

## PRODUCT OVERVIEW

# Rechargeable Batteries

### Rechargeable Lithium Battery Range

#### Rechargeable Button Cells (Li-Ion) CoinPower

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>A-Version</b>								
CP1654 A4X	63165	3.7	145	16.1	5.4			3.2
CP1454 A4X	63145	3.7	108	14.1	5.4			2.4
CP1254 A4X	63125	3.7	74	12.1	5.4			1.6
CP1254 A5X	63125	3.7	80*	12.1	5.4			1.8
CP1250 A4X	63121	3.7	62	12.1	5.0			1.6
CP1240 A4X	63124	3.7	50	12.1	4.0			1.3
CP1054 A5X	63105	3.7	49	10.1	5.4			2.4
CP9440 A4X	63094	3.7	29	9.4	4.0			0.8
<b>C-Version</b>								
CP1054 C1	65105	3.85	48	10.1	5.4			1.2
<b>F-Version</b>								
CP7840 F1	68074	3.3	12.2	7.8	4.0			0.5

Further types on request.

\* Tentative values.

### Rechargeable NiMH Battery Range

#### Rechargeable Button Cells (NiMH)

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>V...H robust</b>								
V 15 H	55602	1.2	16	11.5	3.10			1.30
V 40 H	55604	1.2	43	11.5	5.35			1.70
V 80 H	55608	1.2	80	15.5	6.00			4.00
V 150 H	55615	1.2	150		5.85	14.1	25.6	6.00
V 200 H	55620	1.2	210		7.40	14.1	25.6	7.00
V 250 H	55625	1.2	250	25.1	6.70			10.00
CP 300 H	55630	1.2	300	25.1	7.55			11.00
<b>V...HT robustSC</b>								
V 65 HT	55707	1.2	70	15.5	6.00			4.00
V 150 HT	55716	1.2	150		5.85	14.1	25.6	6.00
<b>V...HR powerful</b>								
V 6 HR	55996	1.2	6.2	6.8	2.15			0.28
V 450 HR	55945	1.2	450		5.60	24.1	34.1	12.50
V 600 HR	55960	1.2	600		6.80	24.1	34.1	14.50
<b>V...HRT powerfulSC</b>								
V 18 HRT	55802	1.2	19	11.5	2.30			0.90
V 500 HT	55750	1.2	510		6.60	24.2	34.1	14.00
V 600 HRT	55860	1.2	600		6.80	24.1	34.1	14.50

Not all product types are available at the time of printing.  
Voltage and Capacity indicated refer to nominal and typical values respectively.

### Rechargeable Cylindrical Cells (NiMH)

VH 700 AAA	55171	1.2	730	10.5	43.7			13.0
VH 1800 AA	55123	1.2	1850	14.5	49.2			27.0
VH 2200 AA	55022	1.2	2250	14.5	49.5			30.5
VH 2100 4/5A	55021	1.2	2160	17.0	43.0			33.0
VH 2700 A	55027	1.2	2700	17.0	50.0			39.5
VH 4000 4/3 A	55038	1.2	3820	17.5	67.0			53.5
VH 4500 4/3 FA	55044	1.2	4500	18.3	67.0			63.0

