## UL Product **iQ**™



## BBCV2.MH13654 - LITHIUM BATTERIES - COMPONENT

## Lithium Batteries - Component

See General Information for Lithium Batteries - Component

## **VARTA MICROBATTERY GMBH**

MH13654

DAIMLER-STR 1 73479 ELLWANGEN, GERMANY

Model No.	Primary Type <sup>[a]</sup>	Max Abnormal Charging Current mA	Max Abnormal Charging Voltage, V dc	Replacement [b],[c]
"5071954.1179	9606".			
CR2477	(Coin)	10	-	User
2CR5S	Lithium/manganese dioxide (Cylindrical)	25	-	User
2XCR1/2AA	Lithium/manganese dioxide (Pack)	4	-	Technician
6204	Lithium/manganese dioxide (Cylindrical)	10	-	User
6205	Lithium/manganese dioxide (Cylindrical)	10	-	User
CR AH-R		150	12	Technician
CR1/2AA*	Lithium/manganese dioxide (Cylindrical)	4	-	Technician
CR1/3N	Lithium/manganese dioxide (Cylindrical)	2	-	User
CR1216+	Lithium/manganese dioxide (Coin)	10	5.0	User
CR1220	Lithium/manganese dioxide (Coin)	3	-	User
CR1220+	Lithium/manganese dioxide (Coin)	10	-	User
CR123A	Lithium/manganese dioxide (Cylindrical)	25	-	User
CR123A-R	Lithium/manganese dioxide	150	12	User

CR1616+	Lithium/manganese dioxide (Coin)	2.5	-	User
CR1620	Lithium/manganese dioxide (Coin)	2.5	-	User
CR1620+	Lithium/manganese dioxide (Coin)	2.5	-	User
CR1632	Lithium/manganese dioxide (Coin)	4	-	User
CR2	Lithium/manganese dioxide (Cylindrical)	20	-	User
CR2, CR2NP	Lithium/manganese dioxide (Cylindrical)	20	-	User
CR2/3AA*	Lithium/manganese dioxide (Cylindrical)	4	-	Technician
CR2/3AH	Lithium/manganese dioxide (Cylindrical)	25	-	User
CR2/3AH-R	Lithium/manganese dioxide	10	12	Technician
CR2012	(Coin)	10	-	User
CR2016	Lithium/manganese dioxide (Coin)	10	-	User
CR2016-P (\$)	Lithium/manganese dioxide (Coin)	10	5.0	User
CR2025	Lithium/manganese dioxide (Coin)	10	-	User
CR2025-P (\$)	Lithium/manganese dioxide	10	5.0	User
CR2032	Lithium/manganese dioxide (Coin)	10	-	User
CR2032-P (\$)	Lithium/manganese dioxide	10	5.0	User
CR2320	Lithium/manganese dioxide (Coin)	5	-	Technician
CR2430	Lithium/manganese dioxide (Coin)	15	-	User
CR2430(%)	Lithium/manganese dioxide (Coin)	25.0	-	User
CR2430-P (\$)	Lithium/manganese dioxide (Coin)	15	5.0	User

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CR2450	Lithium/manganese dioxide (Coin)	30	-	User
CR2450(%)	Lithium/manganese dioxide (Coin)	100	-	User
CR2450-P (\$)	Lithium/manganese dioxide (Coin)	30	5.0	User
CR2NP	Lithium/manganese dioxide (Cylindrical)	15	-	Technician
CRAA*	Lithium/manganese dioxide (Cylindrical)	4	-	Technician
CRP2	Lithium/manganese dioxide (Cylindrical)	25	-	User

Model No.	Secondary Type <sup>[d]</sup>	Max Charging Current (Ic), mA	Max Charging Voltage, V dc <sup>[e]</sup>	Test Compliance <sup>[f]</sup>	
"".					
LIC18650-24*C	Lithium ion	2400	12	1	
LIC18650-24C	Lithium ion	2400	12	1	
LIC18650-26C	Lithium ion	2600	12	1	
CP0754A3(j)	Lithium ion (Coin)	11	12	1	
CP0854A2	Lithium ion (Coin)	11	12	1	
CP0854A3(j)	Lithium ion (Coin)	27	12	1	
СР1154 АЗН	Lithium ion (Coin)	175	4.4	1	
СР1154 АЗНОС	Lithium ion (Coin)	175	4.4	1	
CP1240A3(j) - following maximum charging parameters were additionally evaluated: 4.05 Vdc for maximum charging current 86mA.					
	Lithium ion (Coin)	43	12	1	
CP1254(k)	Lithium ion (Coin)	100	12	1	
CP1254A2	Lithium ion (Coin)	50	12	1	
CP1254A3(j) - following maximum charging parameters were additionally evaluated: 4.25 Vdc for maximum charging current 150mA.					
	Lithium ion (Coin)	30	12	1	
CP1454A3(j) - following maximum charging parameters were additionally evaluated: 4.25 Vdc for maximum charging current 170mA.					
	Lithium ion (Coin)	42.5	12	1	

