



## Rechargeable Lithium-Ion battery pack specification

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Type: CL-18650-MH1/3S1P

Date of issue	Date of change	Change number	Remarks
07.02.2023	-	-	-

The information contained in this specification is subject to change without notice.

## 1. SCOPE

This specification describes the technical parameters and requirements of the rechargeable Li-Ion battery pack powered by Cellevia Batteries.

## 2. BATTERY PACK BASIC SPECIFICATION

NO	ITEM	SPECIFICATION	REMARK
1	Type	CL-18650-MH1/3S1P	
2	Nominal Voltage	10,9V	
3	Rated Capacity	3200mAh	0,62A to 5,0V discharge
4	Rated Energy	34,9Wh	
5	Internal Resistance	98mΩ	At 1kHz, typical
6	Cell type	INR18650 MH1	3 pcs
7	Cell configuration	3S1P	
8	Dimension	Drawing (see point no. 5)	
9	Weight	150g±2g	
10	Thermistor NTC	-	
11	Leads	Wires, LgY/H05V-K 0,5mm <sup>2</sup>	Length: 175±5mm with plug
12	plug	CVILUX CP-01102010	

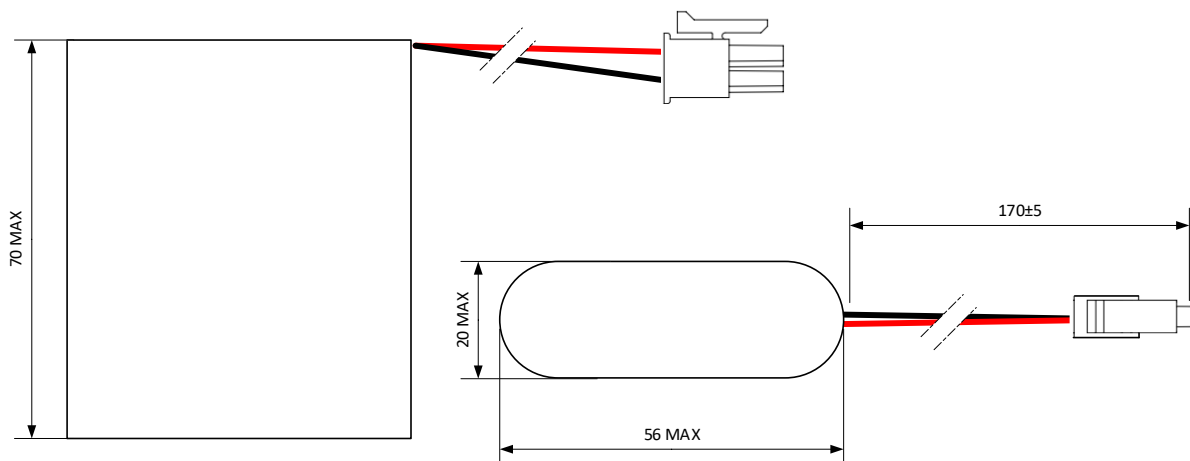
## 3. BATTERY PACK STANDARD TESTING CONDITIONS

NO	ITEM	SPECIFICATION		REMARK
1	Charging Voltage	12,6V		
2	Discharge Cut-off Voltage	8,1V		
3	Charging Current	Standard	1550mA to 12,6V end current 50mA	CC/CV method
		Fast	3100mA to 12,6V end current 50mA	not for cycle life
4	Charging Time	Standard charge	3,5 hours	or 0,015C end current
		Fast charge	2,5 hours	
5	Discharging Current	Standard	620mA	Limited by cell
		Maximum	6000mA	Limited by PCM
5	Temperature Range (pack surface temp.)	Charge	0 ~ +45°C	
		Discharge	-20 ~ +60°C	
		Storage	-20 ~ +20°C	1 year