### 9V Battery (NiMH)

V 7/8 H	05622	8.4	150		15.7	48.5	26.6	47.0
HR 9 V	56722	8.4	200		17.5	48.5	26.5	36.0

### VARTA Ready-to-use

#### Rechargeable Lithium-Polymer and Lithium-Ion/Standard Battery Packs

DESCRIPTION	ORDER CODE (VKB)	CAPACITY (mAh)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	VOLTAGE (V)
<b>Li-Cylindrical Types</b>						
1/LIC 18650-26 SKE PCM S WC	56653 201 012	2600	19.70	71.2		3.65
2S/LIC 18650-26 SKE PCM S WC	56653 502 012	2600	18.90	70.4	38.0	7.30
2P/LIC 18650-26 SKE PCM S WC	56653 502 013	5200	21.00	70.0	37.7	3.65
<b>Li-Polymer / Li-Ion Pouch Types</b>						
1/LPP 523450 S PCM W	56457 201 016	1000	5.30	52.0	34.5	3.70
2P/LPP 503562 S PCM WC	56456 302 012	2400	10.60	64.5	35.5	3.70
1/LPP 503759 8HH PCM W	56427 201 022	1400	5.40	60.5	37.5	3.70
1/LPP 443441 S PCM W	56455 201 012	660	4.35	41.5	34.0	3.70
1/LPP 423566 BE PCM W	56437 201 012	1160	4.60	67.0	35.5	3.70
1/LPP 503562 S PCM W	56456 201 012	1200	5.60	63.5	35.5	3.70
<b>EasyPack Range</b>						
EasyPack S	56455 701 099	660	5.80	43.5	35.4	3.70
EasyPack L	56456 701 099	1200	6.40	64.5	36.6	3.70
EasyPack XL	56456 702 099	2400	11.40	64.5	36.6	3.70
EasyPack PLUS	56653 702 099	5200	21.00	74.9	40.4	3.70

### Modular Lithium-Ion Battery Packs

DESCRIPTION	ORDER CODE (VKB)	CAPACITY (mAh)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	VOLTAGE (V)
<b>Application Specific Batteries</b>						
EasyBlock 24 V	56650 764 099	22.80	171	256	197	25.6
EasyBlock 48 V	56650 764 098	11.40	171	256	197	51.2
EasyBlade 24 V	56654 799 098	58.00	230	330	80	25.9
EasyBlade 36 V	56654 799 089	44.80	230	330	80	37
EasyBlade 48 V	56654 799 092	29.00	230	330	80	51.8

### VARTA Fully Custom

VARTA Fully Custom is a custom battery design service. It combines the company's cell and electronics knowledge and experience of designing batteries for electronic applications for industrial, medical, robotics and communications markets. VARTA Fully Custom offers a total project management, end to end battery design solution from the initial specification to product manufacture.

The design and development process includes

- Mechanical design
- Chemical architecture
- Electrical and electronic design
- Embedded vs. removable battery
- Certification and testing

### VARTA Semi Custom

VARTA Semi Custom suits customers in need of semi-customization and where design-cycles, engineering costs and time to market must be minimized for success. Battery designs are limited in their complexity, but available for minimal NRE cost in many cases and minimal development effort. It is designed as a portfolio of cells and PCMs which can be ordered under the VARTA Semi Custom program. All possible combinations have been reviewed and safety-tested by VARTA in advance to ensure a good fit and function between the cell and electronics.

# Primary Batteries

## Silver Oxide Button Cells (Ag<sub>2</sub>O)

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>Mercury-free</b>								
V 301 MF	20301	1.55	82	11.6	4.20			1.78
V 303 MF	20303	1.55	160	11.6	5.40			2.33
V 309 MF	20309	1.55	73	7.9	5.40			1.08
V 315 MF	20315	1.55	20	7.9	1.65			0.33
V 317 MF	20317	1.55	10.5	5.8	1.60			0.18
V 319 MF	20319	1.55	21	5.8	2.66			0.29
V 321 MF	20321	1.55	14.5	6.8	1.65			0.25
V 329 MF	20329	1.55	37	7.9	3.10			0.60
V 335 MF	20335	1.55	6	5.8	1.25			0.15
V 337 MF	20337	1.55	9	4.8	1.65			0.13
V 339 MF	20339	1.55	12	6.8	1.40			0.21
V 341 MF	20341	1.55	15	7.9	1.45			0.28
V 344 MF	20344	1.55	105	11.6	3.60			1.49
V 346 MF	20346	1.55	10	7.9	1.29			0.30
V 350 MF	20350	1.55	105	11.6	3.60			1.49
V 357 MF	20357	1.55	145	11.6	5.40			2.33
V 361 MF	20361	1.55	22	7.9	2.10			0.40
V 362 MF	20362	1.55	21	7.9	2.10			0.40
V 364 MF	20364	1.55	17	6.8	2.15			0.31
V 370 MF	20370	1.55	30	9.5	2.10			0.57
V 371 MF	20371	1.55	30	9.5	2.10			0.61
V 373 MF	20373	1.55	28	9.5	1.60			0.50
V 377 MF	20377	1.55	21	6.8	2.60			0.34
V 379 MF	20379	1.55	15	5.8	2.15			0.23
V 381 MF	20381	1.55	49	11.6	2.10			0.90
V 384 MF	20384	1.55	37	7.9	3.60			0.69
V 386 MF	20386	1.55	115	11.6	4.20			1.78
V 389 MF	20389	1.55	81	11.6	3.05			1.31
V 390 MF	20390	1.55	59	11.6	3.05			1.32
V 391 MF	20391	1.55	42	11.6	2.10			0.90
V 392 MF	20392	1.55	40	7.9	3.60			0.69
V 393 MF	20393	1.55	77	7.9	5.40			1.08
V 394 MF	20394	1.55	58	9.5	3.60			1.04
V 395 MF	20395	1.55	38	9.5	2.70			0.68
V 396 MF	20396	1.55	32	7.9	2.60			0.55
V 397 MF	20397	1.55	23	7.9	2.60			0.50
V 399 MF	20399	1.55	42	9.5	2.70			0.75

