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ACES HF series batteries are based on cells with LiFePO₄ (LFP) chemistry. The advantage of LFP is the highest level of safety and the longer cycle life. Until now a disadvantage of LFP lithium cells was the relative low power density of about 110Wh/kg compared to NMC chemistry that can do about 200Wh/kg. Also the price of LFP was much higher compared to NMC batteries. But big improvements are made in LFP power density and price level. ACES has developed new generation of LFP batteries that have cells with a very high power density of 160Wh/kg at reduced cost. A new LFP Battery Management System (BMS) developed in the Netherlands guarantees high level of safety.

Lithium HF Battery model	Specification	Suitable chargers	Charger Specification
AL12V80HFP and AL12V100HFP 	Vnom 12V Vmax 14.4V Vmin 10V Capacity 80/100Ah Current 0-80/100A Cycle life 2000 Dimensions mm: 296 x 156 x 164 Weight 10/12 kg Waterproof IP65	ABC700-1220LI 	Voltage max. 14.4V Current 20A Charge time 100%: 4.5h / 5.5h Waterproof IP67 Size: 187x122.5x68 mm
AL24V80HFP 	Vnom 24V Vmax 28.8V Vmin 20V Capacity 80Ah Current 0-80A Cycle life 2000 Dimensions mm: 266 x 156 x 268 Weight 18 kg Waterproof IP65	ABC700-2420LI 	Voltage max. 28.8V Current 20A Charge time 100%: 4.5h Waterproof IP67 Size: 187x122.5x68 mm
AL24V100HFP 	Vnom 24V Vmax 28.8V Vmin 20V Capacity 100Ah Current 0-100A Cycle life 2000 Dimensions mm: 266 x 156 x 310 Weight 22 kg Waterproof IP65	ABC700-2420LI  ABC2000-2450LI 	Voltage max. 28.8V Current 20A Charge time 100%: 5.5h Waterproof IP67 Size: 187x122.5x68 mm Voltage max. 28.8V Current 50A Charge time 100%: 2.5h Waterproof IP67 Size: 282x168x94.5mm

Lithium HF Battery model	Specification	Chargers	Charger Specification
AL48V80HFP1 	Vnom 48V Vmax 57.6V Vmin 40V Capacity 80Ah Current 0-80A Cycle life 2000 Dimensions mm: 393 x 247 x 248 Weight 35 kg Waterproof IP65	ABC700-4810LI  ABC1350-4825LI 	Voltage max. 57.6V Current 10A Charge time 100%: 9h Waterproof IP67 Size: 187x122.5x68 mm Voltage max. 57.6V Current 25A Charge time 100%: 4h Waterproof IP67 Size: 281x128x85mm
AL48V100HFP1 	Vnom 48V Vmax 57.6V Vmin 40V Capacity 100Ah Current 0-100A Cycle life 2000 Dimensions mm: 393 x 297 x 248 Weight 43 kg Waterproof IP65	ABC1350-4825LI  ABC2000-4835LI 	Voltage max. 57.6V Current 25A Charge time 100%: 5h Waterproof IP67 Size: 281x128x85mm Voltage max. 57.6V Current 35A Charge time 100%: 3h Waterproof IP67 Size: 282x168x94.5mm
AL48V200HFP 	Vnom 48V Vmax 57.6V Vmin 40V Capacity 200Ah Current 0-150A Cycle life 2000 Dimensions mm: 570 x 297 x 317 Weight 81 kg Waterproof IP65	ABC2000-4835LI  ABC3300-4850LI 	Voltage max. 57.6V Current 35A Charge time 100%: 10h Waterproof IP67 Size: 282x168x94.5mm Voltage max. 57.6V Current 50A Charge time 100%: 7h Waterproof IP67 Size: 326.5x188x114mm
AL48V300HFP 	Vnom 48V Vmax 57.6V Vmin 40V Capacity 300Ah Current 0-250A Cycle life 2000 Dimensions mm: 818 x 297 x 317 Weight 118 kg Waterproof IP65	ABC2000-4835LI  ABC3300-4850LI 	Voltage max. 57.6V Current 35A Charge time 100%: 10h Waterproof IP67 Size: 282x168x94.5mm Voltage max. 57.6V Current 50A Charge time 100%: 7h Waterproof IP67 Size: 326.5x188x114mm

The HF series of batteries will be available start of Q2 2019