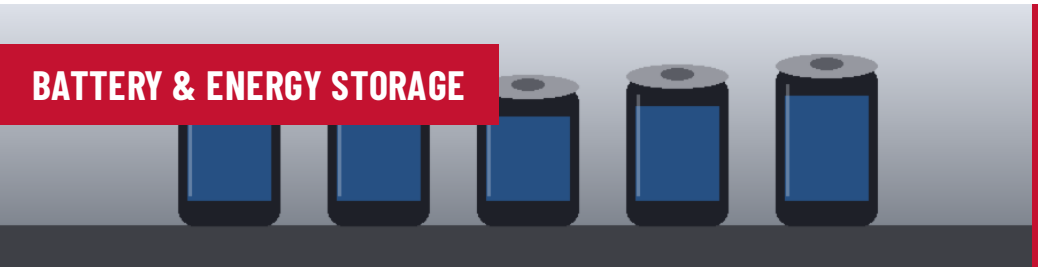
TECHNICAL DATA SHEET



VOLTIX
Series

VOLTIX 199

VOLTIX 199 is a high-performance conductive additive for lithium-ion battery cathodes, engineered to maximise electrode conductivity at low additive loading. By forming an efficient conductive network around active particles, it lowers DC internal resistance (DCIR) at low state-of-charge and raises usable discharge capacity, supporting high-power performance for electric-vehicle and high-end energy applications.

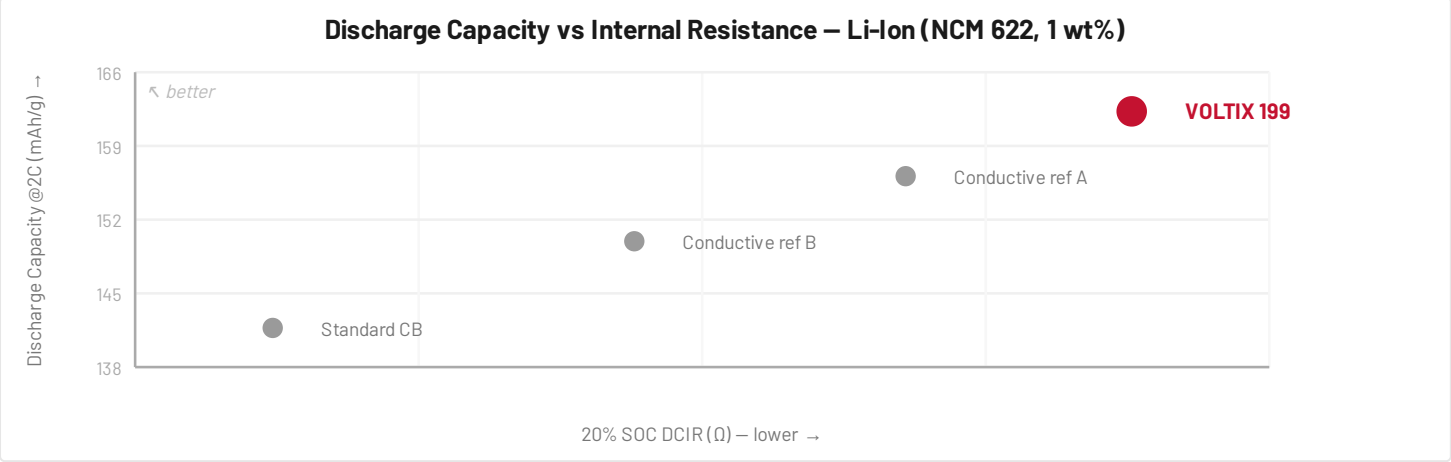
Benchmarked in an NCM 622 cathode at around 1 wt% carbon, grades of this class deliver high discharge capacity with low internal resistance and sustain capacity retention through extended cycling, including at elevated temperature (45 °C). VOLTIX 199 disperses in NMP-based slurries, enabling lower slurry viscosity and higher achievable solids loading for faster, lower-cost electrode coating.

KEY APPLICATIONS

- Lithium-ion EV cathodes (BEV / PHEV)
- High-power & high-energy cells
- Energy storage systems (ESS)
- Consumer electronics cells
- NMP-based cathode slurries

PERFORMANCE FEATURES

- High electrode conductivity at low loading
- Low DCIR at low state-of-charge
- High usable discharge capacity
- Strong capacity retention at 45 °C
- Lower slurry viscosity / higher solids
- Efficient conductive network



TYPICAL VALUE

Test Items	Unit	Standard
Physical Form	-	**Powder**
DBP Absorption No.	cc/100g	**198 ± 10**
BET Surface Area	m^2/g	**210 ± 5**
PH Value		**9.0 ± 1.0**
Fe Content	ppm	**≤ 10**
Other Metals (Ni, Cr, Cu, Co, Zn)	ppm	**≤ 10**
Sieve Residue 325M	ppm	**≤ 10**
Ash	%	**≤ 0.1**

APPLICATION FIELD

Application	Recommended Dosage
Li-Ion EV Cathodes (NMC/LFP)	1.5 – 3%
High-Power Cells	2 – 3%
Energy Storage (ESS)	1.5 – 3%
Consumer Electronics Cells	1 – 2.5%
NMP Cathode Slurries	1.5 – 3%
NCM Cathode Conductive Additive	1.5 – 3%

Recommended dosage can vary with system, electrode/compound design and dispersion conditions.
Physical Form: Powder | Packaging: 5 kg paper or PE bag

ISTAR MATERIALS

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Notice and Disclaimer

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