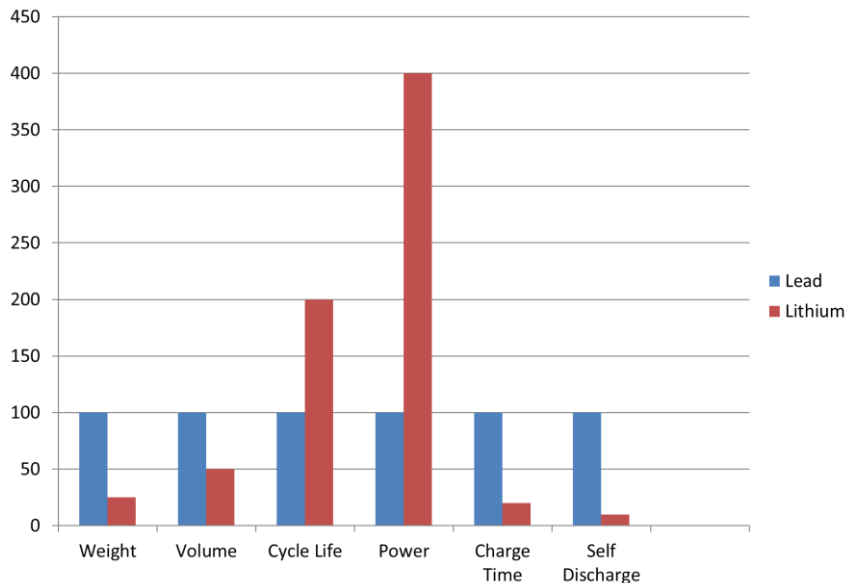
MICROPOWER GROUP™
POWERFUL SOLUTIONS PARTNER

Flexible, Safe and Reliable:
Lithium-ion
Energy Storage

MICROPOWER GROUP™



LITHIUM-ION AT MICROPOWER



New Standard of Batteries

- Complete System including Charger and Energy Storage
- Products for all Market Segments at Micropower
- Fully Automated Assembly in Växjö, Sweden
- Inhouse Development based in Göteborg, Sweden
- Products Sold Internationally via OEMs and Dealers



MODULAR BATTERIES

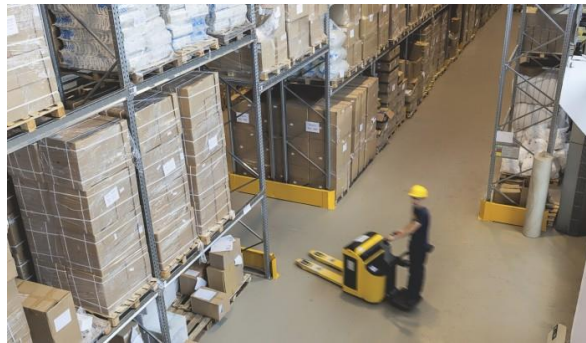
- All Modules are at Cell Voltage (3,7V)
- Different Module Capacity (45-210Ah)
- Up to 1000 V (230 Serial Modules)
- Up to 4 Parallel Modules (840Ah per string)

To build a system the following are needed:

- a) Modules depending on System Voltage and Capacity
- b) eBRIX box
- c) Charger with CAN
- d) Connection Plates
- e) Signal Cables for Internal BUS and CAN BUS
- f) Power Cables to Charger and Load



APPLICATIONS



The System may be installed in:

- 19 inch Racks Indoor
- Forklift Trays
- Automotive Packs
- Marine Installations
- Custom Packs



