

# BATTERY TECHNOLOGY



- › Batteries
- › Customized battery packs
- › Manufacturing and production  
in Germany and Asia
- › Implementation of all relevant certifications

# COMPLETE SOLUTIONS FOR YOUR BATTERY SYSTEM



Jauch has been producing battery power supplies for mobile applications since 1976. At the company's headquarters in Villingen-Schwenningen, Germany experienced battery specialists design and develop configurations for the most diverse applications.



Jauch can offer complete battery solutions for your system according to your technical requirements – from standard batteries using single cells to multi-cell, customized packs with intelligent microprocessor control for the most sophisticated applications. We can take your unique design requests into consideration and include all relevant safety features.

If you are looking for customized battery packs, you should contact us. Our specialists, with their development and production know-how based on decades of experience, will be able to provide you with optimum solutions to allow your product to reach you punctually, safely and in accordance with the latest legislations.

## Sustainability

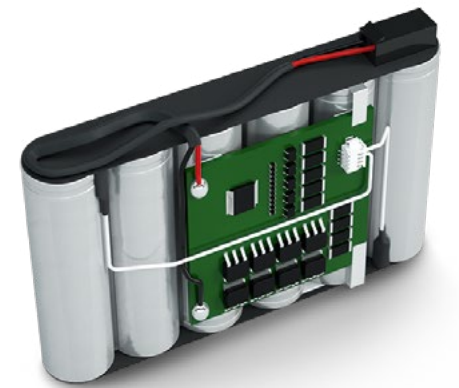
EcoVadis conducts sustainability ratings worldwide in accordance with international sustainability standards. In January 2025, the Jauch Group received the EcoVadis silver medal for its sustainability performance. This globally recognized rating evaluates companies in four key areas: environment, labor and human rights, ethics, and sustainable procurement. Jauch achieved this recognition on its first participation, placing it in the top 15% of all participating companies. This confirms our commitment to a responsible and sustainable future.







## CUSTOMIZED BATTERY PACK DESIGN



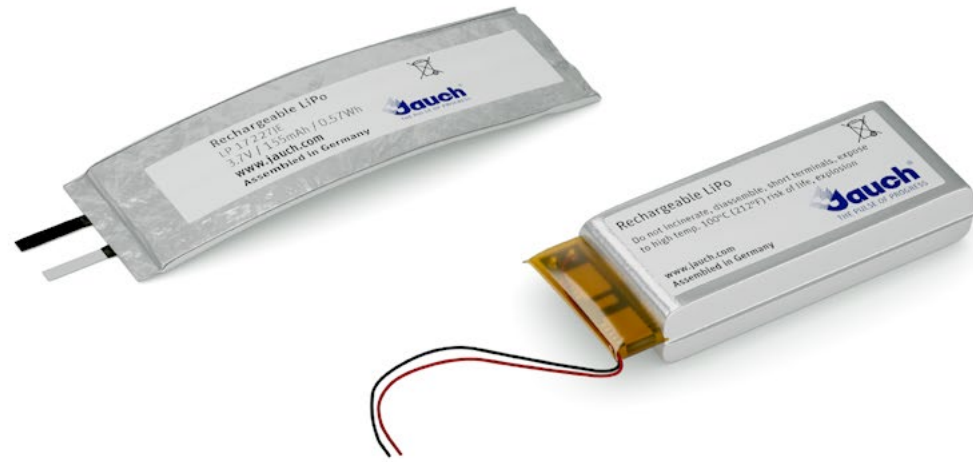
**Jauch develops and manufactures the complete battery pack, including customized housing.**

We develop your individual battery solution: from the choice of the cell with the suitable active material and the safety electronics, to the assembly of the battery pack with optional housing. To ensure the battery operates safely in your application, we support this development with our modern test equipment.

In doing so, we meet the highest quality and safety standards. Based on our international project experience in a wide variety of industries, we leverage considerable expertise in terms of which tests and certification procedures must be complied with for the transport and distribution of your battery-powered products.







# YOUR SOURCE FOR LITHIUM POLYMER BATTERIES

As a leading manufacturer of battery solutions, Jauch provides lithium polymer products with particularly high quality and performance for customers around the world.



Lithium polymer batteries offer several advantages: Lithium polymer cells have higher energy density relative to their total weight than do lithium ion cells. Lithium polymer cells use aluminum-laminated films as a housing, resulting in a lighter and thinner battery. Lithium polymer batteries are highly flexible in cell size and shape. Many smart phones and GPS devices use

lithium polymer batteries. We manufacture customized battery packs for all branches of industry. Leveraging our knowledge and our wealth of experience means we can offer many different solutions in the field of lithium polymer batteries in a short time.

