

The Charging Algorithms of the Program J618A

Status LED:

Whole main charging	=	orange
Ready/Trickle charge	=	green
Error	=	flashing red
Battery not connected	=	red
No Algorithm	=	red
Code switch test	=	flashing green

Charging algorithms for 800W, 96V 7.5A charger:

Switch position	Battery Voltage	Battery type	Charging Current	Battery capacity	Charging curve
0	96 V	Unsealed	8 A	10-80 Ah	A
1				No Algorithm	
2				No Algorithm	
3				No Algorithm	
4				No Algorithm	
5	96 V	Sealed	2,4 A	1-10 Ah	B
6				No Algorithm	
7				No Algorithm	
8				No Algorithm	
9				No Algorithm	
10 = A	96 V	Gel	8 A	10-80 Ah	C
11 = B				No Algorithm	
12 = C				No Algorithm	
13 = D				No Algorithm	
14 = E				No Algorithm	
15 = F				No Algorithm	

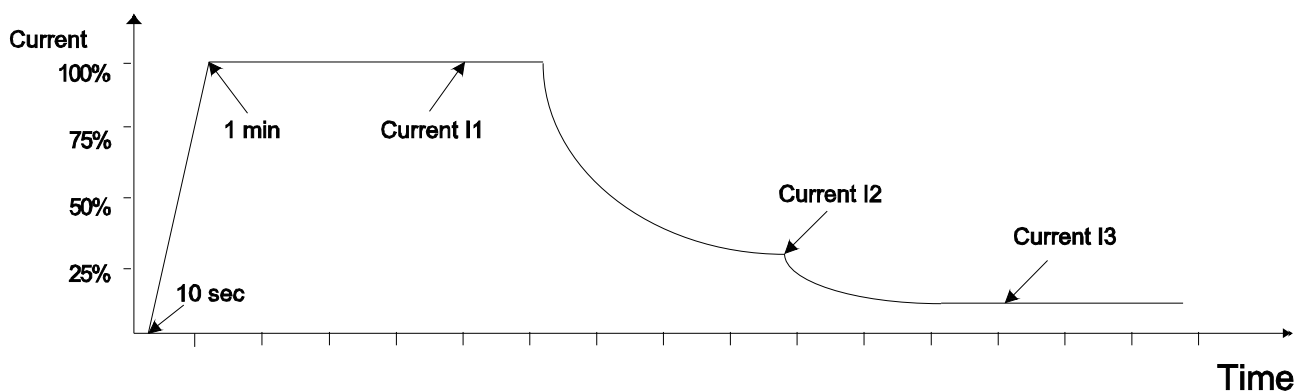
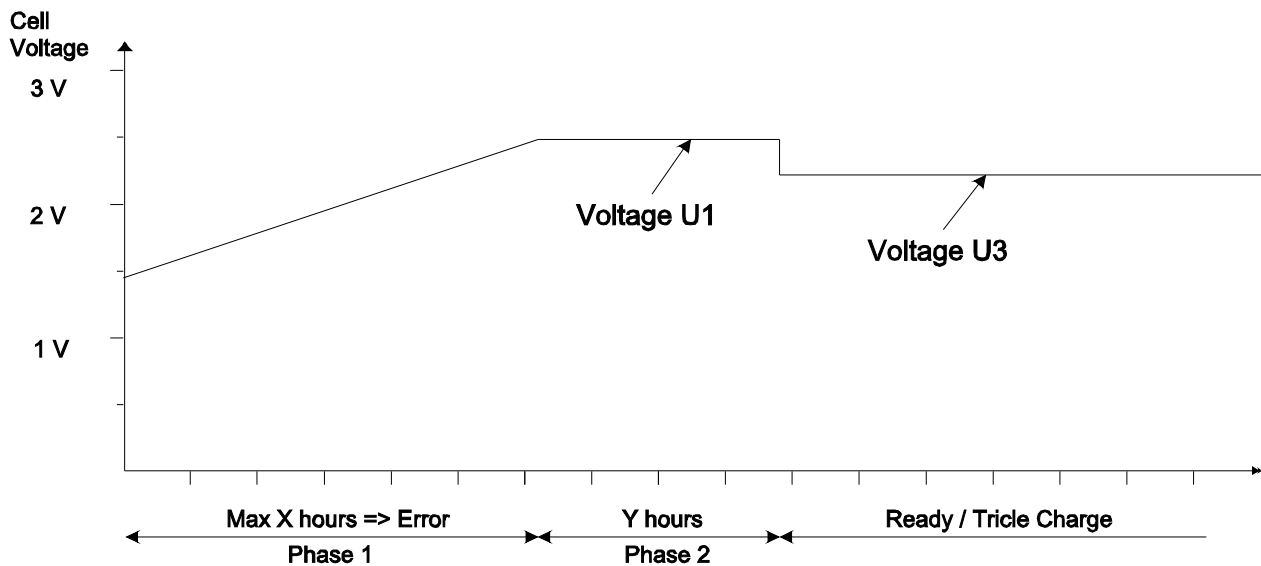
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Unsealed Battery