DATASHEETS - MODULES

TECHNICAL DATA				
LITHIUM-ION MODULES BRIX				
		BRIX105	BRIX150	BRIX210
DATA ACCORDING TO MICROPOWER STANDARD				
PARAMETER	UNIT	VALUE	VALUE	
Product Number A= Male, B=Female	-	8570040 BRIX105-A, 8570041 BRIX105-B	8570038 BRIX105-A, 8570039 BRIX105-B	8570036 BRIX210-A, 8570037 BRIX210-B
Model	-	BRIX 105	BRIX 150	BRIX 210
Type	-	3,7V/105Ah	3,7V/150Ah	3,7V/210Ah
Voltage Range	V	2.8V - 4.2V	2.8V - 4.2V	2.8V - 4.2V
Capacity	Ah	102,6	148,2	205,2
ENERGY DATA				
Available Capacity Normal Operation	Wh	304	433	760
USER DATA				
Continuous Discharge Current	A	102	148	205
Peak Discharge Current (10 sec)	A	300A	400A	450
Continuous Charge Current	A	100A	148	205
ENVIRONMENTAL DATA				
Temperature Range	°C	-25 to +60	-25 to +60	-25 to +60
Charging Temperature Range	°C	0 to +55	0 to +55	0 to +55
Transport Temperature Range (Lifetime of the Modules will be reduced in extreme Temperatures)	°C	-35 to 65	-35 to 65	-35 to 65
Sinus Vibration Level	g	5 to 500Hz, 2g rms, flat random spectrum	5 to 500Hz, 2g rms, flat random spectrum	5 to 500Hz, 2g rms, flat random spectrum
Half-Sinus-Pulse Shock Level	g	30g, 6ms	30g, 6ms	30g, 6ms
IP class	IP	IP65	IP65	IP65
Relative Humidity	%	IEC 60068-2-30 Test DB 98%	IEC 60068-2-30 Test DB 98%	IEC 60068-2-30 Test DB 98%
PROPERTIES				
Life Cycles (to 80% of initial capacity @ Room temperatur, Normal Operation)	no	>=3000	>=3000	>=3000
Battery Poles	-	M10	M10	M10
Communication Interface	-	04R-JWPF-VSLE-S B04B-JWPF-SK-R(LF)(SN)	04R-JWPF-VSLE-S B04B-JWPF-SK-R(LF)(SN)	04R-JWPF-VSLE-S B04B-JWPF-SK-R(LF)(SN)
Signal protocol	-	Propretary RS485	Propretary RS485	Propretary RS485
Marking	-	IEC62620	IEC62620	IEC62620
Transport Regulation	-	UN38.3/ADR	UN38.3/ADR	UN38.3/ADR
Shelf life (full / empty, 100% SoC = full, Automatic Disconnect by eBRIX = empty)	-	> = 6 Month with eBrix-System	> = 6 Month with eBrix-System	> = 6 Month with eBrix-System
Functional Safety (In combination with eBRIX, ISO13849-1)	-	Pld / Plc	Pld / Plc	Pld / Plc
MODULE MASS				
Weight	kg	2,53 kg	3,45 kg	4,74 kg
Dimensions	mm	87x99x219,5	87x99x297,5	87x99x395
BUS CONNECTIONS (PIN LAYOUT)				
PIN1	-	+VDD BUS POWER	+VDD BUS POWER	+VDD BUS POWER
PIN2	-	RS485 A	RS485 A	RS485 A
PIN3	-	RS485 B	RS485 B	RS485 B
PIN4	-	SGND BUS POWER	SGND BUS POWER	SGND BUS POWER