The space for the installation of the power supply is often limited and is already clear long before you initially contact the battery assembler. Our wide range of lithium polymer batteries allows you to select the battery that best suits your application, even at a later stage in the project.

- › Available ex warehouse
- › Cell selection
- › Sample production in Villingen-Schwenningen, Germany in the shortest time
- › Customized battery protection circuits
- › Perfect quality, performance and safety
- › Experience with battery chemistry
- › Worldwide technical support

We are happy to assist you from the outset in selecting the optimum battery solution. You can help us by letting us know important advance information regarding your request:

## PROJECT REQUIREMENTS

- › Application
- › Voltage (V)
- › Capacity (mAh)
- › Discharge current (mA)
- › Dimensions LxWxH (mm)
- › Quantity



GET THE RELEVANT  
CERTIFICATIONS EVEN FASTER  
BY OUR OWN TEST AND  
CERTIFICATION CENTRE

Anyone who deals with approval issues, perhaps even worldwide, knows that the challenges are becoming ever more extensive and complex.

We have expanded our existing test laboratory to include a new test and certification centre so that we can act faster and provide the best possible support for our customers. We can now test cells and batteries in-house and issue test certificates either ourselves or in collaboration with accredited test laboratories, such as the CB report in accordance with IEC62133-2:2017.



Our knowledge of regulatory requirements enables us to ensure that our batteries meet the necessary requirements and that the tests are carried out quickly and completed successfully in accordance with our customers' requirements.

Cordless, portable and mobile devices are increasingly in demand by the market. The performance of modern batteries makes this possible and creates unimagined freedom in the design and application of battery-powered devices. In addition to performance, the safety of battery-powered devices and, above all, the battery, is crucial to the success of these products. The regulatory authorities are aware of the

potential dangers and have created standards to test for and rule out any potential hazards. The transport test according to UN 38.3, for which the United Nations issues its recommendations, is the basis to which all relevant countries worldwide adhere for transportation. We carry out all individual tests in accordance with UN 38.3 ourselves and issue the corresponding test certificates.



# THOROUGHLY TESTED – ALSO ACCORDING TO YOUR CRITERIA

At your request, we demand that our batteries comply strictly with the regulations of the IEC62133 or UN38.3 certification standards, or we can work with even stricter standards that you specify: Our laboratory tests and documents for you exactly what our batteries can withstand.



Crush test



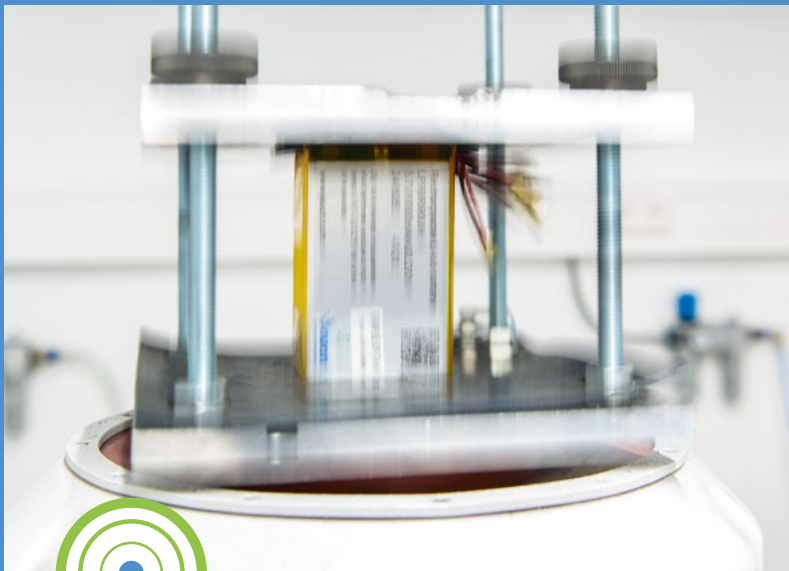
Free fall test



Mechanical Shock test



Thermal shock / abuse test



Vibration test



External short circuit test



Overcharging test

## What we test for certification according to IEC62133



- › Continuous charge at constant voltage
- › Case stress at high ambient temperature
- › External short circuit
- › Free fall
- › Thermal abuse
- › Crush
- › Overcharging of battery
- › Vibration
- › Mechanical shock