Charging Curve A for Unsealed batteries:

Switch position	Battery capacity	Voltage U1 V/Cell	Voltage U3 V/Cell	Current I1 and I3	Current I2	Max. Time X	Max. Time Y
0	10-80 Ah	2.4	2.25	8 A	0,5 A	5	6

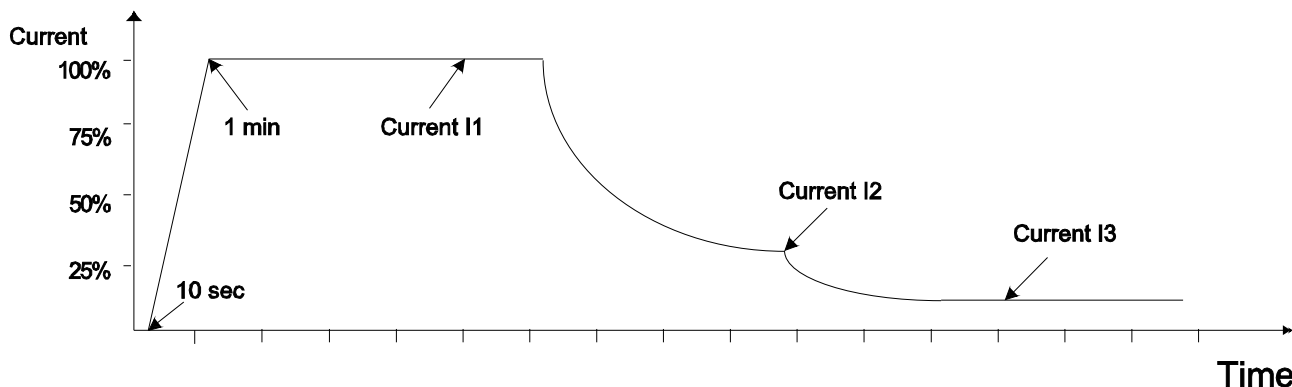
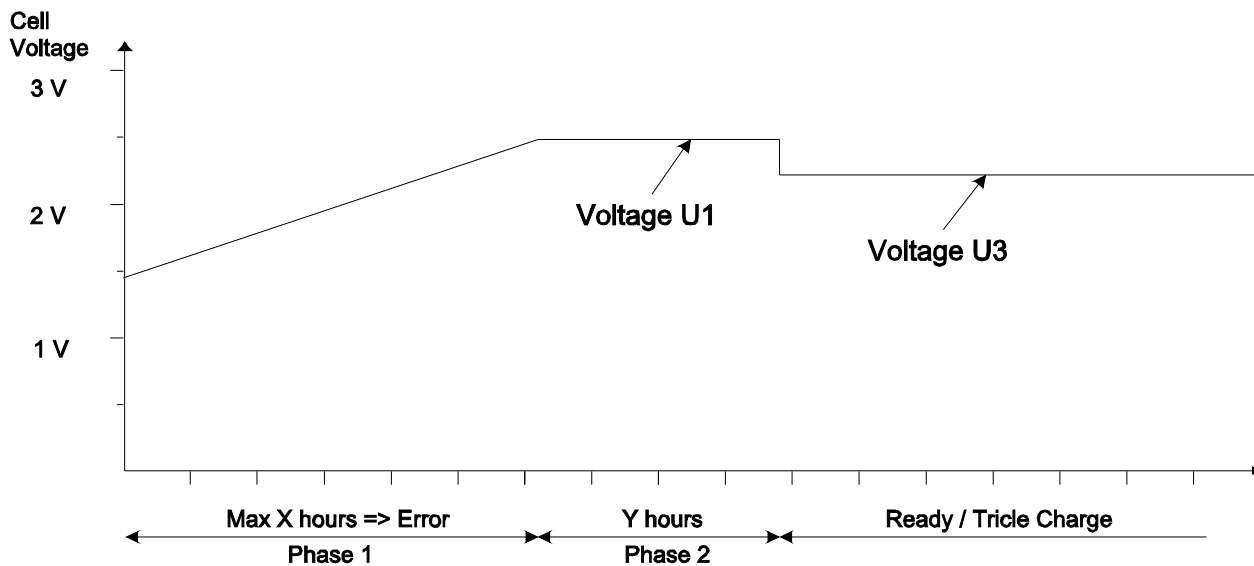
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Sealed Battery



Charging Curve B for sealed batteries:

Switch position	Battery capacity	Voltage U1 V/Cell	Voltage U3 V/Cell	Current I1 and I3	Current I2	Max. Time X	Max. Time Y
5	1-10 Ah	2.35	2.26	2 A	0.2 A	5	6

