

Traction batteries

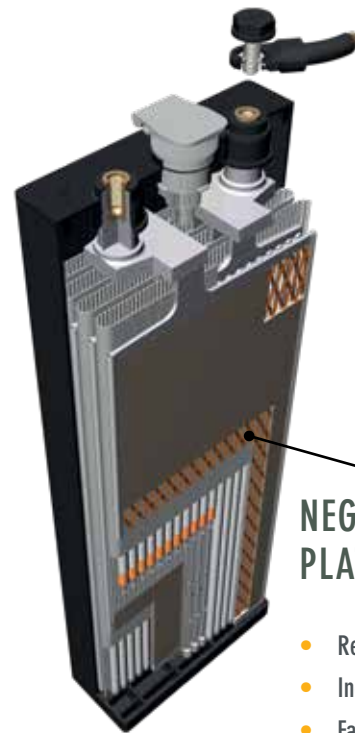
COPPER STRETCH METAL - CSM

With the Copper Stretch Metal battery, the negative grid plate consists entirely of copper.

Copper has a better electrical conductivity which is 10 x higher than lead!

The Copper Stretch Metal technology can work under extreme temperatures.

Thanks to its higher energy content, it can offer longer operating times. The CSM battery can be charged quickly thanks to its low internal resistance. This gives the battery a longer service life than standard batteries.



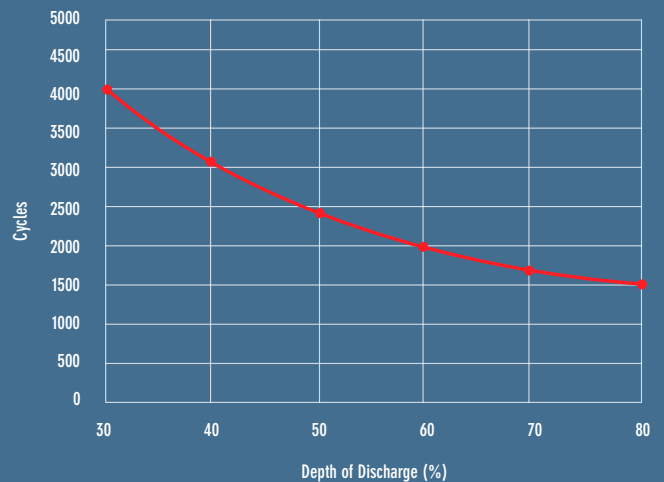
NEGATIVE COPPER PLATE

- Reduced internal resistance
- Increased current flow
- Fast & Opportunity charging

BENEFITS

- 2 Shift operation with opportunity charging in combination with acid circulation = less battery changes - more autonomy - increased lifetime
- Lower Internal Resistance (-15%)
- Higher Energy Efficiency, both when charging and discharging
- Higher Energy Content (longer working shift)
- Increased Capacity
- Better charge acceptance - reduced heat development & energy loss - longer service life
- Fast and opportunity charging (intermediate charge)
- This exceptional battery comes in the color RAL 3001

SERVICE LIFE: 1500 CYCLES DOD 80%



Cycle life in relation to Depth of discharge

APPLICATIONS



Heavy-duty applications



Forklift high-rack (12m)