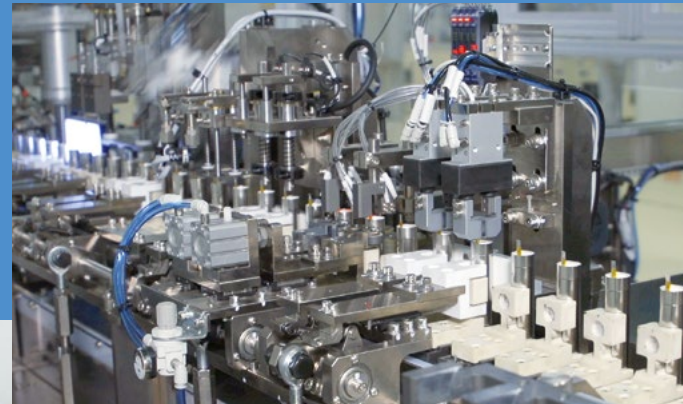
## What we test for certification according to UN38.3

- › Altitude test
- › Thermal cycling
- › Vibration
- › Shock
- › External short circuit
- › Impact/ Crush
- › Overcharge
- › Forced Discharge



## SAFETY IN SERIES

Jauch is certified to DIN EN ISO 9001:2015. Our batteries and battery packs conform to the highest international production and quality standards and pass through a series of specific tests for which we use only the very highest quality test systems. We have access to production starting from cell development. This significantly contributes to our “Made in Germany” Jauch quality.



The Jauch production plant in Villingen-Schwenningen, Germany conforms to the very latest international standards. In modern, ESD-protected rooms, high-performance batteries are produced— for use in the automotive industry, pedelecs and e-bikes, mobile phones, cameras, gardening equipment, home appliances, and many others. From prototypes and one-offs to the production of small and medium series, you get quality “Made in Germany”. At production sites in Asia, we manufacture battery packs in medium to high volume.

To ensure our quality, we use only high-quality test systems. Based on its battery technology experience, Jauch has developed special test environments that can simulate even extreme operating or environmental conditions. In doing so, Jauch engineers rely on the wealth of experience in electronics that we have gained in the frequency control components division since 1954.

- › Modern test environment
- › ESD equipment
- › Long- and short-term cycling for determining performance of systems up to 50.1V (100A)
- › Thermal shock, vibration, drop tests...
- › Charging and discharging tests
- › Simulations of predefined test scenarios according to customer specifications



# NON RECHARGEABLE BATTERIES



## CYLINDRICAL LITHIUM BATTERIES

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	MAX. CONTINUOUS CURRENT (mA)	DIAMETER (mm)	LENGTH (mm)
STANDRAD TYPE						
	CR2	3.00	850	800	27.00	15.20
	CR123A	3.00	1600	1500	17.00	34.50
	CR14250 1/2AA	3.00	850	800	14.50	25.00
	CR17335 2/3A	3.00	1600	1000	17.00	33.50
	CR2/3AL	3.00	1600	1000	17.00	34.50
	CR14505 AA	3.00	1600	1000	14.30	49.45
	CR17450 AG	3.00	2500	1000	17.00	45.00
	CR17505 A	3.00	2800	1000	17.00	51.50

### EXTENDED LIFESPAN

	CR123AH	3.00	1800	1000	17.00	34.50
	CR17335AH 2/3A	3.00	1600	700	17.00	33.50
	CR17450AH AG	3.00	2600	1000	17.00	45.00

### ENERGY TYPE

	CR2E	3.00	1000	1000	15.60	26.50
	CR123AE	3.00	1500	1000	17.00	34.50
	CR17450E AG	3.00	2400	1000	17.00	45.00

# NON RECHARGEABLE BATTERIES



## CYLINDRICAL LITHIUM BATTERIES

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	WIDTH (mm)	Hight (mm)	LENGTH (mm)
BATTERY						
	CR P2	6.00	1600	19.50	36.00	35.00
	2CR5	6.00	1600	17.00	45.00	34.00
	CR 9V	9.00	1200	17.00	48.50	26.50





