CP1654(kk)	Lithium ion (Coin)	200	4.8	1		
CP1654A2	Lithium ion (Coin)	100	12	1		
	CP1654A3(j) - following maximum charging parameters were additionally evaluated: 4.25 Vdc for maximum charging current 120mA, or 4.05 Vdc for maximum charging current 240mA.					
	Lithium ion (Coin)	60	12	1		
CP7840A3(j)	Lithium ion (Coin)	8.0	12	1		
CP9440A3(j)	Lithium ion (Coin)	13.5	12	1		
CP9440A3(j)(a)	Lithium ion (Coin)	13.5	12	1		
Li-lon accu 100	Lithium ion (Coin)	11	12	1		
Li-lon accu 120(j)	Lithium ion (Coin)	27	12	1		
Li-lon accu 185(k)	Lithium ion (Coin)	100	12	1		
Li-lon accu 220(j)	Lithium ion (Coin)	60	12	1		
Li-lon accu 440(j)	Lithium ion (Coin)	120	12	1		
Li-lon accu 60 L2	Lithium ion (Coin)	9.5	12	1		
Li-Ion accu 60 L3	Lithium ion (Coin)	10	12	1		
Li-lon accu 60(j)	Lithium ion (Coin)	8.0	12	1		
Li-Ion accu 60L1	Lithium ion (Coin)	9	12	1		
Li-Ion accu 85 L1	Lithium ion (Coin)	12.5	12	1		
Li-lon accu 85(j)	Lithium ion (Coin)	11	12	1		
Li-lon accu 94(j)	Lithium ion (Coin)	13.5	12	1		
Li-lon accu 94(j)(a)	Lithium ion (Coin)	13.5	12	1		
LIC 18650 22L	Lithium ion (Cylindrical)	2200	4.2	1		
LIC18650-22C	Lithium ion (Cylindrical)	2200	12	1		
LIP 423450 AJL	Lithium ion (Prismatic)	850	4.2	1		
LPP 383450 PL	Lithium ion	700	4.2	1		
LPP 422339 PL	Lithium ion	350	4.6	2, 4		
LPP 443441 PVL	Lithium ion	630	4.2	1		
LPP 503562 DL	Lithium ion	1250	4.6	1		
LPP 503759 DL	Lithium ion	1240	4.2	1		
LPP 523450 DL	Lithium ion	900	4.2	1		
LPP 553048 PL	Lithium ion	820	4.2	1		

LPP402025 (h)	Lithium ion (Cylindrical)	130	12	3
LPP402025CE	Lithium ion	150	4.8	3

- [a] These cells and batteries are not rechargeable. The circuit containing these cells or batteries is to contain a protective component that prevents charging. The circuitry is to include a current-limiting component intended to protect the cell or battery, in the event the protective component malfunctions, from a charging current in excess of the maximum abnormal charging current indicated.
- [b] User These primary cells and batteries are intended for use in applications subject to replacement by a user.
- [c] Technician These primary cells and batteries are intended for use in applications subject to replacement only by a trained service technician.
- [d] These cells and batteries are rechargeable. The circuitry containing these cells or batteries is to contain protective components intended to protect the cells or batteries from currents in excess of the maximum charging current and voltage indicated.
- [e] The Max Charging Voltage noted in the column is the maximum voltage employed during the abnormal charging test of the secondary lithium ion cell. However, the maximum recommended charging voltage for lithium ion cells is 4.2 V, unless indicated otherwise.
- [f] Test Compliance The cells comply with the tests in UL 1642 as noted:
- 1 Complies with all single-cell tests
- 2 Complies with all single-cell tests except the impact test
- 3 Complies with all single-cell tests except the projectile test
- 4 Complies with all single-cell tests except the crush test
- (j) Cells may have the optional suffixes W, WC ST or STO denoting various pin, tab and wire configurations, and following differences are not safety relevant.
- (k) Ic: 0.05 A at 12 V max; Ic: 0.1 A at 4.80 V max.
- (kk) Ic: 0.2 A at 4.80 V max.

Marking: Company name or tradename "MH13654", "Power One", "VARTA", Recognized Component Mark, on the cell or smallest shipping package containing the cell.

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