Pallet jack



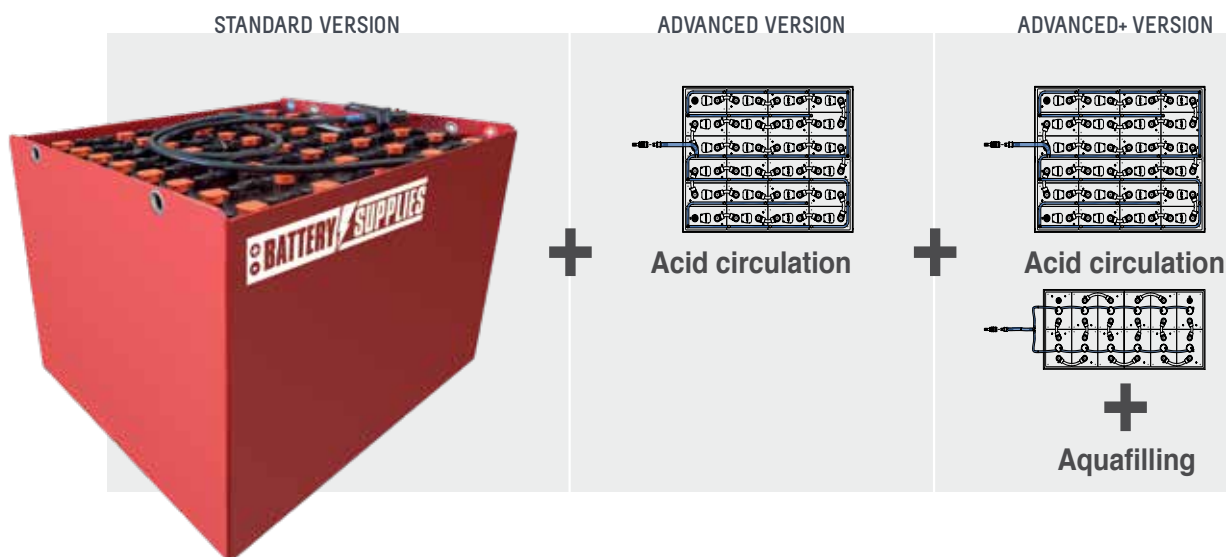
AGV



Cold storage

Available versions

Features	Standard version	Advanced version	Advanced+ version
Acid circulation	no	yes	yes
Aquafilling	no	no	yes
Fast charging	no	yes	yes
Operating time	+5%	+5%	+5%
Energy content	higher	higher	higher
Internal resistance	up to -15%	up to -15%	up to -15%
Refill time	normal	normal	up to 5 times faster



CELL TYPE	Capacity (Ah/5h)	Dimensions (mm)		
		X	Y	H
24V				
2 CSM 260	260	827	162	627
2 CSM 260	260	621	209	627
3 CSM 390	390	827	216	627
3 CSM 390	390	621	281	627
4 CSM 520	520	827	270	627
5 CSM 650	650	827	324	627
6 CSM 780	780	827	378	627
8 CSM 1040	1040	827	486	627
3 CSM 480	480	832	220	784
3 CSM 480	480	625	285	784
5 CSM 800	800	832	328	784
48V				
3 CSM 390	390	827	411	627
3 CSM 390	390	1.027	346	627
4 CSM 520	520	827	519	627
4 CSM 520	520	1.027	436	627
5 CSM 650	650	827	627	627
5 CSM 650	650	1.027	526	627
6 CSM 780	780	827	735	627
6 CSM 780	780	1.027	616	627



CELL TYPE	Capacity (Ah/5h)	Dimensions (mm)		
		X	Y	H
3 CSM 480	480	832	415	784
3 CSM 480	480	1.032	440	784
3 CSM 480	480	1.220	280	784
4 CSM 640	640	832	523	784
4 CSM 640	640	1.032	440	784
4 CSM 640	640	1.220	352	784
5 CSM 800	800	832	631	784
5 CSM 800	800	1.032	530	784
5 CSM 800	800	1.220	424	784
6 CSM 960	960	1.032	620	784
6 CSM 960	960	1.220	496	784
80V				
3 CSM 390	390	1.023	561	627
4 CSM 520	520	1.023	705	627
5 CSM 650	650	1.023	849	627
6 CSM 780	780	1.023	993	627
3 CSM 480	480	1.025	564	784
4 CSM 640	640	1.025	708	784
5 CSM 800	800	1.025	852	784
6 CSM 960	960	1.025	996	784

* Only available as a complete battery, other dimensions on request. Colour of the container: RAL 3001 .