NON RECHARGEABLE BATTERIES














TABBED LITHIUM COIN CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	TAB VARIATION
	CR1025 V2	3.00	30	10.00	2.50	2 pins vertical / through hole mounting
	CR1220 V2	3.00	40	12.50	2.00	2 pins vertical / through hole mounting
	CR1225 H2	3.00	48	12.50	2.50	2 pins horizontal/ through hole mounting
	CR1632 H2	3.00	135	16.00	3.20	2 pins horizontal/ through hole mounting
	CR1632 H2B	3.00	135	16.00	3.20	2 pins horizontal/ through hole mounting
	CR2032 H2	3.00	240	20.00	3.20	2 pins horizontal/ through hole mounting
	CR2032 H2B	3.00	240	20.00	3.20	2 pins horizontal/ through hole mounting
	CR2032 H3	3.00	240	20.00	3.20	3 pins horizontal/ through hole mounting
	CR2032 H3B	3.00	240	20.00	3.20	3 pins horizontal/ through hole mounting
	CR2032 V2	3.00	240	20.00	3.20	2 pins vertical / through hole mounting
	CR2032 V3	3.00	240	20.00	3.20	3 pins vertical / through hole mounting
	CR2450 H3	3.00	610	24.50	5.00	3 pins horizontal/ through hole mounting
	CR2450 H3B	3.00	610	24.50	5.00	3 pins horizontal/ through hole mounting
	CR2450 V3	3.00	610	24.50	5.00	3 pins vertical / through hole mounting
	CR2477 H2B	3.00	1.000	24.50	7.70	2 pins horizontal/ through hole mounting
	CR2477 V3	3.00	1.000	24.50	7.70	3 pins vertical / through hole mounting




NON RECHARGEABLE BATTERIES



TABBED LITHIUM COIN CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	TAB VARIATION
	CR1216SM	3.00	30	12.00	1.60	Surface Mounting
	CR1220SM	3.00	40	12.50	2.00	Surface Mounting
	CR1225SM	3.00	48	12.50	2.50	Surface Mounting
	CR1620SM	3.00	75	16.00	2.00	Surface Mounting
	CR1632SM	3.00	135	16.00	3.20	Surface Mounting
	CR2016SM	3.00	85	20.00	1.60	Surface Mounting
	CR2025SM	3.00	165	20.00	2.50	Surface Mounting
	CR2032SM	3.00	240	20.00	3.20	Surface Mounting
	CR2430SM	3.00	320	24.50	3.00	Surface Mounting
	CR2450SM	3.00	610	24.50	5.00	Surface Mounting
	CR2477SM	3.00	1.000	24.50	7.70	Surface Mounting

MATRIX OF TABBED LITHIUM COIN CELLS














Mounting		Through Hole				Through Hole				Surface Mounting	
Assembly Position		Horizontal assembly				Vertical assembly				SMD assembly	
Description		H				V				SM	
											
Tab specification	Tab variation	H2	H2B	H3	H3B	V2	V2B	V3	V3B	SM	SM2
	Description	Two Pins	Two Pins wide tab distance	Three Pins	Three Pins wide tab distance	Two Pins	Two Pins wide tab distance	Three Pins	Three Pins wide tab distance	Tabs on each side	Both tabs on same side



NON RECHARGEABLE BATTERIES



LITHIUM COIN CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	WEIGHT (g)
	CR1025	3.00	30	10.00	2.50	0.55
	CR1216	3.00	30	12.00	1.60	0.65
	CR1220	3.00	40	12.50	2.00	0.75
	CR1225	3.00	48	12.50	2.50	0.87
	CR1620	3.00	75	16.00	2.00	1.25
	CR1632	3.00	135	16.00	3.20	1.80
	CR2016	3.00	85	20.00	1.60	1.70
	CR2025	3.00	165	20.00	2.50	2.40
	CR2032	3.00	240	20.00	3.20	2.90
	CR2354	3.00	530	23.00	5.40	5.90
	CR2430	3.00	320	24.00	3.00	3.00
	CR2450	3.00	610	24.50	5.00	6.20
	CR2477	3.00	1.000	24.50	7.70	8.70

HIGH TEMPERATURE LITHIUM COIN CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	TEMPERATURE RANGE
	CR1632HT	3.00	120	16.00	3.20	-40°C to +125°C
	CR2032HT	3.00	200	20.00	3.20	-40°C to +125°C
	CR2050HT	3.00	300	20.00	5.00	-40°C to +125°C
	CR2450HT	3.00	550	24.00	5.00	-40°C to +125°C

DEVELOPMENT

of innovative battery packs.  
Also for special operating  
conditions such as high  
ambient temperatures

CELL SELECTION

From standard cells to application-  
specific cell development

ELECTRONICS

Customised protection circuits  
and battery fuel gauge manage-  
ment. Development and produc-  
tion of hardware and software

CHARGING  
SOLUTIONS

for diverse battery  
technologies

CONSULTING

by experienced specialists  
for battery technology

CERTIFICATION

Fulfillment of all legal and  
safety-relevant regulations,  
UN 38.3, UL 2054, UL 1642,  
IEC 62133, PSE, BIS, CE