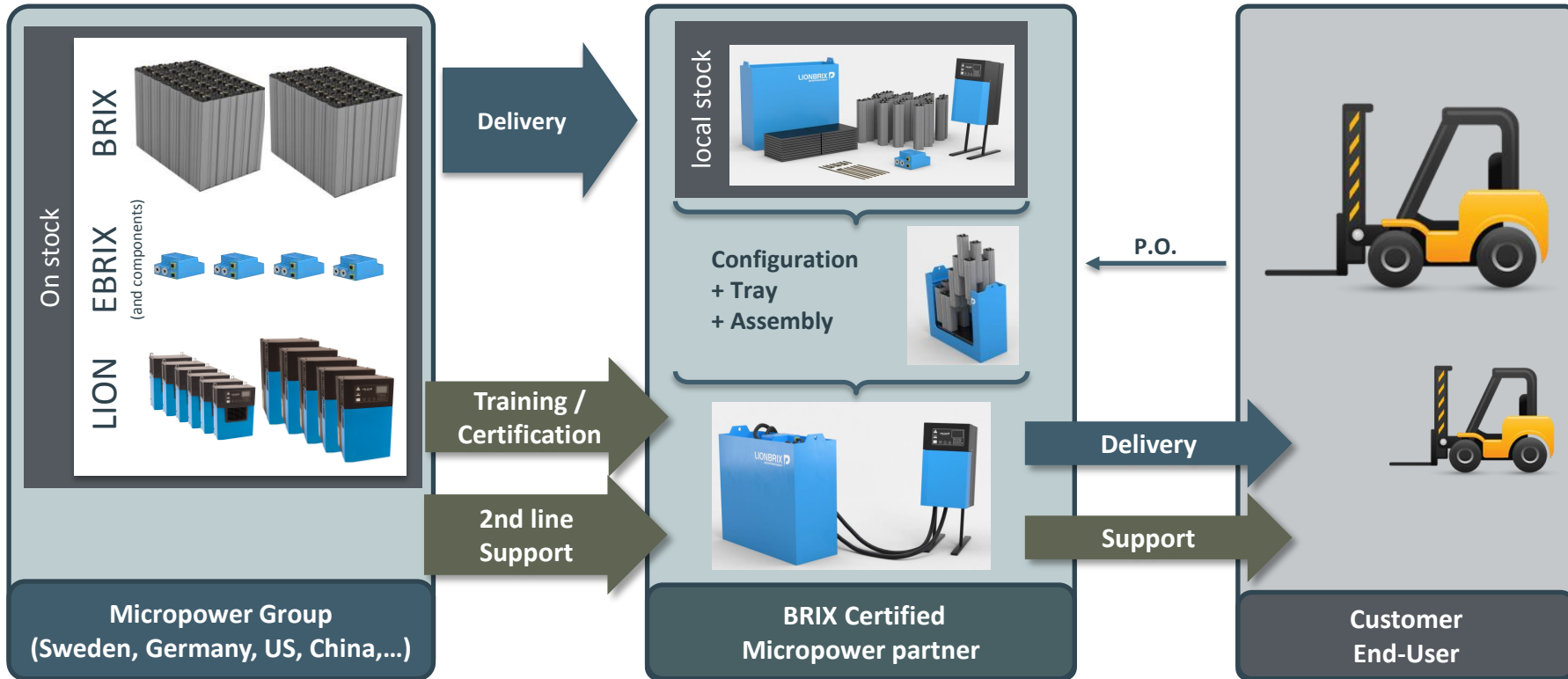


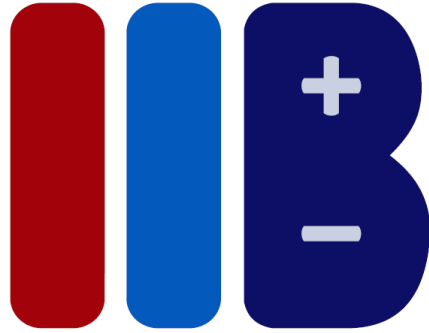
DATA SHEETS – EBRIX

TECHNICAL DATA					
LITHIUM-ION CONNECTION BOX eBRIX					
DATA ACCORDING TO MICROPOWER STANDARD					
PARAMETER	UNIT	VALUE	VALUE	VALUE	VALUE
Product Number	-	8571005	8571007	8571006	8571008
Model	-	eBRIX-1-24	eBRIX-2-24	eBRIX-1-48	eBRIX-2-48
Type	-	24V	24V	48V	48V
Voltage Range	V	15-36	15-36	36-60	36-60
ENVIRONMENTAL DATA					
Ambient Temperature	°C	-45 to +85	-45 to +85	-45 to +85	-45 to +85
Transport Temperature	°C	-45 to +85	-45 to +85	-45 to +85	-45 to +85
Sinus Vibration Level	g	5 bis 500Hz, 2g rms, flat spectrum	5 bis 500Hz, 2g rms, flat spectrum	5 bis 500Hz, 2g rms, flat spectrum	5 bis 500Hz, 2g rms, flat spectrum
Half-Sinus-Pulse Shock Level	g	30g, 6ms	30g, 6ms	30g, 6ms	30g, 6ms
IP CLASS	IP	IP65	IP65	IP65	IP65
Relative Humidity	%	IEC 60068-2-30 Test DB 98%	IEC 60068-2-30 Test DB 98%	IEC 60068-2-30 Test DB 98%	IEC 60068-2-30 Test DB 98%
PROPERTIES					
Battery Poles	-	M8	M8	M8	M8
Number of Contactors	-	1 (plus)	2 (plus and minus)	1 (plus)	2 (plus and minus)
Communication Interface	-	2xCAN 2.0B(<1Mbit/s Isolated)	2xCAN 2.0B(<1Mbit/s Isolated)	2xCAN 2.0B(<1Mbit/s Isolated)	2xCAN 2.0B(<1Mbit/s Isolated)
Communication Protocol	-	CAN OPEN	CAN OPEN	CAN OPEN	CAN OPEN
Internal Data Communication	-	Propetary RS485	Propetary RS485	Propetary RS485	Propetary RS485
IoT Integration	-	optional	optional	optional	optional
Communication	-	PC with CAN adapter	PC with CAN adapter	PC with CAN adapter	PC with CAN adapter
Marking	-	CE	CE	CE	CE
Functional Safety (Used together with BRIX, ISO13849-1)	-	PLd/PLc	PLd/PLc	PLd/PLc	PLd/PLc
MODULE MASSE					
Weight	kg	3,1	3,6	3,1	3,6
Dimensions	mm	170x200x94	170x200x94	170x200x94	170x200x94



LIONBRIX - DISTRIBUTION MODEL





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