

## Data sheet

### trak | uplift battery series

#### 01 battery system

Technology	Lead batteries (vented with liquid electrolyte)
Application	Traction batteries (e.g. for industrial forklift trucks)
Technical design	Single cells in a tray connected in series
Connection system	Fully insulated flexible cable connector system, screw dimension M10
Nominal voltage	12 – 120V (other voltages available on request)
Dimensions, weight, design	According to DIN 43536, DIN 43531, DIN 43535, DIN 43537 (Other dimensions available on request)
Options	<ul style="list-style-type: none"> <li>- trak   air electrolyte circulation system</li> <li>- Vent plug</li> <li>- Central degassing system</li> <li>- trak   aquafill water refilling system</li> <li>- trak   aquafill with central degassing system</li> <li>- Electrolyte level indicator</li> <li>- Temperature sensors pt100 / pt1000</li> <li>- trak   collect monitoring system</li> <li>- Tray cover</li> </ul>
Ability for opportunity charging	with trak   air option
Ability for fast charging	with trak   air option
Ability for use in deep-freeze areas	with special trak   air und trak   aquafill components
Recuperation	yes

#### 02 cell

Technology	Single cells with tubular electrodes
Dimensions, marking	Dimension series L (PzS) and E (PzB) according to DIN EN 60254-2
Capacity $C_5$ ( $U_f = 1.70$ V/C, $T = 30^\circ\text{C}$ )	64 – 1550Ah
Depth of discharge (max.)	80% $C_5$
Energy efficiency $\eta_{wh}$ according to DIN EN 16796-1	up to 77.5% (charging factor 1.05)
Service life	Up to 1.700 cycles* <small>* verified by accelerated laboratory test</small>
Operating temperature range	-20 to +55°C
Protection class	IP 25, according to DIN 40050
Recharging interval during storage	every 1.5 months (storage at 20°C)
Ventilation requirements	according to IEC 62485-3 and ZVEI-Information leaflet No. 14e "Ventilation of battery charging rooms for lead-acid traction batteries"
Nominal density of the electrolyte	1.29 kg/l
Cell container	100% recycled polypropylene, flammability class UL 94 HB
Positive electrode	Tubular plate with non-woven polyester-gauntlet
Negative electrode	Flat plate
Separator	High Charge polyethylene-separator with optimized profile structure and antimony-blocker
Pole design	HOPPECKE Compound Pole with plastic overmolded three-dimensional metal surface

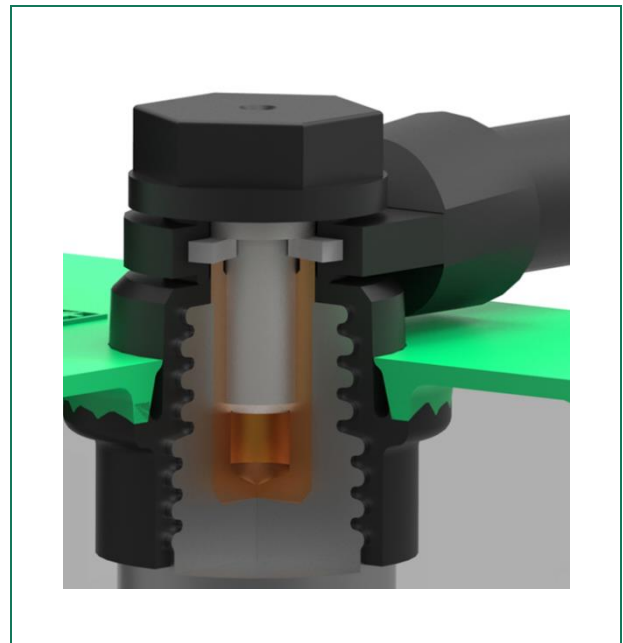
Recommended charging procedure	IU, IU1a according to DIN 41773 T1
Charging voltage (main charging phase)	2.40 V
Charging current	up to 2 x I <sub>5</sub> (higher currents possible)

### 03 special features

<p>Active Carbon Inside</p>	<p>The use of additives specially matched to optimized active masses improve the high-current capability during charging and discharging (rapid charging/recuperation)</p>
<p>Protective Shell-Separator</p>	<p>Full covering of the electrode by a separator pocket, protects against short circuits and extends the service life</p>
<p>Air-Ready</p>	<p>Battery cells are trak   air ready - giving the possibility to upgrade from trak   uplift to trak   uplift air</p>



**trak | uplift iQ**  
(with trak | collect battery monitoring system)



**HOPPECKE compound pole**  
(sealing and insulating pole/connector system)