HOUSING DESIGN

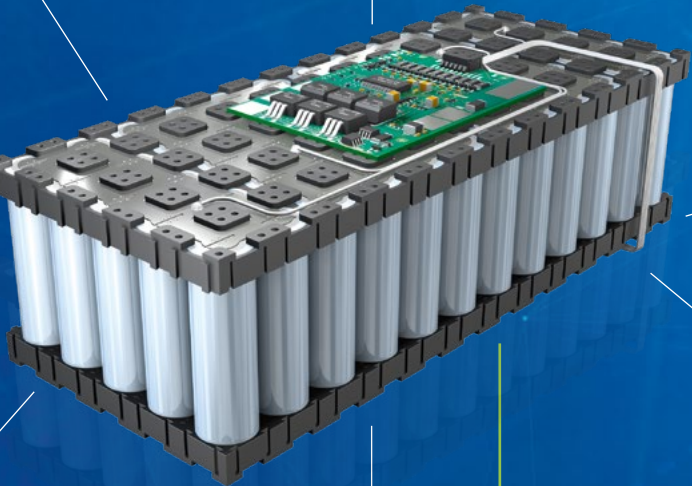
Soft-pack, plastic housings,  
metal housings ...

ASSEMBLY

of prototypes and small volume  
runs up to mass production

+ THE PLUS:  
JAUCH EXPERTISE

More than 40 years of battery expertise –  
since 1976

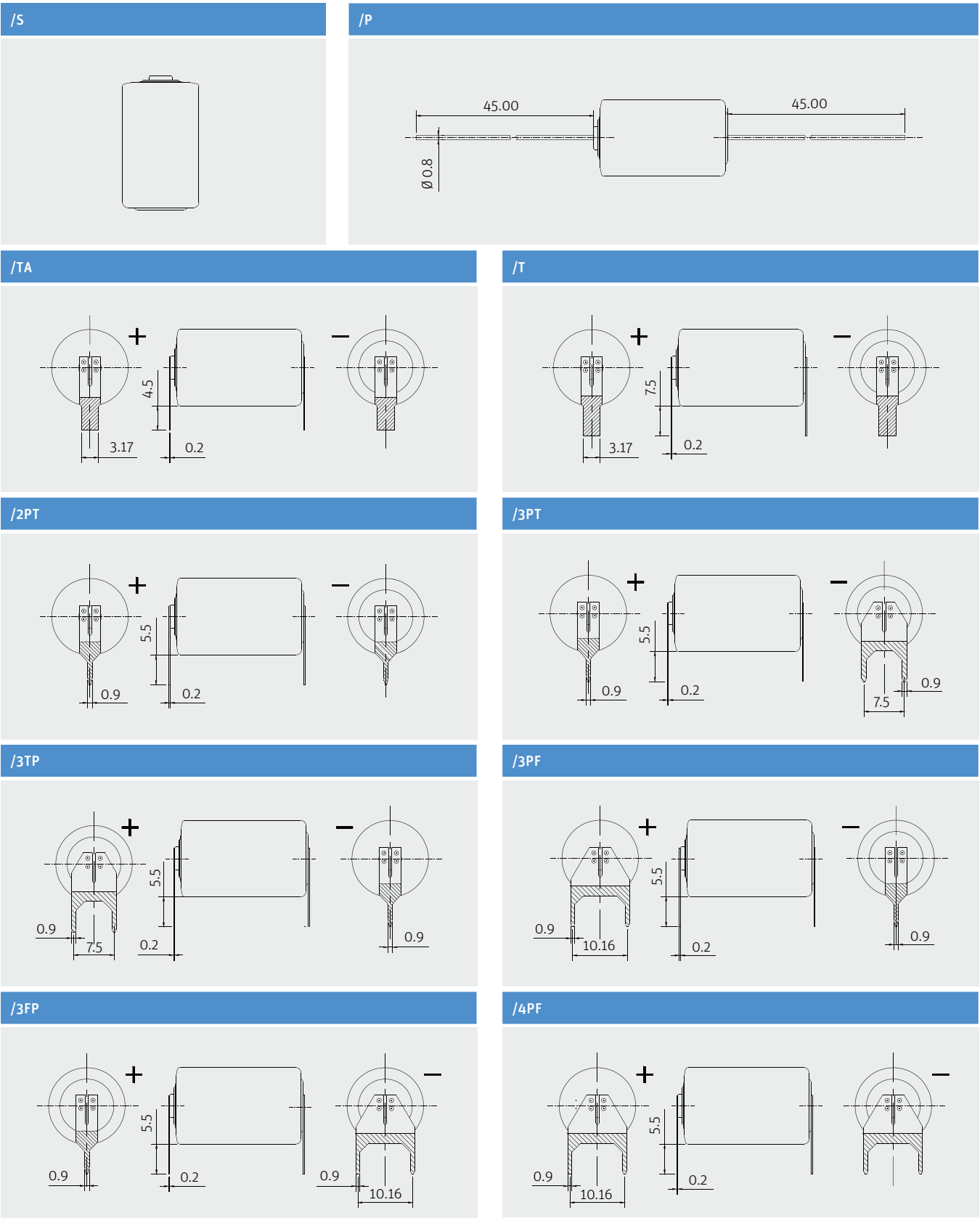


COMPLETE SERVICE  
FROM A SINGLE SOURCE





LITHIUM THIONYL CHLORIDE BATTERIES						
	MODEL	CELL SIZE REFERENCE	VOLTAGE (V)	CAPACITY (mAh)	TEMPERATURE RANGE	TAB VARIATION
	ER2450J-T	Wafer	3.60	500	-55°C to +85°C	PC Pins
	ER32L65J	1/10D	3.60	1000	-55°C to +85°C	PC Pins
	ER14250J-S	1/2AA	3.60	1200	-55°C to +85°C	Single Cell
	ER14250J-T	1/2AA	3.60	1200	-55°C to +85°C	Solder Tab
	ER14250J-2PT	1/2AA	3.60	1200	-55°C to +85°C	2 Pins
	ER14250J-P	1/2AA	3.60	1200	-55°C to +85°C	Axial Leaded
	ER14335J-S	2/3AA	3.60	1650	-55°C to +85°C	Singel Cell
	ER14335J-T	2/3AA	3.60	1650	-55°C to +85°C	Solder Tab
	ER14335J-P	2/3AA	3.60	1650	-55°C to +85°C	Axial Leaded
	ER14505J-S	AA	3.60	2600	-55°C to +85°C	Singel Cell
	ER14505J-T	AA	3.60	2600	-55°C to +85°C	Solder Tab
	ER14505J-P	AA	3.60	2600	-55°C to +85°C	Axial Leaded
	ER14505J-2PT	AA	3.60	2600	-55°C to +85°C	2 Pins
	ER14505J-3PF	AA	3.60	2600	-55°C to +85°C	3 Pins
	ER14505J-3FP	AA	3.60	2600	-55°C to +85°C	3 Pins
	ER17505J-S	A	3.60	3600	-55°C to +85°C	Singel Cell
	ER17505J-T	A	3.60	3600	-55°C to +85°C	Solder Tab
	ER18505J-S	A	3.60	4000	-55°C to +85°C	Singel Cell