## VARTA Alkaline INDUSTRIAL PRO

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>LR 3</b>								
Micro/AAA/AM 4	04003	1.5	1270	10.5	44.5			11
<b>LR 6</b>								
Mignon/AA/AM 3	04006	1.5	2970	14.5	50.5			23
<b>LR 14</b>								
Baby/C/AM 2	04014	1.5	7800	26.0	50.0			69
<b>LR 20</b>								
Mono/D/AM 1	04020	1.5	17000	34.0	61.0			141
<b>6 LR 61</b>								
E-Block/6 AM 6	04022	9.0	640		17.5	48.5	26.5	46

## Lithium Cylindrical Cells (Li-MnO<sub>2</sub>)

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>CR mass/bobbin series</b>								
CR 1/2 AA	6127	3.0	950	14.75	25.1			11.5
CR 2/3 AA	6237	3.0	1350	14.75	33.5			15.0
CR AA	6117	3.0	2000	14.75	50.5			21.5
<b>CR coiled series</b>								
CR 2	6206	3.0	850	15.60	27.0			11.0
CR 123 A	6205	3.0	1550	17.00	34.5			17.0
CR 1/2 AAH-R	6213	3.0	850	14.22	25.0			9.0
CR 2/3 AH-R	6214	3.0	1600	17.00	33.5			17.0
CR AH-R	6217	3.0	2400	17.00	45.0			23.0

## Lithium Button Cells (Li-MnO<sub>2</sub>)

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>CR coin series</b>								
CR 1216	6216	3.0	27	12.5	1.6			0.7
CR 1220	6220	3.0	35	12.5	2.0			0.8
CR 1616	6616	3.0	55	16.0	1.6			1.2
CR 1620	6620	3.0	70	16.0	2.0			1.2
CR 2016	6016	3.0	90	20.0	1.6			1.8
CR 2025	6025	3.0	165	20.0	2.5			2.5
CR 2032	6032	3.0	230	20.0	3.2			3.0
CR 2430	6430	3.0	300	24.5	3.0			4.0
CR 2450	6450	3.0	620	24.5	5.0			6.2
CR 1/3 N	6131	3.0	170	11.6	10.8			3.0

## ULTRA LITHIUM

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>Lithium 1.5V AA &amp; AAA and 9V</b>								
FR AAA 1.5V	6103 101 501	1.5	1100	10.5	44.5			7.3
FR AA 1.5V	6106 101 501	1.5	3000	14.0	50.5			15.0
CR block 9V	6122 101 501	9.0	1150		17.5	49.0	26.5	41.5

## Alkaline Manganese Button Cells (Zn-MnO<sub>2</sub>)

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>Mercury-free</b>								
V 13 GA	24276	1.5	155	11.6	5.40			2.0
V 23 GA	24223	12.0	50	10.3	28.50			7.9

## Hydrogen Gas Generating Cells (H<sub>2</sub> Cells)\*

TYPE DESIGNATION	TYPE NO.	VOLTAGE (V)	CAPACITY (mAh)	DIAMETER (mm)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	WEIGHT (g)
<b>Mercury-free</b>								
V 150 H <sub>2</sub> MF	24690	1.5	150 ml	11.6	5.5			1.65
V 40 H <sub>2</sub> MF**	24696	1.5	40 ml	7.8	5.5			0.85

\* Portable energy independent H<sub>2</sub> gas generating cells  
 \*\* R&D Samples  
 For more details see: [www.varta-microbattery.com/top/h2](http://www.varta-microbattery.com/top/h2)