# LEAD CARBON



- Maintenance free alternative for AGM & GEL
- Better cycle life: > 1300 cycles (70% DoD) & up to 1000 cycles with 80% DoD
- Excellent performance in (extreme) low temperatures
- Price-friendly
- Charging time: Charging time is shorter than normal AGM
- Lead Carbon batteries can perfectly be used with good performance without being charged 100%

Ref.	Alt	Voltage (V)	C20 (Ah)	C5 (Ah)	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Lay-out	Terminals
6V										
DLC6-200EV	GC2	6	205,0	173,5	260	181	266	30,3	0	M8
DLC6-225EV		6	226,0	190,5	243	188	275	32,0	0	M8
DLC6-330EV	S4	6	330,0	257,5	295	178	360	46,9	0	M8
DLC6-420EV	L16	6	428,0	334,0	295	179	424	59,0	0	M8
8V										
DLC8-160EV		8	163,0	138,0	260	180	280	36,0	0	M8
12V										
DLC12-55EV		12	59,5	50,5	229	138	208	17,5	1	M6
DLC12-80EV		12	86,4	71,5	258	168	214	26,4	1	M8
DLC12-100EV		12	108,6	92,0	330	171	219	32,0	1	M8
DLC12-135EV		12	145,0	120,5	340	173	286	45,0	1	M8
DLC12-200EV		12	216,0	182,5	522	240	222	59,0	4	M8
DLC12-250EV		12	270,0	228,0	520	268	223	70,5	4	M8



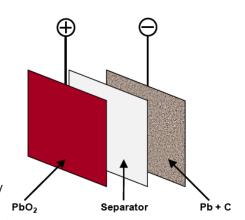
# Different types of Lead Carbon batteries

There are different types of lead carbon batteries.

In Dyno Europe lead carbon batteries highly conductive carbon is added to the negative electrode active material.

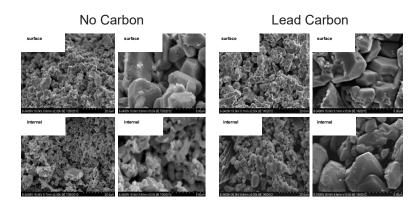
Lead carbon formula, paste technology & grid optimalisation Excellent PSOC cycle life.

Latest lead carbon technology guided by ALABC (now Consortium for Battery Innovation).



### The role of Carbon materials

- Improvement of energy conductivity
- Less internal resistance
- Capacitance contribution
- Restriction of crystal growth
- NAM improvement of microstructure



The addition of carbon will increase the pores of the negative electrode, promote the transmission and diffusion of sulfuric acid in the lead paste, enhance the charge acceptance of the negative electrode under high current, and then improve the PSoC performance of the battery.

# Main characteristics of Dyno Europe Lead Carbon batteries

- Combines the features of lead acid batteries and super capacitors
- Suitable for high power partial state charge cycling
- High specific power, fast charge and discharge
- No negative sulfate & long cycle life

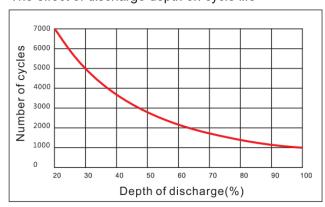
# Better charge acceptancy

- Charge Factor is 105% (vs 115% on classic batteries)
- Very high charge acceptancy in beginning of charging process (see charging profile)
- Charging time: 6-8h

The charge acceptance capacity is greatly improved, the battery cycle life is increased by more than 5 times and the specific power is doubled, reaching the international advanced level.

### Higher battery cycle life

The effect of discharge depth on cycle life



### Charging characteristic