	ER18505J-T	A	3.60	4000	-55°C to +85°C	Solder Tab
	ER26500J-S	C	3.60	8500	-55°C to +85°C	Singel Cell
	ER26500J-T	C	3.60	8500	-55°C to +85°C	Solder Tab
	ER34615J-S	D	3.60	19000	-55°C to +85°C	Singel Cell
	ER34615J-T	D	3.60	19000	-55°C to +85°C	Solder Tab



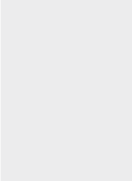

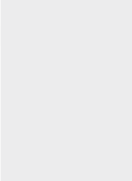
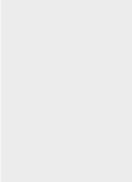




RECHARGEABLE BATTERIES



LITHIUM POLYMER BATTERIES

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	HEIGHT (mm)	WIDTH (mm)	LENGTH (mm)
	LP402025JU	3.7	140	4.00	22.00	27.00
	LP851719JU	3.7	180	8.50	18.00	22.00
	LP502030JH	3.7	250	5.00	21.00	32.00
	LP561836JU	3.7	350	5.60	18.50	38.50
	LP402535JU	3.7	380	4.50	25.50	37.00
	LP333437JU	3.7	410	3.50	34.00	39.00
	LP502243JU	3.7	430	5.20	22.50	45.50
	LP503030JU	3.7	450	5.20	30.00	30.00
	LP802036JU	3.7	480	8.00	20.50	38.00
	LP503040JH	3.7	600	5.00	30.50	42.00
	LP443441JU	3.7	630	4.40	35.00	44.00
	LP102530JU	3.7	680	10.00	26.00	32.00
	LP603443JU	3.7	850	6.00	34.50	45.00
	LP523450JU	3.7	950	5.40	34.80	52.50
	LP305166JH	3.7	1200	3.00	51.00	68.00
	LP503562JU	3.7	1250	5.80	36.00	63.50
	LP503759JU	3.7	1300	5.40	38.00	62.00
	LP633750JH	3.7	1400	6.50	38.00	52.50
	LP103048JU	3.7	1430	9.90	30.50	50.00
	LP883550JU	3.7	1600	8.80	36.00	52.00
	LP605060JU	3.7	1850	6.00	51.00	63.00
	LP103450JH	3.7	1900	10.00	34.50	52.00
	LP504783JU	3.7	2050	5.20	47.50	84.50