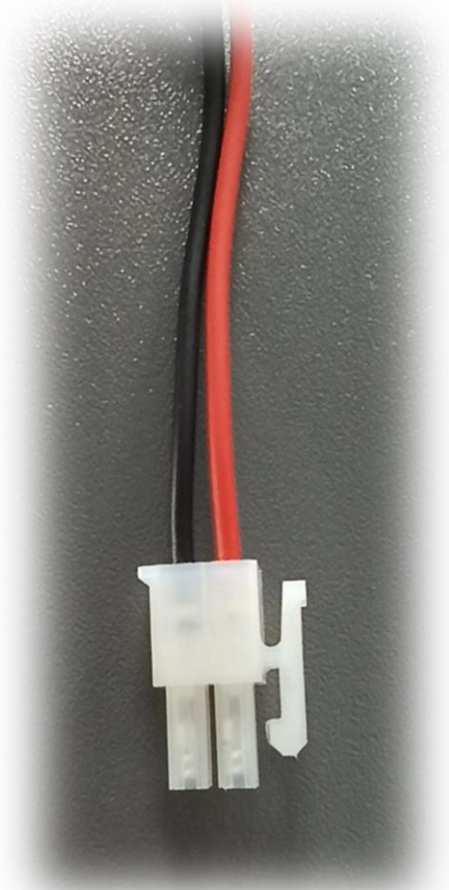
#### 4. BATTERY SAFETY UNIT SPECIFICATION




NO	ITEM		MIN	TYPICAL	MAX	UNIT	REMARKS
1	Over charge detection voltage	Cut off	4,225	4,25	4,275	V/cell	0,5 – 2s
		Release	4,10	4,15	4,20	V/cell	
2	Over discharge detection voltage	Cut off	2,62	2,70	2,78	V/cell	
		Release	2,90	3,00	3,10	V/cell	
3	Discharge over current detection current	Cut off	9,00	10,00	11,00	A	5 – 20ms
		Release	-			-	-
4	Short-circuit protection	Delay time	200	400	600	$\mu$ s	
		Release	-			-	Cut load
5	Temperature range	Operating	-40		85	$^{\circ}$ C	
		Storage	-40		125	$^{\circ}$ C	
6	Resistance		70	98	120	m $\Omega$	
7	Consumption current				150	$\mu$ A	

#### 5. OUTLINE DRAWING



6. PICTURE



		
Li-ion	Lithium-Ion Battery	Li-ion
<b>CL-18650-MH1/3S1P</b>		
Nominal voltage: 10,9 V	Max charge voltage: 12,6 V	
Rated capacity: 3200 mAh	Max charge current: 3,10 A	
Rated energy: 34,8 Wh	Max discharge current: 6,00 A	
Charge temp.: 0 to 45 deg C	Discharge temp.: -20 to 60 deg C	
<b>SAFETY NOTES</b>		
Do not throw. Do not heat. Do not disassemble. Do not immerse in liquid. Do not short-circuit. Do not heat and burn. Observe the conditions of use.		
<b>Production date: 02.2023</b>		



## 7. CAUTION IN USE

To ensure proper use of the battery please read the manual carefully before using it.

### 7.1. HAZARD WARNINGS

- Do not expose to, dispose of the battery in fire,
- Do not put the battery in a charger or equipment with wrong terminals connected,
- Avoid shorting the battery,
- Avoid excessive physical shock or vibration,
- Do not disassemble or deform the battery,
- Do not immerse in water.
- Do not use the battery mixed with other different make, type or model batteries,
- Keep out of the reach of children.

### 7.2. CHARGE AND DISCHARGE

- Battery must be charged in appropriate charger only,
- Never use a modified or damaged charger,
- Do not leave battery in charger over 24 hours.

### 7.3. STORAGE

- Store the battery in a cool, dry and well-ventilated area,
- Store the battery in a 30% - 50% SOC,
- The batteries shall be charged every 6 months during storage

### 7.4. DISPOSAL

Regulations vary for different countries. Dispose of in accordance with local Regulation.