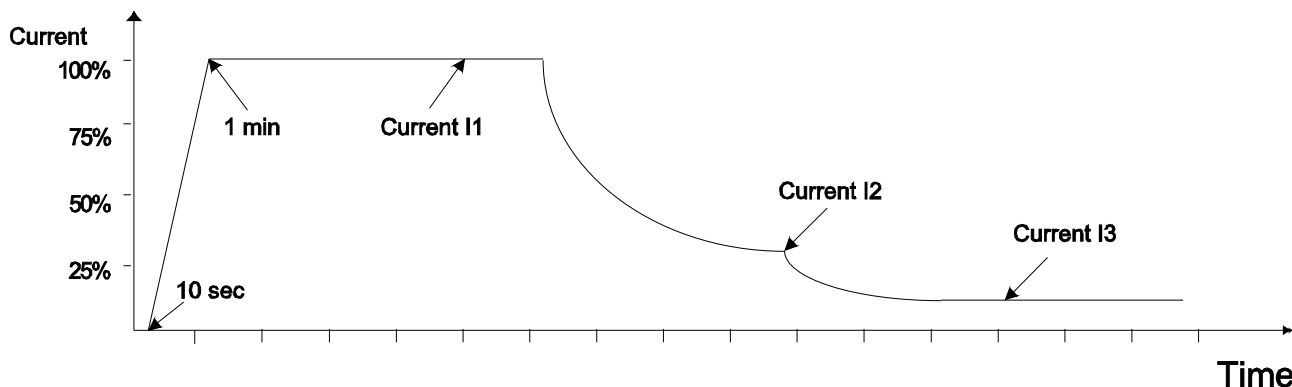
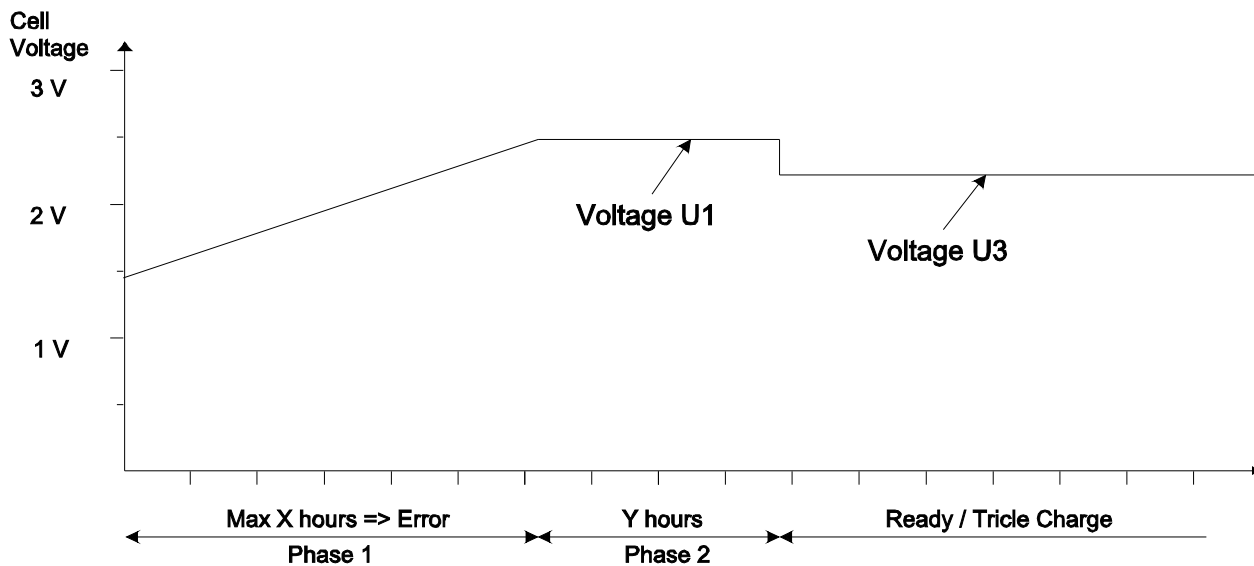
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GEL Battery



Charging Curve C for Gel batteries:

Switch position	Battery capacity	Voltage U1 V/Cell	Voltage U3 V/Cell	Current I1 and I3	Current I2	Max. Time X	Max. Time Y
A = 10	10-80 Ah	2.4	2.3	8A	0.5 A	5	6

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Other rules:

- Charging voltage is compensated depending on battery's temperature if temperature sensor is connected.

$$U = V - 0.004 * C * (T - 25)$$

Where:

U = Output voltage

V = Voltage on the table

C = Cell number

T = Battery's temperature in Celsius

- If battery temperature is between 40C to 55C then output current is decreased linear from maximum to zero.
- Battery recognition voltage is set to 20V. If voltage in the output is under that, charger notices as battery not connected.
- In a trickle charge mode charger stops charging in every two minutes for a while. Battery connection is detected during that time.

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