RECHARGEABLE BATTERIES



LITHIUM POLYMER BATTERIES

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	HEIGHT (mm)	WIDTH (mm)	LENGTH (mm)
	LP675365JU	3.7	2800	6.90	54.00	68.00
	LP685077JU	3.7	3500	6.80	51.00	79.00
	LP735977JH	3.7	4800	7.30	59.50	78.50
	LP906090JH	3.7	6000	9.00	60.50	93.50

LITHIUM ION BATTERIES








	MODEL	VOLTAGE (V)	CAPACITY (mAh)	WIDTH (mm)	HEIGHT (mm)	LENGTH (mm)
	LI14500J 1s1p	3.6	850	16.00	16.00	53.00
	LI18650JC 1s1p	3.6	2600	20.00	20.00	69.00
	LI18650JLS HB PROTECTED	3.6	3350	19.00	19.00	70.50
	LI18650JLS HB 1s1p	3.6	3350	20.00	20.00	69.00
	LI18650JLS HB 1s2p	3.6	6700	38.00	20.00	69.00
	LI18650JLS HB 2s1p	7.2	3350	38.00	20.00	69.00
	LI18650JLS HB 2s2p	7.2	6700	38.00	38.00	71.00
	LI21700JSV-50 1s1p	7.2	5000	22.00	22.00	75.00



RECHARGEABLE BATTERIES







LITHIUM ION CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	MAX. DISCHARGE CURRENT (A)	DIAMETER (mm)	LENGTH (mm)
	LI INR18650JD-25P	3.6	2500	30	18.25	64.95
	LI INR18650JD-26E	3.6	2600	7.8	18.25	64.95
	LI INR18650JD-29E	3.6	2900	6	18.25	64.95
	LI INR18650JD-30P	3.6	3000	30	18.25	64.95
	LI INR18650JD-35E	3.6	3500	10	18.25	64.95
	LI INR21700JD-40P	3.6	4000	45	21.5	70.75
	LI INR21700JD-50E	3.6	5000	15	21.4	70.75

RECHARGEABLE BATTERIES



LITHIUM COIN CELLS

	MODEL	VOLTAGE (V)	CAPACITY (mAh)	HEIGHT (mm)	DIAMETER (mm)
	ML1220	3.0	18	2.0	12.5
	ML2020	3.0	40	2.0	20.0
	ML2032	3.0	65	3.2	20.0
	ML2430	3.0	100	3.0	24.5

RECHARGEABLE BATTERIES



LITHIUM IRON PHOSPHATE BATTERIES

MODEL	VOLTAGE (V)	CAPACITY (mAh)	ENERGY (Wh)	HEIGHT (mm)	WIDTH (mm)	LENGTH (mm)
LFP1207	12.80	7	90	95.0	65.0	151.0
LFP1210	12.80	10	128	95.0	65.0	151.0
LFP1212	12.80	12	154	95.0	98.0	151.0
LFP1216	12.80	16	205	95.0	98.0	151.0
LFP1220	12.80	20	256	167.0	75.5	181.0
LFP1230	12.80	30	384	157.0	130.0	195.0
LFP1250	12.80	50	640	209.0	138.0	228.0
LFP12100	12.80	100	1280	212.0	172.0	328.0
LFP12200	12.80	200	2560	218.0	240.0	522.0







## DETAILED CERTIFICATION AND TRANSPORT EXPERTISE FOR YOUR APPLICATION

Lithium batteries are subject to many standards and regulations in terms of transport and for product approval.



## PROFESSIONAL POWER FROM JAUCH – COMPETENT, FLEXIBLE, ON TIME

If you want to equip your application safely and reliably with a battery system, you have come to the right place. Together with you, Jauch will elaborate the ideal solution with regards to cell selection, designs, electronics, safety and charging technology.

- › Project management
- › Development
- › Prototype construction
- › Series production
- › Certification
- › Logistics and shipping



We take into account special design requests as well as all relevant safety aspects. Jauch provides you with the best of expertise for development and production based on decades of experience to bring your solution onto the market safely, on time and within the law.



A certification of the battery is often required for approval of your application. We ensure that the battery reliably meets the industrial and approval requirements. All internationally required certifications can be performed. And of course, our lithium batteries are also tested for shipping according to the internationally accepted UN38.3 standard.



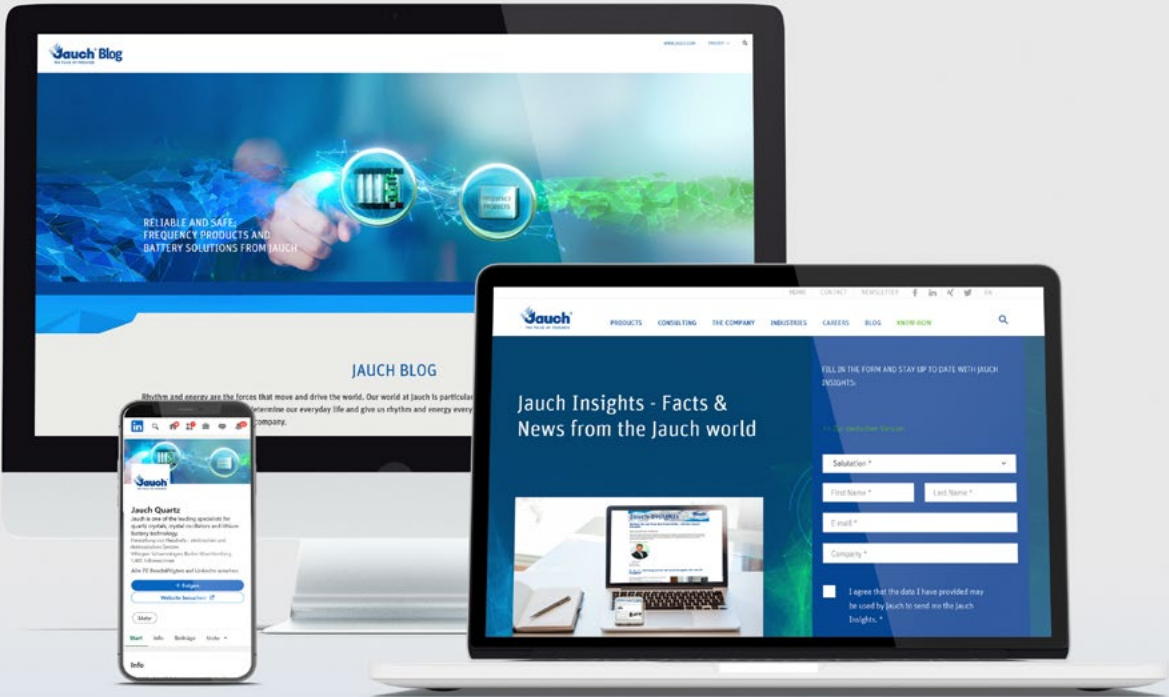
# CUSTOMIZED TRANSPORT AND LOGISTICS SOLUTIONS

Our staff are specially trained in the shipment of dangerous goods and are IATA-certified.




We know how to get batteries to their destination quickly and safely. Because we stress the highest quality and safety standards even in shipping, ensuring that our products reach you in time.

- › SAP R/3 controlled paternoster warehouse
- › Our “known consignor” status guarantees fast and secure shipping
- › Transport safety through compliance with the internationally accepted UN38.3 standard
- › Support for our customers on adherence to legally mandatory transportation, storage and handling regulations



## STAY INFORMED

Jauch provides the impulse for progress in battery technology through a wide variety of media or channels. Follow us and you will always be informed about the latest news on technologies, new regulations, services, seminars and products.

 Jauch Quartz Deutschland  
Jauch Quartz

 Jauch Quartz

Newsletter



Blog





# RELIABLE AND SAFE: FREQUENCY PRODUCTS AND BATTERY SOLUTIONS FROM JAUCH



## ABOUT JAUCH

The Jauch Group is one of the leading specialists for quartz crystals, crystal oscillators and battery technology. Established in 1954, we are a leading company in the frequency control products industry, and have recently added MEMS timing oscillators to our range. We are also a recognized expert for lithium ion and lithium polymer battery solutions.

With our in-depth technical consulting, certification expertise and advanced test environments, we are able to underline our claim to leadership.

Along with our subsidiaries in France, Great Britain and America, we are able to develop and provide pioneering technology solutions.



Frequency Control and Battery Technology





Jauch Quartz GmbH  
In der Lache 24  
78056 Villingen-Schwenningen  
Germany

Jauch Quartz France  
121 rue d'Aguesseau  
92100 Boulogne-Billancourt  
France

Jauch Quartz UK, Ltd.  
Unit 4.7, Frimley 4 Business Park  
Frimley, Surrey, GU16 7SG  
United Kingdom

Jauch Quartz America, Inc.  
43-100 Cook St, Ste 200  
Palm Desert, CA 92211  
USA